Advanced Turbine Systems Program

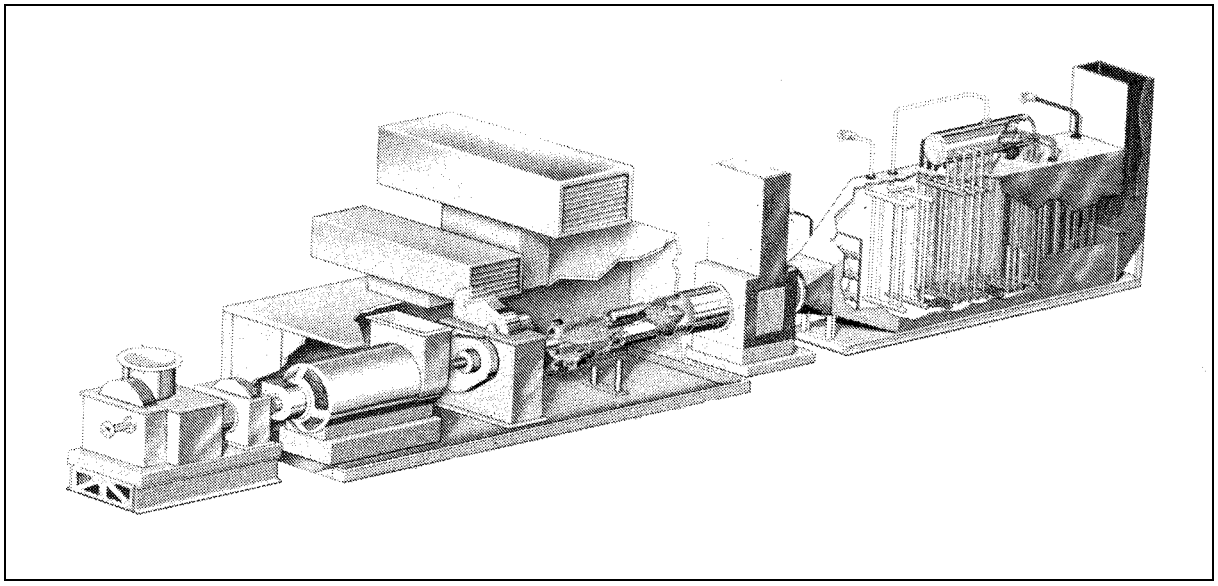
Market Assessment Topical Report

(January 2001 Through December 2001)

DE-AC21-93MC29257

EDR 19794

Issued: March 2002



Prepared For:

US Department Of Energy
National Energy Technology Laboratory (NETL)
Morgantown, WV 265507-0880

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Fuel Cell Hybrids: Market Assessment and Early Adopter Study

Volume 1: Report

Prepared for:

EPRI
Rolls-Royce Corporation
Department of Energy

Prepared by:
Resource Dynamics Corporation

December 2001

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EXECUTIVE SUMMARY

The market for power generation equipment is undergoing a tremendous transformation. The traditional electric utility industry is restructuring, promising new opportunities and challenges for all facilities to meet their demands for electric and thermal energy. Now more than ever, these facilities have a host of options to choose from, including new distributed generation technologies under 50 MW that are entering the market as well as existing options that are improving in cost and performance. The market is beginning to recognize that some of these users have needs beyond traditional grid-based power. Together, these trends are motivating commercial and industrial facilities to re-evaluate their current mix of energy services, and to consider distributed generation as a viable option.

Fuel cell hybrids can potentially offer the most competitive option for low cost power in many areas of the country, considering both other distributed generation options as well as purchasing from the grid. Their superior efficiency, competitive installed cost, and very low emissions make them suitable for baseload electric generation either on-site for commercial buildings or serving a group of commercial and industrial businesses. Moreover, as installed cost falls in the future, hybrids will potentially gain significant market share and become options for other applications as well.

Figure ES-1 illustrates that the projected markets in the near future include commercial building aggregations and municipalities and cooperatives, and that these markets offer over 8 GW of potential for hybrids. The current base case (around year 2005) is founded upon hybrids becoming available in sizes from 300 kW up to 40 MW, with installed cost ranging from $1,100 to $1,600 per kW, and electrical efficiencies from 63-70 percent.

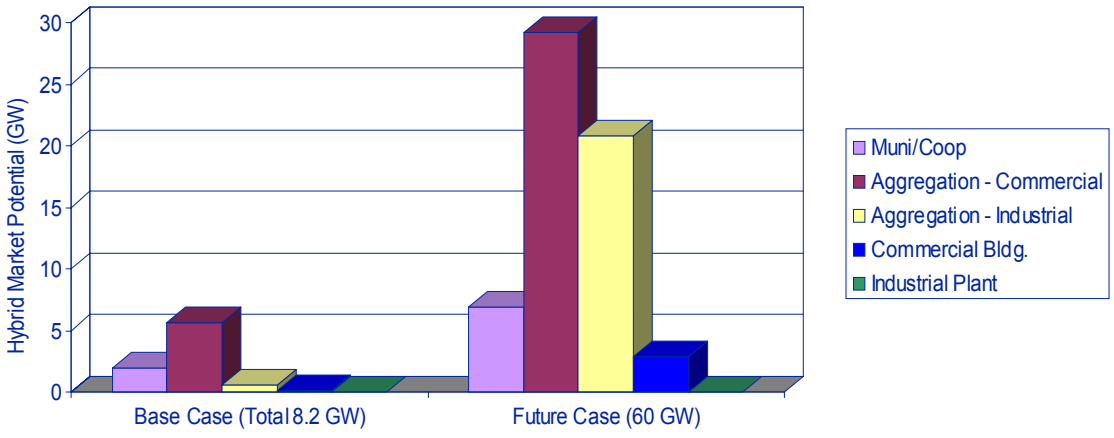

Figure ES-1. Hybrid Market Potential by Application (GW)

In the future case (anticipated by 2006-2009), installed costs are expected to drop down to $600-$1,100/kW and electrical efficiencies are expected to rise as high as 74 percent. With these improvements, fuel cell hybrids offer an expanded market potential of

60 GW. While commercial aggregations still represent the largest market, industrial aggregations represent about a third of the market, and single commercial buildings begin to emerge (3 GW potential) as future candidates.

Due to the dominance of cogeneration applications in the industrial sector, and the higher cost of hybrids for this application relative to gas turbines, single industrial facilities do not offer significant economic potential for hybrids. Other potential hybrid uses include peak shaving, but because of the relatively high installed cost and low annual operating hours, these applications are generally not economic. Hybrids may be considered a "green" power application because of their low emissions, and as such may be attractive to users that value a positive environmental reputation. However, given the study objective of assessing the most likely markets for the hybrid technology, the focus was on continuous power and combined heat and power applications.

To determine the hybrid's potential in the U.S. commercial and industrial sectors, this effort was planned to evaluate a wide range of units up to 50 MW in size. The study focused on hybrid units that are planned for production by year 2005 (base case scenario) or before year 2010 (future scenario) and beyond 2010 (long-term scenario). These include fuel cell/turbine hybrids in 300 kW, 1.5 MW, 10 MW, 20 MW and 40 MW sizes. Competing distributed generation technologies considered included reciprocating engines, gas turbines, the Advanced Turbine System (ATS), and a non-hybrid fuel cell.

The analysis determines not only whether on-site generation is more cost effective than purchasing from the grid, but also which technology and size is the most economic. As a result, double counting of market potential for a variety of competing technologies is avoided. Using data on the number of facilities in each size range in each of 81 utility service territories, the number of potential applications is then determined.

The market estimates suggest that hybrids of sizes 15 MW, 25 MW and 40 MW have the most potential (see Figure ES-2). These larger sizes can economically serve groups of customers, such as those served by municipal or cooperative electric systems, or by independent aggregators. In the case of aggregators, it is assumed that these entities are able to distribute the power via the local utility, including a distribution charge but avoiding transmission fees. In most of the cases shown in Figure ES-2, the primary competition for hybrids is gas turbines.

While commercial aggregations lead all the scenarios in market potential, industrial aggregations will fare considerably better with future cost reductions. Commercial single buildings and municipal/cooperative applications of hybrids will also increase if installed costs fall. To illustrate this, Figure ES-3 shows how long-term future cost reductions allow hybrids to make inroads in the single building market, with 12 GW of market potential (13 percent of the total long-term hybrid market). Offices are the leading single building type, primarily due to the large numbers of buildings paying high retail electric rates. However, even with the long-term projected reductions in hybrid installed cost, the market for industrial facilities never reaches above 1 percent of the total hybrid market.

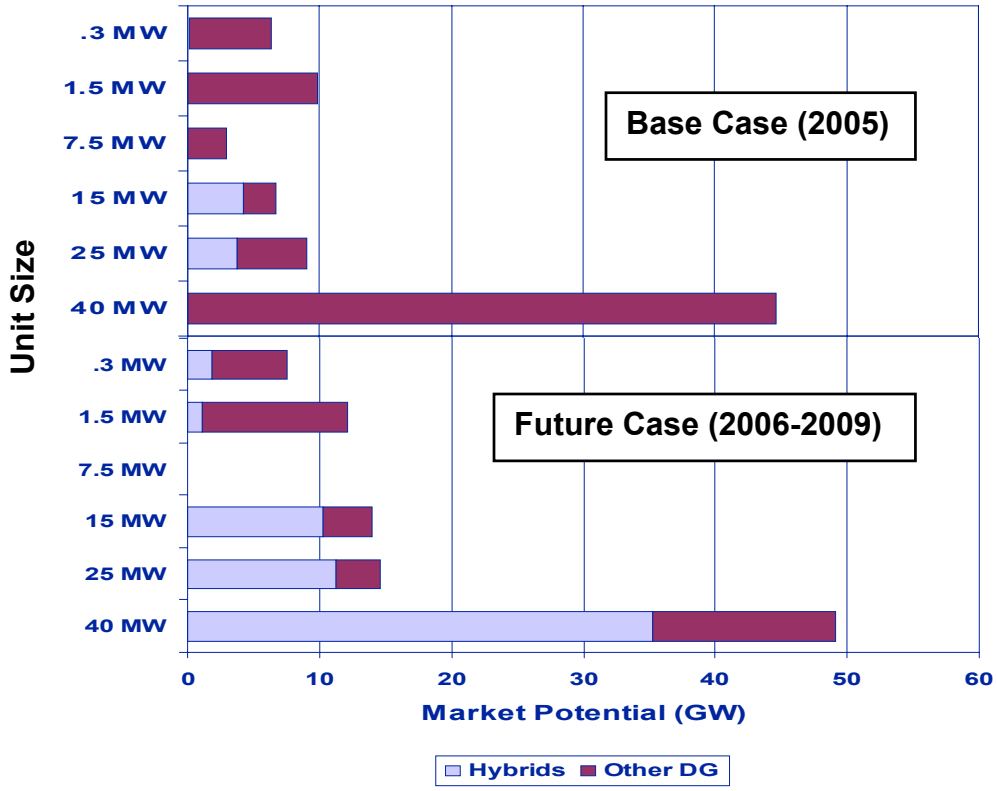

Figure ES-2. Larger Hybrids Lead Future (2006-2009) Market Potential

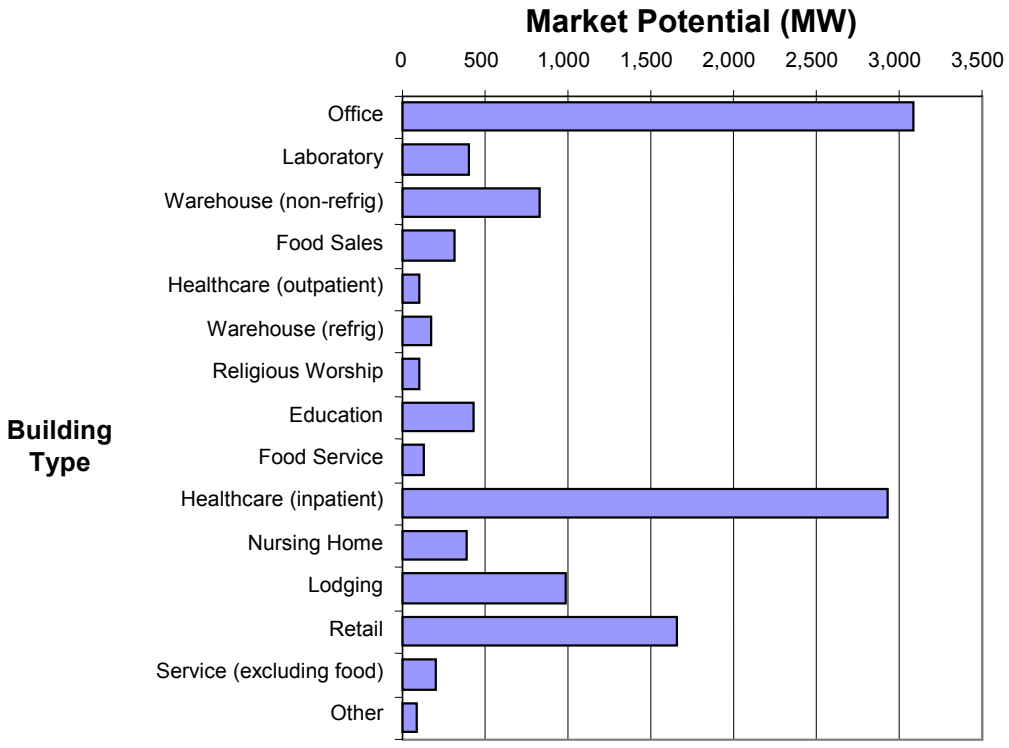

Figure ES-3. Commercial Building Applications of Hybrids (Long Term Case 2010+)

To determine how to maximize the market for hybrids, various sensitivity analyses were performed, especially focused on efficiency and capital cost (see Figure ES-4). The largest single contributor to increased market potential is improvement in the installed cost of hybrids, as evidenced by the bar representing HybridsReachLongTerm. This case is based on fuel cells reaching the $400/kW manufactured cost target that has been established by DOE's Solid State Energy Conversion Alliance (SECA). With these reduced fuel cell costs, hybrid packaged prices[1] reach $470-500/kW and installed costs drop to $570-800/kW. At these lower costs, fuel cell hybrid market potential grows to almost 90 GW. *Attaining competitive installed cost is critical to the hybrid's success.*

Other sensitivity findings include:

- Two other highly favorable scenarios occur when hybrids improve but other DG options remain with base case cost. In OnlyHybridsFuture, hybrids improve cost and efficiency, whereas in HybridsCostDownOthersBase, hybrids improve cost but not efficiency. As shown with these two scenarios, cost reduction (7.4 times base case) has nearly the same effect as reducing cost and efficiency (7.5 times base case). When only hybrid efficiency is improved as shown in HybridsEffUpOthersBase, the effect is far less (only 1.7 times base case).

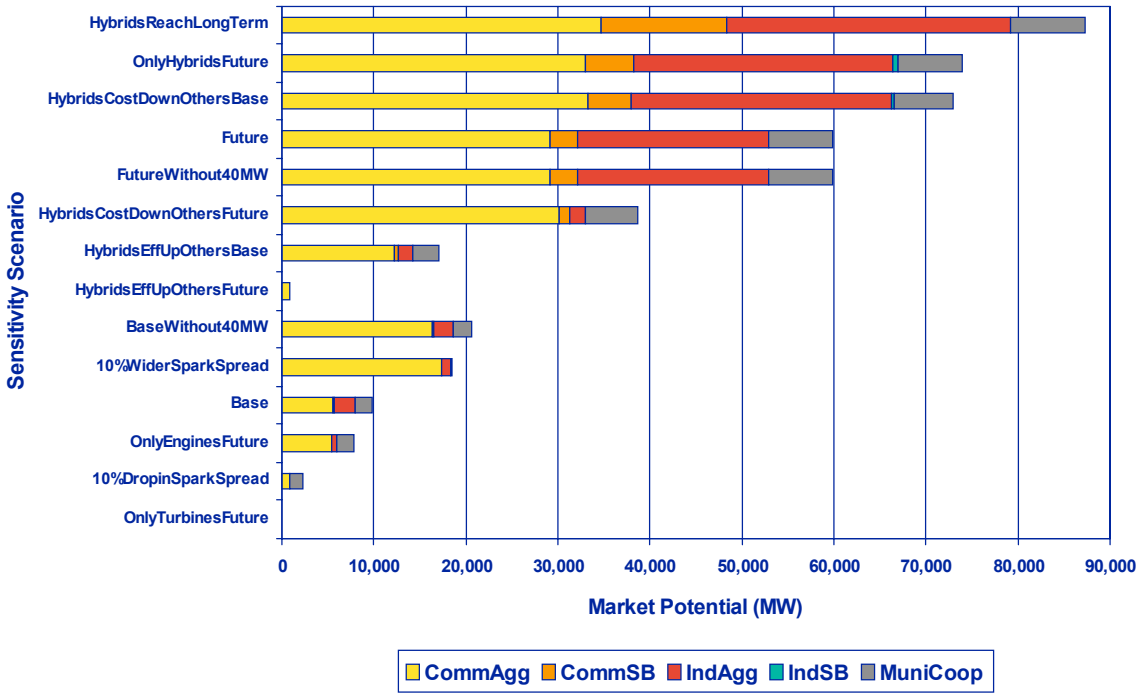

Figure ES-4. Reducing Installed Costs of Hybrids Leads to Largest Market

[1] Hybrid packaged cost represents price paid by a customer from the distributor. Packaged cost includes all manufacturing and distribution costs as well as manufacturer and distributor profit. Packaged costs do not include shipping, installation, and training, which are included in the installation cost.

- Two price scenarios were analyzed by examined: a 10 percent drop in spark spread (10%DropinSparkSpread) and a 10 percent gain (10%WiderSparkSpread). The drop was constructed by increasing gas cost without changing electric prices. The effect of this scenario was to drop the market potential to under 1 GW, with only a few commercial aggregations surviving. The opposite scenario was modeled by decreasing gas prices while again holding electric prices steady, and the market potential for hybrids improved to almost double the base case potential. Again, the major effect is on commercial aggregations, this time tripling the potential for these.

Meeting the estimated market potential requires two things: early adopters and a continuous lowering of installed capital cost over time. The most likely early adopters, who may help develop the technology further and prove out its economics, may be municipal electric utilities facing large growth and newer aggregators serving groups of geographically proximate commercial and industrial customers. These early adopters may require economic incentives to test hybrids in these markets.

Finally, the economic benefits offered by hybrids (see Figure ES-5) makes a case for substantial investment in research and development. The future market for hybrids represents over $30 billion in net savings to commercial and industrial businesses. Lower installed capital costs are vital because as alternative DG technologies improve in efficiency, especially gas turbines, hybrids will only be economically competitive if their capital cost falls. This will require substantial further R&D. Private/public partnerships may offer the quickest route to ensuring that this R&D occurs, so that hybrids can help resolve regional energy shortages while helping communities meet the environmental standards of the Clean Air Act.

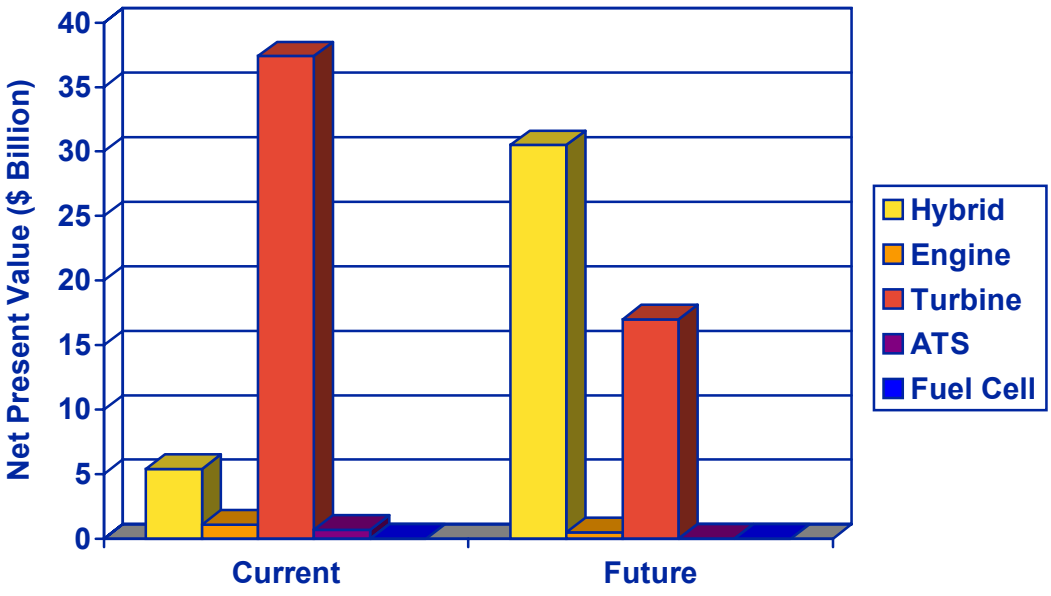

Figure ES-5. Value of Hybrid Market Potential (Billion $)

Section 1
INTRODUCTION

The market for power generation equipment is undergoing a tremendous transformation. The traditional electric utility industry is restructuring, promising new opportunities and challenges for all facilities to meet their demands for electric and thermal energy. Now more than ever, facilities have a host of options to choose from, including new distributed generation (DG) technologies that are entering the market as well as existing DG options that are improving in cost and performance. The market is beginning to recognize that some of these users have needs beyond traditional grid-based power. Together, these changes are motivating commercial and industrial facilities to re-evaluate their current mix of energy services.

One of the emerging generating options is a new breed of advanced fuel cells. While there are a variety of fuel cell technologies being developed, the solid oxide fuel cells (SOFC) and molten carbonate fuel cells (MCFC) are especially promising, with their electric efficiency expected around 50-60 percent and their ability to generate either hot water or high quality steam. In addition, they both have the attractive characteristics of all fuel cells – relatively small siting footprint, rapid response to changing loads, very low emissions, quiet operation, and an inherently modular design lending itself to capacity expansion at predictable unit cost with reasonably short lead times.

Furthermore, technology developers have found a way to employ this high quality thermal output to generate additional power. By coupling a small turbine with a SOFC or MCFC fuel cell, they have created fuel cell hybrids. These units boast extremely high efficiencies (in the 60-70 percent range) and lower capital cost when compared to stand-alone fuel cells. Figure 1-1 provides a schematic diagram of a simplified SOFC fuel cell hybrid, showing the fuel cell thermal output being directed back to the turbine, where energy is extracted and used to power the compressor and a generator. The turbine exhaust is routed to the recuperator, where its waste heat is captured by the pressurized air input to the fuel cell. MCFC-based hybrids employ a somewhat different configuration.

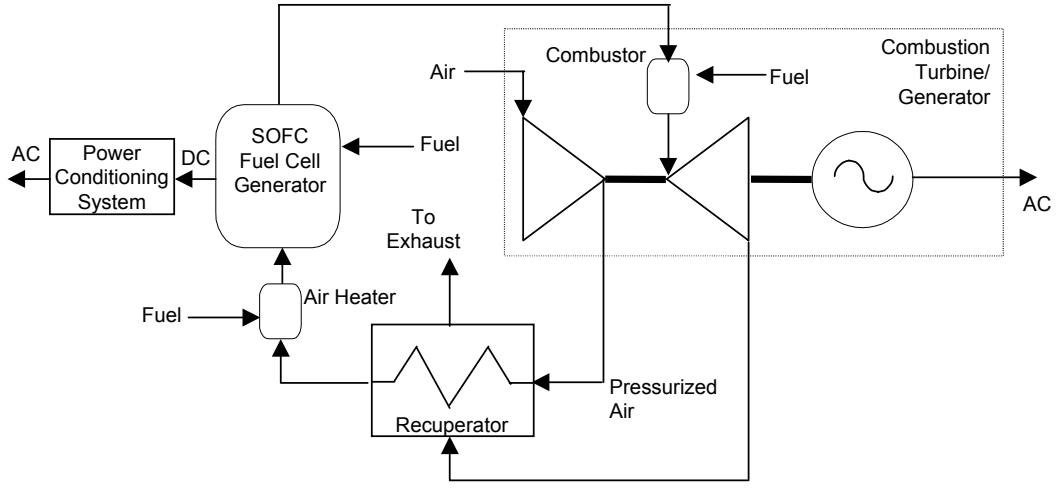

Figure 1-1. Schematic of SOFC Fuel Cell Hybrid

Table 1-1 provides basic cost and performance projections for three sizes of hybrid units. These characteristics, particularly the high efficiency and competitive installed cost, make the fuel cell hybrid a potentially ideal power generation source for small- to large-sized commercial applications.

Table 1-1. Projected Characteristics of Fuel Cell Hybrids

Characteristic			
Power output (MW)	.3	1.5	25
Electric efficiency (%)	63	66	70
NOx (lbs./MWh)	<0.0004	<0.0004	<0.0004
Installed Cost ($/kW)			
Current (2005)	1,600	1,400	1,100
Future (2006-2009)	1,100	940	660
Long-Term (2010+)	690	610	480
O&M Cost (mills/kWh)	7	6	6
Availability (%)	95	95	95
Footprint (sq. ft.)	500	5,000	17,500

Note: Current cost and performance parameters provided by fuel cell and turbine vendors. Future cost parameters provided by Department of Energy National Energy Technology Laboratory (NETL).

There are other sources for on-site power that will likely be commercialized in the 500 kW to 20 MW range for the commercial and industrial sectors. Internal combustion engines, gas turbines and other fuel cells are projected to compete in some of these markets as well, with some having the low capital costs and small sizes attractive for many on-site generation applications.

As with many emerging technologies, there are unique groups of customers who will likely be early adopters of SOFC and MCFC technology. Early adopters have varying motivations for pursuing the leading edge of technology implementation. For example, some companies may want to be seen as environmental leaders, others may be under strict regional regulations, and still others may be able to obtain rebates or matching funds from state or local organizations that can reduce their cost of the new technology. Importantly, early adopters do not always make decisions based purely on economics. When planning for market entry of any new technology, it is important to identify potential early adopters. These customers may be willing to tolerate technology "growing pains" in order to obtain the key benefits the technology offers.

Project Objectives

The objectives of this project are to:

- Estimate the market potential for high efficiency fuel cell hybrids in the U.S.,
- Segment market size by commercial, industrial, and other key markets,
- Identify and evaluate potential early adopters, and
- Develop results that will help prioritize and target future R&D investments.

The study focuses on high efficiency MCFC- and SOFC-based hybrids and competing systems such as gas turbines, reciprocating engines, fuel cells and traditional grid service. Specific regions in the country have been identified where these technologies and the corresponding early adopters are likely to be located.

Project Tasks

The approach to this study employed five tasks that are outlined below.

Task 1. Establish Near-Term and Future Characteristics of Fuel Cell Hybrid Systems. Analyzing the potential for any distributed generation technology requires consideration of a number of data inputs that will determine the economics of an application. The study approach requires data not only for fuel cell hybrids but for the complete mix of technologies that are being made available to the sites analyzed. This data includes their installed cost, fuel type, heat rate, electrical efficiency, useable thermal output, fixed and variable operating and maintenance costs, and other key parameters. For the fuel cell hybrids, this data was provided by the vendors of the technology (Siemens-Westinghouse and Rolls-Royce) for the base case and by DOE's National Energy Technology Laboratory (NETL) for the future cases. Data for other DG technologies was derived from manufacturer-provided data, and is validated by comparison with published data in journals, technical papers, and other sources.

Task 2. Conduct Market Analysis and Estimate Market Size.
The project objectives under this task were to a) estimate the market potential for high efficiency fuel cell hybrids in the U.S., and b) segment the market size by commercial, industrial, and other key markets. To satisfy these objectives, the Contractor employed its DIStributed Power Economic Rationale SElection (DISPERSE) model to estimate the achievable economic potential for fuel cell hybrids and other distributed generation technologies by comparing these options with traditional purchases from the grid. The model is set up to evaluate these options tens of thousands of times, once for each group of sites with the same utility service area (or region)/DG unit size range/customer sector in the database of sites. The results are then aggregated to obtain total market potential, and segmented by commercial, industrial, and other key market segments.

Furthermore, preliminary results from this task were used to focus following tasks. For example, preliminary results showed limited potential for single facility use of fuel cell hybrids in either the commercial or industrial sector. As a result, the project tasks were redesigned to incorporate an analysis of aggregation opportunities, which then became Task 3.

Task 3. Conduct Aggregation Analysis.
Based on preliminary results, an aggregation analysis was incorporated to explore the market potential for fuel cell hybrids used to serve multiple facilities. In this task, the DISPERSE model was set up to evaluate the economics of hybrids and other large DG options to serve groups of customers. Where economic, these applications were added to the overall potential market. In addition, municipalities and cooperatives were included based on their serving "natural" aggregations within their franchise area and selected based on their price of power.

Task 4. Profile, Survey, and Identify Early Adopters.
Using the results of Tasks 2 and 3, the study team selected leading segments for early adoption of fuel cell hybrids. From these segments, candidates for interviews were selected and an interview questionnaire was developed. Several candidates were interviewed to gauge the potential for early adoption, and results were summarized by market segment.

Task 5. Prepare Final Report.
The final task was to prepare this report for Tasks 1-4, outlining the study methodology, results, business considerations, and recommendations. Results are presented by technology, sector, size range, and region. Conclusions and results from sensitivity analyses are also presented. This report provides a preliminary assessment of applications and product sizes for hybrid developers to plan for market entry, and identifies early adopter candidates for the new hybrid generation technology.

Section 2
METHODOLOGY

Analyzing the potential market for distributed generation technologies requires consideration of a number of data inputs that will determine the economics of an application. Gas and electric rates, facility load profiles, technology cost and performance, and financial parameters that govern current and future economic conditions all are essential inputs to an assessment of any particular distributed generation technology. This section describes how the market assessment for fuel cell hybrids was performed, including key data inputs and a sample analysis, how and why commercial and industrial customers were grouped to create an aggregation analysis, the creation of sensitivity scenarios, and how the early adopter analysis was developed.

The analysis of fuel cell hybrids was performed using the DIStributed Power Economic Rationale SElection (DISPERSE) model[1]. This spreadsheet-based model can estimate the achievable economic potential for fuel cell hybrids by comparing various distributed generation options, including hybrids, with traditional purchasing from the grid. The model not only determines whether hybrids are more cost effective than other options, but also which technology combination, size, and operating mode appears to be the most economic. Figure 2-1 illustrates how the DISPERSE model organizes the key data inputs and generates the desired outputs.

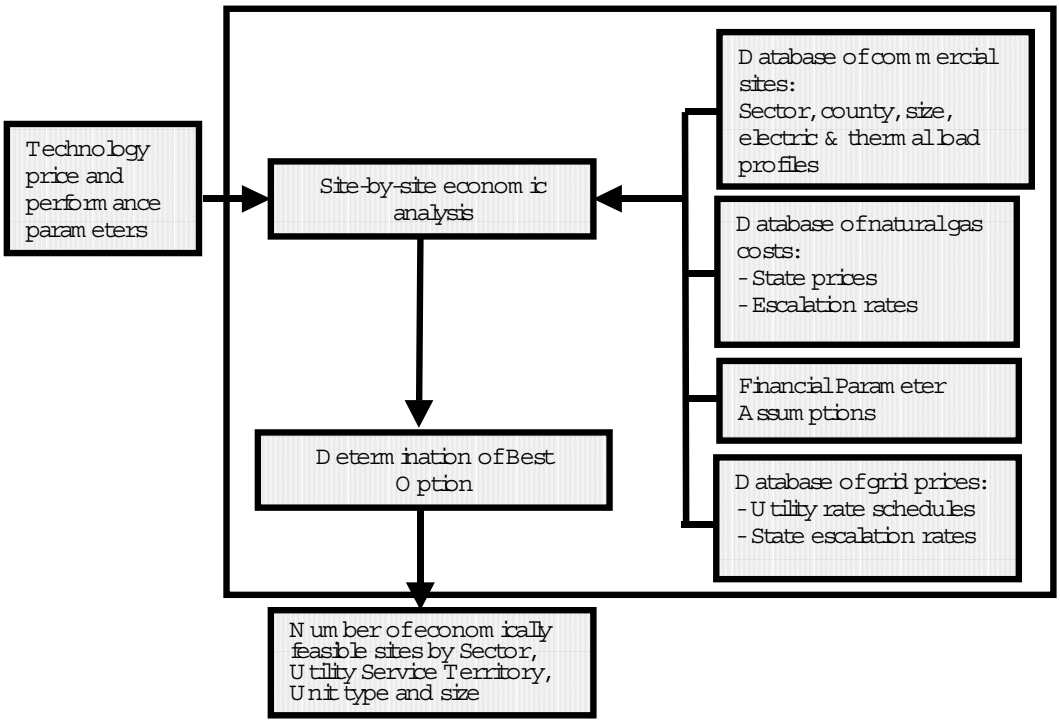

Figure 2-1. DISPERSE Model

[1] Resource Dynamics Corporation, DIStributed Power Economic Rationale Selection (DISPERSE) Model, Vienna Virginia, 2001.

The DISPERSE model has been developed over the past five years, and has been applied on a variety of projects for utilities, equipment manufacturers, and research organizations. For this effort, the DISPERSE model was configured to:

- Identify sectors and regions where fuel cell hybrids offer superior economics to the grid and other DG technologies,
- Establish the fuel cell hybrid market size for both commercial and industrial sectors,
- Analyze the use of DG for aggregations of customers as well as for leading municipalities and cooperatives,
- Assess the impact of hybrids on competing technologies in the future,
- Examine the various sizes proposed for hybrids for "fit" in the commercial and industrial sectors, and
- Calculate an overall net economic benefit, in terms of a cumulative net present value (NPV), for all hybrid applications that beat the grid and other DG options.

Key Inputs and Assumptions

The DISPERSE model performs a life-cycle cost economic analysis, based on the unit life as well as cost and performance data, electric utility rate schedules, and state fuel prices. The model determines whether any fuel cell hybrid or other DG option can beat the case in which no power is generated on-site and all power is purchased from the local utility. The best technology option is selected based on highest NPV.

This process is repeated tens of thousands of times, once for each group of sites within a combination of a utility service area (or region)/DG unit size range/customer sector in the database of sites, and the results are then aggregated to obtain market potential.

The following key inputs are used by the model:

1. **Technology price and performance parameters**. The model requires data on the mix of technologies that are being analyzed. This data includes each technology's installed cost, fuel type, heat rate, electrical efficiency, useable thermal output, fixed and variable operating and maintenance costs, and other key parameters. For the fuel cell hybrids, this data was provided by the vendors of the technology for the base case and by DOE's National Energy Technology Laboratory (NETL) for the future and long-term cases. Base case data for other DG technologies was derived published data in journals, technical papers and confirmed with discussions with manufacturers. Future cost and performance data for other DG technologies was collected initially from manufacturers and a series of DOE-sponsored workshops[2], and was refined though subsequent discussions with manufacturers.

[2] Advanced Stationary, Reciprocating Natural Gas Engine Workshop, Dept. of Energy, San Antonio, Texas. Jan. 1999. Microturbine Technology Summit, Dept. of Energy and Oak Ridge National Laboratory. Orlando, Florida. December 1998.

Tables 2-1 and 2-2 detail the modeled price and performance characteristics for the various technologies for the base case (expected by year 2005), future case (2006-2009) and long-term case (2010 and beyond). Other scenarios were analyzed in the sensitivity analyses, which are described later in this section.

Table 2-1. Technology Price and Performance Inputs (Current and Future)

Size	Unit Type	Base Case Current Technologies (2005)					Future Technologies (2006-2009)				
		Packaged Cost ($/kW)	Install-ation Cost ($/kW)	Total Installed Cost ($/kW)	O&M ($/kWh)	Efficiency @ Rated Output	Packaged Cost ($/kW)	Install-ation Cost ($/kW)	Total Installed Cost ($/kW)	O&M ($/kWh)	Efficiency @ Rated Output
.2-1 MW	Engine	460	390	850	0.0075	40%	350	300	650	0.0075	45%
	Turbine	490	390	880	0.0040	27%	330	300	630	0.0040	40%
	ATS	600	390	990	0.0060	35%	400	300	700	0.0060	42%
	Fuel Cell	1,160	520	1,680	0.0120	50%	800	360	1,160	0.0120	60%
	Hybrid	1,100	520	1,620	0.0070	63%	710	360	1,070	0.0070	70%
1-5 MW	Engine	450	300	750	0.0072	41%	330	230	560	0.0072	45%
	Turbine	450	300	750	0.0040	30%	300	230	530	0.0040	40%
	ATS	600	300	900	0.0060	40%	400	230	630	0.0060	45%
	Fuel Cell	1,050	400	1,450	0.0120	50%	760	270	1,030	0.0120	61%
	Hybrid	1,000	400	1,400	0.0063	66%	670	270	940	0.0063	71%
5-10 MW	Engine	450	190	640	0.0070	44%	320	150	470	0.0070	48%
	Turbine	400	190	590	0.0040	33%	280	150	430	0.0040	42%
	ATS	550	190	740	0.0060	40%	350	150	500	0.0060	46%
	Fuel Cell	1,080	240	1,320	0.0120	50%	720	170	890	0.0120	62%
	Hybrid	1,000	240	1,240	0.0063	66%	630	170	800	0.0063	72%
10-20 MW	Turbine	360	150	510	0.0040	36%	260	120	380	0.0040	45%
	ATS	550	150	700	0.0060	42%	350	120	470	0.0060	48%
	Fuel Cell	1,030	200	1,230	0.0120	50%	650	140	790	0.0120	63%
	Hybrid	950	200	1,150	0.0063	66%	570	140	710	0.0063	73%
20-30 MW	Turbine	360	130	490	0.0040	40%	240	110	350	0.0040	45%
	CC	730	130	860	0.0050	49%	600	110	710	0.0050	60%
	Fuel Cell	990	170	1,160	0.0120	50%	600	130	730	0.0120	64%
	Hybrid	920	170	1,090	0.0058	70%	530	130	660	0.0058	74%
30-50 MW	Turbine	350	110	460	0.0040	42%	200	100	300	0.0040	45%
	CC	660	110	770	0.0050	50%	540	100	640	0.0050	60%
	Fuel Cell	970	160	1,130	0.0120	50%	600	110	710	0.0120	64%
	Hybrid	900	160	1,060	0.0058	70%	520	110	630	0.0058	74%

Note: Hybrid prices assume 80% power from fuel cell and 20% power from the turbine. Also assume that turbines will be "off-the-shelf" but are not fired. Also assume that future (2006-2009) turbines will be "off-the-shelf" to fit hybrid designs without requiring derating (i.e. a 200 kW turbine will produce a net power output of 200 kW). Hybrid packaged cost represents price paid by customer from the distributor. These costs do not include heat recovery equipment for cogeneration, which were assumed at $100/kW for engines, $150/kW for turbines, and $75/kW for fuel cells and hybrids.

Packaged cost includes all manufacturing and distribution costs as well as manufacturer and distributor profit. Packaged costs do not include shipping, installation, and training, which are included in the installation cost.

Key: CC=combined cycle combustion turbine, ATS=advanced turbine system (simple cycle recuperated turbine with advanced, high temperature materials).

2. **Building characteristics** are assigned based on census division data from DOE's Commercial Building Energy Consumption Survey (CBECS). Load profiles are taken from Lawrence Berkeley National Laboratory data on electric and thermal usage, by building type and climate region, developed by application of the DOE-2 model for commercial buildings, and industrial load profiles are from Contractor-collected data.

Table 2-2. Technology Price and Performance Inputs (Long-Term Targets)

Size	Unit Type	Fuel Cells Reach Long Term Targets (2010+ SECA)				
		Packaged Cost ($/kW)	Install-ation Cost ($/kW)	Total Installed Cost ($/kW)	O&M ($/kWh)	Efficiency @ Rated Output
.2-1 MW	Engine	350	300	650	0.0075	45%
	Turbine	330	300	630	0.0040	40%
	ATS	400	300	700	0.0060	42%
	Fuel Cell	520	300	820	0.0120	60%
	Hybrid	482	300	782	0.0070	70%
1-5 MW	Engine	330	230	560	0.0072	45%
	Turbine	300	230	530	0.0040	40%
	ATS	400	230	630	0.0060	45%
	Fuel Cell	520	225	745	0.0120	61%
	Hybrid	476	225	701	0.0063	71%
5-10 MW	Engine	320	150	470	0.0070	48%
	Turbine	275	150	425	0.0040	42%
	ATS	350	150	500	0.0060	46%
	Fuel Cell	520	150	670	0.0120	62%
	Hybrid	471	150	621	0.0063	72%
10-20 MW	Turbine	260	120	380	0.0040	45%
	ATS	350	120	470	0.0060	48%
	Fuel Cell	520	120	640	0.0120	63%
	Hybrid	468	120	588	0.0063	73%
20-30 MW	Turbine	240	110	350	0.0040	45%
	CC	600	110	710	0.0050	60%
	Fuel Cell	520	110	630	0.0120	64%
	Hybrid	464	110	574	0.0060	74%
30-50 MW	Turbine	200	100	300	0.0040	45%
	CC	540	100	640	0.0050	60%
	Fuel Cell	520	100	620	0.0120	64%
	Hybrid	456	100	556	0.0060	74%

Note: Hybrid prices assume 80% power from fuel cell and 20% power from the turbine. Also assume that turbines will be "off-the-shelf" but are not fired. Also assume that future (2010+) turbines will be "off-the-shelf" to fit hybrid designs without requiring derating (i.e. a 200 kW turbine will produce a net power output of 200 kW). Hybrid packaged cost represents price paid by customer from the distributor. Packaged cost includes all manufacturing and distribution costs as well as manufacturer and distributor profit. Packaged costs do not include shipping, installation, and training, which are included in the installation cost.

Key: CC=combined cycle combustion turbine, ATS=advanced turbine system (simple cycle recuperated turbine with advanced materials).

3. **Database of fuel prices**. Natural gas costs are based on state prices for the industrial sector, as reported by the DOE's Energy Information Administration (EIA)[3]. Industrial rates are used to approximate the rate that would be paid by a facility utilizing natural gas cooling or combined heat and power (CHP). Natural gas escalation rates are based on regional data from EIA's Annual Energy Outlook[4].

4. **Database of grid prices**. Rate schedules of the 81 largest electric utilities (in terms of GWh sales to commercial and industrial customers) representing over two-thirds of deliveries to the commercial and industrial sectors were utilized (see Table 2-4). Customers in counties not served by the largest utilities were assigned a regional rate schedule derived from schedules of major utilities within that region. Escalation rates are based on regional EIA projections from the Supplement to the Annual Energy Outlook[5]. Furthermore, backup charges are included at $50/kW annually (or $4.20/kW/month) and credit for avoided interruptions is valued at up to $30/kW, depending on the customer segment.

5. **Financial parameter assumptions**. Table 2-3 contains a list of financial assumptions applied in the analysis. A project life of 10 years is assumed, reflecting the anticipated life of smaller DG projects and conservative financial planning from customers. Units are expected to be funded by the customer from their operations, with no sales of electricity back to the grid. Taxes and insurance are included as an annual operating cost, as are costs of standby power. No allowance was made for special treatment of non-profits or government facilities that do not have tax consequences. A sample analysis that shows how these values are applied follows later (see Table 2-5).

Table 2-3. Financial Parameter Assumptions

Project Length (years)	10
Federal Income Tax (%)	35
State Income Tax (%)	5
Property Tax and Insurance (%)	2
Discount Rate (%)	8

Credit for avoided interruptions is given, based on $30/kW annually. This value is based on EPRI data[6] that suggests that the average commercial and industrial customers experience 1-4 hours of interruptions annually. Dollar values are assigned based on the University of Saskatchewan study[7]. This report collected data from over 700 commercial sites and 800 industrial facilities, and found that 1 - 4 hour interruptions cost commercial facilities $32-106/kW ($US 20-68/kW), and industrial $10-30/kW ($US 6-18/kW). Based on this data, the $US30/kW value was assumed.

[3] Natural Gas Annual, Energy Information Administration, 1999-2000.
[4] Annual Energy Outlook, Energy Information Administration, 2000.
[5] Supplement to the Annual Energy Outlook, Energy Information Administration, 2000.
[6] EPRI TR-114272, Information to Support DR Business Strategies: Quantitative Analysis of DR Opportunities, November 1999, Palo Alto CA
[7] University of Saskatchewan, Assessment of Reliability Worth in Electric Power Systems in Canada, Power Systems Research Group, January 1994.

Table 2-4. Utilities Included In DISPERSE (May 2001)

Industrial (68)

1. Alabama Power Co
2. Appalachian Power Co
3. Baltimore Gas & Electric Co
4. Carolina Power & Light Co
5. Central Power & Light Co
6. Cincinnati Gas & Elec Co
7. Cleveland Electric Illum Co
8. Commonwealth Edison Co
9. Connecticut Light & Pwr Co
10. Consumers Energy Co
11. Dayton Power & Light Co
12. Detroit Edison Co
13. Duke Energy Corp
14. Entergy Arkansas Inc
15. Entergy Gulf States Inc
16. Entergy Louisiana Inc
17. Florida Power and Light
18. Florida Power Corp
19. Georgia Power Co
20. Green River Electric Corp
21. Houston Lighting & Pwr Co
22. Idaho Power Co
23. IES Utilities Inc
24. Illinois Power Co
25. Indiana Michigan Power Co
26. Indianapolis Pwr & Light Co
27. Kentucky Utilities Co
28. Massachusetts Electric Co
29. Memphis City of
30. Metropolitan Edison Co
31. MidAmerican Energy Co
32. Minnesota Power Inc
33. Mississippi Pwr Company
34. Monongahela Power Co
35. Nevada Power Co
36. Niagara Mohawk Pwr Corp
37. Northern Indiana Pub Serv
38. Northern States Power Co
39. Ohio Edison Co
40. Ohio Power Co
41. Oklahoma Gas & Elec Co
42. Pacific Gas & Electric Co
43. PacifiCorp
44. PECO Energy Co
45. Pennsylvania Electric Co
46. Potomac Edison Co
47. PP&L Inc
48. PSI Energy Inc
49. Pub Service Co of Colorado
50. Pub Svc Co of Oklahoma
51. Pub Svc Co of New Mexico
52. Pub Svc Electric & Gas Co
53. Puget Sound Energy Inc
54. Sacramento Municipal Util
55. Salt River Project
56. San Antonio Pub Svc Bd
57. South Carolina Elec&Gas
58. S. Carolina Pub Svc Auth
59. Southern California Edison
60. Southwestern Electric Pwr
61. Texas Utilities Electric Co
62. Toledo Edison Co
63. Tucson Electric Power Co
64. Union Electric Co
65. Virginia Electric & Pwr Co
66. West Penn Power Co
67. Wisconsin Electric Pwr Co
68. Wisconsin Pwr & Light Co

Commercial (57)

1. Alabama Power Co
2. Appalachian Power Co
3. Arizona Public Service Co
4. Baltimore Gas & Electric Co
5. Boston Edison Co
6. Carolina Power & Light Co
7. Central Power & Light Co
8. Cincinnati Gas & Elec Co
9. Cleveland Electric Illum Co
10. Columbus Southern Pwr Co
11. Commonwealth Edison Co
12. Connecticut Light & Pwr Co
13. Consolidated Edison NY
14. Consumers Energy Co
15. Detroit Edison Co
16. Duke Energy Corp
17. Duquesne Light Co
18. Entergy Arkansas Inc
19. Entergy Gulf States Inc
20. Entergy Louisiana Inc
21. Florida Power & Light Co
22. Florida Power Corp
23. Georgia Power Co
24. Houston Lighting & Pwr Co
25. Idaho Power Co
26. Indiana Michigan Power Co
27. Jersey Central Pwr&Light
28. Kansas City Pwr & Light Co
29. Long Island Pwr Authority
30. Los Angeles City of
31. Massachusetts Electric Co
32. Memphis City of
33. Niagara Mohawk Pwr Corp
34. Northern States Power Co
35. Ohio Edison Co
36. Ohio Power Co
37. Oklahoma Gas & Elec Co
38. Pacific Gas & Electric Co
39. PacifiCorp
40. PECO Energy Co
41. Portland General Elec Co
42. Potomac Electric Power Co
43. PP&L Inc
44. PSI Energy Inc
45. Pub Svc Co of Colorado
46. Pub Svc Co of Oklahoma
47. Pub Svc Electric & Gas Co
48. Puget Sound Energy Inc
49. Salt River Proj Ag I & P Dist
50. San Diego Gas & Elec Co
51. South Carolina Elec&Gas
52. Southern California Edison
53. Tampa Electric Co
54. Texas Utilities Electric Co
55. Union Electric Co
56. Virginia Electric & Pwr Co
57. Wisconsin Electric Pwr Co

Initial Grouping of Sites

The model run begins with a database of potential customer sites (both commercial buildings and industrial facilities) that are organized by utility service area, building type, and size. Sites are organized as follows:

- Utility/Region and Building Type/Industry – Sites are initially taken from the Department of Commerce County Business Patterns (CBP) data[8], which indicates where all commercial and industrial businesses are located and how many employees they have. From this data, the sites are assigned to a utility based on their county (see Table 2-2 for a list of utilities that are included) using a Contractor database. For those outside of these areas, sites are grouped by county location into one of the nine census regions. Furthermore, a map of severe or extreme ozone non-attainment areas where emissions controls for DG units are typically required (see Figure 2-2) is used to determine which county locations should include add-on emissions controls when DG is evaluated by the model.

- Fuel Availability and Heating System – Based on its location and the natural gas costs database, the model determines whether natural gas is available to the site. Only buildings with natural gas availability were considered. Furthermore, commercial buildings were divided into those that used boilers for space heating and those that do not (based on information from the CBECS). Only buildings with boiler heat were included in the analysis.

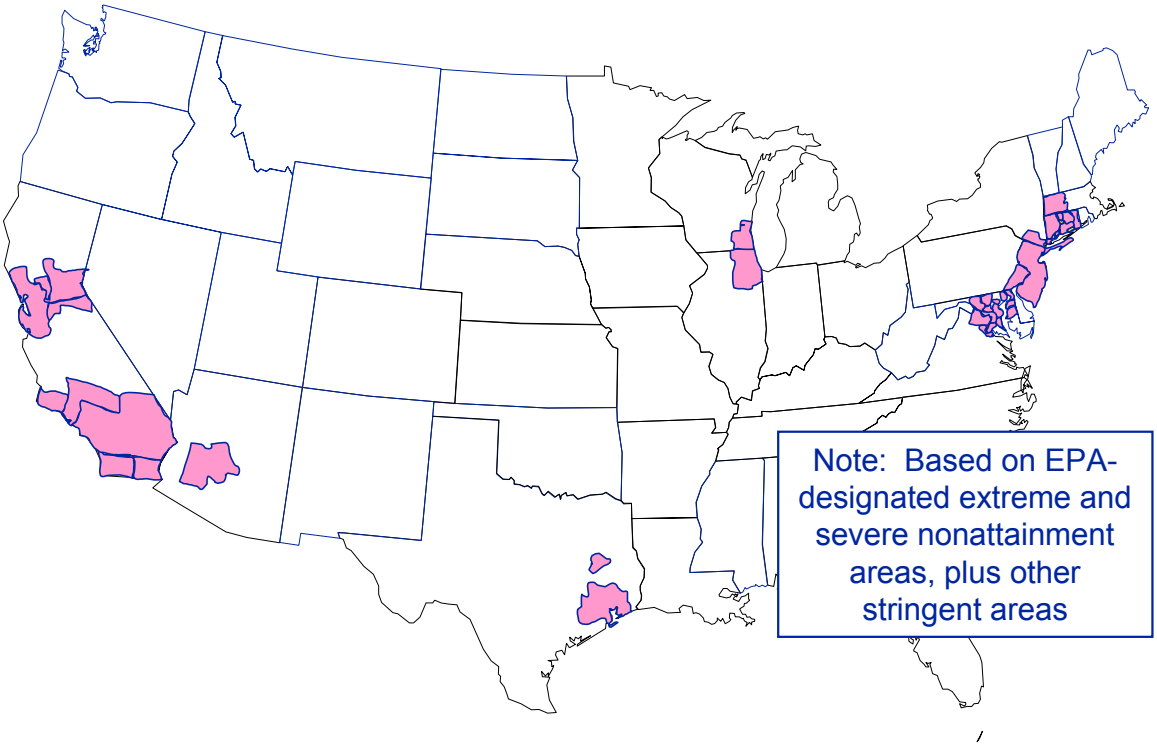

Figure 2-2. Areas Where Add-On Emissions Controls for DG are Typically Required

[8] County Business Patterns, U.S. Department of Commerce, Bureau of the Census, Washington, DC, 1999.

- Facility Size – Based on the number of employees, a commercial facility peak demand is estimated using data on kW per employee (from CBECS data for each building type and region), and for industrial customers using similar data from the U.S. Department of Commerce's Annual Survey of Manufactures.

This data was used to create combinations of utilities, customer sectors and DG unit sizes for economic analysis.

Determining the Most Economic DG Option

The DISPERSE model estimates the most economic technology and unit size that independently meets the electric demand for a particular industrial SIC or commercial building type in a particular utility. To do so, the net present value of generation and electric purchases over a 10-year period is calculated for each situation. That is, the economics of either generating with DG or purchasing adequate electricity to meet consumption needs is estimated for each combination of utility, industrial or commercial sector, generating unit size, and DG technology. In each case, one technology offers the most attractive net present value.

Generation or purchase of electricity is considered at each hour and is matched to an 8,760-hour demand profile over the year. The sizing of the DG unit is based on 50 percent of the peak demand for industrial facilities, and on average demand for commercial establishments. This sizing method was established by reviewing generating unit size and peak demand data, and then conducting preliminary analysis to select the sizing that generally results in the most market potential.

Thus, first, the results provide an estimate of how often a given DG option is most economic or when it is best to purchase power from the grid instead of generating it with DG. Second, the results provide a NPV estimate of such generation. Because the results are produced at a very disaggregated level, they can be summarized by region, by unit size, by DG technology, by utility, or by industrial or commercial sector. Several meaningful result summaries are provided in Section 3.

Table 2-5 provides a sample summary economic analysis of a hotel located in Southern California with a 600 kW peak demand. The DISPERSE analysis calculated revised energy bills for this facility using a variety of 300 kW distributed generation options in cogeneration mode, including a reciprocating engine, gas turbine, advanced turbine system (ATS), fuel cell, and fuel cell hybrid. In this case, the hybrid wins with a NPV in excess of $53,000, due primarily to the lowest DG fuel bill. Obviously, the high electric grid rates in this part of the country provided a significant economic incentive for application of any of the DG options.

The type of analysis portrayed in Table 2-5 was repeated for each combination of utility or region, size, and type of building or industry. Appendix A provides detailed results for each utility or region, size range, and building type/industrial classification.

Table 2-5. Sample DISPERSE Economic Analysis

	Recip	*Turbine*	*ATS*	*Fuel Cell*	*Hybrid*
Capital Cost ($/kW)	1,180	1,260	1,340	1,755	1,695
Base Unit	850	880	990	1680	1620
Heat Recovery Adder	100	150	150	75	75
Emissions Control Adder	230	230	200	NA	NA
Capital Cost ($)	354,000	378,100	402,100	526,600	508,700
Energy Consumption					
Original Site					
Electricity					
Energy (kWh)	2,628,000	2,628,000	2,628,000	2,628,000	2,628,000
Demand (kW)	636	636	636	636	636
Boiler Fuel (MMBtu)	2,736	2,736	2,736	2,736	2,736
Site with DG					
Electricity					
Energy (kWh)	326,432	326,432	326,432	326,432	326,432
Demand (kW)	336	336	336	336	336
Boiler Fuel (MMBtu)	37	2	23	203	887
DG Unit Operation					
Power Generated (kWh)	2,301,568	2,301,568	2,301,568	2,301,568	2,301,568
Peak Output (kW)	300	300	300	300	300
Load Factor	88%	88%	88%	88%	88%
Fuel Consumption (MMBtu)	20,237	30,539	23,384	16,014	12,759
Changes to Energy Bills (excluding DG unit fuel)					
Original Electric Bill	231,209	231,209	231,209	231,209	231,209
New Electric Bill	56,113	56,113	56,113	56,113	56,113
Original Boiler Fuel Bill	11,490	11,490	11,490	11,490	11,490
New Boiler Fuel Bill	154	8	99	854	3,724
Customer Cash Flows (Year 1)					
Net Electricity Bill	175,096	175,096	175,096	175,096	175,096
Net Boiler Fuel Bill	11,337	11,482	11,392	10,636	7,767
DG Unit Fuel Bill	(84,997)	(128,264)	(98,213)	(67,258)	(53,588)
DG Unit Maintenance	(17,264)	(9,207)	(13,811)	(27,622)	(16,113)
Back Up Charges	(15,000)	(15,000)	(15,000)	(15,000)	(15,000)
Avoided Interruptions	9,000	9,000	9,000	9,000	9,000
Property Taxes and Insurance	(7,082)	(7,561)	(8,042)	(10,533)	(10,173)
Tax Benefit (Including Depreciation)	(9)	14,725	7,348	11,396	1,744
Net Cash Flow	70,990	50,270	67,770	85,714	98,732
NPV	***$28,854***	***($166,209)***	***($57,458)***	***($68,308)***	***$53,117***

Aggregating Sites to Improve Hybrid Market Potential

The preliminary market analysis (using base case cost and performance data input to the DISPERSE model) suggested that very few individual industrial or commercial customers would adopt hybrids. Further analysis revealed that the base case hybrids required displacing retail purchases at relatively high electric rates to make the economics favorable. Since large industrial customers are strong consumers and thus have access to lower retail rates, commercial customers and smaller industrials became the likely targets. Their size, however, limited them to use of the smaller hybrids that are considerably higher in capital cost per kW. The key, then, to making the economics of the base case hybrids favorable was to access groups of commercial or smaller industrial customers that together are large enough to support at least a 10 MW hybrid system. To analyze the market for such arrangements, the study approach was modified to consider aggregations of commercial and industrial customers.

Supporting this market analysis is a trend toward aggregation. While many states have restructured retail electricity markets for competition, few commercial and small industrial businesses are actually switching suppliers. Generally, the level of switching is less than five percent, whereas large industrial customer switch rates are reaching double digits. Suppliers of electricity in these areas are citing a number of factors for the low commercial switch rate, including high cost of customer acquisition, inability to "beat" the price offered by the local utility, and other factors. As a result of the lack of options available to these customers, they are increasingly banding together to improve their purchasing power. Table 2-6 provides a selected list of customer groups that have formed community aggregations to take advantage of competition to lower their electricity bills.

Table 2-6. Limited Market Experience Shows Community Aggregations Have Potential

State	Community Aggregations
California	• Long Beach and Oakland have formed groups (through New West Energy) and saved 3 percent • San Diego Association of Governments grouped 80 public agencies and shows similar savings through Commonwealth Energy
Massachusetts	• Massachusetts Health and Educational Facilities Authority aggregated 600 institutions and has shown over 18 percent savings on supply portion of bill • Massachusetts High Technology Council grouped 75 businesses with significant savings • Cape Cod/Martha's Vineyard recently announced an aggregation of 21 towns
Pennsylvania	• Pennsylvania Energy Consortium coordinates 242 school districts, 42 municipalities, and 29 other nonprofits and is saving about 15 percent • Pennsylvania Food Merchants Association and Pennsylvania Convenience Store Council (both Harrisburg based) are helping members reduce their bills
Ohio	• Parma cast ballots favoring aggregation when competition opens in 2001

For end-users that have aggregrated, savings have been substantial. Generally, these groups have cited savings from 3-20 percent on the electricity supply portion of their bill. This level of savings is comparable to those cited by individual larger industrial customers, so the anecdotal evidence is that aggregations are providing the type of

savings that was envisioned when the electricity markets were restructured and competition was established.

As aggregators become more sophisticated, they will likely recognize the importance of having secured local generating capacity. Their ability to continue to offer savings to these groups will be based on market conditions, which as California has evidenced, can become somewhat uncertain. Having local generating capacity gives the aggregator better control of pricing, and lowers some aspects of market risk. Furthermore, when entering into a competitive bidding process to secure the business of an aggregation already formed, an aggregator may bolster their offer with local generating capacity. Some of the communities that lead this process tend to value reliability, jobs, and environmental impact, and hybrids may be ideal for these groups.

The aggregation analysis performed in this study is consistent with the single facility analysis, with hybrids and other DG technologies competing against the grid. The analysis was based on forming aggregations of 100 sites (commercial) and 10 sites (industrial), using a representative blend of buildings (commercial) and manufacturing plants (industrial) to approximate an aggregate load curve. Representative blends were formed by taking a proportional number of facilities from each utility's service area and applying a diversity factor of 85 percent. A diversity factor is typically applied in utility planning to recognize that all customers in a group do not coincide with other customers as to their peak demand period. As a result, the actual peak demand of the group will be lower than the aggregate peak demand of the individual customers.

Furthermore, it was assumed that the aggregators could employ the local utility distribution system to distribute power to their customers. Distribution rates of 1.5 cents per kilowatt-hour were used, based on a sample of unbundled rates in California and Pennsylvania. Since the hybrid/DG systems are planned to be local, no transmission charges were included. The hybrid/DG systems were given a 3 percent penalty to account for distribution losses that would result, but no penalty for transmission losses was assessed.

Since the size of the aggregations analyzed represented larger (10+ MW) loads, only simple-cycle turbines were analyzed as competitors. Furthermore, although the potential to form district heating systems with cogeneration holds some promise, the study focused solely on baseload electric generation without heat recovery (the economic reasons for this are explained more fully in Section 3).

Sensitivity Analyses

A number of scenarios were constructed to evaluate how sensitive the base case and future case results are to varying inputs. In doing so, there was a focus on how improving the cost and/or the efficiency of hybrids impacts their market size. In addition, two sensitivities were added to illustrate the effects of changing energy prices on the market for hybrids (10%DropinSparkSpread, 10%WiderSparkSpread). Since hybrids are sensitive to both electric and gas prices, these two sensitivities were based on changes in the "spark

spread." This term was first coined in the wholesale energy markets, and is defined here as the difference, or spread, between grid electricity prices and the fuel cost necessary to generate electricity using natural gas, expressed in cents per kilowatt-hour. A key factor in calculating the spark spread is the heat rate of the generating option. For this analysis, the heat rate of a base case hybrid unit was employed. While the spark spread can be manipulated by varying a number of parameters, for these two sensitivity analyses the spark spread was raised and dropped by altering the gas price.

As shown in Table 2-7, a total of 14 scenarios were analyzed – 5 compared with the base case (those unshaded in Table 2-7) and 7 compared with the future case (those shaded in Table 2-7). Other than the two priced-based sensitivities described above, each of the scenarios shown in Table 2-7 are based on manipulating the cost and/or efficiency data from Table 2-1. For example, the OnlyTurbinesFuture scenario is based on current hybrid, fuel cell, and engine data from Table 2-1, with the turbine data based on future data from Table 2-1. The OnlyEnginesFuture and OnlyHybridsFuture scenarios are assembled in the same manner. In the HybridsEffUpOthersFuture, the turbines and engine data is based on the future, with the hybrids and fuel cell data based on future efficiency but current cost. The final sensitivity, HybridsReachLongTerm is based on a $400/kW hybrid fuel cell manufactured cost and thus results in a very low future hybrid cost.

Table 2-7. Scenarios Depicted by Sensitivity Analyses

Scenario	Hybrids/Fuel Cells	Turbines	Engines
1. OnlyTurbinesFuture	Current	Future	Current
2. 10%DropinSparkSpread	Current	Current	Current
3. OnlyEnginesFuture	Current	Current	Future
4. Base	Current	Current	Current
5. 10%WiderSparkSpread	Current	Current	Current
6. BaseWithout40MW	Current	Current	Current
7. HybridsEffUpOthersFuture	Future Efficiency	Future	Future
8. HybridsEffUpOthersBase	Future Efficiency	Current	Current
9. HybridsCostDownOthersFuture	Future Cost	Future	Future
10. FutureWithout40MW	Future	Future	Future
11. Future	Future	Future	Future
12. HybridsCostDownOthersBase	Future Cost	Current	Current
13. OnlyHybridsFuture	Future	Current	Current
14. HybridsReachLongTerm	Long Term	Future	Future

Early Adopter Analysis

Early adopter theory contends that there is a group of users that will adopt a product or service before others (see Figure 2-3). This group tends to follow a much smaller group, known as innovators, that adopt a product or service first, usually before all of the "bugs" have been worked out. In the case of new distributed generation technology, innovators usually have their risk lowered by government, utilities, and other stakeholders who will reduce or eliminate the capital risk by placing demonstration projects on customer sites in

return for publicity and gaining a track record with the technology. A large number of fuel cell applications to date have been funded primarily by these sources.

In addition, several attributes define the concept of early adoption:

- Customers within a given market segment differ in the time required from initial exposure to eventual adoption of a technology,
- "Early adopters" share some characteristics that differentiate them from "late adopters", including a role as opinion leaders who are willing to help publicize a technology, and
- Efficient market channels exist to reach these early adopters.

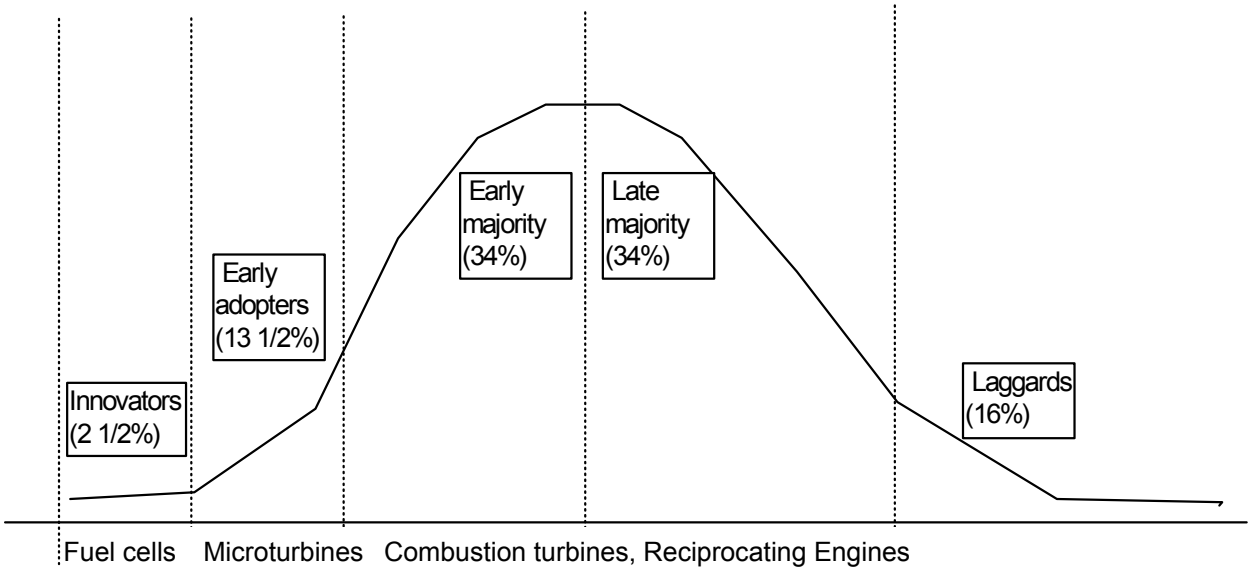

Figure 2-3. DG Technologies in the Early Adopter Lifecycle

Fuel cells and fuel cell hybrids stack up well in each of the product/service attributes necessary for early adoption. Both have superior advantages over other DG options for certain applications, meet the power generation or cogeneration needs of a number of business segments, are not too complex for organizations that already use distributed generation (and maybe even for some that do not), are small enough to be tested at one site before more widespread adoption, and could be publicized to others via trade journals, the internet, press releases, and other means. This means that these technologies appear to be well suited to the traditional product lifecycle that includes an early adoption phase.

Clearly, a fuel cell hybrid market will develop more quickly if there are more early adopters. Serving as showcases, early adopter sites not only help refine the technology, but they also demonstrate its economics and its effectiveness. Figure 2-3 illustrates a typical technology adoption cycle and notes that competing DG technologies are all further along commercially than hybrids. Thus it becomes critical to hybrid vendors to effectively target the innovators and early adopters to jump-start market potential.

The preliminary results were first analyzed to locate potential early adopters for the hybrid technology. These results suggested that aggregations of customers would be the most likely market for hybrids. From this, three groups of potential early adopters were identified: aggregating energy companies (aggregators), municipal utilities (munis) and rural electric cooperatives (coops).

To identify other early adopters, municipals and rural electric cooperatives were reviewed, both because a majority purchase wholesale power in the 5-8 cents/kWh range where hybrids can compete effectively and because they comprise natural aggregations of commercial and industrial customers. A total of 2,627 municipal utilities and cooperatives were screened as being potential early adopters. As depicted in Figure 2-4, a series of 6 screens were applied (having a large commercial load, owning their distribution system, facing relatively high wholesale electric prices, having a shortage of generation capacity, exhibiting relatively high T&D losses, and selling to customers that use electricity relatively continuously) to identify 48 specific munis and coops that have the most likely potential to be early adopters.

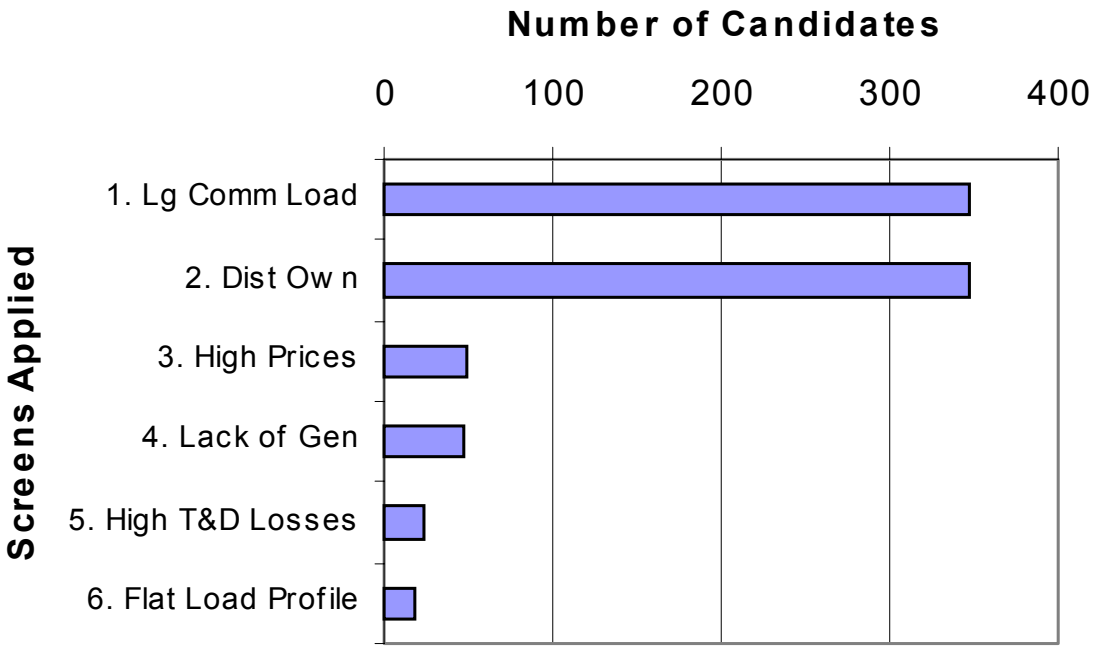

Figure 2-4. Screening of Early Adopter Municipalities and Cooperatives

Data on key variables about munis was collected from the Energy Information Administration's Form 412 data for 1999. Examples of data used in the screening process include:

1. Distribution wire ownership – if the distribution plant valuation at the end of 1999 was positive, then the municipal owned distribution wires. This also gave an idea of the relative capital cost of those wires (per total sales to consumers). To back this up, the munis distribution expenses were considered.

2. Wholesale cost of power – to measure wholesale cost, the municipals' average power sales price was used, calculated as total operating revenues divided by total sales to consumers. Higher costs favor hybrids.

3. Lack of generation – the percent of total consumer sales generated by the muni was calculated. A lower number means the muni is capacity constrained and may need to either purchase power from the wholesale market or add generation.

Similarly, data on key variables about rural electric cooperatives was collected from the Energy Information Administration's Rural Utilities Service Forms 7 and 12. Examples of data used in the screening process include:

4. Distribution wire ownership – miles of distribution wires owned divided by total consumers served.

5. Wholesale cost of power – average power sales price calculated as total operating revenues divided by total sales to consumers.

6. Lack of generation – calculated total generation divided by total consumer sales.

In addition, the number of commercial customers together with the MW of commercial load served, the size of line losses as a percent of total distributed electricity, and average hourly sales divided by the system peak were also calculated for each of the 2,627 potential candidates. A large commercial load means a hybrid could serve a natural aggregation of commercial customers. High line losses might be alleviated by placing a hybrid close to its point of consumption. A high load factor is consistent with operating a hybrid as baseload generation – where it is most cost effective.

Based on this analysis, 15 of the munis and coops were selected for further contact. A survey was developed (see Appendix B) that was designed to explore specific needs and barriers to hybrid adoption. The survey included questions addressing:

- Generation – confirming how respondents currently procure generation, whether by generating it or by making wholesale purchases,
- Capacity and environmental issues – evaluating capacity and distribution system constraints, line losses and emissions constraints,
- Customer issues – reliability or power quality concerns were identified, and
- Ideal hybrid "product attributes."

The survey (see Appendix B) was sent to 15 munis and coops and several were then interviewed to learn what characteristics might improve a hybrid's chance of being adopted and what barriers need to be overcome. Each respondent evaluated both 10 and 20 MW hybrid units for market potential. They were encouraged both to explain the situation at their own company and to speculate on the market potential for hybrids in general.

Section 3
MARKET POTENTIAL FOR FUEL CELL HYBRIDS

Fuel cell hybrids promise superior efficiency, competitive installed cost, very low emission levels, low noise, and high availability. These attributes make them especially well-suited for the following applications:

- **Baseload Power**. This application, also known as continuous power, requires power on a nearly continuous basis, typically at least 6,000 hours per year. Competing grid price and the installed cost of the unit are the primary drivers of baseload power economics. Operating cost, power quality and reliability are also contributing factors.

- **Combined Heat and Power (CHP)**. CHP applications, also known as cogeneration, utilize otherwise wasted exhaust heat as useful thermal output, typically hot water or steam. Again, grid price provides a strong driver, as does installed cost. As with baseload power applications, fuel cell hybrid CHP applications will run on a nearly continuous basis, but also recover heat from the exhaust of the turbine (see Figure 1-1). Given that this exhaust has already been used to heat air input to the turbine, the quantity and quality of waste heat from hybrids is limited when compared to conventional CHP options such as simple-cycle turbines or engines that employ the waste heat directly to produce hot water or steam.

Other potential hybrid uses include peak shaving and "green" power. The relatively high installed cost of fuel cell hybrids and low operating hours required for peak shaving makes these applications not economic. Hybrids may be considered a "green" power application because of their low emissions, and as such may be attractive to users that value a positive environmental reputation. However, given the study objective of assessing the most likely markets for the hybrid technology, the focus was on baseload power and combined heat and power applications.

Total Market Potential Projections

To determine the hybrid's potential in the U.S. commercial and industrial sectors, this effort was planned to evaluate hybrids versus a wide range of other DG units up to 50 MW in size. The study focused on units due for production by year 2005 (base case scenario) or before year 2010 (future scenario) and beyond (long-term scenario). These include fuel cell/turbine hybrid units in 300 kW, 1.5 MW, 10 MW, 20 MW and 40 MW size combinations. Competing distributed generation technologies considered include reciprocating engines, gas turbines, the Advanced Turbine System (ATS) and a non-hybrid fuel cell.

The analysis determines not only whether on-site generation appears to be more cost effective than purchasing from the grid, but also which technology and size appears to be the most economical. As a result, double counting of market potential for a variety of competing technologies is avoided. Using data on the number of facilities in each size range and energy prices from each of 81 utility service territories, the number of potential applications is then determined. Section 2 provided a discussion of the study inputs, analysis methodology, and outputs.

Key assumptions inherent in this approach are:

- **Individual facilities and utilities will make an economic purchase decision**. While a number of facilities (especially small sites) make investments based on first cost, larger commercial and industrial facilities as well as groups formed to pool purchasing power (i.e. aggregations) in general apply a more sophisticated approach to their decision making. Many of these facilities use capital budgeting that could affect the determination of whether a hybrid investment makes better business sense than other potential investments. Businesses that are in growth industries are more likely to invest in growing the business than to adopt cost saving measures such as on-site generation. Similarly, municipals and electric cooperatives carefully evaluate their economic alternatives before purchasing a generating unit. Due to their relatively high installed cost, the assumption that life cycle costs would be considered is critical to the successful adoption of fuel cell hybrids.

- **Hybrid units will apply to larger facilities or aggregations of facilities**. Larger facilities have a host of power generation options (such as larger turbines and reciprocating engines) available to them in addition to the grid, thus the analysis compares hybrids to these options. Due to the relatively large size of hybrids (in the distributed generation arena), their output can only be effectively used for baseload generation by larger commercial or industrial facilities, or groups of facilities. For aggregations, it is assumed that aggregators can install on-site generation and pay local distribution charges to deliver power to businesses that they have under contract. While this type of market is not widespread, it is assumed that with continued restructuring of the electric utility industry, this type of arrangement will become available nationally.

Incorporating these assumptions, the cost-to-generate a kWh of electricity was calculated by dividing all generating costs including installed cost, O&M, and fuel by the amount of generation. Figure 3-1 illustrates how baseload cost-to-generate varies by natural gas price and capacity factor, based on the unit cost and performance data shown in Table 2-1 for a future 1-5 MW hybrid at $940/kW installed. Installed costs are expressed on the cost-to-generate by dividing the costs by the hours of operation, with capital costs first portioned into a yearly cost through a capital lease payment based on 9 percent interest. This figure illustrates the cost-to-generate assuming 100 percent capacity factor (based on 8,760 hours annually) and 65 percent capacity factor (5,694 hours annually). These figures show that for baseload power applications, hybrids have the lowest cost-to-generate at about $5/MMBTU with 65 percent capacity factor dropping to $3/MMBTU with 100 percent capacity factor. Thus, when used for baseload power, hybrids beat other DG options and compete mostly with the utility grid price.

Figure 3-2 depicts the impact when thermal energy is also generated by a CHP application, illustrating how cost-to-generate varies by natural gas price and capacity factor. This time, units are given full credit for recovered waste heat, based on the cost of producing the thermal output using an 80 percent efficient boiler. Gas turbines, reciprocating engines, and the ATS are all projected to beat the hybrid cost-to-generate. It turns out that hybrids are not competitive with other DG options in CHP applications. Even when considering future cost reductions planned for the hybrid technology, CHP applications do not appear to be cost effective.

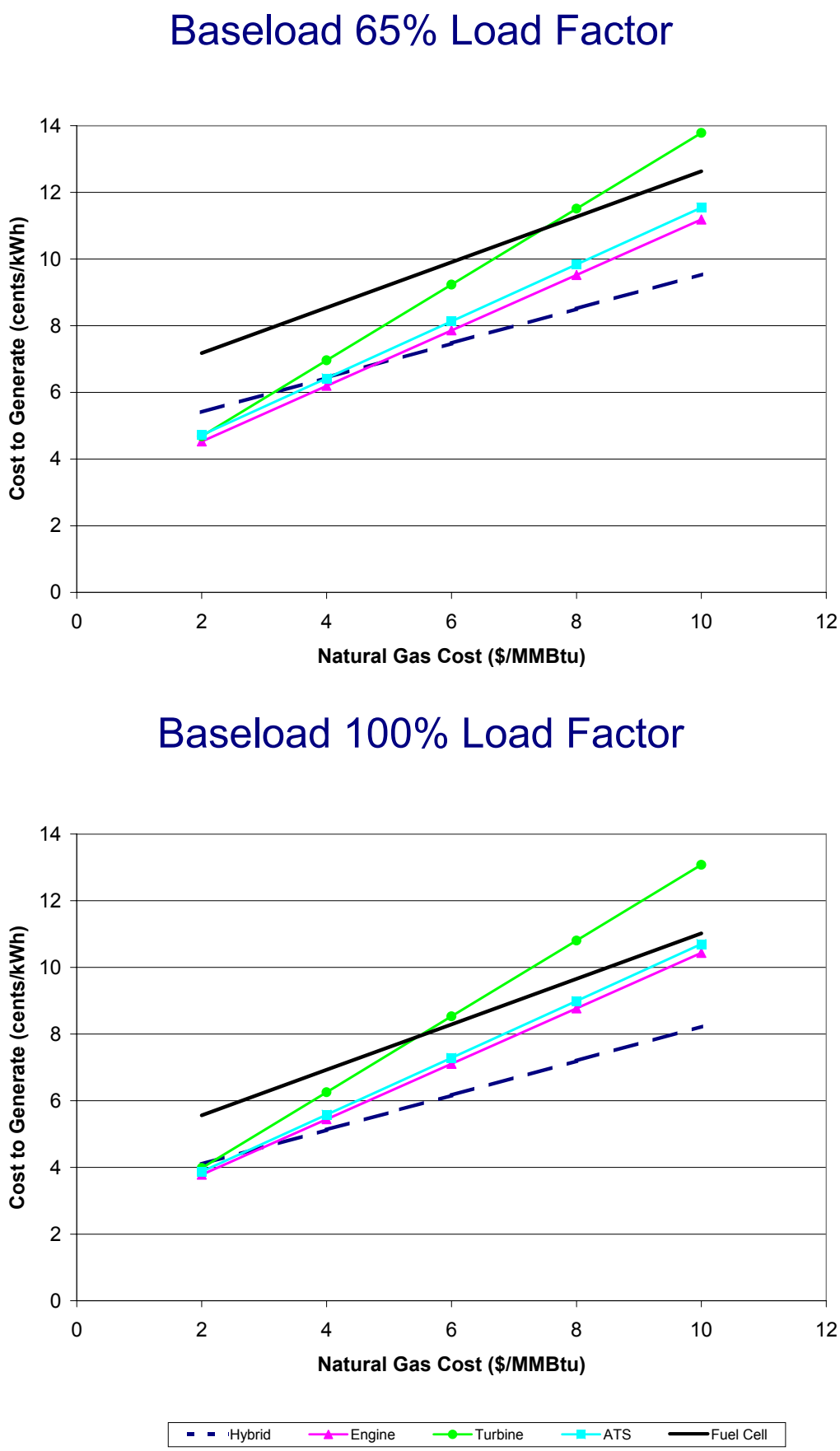

Figure 3-1. Baseload Cost-to-Generate by Technology (Cents/kWh)

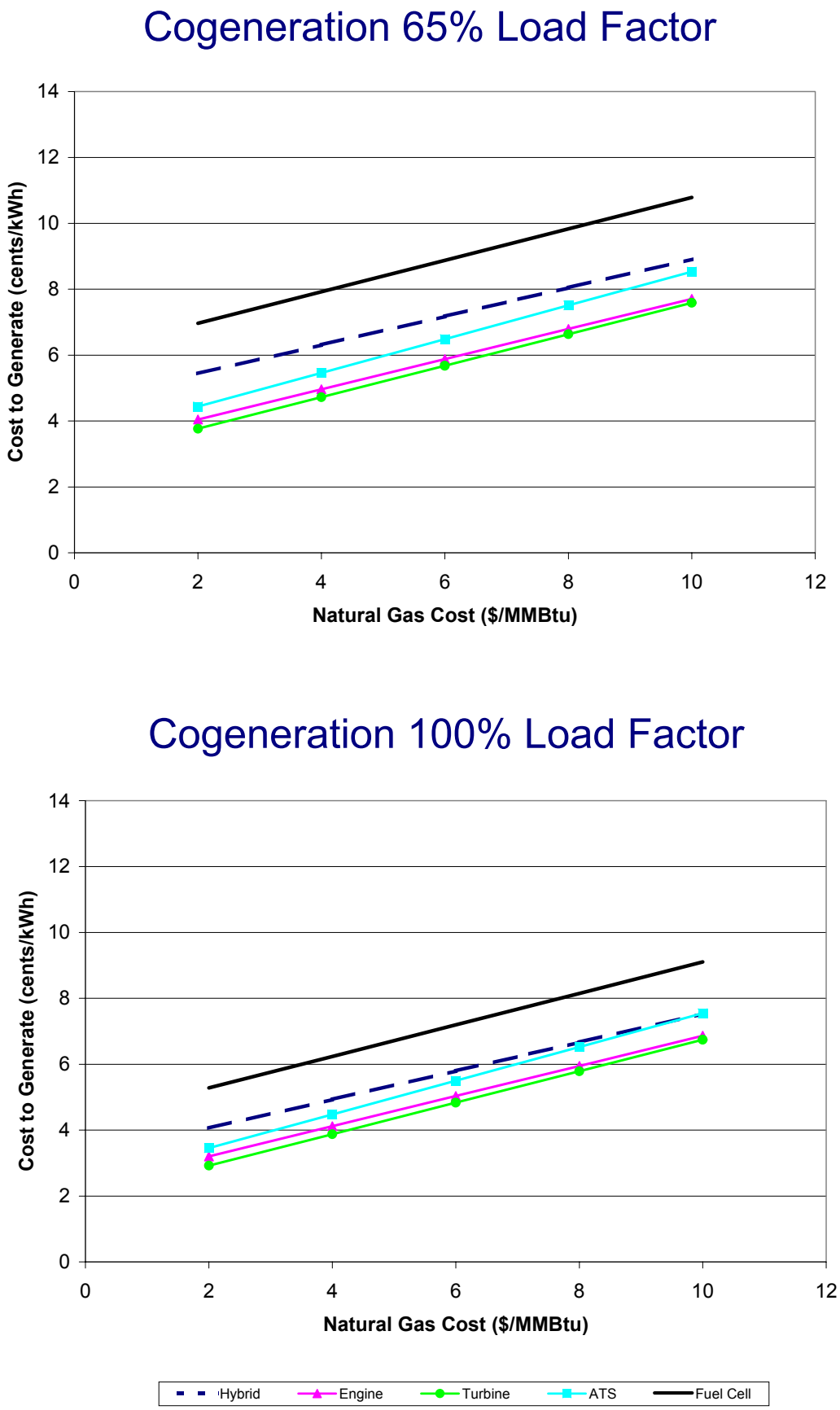

Figure 3-2. Baseload with Cogeneration Cost-to-Generate by Technology (Cents/kWh)

Figure 3-3 summarizes the cost-to-generate for the same 1-5 MW unit (based on future unit cost and performance) using $4/MMBTU gas price and 100 percent capacity factor. With CHP applications taking full credit for the avoided boiler fuel, the cost-to-generate falls for all the DG technologies, but due to relative electrical and thermal efficiencies, hybrids gain the least of the five technologies. The general finding is that non-CHP operation favors hybrids at all but the lowest gas prices (i.e. under $4/MMBTU), but hybrids are not the most economic technology for CHP applications at any gas price.

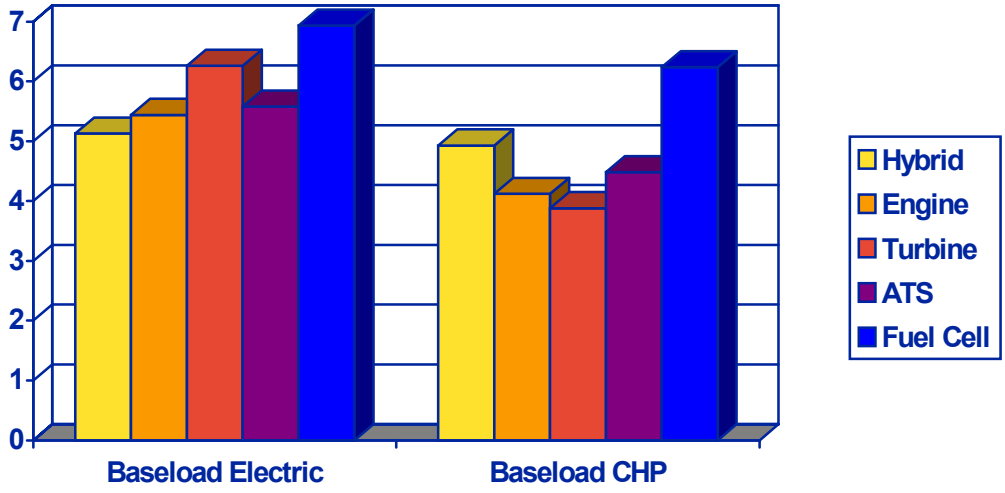

Figure 3-3. Cost-to-Generate Electricity by Technology (Cents/kWh)

In the study, the analysis was conducted to estimate the market potential for hybrids compared to the other DG technologies for 5 potential markets: municipality/cooperative utilities, aggregations of commercial buildings, aggregations of industrial sites, single commercial buildings, and single industrial facilities. As shown in Figure 3-4, the market potential for continuous power applications of hybrids in the U.S. commercial and industrial sectors is estimated at 8 GW of capacity by 2005.

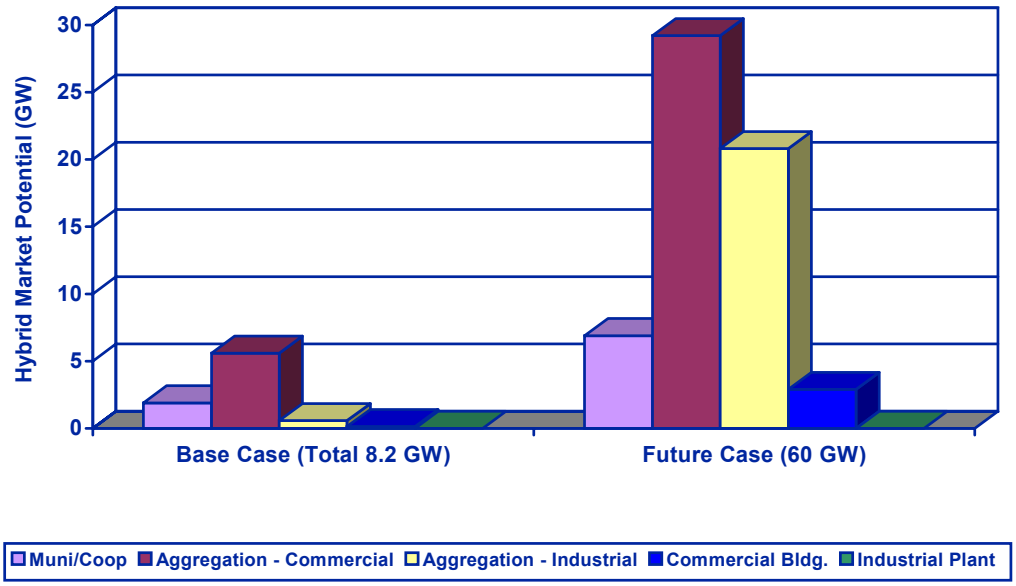

Figure 3-4. Hybrid Market Potential by Type of Application (GW)

As installed capital costs fall from a base case $1,100-1,600/kW to the $600-1,100/kW range by 2006-2009 (the future case), hybrids will become increasingly viable. This drop of about $500/kW across the size range could substantially increase the potential market to about 60 GW by 2009, assuming that hybrid units meeting these future cost and performance targets are available by that time.

In Figure 3-4, market estimates of hybrid capacity serving municipal utilities and cooperative electric systems as baseload generation are shown. This generation might have additional benefits to the electric system, including reducing line losses, lowering the cost of T&D upgrades or providing VAR support, but the analysis did not consider the economic value of such benefits. The hybrid unit might replace existing less cost-effective generation, supplant wholesale purchases, or could be additional new generation in regions with growing demand. The base case forecasts 2 GW of potential for this market, rising to 7 GW in the future case.

The aggregation analysis estimates the potential for hybrids to be purchased on behalf of a group of commercial or industrial customers for their baseload power needs. Given the large size necessary to obtain lower capital costs for the base case hybrids, 15 MW, 25 MW, and 40 MW units were analyzed for groups of 100 commercial or 10 industrial customers. These groups could represent members of an office park, shopping center, industrial park or even a more geographically dispersed aggregation of customers. The analysis estimates 6 GW of potential in the base case, substantially increasing to 50 GW in the future case. In the base case, large (30+ MW) turbines dominate the aggregations, eventually yielding to improved hybrids in the future.

Finally, market estimates of hybrids serving individual commercial building and industrial plants are shown. While the study's original focus were these market segments, there is a very small initial market (less than 500 MW) for these facilities. With hybrids only economic for baseload power applications within the single facility market, hybrids must beat the prevailing grid price to be accepted. The relatively high installed cost of fuel cell hybrids in the base case prohibits this, but future cost reductions make this attainable in some locations. This market grows as hybrids drop installed costs, and may eventually rise to 3 GW as forecasted in the future (2006-2009) case.

The focus of this effort was to determine the market potential for fuel cell hybrids. Over time, provided economic conditions prevail or become even more favorable and DG technologies prove their worth, they will realize a portion of this potential. This adoption of technology is referred to as market penetration, and the rate of penetration depends on a number of factors. These include cost and performance of DG technology and competing energy market economics (i.e. purchasing from the grid), as well as competition from other capital investments. While there is little data on penetration rates of new DG technology under the current economic conditions, the commercial and industrial decision making process regarding energy-related investments in general can yield some insights.

Many studies on the acceptance of energy-saving investments examine the amount of time necessary to payback the investment. While the market potential presented here is based on a ten-year cash flow analysis to determine the option with the best net present value, a simple payback was also calculated. Figure 3-5 illustrates for the future case that only six percent of the

applications offer a payback under 2 years, and less than half of the applications were deemed economically feasible have a payback under 4 years. When the commercial building market is examined, the under 2 year portion falls to less than 1 percent. With the general rule of thumb that a 2-4 year payback is required[1] for industrial or commercial facilities to purchase equipment that will reduce their energy bill, these results indicate that further cost reductions or economic assistance (e.g. tax incentives or rebates) may be required to stimulate the market. The aggregation market, however, is driven by larger companies investing in power generation portfolios who may be willing to accept longer periods for return of investment.

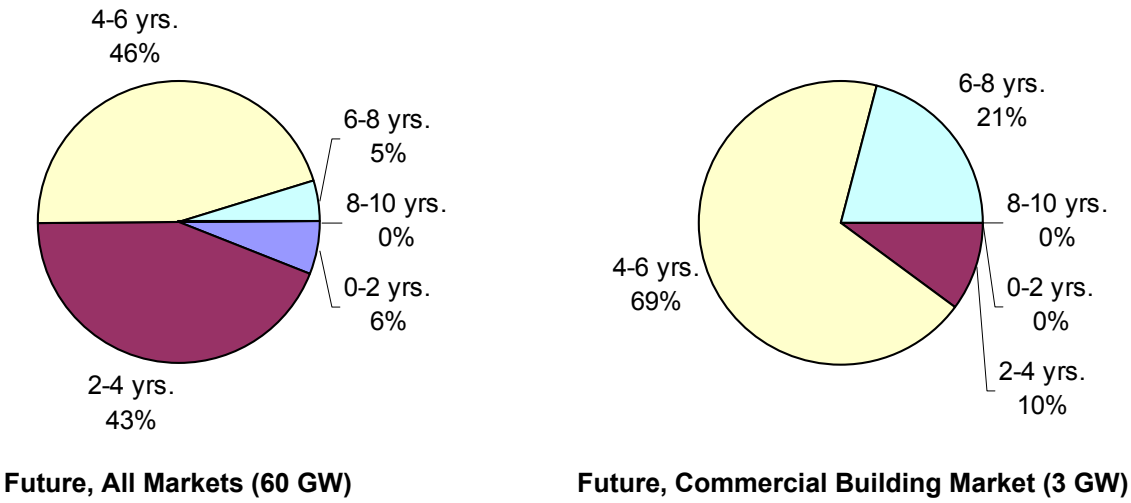

Figure 3-5. Distribution of Payback Periods for All Markets and Commercial Buildings

In summary, both the base case and future case hybrid markets favor the aggregation of groups of commercial or industrial customers. These baseload markets, due to their superior economics, are likely to contain both early adopters and a large number of later purchasers.

Incorporating the cost of DG units as well as their impact on customer energy bills over a ten-year period, Figure 3-6 provides the net present value of this market potential by technology. Hybrids may rise from a $5 billion market to one of over $30 billion as their efficiency and installed cost characteristics improve. Turbines dominate the base case, particularly the large 25-40+ MW units that could potentially serve aggregations of commercial customers. In the future, however, hybrids assume this role and outperform large turbines for serving aggregations.

The future case shown in Figure 3-6 has a number of interesting implications. It shows that the only two technologies to capture a significant share of the DG market are turbines and fuel cell hybrids. Engines, stand-alone fuel cells, and ATS units are not shown with any significant share of the market. Fuel cells, though a major component in fuel cell hybrids, are more expensive and less efficient when compared with hybrids. The analysis assumes that ATS features become integrated in future turbines so that turbines essentially adopt ATS characteristics but at a lower

[1] Department of Energy, Industrial Assessment Database, Office of Policy and Office of Energy Efficiency and Renewable Energy, March 1996.

cost. Finally, engines lose market share to hybrids in the future as hybrids become less costly but more efficient than engines in baseload applications, and engines do not compete well with turbines for CHP applications. Thus, if the future cost and performance assumptions become a reality, it is likely that hybrids will dominate for baseload and turbines for CHP applications.

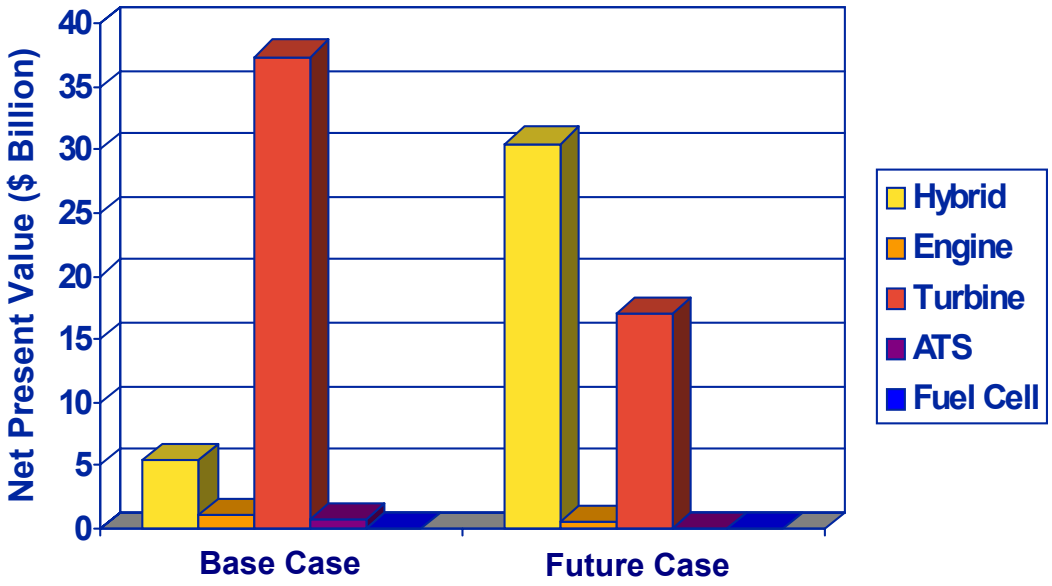

Figure 3-6. Value of Hybrid Market Potential (Billion $)

Market Potential by Technology and Hybrid Size

Figure 3-7 illustrates the projected market potential by DG technology. The market analysis shows that in the base case, hybrids take market share from reciprocating engines due to superior electrical efficiency for baseload applications. In the future, gas turbines also lose their market share to hybrids. Gas turbines especially lose their economic competitiveness with hybrids in non-attainment areas where the turbine's installed capital cost rises because of the need to add expensive emission control equipment such as selective catalytic reduction (SCR).

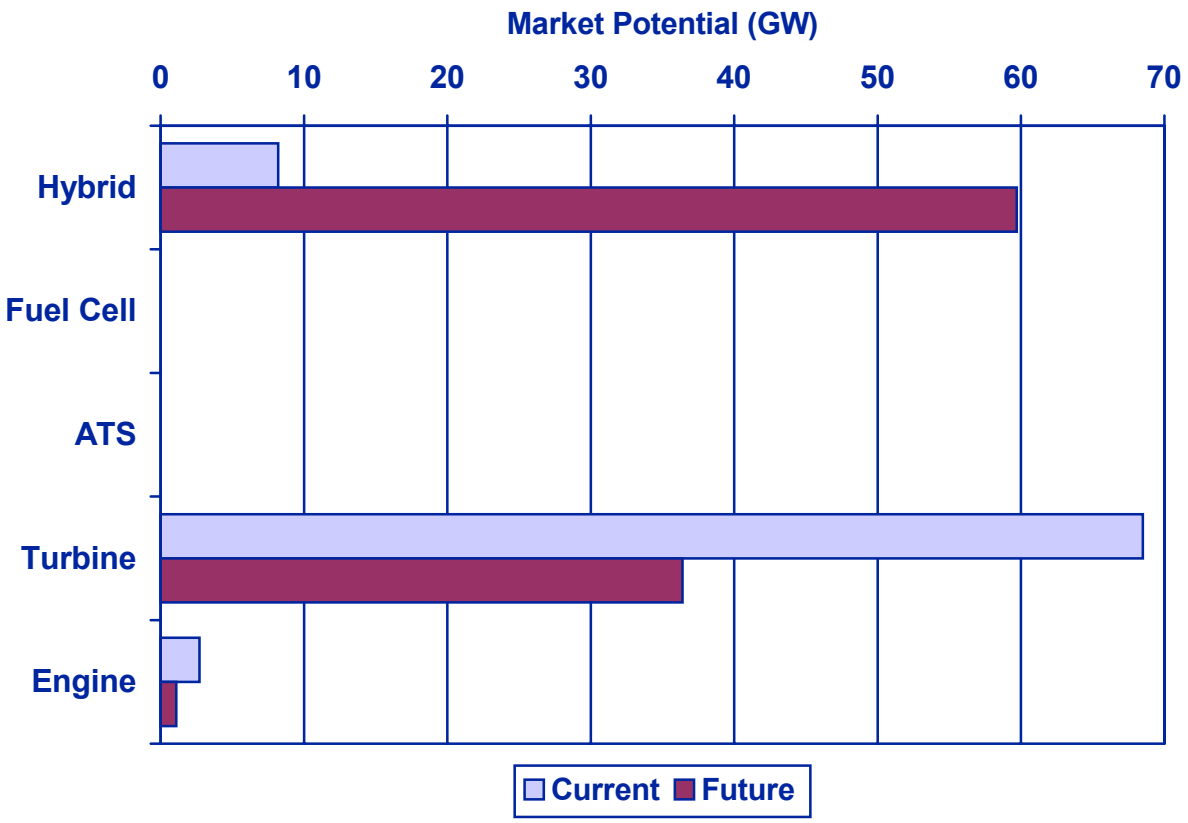

Figure 3-7. Market Potential by Technology (GW)

Figure 3-8 shows how the market potential of hybrids compares with these other distributed generation technologies' market potential, as well as how it varies by size of generating unit. In the base case, hybrids in the 15-25 MW size range show some potential for munis, coops, and aggregations. However, both smaller- and larger-sized applications are better served by other distributed generation technologies with superior economics.

In the future, as already noted, the hybrid market potential greatly expands. Hybrid 40 MW units dominate due to their potential for use by aggregators, along with 15 and 25 MW units. Some smaller 1.5 MW and below units emerge as being economically effective for commercial building applications. Industrial DG applications are dominated by CHP applications and are not promising for hybrids as their economics in CHP configurations are less favorable than turbines.

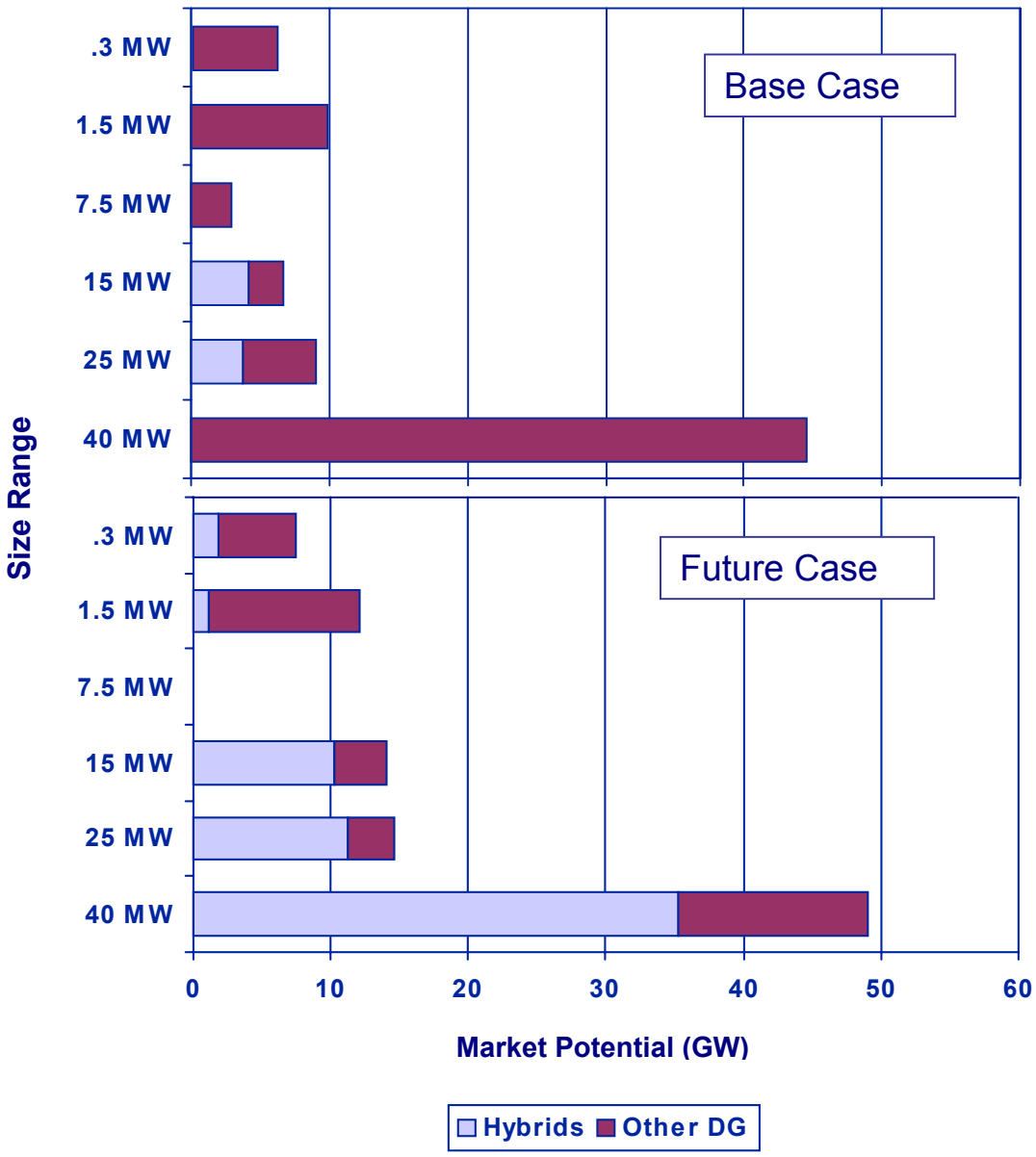

Figure 3-8. Hybrid and Other Distributed Generation Market Potential by Unit Size (GW)

Figure 3-9 illustrates the effect that the future scenario has on the emergence of the single facility market. This market is very small in the base case (under 200 MW), but starts to emerge in the future scenario as prices for the smaller 200 kW up to 5 MW hybrids reach the $900-1100/kW range. Should prices mature to this level, the single building hybrid market would approach

3 GW, mostly in the 300 kW size range but also in the 1.5 MW size range. These sizes fit well within the office building market as well as the healthcare and retail markets. The sensitivity analysis follows, and provides an indication of how these markets will unfold as further hybrid cost reductions develop.

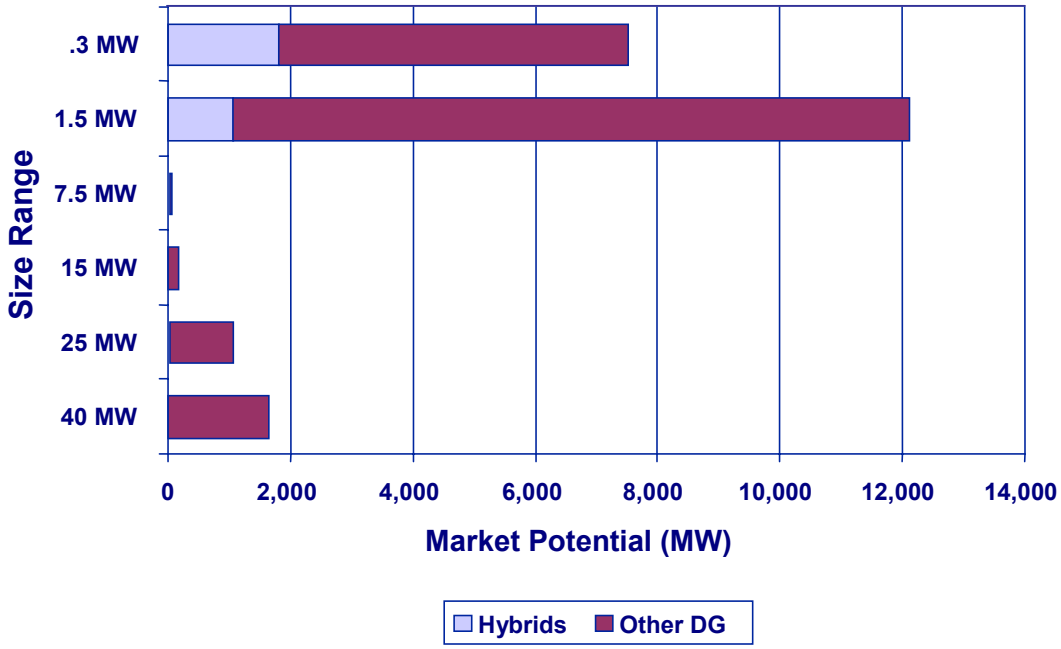

Figure 3-9. Market Potential for Single Facilities by Unit Size, Future Case (MW)

Aggregation Market Potential by Region

Due to the projected importance of the aggregation market, the base case regional analysis was focused on where aggregations make economic sense (see Figure 3-10). These areas are mostly located in high electric and gas price regions on both coasts, based on late 1999/2000 prices. Presently there are a limited number of viable aggregation markets, but this could change in the not unlikely scenario that gas and electric prices rise further.

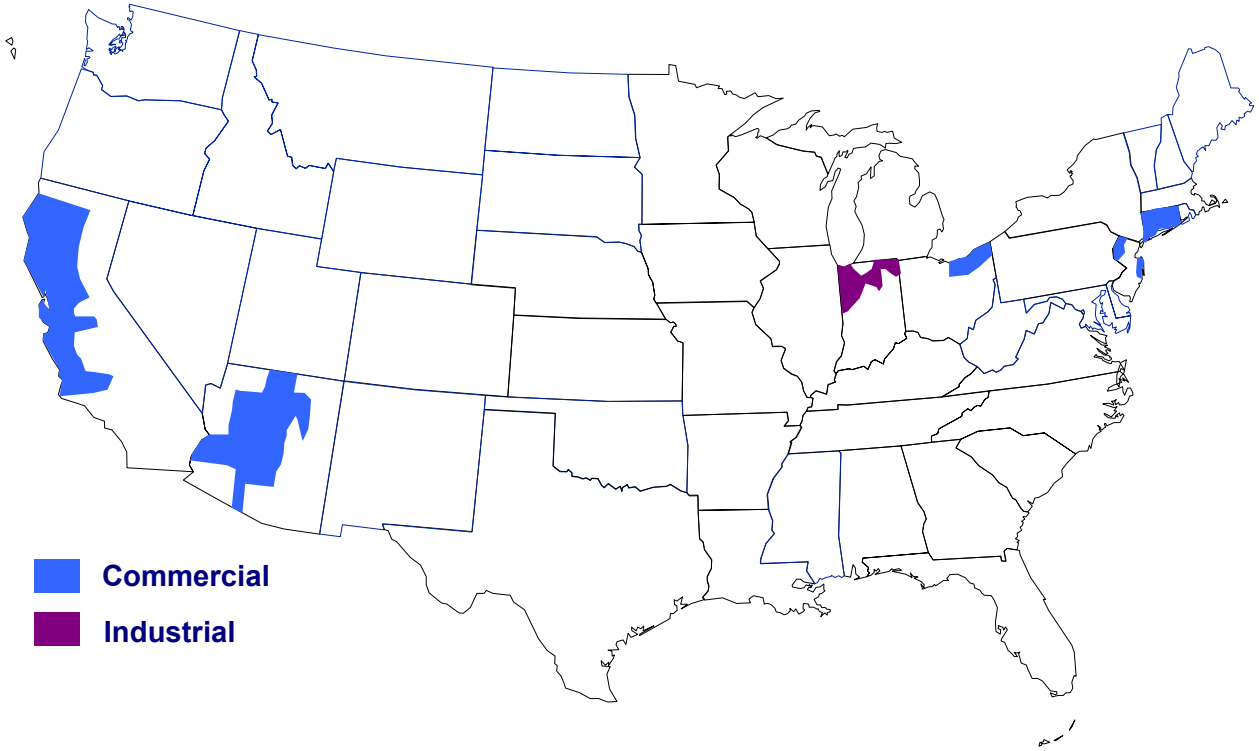

Figure 3-10. Regions of Greatest Aggregation Market Potential

Figure 3-11 provides further detail of the base case market potential by region and service territory. Commercial aggregations dominate because most industrial firms are able to procure relatively low-priced grid power, thus making hybrid-produced power non-competitive. However, it is important to realize that industrial electric prices in California, the Southwest, the Pacific Northwest and elsewhere have been rising rapidly during 2001. Market potential will likely increase should these circumstances become the norm.

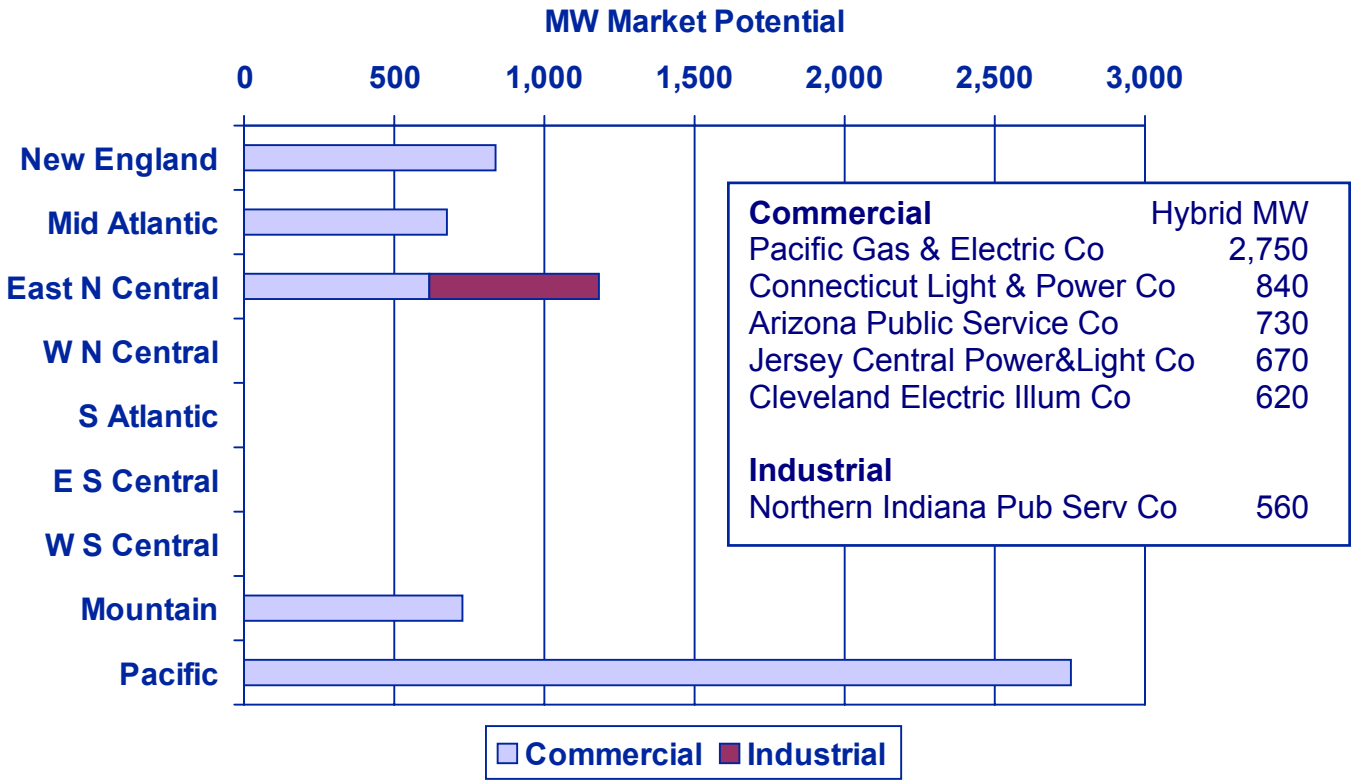

Figure 3-11. Aggregation Market Potential by Region (MW)

Hybrid Market Potential by Region and Building Type

Indeed, if conditions evolve as projected, the market for hybrid aggregations could grow from a base case 6 GW to about 50 GW in the future case. As this growth occurs, future hybrids could expand into the South Atlantic and East North Central regions and will no longer be concentrated in the Pacific and East Coast regions. Figure 3-12 shows how this trend may evolve for all hybrid applications combined. The picture is very similar for the aggregation market potential because of its dominance as the key hybrid application.

While commercial aggregations lead all the scenarios in market potential, industrial aggregations will fare considerably better with future installed cost reductions. Commercial single buildings and municipal/cooperative applications of hybrids will also increase if installed costs fall. To illustrate this, Figure 3-13 shows how long term future cost reductions can lead to hybrids making inroads in the single building market, with 12 GW of market potential (13 percent of the total long-term hybrid market). However, even with these projected reductions in cost, the long term market for industrial facilities never exceeds 2 GW (less than 2 percent) of the total hybrid market.

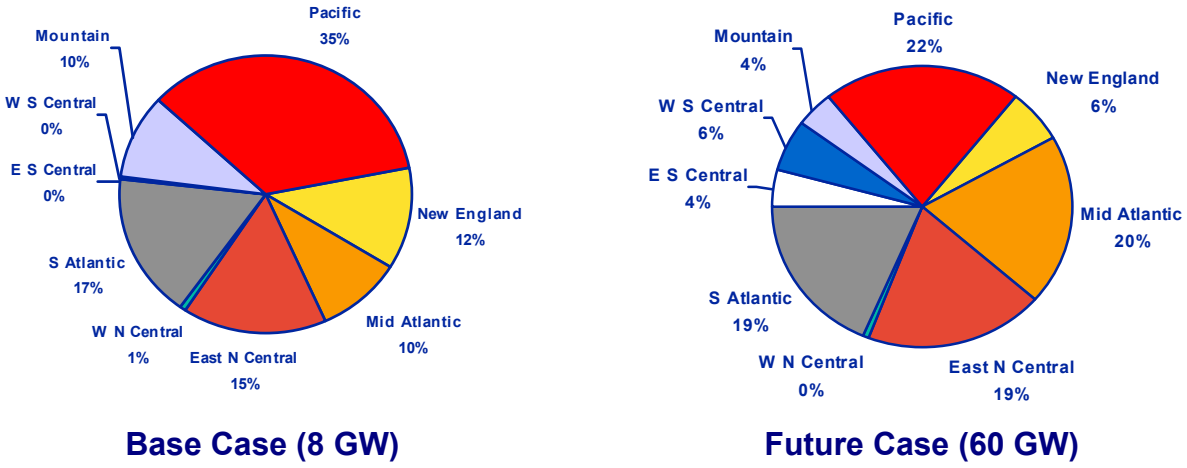

Figure 3-12. Hybrid Market Potential by Region (GW)

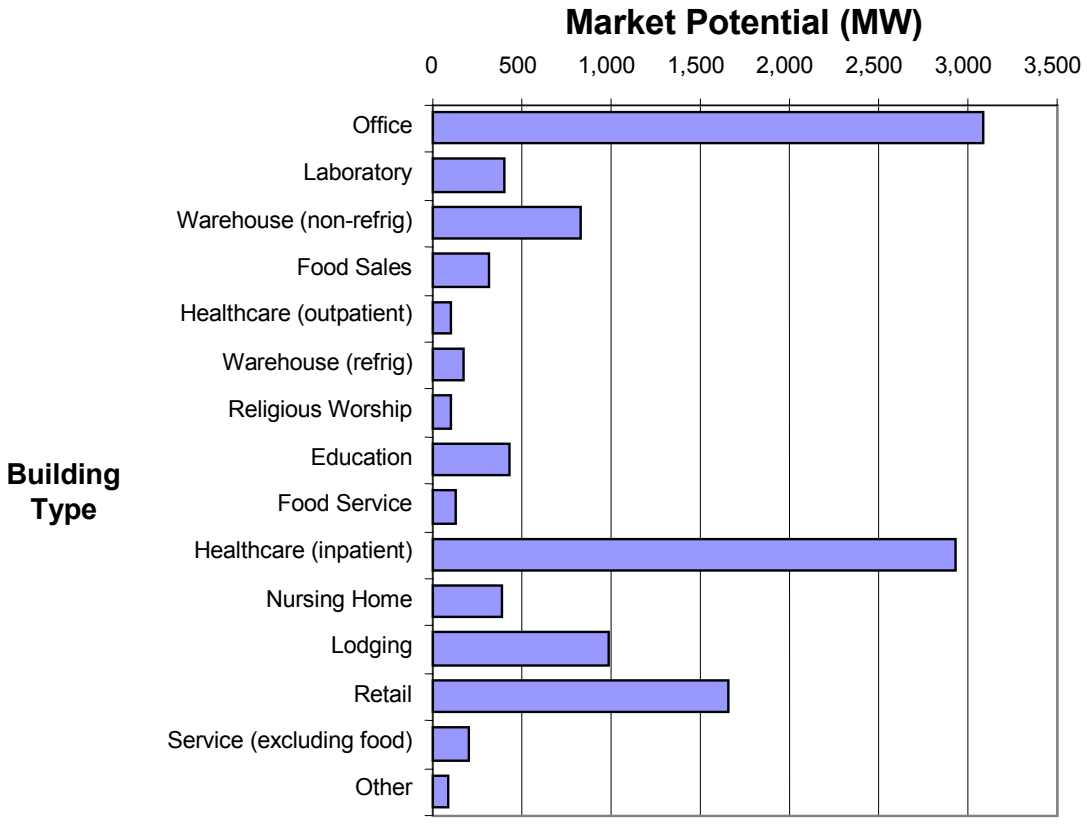

Figure 3-13. Long-Term Market Potential for Single Commercial Buildings (MW)

Sensitivity Analysis

The market potential for fuel cell hybrids is dependent on many conditions, including installed cost, efficiency, gas and electric prices, and operating and maintenance costs. Alternative sensitivity analyses were conducted to determine which of these market factors have significant influence on potential, and how reasonable swings in these factors are reflected in increased or decreased market potential. Table 3-1 notes the scenarios considered. In particular, alternative combinations of hybrid, gas turbine and reciprocating engine cost and efficiency improvement were evaluated against each other.

Table 3-1. Alternative Sensitivity Scenarios

Scenario	Baseline	Hybrids/FC	Turbines	Engines
OnlyTurbinesFuture	Base	Current	Future	Current
10%DropinSparkSpread	Base	Current	Current	Current
OnlyEnginesFuture	Base	Current	Current	Future
Base	Base	Current	Current	Current
10%WiderSparkSpread	Base	Current	Current	Current
BaseWithout40MW	Base	Current	Current	Current
HybridsEffUpOthersFuture	Future	Future Eff	Future	Future
HybridsEffUpOthersBase	Future	Future Eff	Current	Current
HybridsCostDownOthersFuture	Future	Future Cost	Future	Future
FutureWithout40MW	Future	Future	Future	Future
Future	Future	Future	Future	Future
HybridsCostDownOthersBase	Future	Future Cost	Current	Current
OnlyHybridsFuture	Future	Future	Current	Current
HybridsReachLongTerm	Future	Long Term	Future	Future

Hybrid market potential by application for each scenario is shown in Figure 3-14 (the base and future cases were already noted in Figure 3-4). The largest single contributor to increased market potential is improvement in the installed cost of hybrids. *Achieving future reductions in installed cost is critical to the hybrid's success*.

Other sensitivity findings include:

- The largest market potential scenario is that in which hybrids reach long term cost targets (HybridsReachLongTerm), based on fuel cells reaching the manufactured cost target of DOE's Solid State Energy Conversion Alliance (SECA). Figure 3-14 shows hybrids reaching a market potential of more than 90 GW in this scenario.
- Two other highly favorable scenarios occur when hybrids improve but other DG options remain with base case cost. In OnlyHybridsFuture, hybrids improve cost and efficiency, whereas in HybridsCostDownOthersBase, hybrids improve cost but not efficiency. As shown with these two scenarios, cost reduction (7.4 times base case) has nearly the same effect as reducing cost and efficiency (7.5 times base case). When only hybrid efficiency is improved as shown in HybridsEffUpOthersBase, the effect is far smaller (only 1.7 times base case).

- In the future (Future), hybrids could grow their market by 6 times base case by improving cost and performance while other DG options continue to improve. However, if hybrids reduce cost and not efficiency while others improve both (HybridsCostDown OthersFuture), the effect is lessened (3.9 times base case).
- Variations of the base case and the future case were analyzed with the 40 MW unit size to compare with preliminary study results. The FutureWithout40MW shows that the hybrid holds its own in the future against larger DG units, but in the base case the 40 MW turbines take market from hybrids (BaseWithout40MW) in commercial aggregations.
- The worse case for hybrids is if turbines improve cost and efficiency (OnlyTurbines Future) while base case hybrids remain unchanged. In this case, the turbines displace all hybrid applications and the hybrid market potential is nonexistent. When engines are allowed to improve with base case hybrids (OnlyEnginesImprove), the effect is not nearly as striking, and hybrids are less prominent in the marketplace but not eliminated. A similar but not as negative scenario occurs when hybrids improve only in efficiency (HybridsEffUpOthersFuture), but other DG option improve in both cost and efficiency.
- Two price scenarios were analyzed by examining: a 10 percent drop in spark spread (10%DropinSparkSpread) and a 10 percent gain (10%WiderSparkSpread). The drop in spark spread was constructed by increasing gas costs without changing electric prices. The effect of this scenario was to drop the market potential to under 1 GW, with only a few commercial aggregation applications surviving. The opposite scenario was modeled by dropping gas prices while again holding electric prices steady. In this case, the market potential for hybrids improved by almost double the base case potential. Again, the major effect is on commercial aggregations, this time tripling the potential for these.

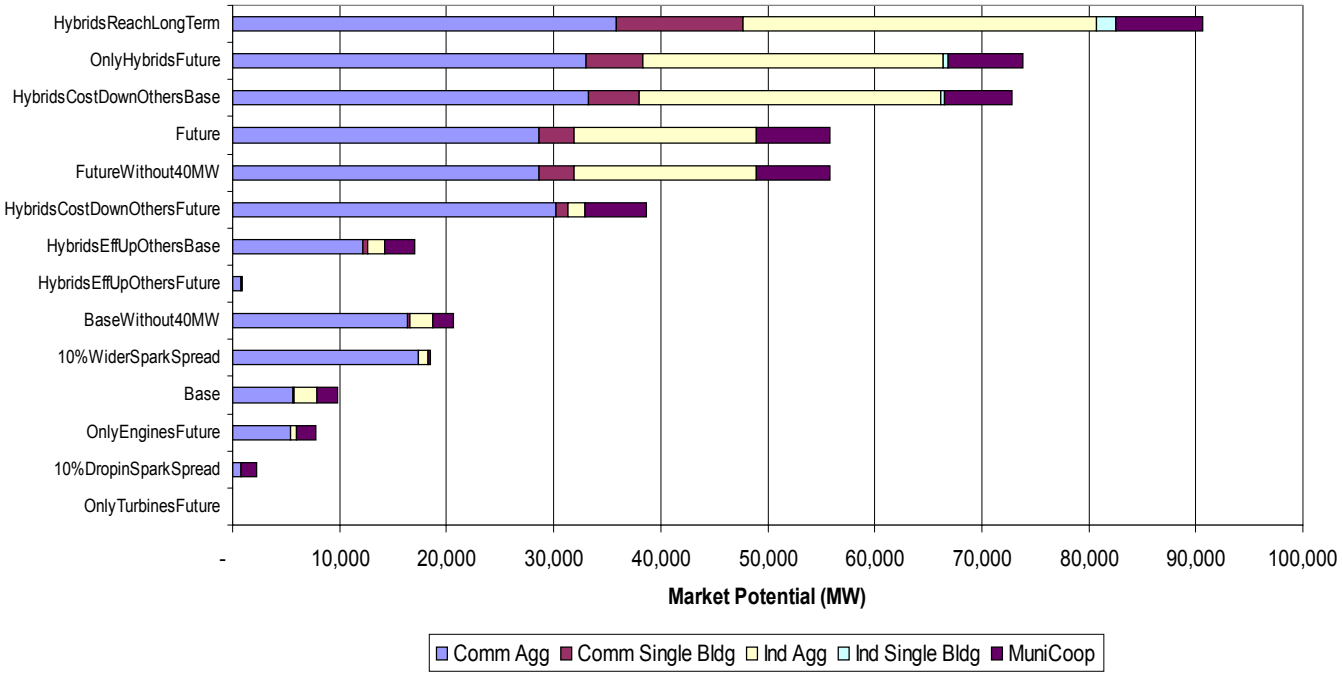

Figure 3-14. Hybrid Market Potential by Application under Alternative Scenarios (MW)

Early Adopter Analysis

The methodology followed to identify early adopters was described in Section 2. Results from the surveys now follow for municipals, cooperatives and aggregators.

Municipal Electric Companies

Overall, in seeking early adopters, the two key issues for munis are 1) the hybrid must be clearly economical for an application, and 2) there must be a market where capacity growth requires an upgrade or replacement capacity of the 10-20 MW proposed hybrid size. Munis seek supply flexibility and hybrids do add flexibility to their generation mix. Specific muni observations include:

- Munis, often covering mostly urban areas, may be the perfect site for a hybrid that has both low noise and emission levels. However, there must be economic applications for the output.

- Generally, 10-20 MW is a very large increment for a municipal system, unless it can economically replace the muni's entire supply. Many total municipal loads do not exceed 50 MW. In contrast to this view, it was noted that for larger munis a 25 MW hybrid unit might work better (due to its economics) when such a muni has a large industrial or commercial base. However, there are few munis of this size in the country.

- 10-20 MW is too large for most individual customer use. There are concentrated loads such as universities (perhaps 4-5 MW) in muni territories, but very few individual customers need 10-20 MW. This size restriction, together with a need for siting and operating permits, noise concerns and emission levels, suggests that in muni territories few hybrids will be located near a single customer. A hybrid of this size often will need to be for a group of customers.

- Munis are big supporters of the business model where power is provided by the muni rather than by individual commercial or industrial companies. Munis prefer to find solutions where they own and operate DG units as part of their overall generation mix. As an alternative, a muni might service a hybrid with fuel and maintenance for a monthly fee, regardless of whether they or the customer owns the hybrid unit. Either way, their thinking is that commercial and industrial consumers do not want to be in the power generation business (note that the large aggregation market potential identified by DISPERSE also isolates consumers from being in the generation business, because they work with an aggregator).

- An alternative to adding new hybrid generation would be to repower or "revitalize" existing muni plants, which can often be done much less expensively. Thus early adopters may have to be in areas where there is such large load growth that repowering does not make economic sense. In larger munis such as Tallahassee, which faces 12 MW of growth annually, a hybrid would be evaluated on its economics, as they normally build in 25 MW increments.

- Muni customer surveys suggest reliability and power quality are not yet big enough issues to justify higher prices. Munis perceive that there are few data centers or other power quality users located in their service territories, with most of these users being in investor owned

utilities. But when perfect power users are present, DG's ability to control power quality is seen as an advantage.

- Munis suggested several characteristics they would consider when identifying early adopter applications. Observations include:
  - Suggested target markets where munis might work with individual customers include shopping centers, office parks (many have 125 kW to 2 MW of capacity demand), WalMarts, hospitals, and large commercial users.
  - If the hybrid cogenerates, such as using the waste heat for chilling a shopping center, then a hybrid application may make more sense for early adoption based on its higher overall efficiency. These applications require large users for both the electricity and the waste heat. Alternatively, the waste heat could be used by one customer with the electricity used by consumers elsewhere in the muni territory. (Note that interviewees did not understand that hybrids may not be the best CHP technology – they were discussing how they consider efficiency and cost when considering installing generation capacity).
  - If munis in a region could collaborate, and look at capacity increases as a collective, then a baseload 10-20 MW unit makes more sense. Such collaboration will require changes in business practice and possibly in the regulatory environment.
  - When the T&D system is constrained, DG looks more interesting – that is, careful siting may make the difference for early adopters. Specifically, DG could be very favorable if it eliminates the permit process for new T&D lines or the need to permit an upgrade of existing T&D lines. Such permits are increasingly difficult to obtain in urban areas. Having noted this, it is also important to realize that munis often have compact service territories and therefore few T&D constraints.
  - If DG can help control VAR at either a substation or near a large individual user, the economics are more compelling for generation planners. For many munis, for siting purposes, the main option would be to put a hybrid at the existing power plant or near a bulk power substation. Both of these situations naturally lead to considering VAR support benefits.
  - Sometimes the siting and permitting process is easier for a small DG unit than for a new, larger generation plant. A hybrid might work well as incremental muni baseload generation when this situation prevails and the muni is capacity constrained.
  - If a hybrid could compete economically with LM6000 gas turbine peaking units, there would be a strong reason to use them for peaking (but this in not currently the case).

- Barriers to adoption include:
  - Fuel availability. Gas supplies are constrained in some locations, such as in Vermont, where gas for non-heating applications is only available during the summer. The entire gas supply is dedicated to heating applications during the winter.
  - High capital costs. Some respondents considered that $10,000/kW for a 200+ kW unit is noncompetitive with power purchases (this shows their mindset regarding fuel cell costs). Also, many required that unproven hybrid economics clearly beat existing proven diesel DG economics (e.g. gangs of 1.8 MW diesels are currently being employed for peaking in several markets and this could be an application for a hybrid if it has compelling economics.)

- Noise levels. As DG units must often be located near residences, noise levels can be an issue. The hybrid could have a competitive advantage due to this constraint.
- There may be T&D constraints to selling excess hybrid capacity to other consumers if it is not all used near the unit's location.
- The reliability advantage of using a hybrid backed up by the grid goes away if a muni *replaces* its grid with a hybrid. This might be the case for many smaller munis with a total capacity of only 10 to 30 MW.

- Some miscellaneous muni comments were:
  - Sited with a sewage treatment plant or other municipal owned building, a hybrid might be cheaper to install and take up less physical space.
  - Has the marriage of a fuel cell and solar power been considered? This technology solution might be even cleaner than a hybrid and provide better quality power for high technology companies in sunny regions of the country.

Rural Electric Cooperatives

Cooperatives have more dispersed service territories than munis, so T&D issues are more prevalent. Cooperatives are less concerned about noise and emission levels. Once again the main issues are whether the hybrid can compete economically, and whether there are applications for this size of generating unit. From the interviews, it is clear that in recent years cooperative engineers have been evaluating DG technologies, including fuel cell options.

Cooperatives are unlikely to be large early adopters of a hybrid technology for the following reasons:

- Many cooperatives have a 90-95% residential base and a very small number of commercial or industrial customers. Therefore, locating a hybrid at a single customer facility is most often not an option. In addition, the often geographically dispersed nature of commercial and industrial customers makes it harder to assemble a pool of consumers who might benefit from 10-20 MW of capacity.

- If a cooperative has no generation now, and only purchases its power, it is hard for them to imagine changing their operations to be in the generation business.

- Many cooperatives have long-term power supply contracts (up to 20-year Purchase Power Agreements) which they are unlikely to terminate in the current marketplace. Thus a hybrid application would have to meet demand growth of 10-20 MW in excess of their existing PPA contract level.

- Occasionally, no right of way for new T&D lines is available. Instead of building a new substation, DG might be used, but these substations are normally smaller than 10 MW. If there is only a 2.5 MW load at a typical cooperative substation, a 10-20 MW hybrid is too large to consider replacing the entire substation.

- However, if a relatively large area around a substation faces large growth, then DG might replace a conventional T&D upgrade, including bolstering the substation. An early adopter situation for a cooperative occurs would be where there is large concentrated load growth, probably with several nearby commercial and industrial customers.

- A hybrid will not be considered unless it is within 30% of the cost of what a cooperative purchases wholesale power for now (often 5-8 cents/kWh), regardless of any other promised benefits such as line upgrade elimination or the ability to meet a capacity shortage.

- If a 5 MW hybrid were available, it might meet a market need for locating generation near new customers of this size, thus eliminating the need for building T&D to them. (What this comment says is that for customer-located DG, a unit must be sized to match that customer's demand, which is usually smaller than 10 MW in most cooperative territories. For cooperatives it is more expensive to share hybrid generation between multiple consumers who are located further apart.)

- If the T&D system deteriorates in either quality or ability, then DG becomes a more interesting option for cooperative engineers. Rural users value reliability highly, perhaps more highly than many other consumers, because consumers rely on well pumps, remote health care equipment, etc. for vital functions.

Aggregators

The main issues aggregators consider, more or less in declining order, when evaluating adding new generation are:

1. How much load growth do they have, and what capacity size increment do they wish to add?
2. What is the capacity of the hybrid technology and how does this fit with demand growth?
3. What is the energy efficiency of the generating unit?
4. What is the physical footprint of the hybrid, and if a series of units are ganged together, how much space do they require?
5. What is the capital cost compared to other technologies? (At present, at least in California with the shortages, this takes on lower priority as generation at almost any cost is likely to be sold to consumers.)
6. What is the operating cost compared to other technologies?
7. Are there other benefits such as environmental performance (avoiding environmental taxes), VAR support, or T&D deferral?

Just because they are aggregators, their generation planning is not different than other investor owned utilities, independent power producers or merchant plants – both the interviewed aggregators treat DG as a form of generation, and do not separately consider whom they serve. Even when they aggregate users who might be located near each other, and thus possibly be better able to use DG to serve that load, the generation part of the company looks at the entire load they must deliver. The aggregation function is considered a marketing mechanism that does not influence how their electric supply is obtained. Normally aggregators add generation in merchant plant (100-1,000 MW) increments using gas turbines, so a 10-20 MW unit is too small

an increment for consideration. Having noted this, the aggregators mentioned some possible applications for the hybrid technology including:

- As a joint venture with a single industrial or large commercial end user who needs 10-40 MW. Aggregators have a few of these customers.

- For winter use under minimum load conditions a hybrid (or set of them) could be used for baseload (if the economics beat merchant plant economics) since minimum loading might be in 20 MW block increments.

- When their system needs VAR or grid support.

- When locating the unit avoids T&D bottlenecks or they can save on distribution costs.

In short, the hybrid may be too small an increment for larger aggregators, with the important exception occuring when the aggregator is working with a single large customer. (Similarly, hybrids may not be appropriate for other large electric suppliers including many investor owned utilities and Retailcos).

In DISPERSE, a large and growing aggregated load market was identified as being economically viable. The supposed disparity with the surveyed respondents is largely due to the existing aggregators not considering the economic benefits of having specific generation available for a geographically focused group of customers. Many existing aggregation efforts are for a set of hospitals, campgrounds, or other related purpose. These consumers are not located near each other, so serving them means both acquiring generation and shipping it via the T&D system. However, as more developers and aggregators decide to serve geographically related customers, such as in office parks, shopping centers, industrial complexes, research parks or commercial clusters, the superior economics of adjacently located hybrids are more likely to be considered by aggregators. Again, educating aggregators about the benefits will be critical in gaining early adopters.

Early Adopters Summary

Few individual commercial or industrial customers will be early adopters of the proposed hybrid technology. To date, these customers have demonstrated limited acceptance of existing DG technologies either due to cost or technical considerations. Most companies wish to focus on their core business and not be in the power generation business. Having said this, as power availability and reliability concerns increase, individual commercial or industrial companies are more likely to adopt DG. However, initially they are more likely to implement proven DG technologies rather than less proven hybrid technology. Therefore, demonstrations that validate and reduce the risk of new technologies like fuel cell hybrids are important.

Traditional and non-traditional electric companies are more likely to be early hybrid adopters on behalf of consumers. This includes aggregators. Electric companies can serve a number of customers who may be proximately located. Electric companies that continue to operate

distribution systems (i.e. not merchant plants, Gencos, or Retailcos) can also garner additional benefits such as T&D deferral or VAR support if they properly locate their hybrid unit(s). From the interviews, it becomes very clear that any early adopter will carefully examine the economics of a hybrid system. After this, finding a market niche requires matching the hybrid's 10-20 MW output with an application that needs this size of output. In addition to the electricity, benefits such as cogeneration, T&D elimination, reliability, power quality, low noise, low emissions, easier permitting, and VAR support may help make the business case. Munis may be the best initial target of the three surveyed groups because they more often have load growth in the hybrid's size range, while aggregators currently seek larger load increments and cooperatives seek smaller load increments. In particular, larger munis facing rapid load growth might be the best candidates for more detailed analysis. Secondarily, educating aggregators about the economic benefits of locating a hybrid unit near a geographically focused set of customers will improve the chance of making an aggregator an early adopter.

To make a muni an early adopter, they must be convinced of the economics and be shown how a specific real world application will work. If their existing generation cost is high, and they face a high priced but available gas supply, the economics of the hybrid may work well. A good example would be locating the hybrid near a high technology office park that utilizes all the waste heat, and selling excess electrical capacity to a nearby shopping center and other large commercial customers. There must be no T&D constraints to moving excess power from the hybrid to all the prospective users. A business plan built around such a scenario could well produce an early adopter.

In summary, early adopters will not be easy to find, but some willing partners may be found in the list of 48 municipals and rural electric cooperatives screened as having ideal characteristics for deploying a hybrid unit. This list is provided in Appendix A. In this list, the larger municipals with rapidly growing demand may make the best targets.

In the realm of aggregators, early adopters are more likely to be newer energy companies that are now aggregating "natural" groups of customers, rather than more established aggregators such as Calpine or AES/New Energy who also serve substantial non-aggregated loads. Most of these newer aggregators are found in states with recently restructured electric markets. Finally, regions of the U.S. that currently face power shortages may be the first place to seek out early aggregation adopters, because their customers are clamoring for power quality and reliability.

Section 4

CONCLUSIONS AND RECOMMENDATIONS

Initially, an analysis was conducted to determine the fuel cell hybrid market potential for individual facilities, especially small industrial and large commercial customers. The results suggested there was little market potential in this area because near-term hybrid costs cannot compete with alternative DG technologies in the smaller size range (1 to 5 MW) that individual consumers desire to meet their needs.

To identify a potential market, aggregations of commercial and industrial customers were examined next. Community aggregations might be sponsored by independent aggregating companies or existing energy companies. In addition, municipal electric utilities and rural electric cooperatives sometimes have natural aggregations of existing commercial and industrial customers that might utilize hybrid generation.

The analyses estimate that in these aggregation markets, hybrids have a $5 billion potential for net savings in the base case – rising significantly toward $30 billion in the future case. Installed capacity of hybrids could reach 8 GW or even as high as 60 GW if projected future economic and technical conditions are met. Most of this demand is in industrial and commercial community aggregations, and reflects capturing existing establishments and does not reflect growth in the commercial or industrial sectors. Three specific conclusions arise from the analyses:

1. **Pursue Aggregations for Near Term Markets**. Given the higher installed cost of near-term fuel cell hybrids, aggregation and a power delivery arrangement are required for a significant market to emerge. Specifically, the cost and performance characteristics of hybrids favor aggregations of smaller commercial and industrial sites where hybrids displace high retail electric rates. However, aggregators will only be successful if they have access to unbundled distribution tariffs and reasonable interconnection costs to the local T&D system. The most appropriate size unit for these applications appears to be larger hybrids in the 15-50 MW size range.

   Given the limited competitiveness of near-term hybrids, the early adopter implications are very important. It will be important to identify the best early candidates to develop the market pull that brings others along. Larger municipals in growing regions and more innovative community aggregators represent some of the best candidates. Since municipalities and cooperatives often own distribution systems (thus eliminating possible barriers), they may be ideal candidates for early adoption of hybrids. Other candidates include community aggregations, which may be able to "municipalize" and purchase the local distribution system from the utility, or efficiently make the arrangements for an aggregation of their citizens and businesses. Public benefit programs may be a catalyst towards early adoption.

In the future, the single facility market for hybrids will likely emerge if cost targets are met. To reach the single facility market, however, smaller units in the 200 kW up to 5 MW are needed.

2. **Emphasize Hybrids in Areas Where Siting is Difficult**. Hybrids can offer added value in emission and/or T&D constrained or high-price areas. This includes non-attainment areas where hybrids would not require additional capital cost (unlike other DG options such as engines or turbines) to add-on emission control equipment. Siting hybrids in optimal locations may also reduce T&D upgrade costs, lower line losses, and avoid a lengthy and often difficult siting permit process for building new T&D or generation capacity. In particular, siting large combined cycle gas turbines may be more difficult than siting hybrids in some urban areas.

3. **Continue R&D to Reduce Costs of Fuel Cell Hybrids.**. Both near-term and future markets will be limited to niche applications unless the total cost of the fuel cell hybrids is reducted. The future markets for hybrids are over 7 times the size of the near term market if costs can be reduced to the levels used in this study. Hybrid applications will emerge in the commercial sector only when long-term installed capital cost reductions are attained. If the long-term installed capital cost and efficiency goals are achieved, then improved smaller hybrids could be competitive in the single facility market, in particular as on-site power systems for commercial buildings. Attaining these cost reductions will be highly dependent on reducing fuel cell costs, such as the $400/kW manufactured cost goal of DOE's Solid State Energy Conversion Alliance (SECA). Should fuel cell costs drop to this target level, hybrid costs could drop to $550-800/kW and a market potential of over 90 GW would likely develop. *Attaining competitive installed cost is critical to the hybrid's success, with installed costs of $900-1,000/kW necessary to reach the single facility market.*

To achieve the projected market potential, four recommendations follow:

- A broad industry / public partnership is needed to accelerate this breakthrough technology. Since the net present value analysis shows a high return on investment for hybrid development, both the public and private sectors can benefit from investing in R&D in this area. R&D should focus on the key pacing areas that have the biggest potential to lower costs. Both lower installed capital costs and operating costs are a necessity for the market potential to develop. Figure 4-1 illustates a roadmap suggesting how R&D might evolve by building on several DG R&D program developments.

- Such public/private partnerships should develop market product requirements based on the study findings. The resulting product(s) should have an attractive and siteable package for on-site or community power markets, maintain their high efficiency advantage over other DG technologies, have a competitive installed capital cost, and continue to produce low emissions and low noise. The market potential forecast in this study is based on hybrids offering these characteristics.

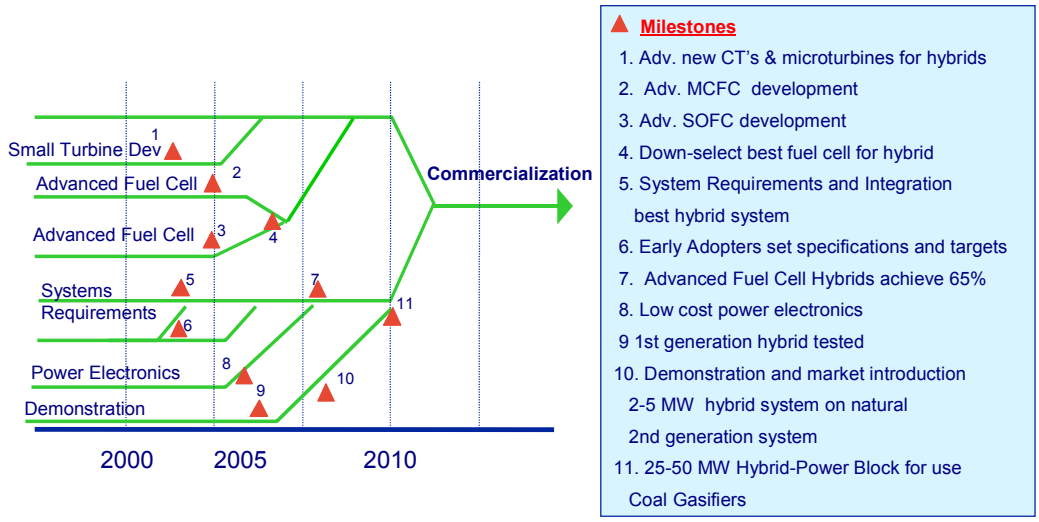

Figure 4-1. R&D Path for Commercialization of Fuel Cell Hybrids

- Specifically, it will be important to develop advanced high power density fuel cells that are matched to the needs of the hybrid cycle. This would require fuel cells that integrate well with turbine / expanders, and fuel cell systems that are as robust and durable as combustion turbines.

- Finally, the partnerships should engage early adopters in better defining the market entry product. Partnerships should collaborate with early adopters to demonstrate hybrids and help work out any on-the-ground technical difficulties.

In summary, fuel cell hybrids are best suited for baseload power applications. The largest current and future markets are aggregations of commercial and industrial customers. Smaller economic niches include municipals and electric cooperatives, and individual commercial buildings. There is early adopter potential for municipal utilities and community aggregators along the way to further developing the market.

Fuel Cell Hybrids: Market Assessment and Early Adopter Study

Volume 2: Appendices

Prepared for:

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Department of Energy

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Appendix A

Detailed Results

APPENDIX A
Detailed Results

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
4-County Electric Power Assn	MS	0	0	0	0
A & N Electric Coop	VA	0	0	0	0
Aberdeen City of	MS	0	0	0	0
Adams Electric Coop Inc	PA	0	0	15	0
Adams-Columbia Electric Coop	WI	0	0	0	0
Aiken Electric Coop Inc	SC	0	0	0	0
Alabama Electric Coop Inc	AL	0	0	0	0
Alameda City of	CA	15	0	0	0
Albany Water Gas & Light Comm	GA	0	25	0	0
Albemarle City of	NC	15	0	0	0
Albertville Municipal Utils Bd	AL	0	0	0	0
Alcoa Utilities	TN	0	0	0	25
Alexandria City of	LA	0	0	0	0
Alexandria City of	MN	0	0	0	0
Altamaha Electric Member Corp	GA	15	0	0	0
Ames City of	IA	0	0	0	0
Amicalola Electric Member Corp	GA	15	0	0	0
Anaheim City of	CA	0	25	0	0
Anchorage City of	AK	0	0	0	0
Andalusia City of	AL	0	0	0	0
Anderson City of	IN	0	0	0	0
Anoka City of	MN	0	0	0	0
Anoka Electric Coop	MN	0	0	0	0
Appalachian Electric Coop	TN	0	0	0	25
Arab Electric Coop Inc	AL	0	0	0	0
Arkansas Valley Elec Coop Corp	AR	0	0	0	0
Associated Electric Coop Inc	MO	0	0	0	0
Athens City of	AL	0	0	0	0
Athens Utility Board	TN	0	0	0	25
Auburn City of	IN	0	0	0	0
Austin City of	TX	0	0	0	0
Austin City of	MN	0	0	0	0
Azusa City of	CA	0	0	0	0
Baldwin County El Member Corp	AL	0	0	0	0
Bartow City of	FL	0	0	0	0
Basin Electric Power Coop	ND	0	0	0	0
Batavia City of	IL	0	0	0	0
Bay City City of	MI	0	0	0	0
Bedford City of	VA	0	0	0	0
Beltrami Electric Coop Inc	MN	0	0	0	0
Benton City of	AR	0	0	0	0
Benton County	TN	0	0	0	0
Benton Rural Electric Assn	WA	0	0	0	0
Bentonville City of	AR	0	0	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Berkeley Electric Coop Inc	SC	0	0	0	0
Bessemer City of	AL	0	0	0	0
Big Sandy Rural Elec Coop Corp	KY	0	0	0	0
Black River Electric Coop	MO	0	0	0	0
Black River Electric Coop Inc	SC	0	0	0	0
Black Warrior Elec Member Corp	AL	0	0	0	0
Blue Earth-Nicollet-Faribault	MN	0	0	0	0
Blue Grass Energy Coop Corp	KY	0	0	0	0
Blue Ridge Elec Member Corp	NC	0	0	0	0
Blue Ridge Electric Coop Inc	SC	0	25	0	0
Blue Ridge Mountain E M C	GA	0	0	0	0
Bluffton City of	IN	0	0	0	0
Bolivar City of	TN	0	0	0	0
Boone Electric Coop	MO	0	0	0	0
Bountiful City City of	UT	0	0	0	0
Bowie-Cass Electric Coop Inc	TX	0	0	0	0
Bowling Green City of	KY	0	0	0	0
Bowling Green City of	OH	0	0	0	0
Braintree Town of	MA	0	0	0	0
Brenham City of	TX	0	0	0	0
Bristol City of	TN	0	0	0	25
Bristol Utilities Board	VA	0	0	0	0
Broad River Electric Coop Inc	SC	0	0	0	0
Brookings City of	SD	0	0	0	0
Brownsville City of	TN	0	0	0	0
Brownsville Public Utils Board	TX	0	0	0	0
Brunswick Electric Member Corp	NC	0	25	0	0
Bryan City of	TX	0	0	0	25
Bryan City of	OH	0	0	0	0
Buckeye Rural Elec Coop Inc	OH	0	0	0	0
Burbank City of	CA	0	0	0	0
Burlington City of	VT	0	0	0	0
C & L Electric Coop Corp	AR	0	0	0	0
Caddo Electric Coop Inc	OK	0	0	0	0
Calhoun City of	GA	0	0	0	0
Canadian Valley Elec Coop Inc	OK	0	0	0	0
Caney Fork Electric Coop Inc	TN	0	0	0	25
Canoochee Electric Member Corp	GA	15	0	0	0
Carroll County	TN	0	0	15	0
Carroll Electric Coop Corp	AR	0	0	0	0
Carroll Electric Member Corp	GA	0	25	0	0
Carteret-Craven El Member Corp	NC	15	0	0	0
Cartersville City of	GA	0	0	0	0
Carthage City of	MO	0	0	0	0
Cass County Electric Coop Inc	ND	0	0	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Cedar Falls City of	IA	0	0	0	0
Central Alabama Electric Coop	AL	0	0	0	0
Central Electric Coop Inc	PA	0	0	0	0
Central Electric Member Corp	NC	0	0	0	0
Central Electric Power Assn	MS	0	0	0	0
Central Florida Elec Coop Inc	FL	15	0	0	0
Central Georgia El Member Corp	GA	0	25	0	0
Central Missouri Elec Coop Inc	MO	0	0	0	0
Central Rural Electric Coop	OK	0	0	0	0
Central Texas Elec Coop Inc	TX	0	0	0	0
Central Valley Elec Coop Inc	NM	0	0	0	0
Central Virginia Electric Coop	VA	0	0	0	0
Centralia City of	WA	0	0	0	0
Chambersburg Borough of	PA	0	0	0	0
Chaska City of	MN	0	0	0	0
Chattanooga City of	TN	0	0	0	25
Cherokee County Elec Coop Assn	TX	0	0	0	0
Cherokee Electric Coop	AL	0	0	0	0
Cherryland Electric Coop Inc	MI	0	0	0	0
Chickasaw Electric Coop Inc	TN	0	0	0	0
Chicopee City of	MA	0	0	0	0
Choctaw Electric Coop Inc	OK	0	0	0	0
Choctawhatche Elec Coop Inc	FL	0	0	0	0
Choptank Electric Coop Inc	MD	0	25	0	0
Chugach Electric Assn Inc	AK	0	0	0	0
Citizens Electric Corp	MO	0	0	0	0
Claiborne Electric Coop Inc	LA	0	0	0	0
Claremore City of	OK	0	0	0	0
Clark Energy Coop Inc	KY	0	0	0	0
Clarke-Washington E M C	AL	0	0	0	0
Clarksdale City of	MS	0	0	0	0
Clarksville City of	TN	0	0	0	25
Clarksville Light & Water Co	AR	0	0	0	0
Clay Electric Coop Inc	FL	0	25	0	0
Cleveland City of	TN	0	0	0	25
Cleveland City of	OH	0	0	0	0
Clinton City of	TN	0	0	0	25
Cloverland Electric Coop	MI	0	0	0	0
Coast Electric Power Assn	MS	0	0	0	25
Coastal Electric Member Corp	GA	0	0	0	0
Cobb Electric Membership Corp	GA	0	25	0	0
Coffeyville City of	KS	0	0	0	0
Coldwater Board of Public Util	MI	0	0	0	0
College Park City of	GA	15	0	0	0
College Station City of	TX	0	0	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Colorado Springs City of	CO	0	0	0	0
Colquitt Electric Members Corp	GA	0	25	0	0
Colton City of	CA	15	0	0	0
Columbia City of	TN	0	0	0	25
Columbia City of	MO	0	0	0	0
Columbia Rural Elec Assn Inc	WA	0	0	0	0
Columbus City of	MS	0	0	0	25
Columbus City of	OH	0	0	0	0
Columbus Electric Coop Inc	NM	15	0	0	0
CO-MO Electric Coop Inc	MO	0	0	0	0
Concho Valley Elec Coop Inc	TX	0	0	0	0
Concord City of	NC	0	0	0	0
Consolidated Electric Coop	MO	0	0	0	0
Consolidated Electric Coop Inc	OH	0	0	0	0
Consumers Power Inc	OR	0	0	0	0
Continental Divide El Coop Inc	NM	15	0	0	0
Conway Corp	AR	0	0	0	0
Cookeville City of	TN	0	0	0	25
Cookson Hills Elec Coop Inc	OK	0	0	0	0
Coosa Valley Electric Coop Inc	AL	0	0	0	0
Coos-Curry Electric Coop Inc	OR	0	0	0	0
Corn Belt Energy Corp	IL	0	0	0	0
Cotton Electric Coop Inc	OK	0	0	0	0
Covington City of	GA	15	0	0	0
Covington City of	TN	0	0	0	0
Covington Electric Coop Inc	AL	0	0	0	0
Coweta-Fayette El Member Corp	GA	0	25	0	0
Craighead Electric Coop Corp	AR	0	0	0	0
Crawford Electric Coop Inc	MO	0	0	0	0
Crawfordsville Elec Lgt&Pwr Co	IN	0	0	0	0
Crow Wing Coop Power&Light Co	MN	0	0	0	0
Cullman Electric Coop Inc	AL	0	0	0	0
Cullman Power Board	AL	0	0	0	0
Cumberland Elec Member Corp	TN	0	0	0	25
Cumberland Valley Rural E C C	KY	0	0	0	0
Cuyahoga Falls City of	OH	0	0	0	0
Dairyland Power Coop	WI	0	0	0	0
Dalton City of	GA	0	0	0	0
Danvers Town of	MA	0	0	0	0
Danville City of	VA	0	0	0	0
Dayton City of	TN	0	0	0	0
Decatur City of	AL	0	0	0	0
Decatur County Rural E M C	IN	0	0	0	0
Deep East Texas Elec Coop Inc	TX	0	0	0	0
Delaware Electric Coop Inc	DE	0	25	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Delta Montrose Electric Assn	CO	0	0	0	0
Denton City of	TX	0	0	0	25
Detroit City of	MI	0	0	15	0
Dickson City of	TN	0	0	0	25
Dixie Electric Coop	AL	0	0	0	0
Dixie Electric Membership Corp	LA	0	0	0	25
Dixie Electric Power Assn	MS	0	0	0	25
Dothan City of	AL	0	0	0	0
Douglas City of	GA	0	0	0	0
Dover City of	OH	0	0	0	0
Dover City of	DE	0	0	0	0
Dubois Rural Electric Coop Inc	IN	0	0	0	0
Duck River Elec Member Corp	TN	0	0	0	25
Dyersburg City of	TN	0	0	0	0
Easley Combined Utility System	SC	15	0	0	0
East Central Energy	MN	0	0	0	0
East Central Okla El Coop Inc	OK	0	0	0	0
East Mississippi Elec Pwr Assn	MS	0	0	0	0
East Point City of	GA	15	0	0	0
Eastern Illini Electric Coop	IL	0	0	0	0
Eastern Iowa Light&Power Coop	IA	15	0	0	0
Edgecombe-Martin County E M C	NC	0	0	0	0
Edisto Electric Coop Inc	SC	0	0	0	0
Edmond City of	OK	0	0	0	0
Egyptian Electric Coop Assn	IL	0	0	0	0
Elizabeth City City of	NC	15	0	0	0
Elizabethton City of	TN	0	0	0	25
Empire Electric Assn Inc	CO	0	0	0	0
Erath County Elec Coop Assn	TX	0	0	0	0
Erwin Town of	TN	0	0	0	0
Eugene City of	OR	0	0	0	0
Excelsior Electric Member Corp	GA	0	0	0	0
Fairfield Electric Coop Inc	SC	0	0	0	0
Fairport Village of	NY	0	0	0	0
Fall River Rural Elec Coop Inc	ID	0	0	0	0
Farmers Electric Coop Inc	TX	0	0	0	25
Farmers" Electric Coop Inc	MO	0	0	0	0
Farmers Rural Elec Coop Corp	KY	0	0	0	0
Farmington City of	NM	0	0	0	0
Fayetteville City of	TN	0	0	15	0
Fayetteville Public Works Comm	NC	0	25	0	0
First Electric Coop Corp	AR	0	0	0	0
Fitzgerald Wtr Lgt & Bond Comm	GA	0	0	0	0
Flathead Electric Coop Inc	MT	0	0	0	0
Fleming-Mason Rural E C C	KY	0	0	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Flint Electric Membership Corp	GA	0	25	0	0
Florence City of	AL	0	0	0	0
Floresville City of	TX	0	0	0	0
Florida Keys El Coop Assn Inc	FL	0	0	0	0
Foley City of (Riviera Utils)	AL	0	0	0	0
Forest Grove City of	OR	0	0	0	0
Forked Deer Electric Coop Inc	TN	0	0	0	0
Fort Collins City of	CO	0	0	0	0
Fort Loudoun Electric Coop	TN	0	0	0	0
Fort Morgan City of	CO	0	0	0	0
Fort Payne Improvement Auth	AL	0	0	0	0
Fort Pierce Utilities Auth	FL	0	0	0	0
Four County Elec Member Corp	NC	0	0	0	0
Frankfort City of	IN	0	0	0	0
Frankfort City of	KY	0	0	0	0
Franklin City of	KY	0	0	0	0
Franklin Electric Coop	AL	0	0	0	0
Freeport Village of Inc	NY	0	0	0	0
Fremont City of	NE	0	0	0	0
French Broad Elec Member Corp	NC	0	0	0	0
Gaffney City of	SC	0	0	0	0
Gainesville Regional Utilities	FL	0	0	0	0
Gallatin City of	TN	0	0	0	25
Gallup City of	NM	0	0	0	0
Garden City City of	KS	0	0	0	0
Garland City of	TX	0	0	0	25
Gastonia City of	NC	0	25	0	0
Geneva City of	IL	0	0	0	0
Georgetown City of	TX	0	0	0	0
Gibson Electric Members Corp	TN	0	0	0	25
Gillette City of	WY	0	0	0	0
Glades Electric Coop Inc	FL	0	0	0	0
Glasgow City of	KY	0	0	0	0
Glendale City of	CA	0	0	0	0
Golden Spread Elec Coop Inc	TX	0	0	0	0
Golden Valley Elec Assn Inc	AK	0	0	15	0
Grady Electric Membership Corp	GA	0	0	0	0
Grand Haven City of	MI	0	0	0	0
Grand Island City of	NE	0	0	0	0
Grayson Rural Elec Coop Corp	KY	0	0	0	0
Grayson-Collin Elec Coop Inc	TX	15	0	0	0
Greeneville City of	TN	0	0	0	25
Greenfield City of	IN	0	0	0	0
Greenville Electric Util Sys	TX	0	0	0	0
Greenville Utilities Comm	NC	0	25	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Greenwood Commissioners-Pub Wk	SC	0	0	0	0
Greenwood Utilities Comm	MS	0	0	0	0
Greer Comm of Public Works	SC	0	0	0	0
GreyStone Power Corp	GA	0	25	0	0
Griffin City of	GA	0	0	0	0
Groton City of	CT	0	25	0	0
Gulf Coast Electric Coop Inc	FL	0	0	0	0
Guntersville Electric Board	AL	0	0	0	0
Habersham Electric Member Corp	GA	15	0	0	0
Hagerstown City of	MD	0	0	0	0
Hamilton City of	OH	0	0	0	0
Hancock-Wood Electric Coop Inc	OH	0	0	0	0
Hannibal City of	MO	0	0	0	0
Harriman City of	TN	0	0	0	0
Harrison County Rural E C C	KY	0	0	0	0
Harrison County Rural E M C	IN	0	0	0	0
Harrisonburg City of	VA	0	0	0	0
Hart Electric Member Corp	GA	15	0	0	0
Hartford City of	WI	0	0	0	0
Hastings City of	NE	0	0	0	0
Haywood Electric Member Corp	NC	0	0	0	0
Henderson City Utility Comm	KY	0	0	0	0
High Point Town of	NC	0	25	0	0
Highline Electric Assn	CO	0	0	0	0
HILCO Electric Coop Inc	TX	0	0	0	0
Holland City of	MI	0	0	0	0
Holly Springs City of	MS	0	0	0	0
Holmes-Wayne Electric Coop Inc	OH	0	0	0	0
Holston Electric Coop Inc	TN	0	0	0	0
Holy Cross Electric Assn Inc	CO	0	0	0	0
Holyoke City of	MA	0	0	0	0
Homer Electric Assn Inc	AK	0	0	0	25
Homestead City of	FL	0	0	0	0
Hope City of	AR	0	0	0	0
Hopkinsville City of	KY	0	0	0	0
Horry Electric Coop Inc	SC	0	0	0	0
Houston County Elec Coop Inc	TX	0	0	0	0
Howell-Oregon Elec Coop Inc	MO	0	0	0	0
Hudson Town of	MA	15	0	0	0
Humboldt City of	TN	0	0	0	0
Huntsville City of	AL	0	0	0	0
Hutchinson Utilities Comm	MN	0	0	0	0
Idaho Falls City of	ID	0	0	0	0
Independence City of	MO	0	0	0	0
Indian Electric Coop Inc	OK	0	0	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Inter County Energy Coop Corp	KY	0	0	0	0
Intercounty Electric Coop Assn	MO	0	0	0	0
Iowa Lakes Electric Coop	IA	0	0	0	0
Jackson City of	TN	0	0	0	25
Jackson County Rural E M C	IN	0	0	0	0
Jackson Electric Member Corp	GA	0	25	0	0
Jackson Energy Coop Corp	KY	0	0	0	0
Jackson Purchase Energy CC	KY	0	0	0	0
Jacksonville Beach City of	FL	0	25	0	0
Jacksonville Electric Auth	FL	0	0	0	0
Jamestown City of	NY	0	0	0	0
Jasper City of	IN	0	0	0	0
Jasper-Newton Elec Coop Inc	TX	0	0	0	0
Jefferson Davis Elec Coop Inc	LA	0	0	0	0
Jefferson Electric Member Corp	GA	15	0	0	0
Jemez Mountains Elec Coop Inc	NM	0	0	0	0
Joe Wheeler Elec Member Corp	AL	0	0	0	0
Johnson City City of	TN	0	0	0	25
Johnson County Elec Coop Assn	TX	0	0	0	0
Johnson County Rural E M C	IN	0	0	0	0
Jonesboro City of	AR	0	0	0	0
Kankakee Valley Rural E M C	IN	0	0	0	0
Kansas City City of	KS	0	0	0	0
Karnes Electric Coop Inc	TX	0	0	0	0
Kaukauna City of	WI	0	0	0	0
Kerrville Public Utility Board	TX	0	0	0	0
Key West City of	FL	0	0	0	0
Kiamichi Electric Coop Inc	OK	0	0	0	0
Kinston City of	NC	0	25	0	0
Kirkwood City of	MO	0	0	0	0
Kissimmee Utility Authority	FL	0	0	0	0
Kit Carson Electric Coop Inc	NM	0	0	0	0
Knoxville Utilities Board	TN	0	0	0	25
Kootenai Electric Coop Inc	ID	0	0	0	0
La Grange City of	GA	0	0	0	0
La Plata Electric Assn Inc	CO	0	0	0	0
Laclede Electric Coop Inc	MO	0	0	0	0
Lafayette City of	LA	0	0	0	0
LaFollette City of	TN	0	0	15	0
Lake Region Coop Elec Assn	MN	0	0	0	0
Lake Region Electric Coop Inc	OK	0	0	0	0
Lake Worth City of	FL	0	0	0	0
Lakeland City of	FL	0	0	0	0
Lamar Electric Membership Corp	GA	0	0	0	0
Lamb County Electric Coop Inc	TX	0	0	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Lane Electric Coop Inc	OR	0	0	0	0
Lansing City of	MI	0	0	0	25
Laurens Electric Coop Inc	SC	0	25	0	0
Lawrenceburg City of	TN	0	0	0	25
Lawrenceville City of	GA	15	0	0	0
Lea County Electric Coop Inc	NM	0	0	0	0
Lebanon City of	TN	0	0	15	0
Lebanon City of	MO	0	0	0	0
Leesburg City of	FL	0	0	0	0
Lenoir City City of	TN	0	0	0	25
Lewisburg City of	TN	0	0	0	0
Lexington City of	NC	0	25	0	0
Lexington City of	TN	0	0	0	25
Licking Valley Rural E C C	KY	0	0	0	0
Lighthouse Electric Coop Inc	TX	0	0	0	0
Lincoln Electric System	NE	0	0	0	0
Linn County Rural E C A	IA	0	0	0	0
Lodi City of	CA	0	0	0	0
Logan City of	UT	0	0	0	0
Logansport City of	IN	0	0	0	0
Longmont City of	CO	0	0	0	0
Lorain-Medina R E C Inc	OH	0	0	0	0
Los Angeles City of	CA	0	0	0	0
Loudon Utilities Board	TN	0	0	0	0
Loveland City of	CO	0	0	0	0
Lubbock City of	TX	0	0	0	0
Lumbee River Elec Member Corp	NC	0	25	0	0
Lumberton City of	NC	15	0	0	0
Lynches River Elec Coop Inc	SC	0	0	0	0
Lyntegar Electric Coop Inc	TX	0	0	0	0
Macon Electric Coop	MO	0	0	0	0
Madisonville Municipal Utils	KY	0	0	0	0
Magic Valley Electric Coop Inc	TX	0	0	0	0
Magnolia Electric Power Assn	MS	0	0	0	25
Manassas City of	VA	0	0	0	0
Manitowoc Public Utilities	WI	0	0	0	0
Mansfield Town of	MA	0	0	0	0
Maquoketa Valley Rrl Elec Coop	IA	0	0	0	0
Marietta City of	GA	0	25	0	0
Marlboro Electric Coop Inc	SC	0	0	0	0
Marquette City of	MI	0	0	0	0
Marshall City of	MN	0	0	0	0
Marshfield City of	WI	0	0	0	0
Martinsville City of	VA	0	0	0	0
Maryville Utilities	TN	0	0	0	25

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
McKenzie Electric Coop Inc	ND	0	0	0	0
McLennan County Elec Coop Inc	TX	0	0	0	0
McMinnville City of	OR	0	0	0	0
McMinnville Electric System	TN	0	0	0	0
McPherson City of	KS	0	0	0	0
Meade County Rural E C C	KY	0	0	0	0
Mecklenburg Electric Coop Inc	VA	0	0	0	0
Medina Electric Coop Inc	TX	0	0	0	0
Memphis City of	TN	0	0	0	25
Menasha City of	WI	0	0	0	0
Meriwether Lewis Electric Coop	TN	0	0	0	25
Mesa City of	AZ	0	0	0	0
Mid-Carolina Electric Coop Inc	SC	0	0	0	0
Middle Tennessee E M C	TN	0	0	0	25
Midland Power Coop	IA	0	0	0	0
Midstate Electric Coop Inc	OR	0	0	0	0
Midwest Electric Inc	OH	0	0	0	0
Midwest Energy Inc	KS	0	0	0	0
Milan City of	TN	0	0	15	0
Minnesota Valley Electric Coop	MN	0	0	0	0
Minnkota Power Coop Inc	ND	0	0	0	0
Mishawaka City of	IN	0	0	0	0
Mississippi Cnty Elec Coop Inc	AR	0	0	0	0
Missouri Rural Electric Coop	MO	0	0	0	0
Mohave Electric Coop Inc	AZ	0	25	0	0
Monroe City of	NC	0	25	0	0
Moon Lake Electric Assn Inc	UT	0	0	0	0
Moorhead City of	MN	0	0	0	0
Morganton City of	NC	15	0	0	0
Morristown City of	TN	0	0	0	25
Mountain Electric Coop Inc	TN	0	0	0	0
Mountain Parks Electric Inc	CO	0	0	0	0
Mountain View Elec Assn Inc	CO	0	0	0	0
Mt Wheeler Power Inc	NV	0	0	0	0
Murfreesboro City of	TN	0	0	0	25
Murray City of	KY	0	0	0	0
Murray City of	UT	0	0	0	0
Muscatine City of	IA	0	0	0	0
Muscle Shoals City of	AL	0	0	0	0
Naperville City of	IL	0	0	0	0
Nashville Electric Service	TN	0	0	0	25
Natchez Trace Elec Power Assn	MS	0	0	0	0
Natchitoches City of	LA	0	0	0	0
Navarro County Elec Coop Inc	TX	0	0	0	0
Navopache Electric Coop Inc	AZ	15	0	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
New Albany City of	MS	15	0	0	0
New Bern City of	NC	15	0	0	0
New Braunfels City of	TX	0	0	0	0
New Hampshire Elec Coop Inc	NH	0	0	0	25
New Smyrna Beach Utils Comm	FL	0	0	0	0
New Ulm Public Utilities Comm	MN	0	0	0	0
Newark City of	DE	0	0	0	0
Newberry Electric Coop Inc	SC	0	0	0	0
New-Mac Electric Coop Inc	MO	0	0	0	0
Newnan Wtr Sewer & Light Comm	GA	0	0	0	0
Newport City of	TN	0	0	0	25
Niles City of	OH	0	0	0	0
Nodak Electric Coop Inc	ND	0	0	0	0
Nolin Rural Electric Coop Corp	KY	0	0	0	0
North Alabama Electric Coop	AL	0	0	0	0
North Arkansas Elec Coop Inc	AR	0	0	0	0
North Central Elec Coop Inc	OH	0	0	0	0
North East Mississippi E P A	MS	0	0	0	0
North Georgia Elec Member Corp	GA	0	0	0	0
North Little Rock City of	AR	0	0	0	0
North Platte City of	NE	0	0	0	0
North West Rural Electric Coop	IA	0	0	0	0
Northcentral Mississippi E P A	MS	0	0	0	0
Northeast Louisiana Power Coop	LA	0	0	0	0
Northeast Oklahoma El Coop Inc	OK	0	0	0	0
Northern Lights Inc	ID	0	0	0	0
Northern Neck Elec Coop Inc	VA	0	0	0	0
Northern Virginia Elec Coop	VA	0	25	0	0
Northwestern Electric Coop Inc	OK	0	0	0	0
Northwestern Rural E C A Inc	PA	0	0	0	0
Norwich City of	CT	0	0	0	0
Norwood City of	MA	0	0	0	0
Oak Ridge City of	TN	0	0	0	25
Ocala City of	FL	0	0	0	0
Oconee Electric Member Corp	GA	0	0	0	0
Okefenoke Rural El Member Corp	GA	15	0	0	0
Oklahoma Electric Coop Inc	OK	0	0	0	0
Opelika City of	AL	0	0	0	0
Orangeburg City of	SC	0	0	0	0
Orlando Utilities Comm	FL	0	0	0	0
Orrville City of	OH	0	0	0	0
Osage Valley Elec Coop Assn	MO	0	0	0	0
Osceola City of	AR	0	0	0	0
Ouachita Electric Coop Corp	AR	0	0	0	0
Owatonna City of	MN	0	0	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Owen Electric Coop Inc	KY	0	0	0	0
Owensboro City of	KY	0	0	0	0
Ozark Border Electric Coop	MO	0	0	0	0
Ozark Electric Coop Inc	MO	0	0	0	0
Ozarks Electric Coop Corp	AR	0	0	0	0
Paducah City of	KY	0	0	0	0
Painesville City of	OH	0	0	0	0
Palmetto Electric Coop Inc	SC	0	0	0	0
Palo Alto City of	CA	0	0	0	0
Panola-Harrison Elec Coop Inc	TX	0	0	0	0
Paragould Light & Water Comm	AR	0	0	0	0
Paris City of	TN	0	0	0	25
Pasadena City of	CA	0	0	0	0
Pea River Electric Coop	AL	0	0	0	0
Peabody City of	MA	15	0	0	0
Peace River Electric Coop Inc	FL	15	0	0	0
Pearl River Valley El Pwr Assn	MS	0	0	0	25
Pee Dee Electric Coop Inc	SC	0	0	0	0
Pee Dee Electric Member Corp	NC	15	0	0	0
Pennyrile Rural Elec Coop Corp	KY	0	0	0	0
People"s Coop Services	MN	0	0	0	0
People"s Electric Coop	OK	0	0	0	0
Peru City of	IN	0	0	0	0
Petit Jean Electric Coop Corp	AR	0	0	0	0
Pickwick Electric Coop	TN	0	0	0	0
Piedmont Electric Member Corp	NC	0	0	0	0
Pioneer Electric Coop Inc	KS	15	0	0	0
Pioneer Rural Elec Coop Inc	OH	0	0	0	0
Piqua City of	OH	0	0	0	0
Planters Electric Member Corp	GA	0	0	0	0
Plateau Electric Coop	TN	0	0	0	0
Platte-Clay Electric Coop Inc	MO	0	0	0	0
Plattsburgh City of	NY	0	0	0	0
Pointe Coupee Elec Member Corp	LA	0	0	0	0
Ponca City City of	OK	0	0	0	0
Poplar Bluff City of	MO	0	0	0	0
Port Angeles City of	WA	0	0	0	0
Poudre Valley R E A Inc	CO	0	0	0	0
Powder River Energy Corp	WY	0	0	0	0
Prince George Electric Coop	VA	0	0	0	0
Provo City Corp	UT	0	0	0	0
Pulaski City of	TN	0	0	0	25
R S R Electric Coop Inc	ND	0	0	0	0
Radford City of	VA	0	0	0	0
Randolph Electric Member Corp	NC	15	0	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Rappahannock Electric Coop	VA	0	0	0	0
Rayle Electric Membership Corp	GA	0	0	0	0
Reading Town of	MA	0	25	0	0
Red River Valley Rrl Elec Assn	OK	0	0	0	0
Redding City of	CA	0	0	0	0
Reedsburg Utility Comm	WI	0	0	0	0
Reedy Creek Improvement Dist	FL	0	0	0	0
Richland City of	WA	0	0	0	0
Richmond City of	IN	15	0	0	0
Ripley City of	TN	0	0	15	0
Riverside City of	CA	0	25	0	0
Roanoke Electric Member Corp	NC	0	0	0	0
Rochester Public Utilities	MN	0	25	0	0
Rock Hill City of	SC	0	25	0	0
Rockwood City of	TN	0	0	0	0
Rocky Mount City of	NC	0	25	0	0
Rolla City of	MO	0	0	0	0
Roseville City of	CA	0	0	0	0
Rural Electric Coop Inc	OK	0	0	0	0
Rusk County Electric Coop Inc	TX	0	0	0	0
Ruston City of	LA	0	0	0	0
Rutherford Elec Member Corp	NC	0	0	0	0
Salem City of	VA	0	0	0	0
Salt River Electric Coop Corp	KY	0	0	0	0
San Antonio Public Service Bd	TX	0	0	0	0
San Francisco City & County of	CA	0	0	0	0
San Isabel Electric Assn Inc	CO	0	0	0	0
San Marcos City of	TX	0	0	0	0
Sand Mountain Electric Coop	AL	0	0	0	0
Santa Clara City of	CA	0	0	0	0
Santee Electric Coop Inc	SC	0	0	0	0
Satilla Rural Elec Member Corp	GA	0	25	0	0
Sawnee Electric Members Corp	GA	0	25	0	0
Scott-New Madrid-MS Elec Coop	MO	0	0	0	0
Scottsboro City of	AL	0	0	0	0
Scottsburg City of	IN	0	0	0	0
Seattle City of	WA	0	0	0	0
Seguin City of	TX	0	0	0	0
Sequachee Valley Electric Coop	TN	0	0	0	25
Sevier County Electric System	TN	0	0	0	25
Shakopee Public Utilities Comm	MN	0	0	0	0
Shawano Municipal Utilities	WI	0	0	0	0
Sheboygan Falls City of	WI	0	0	0	0
Sheffield Utilities	AL	0	0	0	0
Shelby Energy Co-op Inc	KY	0	0	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Shelbyville City of	TN	0	0	15	0
Shenandoah Valley Elec Coop	VA	0	0	0	0
Sho-Me Power Electric Coop	MO	0	0	0	0
Shrewsbury Town of	MA	15	0	0	0
Sikeston City of	MO	0	0	0	0
Siloam Springs City of	AR	0	0	0	0
Singing River Elec Power Assn	MS	0	0	0	25
Sioux Valley SW Elec Coop Inc	SD	0	0	0	0
Solvay Village of	NY	0	0	0	0
South Alabama Elec Coop Inc	AL	0	0	0	0
South Central Ark El Coop Inc	AR	0	0	0	0
South Central Indiana REMC	IN	0	0	0	0
South Central Power Co	OH	0	0	0	0
South Kentucky Rural E C C	KY	0	0	0	0
South Louisiana Elec Coop Assn	LA	0	0	0	0
South Plains Electric Coop Inc	TX	0	0	0	0
South River Elec Member Corp	NC	0	25	0	0
Southeastern IL Elec Coop Inc	IL	0	0	0	0
Southeastern Indiana R E M C	IN	0	0	0	0
Southern Indiana R E C Inc	IN	0	0	0	0
Southern Maryland El Coop Inc	MD	0	0	0	0
Southern Pine Elec Coop Inc	AL	0	0	0	0
Southern Pine Elec Power Assn	MS	0	0	0	0
Southside Electric Coop Inc	VA	0	25	0	0
Southwest Arkansas E C C	AR	0	0	0	0
Southwest Central R E C Corp	PA	0	0	15	0
Southwest Electric Coop Inc	MO	0	0	0	0
Southwest Louisiana E M C	LA	0	0	0	25
Southwest Mississippi E P A	MS	0	0	0	0
Southwest Tennessee E M C	TN	0	0	0	25
Southwestern Electric Coop Inc	IL	15	0	0	0
Southwestern Electric Coop Inc	NM	0	0	0	0
Springfield City of	TN	0	0	0	0
Springfield City of	MO	0	0	0	0
Springfield City of	IL	0	0	0	0
Springfield City of	OR	0	0	0	0
St Charles City of	IL	0	0	0	0
St George City of	UT	0	0	0	0
St Marys City of	OH	0	0	0	0
Starkville City of	MS	0	0	0	0
Statesville City of	NC	0	25	0	0
Stearns Coop Electric Assn	MN	0	0	0	0
Stillwater Utilities Authority	OK	0	0	0	0
Sturgis City of	MI	0	0	0	0
Sulphur Springs Valley E C Inc	AZ	0	25	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Sumter Electric Coop Inc	FL	0	25	0	0
Sumter Electric Member Corp	GA	0	0	0	0
Surry-Yadkin Elec Member Corp	NC	0	0	0	0
Suwannee Valley Elec Coop Inc	FL	0	0	0	0
Sweetwater City of	TN	0	0	0	0
Sylacauga Utilities Board	AL	0	0	0	0
Sylvania City of	GA	0	0	0	0
Tacoma City of	WA	0	0	0	0
Tallahassee City of	FL	0	0	0	0
Tallahatchie Valley E P A	MS	0	0	0	0
Tallapoosa River Elec Coop Inc	AL	0	0	0	0
Talquin Electric Coop Inc	FL	0	25	0	0
Tarboro Town of	NC	0	0	0	0
Taunton City of	MA	0	0	0	0
Taylor County Rural E C C	KY	0	0	0	0
Taylor Electric Coop Inc	TX	0	0	0	0
Tennessee Valley Electric Coop	TN	0	0	15	0
Terrebonne Parish Consol Govt	LA	0	0	0	0
Thomasville City of	GA	0	0	0	0
Three Notch Elec Member Corp	GA	0	0	0	0
Three Rivers Electric Coop	MO	0	0	0	0
Tideland Electric Member Corp	NC	0	0	0	0
Tipmont Rural Elec Member Corp	IN	0	0	0	0
Tishomingo County E P A	MS	0	0	0	0
Tombigbee Electric Power Assn	MS	0	0	0	25
Traverse City City of	MI	0	0	0	0
Trico Electric Coop Inc	AZ	15	0	0	0
Tri-County Elec Member Corp	GA	0	25	0	0
Tri-County Elec Member Corp	TN	0	0	0	25
Tri-County Electric Coop	MI	0	0	0	0
Tri-County Electric Coop	MN	0	0	0	0
Tri-County Electric Coop Inc	IL	15	0	0	0
Tri-County Electric Coop Inc	FL	0	0	0	0
Tri-County Electric Coop Inc	SC	0	0	0	0
Tri-County Electric Coop Inc	OK	0	0	0	0
Tri-State Electric Member Corp	GA	0	0	0	0
Troy City of	AL	0	0	0	0
Tullahoma Board of Pub Utils	TN	0	0	15	0
Tupelo City of	MS	0	0	0	25
Turlock Irrigation District	CA	0	25	0	0
Twin County Electric Pwr Assn	MS	0	0	0	0
Umatilla Electric Coop Assn	OR	0	0	0	0
Union City City of	TN	0	0	0	0
Union Electric Membership Corp	NC	0	25	0	0
Union Rural Electric Coop Inc	OH	0	0	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
United Power Inc	CO	0	0	0	0
United Rural Elec Member Corp	IN	0	0	0	0
Upper Cumberland E M C	TN	0	0	0	25
Upshur Rural Elec Coop Corp	TX	0	0	0	0
Utilities Dist-Western IN REMC	IN	0	0	0	0
Valley Electric Member Corp	LA	0	0	0	25
Valley Rural Electric Coop Inc	PA	0	0	0	0
Verdigris Valley Elec Coop Inc	OK	0	0	0	0
Verendrye Electric Coop Inc	ND	0	0	0	0
Vernon City of	CA	0	0	0	0
Vero Beach City of	FL	0	25	0	0
Victoria Electric Coop Inc	TX	0	0	0	0
Volunteer Electric Coop	TN	0	0	0	25
Wadsworth City of	OH	0	0	0	0
Wallingford Town of	CT	0	0	0	0
Walton Electric Member Corp	GA	0	25	0	0
Warren Rural Elec Coop Corp	KY	0	0	0	0
Washington City of	NC	15	0	0	0
Washington Elec Member Corp	GA	0	0	0	0
Washington-St Tammany E C Inc	LA	0	0	0	25
Watertown Municipal Utilities	SD	0	0	0	0
Wayne-White Counties Elec Coop	IL	15	0	0	0
Weakley County Mun Elec Sys	TN	0	0	0	25
Weatherford Mun Utility System	TX	0	0	0	0
Webster Electric Coop	MO	0	0	0	0
Wellesley Town of	MA	0	0	0	0
Wells Rural Electric Co	NV	0	0	0	0
West Florida El Coop Assn Inc	FL	0	0	0	0
West Kentucky Rural E C C	KY	0	0	0	0
West Memphis City of	AR	0	0	0	0
West Point City of	MS	0	0	0	0
Westerville City of	OH	0	0	0	0
Westfield City of	MA	15	0	0	0
Wheatland Electric Coop Inc	KS	0	0	0	25
White River Valley El Coop Inc	MO	0	0	0	0
Wild Rice Electric Coop Inc	MN	0	0	0	0
Willmar Municipal Utils Comm	MN	0	0	0	0
Wilson City of	NC	0	25	0	0
Winfield City of	KS	0	0	0	0
Wiregrass Electric Coop Inc	AL	0	0	0	0
Wisconsin Rapids W W & L Comm	WI	0	0	0	0
Withlacoochee River Elec Coop	FL	0	25	0	0
Wood County Electric Coop Inc	TX	0	0	0	0
Woodruff Electric Coop Corp	AR	0	0	0	0
Wright-Hennepin Coop Elec Assn	MN	0	0	0	0

Table A-1. Detailed Results for Municipalities and Cooperatives, Base Case 2005 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Wyandotte Municipal Serv Comm	MI	0	0	0	0
Yampa Valley Electric Assn Inc	CO	0	0	0	0
Yazoo Valley Elec Power Assn	MS	0	0	0	0
York Electric Coop Inc	SC	15	0	0	0
Y-W Electric Assn Inc	CO	0	0	0	0
Zeeland City of	MI	0	0	0	0
TOTALS		630	1,225	195	1,550

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
4-County Electric Power Assn	MS	0	25	0	0
A & N Electric Coop	VA	0	0	0	0
Aberdeen City of	MS	0	0	0	0
Adams Electric Coop Inc	PA	15	0	0	0
Adams-Columbia Electric Coop	WI	0	0	0	0
Aiken Electric Coop Inc	SC	0	0	0	0
Alabama Electric Coop Inc	AL	0	0	0	0
Alameda City of	CA	15	0	0	0
Albany Water Gas & Light Comm	GA	0	25	0	0
Albemarle City of	NC	15	0	0	0
Albertville Municipal Utils Bd	AL	0	25	0	0
Alcoa Utilities	TN	0	25	0	0
Alexandria City of	LA	0	0	0	0
Alexandria City of	MN	0	0	0	0
Altamaha Electric Member Corp	GA	15	0	0	0
Ames City of	IA	0	0	0	0
Amicalola Electric Member Corp	GA	15	0	0	0
Anaheim City of	CA	0	25	0	0
Anchorage City of	AK	0	0	0	0
Andalusia City of	AL	0	0	0	0
Anderson City of	IN	0	25	0	0
Anoka City of	MN	0	0	0	0
Anoka Electric Coop	MN	0	25	0	0
Appalachian Electric Coop	TN	0	25	0	0
Arab Electric Coop Inc	AL	15	0	0	0
Arkansas Valley Elec Coop Corp	AR	0	0	0	0
Associated Electric Coop Inc	MO	0	0	0	0
Athens City of	AL	0	25	0	0
Athens Utility Board	TN	0	25	0	0
Auburn City of	IN	0	25	0	0
Austin City of	TX	0	0	0	0
Austin City of	MN	0	0	0	0
Azusa City of	CA	15	0	0	0
Baldwin County El Member Corp	AL	0	25	0	0
Bartow City of	FL	15	0	0	0
Basin Electric Power Coop	ND	15	0	0	0
Batavia City of	IL	15	0	0	0
Bay City City of	MI	0	0	15	0
Bedford City of	VA	0	0	0	0
Beltrami Electric Coop Inc	MN	0	0	0	0
Benton City of	AR	0	0	0	0
Benton County	TN	0	0	0	0
Benton Rural Electric Assn	WA	0	0	0	0
Bentonville City of	AR	0	0	0	0
Berkeley Electric Coop Inc	SC	0	25	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Bessemer City of	AL	15	0	0	0
Big Sandy Rural Elec Coop Corp	KY	0	0	0	0
Black River Electric Coop	MO	0	0	0	0
Black River Electric Coop Inc	SC	0	25	0	0
Black Warrior Elec Member Corp	AL	0	0	0	0
Blue Earth-Nicollet-Faribault	MN	0	0	0	0
Blue Grass Energy Coop Corp	KY	0	0	0	0
Blue Ridge Elec Member Corp	NC	0	25	0	0
Blue Ridge Electric Coop Inc	SC	0	25	0	0
Blue Ridge Mountain E M C	GA	15	0	0	0
Bluffton City of	IN	0	0	0	0
Bolivar City of	TN	0	0	0	0
Boone Electric Coop	MO	0	0	0	0
Bountiful City City of	UT	0	0	0	0
Bowie-Cass Electric Coop Inc	TX	0	0	0	0
Bowling Green City of	KY	0	25	0	0
Bowling Green City of	OH	0	0	0	0
Braintree Town of	MA	0	0	0	0
Brenham City of	TX	0	0	0	0
Bristol City of	TN	0	25	0	0
Bristol Utilities Board	VA	0	25	0	0
Broad River Electric Coop Inc	SC	0	0	0	0
Brookings City of	SD	0	0	0	0
Brownsville City of	TN	0	0	0	0
Brownsville Public Utils Board	TX	0	0	0	0
Brunswick Electric Member Corp	NC	0	25	0	0
Bryan City of	TX	0	25	0	0
Bryan City of	OH	0	0	0	0
Buckeye Rural Elec Coop Inc	OH	0	0	0	0
Burbank City of	CA	0	25	0	0
Burlington City of	VT	0	0	0	0
C & L Electric Coop Corp	AR	15	0	0	0
Caddo Electric Coop Inc	OK	0	0	0	0
Calhoun City of	GA	15	0	0	0
Canadian Valley Elec Coop Inc	OK	15	0	0	0
Caney Fork Electric Coop Inc	TN	0	25	0	0
Canoochee Electric Member Corp	GA	15	0	0	0
Carroll County	TN	15	0	0	0
Carroll Electric Coop Corp	AR	0	25	0	0
Carroll Electric Member Corp	GA	0	25	0	0
Carteret-Craven El Member Corp	NC	15	0	0	0
Cartersville City of	GA	0	25	0	0
Carthage City of	MO	0	0	0	0
Cass County Electric Coop Inc	ND	0	0	0	0
Cedar Falls City of	IA	0	0	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
Central Alabama Electric Coop	AL	0	0	0	0
Central Electric Coop Inc	PA	0	0	0	0
Central Electric Member Corp	NC	0	0	0	0
Central Electric Power Assn	MS	0	25	0	0
Central Florida Elec Coop Inc	FL	15	0	0	0
Central Georgia El Member Corp	GA	0	25	0	0
Central Missouri Elec Coop Inc	MO	0	0	0	0
Central Rural Electric Coop	OK	0	0	0	0
Central Texas Elec Coop Inc	TX	15	0	0	0
Central Valley Elec Coop Inc	NM	0	0	0	0
Central Virginia Electric Coop	VA	0	25	0	0
Centralia City of	WA	0	0	0	0
Chambersburg Borough of	PA	0	0	0	0
Chaska City of	MN	0	0	0	0
Chattanooga City of	TN	0	25	0	0
Cherokee County Elec Coop Assn	TX	0	0	0	0
Cherokee Electric Coop	AL	15	0	0	0
Cherryland Electric Coop Inc	MI	0	0	0	0
Chickasaw Electric Coop Inc	TN	15	0	0	0
Chicopee City of	MA	15	0	0	0
Choctaw Electric Coop Inc	OK	0	0	0	0
Choctawhatche Elec Coop Inc	FL	15	0	0	0
Choptank Electric Coop Inc	MD	0	25	0	0
Chugach Electric Assn Inc	AK	0	0	15	0
Citizens Electric Corp	MO	0	0	0	0
Claiborne Electric Coop Inc	LA	15	0	0	0
Claremore City of	OK	0	0	0	0
Clark Energy Coop Inc	KY	0	0	0	0
Clarke-Washington E M C	AL	0	0	0	0
Clarksdale City of	MS	0	0	0	0
Clarksville City of	TN	0	25	0	0
Clarksville Light & Water Co	AR	0	0	0	0
Clay Electric Coop Inc	FL	0	25	0	0
Cleveland City of	TN	0	25	0	0
Cleveland City of	OH	0	25	0	0
Clinton City of	TN	0	25	0	0
Cloverland Electric Coop	MI	0	0	0	0
Coast Electric Power Assn	MS	0	25	0	0
Coastal Electric Member Corp	GA	0	0	0	0
Cobb Electric Membership Corp	GA	0	25	0	0
Coffeyville City of	KS	0	0	0	0
Coldwater Board of Public Util	MI	0	0	0	0
College Park City of	GA	15	0	0	0
College Station City of	TX	0	0	0	0
Colorado Springs City of	CO	0	0	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
Colquitt Electric Members Corp	GA	0	25	0	0
Colton City of	CA	15	0	0	0
Columbia City of	TN	0	25	0	0
Columbia City of	MO	0	0	0	0
Columbia Rural Elec Assn Inc	WA	0	0	0	0
Columbus City of	MS	0	25	0	0
Columbus City of	OH	0	25	0	0
Columbus Electric Coop Inc	NM	15	0	0	0
CO-MO Electric Coop Inc	MO	0	0	0	0
Concho Valley Elec Coop Inc	TX	0	0	0	0
Concord City of	NC	0	0	0	0
Consolidated Electric Coop	MO	0	0	0	0
Consolidated Electric Coop Inc	OH	0	0	0	0
Consumers Power Inc	OR	0	0	0	0
Continental Divide El Coop Inc	NM	15	0	0	0
Conway Corp	AR	0	0	0	0
Cookeville City of	TN	0	25	0	0
Cookson Hills Elec Coop Inc	OK	0	0	0	0
Coosa Valley Electric Coop Inc	AL	0	0	0	0
Coos-Curry Electric Coop Inc	OR	0	0	0	0
Corn Belt Energy Corp	IL	0	0	0	0
Cotton Electric Coop Inc	OK	15	0	0	0
Covington City of	GA	15	0	0	0
Covington City of	TN	15	0	0	0
Covington Electric Coop Inc	AL	0	0	0	0
Coweta-Fayette El Member Corp	GA	0	25	0	0
Craighead Electric Coop Corp	AR	15	0	0	0
Crawford Electric Coop Inc	MO	0	0	0	0
Crawfordsville Elec Lgt&Pwr Co	IN	0	0	0	0
Crow Wing Coop Power&Light Co	MN	0	0	0	0
Cullman Electric Coop Inc	AL	0	25	0	0
Cullman Power Board	AL	15	0	0	0
Cumberland Elec Member Corp	TN	0	25	0	0
Cumberland Valley Rural E C C	KY	0	0	0	0
Cuyahoga Falls City of	OH	15	0	0	0
Dairyland Power Coop	WI	0	0	0	0
Dalton City of	GA	0	0	0	0
Danvers Town of	MA	0	0	0	0
Danville City of	VA	0	0	0	0
Dayton City of	TN	0	0	0	0
Decatur City of	AL	0	0	0	0
Decatur County Rural E M C	IN	0	0	0	0
Deep East Texas Elec Coop Inc	TX	0	25	0	0
Delaware Electric Coop Inc	DE	0	25	0	0
Delta Montrose Electric Assn	CO	15	0	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
Denton City of	TX	0	25	0	0
Detroit City of	MI	0	0	15	0
Dickson City of	TN	0	25	0	0
Dixie Electric Coop	AL	0	0	0	0
Dixie Electric Membership Corp	LA	0	25	0	0
Dixie Electric Power Assn	MS	0	25	0	0
Dothan City of	AL	0	0	0	0
Douglas City of	GA	15	0	0	0
Dover City of	OH	0	0	0	0
Dover City of	DE	0	0	0	0
Dubois Rural Electric Coop Inc	IN	0	0	0	0
Duck River Elec Member Corp	TN	0	25	0	0
Dyersburg City of	TN	0	25	0	0
Easley Combined Utility System	SC	15	0	0	0
East Central Energy	MN	0	25	0	0
East Central Okla El Coop Inc	OK	15	0	0	0
East Mississippi Elec Pwr Assn	MS	0	25	0	0
East Point City of	GA	15	0	0	0
Eastern Illini Electric Coop	IL	0	0	0	0
Eastern Iowa Light&Power Coop	IA	15	0	0	0
Edgecombe-Martin County E M C	NC	0	0	0	0
Edisto Electric Coop Inc	SC	0	0	0	0
Edmond City of	OK	0	25	0	0
Egyptian Electric Coop Assn	IL	0	0	0	0
Elizabeth City City of	NC	15	0	0	0
Elizabethton City of	TN	0	25	0	0
Empire Electric Assn Inc	CO	0	0	0	0
Erath County Elec Coop Assn	TX	15	0	0	0
Erwin Town of	TN	0	0	0	0
Eugene City of	OR	0	0	0	0
Excelsior Electric Member Corp	GA	0	0	0	0
Fairfield Electric Coop Inc	SC	0	0	0	0
Fairport Village of	NY	0	0	0	0
Fall River Rural Elec Coop Inc	ID	0	0	0	0
Farmers Electric Coop Inc	TX	0	25	0	0
Farmers" Electric Coop Inc	MO	0	0	0	0
Farmers Rural Elec Coop Corp	KY	0	0	0	0
Farmington City of	NM	0	0	0	0
Fayetteville City of	TN	15	0	0	0
Fayetteville Public Works Comm	NC	0	25	0	0
First Electric Coop Corp	AR	0	25	0	0
Fitzgerald Wtr Lgt & Bond Comm	GA	0	0	0	0
Flathead Electric Coop Inc	MT	0	0	0	0
Fleming-Mason Rural E C C	KY	0	0	0	0
Flint Electric Membership Corp	GA	0	25	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
Florence City of	AL	0	25	0	0
Floresville City of	TX	0	0	0	0
Florida Keys El Coop Assn Inc	FL	0	25	0	0
Foley City of (Riviera Utils)	AL	0	25	0	0
Forest Grove City of	OR	0	0	0	0
Forked Deer Electric Coop Inc	TN	0	0	0	0
Fort Collins City of	CO	0	25	0	0
Fort Loudoun Electric Coop	TN	15	0	0	0
Fort Morgan City of	CO	0	0	0	0
Fort Payne Improvement Auth	AL	15	0	0	0
Fort Pierce Utilities Auth	FL	0	25	0	0
Four County Elec Member Corp	NC	0	25	0	0
Frankfort City of	IN	0	0	0	0
Frankfort City of	KY	0	0	0	0
Franklin City of	KY	0	0	0	0
Franklin Electric Coop	AL	0	0	0	0
Freeport Village of Inc	NY	0	0	0	0
Fremont City of	NE	0	0	0	0
French Broad Elec Member Corp	NC	0	0	0	0
Gaffney City of	SC	0	0	0	0
Gainesville Regional Utilities	FL	0	0	0	0
Gallatin City of	TN	0	25	0	0
Gallup City of	NM	0	0	0	0
Garden City City of	KS	0	0	0	0
Garland City of	TX	0	25	0	0
Gastonia City of	NC	0	25	0	0
Geneva City of	IL	0	0	0	0
Georgetown City of	TX	15	0	0	0
Gibson Electric Members Corp	TN	0	25	0	0
Gillette City of	WY	0	0	0	0
Glades Electric Coop Inc	FL	0	0	0	0
Glasgow City of	KY	0	0	0	0
Glendale City of	CA	0	0	0	0
Golden Spread Elec Coop Inc	TX	0	25	0	0
Golden Valley Elec Assn Inc	AK	0	0	15	0
Grady Electric Membership Corp	GA	0	0	0	0
Grand Haven City of	MI	0	0	0	0
Grand Island City of	NE	0	0	0	0
Grayson Rural Elec Coop Corp	KY	0	0	0	0
Grayson-Collin Elec Coop Inc	TX	15	0	0	0
Greeneville City of	TN	0	25	0	0
Greenfield City of	IN	0	0	0	0
Greenville Electric Util Sys	TX	15	0	0	0
Greenville Utilities Comm	NC	0	25	0	0
Greenwood Commissioners-Pub Wk	SC	0	0	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
Greenwood Utilities Comm	MS	0	0	0	0
Greer Comm of Public Works	SC	0	0	0	0
GreyStone Power Corp	GA	0	25	0	0
Griffin City of	GA	15	0	0	0
Groton City of	CT	0	25	0	0
Gulf Coast Electric Coop Inc	FL	0	0	0	0
Guntersville Electric Board	AL	0	0	0	0
Habersham Electric Member Corp	GA	15	0	0	0
Hagerstown City of	MD	0	0	0	0
Hamilton City of	OH	0	0	0	0
Hancock-Wood Electric Coop Inc	OH	0	0	0	0
Hannibal City of	MO	0	0	0	0
Harriman City of	TN	15	0	0	0
Harrison County Rural E C C	KY	0	0	0	0
Harrison County Rural E M C	IN	15	0	0	0
Harrisonburg City of	VA	0	0	0	0
Hart Electric Member Corp	GA	15	0	0	0
Hartford City of	WI	0	0	0	0
Hastings City of	NE	0	0	0	0
Haywood Electric Member Corp	NC	0	0	0	0
Henderson City Utility Comm	KY	0	0	0	0
High Point Town of	NC	0	25	0	0
Highline Electric Assn	CO	15	0	0	0
HILCO Electric Coop Inc	TX	0	0	0	0
Holland City of	MI	0	0	15	0
Holly Springs City of	MS	0	0	0	0
Holmes-Wayne Electric Coop Inc	OH	0	0	0	0
Holston Electric Coop Inc	TN	0	25	0	0
Holy Cross Electric Assn Inc	CO	0	25	0	0
Holyoke City of	MA	15	0	0	0
Homer Electric Assn Inc	AK	0	0	0	25
Homestead City of	FL	0	0	0	0
Hope City of	AR	0	0	0	0
Hopkinsville City of	KY	0	0	0	0
Horry Electric Coop Inc	SC	0	25	0	0
Houston County Elec Coop Inc	TX	0	0	0	0
Howell-Oregon Elec Coop Inc	MO	0	0	0	0
Hudson Town of	MA	15	0	0	0
Humboldt City of	TN	0	0	0	0
Huntsville City of	AL	0	25	0	0
Hutchinson Utilities Comm	MN	0	0	0	0
Idaho Falls City of	ID	0	0	0	0
Independence City of	MO	15	0	0	0
Indian Electric Coop Inc	OK	15	0	0	0
Inter County Energy Coop Corp	KY	0	0	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Intercounty Electric Coop Assn	MO	0	0	0	0
Iowa Lakes Electric Coop	IA	0	0	0	0
Jackson City of	TN	0	25	0	0
Jackson County Rural E M C	IN	0	0	0	0
Jackson Electric Member Corp	GA	0	25	0	0
Jackson Energy Coop Corp	KY	0	0	0	0
Jackson Purchase Energy CC	KY	0	0	0	0
Jacksonville Beach City of	FL	0	25	0	0
Jacksonville Electric Auth	FL	0	25	0	0
Jamestown City of	NY	0	0	0	0
Jasper City of	IN	0	0	0	0
Jasper-Newton Elec Coop Inc	TX	15	0	0	0
Jefferson Davis Elec Coop Inc	LA	0	0	0	0
Jefferson Electric Member Corp	GA	15	0	0	0
Jemez Mountains Elec Coop Inc	NM	0	0	0	0
Joe Wheeler Elec Member Corp	AL	0	25	0	0
Johnson City City of	TN	0	25	0	0
Johnson County Elec Coop Assn	TX	0	25	0	0
Johnson County Rural E M C	IN	0	0	0	0
Jonesboro City of	AR	0	0	0	0
Kankakee Valley Rural E M C	IN	0	0	0	0
Kansas City City of	KS	0	0	0	0
Karnes Electric Coop Inc	TX	0	0	0	0
Kaukauna City of	WI	0	0	0	0
Kerrville Public Utility Board	TX	15	0	0	0
Key West City of	FL	0	25	0	0
Kiamichi Electric Coop Inc	OK	0	0	0	0
Kinston City of	NC	0	25	0	0
Kirkwood City of	MO	0	0	0	0
Kissimmee Utility Authority	FL	0	25	0	0
Kit Carson Electric Coop Inc	NM	0	0	0	0
Knoxville Utilities Board	TN	0	25	0	0
Kootenai Electric Coop Inc	ID	0	0	0	0
La Grange City of	GA	0	25	0	0
La Plata Electric Assn Inc	CO	0	25	0	0
Laclede Electric Coop Inc	MO	0	0	0	0
Lafayette City of	LA	0	0	0	0
LaFollette City of	TN	15	0	0	0
Lake Region Coop Elec Assn	MN	0	0	0	0
Lake Region Electric Coop Inc	OK	0	0	0	0
Lake Worth City of	FL	0	0	0	0
Lakeland City of	FL	0	0	0	0
Lamar Electric Membership Corp	GA	0	0	0	0
Lamb County Electric Coop Inc	TX	15	0	0	0
Lane Electric Coop Inc	OR	0	0	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
Lansing City of	MI	0	0	0	25
Laurens Electric Coop Inc	SC	0	25	0	0
Lawrenceburg City of	TN	0	25	0	0
Lawrenceville City of	GA	15	0	0	0
Lea County Electric Coop Inc	NM	0	0	0	0
Lebanon City of	TN	15	0	0	0
Lebanon City of	MO	0	0	0	0
Leesburg City of	FL	15	0	0	0
Lenoir City City of	TN	0	25	0	0
Lewisburg City of	TN	15	0	0	0
Lexington City of	NC	0	25	0	0
Lexington City of	TN	0	25	0	0
Licking Valley Rural E C C	KY	0	0	0	0
Lighthouse Electric Coop Inc	TX	0	0	0	0
Lincoln Electric System	NE	0	0	0	0
Linn County Rural E C A	IA	0	0	0	0
Lodi City of	CA	15	0	0	0
Logan City of	UT	0	0	0	0
Logansport City of	IN	0	0	0	0
Longmont City of	CO	0	25	0	0
Lorain-Medina R E C Inc	OH	0	0	0	0
Los Angeles City of	CA	0	25	0	0
Loudon Utilities Board	TN	15	0	0	0
Loveland City of	CO	0	0	0	0
Lubbock City of	TX	0	25	0	0
Lumbee River Elec Member Corp	NC	0	25	0	0
Lumberton City of	NC	15	0	0	0
Lynches River Elec Coop Inc	SC	0	0	0	0
Lyntegar Electric Coop Inc	TX	0	25	0	0
Macon Electric Coop	MO	0	0	0	0
Madisonville Municipal Utils	KY	0	0	0	0
Magic Valley Electric Coop Inc	TX	0	25	0	0
Magnolia Electric Power Assn	MS	0	25	0	0
Manassas City of	VA	0	0	0	0
Manitowoc Public Utilities	WI	0	0	0	0
Mansfield Town of	MA	0	0	0	0
Maquoketa Valley Rrl Elec Coop	IA	0	0	0	0
Marietta City of	GA	0	25	0	0
Marlboro Electric Coop Inc	SC	0	0	0	0
Marquette City of	MI	0	0	0	0
Marshall City of	MN	0	0	0	0
Marshfield City of	WI	0	0	0	0
Martinsville City of	VA	0	0	0	0
Maryville Utilities	TN	0	25	0	0
McKenzie Electric Coop Inc	ND	0	0	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
McLennan County Elec Coop Inc	TX	0	0	0	0
McMinnville City of	OR	0	0	0	0
McMinnville Electric System	TN	0	0	0	0
McPherson City of	KS	0	0	0	0
Meade County Rural E C C	KY	0	0	0	0
Mecklenburg Electric Coop Inc	VA	15	0	0	0
Medina Electric Coop Inc	TX	0	0	0	0
Memphis City of	TN	0	25	0	0
Menasha City of	WI	0	0	0	0
Meriwether Lewis Electric Coop	TN	0	25	0	0
Mesa City of	AZ	0	0	0	0
Mid-Carolina Electric Coop Inc	SC	0	25	0	0
Middle Tennessee E M C	TN	0	25	0	0
Midland Power Coop	IA	0	0	0	0
Midstate Electric Coop Inc	OR	0	0	0	0
Midwest Electric Inc	OH	0	0	0	0
Midwest Energy Inc	KS	0	0	0	0
Milan City of	TN	15	0	0	0
Minnesota Valley Electric Coop	MN	15	0	0	0
Minnkota Power Coop Inc	ND	0	0	0	0
Mishawaka City of	IN	0	25	0	0
Mississippi Cnty Elec Coop Inc	AR	0	0	0	0
Missouri Rural Electric Coop	MO	0	0	0	0
Mohave Electric Coop Inc	AZ	0	25	0	0
Monroe City of	NC	0	25	0	0
Moon Lake Electric Assn Inc	UT	0	25	0	0
Moorhead City of	MN	0	0	0	0
Morganton City of	NC	15	0	0	0
Morristown City of	TN	0	25	0	0
Mountain Electric Coop Inc	TN	0	25	0	0
Mountain Parks Electric Inc	CO	0	0	0	0
Mountain View Elec Assn Inc	CO	15	0	0	0
Mt Wheeler Power Inc	NV	0	0	0	0
Murfreesboro City of	TN	0	25	0	0
Murray City of	KY	15	0	0	0
Murray City of	UT	0	0	0	0
Muscatine City of	IA	0	0	0	0
Muscle Shoals City of	AL	0	0	0	0
Naperville City of	IL	0	25	0	0
Nashville Electric Service	TN	0	25	0	0
Natchez Trace Elec Power Assn	MS	15	0	0	0
Natchitoches City of	LA	0	0	0	0
Navarro County Elec Coop Inc	TX	0	0	0	0
Navopache Electric Coop Inc	AZ	15	0	0	0
New Albany City of	MS	15	0	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
New Bern City of	NC	15	0	0	0
New Braunfels City of	TX	0	25	0	0
New Hampshire Elec Coop Inc	NH	0	25	15	0
New Smyrna Beach Utils Comm	FL	0	0	0	0
New Ulm Public Utilities Comm	MN	0	0	0	0
Newark City of	DE	15	0	0	0
Newberry Electric Coop Inc	SC	0	0	0	0
New-Mac Electric Coop Inc	MO	0	0	0	0
Newnan Wtr Sewer & Light Comm	GA	0	0	0	0
Newport City of	TN	0	25	0	0
Niles City of	OH	15	0	0	0
Nodak Electric Coop Inc	ND	0	0	0	0
Nolin Rural Electric Coop Corp	KY	0	0	0	0
North Alabama Electric Coop	AL	0	0	0	0
North Arkansas Elec Coop Inc	AR	0	25	0	0
North Central Elec Coop Inc	OH	0	0	0	0
North East Mississippi E P A	MS	15	0	0	0
North Georgia Elec Member Corp	GA	0	25	0	0
North Little Rock City of	AR	0	25	0	0
North Platte City of	NE	0	0	0	0
North West Rural Electric Coop	IA	0	0	0	0
Northcentral Mississippi E P A	MS	0	25	0	0
Northeast Louisiana Power Coop	LA	0	0	0	0
Northeast Oklahoma El Coop Inc	OK	0	0	0	0
Northern Lights Inc	ID	0	0	0	0
Northern Neck Elec Coop Inc	VA	0	0	0	0
Northern Virginia Elec Coop	VA	0	25	0	0
Northwestern Electric Coop Inc	OK	0	0	0	0
Northwestern Rural E C A Inc	PA	0	0	0	0
Norwich City of	CT	15	0	0	0
Norwood City of	MA	15	0	0	0
Oak Ridge City of	TN	0	25	0	0
Ocala City of	FL	0	25	0	0
Oconee Electric Member Corp	GA	0	0	0	0
Okefenoke Rural El Member Corp	GA	15	0	0	0
Oklahoma Electric Coop Inc	OK	0	25	0	0
Opelika City of	AL	0	0	0	0
Orangeburg City of	SC	0	0	0	0
Orlando Utilities Comm	FL	0	0	0	0
Orrville City of	OH	0	0	0	0
Osage Valley Elec Coop Assn	MO	0	0	0	0
Osceola City of	AR	0	0	0	0
Ouachita Electric Coop Corp	AR	0	0	0	0
Owatonna City of	MN	15	0	0	0
Owen Electric Coop Inc	KY	0	0	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Owensboro City of	KY	0	0	0	0
Ozark Border Electric Coop	MO	0	0	0	0
Ozark Electric Coop Inc	MO	15	0	0	0
Ozarks Electric Coop Corp	AR	0	25	0	0
Paducah City of	KY	0	25	0	0
Painesville City of	OH	0	0	0	0
Palmetto Electric Coop Inc	SC	0	25	0	0
Palo Alto City of	CA	0	0	0	0
Panola-Harrison Elec Coop Inc	TX	0	0	0	0
Paragould Light & Water Comm	AR	0	0	0	0
Paris City of	TN	0	25	0	0
Pasadena City of	CA	0	0	0	0
Pea River Electric Coop	AL	0	0	0	0
Peabody City of	MA	15	0	0	0
Peace River Electric Coop Inc	FL	15	0	0	0
Pearl River Valley El Pwr Assn	MS	0	25	0	0
Pee Dee Electric Coop Inc	SC	0	0	0	0
Pee Dee Electric Member Corp	NC	15	0	0	0
Pennyrile Rural Elec Coop Corp	KY	0	25	0	0
People"s Coop Services	MN	0	0	0	0
People"s Electric Coop	OK	0	0	0	0
Peru City of	IN	0	0	0	0
Petit Jean Electric Coop Corp	AR	0	0	0	0
Pickwick Electric Coop	TN	15	0	0	0
Piedmont Electric Member Corp	NC	15	0	0	0
Pioneer Electric Coop Inc	KS	15	0	0	0
Pioneer Rural Elec Coop Inc	OH	0	0	0	0
Piqua City of	OH	0	0	0	0
Planters Electric Member Corp	GA	0	0	0	0
Plateau Electric Coop	TN	0	0	0	0
Platte-Clay Electric Coop Inc	MO	0	0	0	0
Plattsburgh City of	NY	0	0	0	0
Pointe Coupee Elec Member Corp	LA	0	0	0	0
Ponca City City of	OK	15	0	0	0
Poplar Bluff City of	MO	0	0	0	0
Port Angeles City of	WA	0	0	0	0
Poudre Valley R E A Inc	CO	0	25	0	0
Powder River Energy Corp	WY	0	25	0	0
Prince George Electric Coop	VA	0	0	0	0
Provo City Corp	UT	0	0	0	0
Pulaski City of	TN	0	25	0	0
R S R Electric Coop Inc	ND	0	0	0	0
Radford City of	VA	0	0	0	0
Randolph Electric Member Corp	NC	15	0	0	0
Rappahannock Electric Coop	VA	0	25	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
Rayle Electric Membership Corp	GA	0	0	0	0
Reading Town of	MA	0	25	0	0
Red River Valley Rrl Elec Assn	OK	0	0	0	0
Redding City of	CA	0	0	0	0
Reedsburg Utility Comm	WI	0	0	0	0
Reedy Creek Improvement Dist	FL	0	0	0	0
Richland City of	WA	0	0	0	0
Richmond City of	IN	15	0	0	0
Ripley City of	TN	15	0	0	0
Riverside City of	CA	0	25	0	0
Roanoke Electric Member Corp	NC	0	0	0	0
Rochester Public Utilities	MN	0	25	0	0
Rock Hill City of	SC	0	25	0	0
Rockwood City of	TN	15	0	0	0
Rocky Mount City of	NC	0	25	0	0
Rolla City of	MO	0	0	0	0
Roseville City of	CA	0	0	0	0
Rural Electric Coop Inc	OK	0	0	0	0
Rusk County Electric Coop Inc	TX	0	0	0	0
Ruston City of	LA	0	0	0	0
Rutherford Elec Member Corp	NC	0	25	0	0
Salem City of	VA	0	0	0	0
Salt River Electric Coop Corp	KY	0	0	0	0
San Antonio Public Service Bd	TX	0	0	0	0
San Francisco City & County of	CA	0	0	0	0
San Isabel Electric Assn Inc	CO	15	0	0	0
San Marcos City of	TX	15	0	0	0
Sand Mountain Electric Coop	AL	0	25	0	0
Santa Clara City of	CA	0	0	0	0
Santee Electric Coop Inc	SC	0	0	0	0
Satilla Rural Elec Member Corp	GA	0	25	0	0
Sawnee Electric Members Corp	GA	0	25	0	0
Scott-New Madrid-MS Elec Coop	MO	0	0	0	0
Scottsboro City of	AL	0	0	0	0
Scottsburg City of	IN	0	0	0	0
Seattle City of	WA	0	0	0	0
Seguin City of	TX	0	0	0	0
Sequachee Valley Electric Coop	TN	0	25	0	0
Sevier County Electric System	TN	0	25	0	0
Shakopee Public Utilities Comm	MN	0	0	0	0
Shawano Municipal Utilities	WI	0	0	0	0
Sheboygan Falls City of	WI	0	0	0	0
Sheffield Utilities	AL	0	25	0	0
Shelby Energy Co-op Inc	KY	0	0	0	0
Shelbyville City of	TN	15	0	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
Shenandoah Valley Elec Coop	VA	0	25	0	0
Sho-Me Power Electric Coop	MO	0	0	0	0
Shrewsbury Town of	MA	15	0	0	0
Sikeston City of	MO	0	0	0	0
Siloam Springs City of	AR	0	0	0	0
Singing River Elec Power Assn	MS	0	25	0	0
Sioux Valley SW Elec Coop Inc	SD	0	0	0	0
Solvay Village of	NY	0	0	0	0
South Alabama Elec Coop Inc	AL	0	0	0	0
South Central Ark El Coop Inc	AR	0	0	0	0
South Central Indiana REMC	IN	15	0	0	0
South Central Power Co	OH	0	0	0	0
South Kentucky Rural E C C	KY	0	0	0	0
South Louisiana Elec Coop Assn	LA	15	0	0	0
South Plains Electric Coop Inc	TX	0	25	0	0
South River Elec Member Corp	NC	0	25	0	0
Southeastern IL Elec Coop Inc	IL	0	25	0	0
Southeastern Indiana R E M C	IN	15	0	0	0
Southern Indiana R E C Inc	IN	0	0	0	0
Southern Maryland El Coop Inc	MD	0	25	0	0
Southern Pine Elec Coop Inc	AL	0	0	0	0
Southern Pine Elec Power Assn	MS	0	25	0	0
Southside Electric Coop Inc	VA	0	25	0	0
Southwest Arkansas E C C	AR	0	25	0	0
Southwest Central R E C Corp	PA	15	0	0	0
Southwest Electric Coop Inc	MO	15	0	0	0
Southwest Louisiana E M C	LA	0	25	0	0
Southwest Mississippi E P A	MS	15	0	0	0
Southwest Tennessee E M C	TN	0	25	0	0
Southwestern Electric Coop Inc	IL	15	0	0	0
Southwestern Electric Coop Inc	NM	15	0	0	0
Springfield City of	TN	0	0	0	0
Springfield City of	MO	0	0	0	0
Springfield City of	IL	0	0	0	0
Springfield City of	OR	0	0	0	0
St Charles City of	IL	0	25	0	0
St George City of	UT	0	25	0	0
St Marys City of	OH	0	0	0	0
Starkville City of	MS	15	0	0	0
Statesville City of	NC	0	25	0	0
Stearns Coop Electric Assn	MN	0	0	0	0
Stillwater Utilities Authority	OK	0	0	0	0
Sturgis City of	MI	0	0	0	0
Sulphur Springs Valley E C Inc	AZ	0	25	0	0
Sumter Electric Coop Inc	FL	0	25	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
Sumter Electric Member Corp	GA	0	0	0	0
Surry-Yadkin Elec Member Corp	NC	15	0	0	0
Suwannee Valley Elec Coop Inc	FL	15	0	0	0
Sweetwater City of	TN	0	0	0	0
Sylacauga Utilities Board	AL	0	0	0	0
Sylvania City of	GA	0	0	0	0
Tacoma City of	WA	0	0	0	0
Tallahassee City of	FL	0	25	0	0
Tallahatchie Valley E P A	MS	0	25	0	0
Tallapoosa River Elec Coop Inc	AL	0	0	0	0
Talquin Electric Coop Inc	FL	0	25	0	0
Tarboro Town of	NC	0	0	0	0
Taunton City of	MA	0	0	0	0
Taylor County Rural E C C	KY	0	0	0	0
Taylor Electric Coop Inc	TX	0	0	0	0
Tennessee Valley Electric Coop	TN	15	0	0	0
Terrebonne Parish Consol Govt	LA	0	0	0	0
Thomasville City of	GA	0	25	0	0
Three Notch Elec Member Corp	GA	0	0	0	0
Three Rivers Electric Coop	MO	0	0	0	0
Tideland Electric Member Corp	NC	0	0	0	0
Tipmont Rural Elec Member Corp	IN	15	0	0	0
Tishomingo County E P A	MS	0	0	0	0
Tombigbee Electric Power Assn	MS	0	25	0	0
Traverse City City of	MI	0	0	0	0
Trico Electric Coop Inc	AZ	15	0	0	0
Tri-County Elec Member Corp	GA	0	25	0	0
Tri-County Elec Member Corp	TN	0	25	0	0
Tri-County Electric Coop	MI	0	0	0	0
Tri-County Electric Coop	MN	0	0	0	0
Tri-County Electric Coop Inc	IL	15	0	0	0
Tri-County Electric Coop Inc	FL	0	0	0	0
Tri-County Electric Coop Inc	SC	0	0	0	0
Tri-County Electric Coop Inc	OK	0	0	0	0
Tri-State Electric Member Corp	GA	0	0	0	0
Troy City of	AL	0	0	0	0
Tullahoma Board of Pub Utils	TN	15	0	0	0
Tupelo City of	MS	0	25	0	0
Turlock Irrigation District	CA	0	25	0	0
Twin County Electric Pwr Assn	MS	0	0	0	0
Umatilla Electric Coop Assn	OR	0	0	0	0
Union City City of	TN	0	25	0	0
Union Electric Membership Corp	NC	0	25	0	0
Union Rural Electric Coop Inc	OH	0	0	0	0
United Power Inc	CO	0	25	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids 10-20 MW	Fuel Cell Hybrids 20-30 MW	Other Distributed Generation 10-20 MW	Other Distributed Generation 20-30 MW
United Rural Elec Member Corp	IN	15	0	0	0
Upper Cumberland E M C	TN	0	25	0	0
Upshur Rural Elec Coop Corp	TX	0	0	0	0
Utilities Dist-Western IN REMC	IN	15	0	0	0
Valley Electric Member Corp	LA	0	25	0	0
Valley Rural Electric Coop Inc	PA	0	0	0	0
Verdigris Valley Elec Coop Inc	OK	15	0	0	0
Verendrye Electric Coop Inc	ND	0	0	0	0
Vernon City of	CA	0	0	0	0
Vero Beach City of	FL	0	25	0	0
Victoria Electric Coop Inc	TX	0	0	0	0
Volunteer Electric Coop	TN	0	25	0	0
Wadsworth City of	OH	0	0	0	0
Wallingford Town of	CT	0	0	0	0
Walton Electric Member Corp	GA	0	25	0	0
Warren Rural Elec Coop Corp	KY	0	0	0	0
Washington City of	NC	15	0	0	0
Washington Elec Member Corp	GA	15	0	0	0
Washington-St Tammany E C Inc	LA	0	25	0	0
Watertown Municipal Utilities	SD	0	0	0	0
Wayne-White Counties Elec Coop	IL	15	0	0	0
Weakley County Mun Elec Sys	TN	0	25	0	0
Weatherford Mun Utility System	TX	15	0	0	0
Webster Electric Coop	MO	0	0	0	0
Wellesley Town of	MA	0	0	0	0
Wells Rural Electric Co	NV	0	0	0	0
West Florida El Coop Assn Inc	FL	15	0	0	0
West Kentucky Rural E C C	KY	0	0	0	0
West Memphis City of	AR	0	0	0	0
West Point City of	MS	0	0	0	0
Westerville City of	OH	0	0	0	0
Westfield City of	MA	15	0	0	0
Wheatland Electric Coop Inc	KS	0	25	0	0
White River Valley El Coop Inc	MO	0	25	0	0
Wild Rice Electric Coop Inc	MN	0	0	0	0
Willmar Municipal Utils Comm	MN	0	0	0	0
Wilson City of	NC	0	25	0	0
Winfield City of	KS	0	0	0	0
Wiregrass Electric Coop Inc	AL	0	0	0	0
Wisconsin Rapids W W & L Comm	WI	0	0	0	0
Withlacoochee River Elec Coop	FL	0	25	0	0
Wood County Electric Coop Inc	TX	0	0	0	0
Woodruff Electric Coop Corp	AR	0	0	0	0
Wright-Hennepin Coop Elec Assn	MN	0	25	0	0
Wyandotte Municipal Serv Comm	MI	0	0	0	0

Table A-2. Detailed Results for Municipalities and Cooperatives, Future Case 2006-2009 (MW Market Potential)

Municipality/Cooperative Name	State	Fuel Cell Hybrids		Other Distributed Generation	
		10-20 MW	20-30 MW	10-20 MW	20-30 MW
Yampa Valley Electric Assn Inc	CO	15	0	0	0
Yazoo Valley Elec Power Assn	MS	0	0	0	0
York Electric Coop Inc	SC	15	0	0	0
Y-W Electric Assn Inc	CO	15	0	0	0
Zeeland City of	MI	0	0	0	0
TOTALS		1,980	4,875	90	50

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Alabama Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Arizona Public Service Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Boston Edison Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	10	Healthcare (inpatient)	0	0	0	0	0	0	10	30	0	0	0	0
Boston Edison Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	12	Lodging	0	0	0	0	0	0	0	10	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Central Power & Light Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	1	Office	0	0	0	0	0	0	40	10	0	0	0	0
Cleveland Electric Illum Co	2	Laboratory	0	0	0	0	0	0	10	0	0	0	0	0
Cleveland Electric Illum Co	3	Warehse (non-refrig)	0	0	0	0	0	0	20	0	0	0	0	0
Cleveland Electric Illum Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	10	0	0	0	0
Cleveland Electric Illum Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	13	Retail	0	0	0	0	0	0	0	10	0	0	0	0
Cleveland Electric Illum Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	1	Office	0	0	0	0	0	0	30	30	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Columbus Southern Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	10	Healthcare (inpatient)	0	10	0	0	0	0	0	10	0	0	0	0
Columbus Southern Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	13	Retail	0	0	0	0	0	0	0	10	0	0	0	0
Columbus Southern Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	10	0	0	0	0
Columbus Southern Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Connecticut Light & Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	1	Office	0	0	0	0	0	0	0	10	0	0	0	0
Consumers Energy Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	40	0	0	0	0
Consumers Energy Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Consumers Energy Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	40	0	0	0	0
Consumers Energy Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	12	Lodging	0	0	0	0	0	0	10	0	0	0	0	0
Consumers Energy Co	13	Retail	0	0	0	0	0	0	0	10	0	0	0	0
Consumers Energy Co	14	Service (excl. food)	0	0	0	0	0	0	0	10	0	0	0	0
Consumers Energy Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	60	0	0	0	0
Detroit Edison Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	12	Lodging	0	0	0	0	0	0	10	0	0	0	0	0
Detroit Edison Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Duke Energy Corp	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	40	0	0	0	0
Duquesne Light Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
East N Central	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	1	Office	0	0	0	0	0	0	0	40	0	0	0	0
Entergy Gulf States Inc	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Entergy Gulf States Inc	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	10	Healthcare (inpatient)	0	0	0	0	0	0	0	110	0	0	0	0
Entergy Gulf States Inc	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	12	Lodging	0	0	0	0	0	0	0	10	0	0	0	0
Entergy Gulf States Inc	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	10	Healthcare (inpatient)	0	0	0	0	0	0	0	110	0	0	0	0
Entergy Louisiana Inc	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Florida Power & Light Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	8	Education	0	0	0	0	0	0	50	0	0	0	0	0
Georgia Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	30	40	0	0	0	0
Georgia Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Georgia Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Indiana Michigan Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	20	0	0	0	0
Jersey Central Power&Light Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Kansas City Power & Light Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	1	Office	0	0	0	0	0	0	40	30	0	0	0	0
Long Island Power Authority	2	Laboratory	0	0	0	0	0	0	10	20	0	0	0	0
Long Island Power Authority	3	Warehse (non-refrig)	0	0	0	0	0	0	0	10	0	0	0	0
Long Island Power Authority	4	Food Sales	10	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	9	Food Service	10	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	10	Healthcare (inpatient)	0	10	0	0	0	0	0	40	0	0	0	0
Long Island Power Authority	11	Nursing Home	10	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	12	Lodging	20	0	0	0	0	0	10	0	0	0	0	0
Long Island Power Authority	13	Retail	0	0	0	0	0	0	40	30	0	0	0	0
Long Island Power Authority	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Los Angeles City of	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	20	20	0	0	0	0
Massachusetts Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	15	Other	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Mid Atlantic	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
New England	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
New England	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
New England	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
New England	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
New England	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
New England	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
New England	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
New England	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
New England	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
New England	10	Healthcare (inpatient)	0	0	0	0	0	0	40	50	0	0	0	0
New England	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
New England	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
New England	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
New England	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
New England	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	1	Office	0	0	0	0	0	0	0	40	0	0	0	0
Niagara Mohawk Power Corp	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	10	Healthcare (inpatient)	0	0	0	0	0	0	0	110	0	0	0	0
Niagara Mohawk Power Corp	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	12	Lodging	0	0	0	0	0	0	20	0	0	0	0	0
Niagara Mohawk Power Corp	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Northern States Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Ohio Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	4	Food Sales	0	0	0	0	0	0	30	0	0	0	0	0
Oklahoma Gas & Electric Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	10	90	0	0	0	0
Oklahoma Gas & Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	12	Lodging	0	0	0	0	0	0	10	10	0	0	0	0
Oklahoma Gas & Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	1	Office	0	0	0	0	0	0	30	20	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Pacific Gas & Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	3	Warehse (non-refrig)	0	0	0	0	0	0	10	0	0	0	0	0
Pacific Gas & Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	8	Education	0	0	0	0	0	0	10	0	0	0	0	0
Pacific Gas & Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	10	Healthcare (inpatient)	0	10	0	0	0	0	0	10	0	0	0	0
Pacific Gas & Electric Co	11	Nursing Home	10	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	12	Lodging	10	0	0	0	0	0	10	0	0	0	0	0
Pacific Gas & Electric Co	13	Retail	0	0	0	0	0	0	20	30	0	0	0	0
Pacific Gas & Electric Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
PECO Energy Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Potomac Electric Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	10	Healthcare (inpatient)	0	0	0	0	0	0	0	50	0	0	0	0
PP&L Inc	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	12	Lodging	0	0	0	0	0	0	10	0	0	0	0	0
PP&L Inc	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
PSI Energy Inc	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Colorado	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Co of Oklahoma	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Electric&Gas Co	1	Office	0	0	0	0	0	0	60	90	0	0	0	0
Public Service Electric&Gas Co	2	Laboratory	0	0	0	0	0	0	20	30	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Public Service Electric&Gas Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	20	0	0	0	0
Public Service Electric&Gas Co	4	Food Sales	10	0	0	0	0	0	0	0	0	0	0	0
Public Service Electric&Gas Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Electric&Gas Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Electric&Gas Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Electric&Gas Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Electric&Gas Co	9	Food Service	10	0	0	0	0	0	0	0	0	0	0	0
Public Service Electric&Gas Co	10	Healthcare (inpatient)	10	20	0	0	0	0	0	70	0	0	0	0
Public Service Electric&Gas Co	11	Nursing Home	10	0	0	0	0	0	0	0	0	0	0	0
Public Service Electric&Gas Co	12	Lodging	30	0	0	0	0	0	10	0	0	0	0	0
Public Service Electric&Gas Co	13	Retail	0	0	0	0	0	0	0	50	0	0	0	0
Public Service Electric&Gas Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Public Service Electric&Gas Co	15	Other	0	0	0	0	0	0	10	0	0	0	0	0
Puget Sound Energy Inc	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	10	Healthcare (inpatient)	0	0	0	0	0	0	0	10	0	0	0	0
Puget Sound Energy Inc	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
S Atlantic	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
San Diego Gas & Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison Co	1	Office	0	0	0	0	0	0	20	10	0	0	0	0
Southern California Edison Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison Co	8	Education	0	0	0	0	0	0	10	0	0	0	0	0
Southern California Edison Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison Co	10	Healthcare (inpatient)	0	10	0	0	0	0	0	10	0	0	0	0
Southern California Edison Co	11	Nursing Home	10	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison Co	12	Lodging	10	0	0	0	0	0	10	0	0	0	0	0
Southern California Edison Co	13	Retail	0	0	0	0	0	0	20	40	0	0	0	0
Southern California Edison Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Southern California Edison Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Union Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
W N Central	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	1	Office	0	0	0	0	0	0	0	10	0	0	0	0
Wisconsin Electric Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	3	Warehse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	5	Healthcare (outpatnt)	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	10	Healthcare (inpatient)	0	10	0	0	0	0	0	30	0	0	0	0
Wisconsin Electric Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0

Table A-3. Detailed Results for Commercial Buildings, Base Case 2005 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Wisconsin Electric Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	14	Service (excl. food)	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS			160	70	0	0	0	0	690	1,600	0	0	0	0

Note: Totals may not equal sum of components due to independent rounding.

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Alabama Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Alabama Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Appalachian Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	1	Office	0	20	40	0	0	0	0	10	0	0	0	0
Arizona Public Service Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	3	Warehouse (non-refrig)	0	10	0	0	0	0	0	10	0	0	0	0
Arizona Public Service Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Arizona Public Service Co	6	Warehouse (refrig)	0	120	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	10	Healthcare (inpatient)	0	30	0	0	0	0	10	30	0	0	0	0
Arizona Public Service Co	11	Nursing Home	0	30	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Public Service Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	9	Food Service	10	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	10	Healthcare (inpatient)	0	40	0	0	0	0	10	30	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Boston Edison Co	11	Nursing Home	20	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	12	Lodging	40	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Boston Edison Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	10	Healthcare (inpatient)	0	0	0	0	0	0	10	20	0	0	0	0
Carolina Power & Light Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Carolina Power & Light Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	1	Office	0	0	0	0	0	0	0	10	0	0	0	0
Central Power & Light Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	4	Food Sales	20	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	10	0	0	0	0
Central Power & Light Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	10	Healthcare (inpatient)	0	10	0	0	0	0	0	60	0	0	0	0
Central Power & Light Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	12	Lodging	0	10	0	0	0	0	0	10	0	0	0	0
Central Power & Light Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Central Power & Light Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Cincinnati Gas & Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	1	Office	10	20	0	0	0	0	30	10	0	0	0	0
Cleveland Electric Illum Co	2	Laboratory	10	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	3	Warehouse (non-refrig)	10	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	10	Healthcare (inpatient)	0	10	0	0	0	0	0	10	0	0	0	0
Cleveland Electric Illum Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	13	Retail	10	0	0	0	0	0	0	10	0	0	0	0
Cleveland Electric Illum Co	14	Service (excluding food)	0	10	0	0	0	0	0	0	0	0	0	0
Cleveland Electric Illum Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	1	Office	10	20	0	0	0	0	30	10	0	0	0	0
Columbus Southern Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power	3	Warehouse (non-refrig)	10	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Columbus Southern Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	10	Healthcare (inpatient)	0	10	0	0	0	0	0	10	0	0	0	0
Columbus Southern Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	13	Retail	10	0	0	0	0	0	0	10	0	0	0	0
Columbus Southern Power Co	14	Service (excluding food)	0	10	0	0	0	0	0	0	0	0	0	0
Columbus Southern Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Commonwealth Edison Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Commonwealth Edison Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut Light & Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY Inc	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated Edison Co-NY	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Inc														
Consolidated Edison Co-NY	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consolidated Edison Co-NY	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consolidated Edison Co-NY	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consolidated Edison Co-NY	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consolidated Edison Co-NY	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consolidated Edison Co-NY	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consolidated Edison Co-NY	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consolidated Edison Co-NY	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consolidated Edison Co-NY	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consolidated Edison Co-NY	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consolidated Edison Co-NY	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consolidated Edison Co-NY	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consolidated Edison Co-NY	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Inc														
Consumers Energy Co	1	Office	0	0	0	0	0	0	20	10	0	0	0	0
Consumers Energy Co	2	Laboratory	0	0	0	0	0	0	10	0	0	0	0	0
Consumers Energy Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	20	0	0	0	0	0
Consumers Energy Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	40	0	0	0	0
Consumers Energy Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Consumers Energy Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	40	0	0	0	0
Consumers Energy Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Consumers Energy Co	12	Lodging	0	0	0	0	0	0	10	0	0	0	0	0
Consumers Energy Co	13	Retail	0	0	0	0	0	0	20	10	0	0	0	0
Consumers Energy Co	14	Service (excluding food)	0	0	0	0	0	0	0	10	0	0	0	0
Consumers Energy Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	1	Office	0	0	0	0	0	0	90	50	0	0	0	0
Detroit Edison Co	2	Laboratory	0	0	0	0	0	0	30	0	0	0	0	0
Detroit Edison Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	30	0	0	0	0	0
Detroit Edison Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	60	0	0	0	0
Detroit Edison Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Detroit Edison Co	12	Lodging	0	0	0	0	0	0	10	0	0	0	0	0
Detroit Edison Co	13	Retail	0	0	0	0	0	0	0	20	0	0	0	0
Detroit Edison Co	14	Service (excluding food)	0	0	0	0	0	0	10	40	0	0	0	0
Detroit Edison Co	15	Other	0	0	0	0	0	0	0	10	0	0	0	0
Duke Energy Corp	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Duke Energy Corp	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Duke Energy Corp	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	1	Office	0	0	0	0	0	0	0	40	0	0	0	0
Duquesne Light Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	10	Healthcare (inpatient)	0	10	0	0	0	0	0	40	0	0	0	0
Duquesne Light Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	12	Lodging	10	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	13	Retail	0	0	0	0	0	0	20	50	0	0	0	0
Duquesne Light Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Duquesne Light Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
E S Central	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
East N Central	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
East N Central	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	1	Office	0	0	0	0	0	0	40	10	0	0	0	0
Entergy Arkansas Inc	2	Laboratory	0	0	0	0	0	0	10	0	0	0	0	0
Entergy Arkansas Inc	3	Warehouse (non-refrig)	0	0	0	0	0	0	10	0	0	0	0	0
Entergy Arkansas Inc	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	7	Religious Worship	0	0	0	0	0	0	10	0	0	0	0	0
Entergy Arkansas Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	10	Healthcare (inpatient)	0	10	0	0	0	0	0	40	0	0	0	0
Entergy Arkansas Inc	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	12	Lodging	0	0	0	0	0	0	0	10	0	0	0	0
Entergy Arkansas Inc	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Arkansas Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	1	Office	0	10	0	0	0	0	0	40	0	0	0	0
Entergy Gulf States Inc	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Entergy Gulf States Inc	10	Healthcare (inpatient)	0	20	0	0	0	0	0	100	0	0	0	0
Entergy Gulf States Inc	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	12	Lodging	0	10	0	0	0	0	0	10	0	0	0	0
Entergy Gulf States Inc	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Gulf States Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	10	Healthcare (inpatient)	0	10	0	0	0	0	0	100	0	0	0	0
Entergy Louisiana Inc	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	12	Lodging	0	20	0	0	0	0	0	20	0	0	0	0
Entergy Louisiana Inc	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Entergy Louisiana Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power & Light Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Florida Power & Light Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Florida Power Corp	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	1	Office	0	80	0	0	0	0	50	40	0	0	0	0
Georgia Power Co	2	Laboratory	0	0	0	0	0	0	10	0	0	0	0	0
Georgia Power Co	3	Warehouse (non-refrig)	0	10	0	0	0	0	30	0	0	0	0	0
Georgia Power Co	4	Food Sales	50	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	10	0	0	0	0	0
Georgia Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	7	Religious Worship	0	0	0	0	0	0	10	0	0	0	0	0
Georgia Power Co	8	Education	0	0	0	0	0	0	60	0	0	0	0	0
Georgia Power Co	9	Food Service	0	0	0	0	0	0	10	0	0	0	0	0
Georgia Power Co	10	Healthcare (inpatient)	20	20	0	0	0	0	30	40	0	0	0	0
Georgia Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	12	Lodging	0	0	0	0	0	0	30	0	0	0	0	0
Georgia Power Co	13	Retail	0	10	0	0	0	0	0	0	0	0	0	0
Georgia Power Co	14	Service (excluding food)	0	0	0	0	0	0	10	0	0	0	0	0
Georgia Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Houston Lighting & Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Houston Lighting & Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Indiana Michigan Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Indiana Michigan Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	9	Food Service	10	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	10	Healthcare (inpatient)	0	10	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	12	Lodging	20	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Jersey Central Power&Light Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Kansas City Power & Light	1	Office	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Co														
Kansas City Power & Light	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Kansas City Power & Light	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Co														
Long Island Power Authority	1	Office	40	30	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	2	Laboratory	10	20	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	3	Warehouse (non-refrig)	0	10	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	4	Food Sales	10	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Long Island Power Authority	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	9	Food Service	10	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	10	Healthcare (inpatient)	0	10	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	11	Nursing Home	10	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	12	Lodging	20	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	13	Retail	40	30	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Long Island Power Authority	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	1	Office	0	30	30	0	0	0	0	0	0	0	0	0
Los Angeles City of	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	10	Healthcare (inpatient)	0	20	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	12	Lodging	10	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	13	Retail	0	50	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles City of	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	1	Office	0	10	0	0	0	0	10	0	0	0	0	0
Massachusetts Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	3	Warehouse (non-refrig)	0	20	0	0	0	0	0	30	0	0	0	0
Massachusetts Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	9	Food Service	10	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	10	Healthcare (inpatient)	0	30	0	0	0	0	10	20	0	0	0	0
Massachusetts Electric Co	11	Nursing Home	20	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	12	Lodging	30	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Massachusetts Electric Co	13	Retail	0	10	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	1	Office	0	0	0	0	0	0	0	240	0	0	0	0
Memphis City of	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	4	Food Sales	0	30	0	0	0	0	0	0	0	0	0	0
Memphis City of	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	13	Retail	0	0	0	0	0	0	0	10	0	0	0	0
Memphis City of	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Memphis City of	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Mid Atlantic	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Mountain	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	10	Healthcare (inpatient)	20	0	0	0	0	0	110	250	0	0	0	0
Mountain	11	Nursing Home	10	0	0	0	0	0	10	0	0	0	0	0
Mountain	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Mountain	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
New England	1	Office	0	0	0	0	0	0	0	50	0	0	0	0
New England	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
New England	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	50	0	0	0	0
New England	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
New England	5	Healthcare (outpatient)	0	0	0	0	0	0	0	10	0	0	0	0
New England	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
New England	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
New England	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
New England	9	Food Service	20	0	0	0	0	0	0	0	0	0	0	0
New England	10	Healthcare (inpatient)	0	70	0	0	0	0	40	50	0	0	0	0
New England	11	Nursing Home	40	0	0	0	0	0	0	0	0	0	0	0
New England	12	Lodging	150	10	0	0	0	0	0	0	0	0	0	0
New England	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
New England	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
New England	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	1	Office	10	20	0	0	0	0	50	40	0	0	0	0
Niagara Mohawk Power Corp	2	Laboratory	0	30	0	0	0	0	20	0	0	0	0	0
Niagara Mohawk Power Corp	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	4	Food Sales	10	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Niagara Mohawk Power Corp	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	9	Food Service	10	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	10	Healthcare (inpatient)	20	20	0	0	0	0	0	110	0	0	0	0
Niagara Mohawk Power Corp	11	Nursing Home	20	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	12	Lodging	50	0	0	0	0	0	20	0	0	0	0	0
Niagara Mohawk Power Corp	13	Retail	0	60	0	0	0	0	70	10	0	0	0	0
Niagara Mohawk Power Corp	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Mohawk Power Corp	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Northern States Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Ohio Edison Co	13	Retail	0	0	0	0	0	0	0	10	0	0	0	0
Ohio Edison Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Edison Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Ohio Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	1	Office	0	0	0	0	0	0	40	10	0	0	0	0
Oklahoma Gas & Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	4	Food Sales	30	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	10	Healthcare (inpatient)	0	10	0	0	0	0	0	80	0	0	0	0
Oklahoma Gas & Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	12	Lodging	0	0	0	0	0	0	0	10	0	0	0	0
Oklahoma Gas & Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	1	Office	0	20	0	0	0	0	0	0	0	0	0	0
Pacific	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Pacific	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	10	Healthcare (inpatient)	0	30	0	0	0	0	0	10	0	0	0	0
Pacific	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	12	Lodging	10	0	0	0	0	0	20	0	0	0	0	0
Pacific	13	Retail	0	20	0	0	0	0	20	40	0	0	0	0
Pacific	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	1	Office	30	20	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	3	Warehouse (non-refrig)	10	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	8	Education	10	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	10	Healthcare (inpatient)	0	20	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	11	Nursing Home	10	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	12	Lodging	10	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	13	Retail	20	30	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Gas & Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
PacifiCorp	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
PacifiCorp	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
PECO Energy Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Portland General Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Portland General Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Potomac Electric Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	1	Office	0	0	0	0	0	0	20	20	0	0	0	0
PP&L Inc	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	4	Food Sales	10	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	9	Food Service	10	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	10	Healthcare (inpatient)	10	10	0	0	0	0	0	50	0	0	0	0
PP&L Inc	11	Nursing Home	20	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	12	Lodging	30	0	0	0	0	0	10	0	0	0	0	0
PP&L Inc	13	Retail	0	0	0	0	0	0	40	20	0	0	0	0
PP&L Inc	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
PP&L Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
PSI Energy Inc	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
PSI Energy Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Colorado	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Public Svc Co of Oklahoma	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Co of Oklahoma	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	1	Office	80	90	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	2	Laboratory	20	30	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	3	Warehouse (non-refrig)	10	20	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	4	Food Sales	10	0	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	8	Education	10	0	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	9	Food Service	10	0	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	10	Healthcare (inpatient)	10	20	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	11	Nursing Home	10	0	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	12	Lodging	50	0	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	13	Retail	50	50	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Public Svc Electric&Gas Co	15	Other	10	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	1	Office	0	0	0	0	0	0	20	10	0	0	0	0
Puget Sound Energy Inc	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	10	Healthcare (inpatient)	0	0	0	0	0	0	0	10	0	0	0	0
Puget Sound Energy Inc	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	12	Lodging	0	0	0	0	0	0	10	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Puget Sound Energy Inc	13	Retail	0	0	0	0	0	0	10	20	0	0	0	0
Puget Sound Energy Inc	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Puget Sound Energy Inc	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	1	Office	0	0	0	0	0	0	0	0	10	0	0	0
S Atlantic	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	9	Food Service	0	0	0	0	0	0	10	0	0	0	0	0
S Atlantic	10	Healthcare (inpatient)	0	0	0	0	0	0	40	50	0	0	0	0
S Atlantic	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	12	Lodging	0	0	0	0	0	0	40	0	0	0	0	0
S Atlantic	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
S Atlantic	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Salt River Proj Ag I & P Dist	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
San Diego Gas & Electric Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
San Diego Gas & Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
So. Carolina Electric&Gas Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison	1	Office	30	10	0	0	0	0	0	0	0	0	0	0
Southern California Edison	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison	3	Warehouse (non-refrig)	10	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Southern California Edison	8	Education	10	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison	10	Healthcare (inpatient)	0	20	0	0	0	0	0	0	0	0	0	0
Southern California Edison	11	Nursing Home	10	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison	12	Lodging	20	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison	13	Retail	20	40	0	0	0	0	0	0	0	0	0	0
Southern California Edison	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Southern California Edison	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	1	Office	0	30	0	0	0	0	0	20	0	0	0	0
Tampa Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	10	Healthcare (inpatient)	0	10	0	0	0	0	0	10	0	0	0	0
Tampa Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Tampa Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	12	Lodging	0	60	0	0	0	0	0	50	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Texas Utilities Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Texas Utilities Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Union Electric Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Electric & Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
W N Central	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
W N Central	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	1	Office	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	2	Laboratory	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	3	Warehouse (non-refrig)	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	10	Healthcare (inpatient)	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	12	Lodging	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	13	Retail	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	14	Service (excluding food)	0	0	0	0	0	0	0	0	0	0	0	0
W S Central	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	1	Office	30	20	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	2	Laboratory	10	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	3	Warehouse (non-refrig)	20	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	4	Food Sales	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	5	Healthcare (outpatient)	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	6	Warehouse (refrig)	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	7	Religious Worship	0	0	0	0	0	0	0	0	0	0	0	0

Table A-4. Detailed Results for Commercial Buildings, Future Case 2006-2009 (MW Market Potential)

Utility/Region		Building Type	Fuel Cell Hybrids						Other Distributed GenerationTechnologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Wisconsin Electric Power Co	8	Education	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	9	Food Service	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	10	Healthcare (inpatient)	0	20	0	0	0	0	0	10	0	0	0	0
Wisconsin Electric Power Co	11	Nursing Home	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	12	Lodging	10	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	13	Retail	10	0	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	14	Service (excluding food)	0	20	0	0	0	0	0	0	0	0	0	0
Wisconsin Electric Power Co	15	Other	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS			1,500	1,680	70	0	0	0	1,300	2,380	10	0	0	0

Note: Totals may not equal sum of components due to independent rounding.

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Alabama Power Co	2000	0	0	0	0	0	0	0
Alabama Power Co	2100	0	0	0	0	0	0	0
Alabama Power Co	2200	0	0	0	0	0	0	0
Alabama Power Co	2300	0	0	0	0	0	0	0
Alabama Power Co	2400	0	0	0	0	0	0	0
Alabama Power Co	2500	0	0	0	0	0	0	0
Alabama Power Co	2600	0	0	0	20	0	0	0
Alabama Power Co	2700	0	0	0	0	0	0	0
Alabama Power Co	2800	0	0	0	20	0	20	0
Alabama Power Co	3000	0	0	0	20	0	0	0
Alabama Power Co	3100	0	0	0	0	0	0	0
Alabama Power Co	3200	0	0	0	0	0	0	0
Alabama Power Co	3300	0	0	0	10	0	50	40
Alabama Power Co	3400	0	0	0	0	0	0	0
Alabama Power Co	3500	0	0	0	0	0	0	0
Alabama Power Co	3600	0	0	0	0	0	0	0
Alabama Power Co	3700	0	0	0	0	0	0	0
Alabama Power Co	3800	0	0	0	0	0	0	0
Alabama Power Co	3900	0	0	0	0	0	0	0
Appalachian Power Co	2000	0	0	0	0	0	0	0
Appalachian Power Co	2100	0	0	0	0	0	0	0
Appalachian Power Co	2200	0	0	0	0	0	0	0
Appalachian Power Co	2300	0	0	0	0	0	0	0
Appalachian Power Co	2400	0	0	0	0	0	0	0
Appalachian Power Co	2500	0	0	0	0	0	0	0
Appalachian Power Co	2600	0	0	0	0	0	0	0
Appalachian Power Co	2700	0	0	0	0	0	0	0
Appalachian Power Co	2800	0	0	0	0	0	0	0
Appalachian Power Co	3000	0	0	0	0	0	0	0
Appalachian Power Co	3100	0	0	0	0	0	0	0
Appalachian Power Co	3200	0	0	0	0	0	0	0
Appalachian Power Co	3300	0	0	0	0	0	0	0
Appalachian Power Co	3400	0	0	0	0	0	0	0
Appalachian Power Co	3500	0	0	0	0	0	0	0
Appalachian Power Co	3600	0	0	0	0	0	0	0
Appalachian Power Co	3700	0	0	0	0	0	0	0
Appalachian Power Co	3800	0	0	0	0	0	0	0
Appalachian Power Co	3900	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Baltimore Gas & Electric Co	2000	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2200	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2300	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2400	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2500	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2600	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2700	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2800	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2900	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3000	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3100	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3200	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3300	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3400	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3500	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3600	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3700	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3800	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3900	0	0	0	0	0	0	0
Carolina Power & Light Co	2000	0	0	40	20	0	0	0
Carolina Power & Light Co	2100	0	0	0	0	0	0	0
Carolina Power & Light Co	2200	0	0	132	10	0	0	0
Carolina Power & Light Co	2300	0	0	0	0	0	0	0
Carolina Power & Light Co	2400	0	0	0	0	0	0	0
Carolina Power & Light Co	2500	0	0	3	0	0	0	0
Carolina Power & Light Co	2600	0	0	60	10	0	0	0
Carolina Power & Light Co	2700	0	0	0	0	0	0	0
Carolina Power & Light Co	2800	0	0	65	60	50	40	0
Carolina Power & Light Co	3000	0	0	16	10	0	0	0
Carolina Power & Light Co	3100	0	0	0	0	0	0	0
Carolina Power & Light Co	3200	0	0	11	10	0	0	0
Carolina Power & Light Co	3300	0	0	28	10	0	0	0
Carolina Power & Light Co	3400	0	0	7	0	0	0	0
Carolina Power & Light Co	3500	0	0	0	0	0	0	0
Carolina Power & Light Co	3600	0	0	5	0	0	0	0
Carolina Power & Light Co	3700	0	0	9	0	0	0	0
Carolina Power & Light Co	3800	0	0	0	0	0	0	0
Carolina Power & Light Co	3900	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Central Power & Light Co	2000	0	14	2	0	0	0	0
Central Power & Light Co	2100	0	0	0	0	0	0	0
Central Power & Light Co	2200	0	1	0	0	0	0	0
Central Power & Light Co	2300	0	6	1	0	0	0	0
Central Power & Light Co	2400	0	0	0	0	0	0	0
Central Power & Light Co	2500	0	0	0	0	0	0	0
Central Power & Light Co	2600	0	1	7	10	0	0	0
Central Power & Light Co	2700	0	0	0	0	0	0	0
Central Power & Light Co	2800	0	6	23	20	40	0	0
Central Power & Light Co	2900	0	1	1	20	10	20	0
Central Power & Light Co	3000	0	3	2	0	0	0	0
Central Power & Light Co	3100	0	0	0	0	0	0	0
Central Power & Light Co	3200	0	3	2	0	0	0	0
Central Power & Light Co	3300	0	2	0	0	0	0	0
Central Power & Light Co	3400	0	2	2	0	0	0	0
Central Power & Light Co	3500	0	0	0	0	0	0	0
Central Power & Light Co	3600	0	2	0	0	0	0	0
Central Power & Light Co	3700	0	2	1	0	0	0	0
Central Power & Light Co	3800	0	0	0	0	0	0	0
Central Power & Light Co	3900	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2000	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2200	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2300	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2400	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2500	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2600	0	0	0	10	10	0	0
Cincinnati Gas & Electric Co	2700	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2800	0	0	0	60	10	0	40
Cincinnati Gas & Electric Co	3000	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	3100	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	3200	0	0	0	10	0	0	0
Cincinnati Gas & Electric Co	3300	0	0	0	10	10	0	40
Cincinnati Gas & Electric Co	3400	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	3500	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	3600	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	3700	0	0	0	0	10	0	0
Cincinnati Gas & Electric Co	3800	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	3900	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Cleveland Electric Illum Co	2000	0	0	2	0	0	0	0
Cleveland Electric Illum Co	2100	0	0	0	0	0	0	0
Cleveland Electric Illum Co	2200	0	1	0	0	0	0	0
Cleveland Electric Illum Co	2300	0	1	0	0	0	0	0
Cleveland Electric Illum Co	2400	0	0	4	0	0	0	0
Cleveland Electric Illum Co	2500	0	1	0	0	0	0	0
Cleveland Electric Illum Co	2600	0	0	21	0	0	0	0
Cleveland Electric Illum Co	2700	0	0	1	0	0	0	0
Cleveland Electric Illum Co	2800	0	0	65	0	30	0	0
Cleveland Electric Illum Co	2900	0	0	3	0	0	0	0
Cleveland Electric Illum Co	3000	0	0	6	0	0	0	0
Cleveland Electric Illum Co	3100	0	0	0	0	0	0	0
Cleveland Electric Illum Co	3200	0	0	0	0	0	0	0
Cleveland Electric Illum Co	3300	0	0	72	0	0	0	80
Cleveland Electric Illum Co	3400	0	22	13	0	0	0	0
Cleveland Electric Illum Co	3500	0	15	0	0	0	0	0
Cleveland Electric Illum Co	3600	0	12	4	0	0	0	0
Cleveland Electric Illum Co	3700	0	3	6	0	0	0	0
Cleveland Electric Illum Co	3800	0	2	1	0	0	0	0
Cleveland Electric Illum Co	3900	0	0	0	0	0	0	0
Commonwealth Edison Co	2000	0	0	0	0	0	0	0
Commonwealth Edison Co	2100	0	0	0	0	0	0	0
Commonwealth Edison Co	2200	0	0	0	0	0	0	0
Commonwealth Edison Co	2300	0	0	0	0	0	0	0
Commonwealth Edison Co	2400	0	0	0	0	0	0	0
Commonwealth Edison Co	2500	0	0	0	0	0	0	0
Commonwealth Edison Co	2600	0	0	0	0	0	0	0
Commonwealth Edison Co	2700	0	0	0	0	0	0	0
Commonwealth Edison Co	2800	0	0	0	0	0	0	0
Commonwealth Edison Co	3000	0	0	0	0	0	0	0
Commonwealth Edison Co	3100	0	0	0	0	0	0	0
Commonwealth Edison Co	3200	0	0	0	0	0	0	0
Commonwealth Edison Co	3300	0	0	0	0	0	0	0
Commonwealth Edison Co	3400	0	0	0	0	0	0	0
Commonwealth Edison Co	3500	0	0	0	0	0	0	0
Commonwealth Edison Co	3600	0	0	0	0	0	0	0
Commonwealth Edison Co	3700	0	0	0	0	0	0	0
Commonwealth Edison Co	3800	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Commonwealth Edison Co	3900	0	0	0	0	0	0	0
Connecticut Light & Power Co	2000	0	0	0	0	0	0	0
Connecticut Light & Power Co	2100	0	0	0	0	0	0	0
Connecticut Light & Power Co	2200	0	0	0	0	0	0	0
Connecticut Light & Power Co	2300	0	0	0	0	0	0	0
Connecticut Light & Power Co	2400	0	0	0	0	0	0	0
Connecticut Light & Power Co	2500	0	0	0	0	0	0	0
Connecticut Light & Power Co	2600	0	0	0	10	0	0	0
Connecticut Light & Power Co	2700	0	0	0	0	0	0	0
Connecticut Light & Power Co	2800	0	0	0	20	10	0	80
Connecticut Light & Power Co	3000	0	0	0	0	0	0	0
Connecticut Light & Power Co	3100	0	0	0	0	0	0	0
Connecticut Light & Power Co	3200	0	0	0	0	0	0	0
Connecticut Light & Power Co	3300	0	0	0	20	0	0	0
Connecticut Light & Power Co	3400	0	0	0	0	0	0	0
Connecticut Light & Power Co	3500	0	0	0	0	0	0	0
Connecticut Light & Power Co	3600	0	0	0	0	0	0	0
Connecticut Light & Power Co	3700	0	0	0	10	40	0	0
Connecticut Light & Power Co	3800	0	0	0	0	0	0	0
Connecticut Light & Power Co	3900	0	0	0	0	0	0	0
Consumers Energy Co	2000	0	0	17	0	0	0	0
Consumers Energy Co	2200	0	0	0	0	0	0	0
Consumers Energy Co	2300	0	0	2	0	0	0	0
Consumers Energy Co	2400	0	0	0	0	0	0	0
Consumers Energy Co	2500	0	0	3	10	0	0	0
Consumers Energy Co	2600	0	0	50	0	0	0	0
Consumers Energy Co	2700	0	0	0	0	0	0	0
Consumers Energy Co	2800	0	0	40	0	40	70	50
Consumers Energy Co	2900	0	0	3	0	0	0	0
Consumers Energy Co	3000	0	0	5	0	0	0	0
Consumers Energy Co	3100	0	0	0	0	0	0	0
Consumers Energy Co	3200	0	0	3	10	0	0	0
Consumers Energy Co	3300	0	0	113	40	10	20	0
Consumers Energy Co	3400	0	0	23	0	0	0	0
Consumers Energy Co	3500	0	0	1	0	0	0	0
Consumers Energy Co	3600	0	0	3	0	0	0	0
Consumers Energy Co	3700	0	0	31	10	20	0	0
Consumers Energy Co	3800	0	0	2	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Consumers Energy Co	3900	0	0	0	0	0	0	0
Dayton Power & Light Co	2000	0	0	0	0	0	0	0
Dayton Power & Light Co	2200	0	0	0	0	0	0	0
Dayton Power & Light Co	2300	0	0	0	0	0	0	0
Dayton Power & Light Co	2400	0	0	0	0	0	0	0
Dayton Power & Light Co	2500	0	0	0	0	0	0	0
Dayton Power & Light Co	2600	0	0	0	0	0	0	0
Dayton Power & Light Co	2700	0	0	0	0	0	0	0
Dayton Power & Light Co	2800	0	0	0	0	0	0	0
Dayton Power & Light Co	3000	0	0	0	0	0	0	0
Dayton Power & Light Co	3100	0	0	0	0	0	0	0
Dayton Power & Light Co	3200	0	0	0	0	0	0	0
Dayton Power & Light Co	3300	0	0	0	0	0	0	0
Dayton Power & Light Co	3400	0	0	0	0	0	0	0
Dayton Power & Light Co	3500	0	0	0	0	0	0	0
Dayton Power & Light Co	3600	0	0	0	0	0	0	0
Dayton Power & Light Co	3700	0	0	0	20	0	0	0
Dayton Power & Light Co	3800	0	0	0	0	0	0	0
Dayton Power & Light Co	3900	0	0	0	0	0	0	0
Detroit Edison Co	2000	0	16	15	0	0	0	0
Detroit Edison Co	2200	0	0	0	0	0	0	0
Detroit Edison Co	2300	0	2	2	0	0	0	0
Detroit Edison Co	2400	0	3	0	0	0	0	0
Detroit Edison Co	2500	0	2	0	0	0	0	0
Detroit Edison Co	2600	0	14	29	0	0	0	0
Detroit Edison Co	2700	0	5	1	0	0	0	0
Detroit Edison Co	2800	0	33	49	20	0	0	0
Detroit Edison Co	2900	0	0	0	10	0	0	0
Detroit Edison Co	3000	0	65	9	0	0	0	0
Detroit Edison Co	3100	0	1	0	0	0	0	0
Detroit Edison Co	3200	0	10	15	10	0	0	0
Detroit Edison Co	3300	0	65	84	20	0	0	80
Detroit Edison Co	3400	0	46	27	0	0	0	0
Detroit Edison Co	3500	0	0	6	0	0	0	0
Detroit Edison Co	3600	0	10	2	0	0	0	0
Detroit Edison Co	3700	0	32	52	100	10	0	0
Detroit Edison Co	3800	0	0	2	0	0	0	0
Detroit Edison Co	3900	0	1	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Duke Energy Corp	2000	0	0	0	0	0	0	0
Duke Energy Corp	2100	0	0	0	0	0	0	0
Duke Energy Corp	2200	0	0	0	0	0	0	0
Duke Energy Corp	2300	0	0	0	0	0	0	0
Duke Energy Corp	2400	0	0	0	0	0	0	0
Duke Energy Corp	2500	0	0	0	0	0	0	0
Duke Energy Corp	2600	0	0	0	0	0	0	0
Duke Energy Corp	2700	0	0	0	0	0	0	0
Duke Energy Corp	2800	0	0	0	0	0	70	0
Duke Energy Corp	3000	0	0	0	0	0	0	0
Duke Energy Corp	3100	0	0	0	0	0	0	0
Duke Energy Corp	3200	0	0	0	0	0	0	0
Duke Energy Corp	3300	0	0	0	0	0	0	40
Duke Energy Corp	3400	0	0	0	0	0	0	0
Duke Energy Corp	3500	0	0	0	0	0	0	0
Duke Energy Corp	3600	0	0	0	0	0	0	0
Duke Energy Corp	3700	0	0	0	0	0	0	0
Duke Energy Corp	3800	0	0	0	0	0	0	0
Duke Energy Corp	3900	0	0	0	0	0	0	0
E S Central	2000	0	0	0	0	0	0	0
E S Central	2200	0	0	0	0	0	0	0
E S Central	2300	0	0	0	0	0	0	0
E S Central	2400	0	0	0	0	0	0	0
E S Central	2500	0	0	0	0	0	0	0
E S Central	2600	0	0	0	0	0	0	0
E S Central	2700	0	0	0	0	0	0	0
E S Central	2800	0	0	0	0	0	0	0
E S Central	3000	0	0	0	0	0	0	0
E S Central	3100	0	0	0	0	0	0	0
E S Central	3200	0	0	0	0	0	0	0
E S Central	3300	0	0	0	0	0	0	0
E S Central	3400	0	0	0	0	0	0	0
E S Central	3500	0	0	0	0	0	0	0
E S Central	3600	0	0	0	0	0	0	0
E S Central	3700	0	0	0	0	0	0	0
E S Central	3800	0	0	0	0	0	0	0
E S Central	3900	0	0	0	0	0	0	0
East N Central	2000	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
East N Central	2100	0	0	0	0	0	0	0
East N Central	2200	0	0	0	0	0	0	0
East N Central	2300	0	0	0	0	0	0	0
East N Central	2400	0	0	0	0	0	0	0
East N Central	2500	0	0	0	0	0	0	0
East N Central	2600	0	0	0	0	0	0	0
East N Central	2700	0	0	0	0	0	0	0
East N Central	2800	0	0	0	0	0	20	90
East N Central	2900	0	0	0	0	0	0	0
East N Central	3000	0	0	0	0	0	0	0
East N Central	3100	0	0	0	0	0	0	0
East N Central	3200	0	0	0	0	0	0	0
East N Central	3300	0	0	0	0	0	70	0
East N Central	3400	0	0	0	0	0	0	0
East N Central	3500	0	0	0	0	0	0	0
East N Central	3600	0	0	0	0	0	0	0
East N Central	3700	0	0	0	0	0	0	0
East N Central	3800	0	0	0	0	0	0	0
East N Central	3900	0	0	0	0	0	0	0
Entergy Arkansas Inc	2000	0	0	8	0	0	0	0
Entergy Arkansas Inc	2200	0	0	1	0	0	0	0
Entergy Arkansas Inc	2300	0	0	0	0	0	0	0
Entergy Arkansas Inc	2400	0	0	0	0	0	0	0
Entergy Arkansas Inc	2500	0	0	0	0	0	0	0
Entergy Arkansas Inc	2600	0	0	19	10	0	0	0
Entergy Arkansas Inc	2700	0	0	0	0	0	0	0
Entergy Arkansas Inc	2800	0	0	12	10	10	0	0
Entergy Arkansas Inc	2900	0	0	0	0	0	0	0
Entergy Arkansas Inc	3000	0	0	0	0	0	0	0
Entergy Arkansas Inc	3100	0	0	0	0	0	0	0
Entergy Arkansas Inc	3200	0	0	0	0	0	0	0
Entergy Arkansas Inc	3300	0	0	19	10	0	0	0
Entergy Arkansas Inc	3400	0	0	5	0	0	0	0
Entergy Arkansas Inc	3500	0	0	0	0	0	0	0
Entergy Arkansas Inc	3600	0	0	0	0	0	0	0
Entergy Arkansas Inc	3700	0	0	1	0	0	0	0
Entergy Arkansas Inc	3800	0	0	0	0	0	0	0
Entergy Arkansas Inc	3900	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Entergy Gulf States Inc	2000	0	0	0	0	0	0	0
Entergy Gulf States Inc	2200	0	0	0	0	0	0	0
Entergy Gulf States Inc	2300	0	0	0	0	0	0	0
Entergy Gulf States Inc	2400	0	0	0	0	0	0	0
Entergy Gulf States Inc	2500	0	0	0	0	0	0	0
Entergy Gulf States Inc	2600	0	0	0	0	0	0	0
Entergy Gulf States Inc	2700	0	0	0	0	0	0	0
Entergy Gulf States Inc	2800	0	0	0	0	0	0	0
Entergy Gulf States Inc	2900	0	0	0	0	0	0	0
Entergy Gulf States Inc	3000	0	0	0	0	0	0	0
Entergy Gulf States Inc	3100	0	0	0	0	0	0	0
Entergy Gulf States Inc	3200	0	0	0	0	0	0	0
Entergy Gulf States Inc	3300	0	0	0	0	0	0	0
Entergy Gulf States Inc	3400	0	0	0	0	0	0	0
Entergy Gulf States Inc	3500	0	0	0	0	0	0	0
Entergy Gulf States Inc	3600	0	0	0	0	0	0	0
Entergy Gulf States Inc	3700	0	0	0	0	0	0	0
Entergy Gulf States Inc	3800	0	0	0	0	0	0	0
Entergy Gulf States Inc	3900	0	0	0	0	0	0	0
Entergy Louisiana Inc	2000	0	0	4	0	0	0	0
Entergy Louisiana Inc	2100	0	0	0	0	0	0	0
Entergy Louisiana Inc	2200	0	0	0	0	0	0	0
Entergy Louisiana Inc	2300	0	0	0	0	0	0	0
Entergy Louisiana Inc	2400	0	0	0	0	0	0	0
Entergy Louisiana Inc	2500	0	0	0	0	0	0	0
Entergy Louisiana Inc	2600	0	0	36	10	0	0	0
Entergy Louisiana Inc	2700	0	0	0	0	0	0	0
Entergy Louisiana Inc	2800	0	0	44	20	10	0	0
Entergy Louisiana Inc	2900	0	0	10	20	40	20	0
Entergy Louisiana Inc	3000	0	0	2	0	0	0	0
Entergy Louisiana Inc	3100	0	0	0	0	0	0	0
Entergy Louisiana Inc	3200	0	0	3	0	0	0	0
Entergy Louisiana Inc	3300	0	0	17	0	0	0	0
Entergy Louisiana Inc	3400	0	0	1	0	0	0	0
Entergy Louisiana Inc	3500	0	0	0	0	0	0	0
Entergy Louisiana Inc	3600	0	0	0	0	0	0	0
Entergy Louisiana Inc	3700	0	0	2	10	0	0	0
Entergy Louisiana Inc	3800	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Entergy Louisiana Inc	3900	0	0	0	0	0	0	0
Florida Power and Light	2000	0	0	17	0	0	0	0
Florida Power and Light	2100	0	0	0	0	0	0	0
Florida Power and Light	2200	0	0	3	0	0	0	0
Florida Power and Light	2300	0	0	0	0	0	0	0
Florida Power and Light	2400	0	0	1	0	0	0	0
Florida Power and Light	2500	0	0	0	0	0	0	0
Florida Power and Light	2600	0	0	33	10	0	0	0
Florida Power and Light	2700	0	0	3	0	0	0	0
Florida Power and Light	2800	0	0	21	10	0	0	0
Florida Power and Light	2900	0	0	0	0	0	0	0
Florida Power and Light	3000	0	0	4	0	0	0	0
Florida Power and Light	3100	0	0	0	0	0	0	0
Florida Power and Light	3200	0	0	14	0	0	0	0
Florida Power and Light	3300	0	0	24	10	0	0	0
Florida Power and Light	3400	0	0	1	0	0	0	0
Florida Power and Light	3500	0	0	0	0	0	0	0
Florida Power and Light	3600	0	0	14	0	0	0	0
Florida Power and Light	3700	0	0	10	10	0	0	0
Florida Power and Light	3800	0	0	4	10	0	0	0
Florida Power and Light	3900	0	0	0	0	0	0	0
Florida Power Corp	2000	0	0	10	0	0	0	0
Florida Power Corp	2200	0	0	0	0	0	0	0
Florida Power Corp	2300	0	0	0	0	0	0	0
Florida Power Corp	2400	0	0	0	0	0	0	0
Florida Power Corp	2500	0	0	0	0	0	0	0
Florida Power Corp	2600	0	0	19	0	0	0	0
Florida Power Corp	2700	0	0	1	0	0	0	0
Florida Power Corp	2800	0	0	27	20	0	0	0
Florida Power Corp	3000	0	0	2	0	0	0	0
Florida Power Corp	3100	0	0	0	0	0	0	0
Florida Power Corp	3200	0	0	5	0	0	0	0
Florida Power Corp	3300	0	0	4	0	0	0	0
Florida Power Corp	3400	0	0	1	0	0	0	0
Florida Power Corp	3500	0	0	0	0	0	0	0
Florida Power Corp	3600	0	0	10	0	0	0	0
Florida Power Corp	3700	0	0	7	0	0	0	0
Florida Power Corp	3800	0	0	11	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Florida Power Corp	3900	0	0	0	0	0	0	0
Georgia Power Co	2000	0	0	97	0	0	0	0
Georgia Power Co	2100	0	0	0	0	0	0	0
Georgia Power Co	2200	0	0	229	20	10	0	0
Georgia Power Co	2300	0	0	0	0	0	0	0
Georgia Power Co	2400	0	0	5	0	0	0	0
Georgia Power Co	2500	0	0	0	0	0	0	0
Georgia Power Co	2600	0	0	136	10	0	0	0
Georgia Power Co	2700	0	0	3	0	0	0	0
Georgia Power Co	2800	0	0	123	20	0	0	0
Georgia Power Co	2900	0	0	0	0	0	0	0
Georgia Power Co	3000	0	0	9	0	0	0	0
Georgia Power Co	3100	0	0	0	0	0	0	0
Georgia Power Co	3200	0	0	20	0	0	0	0
Georgia Power Co	3300	0	0	52	40	0	20	0
Georgia Power Co	3400	0	0	1	0	0	0	0
Georgia Power Co	3500	0	0	4	0	0	0	0
Georgia Power Co	3600	0	0	9	0	0	0	0
Georgia Power Co	3700	0	0	26	10	10	0	0
Georgia Power Co	3800	0	0	1	0	0	0	0
Georgia Power Co	3900	0	0	1	0	0	0	0
Green River Electric Corp	2000	0	0	0	0	0	0	0
Green River Electric Corp	2100	0	0	0	0	0	0	0
Green River Electric Corp	2200	0	0	0	0	0	0	0
Green River Electric Corp	2300	0	0	0	0	0	0	0
Green River Electric Corp	2400	0	0	0	0	0	0	0
Green River Electric Corp	2500	0	0	0	0	0	0	0
Green River Electric Corp	2600	0	0	0	0	0	0	0
Green River Electric Corp	2700	0	0	0	0	0	0	0
Green River Electric Corp	2800	0	0	0	0	0	0	0
Green River Electric Corp	3000	0	0	0	0	0	0	0
Green River Electric Corp	3100	0	0	0	0	0	0	0
Green River Electric Corp	3200	0	0	0	0	0	0	0
Green River Electric Corp	3300	0	0	0	0	0	0	0
Green River Electric Corp	3400	0	0	0	0	0	0	0
Green River Electric Corp	3500	0	0	0	0	0	0	0
Green River Electric Corp	3600	0	0	0	0	0	0	0
Green River Electric Corp	3700	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Green River Electric Corp	3800	0	0	0	0	0	0	0
Green River Electric Corp	3900	0	0	0	0	0	0	0
Houston Lighting & Power Co	2000	0	0	0	0	0	0	0
Houston Lighting & Power Co	2100	0	0	0	0	0	0	0
Houston Lighting & Power Co	2200	0	0	0	0	0	0	0
Houston Lighting & Power Co	2300	0	0	0	0	0	0	0
Houston Lighting & Power Co	2400	0	0	0	0	0	0	0
Houston Lighting & Power Co	2500	0	0	0	0	0	0	0
Houston Lighting & Power Co	2600	0	0	0	0	0	0	0
Houston Lighting & Power Co	2700	0	0	0	0	0	0	0
Houston Lighting & Power Co	2800	0	0	0	0	0	0	0
Houston Lighting & Power Co	2900	0	0	0	0	0	0	0
Houston Lighting & Power Co	3000	0	0	0	0	0	0	0
Houston Lighting & Power Co	3100	0	0	0	0	0	0	0
Houston Lighting & Power Co	3200	0	0	0	0	0	0	0
Houston Lighting & Power Co	3300	0	0	0	0	0	0	0
Houston Lighting & Power Co	3400	0	0	0	0	0	0	0
Houston Lighting & Power Co	3500	0	0	0	0	0	0	0
Houston Lighting & Power Co	3600	0	0	0	0	0	0	0
Houston Lighting & Power Co	3700	0	0	0	0	0	0	0
Houston Lighting & Power Co	3800	0	0	0	0	0	0	0
Houston Lighting & Power Co	3900	0	0	0	0	0	0	0
Idaho Power Co	2000	0	0	0	0	0	0	0
Idaho Power Co	2200	0	0	0	0	0	0	0
Idaho Power Co	2300	0	0	0	0	0	0	0
Idaho Power Co	2400	0	0	0	0	0	0	0
Idaho Power Co	2500	0	0	0	0	0	0	0
Idaho Power Co	2600	0	0	0	0	0	0	0
Idaho Power Co	2700	0	0	0	0	0	0	0
Idaho Power Co	2800	0	0	0	0	0	0	0
Idaho Power Co	3000	0	0	0	0	0	0	0
Idaho Power Co	3100	0	0	0	0	0	0	0
Idaho Power Co	3200	0	0	0	0	0	0	0
Idaho Power Co	3300	0	0	0	0	0	0	0
Idaho Power Co	3400	0	0	0	0	0	0	0
Idaho Power Co	3500	0	0	0	0	0	0	0
Idaho Power Co	3600	0	0	0	0	0	0	0
Idaho Power Co	3700	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Idaho Power Co	3800	0	0	0	0	0	0	0
Idaho Power Co	3900	0	0	0	0	0	0	0
IES Utilities Inc	2000	0	0	0	0	0	0	0
IES Utilities Inc	2200	0	0	0	0	0	0	0
IES Utilities Inc	2300	0	0	0	0	0	0	0
IES Utilities Inc	2400	0	0	0	0	0	0	0
IES Utilities Inc	2500	0	0	0	0	0	0	0
IES Utilities Inc	2600	0	0	0	0	0	0	0
IES Utilities Inc	2700	0	0	0	0	0	0	0
IES Utilities Inc	2800	0	0	0	0	0	0	0
IES Utilities Inc	3000	0	0	0	0	0	0	0
IES Utilities Inc	3100	0	0	0	0	0	0	0
IES Utilities Inc	3200	0	0	0	0	0	0	0
IES Utilities Inc	3300	0	0	0	0	0	0	0
IES Utilities Inc	3400	0	0	0	0	0	0	0
IES Utilities Inc	3500	0	0	0	0	0	0	0
IES Utilities Inc	3600	0	0	0	0	0	0	0
IES Utilities Inc	3700	0	0	0	0	0	0	0
IES Utilities Inc	3800	0	0	0	0	0	0	0
IES Utilities Inc	3900	0	0	0	0	0	0	0
Illinois Power Co	2000	0	13	13	0	0	0	0
Illinois Power Co	2200	0	0	0	0	0	0	0
Illinois Power Co	2300	0	0	0	0	0	0	0
Illinois Power Co	2400	0	0	1	0	0	0	0
Illinois Power Co	2500	0	0	0	0	0	0	0
Illinois Power Co	2600	0	4	15	0	0	0	0
Illinois Power Co	2700	0	0	0	0	0	0	0
Illinois Power Co	2800	0	10	20	0	0	0	0
Illinois Power Co	3000	0	7	7	10	0	0	0
Illinois Power Co	3100	0	0	0	0	0	0	0
Illinois Power Co	3200	0	3	3	0	0	0	0
Illinois Power Co	3300	0	7	26	40	0	20	40
Illinois Power Co	3400	0	0	6	0	0	0	0
Illinois Power Co	3500	0	0	4	0	0	0	0
Illinois Power Co	3600	0	0	3	0	0	0	0
Illinois Power Co	3700	0	0	4	10	0	0	0
Illinois Power Co	3800	0	0	0	0	0	0	0
Illinois Power Co	3900	0	1	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Indiana Michigan Power Co	2000	0	0	2	0	0	0	0
Indiana Michigan Power Co	2000	0	0	4	0	0	0	0
Indiana Michigan Power Co	2200	0	0	0	0	0	0	0
Indiana Michigan Power Co	2200	0	0	0	0	0	0	0
Indiana Michigan Power Co	2300	0	0	0	0	0	0	0
Indiana Michigan Power Co	2400	0	0	6	0	0	0	0
Indiana Michigan Power Co	2500	0	0	0	0	0	0	0
Indiana Michigan Power Co	2600	0	0	24	0	0	0	0
Indiana Michigan Power Co	2700	0	0	0	0	0	0	0
Indiana Michigan Power Co	2800	0	0	22	0	0	0	0
Indiana Michigan Power Co	3000	0	0	9	0	0	0	0
Indiana Michigan Power Co	3100	0	0	0	0	0	0	0
Indiana Michigan Power Co	3200	0	0	14	10	0	0	0
Indiana Michigan Power Co	3300	0	0	149	40	0	0	0
Indiana Michigan Power Co	3400	0	0	4	0	0	0	0
Indiana Michigan Power Co	3500	0	0	0	0	0	0	0
Indiana Michigan Power Co	3600	0	0	0	0	0	0	0
Indiana Michigan Power Co	3700	0	0	38	0	0	0	0
Indiana Michigan Power Co	3800	0	0	0	0	0	0	0
Indiana Michigan Power Co	3900	0	0	0	0	0	0	0
Indianapolis Power & Light Co	2300	0	0	0	0	0	0	0
Indianapolis Power & Light Co	2400	0	0	0	0	0	0	0
Indianapolis Power & Light Co	2500	0	0	0	0	0	0	0
Indianapolis Power & Light Co	2600	0	0	15	0	0	0	0
Indianapolis Power & Light Co	2700	0	0	1	0	0	0	0
Indianapolis Power & Light Co	2800	0	0	8	10	0	0	40
Indianapolis Power & Light Co	3000	0	0	0	0	0	0	0
Indianapolis Power & Light Co	3100	0	0	0	0	0	0	0
Indianapolis Power & Light Co	3200	0	0	0	0	0	0	0
Indianapolis Power & Light Co	3300	0	0	4	20	10	0	0
Indianapolis Power & Light Co	3400	0	0	6	0	0	0	0
Indianapolis Power & Light Co	3500	0	0	3	0	0	0	0
Indianapolis Power & Light Co	3600	0	0	0	0	0	0	0
Indianapolis Power & Light Co	3700	0	0	0	20	0	0	0
Indianapolis Power & Light Co	3800	0	0	0	0	0	0	0
Indianapolis Power & Light Co	3900	0	0	0	0	0	0	0
Kentucky Utilities Co	2000	0	0	0	0	0	0	0
Kentucky Utilities Co	2100	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Kentucky Utilities Co	2200	0	0	0	0	0	0	0
Kentucky Utilities Co	2300	0	0	0	0	0	0	0
Kentucky Utilities Co	2400	0	0	0	0	0	0	0
Kentucky Utilities Co	2500	0	0	0	0	0	0	0
Kentucky Utilities Co	2600	0	0	0	0	0	0	0
Kentucky Utilities Co	2700	0	0	0	0	0	0	0
Kentucky Utilities Co	2800	0	0	0	0	0	0	0
Kentucky Utilities Co	2900	0	0	0	0	0	0	0
Kentucky Utilities Co	3000	0	0	0	0	0	0	0
Kentucky Utilities Co	3100	0	0	0	0	0	0	0
Kentucky Utilities Co	3200	0	0	0	0	0	0	0
Kentucky Utilities Co	3300	0	0	0	0	0	0	0
Kentucky Utilities Co	3400	0	0	0	0	0	0	0
Kentucky Utilities Co	3500	0	0	0	0	0	0	0
Kentucky Utilities Co	3600	0	0	0	0	0	0	0
Kentucky Utilities Co	3700	0	0	0	0	0	0	0
Kentucky Utilities Co	3800	0	0	0	0	0	0	0
Kentucky Utilities Co	3900	0	0	0	0	0	0	0
Massachusetts Electric Co	2000	0	7	7	0	0	0	0
Massachusetts Electric Co	2200	0	0	12	20	0	0	0
Massachusetts Electric Co	2300	0	0	0	0	0	0	0
Massachusetts Electric Co	2400	0	0	0	0	0	0	0
Massachusetts Electric Co	2500	0	0	0	0	0	0	0
Massachusetts Electric Co	2600	0	13	67	0	0	0	0
Massachusetts Electric Co	2700	0	0	0	0	0	0	0
Massachusetts Electric Co	2800	0	15	38	20	0	20	0
Massachusetts Electric Co	2900	0	1	0	0	0	0	0
Massachusetts Electric Co	3000	0	17	11	0	0	0	0
Massachusetts Electric Co	3100	0	0	0	0	0	0	0
Massachusetts Electric Co	3200	0	7	5	10	0	0	0
Massachusetts Electric Co	3300	0	25	49	0	0	0	0
Massachusetts Electric Co	3400	0	0	5	0	0	0	0
Massachusetts Electric Co	3500	0	0	4	0	0	0	0
Massachusetts Electric Co	3600	0	0	12	0	0	0	0
Massachusetts Electric Co	3700	0	0	0	10	0	0	0
Massachusetts Electric Co	3800	0	0	9	0	0	0	0
Massachusetts Electric Co	3900	0	0	3	0	0	0	0
Memphis City of	2000	0	0	20	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Memphis City of	2100	0	0	0	0	0	0	0
Memphis City of	2200	0	0	1	0	0	0	0
Memphis City of	2300	0	0	0	0	0	0	0
Memphis City of	2400	0	0	2	0	0	0	0
Memphis City of	2500	0	0	0	0	0	0	0
Memphis City of	2600	0	0	83	0	10	0	0
Memphis City of	2700	0	0	9	0	0	0	0
Memphis City of	2800	0	0	250	140	10	110	50
Memphis City of	2900	0	0	5	10	30	0	0
Memphis City of	3000	0	0	6	0	0	0	0
Memphis City of	3100	0	0	0	0	0	0	0
Memphis City of	3200	0	0	24	10	0	0	0
Memphis City of	3300	0	0	105	40	0	0	0
Memphis City of	3400	0	0	8	0	0	0	0
Memphis City of	3500	0	0	12	10	0	0	0
Memphis City of	3600	0	0	10	0	0	0	0
Memphis City of	3700	0	0	9	10	0	0	0
Memphis City of	3800	0	0	1	0	0	0	0
Memphis City of	3900	0	0	0	0	0	0	0
Metropolitan Edison Co	2000	0	0	0	10	0	0	0
Metropolitan Edison Co	2100	0	0	0	0	0	0	0
Metropolitan Edison Co	2200	0	0	0	0	0	0	0
Metropolitan Edison Co	2300	0	0	0	0	0	0	0
Metropolitan Edison Co	2400	0	0	0	0	0	0	0
Metropolitan Edison Co	2500	0	0	0	0	0	0	0
Metropolitan Edison Co	2600	0	0	0	10	0	0	0
Metropolitan Edison Co	2700	0	0	0	0	0	0	0
Metropolitan Edison Co	2800	0	0	0	0	10	0	0
Metropolitan Edison Co	3000	0	0	0	0	0	0	0
Metropolitan Edison Co	3100	0	0	0	0	0	0	0
Metropolitan Edison Co	3200	0	0	0	0	0	0	0
Metropolitan Edison Co	3300	0	0	0	10	10	0	40
Metropolitan Edison Co	3400	0	0	0	0	0	0	0
Metropolitan Edison Co	3500	0	0	0	0	0	0	0
Metropolitan Edison Co	3600	0	0	0	0	0	0	0
Metropolitan Edison Co	3700	0	0	0	10	0	0	0
Metropolitan Edison Co	3800	0	0	0	0	0	0	0
Metropolitan Edison Co	3900	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Mid Atlantic	2000	0	0	45	0	0	0	0
Mid Atlantic	2100	0	0	0	0	0	0	0
Mid Atlantic	2200	0	0	0	0	10	0	0
Mid Atlantic	2300	0	0	0	0	0	0	0
Mid Atlantic	2400	0	0	4	0	0	0	0
Mid Atlantic	2500	0	0	0	0	0	0	0
Mid Atlantic	2600	0	0	49	20	10	0	0
Mid Atlantic	2700	0	0	1	0	0	0	0
Mid Atlantic	2800	0	0	131	20	50	20	0
Mid Atlantic	2900	0	0	0	0	10	0	0
Mid Atlantic	3000	0	0	6	10	0	0	0
Mid Atlantic	3100	0	0	0	0	0	0	0
Mid Atlantic	3200	0	0	12	0	0	0	0
Mid Atlantic	3300	0	0	54	10	10	0	0
Mid Atlantic	3400	0	0	0	0	0	0	0
Mid Atlantic	3500	0	0	0	0	0	0	0
Mid Atlantic	3600	0	0	0	0	0	0	0
Mid Atlantic	3700	0	0	7	10	10	0	0
Mid Atlantic	3800	0	0	0	0	0	0	0
Mid Atlantic	3900	0	0	0	0	0	0	0
MidAmerican Energy Co	2000	0	0	0	0	0	0	0
MidAmerican Energy Co	2200	0	0	0	0	0	0	0
MidAmerican Energy Co	2300	0	0	0	0	0	0	0
MidAmerican Energy Co	2400	0	0	0	0	0	0	0
MidAmerican Energy Co	2500	0	0	0	0	0	0	0
MidAmerican Energy Co	2600	0	0	0	0	0	0	0
MidAmerican Energy Co	2700	0	0	0	0	0	0	0
MidAmerican Energy Co	2800	0	0	0	0	0	0	0
MidAmerican Energy Co	3000	0	0	0	0	0	0	0
MidAmerican Energy Co	3100	0	0	0	0	0	0	0
MidAmerican Energy Co	3200	0	0	0	0	0	0	0
MidAmerican Energy Co	3300	0	0	0	0	0	0	0
MidAmerican Energy Co	3400	0	0	0	0	0	0	0
MidAmerican Energy Co	3500	0	0	0	0	0	0	0
MidAmerican Energy Co	3600	0	0	0	0	0	0	0
MidAmerican Energy Co	3700	0	0	0	0	0	0	0
MidAmerican Energy Co	3800	0	0	0	0	0	0	0
MidAmerican Energy Co	3900	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Minnesota Power Inc	2000	0	0	0	0	0	0	0
Minnesota Power Inc	2000	0	0	0	0	0	0	0
Minnesota Power Inc	2200	0	0	0	0	0	0	0
Minnesota Power Inc	2200	0	0	0	0	0	0	0
Minnesota Power Inc	2300	0	0	0	0	0	0	0
Minnesota Power Inc	2400	0	0	0	0	0	0	0
Minnesota Power Inc	2500	0	0	0	0	0	0	0
Minnesota Power Inc	2600	0	0	0	0	0	0	0
Minnesota Power Inc	2700	0	0	0	0	0	0	0
Minnesota Power Inc	2800	0	0	0	0	0	0	0
Minnesota Power Inc	3000	0	0	0	0	0	0	0
Minnesota Power Inc	3100	0	0	0	0	0	0	0
Minnesota Power Inc	3200	0	0	2	0	0	0	0
Minnesota Power Inc	3300	0	0	4	0	0	0	0
Minnesota Power Inc	3400	0	0	0	0	0	0	0
Minnesota Power Inc	3500	0	0	0	0	0	0	0
Minnesota Power Inc	3600	0	0	0	0	0	0	0
Minnesota Power Inc	3700	0	0	1	0	0	0	0
Minnesota Power Inc	3800	0	0	0	0	0	0	0
Minnesota Power Inc	3900	0	0	0	0	0	0	0
Mississippi Power Company	2000	0	0	0	0	0	0	0
Mississippi Power Company	2100	0	0	0	0	0	0	0
Mississippi Power Company	2200	0	0	0	0	0	0	0
Mississippi Power Company	2300	0	0	0	0	0	0	0
Mississippi Power Company	2400	0	0	0	0	0	0	0
Mississippi Power Company	2500	0	0	0	0	0	0	0
Mississippi Power Company	2600	0	0	0	0	0	0	0
Mississippi Power Company	2700	0	0	0	0	0	0	0
Mississippi Power Company	2800	0	0	0	0	0	0	0
Mississippi Power Company	2900	0	0	0	0	0	0	0
Mississippi Power Company	3000	0	0	0	0	0	0	0
Mississippi Power Company	3100	0	0	0	0	0	0	0
Mississippi Power Company	3200	0	0	0	0	0	0	0
Mississippi Power Company	3300	0	0	0	0	0	0	0
Mississippi Power Company	3400	0	0	0	0	0	0	0
Mississippi Power Company	3500	0	0	0	0	0	0	0
Mississippi Power Company	3600	0	0	0	0	0	0	0
Mississippi Power Company	3700	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Mississippi Power Company	3800	0	0	0	0	0	0	0
Mississippi Power Company	3900	0	0	0	0	0	0	0
Monongahela Power Co	2000	0	0	0	0	0	0	0
Monongahela Power Co	2200	0	0	0	0	0	0	0
Monongahela Power Co	2300	0	0	0	0	0	0	0
Monongahela Power Co	2400	0	0	0	0	0	0	0
Monongahela Power Co	2500	0	0	0	0	0	0	0
Monongahela Power Co	2600	0	0	0	0	0	0	0
Monongahela Power Co	2700	0	0	0	0	0	0	0
Monongahela Power Co	2800	0	0	0	0	0	0	0
Monongahela Power Co	2900	0	0	0	0	0	0	0
Monongahela Power Co	3000	0	0	0	0	0	0	0
Monongahela Power Co	3200	0	0	0	0	0	0	0
Monongahela Power Co	3300	0	0	0	0	0	0	0
Monongahela Power Co	3400	0	0	0	0	0	0	0
Monongahela Power Co	3500	0	0	0	0	0	0	0
Monongahela Power Co	3600	0	0	0	0	0	0	0
Monongahela Power Co	3700	0	0	0	0	0	0	0
Monongahela Power Co	3800	0	0	0	0	0	0	0
Monongahela Power Co	3900	0	0	0	0	0	0	0
Mountain	2000	0	0	0	0	0	0	0
Mountain	2200	0	0	0	0	0	0	0
Mountain	2300	0	0	0	0	0	0	0
Mountain	2400	0	0	0	0	0	0	0
Mountain	2500	0	0	0	0	0	0	0
Mountain	2600	0	0	2	0	0	0	0
Mountain	2700	0	0	0	0	0	0	0
Mountain	2800	0	0	0	0	0	0	0
Mountain	3000	0	0	0	0	0	0	0
Mountain	3100	0	0	0	0	0	0	0
Mountain	3200	0	0	0	0	0	0	0
Mountain	3300	0	0	2	0	0	0	0
Mountain	3400	0	0	0	0	0	0	0
Mountain	3500	0	0	0	0	0	0	0
Mountain	3600	0	0	0	0	0	0	0
Mountain	3700	0	0	1	0	0	0	0
Mountain	3800	0	0	0	0	0	0	0
Mountain	3900	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Nevada Power Co	2000	0	0	0	0	0	0	0
Nevada Power Co	2100	0	0	0	0	0	0	0
Nevada Power Co	2200	0	0	0	0	0	0	0
Nevada Power Co	2300	0	0	0	0	0	0	0
Nevada Power Co	2400	0	0	0	0	0	0	0
Nevada Power Co	2500	0	0	0	0	0	0	0
Nevada Power Co	2600	0	0	1	0	0	0	0
Nevada Power Co	2700	0	0	0	0	0	0	0
Nevada Power Co	2800	0	0	6	0	0	0	0
Nevada Power Co	3000	0	0	0	0	0	0	0
Nevada Power Co	3100	0	0	0	0	0	0	0
Nevada Power Co	3200	0	0	3	0	0	0	0
Nevada Power Co	3300	0	0	0	10	0	0	0
Nevada Power Co	3400	0	0	0	0	0	0	0
Nevada Power Co	3500	0	0	0	0	0	0	0
Nevada Power Co	3600	0	0	0	0	0	0	0
Nevada Power Co	3700	0	0	0	0	0	0	0
Nevada Power Co	3800	0	0	0	0	0	0	0
Nevada Power Co	3900	0	0	0	0	0	0	0
New England	2000	0	34	9	0	0	0	0
New England	2100	0	0	0	0	0	0	0
New England	2200	0	34	29	0	0	0	0
New England	2300	0	1	0	0	0	0	0
New England	2400	0	14	0	0	0	0	0
New England	2500	0	2	0	0	0	0	0
New England	2600	0	31	110	40	10	0	0
New England	2700	0	12	4	0	0	0	0
New England	2800	0	54	51	40	10	0	0
New England	2900	0	1	0	0	0	0	0
New England	3000	0	37	14	0	0	0	0
New England	3100	0	2	1	0	0	0	0
New England	3200	0	15	8	0	0	0	0
New England	3300	0	37	72	10	30	20	0
New England	3400	0	19	12	0	0	0	0
New England	3500	0	35	1	0	0	0	0
New England	3600	0	56	22	10	0	0	0
New England	3700	0	6	6	0	10	0	0
New England	3800	0	20	16	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
New England	3900	0	7	1	0	0	0	0
Niagara Mohawk Power Corp	2000	0	32	12	0	0	0	0
Niagara Mohawk Power Corp	2200	0	12	9	0	0	0	0
Niagara Mohawk Power Corp	2300	0	3	0	0	0	0	0
Niagara Mohawk Power Corp	2400	0	3	0	0	0	0	0
Niagara Mohawk Power Corp	2500	0	2	2	0	0	0	0
Niagara Mohawk Power Corp	2600	0	28	101	0	0	0	0
Niagara Mohawk Power Corp	2700	0	7	0	0	0	0	0
Niagara Mohawk Power Corp	2800	0	28	80	40	10	40	0
Niagara Mohawk Power Corp	3000	0	32	9	0	0	0	0
Niagara Mohawk Power Corp	3100	0	1	0	0	0	0	0
Niagara Mohawk Power Corp	3200	0	18	20	0	0	0	0
Niagara Mohawk Power Corp	3300	0	23	89	80	0	0	0
Niagara Mohawk Power Corp	3400	0	17	10	0	0	0	0
Niagara Mohawk Power Corp	3500	0	27	7	10	0	0	0
Niagara Mohawk Power Corp	3600	0	22	4	0	0	0	0
Niagara Mohawk Power Corp	3700	0	6	7	20	0	0	0
Niagara Mohawk Power Corp	3800	0	8	8	20	0	0	0
Niagara Mohawk Power Corp	3900	0	1	3	0	0	0	0
Northern Indiana Pub Serv Co	2000	0	5	2	0	0	0	0
Northern Indiana Pub Serv Co	2200	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	2300	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	2400	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	2500	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	2600	0	4	3	0	0	0	0
Northern Indiana Pub Serv Co	2700	0	1	0	0	0	0	0
Northern Indiana Pub Serv Co	2800	0	10	14	0	0	0	0
Northern Indiana Pub Serv Co	3000	0	5	0	0	0	0	0
Northern Indiana Pub Serv Co	3100	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	3200	0	4	2	0	0	0	0
Northern Indiana Pub Serv Co	3300	0	9	36	10	0	20	190
Northern Indiana Pub Serv Co	3400	0	4	1	0	0	0	0
Northern Indiana Pub Serv Co	3500	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	3600	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	3700	0	5	2	0	0	0	0
Northern Indiana Pub Serv Co	3800	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	3900	0	0	0	0	0	0	0
Northern States Power Co	2000	0	0	0	10	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Northern States Power Co	2100	0	0	0	0	0	0	0
Northern States Power Co	2200	0	0	0	0	0	0	0
Northern States Power Co	2300	0	0	0	0	0	0	0
Northern States Power Co	2400	0	0	0	10	0	0	0
Northern States Power Co	2500	0	0	2	0	0	0	0
Northern States Power Co	2600	0	0	0	0	0	0	0
Northern States Power Co	2700	0	0	0	10	0	0	0
Northern States Power Co	2800	0	0	0	20	0	0	0
Northern States Power Co	2900	0	0	0	10	10	0	0
Northern States Power Co	3000	0	0	0	0	0	0	0
Northern States Power Co	3100	0	0	0	0	0	0	0
Northern States Power Co	3200	0	0	0	10	0	0	0
Northern States Power Co	3300	0	0	0	0	0	0	0
Northern States Power Co	3400	0	0	0	0	0	0	0
Northern States Power Co	3500	0	0	0	0	0	0	0
Northern States Power Co	3600	0	0	0	0	0	0	0
Northern States Power Co	3700	0	0	0	0	0	0	0
Northern States Power Co	3800	0	0	0	0	0	0	0
Northern States Power Co	3900	0	0	0	0	0	0	0
Ohio Edison Co	2000	0	0	6	0	0	0	0
Ohio Edison Co	2200	0	0	1	0	0	0	0
Ohio Edison Co	2300	0	0	0	0	0	0	0
Ohio Edison Co	2400	0	0	1	0	0	0	0
Ohio Edison Co	2500	0	0	0	0	0	0	0
Ohio Edison Co	2600	0	0	29	0	0	0	0
Ohio Edison Co	2700	0	0	1	0	0	0	0
Ohio Edison Co	2800	0	0	47	10	0	0	0
Ohio Edison Co	3000	0	0	8	10	0	0	0
Ohio Edison Co	3100	0	0	0	0	0	0	0
Ohio Edison Co	3200	0	0	11	0	0	0	0
Ohio Edison Co	3300	0	0	106	40	10	20	40
Ohio Edison Co	3400	0	0	18	0	0	0	0
Ohio Edison Co	3500	0	0	0	0	0	0	0
Ohio Edison Co	3600	0	0	0	0	0	0	0
Ohio Edison Co	3700	0	0	2	20	20	0	0
Ohio Edison Co	3800	0	0	3	0	0	0	0
Ohio Edison Co	3900	0	0	1	0	0	0	0
Ohio Power Co	2000	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Ohio Power Co	2200	0	0	0	0	0	0	0
Ohio Power Co	2300	0	0	0	0	0	0	0
Ohio Power Co	2400	0	0	0	0	0	0	0
Ohio Power Co	2500	0	0	0	0	0	0	0
Ohio Power Co	2600	0	0	0	0	0	0	0
Ohio Power Co	2700	0	0	0	0	0	0	0
Ohio Power Co	2800	0	0	0	0	0	0	0
Ohio Power Co	2900	0	0	0	0	0	0	0
Ohio Power Co	3000	0	0	0	0	0	0	0
Ohio Power Co	3100	0	0	0	0	0	0	0
Ohio Power Co	3200	0	0	0	0	0	0	0
Ohio Power Co	3300	0	0	0	0	0	0	0
Ohio Power Co	3400	0	0	0	0	0	0	0
Ohio Power Co	3500	0	0	0	0	0	0	0
Ohio Power Co	3600	0	0	0	0	0	0	0
Ohio Power Co	3700	0	0	0	0	0	0	0
Ohio Power Co	3800	0	0	0	0	0	0	0
Ohio Power Co	3900	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	2000	0	17	7	10	0	0	0
Oklahoma Gas & Electric Co	2200	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	2300	0	1	0	0	0	0	0
Oklahoma Gas & Electric Co	2400	0	2	0	0	0	0	0
Oklahoma Gas & Electric Co	2500	0	2	0	0	0	0	0
Oklahoma Gas & Electric Co	2600	0	4	25	0	0	0	0
Oklahoma Gas & Electric Co	2700	0	1	0	0	0	0	0
Oklahoma Gas & Electric Co	2800	0	7	6	0	0	0	0
Oklahoma Gas & Electric Co	2900	0	0	0	10	0	0	0
Oklahoma Gas & Electric Co	3000	0	9	0	10	0	0	0
Oklahoma Gas & Electric Co	3100	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	3200	0	6	8	0	0	0	0
Oklahoma Gas & Electric Co	3300	0	4	28	0	0	0	0
Oklahoma Gas & Electric Co	3400	0	6	2	0	0	0	0
Oklahoma Gas & Electric Co	3500	0	8	12	0	0	0	0
Oklahoma Gas & Electric Co	3600	0	3	8	0	0	0	0
Oklahoma Gas & Electric Co	3700	0	6	4	10	0	0	0
Oklahoma Gas & Electric Co	3800	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	3900	0	1	0	0	0	0	0
Pacific	2000	0	0	2	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Pacific	2100	0	0	0	0	0	0	0
Pacific	2200	0	0	0	0	0	0	0
Pacific	2300	0	0	0	0	0	0	0
Pacific	2400	0	0	0	0	0	0	0
Pacific	2500	0	0	0	0	0	0	0
Pacific	2600	0	0	26	0	0	0	0
Pacific	2700	0	0	0	0	0	0	0
Pacific	2800	0	0	38	10	10	0	0
Pacific	2900	0	0	0	10	0	0	0
Pacific	3000	0	0	0	0	0	0	0
Pacific	3200	0	0	0	0	0	0	0
Pacific	3300	0	0	2	0	0	0	0
Pacific	3400	0	0	0	0	0	0	0
Pacific	3500	0	0	2	0	0	0	0
Pacific	3600	0	0	2	0	0	0	0
Pacific	3700	0	0	0	0	0	0	0
Pacific	3800	0	0	2	0	0	0	0
Pacific	3900	0	0	0	0	0	0	0
Pacific Gas & Electric Co	2000	0	59	9	0	0	0	0
Pacific Gas & Electric Co	2200	0	3	0	0	0	0	0
Pacific Gas & Electric Co	2300	0	0	0	0	0	0	0
Pacific Gas & Electric Co	2400	0	20	5	0	0	0	0
Pacific Gas & Electric Co	2500	0	0	0	0	0	0	0
Pacific Gas & Electric Co	2600	0	18	43	0	0	0	0
Pacific Gas & Electric Co	2700	0	3	0	0	0	0	0
Pacific Gas & Electric Co	2800	0	48	55	10	10	20	40
Pacific Gas & Electric Co	2900	0	1	0	10	30	20	0
Pacific Gas & Electric Co	3000	0	13	2	10	0	0	0
Pacific Gas & Electric Co	3100	0	0	0	0	0	0	0
Pacific Gas & Electric Co	3200	0	19	11	0	0	0	0
Pacific Gas & Electric Co	3300	0	18	27	10	0	0	0
Pacific Gas & Electric Co	3400	0	14	1	0	0	0	0
Pacific Gas & Electric Co	3500	0	12	8	0	0	0	0
Pacific Gas & Electric Co	3600	0	32	8	0	0	0	0
Pacific Gas & Electric Co	3700	0	4	1	10	0	0	0
Pacific Gas & Electric Co	3800	0	9	5	0	0	0	0
Pacific Gas & Electric Co	3900	0	1	0	0	0	0	0
PacifiCorp	2000	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
PacifiCorp	2200	0	0	0	0	0	0	0
PacifiCorp	2300	0	0	0	0	0	0	0
PacifiCorp	2400	0	0	0	0	0	0	0
PacifiCorp	2500	0	0	0	0	0	0	0
PacifiCorp	2600	0	0	0	0	0	0	0
PacifiCorp	2700	0	0	0	0	0	0	0
PacifiCorp	2800	0	0	0	0	0	0	0
PacifiCorp	3000	0	0	0	0	0	0	0
PacifiCorp	3100	0	0	0	0	0	0	0
PacifiCorp	3200	0	0	0	0	0	0	0
PacifiCorp	3300	0	0	0	20	10	0	0
PacifiCorp	3400	0	0	0	0	0	0	0
PacifiCorp	3500	0	0	0	0	0	0	0
PacifiCorp	3600	0	0	0	0	0	0	0
PacifiCorp	3700	0	0	0	0	0	0	0
PacifiCorp	3800	0	0	0	0	0	0	0
PacifiCorp	3900	0	0	0	0	0	0	0
PECO Energy Co	2000	0	0	0	0	0	0	0
PECO Energy Co	2100	0	0	0	0	0	0	0
PECO Energy Co	2200	0	0	0	0	0	0	0
PECO Energy Co	2300	0	0	0	0	0	0	0
PECO Energy Co	2400	0	0	0	0	0	0	0
PECO Energy Co	2500	0	0	0	0	0	0	0
PECO Energy Co	2600	0	0	0	0	0	0	0
PECO Energy Co	2700	0	0	0	0	0	0	0
PECO Energy Co	2800	0	0	0	0	0	0	0
PECO Energy Co	2900	0	0	0	0	0	0	0
PECO Energy Co	3000	0	0	0	0	0	0	0
PECO Energy Co	3100	0	0	0	0	0	0	0
PECO Energy Co	3200	0	0	0	0	0	0	0
PECO Energy Co	3300	0	0	0	0	0	0	0
PECO Energy Co	3400	0	0	0	0	0	0	0
PECO Energy Co	3500	0	0	0	0	0	0	0
PECO Energy Co	3600	0	0	0	0	0	0	0
PECO Energy Co	3700	0	0	0	0	0	0	0
PECO Energy Co	3800	0	0	0	0	0	0	0
PECO Energy Co	3900	0	0	0	0	0	0	0
Pennsylvania Electric Co	2000	0	0	2	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Pennsylvania Electric Co	2200	0	0	0	0	0	0	0
Pennsylvania Electric Co	2300	0	0	1	0	0	0	0
Pennsylvania Electric Co	2400	0	0	1	0	0	0	0
Pennsylvania Electric Co	2500	0	0	0	0	0	0	0
Pennsylvania Electric Co	2600	0	0	21	10	0	0	0
Pennsylvania Electric Co	2700	0	0	0	0	0	0	0
Pennsylvania Electric Co	2800	0	0	10	0	0	0	0
Pennsylvania Electric Co	2900	0	0	11	0	10	0	0
Pennsylvania Electric Co	3000	0	0	2	0	0	0	0
Pennsylvania Electric Co	3100	0	0	0	0	0	0	0
Pennsylvania Electric Co	3200	0	0	15	0	0	0	0
Pennsylvania Electric Co	3300	0	0	60	10	0	0	0
Pennsylvania Electric Co	3400	0	0	5	0	0	0	0
Pennsylvania Electric Co	3500	0	0	1	0	0	0	0
Pennsylvania Electric Co	3600	0	0	0	0	0	0	0
Pennsylvania Electric Co	3700	0	0	1	0	10	0	0
Pennsylvania Electric Co	3800	0	0	4	0	0	0	0
Pennsylvania Electric Co	3900	0	0	1	0	0	0	0
Potomac Edison Co	2000	0	0	0	0	0	0	0
Potomac Edison Co	2100	0	0	0	0	0	0	0
Potomac Edison Co	2200	0	0	0	0	0	0	0
Potomac Edison Co	2300	0	0	0	0	0	0	0
Potomac Edison Co	2400	0	0	0	0	0	0	0
Potomac Edison Co	2500	0	0	0	0	0	0	0
Potomac Edison Co	2600	0	0	0	0	0	0	0
Potomac Edison Co	2700	0	0	0	0	0	0	0
Potomac Edison Co	2800	0	0	0	0	0	0	0
Potomac Edison Co	3000	0	0	0	0	0	0	0
Potomac Edison Co	3100	0	0	0	0	0	0	0
Potomac Edison Co	3200	0	0	0	0	0	0	0
Potomac Edison Co	3300	0	0	0	0	0	0	0
Potomac Edison Co	3400	0	0	0	0	0	0	0
Potomac Edison Co	3500	0	0	0	0	0	0	0
Potomac Edison Co	3600	0	0	0	0	0	0	0
Potomac Edison Co	3700	0	0	0	0	0	0	0
Potomac Edison Co	3800	0	0	0	0	0	0	0
Potomac Edison Co	3900	0	0	0	0	0	0	0
PP&L Inc	2000	0	0	21	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
PP&L Inc	2100	0	0	0	0	0	0	0
PP&L Inc	2200	0	0	29	0	0	0	0
PP&L Inc	2300	0	3	0	0	0	0	0
PP&L Inc	2400	0	8	1	0	0	0	0
PP&L Inc	2500	0	1	0	0	0	0	0
PP&L Inc	2600	0	0	40	0	0	0	0
PP&L Inc	2700	0	0	0	0	0	0	0
PP&L Inc	2800	0	0	21	20	0	0	0
PP&L Inc	2900	0	0	0	0	0	0	0
PP&L Inc	3000	0	0	9	0	0	0	0
PP&L Inc	3100	0	0	0	0	0	0	0
PP&L Inc	3200	0	0	8	10	0	0	0
PP&L Inc	3300	0	0	82	0	30	20	0
PP&L Inc	3400	0	0	4	0	0	0	0
PP&L Inc	3500	0	0	0	0	0	0	0
PP&L Inc	3600	0	0	7	0	0	0	0
PP&L Inc	3700	0	0	3	0	0	0	0
PP&L Inc	3800	0	0	2	0	0	0	0
PP&L Inc	3900	0	3	2	0	0	0	0
PSI Energy Inc	2000	0	0	0	0	0	0	0
PSI Energy Inc	2100	0	0	0	0	0	0	0
PSI Energy Inc	2200	0	0	0	0	0	0	0
PSI Energy Inc	2300	0	0	0	0	0	0	0
PSI Energy Inc	2400	0	0	0	0	0	0	0
PSI Energy Inc	2500	0	0	0	0	0	0	0
PSI Energy Inc	2600	0	0	0	0	0	0	0
PSI Energy Inc	2700	0	0	0	0	0	0	0
PSI Energy Inc	2800	0	0	0	0	0	0	0
PSI Energy Inc	3000	0	0	0	0	0	0	0
PSI Energy Inc	3100	0	0	0	0	0	0	0
PSI Energy Inc	3200	0	0	0	0	0	0	0
PSI Energy Inc	3300	0	0	0	0	0	0	0
PSI Energy Inc	3400	0	0	0	0	0	0	0
PSI Energy Inc	3500	0	0	0	0	0	0	0
PSI Energy Inc	3600	0	0	0	0	0	0	0
PSI Energy Inc	3700	0	0	0	0	0	0	0
PSI Energy Inc	3800	0	0	0	0	0	0	0
PSI Energy Inc	3900	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Public Service Co of Colorado	2000	0	0	0	0	0	0	0
Public Service Co of Colorado	2200	0	0	0	0	0	0	0
Public Service Co of Colorado	2300	0	0	0	0	0	0	0
Public Service Co of Colorado	2400	0	0	0	0	0	0	0
Public Service Co of Colorado	2500	0	0	0	0	0	0	0
Public Service Co of Colorado	2600	0	0	0	0	0	0	0
Public Service Co of Colorado	2700	0	0	0	0	0	0	0
Public Service Co of Colorado	2800	0	0	0	0	10	0	0
Public Service Co of Colorado	2900	0	0	0	0	0	0	0
Public Service Co of Colorado	3000	0	0	0	0	0	0	0
Public Service Co of Colorado	3100	0	0	0	0	0	0	0
Public Service Co of Colorado	3200	0	0	0	0	0	0	0
Public Service Co of Colorado	3300	0	0	0	0	0	0	0
Public Service Co of Colorado	3400	0	0	0	0	0	0	0
Public Service Co of Colorado	3500	0	0	0	0	0	0	0
Public Service Co of Colorado	3600	0	0	0	0	0	0	0
Public Service Co of Colorado	3700	0	0	0	0	10	0	0
Public Service Co of Colorado	3800	0	0	0	0	0	0	0
Public Service Co of Colorado	3900	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2000	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2100	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2200	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2300	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2400	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2500	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2600	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2700	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2800	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2900	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3000	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3100	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3200	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3300	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3400	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3500	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3600	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3700	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3800	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Public Service Co of Oklahoma	3900	0	0	0	0	0	0	0
Public Service Co. New Mexico	2000	0	30	36	0	0	0	0
Public Service Co. New Mexico	2100	0	0	0	0	0	0	0
Public Service Co. New Mexico	2200	0	1	1	0	0	0	0
Public Service Co. New Mexico	2300	0	1	0	0	0	0	0
Public Service Co. New Mexico	2400	0	22	7	0	0	0	0
Public Service Co. New Mexico	2500	0	2	0	0	0	0	0
Public Service Co. New Mexico	2600	0	16	132	20	10	0	0
Public Service Co. New Mexico	2700	0	6	1	0	0	0	0
Public Service Co. New Mexico	2800	0	16	54	20	0	0	0
Public Service Co. New Mexico	2900	0	0	3	0	0	0	0
Public Service Co. New Mexico	3000	0	42	12	0	0	0	0
Public Service Co. New Mexico	3100	0	0	0	0	0	0	0
Public Service Co. New Mexico	3200	0	16	11	0	0	0	0
Public Service Co. New Mexico	3300	0	30	79	50	30	20	0
Public Service Co. New Mexico	3400	0	21	7	0	0	0	0
Public Service Co. New Mexico	3500	0	28	11	0	0	0	0
Public Service Co. New Mexico	3600	0	22	5	0	0	0	0
Public Service Co. New Mexico	3700	0	16	27	0	10	0	0
Public Service Co. New Mexico	3800	0	2	0	0	0	0	0
Public Service Co. New Mexico	3900	0	1	0	0	0	0	0
Public Service Electric&Gas Co	2000	0	23	7	0	0	0	0
Public Service Electric&Gas Co	2100	0	0	0	0	0	0	0
Public Service Electric&Gas Co	2200	0	20	1	0	0	0	0
Public Service Electric&Gas Co	2300	0	2	2	0	0	0	0
Public Service Electric&Gas Co	2400	0	1	0	0	0	0	0
Public Service Electric&Gas Co	2500	0	1	0	0	0	0	0
Public Service Electric&Gas Co	2600	0	32	70	0	0	0	0
Public Service Electric&Gas Co	2700	0	7	3	0	0	0	0
Public Service Electric&Gas Co	2800	0	102	160	30	0	20	40
Public Service Electric&Gas Co	2900	0	0	8	0	0	0	0
Public Service Electric&Gas Co	3000	0	23	2	10	0	0	0
Public Service Electric&Gas Co	3100	0	2	0	0	0	0	0
Public Service Electric&Gas Co	3200	0	8	3	0	0	0	0
Public Service Electric&Gas Co	3300	0	22	49	10	0	0	0
Public Service Electric&Gas Co	3400	0	7	2	0	0	0	0
Public Service Electric&Gas Co	3500	0	7	1	0	0	0	0
Public Service Electric&Gas Co	3600	0	14	5	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Public Service Electric&Gas Co	3700	0	3	3	0	0	0	0
Public Service Electric&Gas Co	3800	0	6	7	0	0	0	0
Public Service Electric&Gas Co	3900	0	3	0	0	0	0	0
Puget Sound Energy Inc	2000	0	27	7	0	0	0	0
Puget Sound Energy Inc	2200	0	2	0	0	0	0	0
Puget Sound Energy Inc	2300	0	1	0	0	0	0	0
Puget Sound Energy Inc	2400	0	3	0	0	0	0	0
Puget Sound Energy Inc	2500	0	0	0	0	0	0	0
Puget Sound Energy Inc	2600	0	5	24	0	0	0	0
Puget Sound Energy Inc	2700	0	0	3	0	0	0	0
Puget Sound Energy Inc	2800	0	11	8	0	0	0	0
Puget Sound Energy Inc	2900	0	1	0	30	0	0	0
Puget Sound Energy Inc	3000	0	6	0	0	0	0	0
Puget Sound Energy Inc	3100	0	0	0	0	0	0	0
Puget Sound Energy Inc	3200	0	7	5	0	0	0	0
Puget Sound Energy Inc	3300	0	9	13	0	10	0	0
Puget Sound Energy Inc	3400	0	5	0	0	0	0	0
Puget Sound Energy Inc	3500	0	5	1	0	0	0	0
Puget Sound Energy Inc	3600	0	8	0	0	0	0	0
Puget Sound Energy Inc	3700	0	5	9	0	20	0	0
Puget Sound Energy Inc	3800	0	4	1	10	0	0	0
Puget Sound Energy Inc	3900	0	2	0	0	0	0	0
S Atlantic	2000	0	0	15	0	0	0	0
S Atlantic	2200	0	0	0	0	0	0	0
S Atlantic	2300	0	0	0	0	0	0	0
S Atlantic	2400	0	0	1	0	0	0	0
S Atlantic	2500	0	0	0	0	0	0	0
S Atlantic	2600	0	0	11	0	0	0	0
S Atlantic	2700	0	0	0	0	0	0	0
S Atlantic	2800	0	0	10	10	0	0	0
S Atlantic	2900	0	0	0	0	0	20	0
S Atlantic	3000	0	0	0	0	0	0	0
S Atlantic	3100	0	0	0	0	0	0	0
S Atlantic	3200	0	0	0	0	0	0	0
S Atlantic	3300	0	0	4	0	0	0	0
S Atlantic	3400	0	0	0	0	0	0	0
S Atlantic	3500	0	0	0	0	0	0	0
S Atlantic	3600	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
S Atlantic	3700	0	0	0	0	10	0	0
S Atlantic	3800	0	0	0	0	0	0	0
S Atlantic	3900	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	2000	0	0	10	0	0	0	0
Sacramento Municipal Util Dist	2200	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	2300	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	2400	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	2500	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	2600	0	0	1	0	0	0	0
Sacramento Municipal Util Dist	2700	0	0	1	0	0	0	0
Sacramento Municipal Util Dist	2800	0	0	2	0	0	0	0
Sacramento Municipal Util Dist	3000	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3100	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3200	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3300	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3400	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3500	0	0	4	0	0	0	0
Sacramento Municipal Util Dist	3600	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3700	0	0	3	0	0	0	0
Sacramento Municipal Util Dist	3800	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3900	0	0	0	0	0	0	0
Salt River Project	2000	0	0	151	40	0	0	0
Salt River Project	2100	0	0	0	0	0	0	0
Salt River Project	2200	0	0	0	0	0	0	0
Salt River Project	2300	0	0	0	0	0	0	0
Salt River Project	2400	0	0	1	10	0	0	0
Salt River Project	2500	0	0	0	0	0	0	0
Salt River Project	2600	0	0	95	0	10	0	0
Salt River Project	2700	0	0	1	10	0	0	0
Salt River Project	2800	0	0	124	30	30	20	0
Salt River Project	2900	0	0	3	20	0	0	0
Salt River Project	3000	0	0	15	10	0	0	0
Salt River Project	3100	0	0	0	0	0	0	0
Salt River Project	3200	0	0	15	10	0	0	0
Salt River Project	3300	0	0	115	70	0	0	0
Salt River Project	3400	0	0	30	0	0	0	0
Salt River Project	3500	0	0	0	0	0	0	0
Salt River Project	3600	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Salt River Project	3700	0	0	31	20	40	0	0
Salt River Project	3800	0	0	0	0	0	0	0
Salt River Project	3900	0	0	0	0	0	0	0
San Antonio Public Service Bd	2000	0	0	2	0	0	0	0
San Antonio Public Service Bd	2100	0	0	0	0	0	0	0
San Antonio Public Service Bd	2200	0	0	0	0	0	0	0
San Antonio Public Service Bd	2300	0	0	0	0	0	0	0
San Antonio Public Service Bd	2400	0	0	1	0	0	0	0
San Antonio Public Service Bd	2500	0	0	0	0	0	0	0
San Antonio Public Service Bd	2600	0	0	2	0	0	0	0
San Antonio Public Service Bd	2700	0	0	0	0	0	0	0
San Antonio Public Service Bd	2800	0	0	6	0	0	0	0
San Antonio Public Service Bd	2900	0	0	0	0	0	0	0
San Antonio Public Service Bd	3000	0	0	0	0	0	0	0
San Antonio Public Service Bd	3100	0	0	0	0	0	0	0
San Antonio Public Service Bd	3200	0	0	0	0	0	0	0
San Antonio Public Service Bd	3300	0	0	6	0	0	0	0
San Antonio Public Service Bd	3400	0	0	0	0	0	0	0
San Antonio Public Service Bd	3500	0	0	0	0	0	0	0
San Antonio Public Service Bd	3600	0	0	0	0	0	0	0
San Antonio Public Service Bd	3700	0	0	0	0	0	0	0
San Antonio Public Service Bd	3800	0	0	0	0	0	0	0
San Antonio Public Service Bd	3900	0	0	0	0	0	0	0
South Carolina Electric&Gas Co	2000	0	0	2	0	0	0	0
South Carolina Electric&Gas Co	2200	0	6	22	0	0	0	0
South Carolina Electric&Gas Co	2300	0	1	0	0	0	0	0
South Carolina Electric&Gas Co	2400	0	1	0	0	0	0	0
South Carolina Electric&Gas Co	2500	0	0	0	0	0	0	0
South Carolina Electric&Gas Co	2600	0	0	15	20	0	0	0
South Carolina Electric&Gas Co	2700	0	0	0	0	0	0	0
South Carolina Electric&Gas Co	2800	0	0	36	20	0	0	50
South Carolina Electric&Gas Co	3000	0	0	2	0	0	0	0
South Carolina Electric&Gas Co	3100	0	0	0	0	0	0	0
South Carolina Electric&Gas Co	3200	0	0	2	10	0	0	0
South Carolina Electric&Gas Co	3300	0	0	17	20	0	0	0
South Carolina Electric&Gas Co	3400	0	0	1	0	0	0	0
South Carolina Electric&Gas Co	3500	0	0	1	0	0	0	0
South Carolina Electric&Gas Co	3600	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
South Carolina Electric&Gas Co	3700	0	0	3	0	0	0	0
South Carolina Electric&Gas Co	3800	0	0	1	0	0	0	0
South Carolina Electric&Gas Co	3900	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	2300	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	2400	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	2500	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	2700	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	2800	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3000	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3200	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3300	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3400	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3500	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3600	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3700	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3800	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3900	0	0	0	0	0	0	0
Southern California Edison Co	2000	0	29	12	0	0	0	0
Southern California Edison Co	2100	0	0	0	0	0	0	0
Southern California Edison Co	2200	0	10	8	0	0	0	0
Southern California Edison Co	2300	0	1	0	0	0	0	0
Southern California Edison Co	2400	0	9	0	0	0	0	0
Southern California Edison Co	2500	0	5	0	0	0	0	0
Southern California Edison Co	2600	0	20	36	0	0	0	0
Southern California Edison Co	2700	0	4	1	0	0	0	0
Southern California Edison Co	2800	0	42	56	10	10	20	0
Southern California Edison Co	2900	0	1	6	0	0	0	0
Southern California Edison Co	3000	0	40	18	0	0	0	0
Southern California Edison Co	3100	0	0	0	0	0	0	0
Southern California Edison Co	3200	0	30	2	0	0	0	0
Southern California Edison Co	3300	0	28	44	10	0	0	0
Southern California Edison Co	3400	0	25	5	0	0	0	0
Southern California Edison Co	3500	0	16	1	0	0	0	0
Southern California Edison Co	3600	0	42	9	0	0	0	0
Southern California Edison Co	3700	0	15	9	0	10	0	0
Southern California Edison Co	3800	0	12	8	0	0	0	0
Southern California Edison Co	3900	0	1	0	0	0	0	0
Southwestern Electric Power Co	2000	0	0	0	10	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Southwestern Electric Power Co	2200	0	0	0	0	0	0	0
Southwestern Electric Power Co	2300	0	0	0	0	0	0	0
Southwestern Electric Power Co	2400	0	0	0	0	0	0	0
Southwestern Electric Power Co	2500	0	0	0	0	0	0	0
Southwestern Electric Power Co	2600	0	0	0	20	0	0	0
Southwestern Electric Power Co	2700	0	0	0	0	0	0	0
Southwestern Electric Power Co	2800	0	0	0	0	0	20	0
Southwestern Electric Power Co	2900	0	0	0	0	0	0	0
Southwestern Electric Power Co	3000	0	0	0	10	0	0	0
Southwestern Electric Power Co	3100	0	0	0	0	0	0	0
Southwestern Electric Power Co	3200	0	0	0	0	0	0	0
Southwestern Electric Power Co	3300	0	0	0	0	0	20	0
Southwestern Electric Power Co	3400	0	0	0	0	0	0	0
Southwestern Electric Power Co	3500	0	0	0	0	0	0	0
Southwestern Electric Power Co	3600	0	0	0	0	0	0	0
Southwestern Electric Power Co	3700	0	0	0	0	0	0	0
Southwestern Electric Power Co	3800	0	0	0	0	0	0	0
Southwestern Electric Power Co	3900	0	0	0	0	0	0	0
Texas Utilities Electric Co	2000	0	0	32	0	0	0	0
Texas Utilities Electric Co	2100	0	0	0	0	0	0	0
Texas Utilities Electric Co	2200	0	0	0	0	0	0	0
Texas Utilities Electric Co	2300	0	0	0	0	0	0	0
Texas Utilities Electric Co	2400	0	0	8	0	0	0	0
Texas Utilities Electric Co	2500	0	0	0	0	0	0	0
Texas Utilities Electric Co	2600	0	0	80	0	0	0	0
Texas Utilities Electric Co	2700	0	0	3	0	0	0	0
Texas Utilities Electric Co	2800	0	0	76	20	10	0	40
Texas Utilities Electric Co	2900	0	0	8	0	0	0	0
Texas Utilities Electric Co	3000	0	0	17	0	0	0	0
Texas Utilities Electric Co	3100	0	0	0	0	0	0	0
Texas Utilities Electric Co	3200	0	0	27	10	0	0	0
Texas Utilities Electric Co	3300	0	0	86	60	40	0	0
Texas Utilities Electric Co	3400	0	0	5	0	0	0	0
Texas Utilities Electric Co	3500	0	0	12	0	0	0	0
Texas Utilities Electric Co	3600	0	0	35	30	0	0	0
Texas Utilities Electric Co	3700	0	0	15	10	40	0	0
Texas Utilities Electric Co	3800	0	0	19	0	0	0	0
Texas Utilities Electric Co	3900	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Toledo Edison Co	2000	0	3	2	0	0	0	0
Toledo Edison Co	2200	0	0	3	0	0	0	0
Toledo Edison Co	2300	0	0	0	0	0	0	0
Toledo Edison Co	2400	0	0	0	0	0	0	0
Toledo Edison Co	2500	0	0	2	0	0	0	0
Toledo Edison Co	2600	0	2	2	0	0	0	0
Toledo Edison Co	2700	0	1	0	0	0	0	0
Toledo Edison Co	2800	0	6	6	0	0	0	0
Toledo Edison Co	2900	0	0	0	0	30	0	0
Toledo Edison Co	3000	0	2	0	0	0	0	0
Toledo Edison Co	3200	0	2	6	10	0	0	0
Toledo Edison Co	3300	0	9	13	20	0	0	40
Toledo Edison Co	3400	0	6	1	0	0	0	0
Toledo Edison Co	3500	0	2	0	0	0	0	0
Toledo Edison Co	3600	0	1	0	0	0	0	0
Toledo Edison Co	3700	0	3	0	10	10	0	0
Toledo Edison Co	3800	0	0	0	0	0	0	0
Toledo Edison Co	3900	0	0	0	0	0	0	0
Tucson Electric Power Company	2000	0	35	13	0	0	0	0
Tucson Electric Power Company	2100	0	0	0	0	0	0	0
Tucson Electric Power Company	2200	0	1	3	0	0	0	0
Tucson Electric Power Company	2300	0	1	0	0	0	0	0
Tucson Electric Power Company	2400	0	14	0	0	0	0	0
Tucson Electric Power Company	2500	0	1	0	0	0	0	0
Tucson Electric Power Company	2600	0	9	46	10	0	0	0
Tucson Electric Power Company	2700	0	7	0	0	0	0	0
Tucson Electric Power Company	2800	0	28	67	20	10	0	0
Tucson Electric Power Company	2900	0	2	39	10	0	0	0
Tucson Electric Power Company	3000	0	9	0	0	0	0	0
Tucson Electric Power Company	3100	0	0	0	0	0	0	0
Tucson Electric Power Company	3200	0	28	2	0	0	0	0
Tucson Electric Power Company	3300	0	18	84	30	10	20	40
Tucson Electric Power Company	3400	0	13	4	0	0	0	0
Tucson Electric Power Company	3500	0	13	4	0	0	0	0
Tucson Electric Power Company	3600	0	14	4	0	0	0	0
Tucson Electric Power Company	3700	0	6	7	10	0	0	0
Tucson Electric Power Company	3800	0	8	6	0	0	0	0
Tucson Electric Power Company	3900	0	2	6	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Union Electric Co	2000	0	0	0	0	0	0	0
Union Electric Co	2200	0	0	0	0	0	0	0
Union Electric Co	2300	0	0	0	0	0	0	0
Union Electric Co	2400	0	0	0	0	0	0	0
Union Electric Co	2500	0	0	0	0	0	0	0
Union Electric Co	2600	0	0	0	0	0	0	0
Union Electric Co	2700	0	0	0	0	0	0	0
Union Electric Co	2800	0	0	0	0	0	0	0
Union Electric Co	2900	0	0	0	0	0	0	0
Union Electric Co	3000	0	0	0	0	0	0	0
Union Electric Co	3100	0	0	0	0	0	0	0
Union Electric Co	3200	0	0	0	0	0	0	0
Union Electric Co	3300	0	0	0	0	0	0	0
Union Electric Co	3400	0	0	0	0	0	0	0
Union Electric Co	3500	0	0	0	0	0	0	0
Union Electric Co	3600	0	0	0	0	0	0	0
Union Electric Co	3700	0	0	0	0	0	0	0
Union Electric Co	3800	0	0	0	0	0	0	0
Union Electric Co	3900	0	0	0	0	0	0	0
Virginia Electric & Power Co	2000	0	0	0	0	0	0	0
Virginia Electric & Power Co	2100	0	0	0	0	0	0	0
Virginia Electric & Power Co	2200	0	0	0	0	0	0	0
Virginia Electric & Power Co	2300	0	0	0	0	0	0	0
Virginia Electric & Power Co	2400	0	0	0	0	0	0	0
Virginia Electric & Power Co	2500	0	0	0	0	0	0	0
Virginia Electric & Power Co	2600	0	0	0	0	0	0	0
Virginia Electric & Power Co	2700	0	0	0	0	0	0	0
Virginia Electric & Power Co	2800	0	0	0	0	0	40	0
Virginia Electric & Power Co	2900	0	0	0	0	0	0	0
Virginia Electric & Power Co	3000	0	0	0	0	0	0	0
Virginia Electric & Power Co	3100	0	0	0	0	0	0	0
Virginia Electric & Power Co	3200	0	0	0	0	0	0	0
Virginia Electric & Power Co	3300	0	0	0	0	0	0	0
Virginia Electric & Power Co	3400	0	0	0	0	0	0	0
Virginia Electric & Power Co	3500	0	0	0	0	0	0	0
Virginia Electric & Power Co	3600	0	0	0	0	0	0	0
Virginia Electric & Power Co	3700	0	0	0	0	0	0	0
Virginia Electric & Power Co	3800	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Virginia Electric & Power Co	3900	0	0	0	0	0	0	0
W N Central	2000	0	0	0	10	0	0	0
W N Central	2200	0	0	0	0	0	0	0
W N Central	2300	0	0	0	0	0	0	0
W N Central	2400	0	0	0	0	0	0	0
W N Central	2500	0	0	0	0	0	0	0
W N Central	2600	0	0	0	10	10	0	0
W N Central	2700	0	0	0	0	0	0	0
W N Central	2800	0	0	0	20	0	0	0
W N Central	2900	0	0	0	30	30	0	0
W N Central	3000	0	0	0	0	0	0	0
W N Central	3100	0	0	0	0	0	0	0
W N Central	3200	0	0	0	10	0	0	0
W N Central	3300	0	0	0	30	10	0	0
W N Central	3400	0	0	0	0	0	0	0
W N Central	3500	0	0	0	0	0	0	0
W N Central	3600	0	0	0	0	0	0	0
W N Central	3700	0	0	0	0	0	0	0
W N Central	3800	0	0	0	0	0	0	0
W N Central	3900	0	0	0	0	0	0	0
W S Central	2000	0	0	0	0	0	0	0
W S Central	2200	0	0	0	0	0	0	0
W S Central	2300	0	0	0	0	0	0	0
W S Central	2400	0	0	0	0	0	0	0
W S Central	2500	0	0	0	0	0	0	0
W S Central	2600	0	0	0	0	0	0	0
W S Central	2700	0	0	0	0	0	0	0
W S Central	2800	0	0	0	10	0	20	0
W S Central	3000	0	0	0	0	0	0	0
W S Central	3100	0	0	0	0	0	0	0
W S Central	3200	0	0	0	0	0	0	0
W S Central	3300	0	0	0	10	0	20	0
W S Central	3400	0	0	0	0	0	0	0
W S Central	3500	0	0	0	0	0	0	0
W S Central	3600	0	0	0	0	0	0	0
W S Central	3700	0	0	0	10	10	0	0
W S Central	3800	0	0	0	0	0	0	0
W S Central	3900	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
West Penn Power Co	2000	0	0	2	0	0	0	0
West Penn Power Co	2200	0	0	0	0	0	0	0
West Penn Power Co	2300	0	0	0	0	0	0	0
West Penn Power Co	2400	0	0	0	0	0	0	0
West Penn Power Co	2500	0	0	0	0	0	0	0
West Penn Power Co	2600	0	0	19	0	0	0	0
West Penn Power Co	2700	0	0	0	0	0	0	0
West Penn Power Co	2800	0	0	36	0	0	0	0
West Penn Power Co	2900	0	0	8	0	0	0	0
West Penn Power Co	3000	0	0	0	0	0	0	0
West Penn Power Co	3100	0	0	0	0	0	0	0
West Penn Power Co	3200	0	0	15	10	0	0	0
West Penn Power Co	3300	0	0	69	40	10	20	80
West Penn Power Co	3400	0	0	0	0	0	0	0
West Penn Power Co	3500	0	0	0	0	0	0	0
West Penn Power Co	3600	0	0	0	0	0	0	0
West Penn Power Co	3700	0	0	0	0	0	0	0
West Penn Power Co	3800	0	0	0	0	0	0	0
West Penn Power Co	3900	0	0	0	0	0	0	0
Wisconsin Electric Power Co	2000	0	33	18	0	0	0	0
Wisconsin Electric Power Co	2200	0	2	0	0	0	0	0
Wisconsin Electric Power Co	2300	0	0	0	0	0	0	0
Wisconsin Electric Power Co	2400	0	3	0	0	0	0	0
Wisconsin Electric Power Co	2500	0	1	0	0	0	0	0
Wisconsin Electric Power Co	2600	0	23	118	20	0	0	0
Wisconsin Electric Power Co	2700	0	8	6	0	0	0	0
Wisconsin Electric Power Co	2800	0	34	20	20	0	0	0
Wisconsin Electric Power Co	3000	0	18	2	0	0	0	0
Wisconsin Electric Power Co	3100	0	1	0	0	0	0	0
Wisconsin Electric Power Co	3200	0	5	2	0	0	0	0
Wisconsin Electric Power Co	3300	0	38	107	50	0	0	0
Wisconsin Electric Power Co	3400	0	23	0	0	0	0	0
Wisconsin Electric Power Co	3500	0	36	0	0	0	0	0
Wisconsin Electric Power Co	3600	0	24	0	0	0	0	0
Wisconsin Electric Power Co	3700	0	7	0	0	0	0	0
Wisconsin Electric Power Co	3800	0	4	0	0	0	0	0
Wisconsin Electric Power Co	3900	0	1	0	0	0	0	0
Wisconsin Power & Light Co	2000	0	0	0	0	0	0	0

Table A-5. Detailed Results for Industrial Facilities, Base Case 2005 (MW Market Potential)

		FC Hybrids	Other Distributed Generation Technologies					
Utility/Region	SIC Code	(.2-50 MW)	.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Wisconsin Power & Light Co	2200	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2300	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2400	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2500	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2600	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2700	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2800	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3000	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3100	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3200	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3300	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3400	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3500	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3600	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3700	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3800	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3900	0	0	0	0	0	0	0
		0	3,133	8,507	3,150	1,210	1,010	1,270

Note: Totals may not equal sum of components due to independent rounding.

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Alabama Power Co	2000	0	0	32	0	0	0	0
Alabama Power Co	2100	0	0	0	0	0	0	0
Alabama Power Co	2200	0	0	42	0	0	0	0
Alabama Power Co	2300	0	0	1	0	0	0	0
Alabama Power Co	2400	0	0	9	0	0	0	0
Alabama Power Co	2500	0	0	0	0	0	0	0
Alabama Power Co	2600	0	0	71	20	0	0	0
Alabama Power Co	2700	0	0	0	0	0	0	0
Alabama Power Co	2800	0	0	46	20	0	20	0
Alabama Power Co	3000	0	0	9	20	0	0	0
Alabama Power Co	3100	0	0	0	0	0	0	0
Alabama Power Co	3200	0	0	2	0	0	0	0
Alabama Power Co	3300	0	0	106	10	0	50	40
Alabama Power Co	3400	0	0	3	0	0	0	0
Alabama Power Co	3500	0	0	0	0	0	0	0
Alabama Power Co	3600	0	0	3	0	0	0	0
Alabama Power Co	3700	0	0	13	0	0	0	0
Alabama Power Co	3800	0	0	0	0	0	0	0
Alabama Power Co	3900	0	0	0	0	0	0	0
Appalachian Power Co	2000	0	0	0	0	0	0	0
Appalachian Power Co	2100	0	0	0	0	0	0	0
Appalachian Power Co	2200	0	0	0	0	0	0	0
Appalachian Power Co	2300	0	0	0	0	0	0	0
Appalachian Power Co	2400	0	0	0	0	0	0	0
Appalachian Power Co	2500	0	0	0	0	0	0	0
Appalachian Power Co	2600	0	0	0	0	0	0	0
Appalachian Power Co	2700	0	0	0	0	0	0	0
Appalachian Power Co	2800	0	0	0	0	0	0	0
Appalachian Power Co	3000	0	0	0	0	0	0	0
Appalachian Power Co	3100	0	0	0	0	0	0	0
Appalachian Power Co	3200	0	0	0	0	0	0	0
Appalachian Power Co	3300	0	0	0	0	0	0	0
Appalachian Power Co	3400	0	0	0	0	0	0	0
Appalachian Power Co	3500	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Appalachian Power Co	3600	0	0	0	0	0	0	0
Appalachian Power Co	3700	0	0	0	0	0	0	0
Appalachian Power Co	3800	0	0	0	0	0	0	0
Appalachian Power Co	3900	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2000	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2200	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2300	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2400	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2500	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2600	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2700	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2800	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	2900	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3000	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3100	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3200	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3300	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3400	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3500	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3600	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3700	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3800	0	0	0	0	0	0	0
Baltimore Gas & Electric Co	3900	0	0	0	0	0	0	0
Carolina Power & Light Co	2000	0	18	40	20	0	0	0
Carolina Power & Light Co	2100	0	0	0	0	0	0	0
Carolina Power & Light Co	2200	0	71	132	10	0	0	0
Carolina Power & Light Co	2300	0	8	0	0	0	0	0
Carolina Power & Light Co	2400	0	20	0	0	0	0	0
Carolina Power & Light Co	2500	0	5	3	0	0	0	0
Carolina Power & Light Co	2600	0	12	60	10	0	0	0
Carolina Power & Light Co	2700	0	1	0	0	0	0	0
Carolina Power & Light Co	2800	0	11	65	60	50	40	0
Carolina Power & Light Co	3000	0	20	16	10	0	0	0
Carolina Power & Light Co	3100	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Carolina Power & Light Co	3200	0	8	11	10	0	0	0
Carolina Power & Light Co	3300	0	11	28	10	0	0	0
Carolina Power & Light Co	3400	0	11	7	0	0	0	0
Carolina Power & Light Co	3500	0	18	2	0	0	0	0
Carolina Power & Light Co	3600	0	31	5	0	0	0	0
Carolina Power & Light Co	3700	0	8	9	0	0	0	0
Carolina Power & Light Co	3800	0	3	0	0	0	0	0
Carolina Power & Light Co	3900	0	1	0	0	0	0	0
Central Power & Light Co	2000	0	14	2	0	0	0	0
Central Power & Light Co	2100	0	0	0	0	0	0	0
Central Power & Light Co	2200	0	1	0	0	0	0	0
Central Power & Light Co	2300	0	6	1	0	0	0	0
Central Power & Light Co	2400	0	0	0	0	0	0	0
Central Power & Light Co	2500	0	0	0	0	0	0	0
Central Power & Light Co	2600	0	1	7	10	0	0	0
Central Power & Light Co	2700	0	0	0	0	0	0	0
Central Power & Light Co	2800	0	6	23	20	40	0	0
Central Power & Light Co	2900	0	1	1	20	10	20	0
Central Power & Light Co	3000	0	3	2	0	0	0	0
Central Power & Light Co	3100	0	0	0	0	0	0	0
Central Power & Light Co	3200	0	3	2	0	0	0	0
Central Power & Light Co	3300	0	2	0	0	0	0	0
Central Power & Light Co	3400	0	2	2	0	0	0	0
Central Power & Light Co	3500	0	1	0	0	0	0	0
Central Power & Light Co	3600	0	2	0	0	0	0	0
Central Power & Light Co	3700	0	2	1	0	0	0	0
Central Power & Light Co	3800	0	0	0	0	0	0	0
Central Power & Light Co	3900	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2000	0	0	23	0	0	0	0
Cincinnati Gas & Electric Co	2200	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2300	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2400	0	0	4	0	0	0	0
Cincinnati Gas & Electric Co	2500	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2600	0	0	43	10	10	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Cincinnati Gas & Electric Co	2700	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	2800	0	0	57	60	10	0	40
Cincinnati Gas & Electric Co	3000	0	0	8	0	0	0	0
Cincinnati Gas & Electric Co	3100	0	0	0	0	0	0	0
Cincinnati Gas & Electric Co	3200	0	0	3	10	0	0	0
Cincinnati Gas & Electric Co	3300	0	0	45	10	10	0	40
Cincinnati Gas & Electric Co	3400	0	0	6	0	0	0	0
Cincinnati Gas & Electric Co	3500	0	0	5	0	0	0	0
Cincinnati Gas & Electric Co	3600	0	0	3	0	0	0	0
Cincinnati Gas & Electric Co	3700	0	0	8	0	10	0	0
Cincinnati Gas & Electric Co	3800	0	0	1	0	0	0	0
Cincinnati Gas & Electric Co	3900	0	0	1	0	0	0	0
Cleveland Electric Illum Co	2000	0	6	2	0	0	0	0
Cleveland Electric Illum Co	2100	0	0	0	0	0	0	0
Cleveland Electric Illum Co	2200	0	1	0	0	0	0	0
Cleveland Electric Illum Co	2300	0	1	0	0	0	0	0
Cleveland Electric Illum Co	2400	0	0	4	0	0	0	0
Cleveland Electric Illum Co	2500	0	1	0	0	0	0	0
Cleveland Electric Illum Co	2600	0	12	21	0	0	0	0
Cleveland Electric Illum Co	2700	0	2	1	0	0	0	0
Cleveland Electric Illum Co	2800	0	30	65	0	30	0	0
Cleveland Electric Illum Co	2900	0	0	3	0	0	0	0
Cleveland Electric Illum Co	3000	0	19	6	0	0	0	0
Cleveland Electric Illum Co	3100	0	0	0	0	0	0	0
Cleveland Electric Illum Co	3200	0	4	0	0	0	0	0
Cleveland Electric Illum Co	3300	0	33	72	0	0	0	80
Cleveland Electric Illum Co	3400	0	22	13	0	0	0	0
Cleveland Electric Illum Co	3500	0	15	0	0	0	0	0
Cleveland Electric Illum Co	3600	0	12	4	0	0	0	0
Cleveland Electric Illum Co	3700	0	3	6	0	0	0	0
Cleveland Electric Illum Co	3800	0	2	1	0	0	0	0
Cleveland Electric Illum Co	3900	0	0	0	0	0	0	0
Commonwealth Edison Co	2000	0	0	0	0	0	0	0
Commonwealth Edison Co	2100	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Commonwealth Edison Co	2200	0	0	0	0	0	0	0
Commonwealth Edison Co	2300	0	0	0	0	0	0	0
Commonwealth Edison Co	2400	0	0	0	0	0	0	0
Commonwealth Edison Co	2500	0	0	0	0	0	0	0
Commonwealth Edison Co	2600	0	0	0	0	0	0	0
Commonwealth Edison Co	2700	0	0	0	0	0	0	0
Commonwealth Edison Co	2800	0	0	0	0	0	0	0
Commonwealth Edison Co	3000	0	0	0	0	0	0	0
Commonwealth Edison Co	3100	0	0	0	0	0	0	0
Commonwealth Edison Co	3200	0	0	0	0	0	0	0
Commonwealth Edison Co	3300	0	0	0	0	0	0	0
Commonwealth Edison Co	3400	0	0	0	0	0	0	0
Commonwealth Edison Co	3500	0	0	0	0	0	0	0
Commonwealth Edison Co	3600	0	0	0	0	0	0	0
Commonwealth Edison Co	3700	0	0	0	0	0	0	0
Commonwealth Edison Co	3800	0	0	0	0	0	0	0
Commonwealth Edison Co	3900	0	0	0	0	0	0	0
Connecticut Light & Power Co	2000	0	9	5	0	0	0	0
Connecticut Light & Power Co	2100	0	0	0	0	0	0	0
Connecticut Light & Power Co	2200	0	8	6	0	0	0	0
Connecticut Light & Power Co	2300	0	0	0	0	0	0	0
Connecticut Light & Power Co	2400	0	1	0	0	0	0	0
Connecticut Light & Power Co	2500	0	0	0	0	0	0	0
Connecticut Light & Power Co	2600	0	14	22	10	0	0	0
Connecticut Light & Power Co	2700	0	7	0	0	0	0	0
Connecticut Light & Power Co	2800	0	23	29	20	10	0	80
Connecticut Light & Power Co	3000	0	13	2	0	0	0	0
Connecticut Light & Power Co	3100	0	0	0	0	0	0	0
Connecticut Light & Power Co	3200	0	4	3	0	0	0	0
Connecticut Light & Power Co	3300	0	32	64	20	0	0	0
Connecticut Light & Power Co	3400	0	23	5	0	0	0	0
Connecticut Light & Power Co	3500	0	0	4	0	0	0	0
Connecticut Light & Power Co	3600	0	0	0	0	0	0	0
Connecticut Light & Power Co	3700	0	12	15	10	40	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Connecticut Light & Power Co	3800	0	0	5	0	0	0	0
Connecticut Light & Power Co	3900	0	1	3	0	0	0	0
Consumers Energy Co	2000	0	18	17	0	0	0	0
Consumers Energy Co	2200	0	2	0	0	0	0	0
Consumers Energy Co	2300	0	0	2	0	0	0	0
Consumers Energy Co	2400	0	4	0	0	0	0	0
Consumers Energy Co	2500	0	7	3	10	0	0	0
Consumers Energy Co	2600	0	14	50	0	0	0	0
Consumers Energy Co	2700	0	4	0	0	0	0	0
Consumers Energy Co	2800	0	16	40	0	40	70	50
Consumers Energy Co	2900	0	0	3	0	0	0	0
Consumers Energy Co	3000	0	49	5	0	0	0	0
Consumers Energy Co	3100	0	1	0	0	0	0	0
Consumers Energy Co	3200	0	11	3	10	0	0	0
Consumers Energy Co	3300	0	32	113	40	10	20	0
Consumers Energy Co	3400	0	30	23	0	0	0	0
Consumers Energy Co	3500	0	26	1	0	0	0	0
Consumers Energy Co	3600	0	13	3	0	0	0	0
Consumers Energy Co	3700	0	22	31	10	20	0	0
Consumers Energy Co	3800	0	4	2	0	0	0	0
Consumers Energy Co	3900	0	0	0	0	0	0	0
Dayton Power & Light Co	2000	0	0	0	0	0	0	0
Dayton Power & Light Co	2200	0	0	0	0	0	0	0
Dayton Power & Light Co	2300	0	0	0	0	0	0	0
Dayton Power & Light Co	2400	0	0	0	0	0	0	0
Dayton Power & Light Co	2500	0	0	0	0	0	0	0
Dayton Power & Light Co	2600	0	0	11	0	0	0	0
Dayton Power & Light Co	2700	0	0	3	0	0	0	0
Dayton Power & Light Co	2800	0	0	4	0	0	0	0
Dayton Power & Light Co	3000	0	0	4	0	0	0	0
Dayton Power & Light Co	3100	0	0	0	0	0	0	0
Dayton Power & Light Co	3200	0	0	0	0	0	0	0
Dayton Power & Light Co	3300	0	0	32	0	0	0	0
Dayton Power & Light Co	3400	0	0	2	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Dayton Power & Light Co	3500	0	0	9	0	0	0	0
Dayton Power & Light Co	3600	0	0	2	0	0	0	0
Dayton Power & Light Co	3700	0	0	14	20	0	0	0
Dayton Power & Light Co	3800	0	0	0	0	0	0	0
Dayton Power & Light Co	3900	0	0	0	0	0	0	0
Detroit Edison Co	2000	0	16	15	0	0	0	0
Detroit Edison Co	2200	0	1	0	0	0	0	0
Detroit Edison Co	2300	0	2	2	0	0	0	0
Detroit Edison Co	2400	0	3	0	0	0	0	0
Detroit Edison Co	2500	0	2	0	0	0	0	0
Detroit Edison Co	2600	0	14	29	0	0	0	0
Detroit Edison Co	2700	0	5	1	0	0	0	0
Detroit Edison Co	2800	0	33	49	20	0	0	0
Detroit Edison Co	2900	0	0	0	10	0	0	0
Detroit Edison Co	3000	0	65	9	0	0	0	0
Detroit Edison Co	3100	0	1	0	0	0	0	0
Detroit Edison Co	3200	0	10	15	10	0	0	0
Detroit Edison Co	3300	0	65	84	20	0	0	80
Detroit Edison Co	3400	0	46	27	0	0	0	0
Detroit Edison Co	3500	0	45	6	0	0	0	0
Detroit Edison Co	3600	0	10	2	0	0	0	0
Detroit Edison Co	3700	0	32	52	100	10	0	0
Detroit Edison Co	3800	0	0	2	0	0	0	0
Detroit Edison Co	3900	0	1	0	0	0	0	0
Duke Energy Corp	2000	0	0	0	10	0	0	0
Duke Energy Corp	2100	0	0	0	0	0	0	0
Duke Energy Corp	2200	0	0	0	0	10	0	0
Duke Energy Corp	2300	0	0	0	0	0	0	0
Duke Energy Corp	2400	0	0	0	0	0	0	0
Duke Energy Corp	2500	0	0	0	0	0	0	0
Duke Energy Corp	2600	0	0	0	20	10	0	0
Duke Energy Corp	2700	0	0	0	0	0	0	0
Duke Energy Corp	2800	0	0	125	30	70	70	0
Duke Energy Corp	3000	0	0	0	10	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Duke Energy Corp	3100	0	0	0	0	0	0	0
Duke Energy Corp	3200	0	0	0	20	0	0	0
Duke Energy Corp	3300	0	0	0	40	10	0	40
Duke Energy Corp	3400	0	0	0	0	0	0	0
Duke Energy Corp	3500	0	0	0	0	0	0	0
Duke Energy Corp	3600	0	0	0	0	0	0	0
Duke Energy Corp	3700	0	0	0	0	0	0	0
Duke Energy Corp	3800	0	0	0	0	0	0	0
Duke Energy Corp	3900	0	0	0	0	0	0	0
E S Central	2000	0	0	0	0	0	0	0
E S Central	2200	0	0	0	0	0	0	0
E S Central	2300	0	0	0	0	0	0	0
E S Central	2400	0	0	0	0	0	0	0
E S Central	2500	0	0	0	0	0	0	0
E S Central	2600	0	0	0	0	0	0	0
E S Central	2700	0	0	0	0	0	0	0
E S Central	2800	0	0	0	0	0	0	0
E S Central	3000	0	0	0	0	0	0	0
E S Central	3100	0	0	0	0	0	0	0
E S Central	3200	0	0	0	0	0	0	0
E S Central	3300	0	0	0	0	0	0	0
E S Central	3400	0	0	0	0	0	0	0
E S Central	3500	0	0	0	0	0	0	0
E S Central	3600	0	0	0	0	0	0	0
E S Central	3700	0	0	0	0	0	0	0
E S Central	3800	0	0	0	0	0	0	0
E S Central	3900	0	0	0	0	0	0	0
East N Central	2000	0	0	0	0	20	0	0
East N Central	2100	0	0	0	0	0	0	0
East N Central	2200	0	0	0	0	0	0	0
East N Central	2300	0	0	0	0	0	0	0
East N Central	2400	0	0	0	0	0	0	0
East N Central	2500	0	0	0	0	0	0	0
East N Central	2600	0	0	0	10	10	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
East N Central	2700	0	0	0	0	0	0	0
East N Central	2800	0	0	0	120	50	20	90
East N Central	2900	0	0	0	0	10	0	0
East N Central	3000	0	0	0	20	0	0	0
East N Central	3100	0	0	0	0	0	0	0
East N Central	3200	0	0	0	10	0	0	0
East N Central	3300	0	0	0	90	40	70	0
East N Central	3400	0	0	0	0	0	0	0
East N Central	3500	0	0	0	0	0	0	0
East N Central	3600	0	0	0	0	0	0	0
East N Central	3700	0	0	0	20	20	0	0
East N Central	3800	0	0	0	0	0	0	0
East N Central	3900	0	0	0	0	0	0	0
Entergy Arkansas Inc	2000	0	6	8	0	0	0	0
Entergy Arkansas Inc	2200	0	0	1	0	0	0	0
Entergy Arkansas Inc	2300	0	0	0	0	0	0	0
Entergy Arkansas Inc	2400	0	6	0	0	0	0	0
Entergy Arkansas Inc	2500	0	0	0	0	0	0	0
Entergy Arkansas Inc	2600	0	3	19	10	0	0	0
Entergy Arkansas Inc	2700	0	1	0	0	0	0	0
Entergy Arkansas Inc	2800	0	5	12	10	10	0	0
Entergy Arkansas Inc	2900	0	1	0	0	0	0	0
Entergy Arkansas Inc	3000	0	5	0	0	0	0	0
Entergy Arkansas Inc	3100	0	0	0	0	0	0	0
Entergy Arkansas Inc	3200	0	3	0	0	0	0	0
Entergy Arkansas Inc	3300	0	1	19	10	0	0	0
Entergy Arkansas Inc	3400	0	4	5	0	0	0	0
Entergy Arkansas Inc	3500	0	1	0	0	0	0	0
Entergy Arkansas Inc	3600	0	4	0	0	0	0	0
Entergy Arkansas Inc	3700	0	3	1	0	0	0	0
Entergy Arkansas Inc	3800	0	0	0	0	0	0	0
Entergy Arkansas Inc	3900	0	0	0	0	0	0	0
Entergy Gulf States Inc	2000	0	0	0	0	0	0	0
Entergy Gulf States Inc	2200	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Entergy Gulf States Inc	2300	0	0	0	0	0	0	0
Entergy Gulf States Inc	2400	0	0	0	0	0	0	0
Entergy Gulf States Inc	2500	0	0	0	0	0	0	0
Entergy Gulf States Inc	2600	0	0	0	0	0	0	0
Entergy Gulf States Inc	2700	0	0	0	0	0	0	0
Entergy Gulf States Inc	2800	0	0	0	0	0	0	0
Entergy Gulf States Inc	2900	0	0	0	0	0	0	0
Entergy Gulf States Inc	3000	0	0	0	0	0	0	0
Entergy Gulf States Inc	3100	0	0	0	0	0	0	0
Entergy Gulf States Inc	3200	0	0	0	0	0	0	0
Entergy Gulf States Inc	3300	0	0	0	0	0	0	0
Entergy Gulf States Inc	3400	0	0	0	0	0	0	0
Entergy Gulf States Inc	3500	0	0	0	0	0	0	0
Entergy Gulf States Inc	3600	0	0	0	0	0	0	0
Entergy Gulf States Inc	3700	0	0	0	0	0	0	0
Entergy Gulf States Inc	3800	0	0	0	0	0	0	0
Entergy Gulf States Inc	3900	0	0	0	0	0	0	0
Entergy Louisiana Inc	2000	0	14	4	0	0	0	0
Entergy Louisiana Inc	2100	0	0	0	0	0	0	0
Entergy Louisiana Inc	2200	0	0	0	0	0	0	0
Entergy Louisiana Inc	2300	0	0	0	0	0	0	0
Entergy Louisiana Inc	2400	0	3	0	0	0	0	0
Entergy Louisiana Inc	2500	0	0	0	0	0	0	0
Entergy Louisiana Inc	2600	0	6	36	10	0	0	0
Entergy Louisiana Inc	2700	0	1	0	0	0	0	0
Entergy Louisiana Inc	2800	0	12	44	20	10	0	0
Entergy Louisiana Inc	2900	0	0	10	20	40	20	0
Entergy Louisiana Inc	3000	0	1	2	0	0	0	0
Entergy Louisiana Inc	3100	0	0	0	0	0	0	0
Entergy Louisiana Inc	3200	0	3	3	0	0	0	0
Entergy Louisiana Inc	3300	0	3	17	0	0	0	0
Entergy Louisiana Inc	3400	0	2	1	0	0	0	0
Entergy Louisiana Inc	3500	0	3	0	0	0	0	0
Entergy Louisiana Inc	3600	0	2	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Entergy Louisiana Inc	3700	0	4	2	10	0	0	0
Entergy Louisiana Inc	3800	0	0	0	0	0	0	0
Entergy Louisiana Inc	3900	0	0	0	0	0	0	0
Florida Power and Light	2000	0	0	17	0	0	0	0
Florida Power and Light	2100	0	0	0	0	0	0	0
Florida Power and Light	2200	0	0	3	0	0	0	0
Florida Power and Light	2300	0	0	0	0	0	0	0
Florida Power and Light	2400	0	0	1	0	0	0	0
Florida Power and Light	2500	0	0	0	0	0	0	0
Florida Power and Light	2600	0	0	33	10	0	0	0
Florida Power and Light	2700	0	0	3	0	0	0	0
Florida Power and Light	2800	0	0	21	10	0	0	0
Florida Power and Light	2900	0	0	0	0	0	0	0
Florida Power and Light	3000	0	0	4	0	0	0	0
Florida Power and Light	3100	0	0	0	0	0	0	0
Florida Power and Light	3200	0	0	14	0	0	0	0
Florida Power and Light	3300	0	0	24	10	0	0	0
Florida Power and Light	3400	0	0	1	0	0	0	0
Florida Power and Light	3500	0	0	0	0	0	0	0
Florida Power and Light	3600	0	0	14	0	0	0	0
Florida Power and Light	3700	0	0	10	10	0	0	0
Florida Power and Light	3800	0	0	4	10	0	0	0
Florida Power and Light	3900	0	0	0	0	0	0	0
Florida Power Corp	2000	0	17	10	0	0	0	0
Florida Power Corp	2200	0	0	0	0	0	0	0
Florida Power Corp	2300	0	0	0	0	0	0	0
Florida Power Corp	2400	0	7	0	0	0	0	0
Florida Power Corp	2500	0	0	0	0	0	0	0
Florida Power Corp	2600	0	7	19	0	0	0	0
Florida Power Corp	2700	0	3	1	0	0	0	0
Florida Power Corp	2800	0	27	27	20	0	0	0
Florida Power Corp	3000	0	10	2	0	0	0	0
Florida Power Corp	3100	0	0	0	0	0	0	0
Florida Power Corp	3200	0	7	5	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Florida Power Corp	3300	0	5	4	0	0	0	0
Florida Power Corp	3400	0	9	1	0	0	0	0
Florida Power Corp	3500	0	0	0	0	0	0	0
Florida Power Corp	3600	0	0	10	0	0	0	0
Florida Power Corp	3700	0	6	7	0	0	0	0
Florida Power Corp	3800	0	0	11	0	0	0	0
Florida Power Corp	3900	0	0	0	0	0	0	0
Georgia Power Co	2000	0	0	97	0	0	0	0
Georgia Power Co	2100	0	0	0	0	0	0	0
Georgia Power Co	2200	0	0	229	20	10	0	0
Georgia Power Co	2300	0	14	0	0	0	0	0
Georgia Power Co	2400	0	28	5	0	0	0	0
Georgia Power Co	2500	0	0	0	0	0	0	0
Georgia Power Co	2600	0	0	136	10	0	0	0
Georgia Power Co	2700	0	6	3	0	0	0	0
Georgia Power Co	2800	0	0	123	20	0	0	0
Georgia Power Co	2900	0	0	0	0	0	0	0
Georgia Power Co	3000	0	0	9	0	0	0	0
Georgia Power Co	3100	0	0	0	0	0	0	0
Georgia Power Co	3200	0	0	20	0	0	0	0
Georgia Power Co	3300	0	0	52	40	0	20	0
Georgia Power Co	3400	0	22	1	0	0	0	0
Georgia Power Co	3500	0	0	4	0	0	0	0
Georgia Power Co	3600	0	0	9	0	0	0	0
Georgia Power Co	3700	0	13	26	10	10	0	0
Georgia Power Co	3800	0	0	1	0	0	0	0
Georgia Power Co	3900	0	0	1	0	0	0	0
Green River Electric Corp	2000	0	0	0	0	0	0	0
Green River Electric Corp	2100	0	0	0	0	0	0	0
Green River Electric Corp	2200	0	0	0	0	0	0	0
Green River Electric Corp	2300	0	0	0	0	0	0	0
Green River Electric Corp	2400	0	0	0	0	0	0	0
Green River Electric Corp	2500	0	0	0	0	0	0	0
Green River Electric Corp	2600	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Green River Electric Corp	2700	0	0	0	0	0	0	0
Green River Electric Corp	2800	0	0	0	0	0	0	0
Green River Electric Corp	3000	0	0	0	0	0	0	0
Green River Electric Corp	3100	0	0	0	0	0	0	0
Green River Electric Corp	3200	0	0	0	0	0	0	0
Green River Electric Corp	3300	0	0	0	0	0	0	0
Green River Electric Corp	3400	0	0	0	0	0	0	0
Green River Electric Corp	3500	0	0	0	0	0	0	0
Green River Electric Corp	3600	0	0	0	0	0	0	0
Green River Electric Corp	3700	0	0	0	0	0	0	0
Green River Electric Corp	3800	0	0	0	0	0	0	0
Green River Electric Corp	3900	0	0	0	0	0	0	0
Houston Lighting & Power Co	2000	0	0	0	0	0	0	0
Houston Lighting & Power Co	2100	0	0	0	0	0	0	0
Houston Lighting & Power Co	2200	0	0	0	0	0	0	0
Houston Lighting & Power Co	2300	0	0	0	0	0	0	0
Houston Lighting & Power Co	2400	0	0	0	0	0	0	0
Houston Lighting & Power Co	2500	0	0	0	0	0	0	0
Houston Lighting & Power Co	2600	0	0	0	0	0	0	0
Houston Lighting & Power Co	2700	0	0	0	0	0	0	0
Houston Lighting & Power Co	2800	0	0	0	0	0	0	0
Houston Lighting & Power Co	2900	0	0	0	0	0	0	0
Houston Lighting & Power Co	3000	0	0	0	0	0	0	0
Houston Lighting & Power Co	3100	0	0	0	0	0	0	0
Houston Lighting & Power Co	3200	0	0	0	0	0	0	0
Houston Lighting & Power Co	3300	0	0	0	0	0	0	0
Houston Lighting & Power Co	3400	0	0	0	0	0	0	0
Houston Lighting & Power Co	3500	0	0	0	0	0	0	0
Houston Lighting & Power Co	3600	0	0	0	0	0	0	0
Houston Lighting & Power Co	3700	0	0	0	0	0	0	0
Houston Lighting & Power Co	3800	0	0	0	0	0	0	0
Houston Lighting & Power Co	3900	0	0	0	0	0	0	0
Idaho Power Co	2000	0	0	0	0	0	0	0
Idaho Power Co	2200	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Idaho Power Co	2300	0	0	0	0	0	0	0
Idaho Power Co	2400	0	0	0	0	0	0	0
Idaho Power Co	2500	0	0	0	0	0	0	0
Idaho Power Co	2600	0	0	0	0	0	0	0
Idaho Power Co	2700	0	0	0	0	0	0	0
Idaho Power Co	2800	0	0	0	0	0	0	0
Idaho Power Co	3000	0	0	0	0	0	0	0
Idaho Power Co	3100	0	0	0	0	0	0	0
Idaho Power Co	3200	0	0	0	0	0	0	0
Idaho Power Co	3300	0	0	0	0	0	0	0
Idaho Power Co	3400	0	0	0	0	0	0	0
Idaho Power Co	3500	0	0	0	0	0	0	0
Idaho Power Co	3600	0	0	0	0	0	0	0
Idaho Power Co	3700	0	0	0	0	0	0	0
Idaho Power Co	3800	0	0	0	0	0	0	0
Idaho Power Co	3900	0	0	0	0	0	0	0
IES Utilities Inc	2000	0	0	0	0	0	0	0
IES Utilities Inc	2200	0	0	0	0	0	0	0
IES Utilities Inc	2300	0	0	0	0	0	0	0
IES Utilities Inc	2400	0	0	0	0	0	0	0
IES Utilities Inc	2500	0	0	0	0	0	0	0
IES Utilities Inc	2600	0	0	0	0	0	0	0
IES Utilities Inc	2700	0	0	0	0	0	0	0
IES Utilities Inc	2800	0	0	0	0	0	0	0
IES Utilities Inc	3000	0	0	0	0	0	0	0
IES Utilities Inc	3100	0	0	0	0	0	0	0
IES Utilities Inc	3200	0	0	0	0	0	0	0
IES Utilities Inc	3300	0	0	0	0	0	0	0
IES Utilities Inc	3400	0	0	0	0	0	0	0
IES Utilities Inc	3500	0	0	0	0	0	0	0
IES Utilities Inc	3600	0	0	0	0	0	0	0
IES Utilities Inc	3700	0	0	0	0	0	0	0
IES Utilities Inc	3800	0	0	0	0	0	0	0
IES Utilities Inc	3900	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Illinois Power Co	2000	0	13	13	0	0	0	0
Illinois Power Co	2200	0	0	0	0	0	0	0
Illinois Power Co	2300	0	0	0	0	0	0	0
Illinois Power Co	2400	0	0	1	0	0	0	0
Illinois Power Co	2500	0	0	0	0	0	0	0
Illinois Power Co	2600	0	4	15	0	0	0	0
Illinois Power Co	2700	0	2	0	0	0	0	0
Illinois Power Co	2800	0	10	20	0	0	0	0
Illinois Power Co	3000	0	7	7	10	0	0	0
Illinois Power Co	3100	0	0	0	0	0	0	0
Illinois Power Co	3200	0	3	3	0	0	0	0
Illinois Power Co	3300	0	7	26	40	0	20	40
Illinois Power Co	3400	0	3	6	0	0	0	0
Illinois Power Co	3500	0	6	4	0	0	0	0
Illinois Power Co	3600	0	8	3	0	0	0	0
Illinois Power Co	3700	0	4	4	10	0	0	0
Illinois Power Co	3800	0	0	0	0	0	0	0
Illinois Power Co	3900	0	1	0	0	0	0	0
Indiana Michigan Power Co	2000	0	0	2	0	0	0	0
Indiana Michigan Power Co	2000	0	9	4	0	0	0	0
Indiana Michigan Power Co	2200	0	0	0	0	0	0	0
Indiana Michigan Power Co	2200	0	0	0	0	0	0	0
Indiana Michigan Power Co	2300	0	0	0	0	0	0	0
Indiana Michigan Power Co	2400	0	0	6	0	0	0	0
Indiana Michigan Power Co	2500	0	0	0	0	0	0	0
Indiana Michigan Power Co	2600	0	0	24	0	0	0	0
Indiana Michigan Power Co	2700	0	0	0	0	0	0	0
Indiana Michigan Power Co	2800	0	0	22	0	0	0	0
Indiana Michigan Power Co	3000	0	0	9	0	0	0	0
Indiana Michigan Power Co	3100	0	0	0	0	0	0	0
Indiana Michigan Power Co	3200	0	0	14	10	0	0	0
Indiana Michigan Power Co	3300	0	0	149	40	0	0	0
Indiana Michigan Power Co	3400	0	0	4	0	0	0	0
Indiana Michigan Power Co	3500	0	0	3	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Indiana Michigan Power Co	3600	0	0	17	0	0	0	0
Indiana Michigan Power Co	3700	0	0	38	0	0	0	0
Indiana Michigan Power Co	3800	0	0	0	0	0	0	0
Indiana Michigan Power Co	3900	0	0	0	0	0	0	0
Indianapolis Power & Light Co	2300	0	1	0	0	0	0	0
Indianapolis Power & Light Co	2400	0	0	0	0	0	0	0
Indianapolis Power & Light Co	2500	0	0	0	0	0	0	0
Indianapolis Power & Light Co	2600	0	5	15	0	0	0	0
Indianapolis Power & Light Co	2700	0	0	1	0	0	0	0
Indianapolis Power & Light Co	2800	0	9	8	10	0	0	40
Indianapolis Power & Light Co	3000	0	3	0	0	0	0	0
Indianapolis Power & Light Co	3100	0	0	0	0	0	0	0
Indianapolis Power & Light Co	3200	0	4	0	0	0	0	0
Indianapolis Power & Light Co	3300	0	9	4	20	10	0	0
Indianapolis Power & Light Co	3400	0	6	6	0	0	0	0
Indianapolis Power & Light Co	3500	0	6	3	0	0	0	0
Indianapolis Power & Light Co	3600	0	1	0	0	0	0	0
Indianapolis Power & Light Co	3700	0	1	0	20	0	0	0
Indianapolis Power & Light Co	3800	0	1	0	0	0	0	0
Indianapolis Power & Light Co	3900	0	0	0	0	0	0	0
Kentucky Utilities Co	2000	0	0	0	0	0	0	0
Kentucky Utilities Co	2100	0	0	0	0	0	0	0
Kentucky Utilities Co	2200	0	0	0	0	0	0	0
Kentucky Utilities Co	2300	0	0	0	0	0	0	0
Kentucky Utilities Co	2400	0	0	0	0	0	0	0
Kentucky Utilities Co	2500	0	0	0	0	0	0	0
Kentucky Utilities Co	2600	0	0	0	0	0	0	0
Kentucky Utilities Co	2700	0	0	0	0	0	0	0
Kentucky Utilities Co	2800	0	0	0	0	0	0	0
Kentucky Utilities Co	2900	0	0	0	0	0	0	0
Kentucky Utilities Co	3000	0	0	0	0	0	0	0
Kentucky Utilities Co	3100	0	0	0	0	0	0	0
Kentucky Utilities Co	3200	0	0	0	0	0	0	0
Kentucky Utilities Co	3300	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Kentucky Utilities Co	3400	0	0	0	0	0	0	0
Kentucky Utilities Co	3500	0	0	0	0	0	0	0
Kentucky Utilities Co	3600	0	0	0	0	0	0	0
Kentucky Utilities Co	3700	0	0	0	0	0	0	0
Kentucky Utilities Co	3800	0	0	0	0	0	0	0
Kentucky Utilities Co	3900	0	0	0	0	0	0	0
Massachusetts Electric Co	2000	0	9	7	0	0	0	0
Massachusetts Electric Co	2200	0	10	12	20	0	0	0
Massachusetts Electric Co	2300	0	3	0	0	0	0	0
Massachusetts Electric Co	2400	0	0	0	0	0	0	0
Massachusetts Electric Co	2500	0	0	0	0	0	0	0
Massachusetts Electric Co	2600	0	24	67	0	0	0	0
Massachusetts Electric Co	2700	0	4	0	0	0	0	0
Massachusetts Electric Co	2800	0	22	38	20	0	20	0
Massachusetts Electric Co	2900	0	1	0	0	0	0	0
Massachusetts Electric Co	3000	0	21	11	0	0	0	0
Massachusetts Electric Co	3100	0	0	0	0	0	0	0
Massachusetts Electric Co	3200	0	7	5	10	0	0	0
Massachusetts Electric Co	3300	0	34	49	0	0	0	0
Massachusetts Electric Co	3400	0	10	5	0	0	0	0
Massachusetts Electric Co	3500	0	10	4	0	0	0	0
Massachusetts Electric Co	3600	0	19	12	0	0	0	0
Massachusetts Electric Co	3700	0	1	0	10	0	0	0
Massachusetts Electric Co	3800	0	7	9	0	0	0	0
Massachusetts Electric Co	3900	0	3	3	0	0	0	0
Memphis City of	2000	0	48	20	0	0	0	0
Memphis City of	2100	0	0	0	0	0	0	0
Memphis City of	2200	0	4	6	0	0	0	0
Memphis City of	2300	0	5	0	0	0	0	0
Memphis City of	2400	0	7	2	0	0	0	0
Memphis City of	2500	0	2	0	0	0	0	0
Memphis City of	2600	0	43	83	0	10	0	0
Memphis City of	2700	0	29	9	0	0	0	0
Memphis City of	2800	0	84	250	140	10	110	50

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Memphis City of	2900	0	0	5	10	30	0	0
Memphis City of	3000	0	46	6	0	0	0	0
Memphis City of	3100	0	1	0	0	0	0	0
Memphis City of	3200	0	36	24	10	0	0	0
Memphis City of	3300	0	62	105	40	0	0	0
Memphis City of	3400	0	25	8	0	0	0	0
Memphis City of	3500	0	8	16	10	0	0	0
Memphis City of	3600	0	45	17	0	0	0	0
Memphis City of	3700	0	13	9	10	0	0	0
Memphis City of	3800	0	2	6	0	0	0	0
Memphis City of	3900	0	1	0	0	0	0	0
Metropolitan Edison Co	2000	0	0	14	10	0	0	0
Metropolitan Edison Co	2100	0	0	0	0	0	0	0
Metropolitan Edison Co	2200	0	0	4	0	0	0	0
Metropolitan Edison Co	2300	0	0	0	0	0	0	0
Metropolitan Edison Co	2400	0	0	0	0	0	0	0
Metropolitan Edison Co	2500	0	0	0	0	0	0	0
Metropolitan Edison Co	2600	0	0	26	10	0	0	0
Metropolitan Edison Co	2700	0	0	0	0	0	0	0
Metropolitan Edison Co	2800	0	0	22	0	10	0	0
Metropolitan Edison Co	3000	0	0	2	0	0	0	0
Metropolitan Edison Co	3100	0	0	0	0	0	0	0
Metropolitan Edison Co	3200	0	0	9	0	0	0	0
Metropolitan Edison Co	3300	0	0	71	10	10	0	40
Metropolitan Edison Co	3400	0	0	2	0	0	0	0
Metropolitan Edison Co	3500	0	0	0	0	0	0	0
Metropolitan Edison Co	3600	0	0	7	0	0	0	0
Metropolitan Edison Co	3700	0	0	4	10	0	0	0
Metropolitan Edison Co	3800	0	0	0	0	0	0	0
Metropolitan Edison Co	3900	0	0	0	0	0	0	0
Mid Atlantic	2000	0	0	45	0	0	0	0
Mid Atlantic	2100	0	0	0	0	0	0	0
Mid Atlantic	2200	0	0	68	0	10	0	0
Mid Atlantic	2300	0	8	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Mid Atlantic	2400	0	23	4	0	0	0	0
Mid Atlantic	2500	0	5	0	0	0	0	0
Mid Atlantic	2600	0	0	49	20	10	0	0
Mid Atlantic	2700	0	3	1	0	0	0	0
Mid Atlantic	2800	0	0	131	20	50	20	0
Mid Atlantic	2900	0	0	0	0	10	0	0
Mid Atlantic	3000	0	0	6	10	0	0	0
Mid Atlantic	3100	0	0	0	0	0	0	0
Mid Atlantic	3200	0	0	12	0	0	0	0
Mid Atlantic	3300	0	0	54	10	10	0	0
Mid Atlantic	3400	0	14	0	0	0	0	0
Mid Atlantic	3500	0	0	13	0	0	0	0
Mid Atlantic	3600	0	23	0	0	0	0	0
Mid Atlantic	3700	0	16	7	10	10	0	0
Mid Atlantic	3800	0	0	5	0	0	0	0
Mid Atlantic	3900	0	1	0	0	0	0	0
MidAmerican Energy Co	2000	0	0	0	0	0	0	0
MidAmerican Energy Co	2200	0	0	0	0	0	0	0
MidAmerican Energy Co	2300	0	0	0	0	0	0	0
MidAmerican Energy Co	2400	0	0	0	0	0	0	0
MidAmerican Energy Co	2500	0	0	0	0	0	0	0
MidAmerican Energy Co	2600	0	0	0	0	0	0	0
MidAmerican Energy Co	2700	0	0	0	0	0	0	0
MidAmerican Energy Co	2800	0	0	0	0	0	0	0
MidAmerican Energy Co	3000	0	0	0	0	0	0	0
MidAmerican Energy Co	3100	0	0	0	0	0	0	0
MidAmerican Energy Co	3200	0	0	0	0	0	0	0
MidAmerican Energy Co	3300	0	0	0	0	0	0	0
MidAmerican Energy Co	3400	0	0	0	0	0	0	0
MidAmerican Energy Co	3500	0	0	0	0	0	0	0
MidAmerican Energy Co	3600	0	0	0	0	0	0	0
MidAmerican Energy Co	3700	0	0	0	0	0	0	0
MidAmerican Energy Co	3800	0	0	0	0	0	0	0
MidAmerican Energy Co	3900	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Minnesota Power Inc	2000	0	2	0	0	0	0	0
Minnesota Power Inc	2000	0	0	0	0	0	0	0
Minnesota Power Inc	2200	0	0	0	0	0	0	0
Minnesota Power Inc	2200	0	0	0	0	0	0	0
Minnesota Power Inc	2300	0	0	0	0	0	0	0
Minnesota Power Inc	2400	0	2	0	0	0	0	0
Minnesota Power Inc	2500	0	0	0	0	0	0	0
Minnesota Power Inc	2600	0	0	0	0	0	0	0
Minnesota Power Inc	2700	0	1	0	0	0	0	0
Minnesota Power Inc	2800	0	2	0	0	0	0	0
Minnesota Power Inc	3000	0	0	0	0	0	0	0
Minnesota Power Inc	3100	0	0	0	0	0	0	0
Minnesota Power Inc	3200	0	0	2	0	0	0	0
Minnesota Power Inc	3300	0	1	4	0	0	0	0
Minnesota Power Inc	3400	0	1	0	0	0	0	0
Minnesota Power Inc	3500	0	1	0	0	0	0	0
Minnesota Power Inc	3600	0	1	0	0	0	0	0
Minnesota Power Inc	3700	0	0	1	0	0	0	0
Minnesota Power Inc	3800	0	0	0	0	0	0	0
Minnesota Power Inc	3900	0	0	0	0	0	0	0
Mississippi Power Company	2000	0	0	0	0	0	0	0
Mississippi Power Company	2100	0	0	0	0	0	0	0
Mississippi Power Company	2200	0	0	0	0	0	0	0
Mississippi Power Company	2300	0	0	0	0	0	0	0
Mississippi Power Company	2400	0	0	0	0	0	0	0
Mississippi Power Company	2500	0	0	0	0	0	0	0
Mississippi Power Company	2600	0	0	0	0	0	0	0
Mississippi Power Company	2700	0	0	0	0	0	0	0
Mississippi Power Company	2800	0	0	0	0	0	0	0
Mississippi Power Company	2900	0	0	0	0	0	0	0
Mississippi Power Company	3000	0	0	0	0	0	0	0
Mississippi Power Company	3100	0	0	0	0	0	0	0
Mississippi Power Company	3200	0	0	0	0	0	0	0
Mississippi Power Company	3300	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Mississippi Power Company	3400	0	0	0	0	0	0	0
Mississippi Power Company	3500	0	0	0	0	0	0	0
Mississippi Power Company	3600	0	0	0	0	0	0	0
Mississippi Power Company	3700	0	0	0	0	0	0	0
Mississippi Power Company	3800	0	0	0	0	0	0	0
Mississippi Power Company	3900	0	0	0	0	0	0	0
Monongahela Power Co	2000	0	0	0	0	0	0	0
Monongahela Power Co	2200	0	0	0	0	0	0	0
Monongahela Power Co	2300	0	0	0	0	0	0	0
Monongahela Power Co	2400	0	0	0	0	0	0	0
Monongahela Power Co	2500	0	0	0	0	0	0	0
Monongahela Power Co	2600	0	0	0	0	0	0	0
Monongahela Power Co	2700	0	0	0	0	0	0	0
Monongahela Power Co	2800	0	0	0	0	10	0	40
Monongahela Power Co	2900	0	0	0	0	0	0	0
Monongahela Power Co	3000	0	0	0	0	0	0	0
Monongahela Power Co	3200	0	0	0	0	0	0	0
Monongahela Power Co	3300	0	0	0	0	0	0	50
Monongahela Power Co	3400	0	0	0	0	0	0	0
Monongahela Power Co	3500	0	0	0	0	0	0	0
Monongahela Power Co	3600	0	0	0	0	0	0	0
Monongahela Power Co	3700	0	0	0	0	0	0	0
Monongahela Power Co	3800	0	0	0	0	0	0	0
Monongahela Power Co	3900	0	0	0	0	0	0	0
Mountain	2000	0	0	0	0	0	0	0
Mountain	2200	0	0	0	0	0	0	0
Mountain	2300	0	0	0	0	0	0	0
Mountain	2400	0	0	0	0	0	0	0
Mountain	2500	0	0	0	0	0	0	0
Mountain	2600	0	0	2	0	0	0	0
Mountain	2700	0	1	0	0	0	0	0
Mountain	2800	0	0	0	0	0	0	0
Mountain	3000	0	0	0	0	0	0	0
Mountain	3100	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Mountain	3200	0	0	0	0	0	0	0
Mountain	3300	0	0	2	0	0	0	0
Mountain	3400	0	0	0	0	0	0	0
Mountain	3500	0	1	0	0	0	0	0
Mountain	3600	0	2	8	0	0	0	0
Mountain	3700	0	0	1	0	0	0	0
Mountain	3800	0	2	1	0	0	0	0
Mountain	3900	0	0	0	0	0	0	0
Nevada Power Co	2000	0	0	0	0	0	0	0
Nevada Power Co	2100	0	0	0	0	0	0	0
Nevada Power Co	2200	0	0	0	0	0	0	0
Nevada Power Co	2300	0	0	0	0	0	0	0
Nevada Power Co	2400	0	0	0	0	0	0	0
Nevada Power Co	2500	0	0	0	0	0	0	0
Nevada Power Co	2600	0	0	1	0	0	0	0
Nevada Power Co	2700	0	0	0	0	0	0	0
Nevada Power Co	2800	0	0	6	0	0	0	0
Nevada Power Co	3000	0	0	0	0	0	0	0
Nevada Power Co	3100	0	0	0	0	0	0	0
Nevada Power Co	3200	0	0	3	0	0	0	0
Nevada Power Co	3300	0	0	0	10	0	0	0
Nevada Power Co	3400	0	0	0	0	0	0	0
Nevada Power Co	3500	0	0	0	0	0	0	0
Nevada Power Co	3600	0	0	0	0	0	0	0
Nevada Power Co	3700	0	0	0	0	0	0	0
Nevada Power Co	3800	0	0	0	0	0	0	0
Nevada Power Co	3900	0	0	0	0	0	0	0
New England	2000	0	34	9	0	0	0	0
New England	2100	0	0	0	0	0	0	0
New England	2200	0	35	29	0	0	0	0
New England	2300	0	1	0	0	0	0	0
New England	2400	0	14	0	0	0	0	0
New England	2500	0	2	0	0	0	0	0
New England	2600	0	31	110	40	10	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
New England	2700	0	12	4	0	0	0	0
New England	2800	0	54	51	40	10	0	0
New England	2900	0	1	0	0	0	0	0
New England	3000	0	37	14	0	0	0	0
New England	3100	0	2	1	0	0	0	0
New England	3200	0	15	8	0	0	0	0
New England	3300	0	37	72	10	30	20	0
New England	3400	0	19	12	0	0	0	0
New England	3500	0	35	1	0	0	0	0
New England	3600	0	56	22	10	0	0	0
New England	3700	0	6	6	0	10	0	0
New England	3800	0	20	16	0	0	0	0
New England	3900	0	7	1	0	0	0	0
Niagara Mohawk Power Corp	2000	0	32	12	0	0	0	0
Niagara Mohawk Power Corp	2200	0	12	9	0	0	0	0
Niagara Mohawk Power Corp	2300	0	3	0	0	0	0	0
Niagara Mohawk Power Corp	2400	0	3	0	0	0	0	0
Niagara Mohawk Power Corp	2500	0	2	2	0	0	0	0
Niagara Mohawk Power Corp	2600	0	28	101	0	0	0	0
Niagara Mohawk Power Corp	2700	0	7	0	0	0	0	0
Niagara Mohawk Power Corp	2800	0	28	80	40	10	40	0
Niagara Mohawk Power Corp	3000	0	32	9	0	0	0	0
Niagara Mohawk Power Corp	3100	0	1	0	0	0	0	0
Niagara Mohawk Power Corp	3200	0	18	20	0	0	0	0
Niagara Mohawk Power Corp	3300	0	23	89	80	0	0	0
Niagara Mohawk Power Corp	3400	0	17	10	0	0	0	0
Niagara Mohawk Power Corp	3500	0	27	7	10	0	0	0
Niagara Mohawk Power Corp	3600	0	22	4	0	0	0	0
Niagara Mohawk Power Corp	3700	0	6	7	20	0	0	0
Niagara Mohawk Power Corp	3800	0	8	8	20	0	0	0
Niagara Mohawk Power Corp	3900	0	1	3	0	0	0	0
Northern Indiana Pub Serv Co	2000	0	5	2	0	0	0	0
Northern Indiana Pub Serv Co	2200	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	2300	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Northern Indiana Pub Serv Co	2400	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	2500	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	2600	0	4	3	0	0	0	0
Northern Indiana Pub Serv Co	2700	0	1	0	0	0	0	0
Northern Indiana Pub Serv Co	2800	0	10	14	0	0	0	0
Northern Indiana Pub Serv Co	3000	0	5	0	0	0	0	0
Northern Indiana Pub Serv Co	3100	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	3200	0	4	2	0	0	0	0
Northern Indiana Pub Serv Co	3300	0	9	36	10	0	20	190
Northern Indiana Pub Serv Co	3400	0	4	1	0	0	0	0
Northern Indiana Pub Serv Co	3500	0	3	0	0	0	0	0
Northern Indiana Pub Serv Co	3600	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	3700	0	5	2	0	0	0	0
Northern Indiana Pub Serv Co	3800	0	0	0	0	0	0	0
Northern Indiana Pub Serv Co	3900	0	0	0	0	0	0	0
Northern States Power Co	2000	0	0	22	10	0	0	0
Northern States Power Co	2100	0	0	0	0	0	0	0
Northern States Power Co	2200	0	0	0	0	0	0	0
Northern States Power Co	2300	0	0	0	0	0	0	0
Northern States Power Co	2400	0	11	7	10	0	0	0
Northern States Power Co	2500	0	0	2	0	0	0	0
Northern States Power Co	2600	0	0	78	0	0	0	0
Northern States Power Co	2700	0	0	4	10	0	0	0
Northern States Power Co	2800	0	0	39	20	0	0	0
Northern States Power Co	2900	0	0	0	10	10	0	0
Northern States Power Co	3000	0	0	6	0	0	0	0
Northern States Power Co	3100	0	0	0	0	0	0	0
Northern States Power Co	3200	0	0	9	10	0	0	0
Northern States Power Co	3300	0	0	49	0	0	0	0
Northern States Power Co	3400	0	23	9	0	0	0	0
Northern States Power Co	3500	0	0	16	0	0	0	0
Northern States Power Co	3600	0	0	3	0	0	0	0
Northern States Power Co	3700	0	6	4	0	0	0	0
Northern States Power Co	3800	0	0	9	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Northern States Power Co	3900	0	1	0	0	0	0	0
Ohio Edison Co	2000	0	0	6	0	0	0	0
Ohio Edison Co	2200	0	0	1	0	0	0	0
Ohio Edison Co	2300	0	0	0	0	0	0	0
Ohio Edison Co	2400	0	0	1	0	0	0	0
Ohio Edison Co	2500	0	0	0	0	0	0	0
Ohio Edison Co	2600	0	0	29	0	0	0	0
Ohio Edison Co	2700	0	0	1	0	0	0	0
Ohio Edison Co	2800	0	0	47	10	0	0	0
Ohio Edison Co	3000	0	0	8	10	0	0	0
Ohio Edison Co	3100	0	0	0	0	0	0	0
Ohio Edison Co	3200	0	0	11	0	0	0	0
Ohio Edison Co	3300	0	0	106	40	10	20	40
Ohio Edison Co	3400	0	0	18	0	0	0	0
Ohio Edison Co	3500	0	0	5	0	0	0	0
Ohio Edison Co	3600	0	0	13	0	0	0	0
Ohio Edison Co	3700	0	0	2	20	20	0	0
Ohio Edison Co	3800	0	0	3	0	0	0	0
Ohio Edison Co	3900	0	0	1	0	0	0	0
Ohio Power Co	2000	0	0	0	0	0	0	0
Ohio Power Co	2200	0	0	0	0	0	0	0
Ohio Power Co	2300	0	0	0	0	0	0	0
Ohio Power Co	2400	0	0	0	0	0	0	0
Ohio Power Co	2500	0	0	0	0	0	0	0
Ohio Power Co	2600	0	0	0	0	0	0	0
Ohio Power Co	2700	0	0	0	0	0	0	0
Ohio Power Co	2800	0	0	0	0	0	0	0
Ohio Power Co	2900	0	0	0	0	0	0	0
Ohio Power Co	3000	0	0	0	0	0	0	0
Ohio Power Co	3100	0	0	0	0	0	0	0
Ohio Power Co	3200	0	0	0	0	0	0	0
Ohio Power Co	3300	0	0	0	0	0	0	0
Ohio Power Co	3400	0	0	0	0	0	0	0
Ohio Power Co	3500	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Ohio Power Co	3600	0	0	0	0	0	0	0
Ohio Power Co	3700	0	0	0	0	0	0	0
Ohio Power Co	3800	0	0	0	0	0	0	0
Ohio Power Co	3900	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	2000	0	17	7	10	0	0	0
Oklahoma Gas & Electric Co	2200	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	2300	0	1	0	0	0	0	0
Oklahoma Gas & Electric Co	2400	0	2	0	0	0	0	0
Oklahoma Gas & Electric Co	2500	0	2	0	0	0	0	0
Oklahoma Gas & Electric Co	2600	0	4	25	0	0	0	0
Oklahoma Gas & Electric Co	2700	0	1	0	0	0	0	0
Oklahoma Gas & Electric Co	2800	0	7	6	0	0	0	0
Oklahoma Gas & Electric Co	2900	0	0	0	10	0	0	0
Oklahoma Gas & Electric Co	3000	0	9	0	10	0	0	0
Oklahoma Gas & Electric Co	3100	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	3200	0	6	8	0	0	0	0
Oklahoma Gas & Electric Co	3300	0	4	28	0	0	0	0
Oklahoma Gas & Electric Co	3400	0	6	2	0	0	0	0
Oklahoma Gas & Electric Co	3500	0	8	12	0	0	0	0
Oklahoma Gas & Electric Co	3600	0	3	8	0	0	0	0
Oklahoma Gas & Electric Co	3700	0	6	4	10	0	0	0
Oklahoma Gas & Electric Co	3800	0	0	0	0	0	0	0
Oklahoma Gas & Electric Co	3900	0	1	0	0	0	0	0
Pacific	2000	0	10	2	0	0	0	0
Pacific	2100	0	0	0	0	0	0	0
Pacific	2200	0	0	0	0	0	0	0
Pacific	2300	0	0	0	0	0	0	0
Pacific	2400	0	2	0	0	0	0	0
Pacific	2500	0	0	0	0	0	0	0
Pacific	2600	0	4	26	0	0	0	0
Pacific	2700	0	1	0	0	0	0	0
Pacific	2800	0	11	38	10	10	0	0
Pacific	2900	0	0	0	10	0	0	0
Pacific	3000	0	1	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Pacific	3200	0	2	0	0	0	0	0
Pacific	3300	0	3	2	0	0	0	0
Pacific	3400	0	3	0	0	0	0	0
Pacific	3500	0	3	2	0	0	0	0
Pacific	3600	0	2	2	0	0	0	0
Pacific	3700	0	1	0	0	0	0	0
Pacific	3800	0	1	2	0	0	0	0
Pacific	3900	0	0	0	0	0	0	0
Pacific Gas & Electric Co	2000	0	59	9	0	0	0	0
Pacific Gas & Electric Co	2200	0	3	0	0	0	0	0
Pacific Gas & Electric Co	2300	0	0	0	0	0	0	0
Pacific Gas & Electric Co	2400	0	20	5	0	0	0	0
Pacific Gas & Electric Co	2500	0	0	0	0	0	0	0
Pacific Gas & Electric Co	2600	0	18	43	0	0	0	0
Pacific Gas & Electric Co	2700	0	3	0	0	0	0	0
Pacific Gas & Electric Co	2800	0	48	55	10	10	20	40
Pacific Gas & Electric Co	2900	0	1	0	10	30	20	0
Pacific Gas & Electric Co	3000	0	13	2	10	0	0	0
Pacific Gas & Electric Co	3100	0	0	0	0	0	0	0
Pacific Gas & Electric Co	3200	0	19	11	0	0	0	0
Pacific Gas & Electric Co	3300	0	18	27	10	0	0	0
Pacific Gas & Electric Co	3400	0	14	1	0	0	0	0
Pacific Gas & Electric Co	3500	0	12	8	0	0	0	0
Pacific Gas & Electric Co	3600	0	32	8	0	0	0	0
Pacific Gas & Electric Co	3700	0	4	1	10	0	0	0
Pacific Gas & Electric Co	3800	0	9	5	0	0	0	0
Pacific Gas & Electric Co	3900	0	1	0	0	0	0	0
PacifiCorp	2000	0	0	4	0	0	0	0
PacifiCorp	2200	0	0	0	0	0	0	0
PacifiCorp	2300	0	0	0	0	0	0	0
PacifiCorp	2400	0	0	8	0	0	0	0
PacifiCorp	2500	0	0	0	0	0	0	0
PacifiCorp	2600	0	0	30	0	0	0	0
PacifiCorp	2700	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
PacifiCorp	2800	0	0	6	0	0	0	0
PacifiCorp	3000	0	0	0	0	0	0	0
PacifiCorp	3100	0	0	0	0	0	0	0
PacifiCorp	3200	0	0	0	0	0	0	0
PacifiCorp	3300	0	0	15	20	10	0	0
PacifiCorp	3400	0	0	0	0	0	0	0
PacifiCorp	3500	0	0	0	10	0	0	0
PacifiCorp	3600	0	0	0	0	0	0	0
PacifiCorp	3700	0	0	2	0	0	0	0
PacifiCorp	3800	0	0	0	0	0	0	0
PacifiCorp	3900	0	0	0	0	0	0	0
PECO Energy Co	2000	0	0	0	0	0	0	0
PECO Energy Co	2100	0	0	0	0	0	0	0
PECO Energy Co	2200	0	0	0	0	0	0	0
PECO Energy Co	2300	0	0	0	0	0	0	0
PECO Energy Co	2400	0	0	0	0	0	0	0
PECO Energy Co	2500	0	0	0	0	0	0	0
PECO Energy Co	2600	0	0	0	0	0	0	0
PECO Energy Co	2700	0	0	0	0	0	0	0
PECO Energy Co	2800	0	0	0	0	0	0	0
PECO Energy Co	2900	0	0	0	0	0	0	0
PECO Energy Co	3000	0	0	0	0	0	0	0
PECO Energy Co	3100	0	0	0	0	0	0	0
PECO Energy Co	3200	0	0	0	0	0	0	0
PECO Energy Co	3300	0	0	0	0	0	0	0
PECO Energy Co	3400	0	0	0	0	0	0	0
PECO Energy Co	3500	0	0	0	0	0	0	0
PECO Energy Co	3600	0	0	0	0	0	0	0
PECO Energy Co	3700	0	0	0	0	0	0	0
PECO Energy Co	3800	0	0	0	0	0	0	0
PECO Energy Co	3900	0	0	0	0	0	0	0
Pennsylvania Electric Co	2000	0	10	2	0	0	0	0
Pennsylvania Electric Co	2200	0	1	0	0	0	0	0
Pennsylvania Electric Co	2300	0	0	1	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Pennsylvania Electric Co	2400	0	4	1	0	0	0	0
Pennsylvania Electric Co	2500	0	0	0	0	0	0	0
Pennsylvania Electric Co	2600	0	2	21	10	0	0	0
Pennsylvania Electric Co	2700	0	0	0	0	0	0	0
Pennsylvania Electric Co	2800	0	3	10	0	0	0	0
Pennsylvania Electric Co	2900	0	1	11	0	10	0	0
Pennsylvania Electric Co	3000	0	20	2	0	0	0	0
Pennsylvania Electric Co	3100	0	0	0	0	0	0	0
Pennsylvania Electric Co	3200	0	5	15	0	0	0	0
Pennsylvania Electric Co	3300	0	14	60	10	0	0	0
Pennsylvania Electric Co	3400	0	11	5	0	0	0	0
Pennsylvania Electric Co	3500	0	12	1	0	0	0	0
Pennsylvania Electric Co	3600	0	6	0	0	0	0	0
Pennsylvania Electric Co	3700	0	3	1	0	10	0	0
Pennsylvania Electric Co	3800	0	3	4	0	0	0	0
Pennsylvania Electric Co	3900	0	1	1	0	0	0	0
Potomac Edison Co	2000	0	0	0	0	0	0	0
Potomac Edison Co	2100	0	0	0	0	0	0	0
Potomac Edison Co	2200	0	0	0	0	0	0	0
Potomac Edison Co	2300	0	0	0	0	0	0	0
Potomac Edison Co	2400	0	0	0	0	0	0	0
Potomac Edison Co	2500	0	0	0	0	0	0	0
Potomac Edison Co	2600	0	0	0	0	0	0	0
Potomac Edison Co	2700	0	0	0	0	0	0	0
Potomac Edison Co	2800	0	0	0	0	0	0	0
Potomac Edison Co	3000	0	0	0	0	0	0	0
Potomac Edison Co	3100	0	0	0	0	0	0	0
Potomac Edison Co	3200	0	0	0	0	0	0	0
Potomac Edison Co	3300	0	0	0	0	0	0	0
Potomac Edison Co	3400	0	0	0	0	0	0	0
Potomac Edison Co	3500	0	0	0	0	0	0	0
Potomac Edison Co	3600	0	0	0	0	0	0	0
Potomac Edison Co	3700	0	0	0	0	0	0	0
Potomac Edison Co	3800	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Potomac Edison Co	3900	0	0	0	0	0	0	0
PP&L Inc	2000	0	32	21	0	0	0	0
PP&L Inc	2100	0	0	0	0	0	0	0
PP&L Inc	2200	0	21	29	0	0	0	0
PP&L Inc	2300	0	3	0	0	0	0	0
PP&L Inc	2400	0	8	1	0	0	0	0
PP&L Inc	2500	0	1	0	0	0	0	0
PP&L Inc	2600	0	12	40	0	0	0	0
PP&L Inc	2700	0	10	0	0	0	0	0
PP&L Inc	2800	0	17	21	20	0	0	0
PP&L Inc	2900	0	0	0	0	0	0	0
PP&L Inc	3000	0	19	9	0	0	0	0
PP&L Inc	3100	0	0	0	0	0	0	0
PP&L Inc	3200	0	9	8	10	0	0	0
PP&L Inc	3300	0	20	82	0	30	20	0
PP&L Inc	3400	0	12	4	0	0	0	0
PP&L Inc	3500	0	10	0	0	0	0	0
PP&L Inc	3600	0	13	7	0	0	0	0
PP&L Inc	3700	0	6	3	0	0	0	0
PP&L Inc	3800	0	2	2	0	0	0	0
PP&L Inc	3900	0	3	2	0	0	0	0
PSI Energy Inc	2000	0	0	0	0	0	0	0
PSI Energy Inc	2100	0	0	0	0	0	0	0
PSI Energy Inc	2200	0	0	0	0	0	0	0
PSI Energy Inc	2300	0	0	0	0	0	0	0
PSI Energy Inc	2400	0	0	0	0	0	0	0
PSI Energy Inc	2500	0	0	0	0	0	0	0
PSI Energy Inc	2600	0	0	0	0	0	0	0
PSI Energy Inc	2700	0	0	0	0	0	0	0
PSI Energy Inc	2800	0	0	0	0	0	0	0
PSI Energy Inc	3000	0	0	0	0	0	0	0
PSI Energy Inc	3100	0	0	0	0	0	0	0
PSI Energy Inc	3200	0	0	0	0	0	0	0
PSI Energy Inc	3300	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
PSI Energy Inc	3400	0	0	0	0	0	0	0
PSI Energy Inc	3500	0	0	0	0	0	0	0
PSI Energy Inc	3600	0	0	0	0	0	0	0
PSI Energy Inc	3700	0	0	0	0	0	0	0
PSI Energy Inc	3800	0	0	0	0	0	0	0
PSI Energy Inc	3900	0	0	0	0	0	0	0
Public Service Co of Colorado	2000	0	0	0	20	0	0	0
Public Service Co of Colorado	2200	0	0	0	0	0	0	0
Public Service Co of Colorado	2300	0	0	0	0	0	0	0
Public Service Co of Colorado	2400	0	0	0	0	0	0	0
Public Service Co of Colorado	2500	0	0	0	0	0	0	0
Public Service Co of Colorado	2600	0	0	0	0	0	0	0
Public Service Co of Colorado	2700	0	0	0	0	0	0	0
Public Service Co of Colorado	2800	0	0	0	0	10	0	0
Public Service Co of Colorado	2900	0	0	0	0	0	0	0
Public Service Co of Colorado	3000	0	0	0	0	0	0	0
Public Service Co of Colorado	3100	0	0	0	0	0	0	0
Public Service Co of Colorado	3200	0	0	0	10	0	0	0
Public Service Co of Colorado	3300	0	0	0	0	0	0	0
Public Service Co of Colorado	3400	0	0	0	0	0	0	0
Public Service Co of Colorado	3500	0	0	0	0	0	0	0
Public Service Co of Colorado	3600	0	0	0	0	0	0	0
Public Service Co of Colorado	3700	0	0	0	0	10	0	0
Public Service Co of Colorado	3800	0	0	0	0	0	0	0
Public Service Co of Colorado	3900	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2000	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2100	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2200	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2300	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2400	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2500	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2600	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2700	0	0	0	0	0	0	0
Public Service Co of Oklahoma	2800	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Public Service Co of Oklahoma	2900	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3000	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3100	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3200	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3300	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3400	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3500	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3600	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3700	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3800	0	0	0	0	0	0	0
Public Service Co of Oklahoma	3900	0	0	0	0	0	0	0
Public Service Co. New Mexico	2000	0	30	36	0	0	0	0
Public Service Co. New Mexico	2100	0	0	0	0	0	0	0
Public Service Co. New Mexico	2200	0	1	1	0	0	0	0
Public Service Co. New Mexico	2300	0	1	0	0	0	0	0
Public Service Co. New Mexico	2400	0	22	7	0	0	0	0
Public Service Co. New Mexico	2500	0	2	0	0	0	0	0
Public Service Co. New Mexico	2600	0	16	132	20	10	0	0
Public Service Co. New Mexico	2700	0	6	1	0	0	0	0
Public Service Co. New Mexico	2800	0	16	54	20	0	0	0
Public Service Co. New Mexico	2900	0	0	3	0	0	0	0
Public Service Co. New Mexico	3000	0	42	12	0	0	0	0
Public Service Co. New Mexico	3100	0	0	0	0	0	0	0
Public Service Co. New Mexico	3200	0	16	11	0	0	0	0
Public Service Co. New Mexico	3300	0	30	79	50	30	20	0
Public Service Co. New Mexico	3400	0	21	7	0	0	0	0
Public Service Co. New Mexico	3500	0	28	11	0	0	0	0
Public Service Co. New Mexico	3600	0	22	5	0	0	0	0
Public Service Co. New Mexico	3700	0	16	27	0	10	0	0
Public Service Co. New Mexico	3800	0	2	0	0	0	0	0
Public Service Co. New Mexico	3900	0	1	0	0	0	0	0
Public Service Electric&Gas Co	2000	0	23	7	0	0	0	0
Public Service Electric&Gas Co	2100	0	0	0	0	0	0	0
Public Service Electric&Gas Co	2200	0	20	1	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Public Service Electric&Gas Co	2300	0	2	2	0	0	0	0
Public Service Electric&Gas Co	2400	0	1	0	0	0	0	0
Public Service Electric&Gas Co	2500	0	1	0	0	0	0	0
Public Service Electric&Gas Co	2600	0	32	70	0	0	0	0
Public Service Electric&Gas Co	2700	0	7	3	0	0	0	0
Public Service Electric&Gas Co	2800	0	102	160	30	0	20	40
Public Service Electric&Gas Co	2900	0	0	8	0	0	0	0
Public Service Electric&Gas Co	3000	0	23	2	10	0	0	0
Public Service Electric&Gas Co	3100	0	2	0	0	0	0	0
Public Service Electric&Gas Co	3200	0	8	3	0	0	0	0
Public Service Electric&Gas Co	3300	0	22	49	10	0	0	0
Public Service Electric&Gas Co	3400	0	7	2	0	0	0	0
Public Service Electric&Gas Co	3500	0	7	1	0	0	0	0
Public Service Electric&Gas Co	3600	0	14	5	0	0	0	0
Public Service Electric&Gas Co	3700	0	3	3	0	0	0	0
Public Service Electric&Gas Co	3800	0	6	7	0	0	0	0
Public Service Electric&Gas Co	3900	0	3	0	0	0	0	0
Puget Sound Energy Inc	2000	0	27	7	0	0	0	0
Puget Sound Energy Inc	2200	0	2	0	0	0	0	0
Puget Sound Energy Inc	2300	0	1	0	0	0	0	0
Puget Sound Energy Inc	2400	0	3	0	0	0	0	0
Puget Sound Energy Inc	2500	0	0	0	0	0	0	0
Puget Sound Energy Inc	2600	0	5	24	0	0	0	0
Puget Sound Energy Inc	2700	0	0	3	0	0	0	0
Puget Sound Energy Inc	2800	0	11	8	0	0	0	0
Puget Sound Energy Inc	2900	0	1	0	30	0	0	0
Puget Sound Energy Inc	3000	0	6	0	0	0	0	0
Puget Sound Energy Inc	3100	0	0	0	0	0	0	0
Puget Sound Energy Inc	3200	0	7	5	0	0	0	0
Puget Sound Energy Inc	3300	0	9	13	0	10	0	0
Puget Sound Energy Inc	3400	0	5	0	0	0	0	0
Puget Sound Energy Inc	3500	0	5	1	0	0	0	0
Puget Sound Energy Inc	3600	0	8	0	0	0	0	0
Puget Sound Energy Inc	3700	0	5	9	0	20	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Puget Sound Energy Inc	3800	0	4	1	10	0	0	0
Puget Sound Energy Inc	3900	0	2	0	0	0	0	0
S Atlantic	2000	0	0	15	0	0	0	0
S Atlantic	2200	0	0	0	0	0	0	0
S Atlantic	2300	0	0	0	0	0	0	0
S Atlantic	2400	0	0	1	0	0	0	0
S Atlantic	2500	0	0	0	0	0	0	0
S Atlantic	2600	0	0	11	0	0	0	0
S Atlantic	2700	0	0	0	0	0	0	0
S Atlantic	2800	0	0	10	10	0	0	0
S Atlantic	2900	0	0	0	0	0	20	0
S Atlantic	3000	0	0	0	0	0	0	0
S Atlantic	3100	0	0	0	0	0	0	0
S Atlantic	3200	0	0	0	0	0	0	0
S Atlantic	3300	0	0	4	0	0	0	0
S Atlantic	3400	0	0	0	0	0	0	0
S Atlantic	3500	0	0	0	0	0	0	0
S Atlantic	3600	0	0	7	0	0	0	0
S Atlantic	3700	0	0	0	0	10	0	0
S Atlantic	3800	0	0	0	0	0	0	0
S Atlantic	3900	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	2000	0	0	10	0	0	0	0
Sacramento Municipal Util Dist	2200	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	2300	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	2400	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	2500	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	2600	0	0	1	0	0	0	0
Sacramento Municipal Util Dist	2700	0	0	1	0	0	0	0
Sacramento Municipal Util Dist	2800	0	0	2	0	0	0	0
Sacramento Municipal Util Dist	3000	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3100	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3200	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3300	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3400	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Sacramento Municipal Util Dist	3500	0	0	4	0	0	0	0
Sacramento Municipal Util Dist	3600	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3700	0	0	3	0	0	0	0
Sacramento Municipal Util Dist	3800	0	0	0	0	0	0	0
Sacramento Municipal Util Dist	3900	0	0	0	0	0	0	0
Salt River Project	2000	0	132	151	40	0	0	0
Salt River Project	2100	0	0	0	0	0	0	0
Salt River Project	2200	0	0	9	0	0	0	0
Salt River Project	2300	0	4	0	0	0	0	0
Salt River Project	2400	0	26	1	10	0	0	0
Salt River Project	2500	0	6	0	0	0	0	0
Salt River Project	2600	0	28	95	0	10	0	0
Salt River Project	2700	0	18	1	10	0	0	0
Salt River Project	2800	0	75	124	30	30	20	0
Salt River Project	2900	0	1	3	20	0	0	0
Salt River Project	3000	0	62	15	10	0	0	0
Salt River Project	3100	0	2	0	0	0	0	0
Salt River Project	3200	0	32	15	10	0	0	0
Salt River Project	3300	0	46	115	70	0	0	0
Salt River Project	3400	0	39	30	0	0	0	0
Salt River Project	3500	0	0	21	0	0	0	0
Salt River Project	3600	0	0	16	0	0	0	0
Salt River Project	3700	0	39	31	20	40	0	0
Salt River Project	3800	0	0	2	0	0	0	0
Salt River Project	3900	0	0	0	0	0	0	0
San Antonio Public Service Bd	2000	0	0	2	0	0	0	0
San Antonio Public Service Bd	2100	0	0	0	0	0	0	0
San Antonio Public Service Bd	2200	0	0	0	0	0	0	0
San Antonio Public Service Bd	2300	0	2	0	0	0	0	0
San Antonio Public Service Bd	2400	0	1	1	0	0	0	0
San Antonio Public Service Bd	2500	0	0	0	0	0	0	0
San Antonio Public Service Bd	2600	0	0	2	0	0	0	0
San Antonio Public Service Bd	2700	0	2	0	0	0	0	0
San Antonio Public Service Bd	2800	0	0	6	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
San Antonio Public Service Bd	2900	0	0	0	0	0	0	0
San Antonio Public Service Bd	3000	0	0	0	0	0	0	0
San Antonio Public Service Bd	3100	0	0	1	0	0	0	0
San Antonio Public Service Bd	3200	0	0	0	0	0	0	0
San Antonio Public Service Bd	3300	0	0	6	0	0	0	0
San Antonio Public Service Bd	3400	0	1	0	0	0	0	0
San Antonio Public Service Bd	3500	0	0	0	0	0	0	0
San Antonio Public Service Bd	3600	0	2	2	0	0	0	0
San Antonio Public Service Bd	3700	0	2	1	0	0	0	0
San Antonio Public Service Bd	3800	0	0	0	0	0	0	0
San Antonio Public Service Bd	3900	0	0	0	0	0	0	0
South Carolina Electric&Gas Co	2000	0	0	2	0	0	0	0
South Carolina Electric&Gas Co	2200	0	6	22	0	0	0	0
South Carolina Electric&Gas Co	2300	0	1	0	0	0	0	0
South Carolina Electric&Gas Co	2400	0	1	0	0	0	0	0
South Carolina Electric&Gas Co	2500	0	0	0	0	0	0	0
South Carolina Electric&Gas Co	2600	0	0	15	20	0	0	0
South Carolina Electric&Gas Co	2700	0	1	0	0	0	0	0
South Carolina Electric&Gas Co	2800	0	0	36	20	0	0	50
South Carolina Electric&Gas Co	3000	0	0	2	0	0	0	0
South Carolina Electric&Gas Co	3100	0	0	0	0	0	0	0
South Carolina Electric&Gas Co	3200	0	0	2	10	0	0	0
South Carolina Electric&Gas Co	3300	0	0	17	20	0	0	0
South Carolina Electric&Gas Co	3400	0	5	1	0	0	0	0
South Carolina Electric&Gas Co	3500	0	1	1	0	0	0	0
South Carolina Electric&Gas Co	3600	0	4	0	0	0	0	0
South Carolina Electric&Gas Co	3700	0	3	3	0	0	0	0
South Carolina Electric&Gas Co	3800	0	1	1	0	0	0	0
South Carolina Electric&Gas Co	3900	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	2300	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	2400	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	2500	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	2700	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	2800	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
South Carolina Pub Serv Auth	3000	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3200	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3300	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3400	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3500	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3600	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3700	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3800	0	0	0	0	0	0	0
South Carolina Pub Serv Auth	3900	0	0	0	0	0	0	0
Southern California Edison Co	2000	0	29	12	0	0	0	0
Southern California Edison Co	2100	0	0	0	0	0	0	0
Southern California Edison Co	2200	0	10	8	0	0	0	0
Southern California Edison Co	2300	0	1	0	0	0	0	0
Southern California Edison Co	2400	0	9	0	0	0	0	0
Southern California Edison Co	2500	0	5	0	0	0	0	0
Southern California Edison Co	2600	0	20	36	0	0	0	0
Southern California Edison Co	2700	0	4	1	0	0	0	0
Southern California Edison Co	2800	0	42	56	10	10	20	0
Southern California Edison Co	2900	0	1	6	0	0	0	0
Southern California Edison Co	3000	0	40	18	0	0	0	0
Southern California Edison Co	3100	0	0	0	0	0	0	0
Southern California Edison Co	3200	0	30	2	0	0	0	0
Southern California Edison Co	3300	0	28	44	10	0	0	0
Southern California Edison Co	3400	0	25	5	0	0	0	0
Southern California Edison Co	3500	0	16	1	0	0	0	0
Southern California Edison Co	3600	0	42	9	0	0	0	0
Southern California Edison Co	3700	0	15	9	0	10	0	0
Southern California Edison Co	3800	0	12	8	0	0	0	0
Southern California Edison Co	3900	0	1	0	0	0	0	0
Southwestern Electric Power Co	2000	0	0	0	10	0	0	0
Southwestern Electric Power Co	2200	0	0	0	0	0	0	0
Southwestern Electric Power Co	2300	0	0	0	0	0	0	0
Southwestern Electric Power Co	2400	0	0	0	0	0	0	0
Southwestern Electric Power Co	2500	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Southwestern Electric Power Co	2600	0	0	0	20	0	0	0
Southwestern Electric Power Co	2700	0	0	0	0	0	0	0
Southwestern Electric Power Co	2800	0	0	0	0	0	20	0
Southwestern Electric Power Co	2900	0	0	0	0	0	0	0
Southwestern Electric Power Co	3000	0	0	0	10	0	0	0
Southwestern Electric Power Co	3100	0	0	0	0	0	0	0
Southwestern Electric Power Co	3200	0	0	0	0	0	0	0
Southwestern Electric Power Co	3300	0	0	0	0	0	20	0
Southwestern Electric Power Co	3400	0	0	0	0	0	0	0
Southwestern Electric Power Co	3500	0	0	0	0	0	0	0
Southwestern Electric Power Co	3600	0	0	0	0	0	0	0
Southwestern Electric Power Co	3700	0	0	0	0	0	0	0
Southwestern Electric Power Co	3800	0	0	0	0	0	0	0
Southwestern Electric Power Co	3900	0	0	0	0	0	0	0
Texas Utilities Electric Co	2000	0	42	32	0	0	0	0
Texas Utilities Electric Co	2100	0	0	0	0	0	0	0
Texas Utilities Electric Co	2200	0	1	0	0	0	0	0
Texas Utilities Electric Co	2300	0	2	0	0	0	0	0
Texas Utilities Electric Co	2400	0	20	8	0	0	0	0
Texas Utilities Electric Co	2500	0	3	0	0	0	0	0
Texas Utilities Electric Co	2600	0	24	80	0	0	0	0
Texas Utilities Electric Co	2700	0	7	3	0	0	0	0
Texas Utilities Electric Co	2800	0	54	76	20	10	0	40
Texas Utilities Electric Co	2900	0	1	8	0	0	0	0
Texas Utilities Electric Co	3000	0	33	17	0	0	0	0
Texas Utilities Electric Co	3100	0	0	0	0	0	0	0
Texas Utilities Electric Co	3200	0	35	27	10	0	0	0
Texas Utilities Electric Co	3300	0	28	86	60	40	0	0
Texas Utilities Electric Co	3400	0	22	5	0	0	0	0
Texas Utilities Electric Co	3500	0	30	12	0	0	0	0
Texas Utilities Electric Co	3600	0	40	35	30	0	0	0
Texas Utilities Electric Co	3700	0	14	15	10	40	0	0
Texas Utilities Electric Co	3800	0	8	19	0	0	0	0
Texas Utilities Electric Co	3900	0	2	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Toledo Edison Co	2000	0	3	2	0	0	0	0
Toledo Edison Co	2200	0	0	3	0	0	0	0
Toledo Edison Co	2300	0	0	0	0	0	0	0
Toledo Edison Co	2400	0	0	0	0	0	0	0
Toledo Edison Co	2500	0	0	2	0	0	0	0
Toledo Edison Co	2600	0	2	2	0	0	0	0
Toledo Edison Co	2700	0	1	0	0	0	0	0
Toledo Edison Co	2800	0	6	6	0	0	0	0
Toledo Edison Co	2900	0	0	0	0	30	0	0
Toledo Edison Co	3000	0	2	0	0	0	0	0
Toledo Edison Co	3200	0	2	6	10	0	0	0
Toledo Edison Co	3300	0	9	13	20	0	0	40
Toledo Edison Co	3400	0	6	1	0	0	0	0
Toledo Edison Co	3500	0	2	0	0	0	0	0
Toledo Edison Co	3600	0	1	0	0	0	0	0
Toledo Edison Co	3700	0	3	0	10	10	0	0
Toledo Edison Co	3800	0	0	0	0	0	0	0
Toledo Edison Co	3900	0	0	0	0	0	0	0
Tucson Electric Power Company	2000	0	35	13	0	0	0	0
Tucson Electric Power Company	2100	0	0	0	0	0	0	0
Tucson Electric Power Company	2200	0	1	3	0	0	0	0
Tucson Electric Power Company	2300	0	1	0	0	0	0	0
Tucson Electric Power Company	2400	0	14	0	0	0	0	0
Tucson Electric Power Company	2500	0	1	0	0	0	0	0
Tucson Electric Power Company	2600	0	9	46	10	0	0	0
Tucson Electric Power Company	2700	0	7	0	0	0	0	0
Tucson Electric Power Company	2800	0	28	67	20	10	0	0
Tucson Electric Power Company	2900	0	2	39	10	0	0	0
Tucson Electric Power Company	3000	0	9	0	0	0	0	0
Tucson Electric Power Company	3100	0	0	0	0	0	0	0
Tucson Electric Power Company	3200	0	28	2	0	0	0	0
Tucson Electric Power Company	3300	0	18	84	30	10	20	40
Tucson Electric Power Company	3400	0	13	4	0	0	0	0
Tucson Electric Power Company	3500	0	13	4	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Tucson Electric Power Company	3600	0	14	4	0	0	0	0
Tucson Electric Power Company	3700	0	6	7	10	0	0	0
Tucson Electric Power Company	3800	0	8	6	0	0	0	0
Tucson Electric Power Company	3900	0	2	6	0	0	0	0
Union Electric Co	2000	0	0	0	0	0	0	0
Union Electric Co	2200	0	0	0	0	0	0	0
Union Electric Co	2300	0	0	0	0	0	0	0
Union Electric Co	2400	0	0	0	0	0	0	0
Union Electric Co	2500	0	0	0	0	0	0	0
Union Electric Co	2600	0	0	0	0	0	0	0
Union Electric Co	2700	0	0	0	0	0	0	0
Union Electric Co	2800	0	0	0	0	0	0	0
Union Electric Co	2900	0	0	0	0	0	0	0
Union Electric Co	3000	0	0	0	0	0	0	0
Union Electric Co	3100	0	0	0	0	0	0	0
Union Electric Co	3200	0	0	0	0	0	0	0
Union Electric Co	3300	0	0	0	0	0	0	0
Union Electric Co	3400	0	0	0	0	0	0	0
Union Electric Co	3500	0	0	0	0	0	0	0
Union Electric Co	3600	0	0	0	0	0	0	0
Union Electric Co	3700	0	0	0	0	0	0	0
Union Electric Co	3800	0	0	0	0	0	0	0
Union Electric Co	3900	0	0	0	0	0	0	0
Virginia Electric & Power Co	2000	0	0	0	0	0	0	0
Virginia Electric & Power Co	2100	0	0	0	0	0	0	0
Virginia Electric & Power Co	2200	0	0	0	10	0	0	0
Virginia Electric & Power Co	2300	0	0	0	0	0	0	0
Virginia Electric & Power Co	2400	0	0	0	0	0	0	0
Virginia Electric & Power Co	2500	0	0	0	0	0	0	0
Virginia Electric & Power Co	2600	0	0	0	10	10	0	0
Virginia Electric & Power Co	2700	0	0	0	0	0	0	0
Virginia Electric & Power Co	2800	0	0	0	20	0	40	0
Virginia Electric & Power Co	2900	0	0	0	0	0	0	0
Virginia Electric & Power Co	3000	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Virginia Electric & Power Co	3100	0	0	0	0	0	0	0
Virginia Electric & Power Co	3200	0	0	0	0	0	0	0
Virginia Electric & Power Co	3300	0	0	0	0	0	0	0
Virginia Electric & Power Co	3400	0	0	0	0	0	0	0
Virginia Electric & Power Co	3500	0	0	0	0	0	0	0
Virginia Electric & Power Co	3600	0	0	0	0	0	0	0
Virginia Electric & Power Co	3700	0	0	0	0	0	0	0
Virginia Electric & Power Co	3800	0	0	0	0	0	0	0
Virginia Electric & Power Co	3900	0	0	0	0	0	0	0
W N Central	2000	0	0	54	10	0	0	0
W N Central	2200	0	0	25	0	0	0	0
W N Central	2300	0	0	0	0	0	0	0
W N Central	2400	0	0	1	0	0	0	0
W N Central	2500	0	0	2	0	0	0	0
W N Central	2600	0	0	52	10	10	0	0
W N Central	2700	0	0	1	0	0	0	0
W N Central	2800	0	0	53	20	0	0	0
W N Central	2900	0	0	9	30	30	0	0
W N Central	3000	0	0	2	0	0	0	0
W N Central	3100	0	0	0	0	0	0	0
W N Central	3200	0	0	9	10	0	0	0
W N Central	3300	0	0	90	30	10	0	0
W N Central	3400	0	0	15	0	0	0	0
W N Central	3500	0	0	1	0	0	0	0
W N Central	3600	0	0	4	0	0	0	0
W N Central	3700	0	0	11	0	0	0	0
W N Central	3800	0	0	3	0	0	0	0
W N Central	3900	0	0	0	0	0	0	0
W S Central	2000	0	0	5	0	0	0	0
W S Central	2200	0	0	0	0	0	0	0
W S Central	2300	0	0	0	0	0	0	0
W S Central	2400	0	0	1	0	0	0	0
W S Central	2500	0	0	0	0	0	0	0
W S Central	2600	0	0	3	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
W S Central	2700	0	0	3	0	0	0	0
W S Central	2800	0	0	14	10	0	20	0
W S Central	3000	0	0	2	0	0	0	0
W S Central	3100	0	0	0	0	0	0	0
W S Central	3200	0	0	2	0	0	0	0
W S Central	3300	0	0	22	10	0	20	0
W S Central	3400	0	0	4	0	0	0	0
W S Central	3500	0	0	1	0	0	0	0
W S Central	3600	0	0	21	0	0	0	0
W S Central	3700	0	0	9	10	10	0	0
W S Central	3800	0	0	6	0	0	0	0
W S Central	3900	0	0	0	0	0	0	0
West Penn Power Co	2000	0	0	2	0	0	0	0
West Penn Power Co	2200	0	0	0	0	0	0	0
West Penn Power Co	2300	0	0	0	0	0	0	0
West Penn Power Co	2400	0	0	0	0	0	0	0
West Penn Power Co	2500	0	0	0	0	0	0	0
West Penn Power Co	2600	0	0	19	0	0	0	0
West Penn Power Co	2700	0	0	0	0	0	0	0
West Penn Power Co	2800	0	0	36	0	0	0	0
West Penn Power Co	2900	0	0	8	0	0	0	0
West Penn Power Co	3000	0	0	0	0	0	0	0
West Penn Power Co	3100	0	0	0	0	0	0	0
West Penn Power Co	3200	0	0	15	10	0	0	0
West Penn Power Co	3300	0	0	69	40	10	20	80
West Penn Power Co	3400	0	0	3	0	0	0	0
West Penn Power Co	3500	0	0	5	0	0	0	0
West Penn Power Co	3600	0	0	6	0	0	0	0
West Penn Power Co	3700	0	0	3	0	0	0	0
West Penn Power Co	3800	0	0	0	0	0	0	0
West Penn Power Co	3900	0	0	0	0	0	0	0
Wisconsin Electric Power Co	2000	0	33	18	0	0	0	0
Wisconsin Electric Power Co	2200	0	2	0	0	0	0	0
Wisconsin Electric Power Co	2300	0	0	0	0	0	0	0

Table A-6. Detailed Results for Industrial Facilities, Future Case 2006-2009 (MW Market Potential)

Utility/Region	SIC Code	FC Hybrids (.2-50 MW)	Other Distributed Generation Technologies					
			.2-1 MW	1-5 MW	5-10 MW	10-20 MW	20-30 MW	30-50 MW
Wisconsin Electric Power Co	2400	0	3	0	0	0	0	0
Wisconsin Electric Power Co	2500	0	1	0	0	0	0	0
Wisconsin Electric Power Co	2600	0	23	118	20	0	0	0
Wisconsin Electric Power Co	2700	0	8	6	0	0	0	0
Wisconsin Electric Power Co	2800	0	34	20	20	0	0	0
Wisconsin Electric Power Co	3000	0	18	2	0	0	0	0
Wisconsin Electric Power Co	3100	0	1	0	0	0	0	0
Wisconsin Electric Power Co	3200	0	5	2	0	0	0	0
Wisconsin Electric Power Co	3300	0	38	107	50	0	0	0
Wisconsin Electric Power Co	3400	0	23	0	0	0	0	0
Wisconsin Electric Power Co	3500	0	36	0	0	0	0	0
Wisconsin Electric Power Co	3600	0	24	0	0	0	0	0
Wisconsin Electric Power Co	3700	0	7	5	0	0	0	0
Wisconsin Electric Power Co	3800	0	4	0	0	0	0	0
Wisconsin Electric Power Co	3900	0	1	0	0	0	0	0
Wisconsin Power & Light Co	2000	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2200	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2300	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2400	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2500	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2600	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2700	0	0	0	0	0	0	0
Wisconsin Power & Light Co	2800	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3000	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3100	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3200	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3300	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3400	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3500	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3600	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3700	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3800	0	0	0	0	0	0	0
Wisconsin Power & Light Co	3900	0	0	0	0	0	0	0
TOTALS		0	6,243	10,563	3,630	1,480	1,010	1,360

Note: Totals may not equal sum of components due to independent rounding.

Table A-7. Detailed Results for Commercial Aggregations, Base Case 2005 (MW Market Potential)

Utility/Region	FC Hybrids	Other DG
Alabama Power Co	0	0
Appalachian Power Co	0	0
Arizona Public Service Co	0	0
Baltimore Gas & Electric Co	0	0
Boston Edison Co	0	41
Carolina Power & Light Co	0	0
Central Power & Light Co	0	14
Cincinnati Gas & Electric Co	0	0
Cleveland Electric Illum Co	1	110
Columbus Southern Power Co	9	106
Commonwealth Edison Co	0	0
Connecticut Light & Power Co	0	0
Consolidated Edison Co-NY Inc	0	0
Consumers Energy Co	0	137
Detroit Edison Co	0	74
Duke Energy Corp	0	0
Duquesne Light Co	0	42
E S Central	0	0
East N Central	0	0
Entergy Arkansas Inc	0	0
Entergy Gulf States Inc	1	169
Entergy Louisiana Inc	0	113
Florida Power & Light Co	0	0
Florida Power Corp	0	0
Georgia Power Co	0	128
Houston Lighting & Power Co	0	0
Idaho Power Co	0	4
Indiana Michigan Power Co	0	0
Jersey Central Power&Light Co	0	18
Kansas City Power & Light Co	0	0
Long Island Power Authority	45	232
Los Angeles City of	0	0
Massachusetts Electric Co	0	40
Memphis City of	0	0
Mid Atlantic	0	0
Mountain	0	0
New England	0	92
Niagara Mohawk Power Corp	0	173
Northern States Power Co	0	0
Ohio Edison Co	0	0
Ohio Power Co	0	0
Oklahoma Gas & Electric Co	0	145
Pacific	0	0
Pacific Gas & Electric Co	23	136
PacifiCorp	0	0
PECO Energy Co	0	0

Table A-7. Detailed Results for Commercial Aggregations, Base Case 2005 (MW Market Potential)

Utility/Region	FC Hybrids	Other DG
Portland General Electric Co	0	0
Potomac Electric Power Co	0	0
PP&L Inc	0	70
PSI Energy Inc	0	0
Public Service Co of Colorado	0	0
Public Service Co of Oklahoma	0	0
Public Service Electric&Gas Co	92	377
Puget Sound Energy Inc	0	10
S Atlantic	0	0
Salt River Proj Ag I & P Dist	0	0
San Diego Gas & Electric Co	0	0
South Carolina Electric&Gas Co	0	0
Southern California Edison Co	26	112
Tampa Electric Co	0	0
Texas Utilities Electric Co	0	0
Union Electric Co	0	0
Virginia Electric & Power Co	0	0
W N Central	0	0
W S Central	0	0
Wisconsin Electric Power Co	12	52
TOTALS	209	2,395

Table A-8. Detailed Results for Commercial Aggregations, Future Case 2006-2009 (MW Market Potential)

Utility/Region	FC Hybrids	Other DG
Alabama Power Co	0	0
Appalachian Power Co	0	0
Arizona Public Service Co	258	47
Baltimore Gas & Electric Co	0	0
Boston Edison Co	127	41
Carolina Power & Light Co	1	30
Central Power & Light Co	51	84
Cincinnati Gas & Electric Co	0	0
Cleveland Electric Illum Co	82	80
Columbus Southern Power Co	75	79
Commonwealth Edison Co	0	0
Connecticut Light & Power Co	0	0
Consolidated Edison Co-NY Inc	0	0
Consumers Energy Co	0	204
Detroit Edison Co	0	369
Duke Energy Corp	0	0
Duquesne Light Co	18	171
E S Central	0	0
East N Central	0	0
Entergy Arkansas Inc	10	132
Entergy Gulf States Inc	32	138
Entergy Louisiana Inc	37	100
Florida Power & Light Co	1	0
Florida Power Corp	1	0
Georgia Power Co	181	272
Houston Lighting & Power Co	0	0
Idaho Power Co	0	9
Indiana Michigan Power Co	0	0
Jersey Central Power&Light Co	33	18
Kansas City Power & Light Co	0	0
Long Island Power Authority	241	35
Los Angeles City of	151	0
Massachusetts Electric Co	147	103
Memphis City of	39	252
Mid Atlantic	0	0
Mountain	33	360
New England	280	211
Niagara Mohawk Power Corp	277	321
Northern States Power Co	0	0
Ohio Edison Co	6	15
Ohio Power Co	0	0
Oklahoma Gas & Electric Co	49	162
Pacific	81	94
Pacific Gas & Electric Co	142	17
PacifiCorp	0	0
PECO Energy Co	0	0

Table A-8. Detailed Results for Commercial Aggregations, Future Case 2006-2009 (MW Market Potential)

	FC Hybrids	Other DG
Portland General Electric Co	0	3
Potomac Electric Power Co	0	0
PP&L Inc	87	184
PSI Energy Inc	0	0
Public Service Co of Colorado	0	0
Public Service Co of Oklahoma	0	0
Public Service Electric&Gas Co	475	73
Puget Sound Energy Inc	0	75
S Atlantic	1	153
Salt River Proj Ag I & P Dist	0	0
San Diego Gas & Electric Co	0	0
South Carolina Electric&Gas Co	0	0
Southern California Edison Co	155	0
Tampa Electric Co	53	3
Texas Utilities Electric Co	56	0
Union Electric Co	0	0
Virginia Electric & Power Co	0	0
W N Central	0	0
W S Central	0	0
Wisconsin Electric Power Co	141	41
	3,318	3,878

Table A-9. Detailed Results for Industrial Aggregations, Base Case 2005 (MW Market Potential)

Utility/Region	FC Hybrids	Other DG
Alabama Power Co	0	180
Appalachian Power Co	0	0
Baltimore Gas & Electric Co	0	0
Carolina Power & Light Co	0	590
Central Power & Light Co	0	220
Cincinnati Gas & Electric Co	0	220
Cleveland Electric Illum Co	0	370
Commonwealth Edison Co	0	0
Connecticut Light & Power Co	0	190
Consumers Energy Co	0	570
Dayton Power & Light Co	0	20
Detroit Edison Co	0	840
Duke Energy Corp	0	110
E S Central	0	0
East N Central	0	180
Entergy Arkansas Inc	0	100
Entergy Gulf States Inc	0	0
Entergy Louisiana Inc	0	260
Florida Power and Light	0	190
Florida Power Corp	0	120
Georgia Power Co	0	860
Green River Electric Corp	0	0
Houston Lighting & Power Co	0	0
Idaho Power Co	0	0
IES Utilities Inc	0	0
Illinois Power Co	0	260
Indiana Michigan Power Co	0	320
Indianapolis Power & Light Co	0	140
Kentucky Utilities Co	0	0
Massachusetts Electric Co	0	370
Memphis City of	0	970
Metropolitan Edison Co	0	110
Mid Atlantic	0	520
MidAmerican Energy Co	0	0
Minnesota Power Inc	0	10
Mississippi Power Company	0	0
Monongahela Power Co	0	0
Mountain	0	10
Nevada Power Co	0	20
New England	0	970
Niagara Mohawk Power Corp	0	850
Northern Indiana Pub Serv Co	0	330
Northern States Power Co	0	60
Ohio Edison Co	0	410
Ohio Power Co	0	0
Oklahoma Gas & Electric Co	0	210

Table A-9. Detailed Results for Industrial Aggregations, Base Case 2005 (MW Market Potential)

	FC Hybrids	Other DG
Pacific	0	100
Pacific Gas & Electric Co	0	620
PacifiCorp	0	30
PECO Energy Co	0	0
Pennsylvania Electric Co	0	180
Potomac Edison Co	0	0
PP&L Inc	0	320
PSI Energy Inc	0	0
Public Service Co of Colorado	0	30
Public Service Co of Oklahoma	0	0
Public Service Company of New Mexico	0	820
Public Service Electric&Gas Co	0	710
Puget Sound Energy Inc	0	250
S Atlantic	0	90
Sacramento Municipal Util Dist	0	20
Salt River Project	0	900
San Antonio Public Service Bd	0	20
South Carolina Electric&Gas Co	0	220
South Carolina Pub Serv Auth	0	0
Southern California Edison Co	0	610
Southwestern Electric Power Co	0	80
Texas Utilities Electric Co	0	680
Toledo Edison Co	0	180
Tucson Electric Power Company	0	670
Union Electric Co	0	0
Virginia Electric & Power Co	0	40
W N Central	0	150
W S Central	0	80
West Penn Power Co	0	320
Wisconsin Electric Power Co	0	630
Wisconsin Power & Light Co	0	0
TOTALS	0	18,330

Table A-10. Detailed Results for Industrial Aggregations, Future Case 2006-2009 (MW Market Potential)

Utility/Region	FC Hybrids	Other DG
Alabama Power Co	0	510
Appalachian Power Co	0	0
Baltimore Gas & Electric Co	0	0
Carolina Power & Light Co	0	850
Central Power & Light Co	0	220
Cincinnati Gas & Electric Co	0	420
Cleveland Electric Illum Co	0	470
Commonwealth Edison Co	0	0
Connecticut Light & Power Co	0	500
Consumers Energy Co	0	830
Dayton Power & Light Co	0	100
Detroit Edison Co	0	890
Duke Energy Corp	0	460
E S Central	0	0
East N Central	0	610
Entergy Arkansas Inc	0	150
Entergy Gulf States Inc	0	0
Entergy Louisiana Inc	0	320
Florida Power and Light	0	190
Florida Power Corp	0	220
Georgia Power Co	0	950
Green River Electric Corp	0	0
Houston Lighting & Power Co	0	0
Idaho Power Co	0	0
IES Utilities Inc	0	0
Illinois Power Co	0	290
Indiana Michigan Power Co	0	340
Indianapolis Power & Light Co	0	190
Kentucky Utilities Co	0	0
Massachusetts Electric Co	0	470
Memphis City of	0	1,450
Metropolitan Edison Co	0	270
Mid Atlantic	0	700
MidAmerican Energy Co	0	0
Minnesota Power Inc	0	20
Mississippi Power Company	0	0
Monongahela Power Co	0	100
Mountain	0	20
Nevada Power Co	0	20
New England	0	970
Niagara Mohawk Power Corp	0	850
Northern Indiana Pub Serv Co	0	330
Northern States Power Co	0	360
Ohio Edison Co	0	430
Ohio Power Co	0	0
Oklahoma Gas & Electric Co	0	210

Table A-10. Detailed Results for Industrial Aggregations, Future Case 2006-2009 (MW Market Potential)

	FC Hybrids	Other DG
Pacific	0	150
Pacific Gas & Electric Co	0	620
PacifiCorp	0	110
PECO Energy Co	0	0
Pennsylvania Electric Co	0	270
Potomac Edison Co	0	0
PP&L Inc	0	500
PSI Energy Inc	0	0
Public Service Co of Colorado	0	50
Public Service Co of Oklahoma	0	0
Public Service Company of New Mexico	0	820
Public Service Electric&Gas Co	0	710
Puget Sound Energy Inc	0	250
S Atlantic	0	90
Sacramento Municipal Util Dist	0	20
Salt River Project	0	1,460
San Antonio Public Service Bd	0	30
South Carolina Electric&Gas Co	0	240
South Carolina Pub Serv Auth	0	0
Southern California Edison Co	0	610
Southwestern Electric Power Co	0	80
Texas Utilities Electric Co	0	1,040
Toledo Edison Co	0	180
Tucson Electric Power Company	0	670
Union Electric Co	0	0
Virginia Electric & Power Co	0	100
W N Central	0	480
W S Central	0	170
West Penn Power Co	0	340
Wisconsin Electric Power Co	0	630
Wisconsin Power & Light Co	0	0
TOTALS	0	24,330

Appendix B

Screening and Invterview of Municipalities and Cooperatives

Table B-1. Screening of Candidate Early Adopters

Utility Name	State	Type	Commercial Sales MWh	Comm-ercial Cons-umers	Comm-ercial Price $/kWh	Dist Owner	Summer Peak kW	Winter Peak kW	Net Generation MWh	Purch MWh	Energy Losses MWh	% of Consumer Sales Generated	% Energy Loss	Avg /Peak Load Ratio
The following passed all 6 screens:														
Albemarle City of	NC	MUNI	110,183	1,899	0.084	X	66,186	49,882	0	306,594	19,831	0.0%	6.5%	0.53
Cleveland City of	OH	MUNI	481,205	6,444	0.092	X	315,000	225,000	4,500	1,708,840	113,998	0.3%	6.8%	0.61
Dover City of	DE	MUNI	199,194	2,508	0.093	X	157,000	104,000	0	729,271	56,987	0.0%	7.8%	0.53
Glendale City of	CA	MUNI	318,134	12,395	0.117	X	287,000	180,000	307,611	1,329,229	152,828	28.7%	9.3%	0.65
Key West City of	FL	MUNI	345,493	3,360	0.094	X	126,000	111,000	11,036	679,089	53,258	1.7%	7.7%	0.62
Kinston City of	NC	MUNI	163,233	1,908	0.084	X	98,712	85,017	0	466,720	33,533	0.0%	7.2%	0.53
Los Angeles City of	CA	MUNI	11,403,683	173,955	0.103	X	5,368,000	3,621,000	13,204,051	12,816,415	1,587,519	65.8%	6.1%	0.55
Lumberton City of	NC	MUNI	159,434	1,865	0.104	X	64,249	48,448	0	281,751	26,881	0.0%	9.5%	0.50
Pasadena City of	CA	MUNI	143,519	7,589	0.122	X	285,000	241,000	285,518	1,174,482	204,161	25.3%	14.7%	0.55
Riverside City of	CA	MUNI	414,166	8,914	0.107	X	473,143	293,000	295,252	1,917,017	264,460	17.9%	12.1%	0.52
Cap Rock Electric Coop	TX	COOP	222,477	9,644	0.087	X	95,358	108,482	0	701,865	80,660	0.0%	11.5%	0.73
Continental Divide El Coop	NM	COOP	102,112	2,757	0.085	X	53,673	62,152	0	393,951	23,296	0.0%	5.9%	0.72
Golden Valley Elec Assn	AK	COOP	327,610	5,423	0.083	X	143,300	182,000	607,050	517,259	71,387	57.9%	6.3%	0.70
Great Lakes Energy Coop	MI	COOP	208,624	6,795	0.088	X	184,820	183,805	0	1,009,852	63,096	0.0%	6.2%	0.62
Homer Electric Assn Inc	AK	COOP	159,930	3,043	0.098	X	72,990	81,291	99	483,290	38,550	0.0%	8.0%	0.67
Matanuska Electric Assn	AK	COOP	189,402	2,802	0.081	X	74,766	104,349	4,338	538,955	34,049	0.9%	6.3%	0.59
New Hampshire Elec Coop Inc	NH	COOP	203,250	8,440	0.154	X	125,777	171,232	188,820	655,393	53,162	31.4%	6.3%	0.56
Sulphur Springs Valley E C	AZ	COOP	177,459	6,832	0.099	X	99,368	85,956	0	519,066	41,719	0.0%	8.0%	0.59
The following passed the first 5 screens but not screen 6:														
Jacksonville Beach City of	FL	MUNI	238,079	4,658	0.088	X	168,290	176,230	0	690,829	40,759	0.0%	5.9%	0.44
Washington City of	NC	MUNI	102,739	1,987	0.090	X	64,378	48,698	0	265,309	17,935	0.0%	6.8%	0.47
Choptank Electric Coop Inc	MD	COOP	132,458	2,525	0.084	X	188,704	157,538	0	729,829	53,458	0.0%	7.3%	0.44
East Mississippi Elec Pwr	MS	COOP	107,969	3,928	0.081	X	159,083	167,087	0	612,798	44,828	0.0%	7.3%	0.41
Rutherford Elec Member	NC	COOP	105,492	3,143	0.081	X	235,601	243,202	0	1,003,368	58,506	0.0%	5.8%	0.47
Sumter Electric Coop Inc	FL	COOP	129,284	9,543	0.086	X	381,966	445,924	0	1,628,828	96,363	0.0%	5.9%	0.41
The following passed the first 4 screens but not screen 5:														
Alameda City of	CA	MUNI	168,319	3,329	0.100	X	61,501	67,405	0	386,574	15,248	0.0%	3.9%	0.65
Anaheim City of	CA	MUNI	611,655	15,299	0.103	X	526,680	472,360	916,233	2,422,162	116,455	37.9%	3.8%	0.66
Braintree Town of	MA	MUNI	232,993	2,030	0.090	X	87,060	68,900	74,232	342,756	19,170	19.6%	4.6%	0.54
Burlington City of	VT	MUNI	170,703	3,557	0.102	X	64,400	55,300	113,584	319,899	22,616	33.7%	5.2%	0.76

Table B-1. Screening of Candidate Early Adopters

Utility Name	State	Type	Commercial Sales MWh	Comm-ercial Cons-umers	Comm-ercial Price $/kWh	Dist Owner	Summer Peak kW	Winter Peak kW	Net Generation MWh	Purch MWh	Energy Losses MWh	% of Consumer Sales Generated	% Energy Loss	Avg /Peak Load Ratio
Chicopee City of	MA	MUNI	108,137	2,193	0.086	X	87,300	80,600	124,846	307,045	14,625	30.0%	3.4%	0.56
Covington City of	GA	MUNI	100,001	1,423	0.090	X	65,184	47,234	0	312,370	15,339	0.0%	4.9%	0.54
Groton City of	CT	MUNI	107,205	1,381	0.081	X	94,815	88,137	0	583,033	9,330	0.0%	1.6%	0.70
Holyoke City of	MA	MUNI	147,870	2,060	0.105	X	64,200	52,750	4,365	364,999	14,509	1.5%	4.8%	0.54
La Grange City of	GA	MUNI	114,921	1,700	0.082	X	103,000	75,000	0	512,380	26,161	0.0%	5.1%	0.56
Lodi City of	CA	MUNI	147,237	2,946	0.100	X	122,540	62,480	0	408,691	17,415	0.0%	4.3%	0.38
Mesa City of	AZ	MUNI	171,238	2,391	0.081	X	85,960	49,140	0	404,186	18,582	0.0%	4.6%	0.53
New Bern City of	NC	MUNI	148,965	2,509	0.091	X	95,902	88,274	0	417,571	17,408	0.0%	4.2%	0.49
North Little Rock City of	AR	MUNI	208,000	4,362	0.084	X	0	0	137,000	830,000	36,000	14.7%	3.7%	0
Norwich City of	CT	MUNI	128,810	2,669	0.091	X	62,708	52,308	2,117	336,307	13,333	0.7%	3.9%	0.61
Redding City of	CA	MUNI	314,109	5,217	0.102	X	210,900	111,200	57,029	1,654,104	47,382	8.3%	2.8%	0.92
Taunton City of	MA	MUNI	187,392	3,275	0.090	X	125,780	101,300	165,068	272,609	7,168	28.3%	1.1%	0.57
Turlock Irrigation District	CA	MUNI	120,649	6,369	0.097	X	382,476	209,471	668,970	978,626	80,652	47.3%	4.9%	0.49
Vineland City of	NJ	MUNI	118,774	2,549	0.095	X	105,200	70,600	63,333	100,950	22,076	13.5%	4.5%	0.53
Wellesley Town of	MA	MUNI	114,988	1,030	0.090	X	49,800	39,766	0	219,800	11,468	0.0%	5.3%	0.50
Wilson City of	NC	MUNI	296,021	3,758	0.082	X	230,688	195,993	0	1,214,561	29,824	0.0%	2.5%	0.60
Coweta-Fayette El Member	GA	COOP	156,344	2,805	0.084	X	299,653	185,121	0	993,463	47,853	0.0%	4.8%	0.37
Joe Wheeler Elec Member	AL	COOP	207,739	7,115	0.081	X	232,253	223,458	0	1,063,912	58,359	0.0%	5.5%	0.52
Pioneer Electric Coop Inc	KS	COOP	174,332	8,864	0.087	X	101,794	86,670	0	687,232	21,058	0.0%	3.1%	0.77
Wheatland Electric Coop	KS	COOP	119,694	6,211	0.109	X	145,030	94,572	0	721,228	16,734	0.0%	2.3%	0.56

MARKET PROSPECT SURVEY FOR A HYBRID FUEL CELL SYSTEM

INTERVIEW CEO OF SMALLER UTILITY, SYSTEM PLANNER, CHIEF ENGINEER, OR MARKETING DEPARTMENT. MAY NEED TO TALK WITH MORE THAN ONE PERSON. LOCATE CORRECT PERSON IN INITIAL PHONE CALL. THEN EMAIL QUESTIONS TO APPROPRIATE PERSON AND SCHEDULE A 20-MINUTE INTERVIEW TIME.

GENERATION

1. Confirm how they currently procure generation. (We know MWh generated (by fuel type) and purchased (by supplier); have this data in hand for each interviewee before calling.)

a) Purchase from local utility
b) Competitive bidding
c) Generate own
d) Other/combination of above

Capacity and Environmental Issues

2. Do you face capacity constraints? What are your projected needs for new capacity or a new supplier (i.e. are any power purchase agreements set to expire)?

3. Do you have any distribution system capacity constraints? (Especially in serving a large commercial customer or a group of proximate commercial customers.)

4. Are your line losses at acceptable levels?

5. What emissions constraints do you face for new generation? (Specify levels if possible.)

CUSTOMER ISSUES

6. Have any of your commercial customers been talking to you about reliability or power quality concerns? Would they be willing to pay a premium for reliability? If so, how much?

7. HAVE YOU CONSIDERED OFFERING A RELIABILITY PROGRAM TO COMMERCIAL CUSTOMERS AS A WAY TO BUILD LOYALTY?

PROSPECTS

8. What prospects do you see for installing a very high efficiency, high availability, low emissions, relatively high capital cost (cite cost and performance data), 15-25 MW generating unit (either on-site at a customers facility or a facility of your own)?

    a) What needs could such a unit serve?

    b) What barriers would it face?

    c) How could these barriers be overcome?

Appendix C

Glossary of Terms

Appendix C
Glossary of Terms

A

ATS – Advanced turbine system, a combustion turbine system that employs a recuperator and advanced high temperature materials and offers higher efficiencies than combustion turbines that do not possess these attributes. In this study, these systems also employ a simple cycle configuration.

Average Demand - The demand on, or the power output of, an electrical system or any of its parts over an interval of time, as determined by the total number of kilowatt-hours divided by the units of time in the interval.

B

Backup Energy System - A reserve appliance; for example, a standby generator for a home or commercial building.

Balance of System - In a solar energy system, refers to all components other than the collector. In terms of costs, it includes design costs, land, site preparation, system installation, support structures, power conditioning, operation and maintenance costs, indirect storage, and related costs.

Baseload Capacity - The power output of a power plant that can be continuously produced.

Baseload Power Plant - A power plant that is normally operated to generate a base load, and that usually operates at a constant load; examples include coal fired and nuclear fueled power plants.

British Thermal Unit (Btu) - The amount of heat required to raise the temperature of one pound of water one degree Fahrenheit; equal to 252 calories.

C

Capability - The maximum load that a generating unit can carry under specified conditions for a given period of time, without exceeding its approved limits of temperature and stress.

Capacity - The load that a power generation unit is rated by the manufacture to be able to meet or supply.

Capital Costs - The amount of money needed to purchase equipment, buildings, tools, and other manufactured goods that can be used in production.

Cathode - The negative pole or electrode of an electrolytic cell, vacuum tube, etc., where electrons enter (current leaves) the system; the opposite of an anode.

Cell - A component of a electrochemical battery. A 'primary' cell consists of two dissimilar elements, known as 'electrodes,' immersed in a liquid or paste known as the 'electrolyte.' A direct current of 1-1.5 volts will be produced by this cell. A 'secondary' cell or accumulator is a similar design but is made useful by passing a direct current of correct strength through it in a certain direction. Each of these cells will produce 2 volts; a 12 volt car battery contains six cells.

Coincidence Factor - The ratio of the coincident, maximum demand or two or more loads to the sum of their noncoincident maximum demand for a given period; the reciprocal of the diversity factor, and is always less than or equal to one.

Cogeneration - The generation of electricity or shaft power by an energy conversion system and the concurrent use of rejected thermal energy from the conversion system as an auxiliary energy source.

Combined-Cycle Power Plant - A power plant that uses two thermodynamic cycles to achieve higher overall system efficiency; e.g.: the heat from a gas-fired combustion turbine is used to generate steam for heating or to operate a steam turbine to generate additional electricity.

Combustion - The process of burning; the oxidation of a material by applying heat, which unites oxygen with a material or fuel.

Combustion Air - Air that provides the necessary oxygen for complete, clean combustion and maximum heating value.

Combustion Chamber - Any wholly or partially enclosed space in which combustion takes place.

Combustion Gases - The gaseous byproducts of the combustion of a fuel.

Combustion Turbine - A turbine that generates power from the combustion of a fuel.

Commercial Building - A building with more than 50 percent of its floor space used for commercial activities, which include stores, offices, schools, churches, libraries, museums, health care facilities, warehouses, and government buildings except those on military bases.

Commercial Sector - Consists of businesses that are not engaged in transportation or manufacturing or other types of industrial activities. Standard Industrial Classification (SIC) codes for commercial establishments are 50 through 87, 89, and 91 through 97.

Commissioning - The process by which a power plant, apparatus, or building is approved for operation based on observed or measured operation that meets design specifications.

Compressor - A device used to compress air for mechanical or electrical power production, and in air conditioners, heat pumps, and refrigerators to pressurize the refrigerant and enabling it to flow through the system.

Connected Load - The sum of the ratings of the electricity consuming apparatus connected to a generating system.

Connection Charge - An amount paid by a customer for being connected to an electricity supplier's transmission and distribution system.

Constant Dollars - The value or purchasing power of a dollar in a specified year carried forward or backward.

Consumption Charge - The part of an energy utility's charge based on actual energy consumed by the customer; the product of the kilowatt-hour rate and the total kilowatt-hours consumed.

Cubic Foot (of Natural Gas) - A unit of volume equal to 1 cubic foot at a pressure base of 14.73 pounds standard per square inch absolute and a temperature base of 60 degrees Fahrenheit.

Current Dollars - The value or purchasing power of a dollar that has not been reduced to a common basis of constant purchasing power, but instead reflects anticipated future inflation; when used in computations the assumed inflation rate must be stated.

Customer Charge - An amount to be paid for energy periodically by a customer without regard to demand or energy consumption.

Customer Class - Categories of energy consumers, as defined by consumption or demand levels, patterns, and conditions, and generally included residential, commercial, industrial, agricultural.

D

Demand - The rate at which electricity is delivered to or by a system, part of a system, or piece of equipment expressed in kilowatts, kilovoltamperes, or other suitable unit, at a given instant or averaged over a specified period of time.

Demand Charge - A charge for the maximum rate at which energy is used during peak hours of a billing period. That part of a utility service charged for on the basis of the possible demand as distinguished from the energy actually consumed.

Derating - The production of energy by a system at a level less than its design or nominal capacity.

Deregulation - The process of changing regulatory policies and laws to increase competition among suppliers of commodities and service. The process of deregulating the electric power industry was initiated by the Energy Policy Act of 1992. (See also Restructuring)

Discounting - A method of financial and economic analysis used to determine present and future values of investments or expenses.

Discount Rate - The interest rate at which the Federal Reserve System stands ready to lend reserves to commercial banks. The rate is proposed by the 12 Federal Reserve banks and determined with the approval of the Board of Governors.

Distributed Generation - A popular term for localized or on-site power generation.

Distribution - The process of distributing electricity; usually defines that portion of an electrical utility's power lines between a utility's power pole and transformer and a customer's point of connection/meter.

Distribution Line - One or more circuits of a distribution system on the same line or poles or supporting structures' usually operating at a lower voltage relative to the transmission line.

Distribution System - That portion of an electricity supply system used to deliver electricity from points on the transmission system to consumers.

District Heating - A heating system in which steam or hot water for space heating or hot water is piped from a central boiler plant or electric power/heating plant to a cluster of buildings.

Diversity Factor - The ratio of the sum of the noncoincidental maximum demands of two or more loads to their coincidental maximum demands for the same period.

DOE-2.1 - A computer software program that simulates energy consumption of commercial buildings; used for design and auditing purposes.

E

Efficiency - Under the First Law of Thermodynamics, efficiency is the ratio of work or energy output to work or energy input, and cannot exceed 100 percent. Efficiency under the Second Law of Thermodynamics is determined by the ratio of the theoretical minimum energy that is required to accomplish a task relative to the energy actually consumed to accomplish the task. Generally, the measured efficiency of a device, as defined by the First Law, will be higher than that defined by the Second Law.

Electric Energy - The amount of work accomplished by electrical power, usually measured in kilowatt-hours (kWh). One kWh is 1,000 Watts and is equal to 3,413 Btu.

Electricity Generation - The process of producing electricity by transforming other forms or sources of energy into electrical energy; measured in kilowatt-hours.

Electric Rate - The unit price and quantity to which it applies as specified in a rate schedule or contract.

Electric Rate Schedule - A statement of the electric rate(s), terms, and conditions for electricity sale or supply.

Electric System - The physically connected generation, transmission, and distribution facilities and components operated as a unit.

Electric System Loss(es) - The total amount of electric energy loss in an electric system between the generation source and points of delivery.

Electric Power Plant - A facility or piece of equipment that produces electricity.

Electric Power Transmission - The transmission of electricity through power lines.

Electric Utility - A corporation, person, agency, authority or other legal entity that owns and/or operates facilities for the generation, transmission, distribution or sale of electricity primarily for use by the public.

Electric Utility Sector - Those privately or publicly owned establishments that generate, transmit, distribute, or sell electricity.

Energy Charge - That part of an electricity bill that is based on the amount of electrical energy consumed or supplied.

Energy Service Company (ESCO) - A company that specializes in undertaking energy efficiency measures under a contractual arrangement whereby the ESCO shares the value of energy savings with their customer.

Environment - All the natural and living things around us. The earth, air, weather, plants, and animals all make up our environment.

F

Forced Ventilation - A type of building ventilation system that uses fans or blowers to provide fresh air to rooms when the forces of air pressure and gravity are not enough to circulate air through a building.

Fuel Cell - An electrochemical device that converts chemical energy directly into electricity.

G

Gas Turbine - A type of turbine in which combusted, pressurized gas is directed against a series of blades connected to a shaft, which forces the shaft to turn to produce mechanical energy.

Generator - A device for converting mechanical energy to electrical energy.

Gigawatt (GW) - A unit of power equal to 1 billion Watts; 1 million kilowatts, or 1,000 megawatts.

Global Warming - A popular term used to describe the increase in average global temperatures due to the greenhouse effect.

Grid - A common term referring to an electricity transmission and distribution system.

H

Heat - A form of thermal energy resulting from combustion, chemical reaction, friction, or movement of electricity. As a thermodynamic condition, heat, at a constant pressure, is equal to internal or intrinsic energy plus pressure times volume.

Heat Exchanger - A device used to transfer heat from a fluid (liquid or gas) to another fluid where the two fluids are physically separated.

Heating Load - The rate of heat flow required to maintain a specific indoor temperature; usually measured in Btu per hour.

Heating Value - The amount of heat produced from the complete combustion of a unit of fuel. The higher (or gross) heating value is that when all products of combustion are cooled to the pre-combustion temperature, water vapor formed during combustion is condensed, and necessary corrections have been made. Lower (or net) heating value is obtained by subtracting from the gross heating value the latent heat of vaporization of the water vapor formed by the combustion of the hydrogen in the fuel.

Heating, Ventilation, and Air-Conditioning (HVAC) System - All the components of the appliance used to condition interior air of a building.

Heat Rate - The ratio of fuel energy input as heat per unit of net work output; a measure of a power plant thermal efficiency, generally expressed as Btu per net kilowatt-hour.

Higher Heating Value (HHV)- The maximum heating value of a fuel sample, which includes the calorific value of the fuel (bone dry) and the latent heat of vaporization of the water in the fuel. (See moisture content and net (lower) heating value, below.)

Horsepower (hp) - A unit of rate of operation. Electrical hp: a measure of time rate of mechanical energy output; usually applied to electric motors as the maximum output; 1 electrical hp is equal to 0.746 kilowatts or 2,545 Btu per hour. Shaft hp: a measure of the actual mechanical energy per unit time delivered to a turning shaft; 1 shaft Hp is equal to 1 electrical Hp or 550 foot pounds per second. Boiler Hp: a measure to the maximum rate to heat output of a steam generator; 1 boiler Hp is equal to 33,480 Btu per hour steam output.

I

Ignition Point - The minimum temperature at which combustion of a solid or fluid can occur.

Independent Power Producer - A company or individual that is not directly regulated as a utility. These entities produce power for their own use and/or sell it to regulated utilities.

Installed Capacity - The total capacity of electrical generation devices in a power station or system.

Interconnection - A connection or link between power systems that enables them to draw on each other's reserve capacity in time of need.

Internal Combustion Electric Power Plant - The generation of electric power by a heat engine which converts part of the heat generated by combustion of the fuel into mechanical motion to operate an electric generator.

Internal Rate of Return - A widely used rate of return for performing economic analysis. This method solves for the interest rate that equates the equivalent worth of an alternative's cash receipts or savings to the equivalent worth of cash expenditures, including investments. The resultant interest rate is termed the internal rate of return (IRR).

Inverter - A device that that converts direct current electricity (from for example a solar photovoltaic module or array) to alternating current for use directly to operate appliances or to supply power to a electricity grid.

Investment Tax Credit - A tax credit granted for specific types of investments.

Investor Owned Utility (IOU) - A utility owned by stockholders or other investors; sometimes referred to as a private utility, in contrast to a public utility that is owned by a government agency or cooperative.

J

K

Kilowatt (kW) - A standard unit of electrical power equal to one thousand watts, or to the energy consumption at a rate of 1000 Joules per second.

Kilowatt-hour - A unit or measure of electricity supply or consumption of 1,000 Watts over the period of one hour; equivalent to 3,412 Btu.

L

Life Cycle Cost - The sum of all the costs both recurring and nonrecurring, related to a product, structure, system, or service during its life span or specified time period.

Load - The demand on an energy producing system; the energy consumption or requirement of a piece or group of equipment.

Load Duration Curve - A curve that displays load values on the horizontal axis in descending order of magnitude against the percent of time (on the vertical axis) that the load values are exceeded.

Load Factor - The ratio of average energy demand (load) to maximum demand (peak load) during a specific period.

Load Profile or Shape - A curve on a chart showing power (kW) supplied (on the horizontal axis) plotted against time of occurrence (on the vertical axis) to illustrate the variance in a load in a specified time period.

Lower (Net) Heating Value - The lower or net heat of combustion for a fuel that assumes that all products of combustion are in a gaseous state. (See Net Heating Value below.)

M

MCF - An abbreviation for one thousand cubic feet of natural gas with a heat content of 1,000,000 Btus, or 10 therms.

Megawatt - One thousand kilowatts, or 1 million watts; standard measure of electric power plant generating capacity.

N

Natural Gas - A hydrocarbon gas obtained from underground sources, often in association with petroleum and coal deposits. It generally contains a high percentage of methane, varying amounts of ethane, and inert gases; used as a heating fuel.

Net (Lower) Heating Value (NHV) - The potential energy available in a fuel as received, taking into account the energy loss in evaporating and superheating the water in the fuel. Equal to the higher heating value minus 1050W where W is the weight of the water formed from the hydrogen in the fuel, and 1050 is the latent heat of vaporization of water, in Btu, at 77 degrees Fahrenheit.

Net Metering - The practice of using a single meter to measure consumption and generation of electricity by a small generation facility (such as a house with a wind or solar photovoltaic system). The net energy produced or consumed is purchased from or sold to the generator, respectively, at the same price.

Net Present Value - The value of a personal portfolio, product, or investment after depreciation and interest on debt capital are subtracted from operating income. It can also be thought of as the equivalent worth of all cash flows relative to a base point called the present.

Nitrogen Oxides (NOx) - The products of all combustion processes formed by the combination of nitrogen and oxygen.

Non-Utility Generator/Power Producer - A class of power generator that is not a regulated utility and that has generating plants for the purpose of supplying electric power required in the conduct of their industrial and commercial operations.

O

Off-Peak - The period of low energy demand, as opposed to maximum, or peak, demand.

On-Peak Energy - Energy supplied during periods of relatively high system demands as specified by the supplier.

On-Site Generation - Generation of energy at the location where all or most of it will be used.

P

Payback - The amount of time required for positive cash flows to equal the total investment costs.

Peak Clipping/Shaving - The process of implementing measures to reduce peak power demands on a system.

Peak Demand/Load - The maximum energy demand or load in a specified time period.

Peaking Capacity - Power generation equipment or system capacity to meet peak power demands.

Power - Energy that is capable or available for doing work; the time rate at which work is performed, measured in horsepower, Watts, or Btu per hour. Electric power is the product of electric current and electromotive force.

Power Transmission Line - An electrical conductor/cable that carries electricity from a generator to other locations for distribution.

Products of Combustion - The elements and compounds that result from the combustion of a fuel.

Propane - A hydrocarbon gas, C3H8, occurring in crude oil, natural gas, and refinery cracking gas. It is used as a fuel, a solvent, and a refrigerant. Propane liquefies under pressure and is the major component of liquefied petroleum gas (LPG).

Psi - Pounds of pressure per square inch.

Psia - Pounds/force per square inch absolute.

Psig - Pounds/force per square inch gauge.

Public Utilities Regulatory Policy Act (PURPA) of 1978 - A law that requires electric utilities to purchase electricity produced from qualifying power producers that use renewable energy resources or are cogenerators. Utilities are required to purchase power at a rate equal to the avoided cost of generating the power themselves. (See Avoided Costs and Qualifying Facility)

Q

Qualifying Facility - A category of electric power producer established under the Public Utility Regulatory Policy Act (PURPA) of 1978, that includes small-power producers (SPP) who use renewable sources of energy such as biomass, geothermal, hydroelectricity, solar (thermal and photovoltaic), and wind, or cogenerators who produce both heat and electricity using any type of fuel. PURPA requires utilities to purchase electricity from these power producers at a rate approved by a state utility regulatory agency under Federal guidelines. PURPA also requires utilities to sell electricity to these producers. Some states have developed their own programs for SPPs and utilities.

R

Rated Life - The length of time that a product or appliance is expected to meet a certain level of performance under nominal operating conditions; in a luminaire, the period after which the lumen depreciation and lamp failure is at 70% of its initial value.

Rated Power - The power output of a device under specific or nominal operating conditions.

Rate Schedule - A mechanism used by electric utilities to determine prices for electricity; typically defines rates according to amounts of power demanded/consumed during specific time periods.

Recuperator - A heat exchanger in which heat is recovered from the products of combustion.

S

T

Transmission and Distribution Losses - The losses that result from inherent resistance in electrical conductors and transformation inefficiencies in distribution transformers in a transmission and distribution network.

Transmission Lines - Transmit high-voltage electricity from the transformer to the electric distribution system.

U

V

W

X

Y

Z