

Report Title/Type: Thirteenth Quarterly Technical Progress Report for project entitled "Establishment of an Industry-Driven Consortium Focused on Improving the Production Performance of Domestic Stripper Wells"

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ABSTRACT

The Pennsylvania State University, under contract to the U.S. Department of Energy, National Energy Technology Laboratory will establish, promote, and manage a national industry-driven Stripper Well Consortium (SWC) that will be focused on improving the production performance of domestic petroleum and/or natural gas stripper wells. The consortium creates a partnership with the U.S. petroleum and natural gas industries and trade associations, state funding agencies, academia, and the National Energy Technology Laboratory.

This report serves as the thirteenth quarterly technical progress report for the SWC. Key activities for this reporting period included: 1) hosting three fall technology transfer meetings in Wyoming, Texas, and Pennsylvania, 2) releasing the 2004 SWC request-for-proposal (RFP), and 3) initial planning of the SWC spring meeting in Golden Colorado for selecting the 2004 SWC projects.

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1.0 INTRODUCTION

The Pennsylvania State University, under contract to the U.S. Department of Energy (DOE), National Energy Technology Laboratory (NETL), is in the process of establishing an industry-driven stripper well consortium that will be focused on improving the production performance of domestic petroleum and/or natural gas stripper wells. Industry-driven consortia provide a cost-efficient vehicle for developing, transferring, and deploying new technologies into the private sector. The Stripper Well Consortium (SWC) will create a partnership with the U.S. petroleum and natural gas industries and trade associations, state funding agencies, academia, the National Energy Technology Laboratory, and the National Petroleum Technology Office.

Consortium technology development research will be conducted in the areas of reservoir remediation, wellbore clean up, and surface system optimization. Consortium members elected an Executive Council that will be charged with reviewing projects for consortium co-funding. Proposals must address improving the production performance of stripper wells and must provide significant cost share. The process of having industry develop, review, and select projects for funding will ensure that the consortium conducts research that is relevant and timely to industry. Co-funding of projects using external sources of funding will be sought to ensure that consortium funds are highly leveraged.

2.0 EXPERIMENTAL

A description of experimental methods is required by the DOE for all quarterly technical progress reports. In this program, Penn State is responsible for establishing and managing an industry-driven stripper well consortium. Technology development research awards are made on a competitive basis. Therefore, this section is not applicable to the Penn State contracted activities. Technical reports from the individual researchers will be required to contain an experimental discussion section and will be submitted to consortium members and DOE for their review.

3.0 RESULTS AND DISCUSSION

During the last reporting period, the SWC focused the following: 1) hosting three fall technology transfer meetings in Wyoming, Texas, and Pennsylvania, 2) releasing the 2004 SWC request-for-proposal (RFP), and 3) initial planning of the SWC spring meeting in Golden Colorado for selecting the 2004 SWC projects.

3.1 SWC Fall Technology Transfer Meetings

The SWC organized and hosted three technology transfer meetings during this reporting period. The Consortium organized its 2003 technology transfer efforts around western regional meetings and an eastern regional meeting to facilitate a broader outreach effort to showcase SWC-funded technologies.

Casper Wyoming Workshop. The SWC held a technology transfer workshop in Casper Wyoming started with a half-day field excursion to Rocky Mountain Oil Test Field (RMOTC) on October 2, 2003. RMOTC hosted a tour of their facility to see stripper well production technology demonstrations, including some SWC projects that were currently being tested at the facility. Day 2 of the meeting, October 3, 2003, was held at the Casper Events Center and consisted of 8 technology transfer presentations and a roundtable discussion. The workshop drew approximately 30 attendees. The meeting concluded at about 3:30 pm on October 3.

Lubbock Texas Workshop. On October 30, 2003, the second technology transfer meeting for the SWC was held at the Holiday Inn Hotel and Towers in Lubbock Texas. The workshop consisted of eleven presentations on 2003 funded projects followed by a roundtable discussion. The meeting concluded at approximately 4:20 pm. There were approximately 30 attendees at the Lubbock Texas workshop.

Dubois Pennsylvania Workshop. The eastern regional SWC technology transfer meeting was held on November 18, 2003 at the Holiday Inn located in Dubois Pennsylvania. With approximately 50 meeting attendees, presentations were given by representatives from ten funded projects from 2003.

3.2 Request for Proposal Solicitation

The SWC released its annual request for proposals (RFP) in December 2003. The RFP solicitation will be used to select projects for co-funding in 2004. Proposals are due by 4PM on May 5, 2004. The 2004 RFP is provided in Appendix A.

3.3 SWC Spring Meeting

The SWC is organizing its spring meeting to be held in Golden Colorado. This meeting will be held on May 24-25, 2004 at the table Mountain Inn. The agenda will be developed upon receipt of the 2004 proposals.

4.0 CONCLUSIONS

During this reporting period, the efforts were focused on: 1) hosting three fall technology transfer meetings in Wyoming, Texas, and Pennsylvania, 2) releasing the 2004 SWC request-for-proposal (RFP), and 3) initial planning of the SWC spring meeting in Golden Colorado for selecting the 2004 SWC projects.

The Fall technology transfer meetings attracted 100+ attendees between the three workshops. The SWC membership which attended the Casper, Wyoming workshop was able to see several SWC-funded projects operating in the field at the Rocky Mountain Oilfield Testing Center.

The SWC is nearing the end of its initial funding cycle. The Consortium has a solid membership foundation and a demonstrated ability to review and select projects that have relevancy to meet the needs of domestic stripper well operators.

5.0 REFERENCES

A listing of referenced materials is required by the DOE for each quarterly technical progress report. This technical progress report for the SWC did not utilize any reference material.

6.0 APPENDICES

The 2004 RFP is provided in Appendix A.

APPENDIX A: 2004 REQUEST-FOR-PROPOSALS SOLICITATION

REQUEST FOR PROPOSALS FOR THE STRIPPER WELL CONSORTIUM

Eligibility

Competition is open to all current Full Members of the Stripper Well Consortium (SWC). No proposal will be reviewed by the SWC Executive Council without a fully executed membership agreement in place. Proposals received by members who dues are not current, or whose membership agreement is not fully executed will be returned without review.

University employees eligible to serve as principal investigators for consortium projects are:

Full-time regular tenure-track and regular faculty

Persons with the title of Research Assistant, Associate, Scientist or Senior Scientist

Institution Commitment

Each proposal must be signed by an official of the company or university who is authorized to commit the company/institutional resources to the project. The name of the Applicant's authorized official shall be entered in the appropriate space shown on the cover page.

Research Focus Areas

The mission of the SWC is to assist in the development, demonstration, and commercialization of technologies to improve the production performance of the nation's natural gas and petroleum stripper wells. Proposals are being solicited from the SWC Full Members in the following three focus areas:

Reservoir remediation, characterization, and operations

Examples include, but are not limited to, the identification of by-passed reservoirs/ zones, stimulation/ recompeletion of existing wells, and mitigation/ reduction of water production

Well-bore clean-up

Examples include, but are not limited to, dewatering, down hole separation and injection, and removal of solids such as salts, scale, and hydrocarbon precipitation.

Surface and collection optimization

Examples include, but are not limited to, disposal/ utilization of solid-liquid waste streams (e.g. brine), surface treatment/ measurement of gas, and pipeline usage/ maintenance and compression.

Awards

Awards will be made on an annual basis. Subcontracts will be issued from The Pennsylvania State University to the successful applicant. The period of performance for this year's funding will be from September 1, 2004 to August 31, 2005. Members will be permitted to submit future proposals to extend the proposed work; however, this must be performed on an annual basis.

If additional documentation is required prior to issuance of a subcontract, a delay in submission of the September 1 start date may occur.

Submission

The final deadline for receipt of proposals is 4 PM on April 27, 2004. Proposals submitted after the deadline will be returned to the applicant. A signed original and twelve (12) copies along with an electronic copy of the executive summary should be submitted to the SWC Director at the following address:

Mr. Joel L. Morrison
Director, Stripper Well Consortium
The Pennsylvania State University
C-211 Coal Utilization Laboratory
University Park, PA 16802-2323

In addition to the proposal, each applicant is required to provide the SWC a nominal 20-minute presentation on the proposed project at Golden, CO on May 24-25, 2004. The applicant is required to provide their presentation prior to the meeting. Presentations may be submitted with the proposal(s) but must be received no later than May 11, 2004.

Proposal Format

The format for your SWC proposal follows. The proposal should be on standard 8 1/2" x 11" letter size paper with 1" margins, each copy to be three hole punched and clipped. Please do not staple the proposal. Each page of the proposal should be numbered at the bottom. The type size must be clear and legible, in standard size, 12 points. No smaller than 10 point font size will be accepted with double line spacing.

Sections of the Proposal

The proposal shall consist of the following sections in order.

Cover Sheet

See Attachment B

The cover sheet along with the executive summary will be distributed to the SWC membership as part of the proposal evaluation process.

Table of Contents

One (1) page maximum

Executive Summary

One (1) page maximum

Provide a one-page summary of the proposed research. The executive summary will be distributed among the SWC membership. An electronic copy of the executive summary is required. The summary should be written in the third person and include a statement of objectives and methods to be employed. It should be informative to other persons working in related fields and understandable to a scientifically or technically literate lay reader.

Project Description

Five (5) page maximum

The main body of the proposal should outline the plan of work, including the broad design of activities to be undertaken. At a minimum the following should be discussed:

- Statement of the problem;
- Objectives and expected significance of the research;
- Statement of the work plan;
- Relation of the proposed work to comparable work in progress;
- Description of available facilities and major items of equipment available for the work; and reference citations.

Project Schedule

One (1) page maximum

A plan which establishes the time schedule for accomplishing the work. The plan should include major milestones of the project in bar chart format and should cover the complete period of performance.

Anticipated Results

One (1) page maximum

Discuss the commercialization viability of the proposed project. Discuss how the project will improve the production performance of domestic natural gas/ petroleum stripper wells. Identify any specific groups in the commercial sector that will use the projected results.

Budget

See Attachment C

The submission of a reasonable budget is an important part of the proposal. Your budget may request funds under any of the categories listed on Attachment B so long as the item and amount are considered necessary to perform the work. Proposed equipment expenditures must be justified and are subject to program sponsor approval.

Cost-Share Commitments

A minimum of 30% cost-share is required. Applicants are encouraged to provide more than 30% cost share. The Executive Council will be tracking the level of cost share provided in each project. Cost share, which may be in the form of cash and third party in-kind, are acceptable as part of the matching if they meet the following criteria:

- Are verifiable, necessary and reasonable for proper and efficient accomplishment of the project;
- Are incurred within the project performance period, previously expended research, development, or exploration costs are unallowable.
- Are not included as contributions for any other federal project, are not paid by the Federal Government under another award, and be otherwise allowable in accordance with applicable Federal cost principles and DOE regulations governing cost sharing.
- The value of patents and data contributed to the project is unallowable as cost sharing.

All cost-sharing commitments must be supported by appropriate documentation. Failure to provide appropriate documentation can result in the proposal being returned without review.

Biographical Sketches

One (1) page per person maximum

Each vitae should include educational background, professional experience, research interest, honors and professional activities.

Collaborative Work

All collaborations with individuals not included in the budget should be described and documented with a letter from each collaborator.

Other

Letters of support from outside sources are encouraged, but not mandatory.

Treatment of Proprietary Information

Privileged or confidential commercial or financial information that the applicant does not want disclosed to the public or used by the Government for any purpose other than application evaluation, should be specifically identified by page on the proposal cover sheet.

Proposal Evaluation/Review Process

The SWC Executive Council will review and select projects for SWC funding. The SWC Director will notify all applicants within fourteen (14) working days of the SWC meeting, by letter, of the final decision regarding their proposals.

Reallocation of Funds/ Project Modifications

Recipients of SWC Awards will have substantial discretion to reallocate funds should changing conditions demand it. Requests for budget revisions and/or project extensions shall be submitted in writing to the SWC Director.

Additional Information

Additional questions should be forwarded to the SWC Director. Questions should be submitted via e-mail to swc@ems.psu.edu or contact Mr. Joel Morrison at (814) 865-4802.

ATTACHMENT A - CHECKLIST

PI _____

Project Title _____

To assure that your application is complete, please complete and paper clip (one copy only) the checklist to the cover sheet of the original (signed) copy of the proposal. Be sure the following items are included in the following order.

- _____ Cover page completed and signed by PI and authorized representative
- _____ Executive Summary (one page maximum)
- _____ Detailed description of the work proposed (five page maximum)
- _____ Project schedule (one page maximum)
- _____ Anticipated results/commercial potential (one page maximum)
- _____ Budget on specified form with justification as required
- _____ Cost-Share Commitments
- _____ Biographical Sketches (one page per person maximum)
- _____ Collaborative Documentation
- _____ Letters of Support
- _____ Required number of copies (original + 12)
- _____ Electronic copy of the Executive Summary
- _____ Presentation (required by May 11, 2004)

ATTACHMENT B - COVER SHEET

Proposal Submitted to: Stripper Well Consortium
The Pennsylvania State University
C-211 Coal Utilization Laboratory
University Park, PA 16802-2308

Date of Submission _____

Title of Proposal _____

Amount Requested from SWC \$ _____

Cost Share Commitments Cash \$ _____
(Minimum 30% Required)

In-Kind \$ _____

Total Project Costs \$ _____

Principal Investigator

Phone: _____ Fax: _____ Email _____

Address: _____

Other Participants: _____

PROPRIETARY INFORMATION: Does this proposal contain Proprietary or Confidential Information?
_____ NO _____ YES (if yes, complete box below)

Notice of Restrictions on Disclosure and Use of Data

The data contained on pages _____ of this proposal are submitted in confidence and contain privileged or confidential commercial and/or financial information. Such data may be used or disclosed only for evaluation purposes. If funded, the Government would have the right to use or disclose data from this project to the extent provided the DOE/PSU Cooperative Agreement. This restriction does not limit the Government's right to use or disclose data obtained without restrictions from any source, including the proposer.

Submitted by:

Approved by:

Signature of PI

Authorized Representative

ATTACHMENT C - BUDGET

Name of PI: _____

REQUESTED SWC

COST-SHARE

Salaries and Wages

List individually all personnel identified in the proposal.
Include title and percent of effort

\$ _____ \$ _____

NOTE: The use of undergraduate and graduate students is encouraged, and appropriate.

The basis for proposed percent of effort or labor hours should be identified (historical hours, engineering estimates).

Fringe Benefits

\$ _____ \$ _____

Materials and Supplies

\$ _____ \$ _____

List types required and estimated costs.

NOTE: State whether amounts proposed are based on catalog prices or other cost estimating.

Equipment

\$ _____

Items exceeding \$5,000 and 1 year's useful life are defined as permanent equipment. List item and dollar amount for each amount. Justify and/or provide quotation.

Travel (see Note 4)

\$ _____

State the type and extent of travel and its relation to the project. Itemize by destination and estimated costs.

Publication/Information Dissemination

\$ _____

Estimate costs of documenting, preparing, publishing and sharing research findings. Show estimates.

Other Direct Costs

\$ _____

\$ _____

Itemize and justify. (*See note below)

\$ _____

\$ _____

Facilities and Administration (F&A)

\$ _____

\$ _____

Specify current rate(s) and base.

Note: A copy of the negotiated agreement should be included with the proposal. If none exists, a disclosure of the contents of the rate should be made.

TOTALS

\$ _____

\$ _____

Attach up to two additional pages of justification covering all items.

***NOTES:**

- 1) Purchased Services, consulting or subcontracts proposed to non-consortium members **shall not be more than 2.5%** of the SWC requested funding without the prior approval of the SWC program coordinator. Subcontractors which exceed the 2.5% must be Full members of the SWC.
- 2) Subcontracts to current consortium members must be less than 50% of the requested SWC funding. Budgets and work statements from each subcontractor, in the format above, should be included.
- 3) Fees or profits will not be paid on any award resulting from this solicitation. Nor can fee or profit be considered as cost-sharing.
- 4) The Stripper Well Consortium will host two technology transfer workshops during the last quarter of 2004. The workshops will be held in the eastern US (to be determined - Pennsylvania/ New York/ West Virginia region) and in the southern US (Oklahoma City on October 26, 2004). Recipients of SWC funding are required to provide a presentation on the status of their project at both the eastern and southern technology transfer meetings. The costs of attending these SWC technology transfer meeting are to be included in the travel budget.