

Exhibit A WORK STATEMENT

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administrative
2	X	Finalize Well Design and Drilling Program
3		Procure Personnel, Equipment, Materials and Services Necessary to Drill and Test the Exploratory Well
4		Design and Construct Access Road and Wellpad
5		Drill and Complete the Exploratory Well to ~8,000 Ft. Per the Drilling Program
6	X	Prepare Well Completion and Geologic Summary Reports
7		Run Downhole Temperature and Pressure Logs
8		Conduct Short-Term Flow Test with Chemical Sampling
9		Prepare Report on Analysis of Flow Test Results

KEY NAME LIST

Note: Subcontractors used for project to be finalized via procurement process

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Erik Layman		
2	Erik Layman		
3	Erik Layman		
4	Erik Layman		Peterson Family Trust
5	Erik Layman		Peterson Family Trust
6	Erik Layman		
7	Erik Layman		
8	Erik Layman		Peterson Family Trust
9	Erik Layman		

GLOSSARY

Term/ Acronym	Definition
CEQA	California Environmental Quality Act
CPR	Critical Project Review
DOE	U.S. Department of Energy
Energy Commission	California Energy Commission
F	Degrees Fahrenheit
Ft	Feet

Term/ Acronym	Definition
GRDA	Geothermal Resources Development Account
GRED	Geothermal Resource Exploration and Definition
IAE	Iceland America Energy, Inc.
ISO	Independent System Operator
Km	Kilometer
kW	kiloWatt
kWh	kiloWatt-hour
LEA	Layman Energy Associates, Inc.
MW	Megawatt
No.	Number
NCPA	Northern California Power Agency
NE	Northeast
NW	Northwest
SE	Southeast
SW	Southwest
TD	Total depth

Problem Statement:

The Geysers in northern California with a current average output of about 850 MW is one of the largest geothermal fields in the world. At present, virtually all production from The Geysers is derived from the dry steam reservoir which characterizes this resource. Field operators have not yet recognized the high potential for development of a significant, liquid-dominated hydrothermal resource near the southeast boundary region of the steam reservoir in the Northern California Power Agency (NCPA) project area. Marginal southeast wells in the NCPA project area produce mixtures of water and steam, and the steam reservoir boundary in this area is open and permeable. This contrasts to sharp, low permeability boundaries to the steam reservoir around most of The Geysers field. A Southeast (SE)-trending structural zone defined by shallow steam entries in the NCPA wellfield appears to channel flow of steam condensate away from the Geysers towards Long Ridge. The outflow of condensate along this structural zone is indicated by a SE-trending thermal anomaly defined by shallow and intermediate depth gradient holes. This condensate outflow along the SE-trending structural zone is inferred to comprise the productive liquid-dominated resource at Long Ridge.

The well drilled in this project will test the center of the prospective region near Long Ridge, and it will be appropriately completed and tested to evaluate a liquid-dominated resource.

Goal of the Agreement:

The goal of this Agreement is to drill and test a new exploratory well to confirm the presence of a productive, liquid-dominated hydrothermal resource near the southeast margin of The Geysers steamfield.

Objectives of the Agreement:

The objectives of this Agreement are to:

- 1) Drill and complete the well to the target depth of approximately 8,000 feet;
- 2) Intersect permeable fracture zones in rocks of the Franciscan Complex below depths of approximately 4,500 feet, indicated by fluid loss zones and/or water entry zones during drilling which reflect good reservoir permeability;
- 3) Obtain stabilized downhole temperature measurements which indicate a convective, near-isothermal zone below approximately 4,500 feet depth with temperatures within the range of 320-400°F, suitable for binary or flash plant power generation;
- 4) Conduct flow testing of the well for an extended period, consistent with existing limitations on fluid storage capacity in sumps or portable tanks and/or the availability of a suitable injector well to accept fluids produced by the new well;
- 5) Demonstrate commercial flow rates and wellhead pressures during well testing (via direct measurement of un-assisted flow rates or calculated flow rates under pumped conditions) Demonstrate commercial grade reservoir permeability-thickness and productivity index values based on analysis of downhole pressure data during flow testing and build-up;
- 6) Demonstrate acceptable quality of produced geothermal fluid during flow testing, i.e. low-salinity, non-corrosive fluids.

TASK 1 ADMINISTRATION

Task 1.1 Attend Kick-off Meeting

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement.

The Recipient shall:

- Attend a “Kick-Off” meeting with the California Energy Commission (Energy Commission) Project Manager, the Grants Officer, and a representative of the Accounting Office. The Recipient shall bring its Project Manager, Agreement Administrator, Accounting Officer, and others designated by the Energy Commission Project Manager to this meeting. The administrative and technical aspects of this Agreement will be discussed at the meeting. Prior to the kick-off meeting, the Energy Commission Project Manager will provide an agenda to all potential meeting participants.

The administrative portion of the meeting shall include, but not be limited to, the following:

- Discussion of the terms and conditions of the Agreement
- Discussion of Critical Project Review (Task 1.2)
- Match fund documentation (Task 1.6)
- Permit documentation (Task 1.7)

The technical portion of the meeting shall include, but not be limited to, the following:

- The Energy Commission Project Manager’s expectations for

- accomplishing tasks described in the Scope of Work
- An updated Schedule of Products
- Discussion of Progress Reports (Task 1.4)
- Discussion of Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
- Discussion of the Final Report (Task 1.5)

The Energy Commission Project Manager shall:

- Designate the date and location of this meeting.

Recipient Products:

- Updated Schedule of Products (no draft)
- Updated List of Match Funds (no draft)
- Updated List of Permits (no draft)

Energy Commission Project Manager Product:

- Kick-Off Meeting Agenda (no draft)

Task 1.2 Critical Project Review (CPR) Meetings

The goal of this task is to determine if the project should continue to receive Energy Commission funding to complete this Agreement and to identify any needed modifications to the tasks, products, schedule or budget.

CPRs provide the opportunity for frank discussions between the Energy Commission and the Recipient. CPRs generally take place at key, predetermined points in the Agreement, as determined by the Energy Commission Project Manager and as shown in the Technical Task List above. However, the Energy Commission Project Manager may schedule additional CPRs as necessary, and any additional costs will be borne by the Recipient.

Participants include the Energy Commission Project Manager and the Recipient and may include the Energy Commission Grants Officer, the Geothermal Resources Development Account (GRDA) Program Team Lead, other Energy Commission staff and Management as well as other individuals selected by the Energy Commission Project Manager to provide support to the Energy Commission.

The Energy Commission Project Manager shall:

- Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the Energy Commission, but they may take place at another location.
- Send the Recipient the agenda and a list of expected participants in advance of each CPR. If applicable, the agenda shall include a discussion on both match funding and permits.
- Conduct and make a record of each CPR meeting. One of the outcomes of

this meeting will be a schedule for providing the written determination described below.

- Determine whether to continue the project, and if continuing, whether or not modifications are needed to the tasks, schedule, products, and/or budget for the remainder of the Agreement. Modifications to the Agreement may require a formal amendment (please see the Terms and Conditions). If the Energy Commission Project Manager concludes that satisfactory progress is not being made, this conclusion will be referred to the Energy Commission's Research, Development and Demonstration (RD&D) Policy Committee for its concurrence.
- Provide the Recipient with a written determination in accordance with the schedule. The written response may include a requirement for the Recipient to revise one or more product(s) that were included in the CPR.

The Recipient shall:

- Prepare a CPR Report for each CPR that discusses the progress of the Agreement toward achieving its goals and objectives. This report shall include recommendations and conclusions regarding continued work of the projects. This report shall be submitted along with any other products identified in this scope of work. The Recipient shall submit these documents to the Energy Commission Project Manager and any other designated reviewers at least 15 working days in advance of each CPR meeting.
- Present the required information at each CPR meeting and participate in a discussion about the Agreement.

Energy Commission Project Manager Products:

- Agenda and a list of expected participants (no draft)
- Schedule for written determination (no draft)
- Written determination (no draft)

Recipient Product:

- CPR Report(s) (no draft)

Task 1.3 Final Meeting

The goal of this task is to closeout this Agreement.

The Recipient shall:

- Meet with Energy Commission staff to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.

This meeting will be attended by, at a minimum, the Recipient, the

Energy Commission Grants Office Officer, and the Energy Commission Project Manager. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the Energy Commission Project Manager.

The technical portion of the meeting shall present an assessment of the degree to which project and task goals and objectives were achieved, findings, conclusions, recommended next steps (if any) for the Agreement, and recommendations for improvements. The Energy Commission Project Manager will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the Energy Commission Project Manager and the Grants Officer about the following Agreement closeout items:

- What to do with any equipment purchased with Energy Commission funds (Options)
- Energy Commission's request for specific "generated" data (not already provided in Agreement products)
- Need to document Recipient's disclosure of "subject inventions" developed under the Agreement
- "Surviving" Agreement provisions, such as repayment provisions and confidential Products
- Final invoicing and release of retention
- Prepare a schedule for completing the closeout activities for this Agreement

Products:

- Written documentation of meeting agreements (no draft)
- Schedule for completing closeout activities (no draft)

Task 1.4 Quarterly Progress Reports

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the research objectives of this Agreement on time and within budget.

The objectives of this task are to summarize activities performed during the reporting period, to identify activities planned for the next reporting period, to identify issues that may affect performance and expenditures, and to form the basis for determining whether invoices are consistent with work performed.

The Recipient shall:

- Prepare a Quarterly Progress Report which summarizes all Agreement activities conducted by the Recipient for the reporting period, including

an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Each progress report is due to the Energy Commission Project Manager within 10 days of the end of the reporting period. The recommended specifications for each progress report are contained in Exhibit A, Attachment A-2.

Product:

- Quarterly Progress Reports (no draft)

Task 1.5 Final Report

The goal of the Final Report is to assess the project's success in achieving its goals and objectives, advancing science and technology, and providing energy-related and other benefits to California.

The objectives of the Final Report are to clearly and completely describe the project's purpose, approach, activities performed, results, and advancements in science and technology; to present a public assessment of the success of the project as measured by the degree to which goals and objectives were achieved; to make insightful observations based on results obtained; to draw conclusions; and to make recommendations for further RD&D projects and improvements to the GRDA project management processes.

The Final Report shall be a public document. If the Recipient has obtained confidential status from the Energy Commission and will be preparing a confidential version of the Final Report as well, the Recipient shall perform the following activities for both the public and confidential versions of the Final Report.

The Recipient shall:

- Prepare an Outline of the Final Report.
- Prepare a Final Report following the approved outline and the latest version of the GRDA Final Report guidelines published on the Energy Commission's website at <http://www.energy.ca.gov/contracts/pier/contractors/index.html> at the time the Recipient begins performing this task, unless otherwise instructed in writing by the Energy Commission Project Manager. Instead of the timeframe listed in the Product Guidelines located in Section 5 of the Terms and Conditions, the Energy Commission Project Manager shall provide written comments on the Draft Final Report within fifteen (15) working days of receipt. The Final Report must be completed on or before the end of the Agreement Term.
- Submit one bound copy of the Final Report with the final invoice.

Products:

- Draft Outline of the Final Report
- Final Outline of the Final Report

- Draft Final Report
- Final Report

Task 1.6 Identify and Obtain Matching Funds

The goal of this task is to ensure that the match funds planned for this Agreement are obtained for and applied to this Agreement during the term of this Agreement.

The costs to obtain and document match fund commitments are not reimbursable through this Agreement. Although the GRDA budget for this task will be zero dollars, the Recipient may utilize match funds for this task. Match funds shall be spent concurrently or in advance of GRDA funds for each task during the term of this Agreement. Match funds must be identified in writing and the associated commitments obtained before the Recipient can incur any costs for which the Recipient will request reimbursement.

The Recipient shall:

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the Energy Commission Project Manager at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the Energy Commission awarding this Agreement and none have been identified at the time this Agreement starts, then state such in the letter. If match funds were a part of the proposal that led to the Energy Commission awarding this Agreement, then provide in the letter a list of the match funds that identifies the:
 - Amount of each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied
 - Amount of each in-kind contribution, a description, documented market or book value, and its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located
- Provide a copy of the letter of commitment from an authorized representative of each source of cash match funding or in-kind contributions that these funds or contributions have been secured.
- Discuss match funds and the implications to the Agreement if they are reduced or not obtained as committed, at the kick-off meeting. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide the appropriate information to the Energy Commission Project Manager if during the course of the Agreement additional match funds

are received.

- Notify the Energy Commission Project Manager within 10 days if during the course of the Agreement existing match funds are reduced. Reduction in match funds must be approved through a formal amendment to the Agreement and may trigger an additional CPR.

Products:

- A letter regarding match funds or stating that no match funds are provided (no draft)
- Copy(ies) of each match fund commitment letter(s) (if applicable) (no draft)
- Letter(s) for new match funds (if applicable) (no draft)
- Letter that match funds were reduced (if applicable) (no draft)

Task 1.7 Identify and Obtain Required Permits

The goal of this task is to obtain all permits required for work completed under this Agreement in advance of the date they are needed to keep the Agreement schedule on track.

Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement. Although the GRDA budget for this task will be zero dollars, the Recipient shall budget match funds for any expected expenditures associated with obtaining permits. Permits must be identified in writing and obtained before the Recipient can make any expenditure for which a permit is required.

The Recipient shall:

- Prepare a letter documenting the permits required to conduct this Agreement and submit it to the Energy Commission Project Manager at least 2 working days prior to the kick-off meeting. If there are no permits required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, provide in the letter:
 - A list of the permits that identifies the:
 - Type of permit
 - Name, address and telephone number of the permitting jurisdictions or lead agencies
- The schedule the Recipient will follow in applying for and obtaining these permits.
- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting and develop a timetable for submitting the updated list, schedule and the copies of the permits. The implications to the Agreement if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in the Progress Reports and will be a topic at CPR meetings.

- If during the course of the Agreement additional permits become necessary, provide the appropriate information on each permit and an updated schedule to the Energy Commission Project Manager.
- As permits are obtained, send a copy of each approved permit to the Energy Commission Project Manager.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the Energy Commission Project Manager within 10 days. Either of these events may trigger an additional CPR.

Products:

- Letter documenting the permits or stating that no permits are required (no draft)
- A copy of each approved permit (if applicable) (no draft)
- Updated list of permits as they change during the term of the Agreement (if applicable) (no draft)
- Updated schedule for acquiring permits as changes occur during the term of the Agreement (if applicable) (no draft)

TECHNICAL TASKS

2-Phased Project and California Environmental Quality Act (CEQA)

This project is being conducted in two phases. The first phase involves tasks 2 and 3, and the administrative tasks occurring within the time frame of these technical tasks (hereinafter “Phase I”). In general, these are the well design; preparing the drilling program; and procuring personnel, equipment, materials and services to drill and test the well.

Phase II refers to the remaining work in the Agreement (hereinafter “Phase II”). In general, Phase II involves designing and constructing the road and wellpad; drilling and completing the well; preparing well completion and geologic summary reports; running downhole temperature and pressure logs; conducting short-term flow testing; and preparing the report on flow test results.

Neither the Contractor nor any of its subcontractors are authorized to expend funds or perform any work on any Phase II activities until further approval by the Energy Commission that the Contractor has completed its CEQA obligations. The Energy Commission has only approved Phase I activities.

During Phase I, the Contractor shall prepare all documents necessary to comply with CEQA for Phase II, including but not limited to, preparation of an appropriate environmental document. The Energy Commission will consider approval of Phase II funding at an Energy Commission Business Meeting. Only if the Energy Commission so authorizes after verification of completion of CEQA requirements can the Contractor perform Phase II; neither party is bound under this Agreement regarding Phase II work until the Contractor has completed its CEQA process and the Energy Commission has authorized the Contractor to perform the work. The cost of all CEQA compliance will be at the sole expense of the Contractor and not reimbursable under this Agreement. However, the Contractor may consider its cost as match under this Agreement.

Task 2 Finalize Well Design and Drilling Program

The goal of this task is to finalize the design and drilling program for the well. The well design and drilling program will allow Layman Energy Associates (LEA) to determine specifications for materials and equipment to be procured in the next task.

The Recipient shall:

- Prepare a final design for the well including diagram of well completion, specifications for hole size vs. depth; diameters, weight, shoe depths, and cementing parameters for casing strings to be installed; and wellhead valve assemblies to be installed on the well, both during drilling and upon completion, and prepare final design report
- Prepare a drilling program for the well in document form, with step-by-step procedures to be followed by the Drilling Supervisor and drilling contractor for drilling the various sections of the well
- Participate in CPR as per Task 1.2

Products:

- Final design report (no draft)
- Drilling procedures document (no draft)

Task 3 Procure Personnel, Equipment, Materials and Services Necessary to Drill and Test the Exploratory Well

The goal of this task is to procure all the necessary personnel, equipment, materials, and services required for drilling and testing the exploratory well.

The Recipient shall:

- Issue requests for proposals / quotations to firms which can supply key personnel, equipment, materials and services for the project (e.g. drilling supervisor, drilling contractor, construction contractor, drilling mud, cement, and other materials as necessary)
- Identify the most qualified and cost-effective firms; prepare and execute contracts and / or purchase / service orders

- Plan for long lead time items (5-9 months) needed for delivery of casing and wellhead assemblies and prepare plan document

Products:

- Copies of executed contracts and service / purchase orders (no drafts)
- Plan document (no draft)

Task 4 Design and Construct Access Road and Wellpad

The goal of this task is to construct the access road and wellpad for the exploratory well. The Contractor understands and agrees that it and/or its subcontractors (based on language it works out in its agreements with its subcontractors), and not the Energy Commission or the State of California, shall be solely responsible and liable for the access road and wellpad site at all times during and after this Agreement.

The Recipient shall:

- Survey topography and prepare the engineering designs for the access road and wellpad
- Construct the access road and wellpad per the design specifications and permit guidelines
- Prepare engineering design report including engineering designs, drawings and specifications, and photographs of completed access road and wellpad

Products:

- Engineering Design Report (no draft)

Task 5 Drill and Complete the Exploratory Well Per the Drilling Program

The goal of this task is to drill and complete the exploratory well to a target depth of about 8,000 feet pursuant to the drilling program. The Contractor understands and agrees that it and/or its subcontractors (based on language it works out in its agreements with its subcontractors), and not the Energy Commission or the State of California, shall be solely responsible and liable for the drill site, all drilled wells, and all activities conducted at the drill site, including without limitation filling and capping them if necessary, at all times during and after this Agreement.

The Recipient shall:

- Take delivery, or confirm availability for on-call delivery, of all critical equipment and supplies before mobilizing the drill rig to the location.
- After mobilizing rig, drill and complete the well to the target depth of about 8,000 feet, pursuant to the drilling program
- Prepare white paper including daily drilling reports from spud to rig release and copies of wireline logs and mud logs

Products:

- White Paper (no draft)

Task 6 Prepare Well Completion and Geologic Summary Reports

The goal of this task is to prepare well completion and geologic summary reports to document key results from the well.

The Recipient shall:

- Prepare a completion report for the well with detailed drilling history, cost summary; and a completion diagram;
- Prepare a geologic summary report including summary of geologic section penetration by the well; analysis of temperature/ pressure logs and mud log; pattern of hydrothermal alteration; and evidence for permeable zones

Products:

- Well Completion Report (no draft)
- Well Geologic Summary Report (no draft)

Task 7 Run Downhole Temperature and Pressure Logs

The goal of this task is to obtain a series of downhole temperature and pressure logs from the well, both before rig release and thereafter, while the well recovers from the cooling effects of drilling. This will confirm fully equilibrated wellbore pressures and temperatures and readiness for flow testing and allow proper assessment of the reservoir conditions.

The Recipient shall:

- Run downhole temperature and pressure surveys in the well both before rig release and during the 2-3 month heating period after the well is completed

Products:

- Copies of Temperature and Pressure Logs (no draft)

Task 8 Conduct Short-Term Flow Test with Chemical Sampling

The goal of this task is to conduct a short-term flow test of the completed well after it is fully heated. The duration of the test may be up to several weeks if an injection well is provided by NCPA for disposal of produced fluid, or as short as 4-6 hours (depending on well flow rate) if Baker tanks must be used for storage of produced fluid. In either case, the minimum flow test volume will be 350,000 gallons. The test will be designed to determine the productive capacity of the well, the chemical characteristics of produced fluid and steam, and reservoir productivity index.

The Recipient shall:

- Finalize procurement and take delivery of well test apparatus at the wellsite;

- Conduct a short flow test of the well after downhole temperature surveys confirm the well is fully heated
- Arrange for temporary storage of produced fluids in the sump and/or portable baker tanks, unless a suitable injector well can be located
- Sample produced fluids and gases for chemical analysis
- Prepare flow test and sampling report on test operations described above

Products:

- Flow Test and Sampling Report (no draft)

Task 9 Prepare Report on Analysis of Flow Test Results

The goal of this task is to prepare a report which summarizes in detail the analysis of the flow test results. The report will fully document all raw data collected in the field as well as interpreted / calculated parameters and results of chemical analyses of produced fluids and gases. The report will include an assessment of the well's power generation capacity, and determination of the reservoir productivity index and permeability-thickness product.

The Recipient shall:

- Prepare a flow test analysis report which summarizes in detail the raw data and calculated results of the flow test

Products:

- Flow Test Analysis Report (no draft)