

EXHIBIT A SCOPE OF WORK

PURPOSE

The purpose of this contract is to provide technical assistance to the Energy Commission to support its Renewable Energy Program (REP) and responsibilities related to the California Renewables Portfolio Standard (RPS).

Primary Tasks

The amount of consultant assistance required for each project will vary depending on the availability of Energy Commission staff with expertise in specific areas and the sensitivity of issues associated with each project. Final assignment of tasks and maximum payment on individual projects will be described in work authorizations issued by the Energy Commission Contract Manager.

Through the work authorization process, the Contractor may be assigned work on a variety of tasks related to the REP or its program elements, including contract management; assistance with the Existing Renewable Facilities Program; assistance with the RPS; assistance with the New Renewable Facilities Program; assistance with the Renewable Rebate Programs or related activities (including the Emerging Renewables Program, New Solar Home Partnership, and Senate Bill 1¹ activities); assistance with the Consumer Education Program; and assistance with Evaluation as defined in the primary contract tasks below.

The major categories of work are divided into the following tasks:

Tasks	Description of Task
1	Contract Management and Reporting Requirements
2	Existing Renewable Facilities Program (ERFP)
3	Renewables Portfolio Standard (RPS)
4	New Renewable Facilities Program (NRFP)
5	Renewable Rebate Programs
6	Consumer Education Program
7	Evaluation

Task 1 – Contract Management and Reporting Requirements

The Contractor shall perform various administrative operations and management-related tasks at the direction of the Energy Commission Contract Manager including but not limited to:

- A. Develop, refine and execute Energy Commission-approved work authorizations on an “as-needed” basis, in conjunction with REP staff, and appropriate assistance from subcontractors. Each work authorization shall define the scope of work, the schedule of deliverables and the estimated project budget for authorized tasks to be performed by the Contractor and its authorized subcontracting team members.

¹ Senate Bill 1 (stats. 2006, ch. 132)

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- B. Prepare and issue contract agreements with subcontractors that convey all provisions contained in the contract between the Energy Commission and the Contractor.
- C. Coordinate the availability of subcontractors to meet the needs of Energy Commission staff as authorized by the Energy Commission Contract Manager.
- D. Hire vendors or additional subcontractors to obtain needed products and services pursuant to the Special Terms and Conditions, EXHIBIT D, Section 2, of Attachment 5 (sample Standard Agreement).
- E. Audit subcontractor invoices to ensure that they correctly identify and explicitly correlate with the required information pursuant to EXHIBIT B, Section 1.D., of Attachment 5 (sample Standard Agreement).
- F. Prepare and submit monthly invoices to the Energy Commission for contract management and technical support services and for payment of subcontractor invoices pursuant to EXHIBIT B, Section 1.A., of Attachment 5 (sample Standard Agreement).
- G. Pay subcontractors in a timely manner for satisfactory products no later than upon receiving the payment from the Energy Commission.
- H. Prepare and submit retention invoices for all completed and approved work authorizations for which final deliverables have been approved by the Energy Commission Contract Manager, but excluding all Contractor administrative task authorizations (Task 1).
- I. Maintain a current contract management database capable of tracking:
 - Contractor and subcontractor work authorization, and invoice activity and the implementation status of all approved work authorizations.
 - Contract and individual work authorization budgets.
- J. Provide verbal or written briefings regarding contract activities or budget to the Energy Commission or other entities, as authorized by the Energy Commission Contract Manager.
- K. Respond to information requests or direction from the Energy Commission Contract Manager.
- L. Provide administrative and/or technical support for the REP, as authorized by the Energy Commission Contract Manager through approved work authorizations.
- M. Provide other REP project management tasks as authorized by the Energy Commission Contract Manager.
- N. Attend program support and project-related development meetings and hold telephone discussions regarding project management issues, as requested by the Energy Commission Contract Manager.

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Monthly Progress Reports

The Contractor, with assistance from appropriate subcontractors, shall provide monthly progress reports on the previous month's activities to the Energy Commission Contract Manager describing:

- Monthly progress in each work authorization and task.
- The degree of completion of each work authorization and task.
- Status of upcoming deliverables including any expected delays.
- Cumulative budget expenditures by work authorization and task.
- Cumulative budget expenditures of total contract.
- Proposed or Energy Commission Contract Manager-approved changes in task description, deliverable due date(s), and budget.
- Other information requested by the Energy Commission Contract Manager.

All monthly reports are to be submitted both electronically, and in duplicate, hard copy form to accompany and coincide with the official invoice being submitted to the Energy Commission. The Energy Commission Contract Manager will specify the report format.

Final Report

A Final Report shall be prepared which includes a description of the overall project, the work accomplished during the contract, the effectiveness of the contract in meeting the objectives of the program, and future activities recommended to increase the effectiveness of the program and this contract.

A draft Final Report is due 45 days prior to the end of the contract. The Final Report is due no later than 30 days prior to the end of the contract. The report shall be prepared in language easily understood by the public or laypersons with a limited technical background. A draft of the Final Report must be reviewed and approved by the Energy Commission Contract Manager prior to becoming final. The Final Report shall include an analysis of:

- The work accomplished during the contract.
- The effectiveness of this contract in meeting the objectives of the program.
- Recommended future activities that will increase the effectiveness of the program and this contract.

The Contractor shall meet with the Energy Commission to present the findings, conclusions, and recommendations. The Final Report must be delivered to the Energy Commission Contract Manager 30 days before the termination date indicated in the term of the contract.

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The outline of the Final Report shall be prepared as indicated in the terms and conditions of the contract and the following:

- Title Page
- Executive Summary: Describe the contract goals, how the contract work was implemented, size, schedule, source of project funds, number of projects funded, and provide an overview of results from the contract listed by program (task) area.
- Table of Contents: Organize the report by program area (task number) and by work authorization number (beginning with the earliest number).
- Contract Results: Each work authorization shall be summarized. Each summary shall include the specific request, results of the work performed, and the conclusions and/or recommendations developed by the work. Each subcontractor shall be responsible for writing its own summaries and forwarding them to the Contractor and the Contractor shall be responsible for editing and combining these summaries into the reports.

Deliverables and Due Dates

All work assignments will be made through specific work authorizations and will specify the schedule of deliverables.

Task 2 – Existing Renewable Facilities Program (ERFP)

The statutory purpose of the Existing Renewable Facilities Program (ERFP) is to achieve fully competitive and self-sustaining existing in-state solid-fuel biomass, solar thermal electric, and wind facilities, and to secure for the state the environmental, economic, and reliability benefits that continued operation of these facilities will provide. California Public Resources Code section 25740.5 requires that the Energy Commission “optimize public investment and ensure that the most cost-effective and efficient investments in renewable energy resources are vigorously pursued.”

The ERFP provides funding in the form of production incentives to eligible renewable energy facilities for each kilowatt-hour (kWh) of eligible electricity generated. Funds from the ERFP are reserved for renewable generators who were on-line and generating electricity for sale before September 26, 1996. Facilities eligible for funding are issued a Funding Award Notice by the Energy Commission to provide funding pursuant to the Energy Commission’s *Existing Renewable Facilities Program Guidebook*, *Renewables Portfolio Standard Eligibility Guidebook*, and *Overall Program Guidebook*. The Funding Award Notice does not specify dollar amounts to be paid to the facility; rather the Notice identifies the following information:

- Pertinent information about the applicant, the facility, and the facility’s power purchase agreement.
- The facility-specific target price and production incentive cap for that calendar year.
- The terms and conditions under which the ERFP funding will be provided, including any funding restrictions and prevailing wage requirements.

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If approved by the Energy Commission, the Funding Award Notice must be signed by an authorized representative of the facility and an authorized representative of the Energy Commission in order to become effective. The Energy Commission will issue production incentive payments on a monthly basis in accordance with the facility-specific target price and production incentive cap and appropriate market prices, and conditional upon the recipient's: monthly invoices and submittal of written third-party verification to the Energy Commission to verify the facility's eligible generation.

Funding Award Notices are limited term awards to provide funding for one calendar year. By January 31, eligible generators must apply for funding for the current calendar year if seeking production incentive payments for that year. The Energy Commission staff annually evaluates funding applications to recommend appropriate funding awards per project. The staff, under direction of the Energy Commission's Renewables Committee, drafts Funding Award Notices that are considered for adoption by the Energy Commission.

Under this task, the Contractor will:

- A. Evaluate the incentives being paid to biomass, solar thermal, and wind facilities to ensure the incentives are sufficient to maintain the operation of these renewable facilities and encourage their self-sufficiency while not providing them an unjustified bonus that has no bearing on their generating pattern.
 - 1. Continually monitor and evaluate the target price of incentives to ensure appropriateness and make recommendations on changes when needed.
 - 2. Continually monitor and evaluate the cap values for incentives to ensure appropriateness and make recommendations on changes when needed.
 - 3. Continually monitor and evaluate the market price(s) and/or indices used to determine incentives to ensure that their use is appropriate and that facilities are neither over nor under paid, and make recommendations on appropriate market price(s) when necessary.
 - 4. Continually monitor and evaluate fuel, operations, and maintenance costs for facilities and technologies eligible for ERFP funding.
 - 5. Continually monitor and evaluate economic factors that affect the continued operation, competitiveness, and self-sustainability of facilities eligible for ERFP.
- B. Evaluate the impact these incentives have on the generating pattern of the various technologies and how the determination of what market price is used may impact their generating pattern (positive or negative).
- C. Evaluate the approach and process for determining and making incentive payments.

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- D. Monitor and evaluate the financial assistance ERFP participants receive from other government agencies via contracts, grants, or other programs of assistance.
- E. Evaluate alternative funding mechanisms for providing funding for the use of biomass fuels and determine if alternatives would be more effective in meeting program goals than the current method used.
- F. Evaluate how (or if) changes in the definition of a “new” facility and the September 26, 1996, eligibility date for the ERFP will impact the program.
- G. Conduct audits, as necessary, of facilities receiving ERFP funding to ensure the facilities continue to meet ERFP eligibility requirements.
- H. Review, verify, and analyze financial statements, balance sheets, and other economic records retained by facilities that identify operating costs, federal and state tax credits, facility contracts for energy and capacity pricing, and other attributes.
- I. Assist Energy Commission staff in collection and management of ERFP data.
- J. Evaluate and propose refinements or changes as necessary to the ERFP to reflect changes in the law or changes in market conditions or policy direction.
- K. Provide other needed technical support that arises for the ERFP.

Deliverables and Due Dates

All work assignments will be made through specific work authorizations and will specify the schedule of deliverables.

Task 3 – Renewables Portfolio Standards (RPS)

The objective of the RPS Program is to foster achievement of the state’s 20 percent RPS targets by 2010, and to establish policies to meet that goal in the most efficient, equitable, and cost-effective manner possible. This includes developing, implementing, and updating guidelines at the Energy Commission and providing technical and policy support to the CPUC in their rulemaking process. As part of the implementation efforts, the program will address RPS implementation for IOUs, Electric Service Providers, Small and Multi-Jurisdictional Utilities, and Community Choice Aggregators. Further, the program may support implementation by publicly owned utilities. The program also includes efforts to track, evaluate, and report on program results.

Along with developing the RPS implementation guidelines, the Energy Commission has designed a renewable energy tracking and verification system known as the Western Renewable Energy Generation Information System (WREGIS) to address long-term RPS tracking needs. The Western Electricity Coordinating Council will act as the institutional home of WREGIS and will provide the necessary staff to develop and administer the program. WREGIS became operational in June 2007. WREGIS is discussed further later in the section.

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Although the work required to implement the RPS is distinct from that required to implement the greenhouse gas emission reduction goals set in AB 32² has effectively ratcheted up the importance of achieving the state's RPS targets. Additional new RPS eligible generation is now recognized as a key strategy to achieving California's greenhouse gas emission reduction objectives as AB 32 commits the state to reducing greenhouse gas emissions to 2000 levels by 2010 and to 1990 levels by 2020. For the post 2020 timeframe, the Governor has established a greenhouse gas emission reduction goal of 80 percent below 1990 levels by 2050.³

Under this task, the Contractor will:

- A. Assist Energy Commission staff in developing implementation rules and guidelines for retail sellers, including electric service providers, small and multi-jurisdictional utilities, and community choice aggregators, and if applicable, local publicly-owned electric utilities.
- B. Assist Energy Commission staff in providing support to publicly owned utilities in their efforts to implement the RPS.
- C. Assist Energy Commission staff in evaluating the applications to certify RPS-eligible renewable resources, including but not limited to applications to certify re-powered, mixed fuel use, out-of-state, and hydroelectric facilities.
- D. Assist Energy Commission staff in evaluating the progress and effectiveness of the RPS Program statewide.
- E. Assist Energy Commission staff in evaluating and developing implementation rules for the use of Renewable Energy Credits (RECs) in the RPS.
 - 1. Provide ongoing evaluation of the effects of REC trading on the renewable energy market and its efficacy in supporting RPS goals such that program corrections may be made as necessary, or modifications can be developed to enhance the program.
 - 2. Analyze REC trading to meet AB 32 targets to ensure it is developed in a manner that is complementary to, and not in contradiction to, REC trading for RPS requirements.
 - 3. Analyze REC trading in the voluntary market and evaluate how regulatory actions may help or harm the voluntary market to provide the state with a useful tool in leveraging the state's efforts to advance renewable energy with private investment.
 - 4. Analyze how REC trading systems are working in other states and countries with respect to advancing renewable technology development including their efforts in reducing greenhouse gas emissions.

² Assembly Bill 32 (stats. 2006, ch. 488)

³ California Office of the Governor, Executive Order S-3-05.

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- F. Evaluate and propose refinements or changes as necessary to any aspect of RPS implementation including: evaluating RPS eligibility, developing the RPS Procurement Verification Report, integrating renewable distributed generation into the RPS, conducting interim tracking until an automated regional system is in place, integrating verification of delivery from out-of-state facilities into the tracking system, and evaluating options to provide financial support for RPS-eligible facilities.
- G. Assist Energy Commission staff in evaluating renewable energy potential and cost trends in California and the Western Interconnect.
- H. Assist Energy Commission staff in evaluating the technical potential and feasibility of specific renewable energy technologies to meet the RPS goals.
- I. Assist Energy Commission staff in evaluating transmission constraints and options to cost-effectively develop transmission needed to meet RPS goals.
- J. Assist Energy Commission staff in developing and evaluating new strategies to advance renewable energy development in California beyond the 20 percent by 2010 target, including:
 - 1. Provide technical assistance to evaluate feed-in tariffs for renewable resources as a mechanism to meet statewide renewable targets.
 - 2. Provide technical assistance to design and implement a feed-in tariff program, if requested, consistent with any applicable state policies and statutes.
- K. Assist the Energy Commission in developing, implementing, and evaluating how to effectively and efficiently implement the California RPS with consideration of local, regional, state, and federal regulatory programs and voluntary renewables programs.
- L. Provide other needed technical support that arises for the RPS Program.

Task 4 – New Renewable Facilities Program (NRFP)

The objective of the NRFP is to provide support to new renewable generating facilities including those whose generation will count toward the state's goal of 20 percent renewables by 2010, to help increase the amount of renewable electricity generation in California's power mix. Additionally, the NRFP is to provide support in the most efficient, equitable, and cost-effective manner possible.

Originally, funds were distributed through auctions in which project developers submitted bids for the amount of support needed to allow their project to compete in the electricity market. Bids were in the form of a cents/kWh incentive amount, and included an estimate of the first five years of generation from the project. Three auctions were held between June 1998 and September 2001. Winning projects were required to meet a series of project development and construction milestones between the auction in which they participated and their expected on-line date, and to submit regular reports to the Energy Commission describing their progress toward coming on-line. These milestones

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and reports are designed to enable the Energy Commission to track the progress of projects and distinguish projects with a serious intent and opportunity of becoming operational.

With the passage of SB 1038⁴ and SB 1078⁵ in 2002, production incentives for new renewable generating facilities are to be connected to California's RPS. Under these laws the Energy Commission was required to award production incentives as a result of competitive RPS solicitations run by IOUs, rather than through auctions administered by the Energy Commission. Additionally, the California RPS program re-defined "new" as beginning operation on or after January 1, 2002.

Under SB 1038 and SB 1078, renewable generators that were awarded a contract through a competitive RPS solicitation by the IOUs, could be eligible for NRFP production incentives from the Energy Commission. Eligible new or re-powered facilities priced above the market price referent (MPR), as determined by the CPUC, could apply for NRFP incentives from the Energy Commission to pay the difference between the contract price and the MPR. Production incentives were payable for a maximum of 10 years, and the Energy Commission had the authority to set caps on the amount of incentive payments paid per kWh, per facility, and per solicitation.

Existing law with respect to the NRFP changed recently with the enactment of SB 1036⁶, which took effect January 1, 2008. Under SB 1036, responsibility for the approval of funding for that portion of RPS contracts above the MPR is transferred to the CPUC. In addition, SB 1036 requires the Energy Commission to return any unencumbered funds collected for purposes of the NRFP pursuant to SB 1038 to the IOUs that collected such funds. Under SB 1036, the CPUC will direct these IOUs how to best use the funds. Although the bulk of the Energy Commission's responsibilities for implementing the NRFP are expected to end in the near future, because of SB 1036, the Energy Commission may still be called upon to assist the CPUC in implementing its new responsibilities under SB 1036. In addition, the Energy Commission remains responsible for the administration of previously encumbered NRFP funds.

Under this Task, the Contractor will:

- A. Evaluate and propose methods to levelize production incentives for new renewable facilities with long-term contracts to ensure that funds are used most efficiently and effectively.
- B. Devise a method by which Energy Commission staff can determine the need for, impact of, and ways to implement caps on production incentives for new renewable facilities.
- C. Conduct random audits of projects receiving NRFP production incentives to ensure that projects continue to meet eligibility requirements and maintain operations in accordance with contractual obligations.

⁴ Senate Bill 1038 (stats. 2002, ch. 515)

⁵ Senate Bill 1078 (stats. 2002, ch. 516)

⁶ Senate Bill 1036 (stats. 2007, ch. 685)

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- D. Assist Energy Commission staff in identifying RPS eligible generation from facilities under long-term contracts with IOUs originally entered into before September 26, 1996 pursuant to Public Utilities Code section 399.6 (c)(1)(C).
- E. Provide technical expertise in the review of applications for RPS certification to ensure that applicants meet eligibility requirements for NRFP production incentives.
- F. Assess results of NRFP production incentive awards and awarding process to evaluate where improvements or changes may be required in the future to better meet the RPS goals with a minimum of administrative burden to Energy Commission staff.
- G. Provide technical expertise to assist staff in evaluating options to implement production incentives for new renewable facilities that support a time-adjusted MPR (the CPUC is considering developing MPRs that vary over time rather than set as a flat rate).
- H. Provide other needed technical support that arises for the NRFP, or for the CPUC's new NRFP-related responsibilities under SB 1036.

Deliverables and Due Dates

All work assignments will be made through specific work authorizations and will specify the schedule of deliverables.

Task 5 – Renewable Rebate Programs

Emerging Renewables Program (ERP)

A primary goal of the Emerging Renewables Program (ERP) is to accelerate market development of specified emerging renewable generation technologies designed to provide part or all of a customer's on-site electrical needs by providing monetary incentives in the form of rebates to reduce the up-front costs of purchasing such technologies.

The ERP replaced the Energy Commission's Emerging Renewables Buydown Program, which focused on four emerging technologies: solar photovoltaics (PV), small wind turbines, fuel cells using renewable fuels, and solar thermal electric generation. Under the Energy Commission's Investment Plan, additional technologies may be added to the list of technologies that qualify for incentives under the ERP. The ERP continued accepting applications for these four eligible technologies through 2006. Effective January 1, 2007, only small wind systems (rated output of 50 kW or less) and fuel cells using renewable fuel, are eligible. The CSI and NSHP, discussed later in the section, have replaced the solar components of both the Energy Commission's ERP and the CPUC's Self-Generation Incentive Program.

Because emerging technologies generally have high up-front investment costs, are not well known in the marketplace and the market infrastructure has not been fully developed, accelerating market activity requires solutions to overcome these barriers.

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Addressing and prioritizing these market barrier issues can better achieve an orderly and sustainable market development plan. To this end, utilizing limited program funds as efficiently as possible and practicable is critical to the ERP's success.

New Solar Homes Partnership (NSHP)

On January 12, 2006, Governor Schwarzenegger's proposed Million Solar Roofs Initiative was approved in substance by the CPUC and called the CSI. This action was subsequently codified by SB 1, which created the largest solar program of its kind in any state in the nation providing over \$3.35 billion in ratepayer funding over the next 10 years to help California move toward a cleaner energy future and help bring the costs of solar electricity down for California consumers. The goal of the CSI is to increase the amount of installed solar generating capacity in the state by 3,000 megawatts (MW) by the end of 2016. The CSI will be a major source of dependable and environmentally-friendly electricity, and is a major tool in the state's promise to address climate change and meet the Governor's goals to reduce greenhouse gas emissions.

For customers of IOUs, there will be two programs, one administered by the CPUC and one administered by the Energy Commission. The CPUC will be responsible for overseeing incentives to existing residential customers (retrofits), including affordable housing, and all nonresidential customers (also retrofits). The Energy Commission's mandate is to achieve 400 MW of new solar capacity on new, highly energy efficient homes by the end of 2016. The NSHP was created to achieve this objective, and an advisory committee was formed to provide additional industry guidance particularly during the development of the program. The NSHP intends to provide \$400 million in financial incentives during the program period and non-financial assistance in the form of builder and market support to help create this self-sustaining market. Both programs became operational January 1, 2007.

The Energy Commission's NSHP will work with builders and developers who install photovoltaic (PV) systems on new residential building construction, to incorporate high levels of energy efficiency and high-performing solar systems to help create a self-sustaining solar market where home buyers demand energy efficient solar homes. The NSHP will specifically target single family, multi-family and affordable housing markets. As of the end of August 2007, reservation applications for a total of 1096 homes have been received under the NSHP. This represents approximately 3.2 MW of potential solar capacity.

Senate Bill 1 (SB 1)

Under SB 1, customers served by IOUs and local publicly-owned electric utilities in California will be afforded the opportunity to receive incentives for installing their own solar systems. SB 1 directs the Energy Commission to establish eligibility criteria, conditions for incentives and rating standards for all rate payer funded solar energy incentive programs in the state. Furthermore, the Energy Commission must coordinate with the CPUC to accomplish a variety of solar related activities to achieve the overall program goals of installing 3000 MW of solar electric capacity and improve energy efficiency for new and existing buildings.

Technical assistance is required to assist staff in the following aspects of program development, implementation, and administration:

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- A. Program processes, including database and web improvements
1. Reorganize or build database structure to more efficiently implement data tracking and review of applications
 2. Develop or modify web-based rebate program forms
 3. Develop or provide maintenance for web tools that estimate energy production and economic evaluation of PV or wind energy systems
 4. Modify an internet-based automated application and payment request process
 5. Develop or modify an internet-based data acquisition system
 6. Evaluate and recommend changes to the program's application and review processes to streamline the processes and minimize delays.
- B. Market research
1. Determine how the various market segments are evolving
 2. Evaluate level of incentives needed
 - By technology
 - By market segment type
 - Time frame needed for incentives
 - Evaluate market impact from tax credits and deductions
 3. Assess the market for small-scale renewable technologies regionally and worldwide
 - Market trends
 - Costs
 - Product adequacy – supply and demand issues
 - Coordination with other incentive programs.
- C. Product development
1. Manufacturing
 - Determine relationship between production capacity, market penetration, and cost reduction
 - Determine funding requirements to reach cost-effective small-scale renewable technology systems
 - Evaluate technology innovations that can reduce costs
 2. Retail Infrastructure
 - Identify ways to optimize infrastructure and related issues
 - Identify ways to expand infrastructure

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- Assess existing business models for small-scale renewable technology systems
 - Develop new business models for growing the market for emerging renewable technologies.
- D. Performance-based incentives
1. Transitioning the market from capacity incentives (rebates) to performance-based or expected performance-based incentives
 - Assess appropriateness of hybrid approach (combining capacity incentive with performance incentive)
 2. Assess the appropriate incentive level and payment period for each customer class
 3. Determine metering and data reporting requirements
 4. Conduct or assist with an evaluation of the pilot Performance-Based Incentive Program which began in early 2005.
- E. Reliability and dependability of technologies
1. Continue and expand efforts to increase reliability and dependability
 - Monitoring performance of systems
 - Verification Program.
- F. Financing and financial issues
1. Assess tax treatment of rebates and performance incentives
 2. Evaluate consumer finance options including energy efficient mortgages, mortgage guarantees, Cal PERS mortgage allowance and other opportunities for homes with solar
 3. Appropriateness of developing a revolving loan program.
- G. New solar initiative, including SB 1
1. Assess appropriateness of mandating PV on new residential buildings
 2. Determine how PV should be integrated into California's Building Energy Efficiency Standards (Title 24)
 3. Determine how best to provide incentives to target solar energy technologies to specific geographic regions
 4. Determine how best to incorporate advanced metering and time of use with energy efficient solar homes and buildings
 5. Monitor and evaluate non-PV solar technologies and review test data.
- H. Other renewable technologies
1. Determine how best to provide incentives to target other emerging renewable technologies to specific geographic regions

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- I. Policies to enhance the continued development of emerging renewable technologies
 - 1. Evaluate and recommend policies to coordinate ERP and NSHP activities with Consumer Education Account activities
 - Training and workshops
 - Education and information materials for contractors, builders, consumers and others.
 - 2. Evaluate and recommend policies to coordinate activities under SB 1
- J. Conduct audits of program participants, as necessary, to ensure compliance with program requirements.
 - 1. Audit of NSHP participants
 - 2. Audit of CSI and/or publicly owned utility solar electric incentive program participants (SB 1 activity)
- K. SB 1 related assistance, including assistance with the development, implementation, and administration of the Energy Commission's statewide eligibility criteria, conditions for incentives and rating standards.
- L. Provide other needed technical support that arises for the ERP, NSHP, and CSI efforts (including ongoing work as a result of SB 1.)

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Task 6 – Consumer Education Program

The Consumer Education Program was created and allocated funds under the REP, to support renewable energy consumer education activities. In May 2004, the Energy Commission revised the *Consumer Education Guidebook* to clarify the type of activities that qualify for funding, including the development of information, products, and the processes that promote renewable energy markets by verifying and tracking energy generation.

Since 1999, the Consumer Education Program has funded grant projects awarded for renewable energy information and outreach activities; contracts in support and development of public awareness campaigns; and contracts in support and development of WREGIS to address long-term RPS tracking needs; updating renewable energy marketing materials for distribution at workshops, conferences, and tradeshow; and other Consumer Education activities promoting renewable energy.

WREGIS

In August 2003, the Energy Commission started collaborating with the Western Governors' Association to design and implement a regional renewable energy registry

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and tracking system, known as WREGIS. WREGIS is being established to meet the legislative mandate of SB 1078 to ensure the electrical output of renewable energy generation facilities is counted only once for the purpose of the RPS and for verifying retail product claims in California and other western states within the Western Electricity Coordinating Council (WECC).

The development of WREGIS followed a very extensive stakeholder process which included surveying market participants, establishing working groups to draft the operating rules and functional requirements and establishing the WECC as the appropriate institutional home for WREGIS. The WECC will not incur any costs for housing WREGIS. The Energy Commission will cover costs for the WREGIS Administrator and other WECC costs related to housing WREGIS, which will be funded by the Consumer Education Program. Once it becomes operational, costs of administering WREGIS at the WECC are estimated to be \$2.2 million for a three-year operational phase and a one-year close-out phase.

In July 2004, the WECC Board of Directors approved adding the WREGIS Committee as a Board Committee of WECC and establishing the administrative operations of WREGIS at WECC. The WREGIS Committee consists of seven members: four elected representatives of industry, states/provinces, generators, and load-serving entities; and three appointed members from the Energy Commission, Western Governor's Association, and the WECC. The WREGIS Committee provides the governance for the WREGIS Program, including the setting of WREGIS fees and the fee structure, which were approved in April 2007 and will be implemented in January 2008. WREGIS became operational in June 2007.

The primary goals of the Consumer Education Program are:

- Raise consumer awareness of renewable electricity generation and its benefits.
- Increase purchases of small-scale emerging renewable systems installed on customer premises.
- Leverage strategic alliances and partnerships with organizations connected to renewable energy in California.
- Develop and provide credible information, products, and processes that promote the renewable energy market by verifying and tracking energy generation, verifying retail product claims and verifying compliance with renewable energy policies such as the RPS (WREGIS-related goal).

To meet these goals, the technical assistance under this contract will have the following objectives:

- A. Understand consumer attitudes, perceptions, knowledge and awareness about renewable energy technologies and their costs and benefits.
- B. Raise consumer awareness about renewable energy resources, available technologies and opportunities in California.
- C. Increase consumer knowledge about the benefits and mechanics of adopting renewable energy technologies.

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- D. Through outreach, marketing and education, increase purchases of renewable energy technologies in the state.
- E. Conduct WREGIS-related tasks associated with modifications to WREGIS.
- F. Conduct audits of program participants, as necessary, to ensure compliance with program requirements.
- G. Provide other needed technical support that arises for the Consumer Education Program.

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Task 7 – Evaluation

A. REP

The REP is a uniquely designed, market-based financial incentive program that must operate under high levels of uncertainty in market, regulatory, and technology development conditions. Tracking and predicting these developments is an extremely complex undertaking and requires unique and special skills in economic and statistical modeling of a new market, anticipation of development and performance of advanced electric generation technologies, and continuously adjusting the design of the REP to be consistent with and take advantage of these developments. Methods proposed must, by necessity, accommodate the diverse needs of the six program elements that make up the REP, as well as the overall REP design.

To address these parameters, the following technical assistance is required to assist staff:

1. Propose methods for monitoring and predicting market, regulatory, and technology developments and incorporating these into REP design adjustments.
2. Develop techniques to isolate the effects of the REP from other influences in the market; i.e., how much of a market result is due to the operation of the REP and how much is due to other influences interwoven with the operation of the REP.

B. Integrated Energy Policy Report (IEPR)

This Energy Commission report to the Legislature and Governor evaluates and establishes the state's energy policies and is adopted every two years with an update every other year. The 2006 update to the *Integrated Energy Policy Report*

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(IEPR) featured a midcourse review of the RPS.⁷ Additional RPS and REP topics will be addressed in the upcoming 2007 IEPR which is scheduled to be finalized and adopted by the Energy Commission in late November, 2007 and published in December, 2007. Technical support is anticipated to be needed for the 2008 and 2010 IEPR Updates as well as the 2009 IEPR. Support will be used to analyze RPS and REP policy and implementation issues and contribute to the basis for policy recommendations in future IEPRs. These issues include but are not limited to the following:

- Establishing a renewables feed-in tariff⁸ to support post-2010 renewable development.
- Portfolio analysis in electric utility resource planning.
- Renewable energy Policy issues related to greenhouse gas emission reductions, including potential allowances and emissions credits for a market-based compliance system under AB 32.

These following areas require technical expertise beyond that available through Energy Commission staff, and the analysis is critical for shaping renewable energy policy in California.

1. Analysis of alternative incentive structures both nationally and internationally, in order to meet the state's longer-term goals of 33 percent renewable, and analysis of whether feed-in tariffs would spur additional renewable development.
2. Analysis of a portfolio-based valuation of renewable energy to fully account for the benefits of renewables.
3. Identify and evaluate technological, economic, and environmental risks associated with each renewable technology type and any variations resulting from various size configurations per technology.
4. Analyze and identify greenhouse gas emission effects resulting from existing and potential renewable energy policies and programs, including interactions between California, western states, federal and international greenhouse gas and climate change mitigation policies and programs.

C. Numerical Targets

A goal of the REP is to meet the state's accelerated RPS goals, with a long-term view of developing a self-supporting renewable energy supply in California. The law sets a goal that 20 percent of the electricity retail sales in California should be served with renewable electricity by 2010. The Governor has supported a

⁷ California Energy Commission, *2006 Integrated Energy Policy Report Update*, January 2007, publication number CEC-100-2006-001-CMF.

⁸ A feed-in tariff involves the obligation on the part of a utility to purchase electricity generated by renewable energy producers in its service area at a tariff determined by public authorities and guaranteed for a specific period of time.

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longer term goal of achieving a 33 percent target by 2020. Also, the Energy Commission is considering developing utility-specific goals.

Technical assistance is required to assist staff with the following:

1. Develop methods to evaluate progress toward meeting state RPS targets that are articulated in statute and state policy.

D. Verification and Compliance Audit

Technical assistance is required to assist staff with the following:

1. Develop and perform audits to ensure program participants are complying with Program requirements and requirements of other government and utility-related funding programs, and to make necessary programmatic adjustments.

E. Provide other needed technical support that arises for REP evaluation.

Deliverables and Due Dates

All work assignments will be made through specific work authorizations and will specify the schedule of deliverables.

NOTE:

Computer System Compatibility – The Contractor shall prepare and submit all products to the Energy Commission Contract Manager in a format compatible with the following Energy Commission-supported software or the most recent version of Energy Commission-supported software upon notification by the Energy Commission Contract Manager.

Software Type

Word Processing	Microsoft Office XP (Word 2000)
Spreadsheet and Database	Microsoft Office XP (Excel 2000, Access 2000)
Charts/Graphics	Microsoft Office XP
Presentations	Microsoft Office XP (Power Point 2000)
Desktop Publishing	Adobe Page Maker 7

Deliverables and Due Dates

All work assignments will be made through specific work authorizations and will specify the schedule of deliverables. The Contractor will prepare and submit the following to the Contract Manager:

Monthly Progress Report. The Contractor shall prepare a monthly progress report that summarizes all activities conducted by the Contractor and team. This includes a summary of Agreement expenditures to date. The monthly progress report is due to the Contract Manager within 15 working days after the end of the month. The Contract

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Manager will specify the report format and the number of copies to be submitted. All monthly progress reports will coincide with the invoice period.

Invoice. The Contractor will prepare a monthly invoice for all Agreement expenses performed for assigned work authorizations. The invoice is to be submitted to the Energy Commission's Accounting Office. The Contract Manager will specify the invoice format.

Draft and Final Contract Report. A draft Final Report is due three months prior to the end of the Agreement. The Final Report is due no later than fifteen days prior to the end of the Agreement. The Final Report shall include an analysis of:

- The work accomplishments of the Agreement.
- The effectiveness of the Agreement in meeting the objectives of the program
- Future activities recommended to increase the effectiveness of the program and this Agreement.