

## **MAKING AN UNSOLICITED OFFER TO SMUD**

More than one Offer for a single project may be included in a submittal, but each Offer must be in a separate application within the submittal. Each Respondent is required to complete Parts 1, 2, and 3 of the Application for each Offer. Respondents proposing Ownership Options must also complete Part 4 of the Application. Please submit your Offer(s) using the Application in its original format. Each Offer shall be no longer than 30 single-spaced typed pages.

In addition, an Offer may involve more than one eligible generator using the same renewable resource (e.g., multiple wind generators or small hydro generators).

To facilitate the District's review process, it is required that each submittal contains all of the applicable information within this application and is organized in the sequence that the items appear. If an item is not applicable, the Respondent should so indicate by specifying "N/A" for "Not Applicable" and provide an explanation why the item is not applicable. In a few cases, the necessary information may not be currently available to complete certain sections of the Application. For these cases, please state what information is missing and when it will be available. Detailed requirements and directions for preparation of each section are outlined below.

This solicitation process is intended to secure Power Purchase Agreements or Ownership Options for eligible conventional and emerging renewable resources. Respondents proposing Ownership Options should fill out all four parts of this Appendix, while those proposing PPAs need only to fill out parts one through three.

In each response, the burden of proof is on the Respondent to support the information provided in this Application. The District will not perform additional research; however, the District has the right to request additional information from specific Respondents for clarification purposes.

**Part 1: Project and Offer Description**

<b>RENEWABLE ENERGY OFFER APPLICATION</b>	
<b>1. Summary Information:</b>	
a. Offer name: _____	
Please check ONLY ONE option below to define this type of Offer:	
<input type="checkbox"/> PPA of conventional renewable	
<input type="checkbox"/> PPA of emerging renewable	
<input type="checkbox"/> Ownership option of conventional renewable	
<input type="checkbox"/> Ownership option of emerging renewable	
<i>Note: a separate Renewable Energy Offer Application must be submitted for each Offer.</i>	
b. Offer ___ of ___ (total number of Offers in this submittal)	
c. Company Name:	
d. Resource Type:	
e. Is the renewable resource <input type="checkbox"/> conventional or <input type="checkbox"/> emerging	
f. Does the Offer meet RPS Requirements (see <a href="#">Appendix B</a> ) <input type="checkbox"/> Yes <input type="checkbox"/> No	
g. Does the Renewable Energy Offer generate more than 1 MW? <input type="checkbox"/> Yes <input type="checkbox"/> No	
h. Is the Total Net Project Capacity being offered to SMUD? <input type="checkbox"/> Yes <input type="checkbox"/> No If not, please explain:	
i. Is the Project located within the SMUD Distribution Service Territory? <input type="checkbox"/> Yes <input type="checkbox"/> No	
j. Is the Project <input type="checkbox"/> new or <input type="checkbox"/> existing? Date of commercial operation: ___/___/_____	
k. Are Renewable Energy Credits (Green Tickets) Available? <input type="checkbox"/> Yes <input type="checkbox"/> No	
l. Are RECs included in price? <input type="checkbox"/> Yes <input type="checkbox"/> No	
m. Is the renewable energy proposed eligible for the California RPS? <input type="checkbox"/> Yes <input type="checkbox"/> No If not, please explain:	
<b>2. General Information:</b>	
a. Authorized Contact:	
b. Street Address:	
c. City:	
d. State & Zip Code:	

e. Phone Number:	f. Fax Number:	
g. Email Addresses:		
<b>3. Owners of Project in Offer:</b>		
<u>Name</u>	<u>Ownership</u>	<u>Website</u>
a.	%	
b.	%	
<b>4. Generation Type:</b>		
a. Check <u>one</u> of the following:	b. Check the following as applicable:	
<input type="checkbox"/> System Firm Capacity	<input type="checkbox"/> Baseload	
<input type="checkbox"/> Unit Contingent Firm Capacity	<input type="checkbox"/> Dispatchable	
<input type="checkbox"/> As-Available Energy (Non-Firm)	<input type="checkbox"/> Intermittent	
<b>5. Delivery Point (See <a href="#">Appendix C</a> – Map of SMUD Control Areas &amp; Accepted Delivery Point):</b>		
<input type="checkbox"/> Within the SMUD Distribution Service Territory		
<input type="checkbox"/> Within SMUD Control Area		
<input type="checkbox"/> California Oregon Border in the North to South Direction (COB NS)		
<input type="checkbox"/> Other point of interconnection on the SMUD Control Area border		
<input type="checkbox"/> Within the California Independent System Operator (CAISO) Control Area,		
<input type="checkbox"/> Other point of interconnection on the CAISO Border		
<input type="checkbox"/> Other point of interconnection		
<b>6. Renewable Resource Type:</b> (check applicable resources)		
<b><u>Conventional Technologies:</u></b>		
<input type="checkbox"/> Biomass		
<input type="checkbox"/> Biodiesel		
<input type="checkbox"/> Geothermal		
<input type="checkbox"/> Small Hydroelectric (30 MW or less)		
<input type="checkbox"/> Conduit Small Hydro		
<input type="checkbox"/> Landfill Gas		
<input type="checkbox"/> Wind		

**Emerging Technologies:**

- Digester Gas (e.g., anaerobic digestion)
- Biogas Injected into a Natural Gas Pipeline
- Fuel Cells
- MSW Conversion
- Photovoltaic
- Solar Thermal (with and without natural gas assist)
- Fuel cells using qualifying renewable fuels
- Tidal Current
- Ocean Wave
- Ocean Thermal
- Innovative storage coupled with qualifying intermittent renewable
- Hybrid (explain): \_\_\_\_\_
- Other (explain): \_\_\_\_\_

**7. Offer Abstract:** Provide an abstract for the Offer with no more than 200 words.

**8. Company Information and Qualifications:**

- a. Company description – Describe the corporate structure and provide biographies of key officers.
- b. Financial stability and credit rating – Briefly summarize information and provide financial statements for the last two years (Financial information is required from all partners or guarantors if a partnership or guaranty is contemplated).
- c. Provide an estimate for the total capital requirement for the project. Explain assumptions for financing if the renewable energy Project in Offer is not yet built. Include specific sources of financing, if known.
- d. Power supply project experience – Provide a listing of developer projects and independent power supply ventures participated in over the last three years.
- e. Power supply references – Provide a list of three former clients who received similar services from the Respondent, including names of client representatives and their current phone numbers.
- f. Litigation, regulatory proceedings, or arbitration status – Describe any current or previous contract dispute(s) involving similar Offers in which the Respondent is or was involved during the last five years.
- g. Consortiums, partners, or subcontractors – If applicable, provide descriptions for each member of a consortium or partnership, or of any subcontractors to be utilized, in the performance of this contract.

**9. Power Supply Offering Description:**

- a. Brief description of technology, fuel source, and configuration:
- b. Specific generation location (include a map with distance and direction from nearest city or town):
- c. Renewable Energy Credits availability:

d. Provide registered renewable supplier number (if applicable):
e. Describe environmental attributes of the resource. In particular, list benefits to the Sacramento region.
f. Describe any economic benefits to the Sacramento region.
g. List required environmental, construction, and other regulatory permits and timeline for acquisition of those permits.
h. What is the expected equivalent availability factor (NERC Definition: annual equivalent hours available/8760)? Describe expected outages.
i. What is the estimated plant service life?
j. Describe output guarantees that the Respondent will provide the District. What remedies does the District have for Respondent's failure to deliver Energy?
k. Describe shaping services and costs, if available, for intermittent resources. Describe operational constraints, if any, to the District's ability to schedule power from the units.
l. List the constraints (operating, cycling, or dispatch constraints and source of constraints) of this technology or proposed solution.
m. Who are manufacturers of the major components of the project? Briefly describe their experience and qualifications. Identify any major equipment that has already been ordered or committed to the project.
n. Describe in detail forms of security for performance such as cash deposit, letter of credit, bond, price guarantee, or similar security.
o. Provide an explanation on how the proposed renewable resource supply will be maintained for the duration of the project life. This is especially important for new project and Ownership Options projects. Examples of the type of information that will be helpful in demonstrating resource viability are listed below for various technologies:
<p><b>WIND</b></p> <ul style="list-style-type: none"> <li>• Provide a summary of all collected wind data for the generating facility site.</li> <li>• Indicate where the data was collected and its proximity to the generating facility site.</li> <li>• Provide (a) at least one (1) year of wind resource data, or (b) a wind resource assessment report from a qualified meteorologist, or (c) both.</li> <li>• Compare the long-term wind speeds in the area to the collected resource data at the generating facility site.</li> <li>• Provide a confirmation of wind turbine manufacturer availability (e.g., a signed commitment letter, copies of turbine supply agreement, etc.).</li> </ul>

## **GEOHERMAL**

- Provide a summary of all collected geothermal data for the proposed generating facility site.
- For each geothermal test well, provide the well name, coordinates, and proximity to the proposed project site
- Provide geothermal test well production data including temperature at depth, maximum temperature, wellhead pressure, flow rate, measurement interval, and measurement dates
- For each test well provide the date the well was completed, the date the well was capped and abandoned (if applicable), the well depth, and well diameter
- Provide an estimate of the maximum sustainable power production from the resource under control compared to the total potential of the resource area and the total potential already exploited by other projects in the area
- Provide description of other existing and known planned projects utilizing the same geothermal resource area and characterize their anticipated impact, if any, on the Project.
- Indicate the cooling method for the facility

## **BIOMASS**

- Representative fuel composition
- Narrative description of resource supply
- Identification of biomass suppliers including location, resource provided, expected share of total supply, etc.
- Narrative of legal rights or acquisition rights to fuel supply
- Seasonal variation in resource availability and fuel properties
- Biomass residue supply curves showing biomass residue available in collection area versus price
- Discussion of potential market competition for fuel and estimated long term fuel price impacts
- Discussion of regulatory market drivers that may impact resource availability.
- Transportation plan including letters of intent from haulers who have indicated they will provide transportation

**BIOGAS**

- Landfill site description, operational history, physical characteristics
- Current gas collection and/or management strategies
- Past, current and future waste tonnage, composition
- Permitted landfill closure date
- Sampling analysis history of LFG, including flow rate, heat content, methane, carbon dioxide, oxygen, nitrogen and contaminants
- Provide a gas production forecast including decay of gas production from closed landfill cells and additional gas production from future landfill cells
- Narrative of legal rights or acquisition rights to fuel supply
- Gas supply letters of intent from landfill or other entity, if other than proposing entity
- Annual precipitation

**OTHER RESOURCES**

Provide an assessment of the available resource supporting the projected production profile of the facility.

p. If the source of energy in the Offer is a new project, not yet operational, please identify and provide the status of your critical milestones with expected dates for reaching each milestone as well as expected date of commercial operation. Critical milestones include but should not be limited to: air, water, and other environmental permits; facility construction permits; major equipment acquisition; fuel source acquisition; interconnection arrangements and transmission agreements; etc. The District reserves the right to disqualify any Offers or withdraw from any negotiations at any time if the Respondent does not show reasonable progress towards meeting critical milestones. It is the responsibility of the Respondent to submit frequent updates and notify the District of any issues regarding meeting these milestones.

**10. Interconnection:**

- a. Interconnection voltage:
- b. Describe interconnection location and interconnection agreement. Specify nearest electrical transformer or bus. Provide a schematic of the transmission path, including point of interconnection and point of delivery.
- c. Describe transmission arrangements and tariffs necessary to deliver Offer output to the point of delivery. Provide schematic map for Project under Offer located outside of California
- d. Does pricing include all transmission charges and losses associated with transporting the power to the point of delivery (see pricing information form below)?
- e. Are there new facilities required for interconnection? If so, please describe.
- f. The status of any CAISO or other control area interconnection request.

**11. Additional Information:**

- a. Provide any additional pertinent information that was not requested. SMUD expects Respondents to provide any information that could help explain and quantify the benefits of the Offer to SMUD, including possible project cost, reliability, dispatch frequency, or output capability changes.

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|--|
| b. Describe whether the proposed Capacity and/or Energy has been offered to another purchaser, identify the purchaser, the status of the Offer, and other relevant disclosures |
| c. If Production Tax Credits (PTCs) or other subsidies become unavailable after bid is submitted, how will this affect the price?  |



**Part 2: Pricing Information Form**

<b>RENEWABLE ENERGY OFFER PRICING INFORMATION</b>			
Item	Description	Units	Total
1.	<b><u>General Offer Information:</u></b>		
a.	Proposed Contract Start Date: ___/___/___		
b.	Total Net Project Capacity	MW	
c.	Contract Capacity	MW	
d.	Estimated Annual Capacity Factor	Percent	
e.	Expected Annual Net Energy Production	GWh/Yr	
f.	Is the Offer: <input type="checkbox"/> dispatchable <input type="checkbox"/> baseload <input type="checkbox"/> intermittent?		
2.	<b><u>Power Purchase Contract:</u></b>		
a.	Contract Term	Years	
b.	c. Escalation Factor for price below (if applicable)	Index or rate	
c.	<b>System Firm Capacity and Energy</b>		
	a. Merged Price for Firm Capacity and Energy, or	\$/MWh	
	b. Fixed Monthly Capacity and Volumetric Energy Price (for use only for dispatchable Offers), or	\$/kW-month and \$/MWh	
	c. Dow Jones On-Peak and Off-Peak price index price for Firm Capacity and Energy, plus fixed \$/MWh adder for REC	Index Delivery Point: (NP15 or other), and REC Adder \$/MWh	Index Delivery Point name <hr/> REC Price \$/MWh
d.	<b>Unit Contingent Firm Contract Capacity</b>		
	a. Merged Price for Firm Capacity and Energy or	\$/MWh	

	b. Fixed Monthly Capacity and Volumetric Energy Price (for use only for dispatchable Offers), or	\$/kW-month and \$/MWh	
	c. Dow Jones On-Peak and Off-Peak price index price for Firm Capacity and Energy, plus fixed \$/MWh adder for REC	Index Delivery Point: (NP15 or other), and REC Adder \$/MWh	Index Delivery Point name <hr/> REC Price \$/MWh
e.	<b>As-Available Contract Energy</b>		
	a. Melded Capacity and Energy Price	\$/MWh	
	b. Firming intermittent Energy DA Schedule	\$/MWh	
3.	<b><u>Pre-Existing Subsidies:</u></b>		
a.	a. California State SB 90 Awards	\$/MWh /yr.	
	b. Term of Subsidy	Years	
b.	Explain assumptions on tax credits, public incentives, or other external payments or programs that support the economics of the Offer. Explain how pricing or other terms may be dependent upon these assumptions.		
<b>Please fill Firm Capacity and Energy profiles on Part 3.</b>			

**Part 3: Capacity and Energy Profiles Tables**

*Note: These tables must be submitted electronically in Excel format.*

**RENEWABLE ENERGY OFFER**  
**Project Firm Capacity and Energy Profile**

If the bidder’s Project in the Offer has more than one typical year, provide tables for each typical year that the proposed power purchase agreement would be in place. Energy and Capacity amounts shown shall be provided from the Offer to SMUD at the Delivery Point

**1. Energy Profile (MWh)**

- a. Monthly: Estimated net MWh for each time period for each month in a typical year.

	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
<b>*Period</b>													
<b>On-Peak</b>													
<b>Off-Peak</b>													

\* WECC-defined periods:

On-Peak: Monday-Saturday HE 7-22, except Holidays

Off-Peak: Monday-Saturday HE 01-06, HE 23-24; Sunday, Holidays - All Hours

*Note: These tables must be submitted electronically in Excel format.*

**b.** Hourly: Estimated average net MW for each hour in a typical day for each month in a typical year\*\*.

Hour Ending	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec
01												
02												
03												
04												
05												
06												
07												
08												
09												
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17												
18												
19												
20												
21												
22												
23												
24												

\*\* Shaded hours represent SMUD's peak summer Capacity period

*Note: These tables must be submitted electronically in Excel format.*

## **2. Firm Capacity Profile (MW)**

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Firm Capacity to be provided at Delivery Point from System Firm and Unit Contingent offers.

	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>April</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
<b>Hour Ending</b>												
<b>01 - 06</b>												
<b>07 - 12</b>												
<b>13 - 20</b>												
<b>21 - 22</b>												
<b>23 - 24</b>												

\* Shaded hours represent SMUD's peak summer Capacity period

**Part 4: Ownership Options Information.**

*Note: Fill out this part ONLY if proposing an Ownership Option to SMUD.*

<b>RENEWABLE ENERGY OWNERSHIP OPTIONS APPLICATION</b>
<p><b>1. Term Sheet.</b> Proposed term sheet for the ownership option: this is the most critical portion of the ownership Offer. The term sheet should clearly outline the business terms of the project offered to SMUD using comparable terms and information listed in RFO Term Sheets, Attachments 1-5. The Offer should explain how many tax credits will be leveraged to SMUD's advantage.</p>
<p><b>2. Project Capital Cost</b></p> <ul style="list-style-type: none"><li>• <b>Capital Cost Breakdown:</b> Please provide a detailed breakdown of the capital cost of the proposed project, including major equipment, interconnection costs, permitting, engineering, and other costs. Document the source of cost estimates – e.g. firm EPC estimates, vendor quotes, and engineering estimates.</li><li>• <b>Capital deployment schedule:</b> Provide a monthly projection by activity of capital deployment throughout the development period until commercial operation date.</li><li>• <b>Expenditures to Date:</b> Identify how much has already been spent on the Project.</li><li>• <b>Sources of Funds:</b> What have the sources of funds for project development been to date?</li></ul>
<p><b>3. Operations and Maintenance Plan:</b> Provide a detailed O&amp;M plan and budget. Include information about any proposed subcontractors or management agreements.</p>
<p><b>4. History of Project Development</b> – Document the history of the project development, including previous owners, timelines, major milestones, etc.</p>
<p><b>5. Transmission Studies</b> – Provide copies of any transmission Feasibility Studies, Impact Studies, and Facilities Studies that have been completed.</p>
<p><b>6. Site Control</b> – Provide evidence of site control</p>
<p><b>7. Conceptual Design Information</b> – Provide information on the conceptual design of the plant including configuration, general layout diagrams, preliminary site plan showing site boundaries and plant layout, diagram of generating equipment, heat balances, etc.</p>
<p><b>8. Permitting</b> – Provide a list of all necessary permits, which permits have been attained, any renewal dates for existing permits, and the status on obtaining the remaining permits.</p>
<p><b>9. Water Resources (if applicable)</b> – Provide</p> <ul style="list-style-type: none"><li>• Cooling water location, and relationship to project site</li><li>• Quantity and quality of water available to the project</li><li>• Quantity of cooling water required</li><li>• Control of the water source (e.g. ownership of water rights, lease, lease options)</li><li>• Water supplier (if applicable) and contractual arrangement</li><li>• Wastewater discharge quantity, quality, and method</li></ul>

**10. Historical Data (if applicable)** – If the Submittal is based on an existing generating facility, historical data for the last 3 years or from when the generating facility was built, if the age of the generating facility is less than 3 years, should be provided including historical production schedule, net output rating (MW), capacity factor, Equivalent Availability, Forced Outage Rate, scheduled outage rate, deratings, and the forecasted five-year scheduled maintenance cycle and production schedule.

**11. Pro Forma Cash Flow Model** – Provide a pro forma cash flow model which shows the financial structure of the project from both the Respondent's and SMUD's perspective.