



**TENNESSEE VALLEY AUTHORITY**

**2008 REQUEST FOR PROPOSALS**

**FOR**

**RENEWABLE ENERGY and/or  
CLEAN ENERGY RESOURCES**

**December 2, 2008**

Reference: DEC2008RFP

**TVA REQUEST FOR PROPOSAL  
FOR RENEWABLE ENERGY and/or  
CLEAN ENERGY RESOURCES**

**Purpose**

TVA is seeking proposals from qualified and eligible proposers to supply capacity and/or energy from Renewable Energy and/or Clean Energy Resources (RECER) beginning as early as June 1, 2009 and as late as June 1, 2011. TVA is interested in term proposals for such power supply of 1 to 20 years in duration.

**Description of RECER Interest**

TVA is issuing a Request for Proposal seeking proposals which may result in TVA obtaining up to a total of 500 Megawatts of Renewable Energy and/or Clean Energy Resources (RECER) "Dispatchable" capacity capable of being delivered by June 1, 2009, increasing to a total of 750 Megawatts of RECER "Dispatchable" capacity capable of being delivered as of June 1, 2010, and further increasing to a total of 1,000 Megawatts of RECER "Dispatchable" capacity capable of being delivered as of June 1, 2011.

In addition, TVA will entertain proposals for up to a total of 500 Megawatts of RECER "As-Available" energy capable of being delivered by June 1, 2009, increasing to up to a total of 750 Megawatts of RECER "As-Available" energy capable of being delivered as of June 1, 2010, and further increasing to up to a total of 1,000 Megawatts of RECER "As-Available" energy capable of being delivered as of June 1, 2011.

Contractual delivery periods of up to 20 years will be considered. TVA desires to contract for the output of RECER acquired pursuant to this RFP by means of Power Purchase Agreements (PPAs).

- Renewable Energy Resources: means new or existing commercially proven technologies for the production of electric energy. Generation technologies eligible for the purposes of this RFP include:
  1. Solar,
  2. Wind,
  3. Ocean,
  4. Tidal,
  5. Geothermal energy,
  6. Landfill gas,
  7. Other biologically derived methane gas,
  8. Incremental hydropower\*,
  9. Hydrokinetic energy\*, and
  10. Biomass\*\*.

\* Dams under TVA control are not eligible as locations for non-TVA hydroelectric generation.

\*\*Biomass means the direct firing or co-firing of the following:

- (A) Any of the following forest-related resources: mill residues, pre-commercial thinnings, slash, and brush, or non-merchantable material;
  - (B) Solid wood waste materials, including dunnage, manufacturing and construction wood wastes (but not pressure-treated, chemically-treated, or painted wood wastes), and landscape or right-of-way tree trimmings, but not including municipal solid waste (e.g. garbage);
  - (C) Agriculture wastes, including orchard tree crops, vineyard, grain, legumes, sugar, and other crop by-products or residues, and livestock waste nutrients; or
  - (D) A plant that is grown exclusively as a fuel for the production of electricity.
- Clean Energy Resources: means new or existing commercially proven technologies for the production of electric energy. Generation technologies eligible for the purposes of this RFP include:
    1. Combined Heat and Power,
    2. Waste heat Recovery, and
    3. Other Low Carbon emitting resources with emission rates less than 700 lb CO<sub>2</sub>/MWh.
  - While TVA supports and is interested in nuclear energy, for the purposes of this RFP, we are excluding nuclear generation.
  - Size: Proposers should only propose and price capacity and/or energy from an individual Renewable Energy Resource project(s) or an individual Clean Energy Resource project, which will have a minimum nameplate capacity of 1 MW per project in either case.
  - Vintage: Proposers should provide the commercial operation date (if existing) or proposed commercial operation date of the RECER.
  - Product Type:
    - (A) Dispatchable – means energy and capacity that can be scheduled by TVA for delivery on an hour-ahead or on a day-ahead basis. A proposer providing a Dispatchable product should be capable of sustaining a guaranteed minimum run time of eight (8) consecutive

hours per day.

- (B) As-Available – means intermittent energy and capacity deliveries that are not directly amenable to scheduling by TVA or controllable by the generator. The technologies included within this product category are (1) wind; (2) solar; (3) run of river hydro; or (4) any other technology that TVA determines to qualify as As-Available.

- Guarantees Regarding Power Supply

- (A) Dispatchable: Proposals for Dispatchable products should include a guaranteed availability of the full nameplate capacity of the RECER when dispatched by TVA on either a monthly or seasonal basis and the implications of the RECER's failure to meet that guaranteed availability for unexcused reasons.
- (B) As-Available: Proposals for As-Available products should include a guaranteed minimum annual total quantity of kWhs of qualifying energy to be delivered to TVA from the RECER and the implications of the RECER's failure to meet that guaranteed minimum annual total quantity for unexcused reasons.

### Delivery to the TVA System

This RFP requests proposals from RECERs for the delivery of qualifying energy to the TVA transmission system or, if interconnected to the distribution system of a distributor of TVA power, to that distribution system. Information submitted must include identification of proposed transmission and proposed interconnection points, identifying the transmission provider, and the control area. For any RECER directly interconnecting to the TVA transmission system or to a distribution system of a distributor of TVA power, said interconnection shall be in accordance with instructions to be provided by TVA and proposer shall bear the full cost of such interconnection.

### Pricing

Proposals must provide a detailed description of the pricing terms and conditions. For consideration in the evaluation process, proposals must contain the information outlined below, as applicable.

Proposed energy rates shall include all fuel; start up, losses, ancillary services, transmission and other charges associated with delivery to designated delivery point. If a monthly charge is proposed for a Dispatchable product, such charge shall be stated on a Dollars per kWh/Month basis. The proposer shall provide the initial energy rate and

applicable formula for escalation, if any, with proposed indices or a schedule of energy rates for the proposed contract term. The actual hourly delivered energy, in any month, shall be determined in accordance with the metering procedures as set forth in the contract which will be negotiated between TVA and the successful proposer, and proposer will be responsible for the full costs of metering facilities as determined to be necessary by TVA with regard to the RECER being proposed. As applicable, the proposal should include all formulae that will be used to calculate the full energy rate, or any other rate that the proposer may specify, with all its respective components well defined. A sample calculation illustrating the application of each formula is also required.

The proposer must provide a schedule projecting for each contract year, quarter, or month, as appropriate, depending upon how frequently the Supplier's rate(s) or its respective components will be updated, for the full term of the proposed contract of the following: energy and/or capacity payment. It is the Supplier's obligation to provide sufficient explanatory information to allow TVA to replicate the schedule projections of any independent variables that are to be used in the calculation of payments.

Energy pricing that is based on a heat rate must clearly state the associated guarantees with all aspects of pricing clearly stated, as well as the implications of failures to meet such guarantees.

### **Associated Attributes**

For purposes of this solicitation, the sale of renewable energy to TVA includes the transfer of all capacity, ancillary services (if any) and any current or of future environmental attributes, including but not limited to associated renewable energy certificates (RECs), and any current or future greenhouse gas emission reductions, including avoidance of carbon dioxide and other greenhouse gas emissions, associated with the quantity contracted and received by TVA from the project for the term of the PPA.

### **Environmental and Regulatory Requirements**

Each proposal (and correspondingly the proposer's plant operation) must comply with all applicable federal, state, and local laws. Except as provided immediately below, all federal, state, and local approvals, permits, licenses, fees, emissions allowances, environmental reviews, and other environmental requirements are the responsibility of the proposer for the entire term covered by each proposal. This should include any rezoning, land-use permits, and other discretionary approvals that may be required by the local government. The proposer is responsible for assuring the availability and adequacy of all fuel handling and transportation facilities, including all necessary infrastructures to support such transportation.

TVA is an agency of the Federal government and accordingly shall be responsible for any environmental review necessary under the National Environmental Policy Act (NEPA) and other applicable provisions of Federal law and regulations which require the consideration of other interests as part of agency decisionmaking processes (hereinafter “environmental reviews”). The successful proposer(s) will be responsible for reimbursing TVA for all reasonable costs of performing the necessary environmental reviews. In addition to the other qualifications set forth herein, TVA must determine that all necessary environmental reviews have been satisfactorily completed and that the RECER will not result in significant environmental impacts in order for the RECER to qualify hereunder.

Proposers will be responsible for any and all applicable approvals and other regulatory actions required under the Federal Power Act, PURPA, and other applicable Federal and State laws.

### **Other Terms and Conditions**

Proposals must include detailed descriptions of guarantees and related remedies for failure to perform. Each proposal must provide, as applicable, guarantees for in-service dates, contract capacity, heat rates (if applicable to the pricing proposal), and availability. Operational characteristics such as (but not limited to) capacity limitations, ramp limitations, maximum or minimum run-times, maximum or minimum down-times, and fuel limitations should also be specified. If a resource included in a proposal is not yet in-service, a detailed description of all arrangements for constructing and/or placing the facility in service, and a milestone schedule describing major project activities leading up to commencement date for commercial service shall be provided.

### **Credit Assurance**

The proposer will be required to provide certain financial information in order to establish creditworthiness with TVA. Proposers should provide the following information as part of the proposal:

- Audited financial statements for the three (3) preceding years that include balance sheets, income statements, statements of cash flows, and notes to the financial statements.
- Bank name, address, phone number, and officer contact.
- Credit references from three (3) sources that include name, address, phone number, and contact.
- Annual report or company brochure, if available.

Submission of a proposal constitutes consent for TVA to contact the bank and references provided and any other persons with regard to TVA's assessment of proposer's creditworthiness and responsibility.

TVA requires secure and reliable physical delivery of the energy resources corresponding to all purchase power agreements. Security and reliability of physical delivery (credit assurance) covering both the option and the physical delivery of energy resources will be provided in the form of either a:

- (A) Letter of Credit issued by a financial institution that has a long-term debt rating by Standard & Poor's of A- or better and by Moody's Investors Service of A3 or better;
- (B) Parent guaranty issued by an entity located in the United States that has a long-term debt rating by Standard & Poor's of BBB- or better and by Moody's Investors Service of Baa3 or better; or
- (C) Various combinations of the foregoing, as determined by TVA.

The cost of such credit assurance must be borne by the proposer.

### **Reservation of Rights**

TVA reserves the right, without qualification and at its sole discretion, to amend or withdraw this request for proposals and to reject any or all proposals or portion of proposals received. In addition, TVA reserves the right to consider other alternatives outside of this solicitation at its sole discretion in order to satisfy its desired capacity and energy objectives. Those who submit proposals to TVA do so without recourse against TVA for either rejection by TVA or failure to execute a PPA or other agreements for any reason, and in no event shall TVA be liable for any costs associated with preparation or submission of a proposal. TVA also reserves the right in its sole discretion: (i) to request of and discuss with proposers, individually or collectively, further information as part of its evaluation of the proposals received, (ii) to waive any requirements of this RFP, and (iii) to negotiate separately with any proposers or other parties at any time.

### **Procedures for Submission of Proposals**

Proposers are requested to submit their proposals via e-mail to the e-mail address below. In addition, an original proposal (to be marked so) signed by an authorized officer, plus four (4) copies must be mailed or hand-delivered. The mailing/delivery address is:

- By Courier or U.S. Mail

Tennessee Valley Authority  
Attention: Mr. Jim Howell, Senior Trader-Energy Origination  
1101 Market Street, SP 6A  
Chattanooga, TN 37402-2801

- By e-mail

jthowell@tva.gov

All proposals must arrive via e-mail by January 16, 2009, 12:00 noon Eastern Prevailing Time (EPT). Paper copies must arrive at TVA's Chattanooga office by 4:45 p.m. EPT the same date. TVA is not obligated to contact proposers concerning missing or incomplete forms.

The proposer must designate a contact person with whom TVA can communicate with questions about the proposal.

All proposals should include any additional information required to support evaluation of the proposal. Documents requested in support of the Credit Assurance must accompany the mailed versions of the proposals.

### **Confidentiality**

TVA recognizes that certain information contained in proposals submitted may be confidential, and TVA will take reasonable precautions and use commercially reasonable efforts to protect any claimed proprietary and confidential written information contained in a Proposal; provided that such information is clearly identified by the proposer as "PROPRIETARY AND CONFIDENTIAL" on the page on which proprietary and confidential material appears. If TVA is formally requested and required by any regulatory or judicial authority, or is otherwise required by law, to disclose information with regard to a proposal, TVA will disclose such information in accordance with applicable laws and regulations.

TVA also reserves the right to disclose any or all of the information submitted in response to this request to any consultant(s) retained by TVA to assist with the various aspects of this process. TVA will take reasonable steps to ensure that its consultant(s) will also treat information received from proposers as confidential; however, TVA will not be liable for any failure of any consultants(s) to do so.

Proposers are required to treat this RFP in its entirety and any submissions to or communications with TVA as confidential to at least the same degree they treat their own



confidential information. If a proposer is formally requested and required by any regulatory or judicial authority or otherwise required by law to disclose information with regard to a proposal, such proposer will disclose such information only in accordance with, and to the extent required by, applicable laws and regulations.

### **Communication**

This RFP is available to interested parties as of November 25, 2008. The RFP is available by TVA website, e-mail, fax, or U.S. mail.

If interested parties have any questions or desire any additional information related to this RFP, such questions or requests should be made in writing and directed via fax to (423) 751-3387 or via e-mail to the address above to Mr. Jim Howell, Senior Trader, Energy Origination.

### **Schedule**

The tentative schedule as outlined below is based on TVA's expectations as of the release date of this RFP.

Release of RFP	December 2, 2008
Proposal Submittal	January 16, 2009
Notification of Short List	March 1, 2009
Completion of Negotiation	May 1, 2009
Contract Signed	Prior to June 2009