



## Writing Solar Requests for Proposals (RFPs): Lessons from NREL's University PV Implementation Assistance Program

With funding from the Department of Energy's SunShot program, NREL is assisting higher education institutions with solar PV procurement. Typically, universities issue RFPs as a way to get competitive bids on solar power purchase agreements (PPAs).<sup>1</sup> However, RFPs could also be used for university-owned systems. While providing assistance to universities issuing RFPs, NREL has developed a list of common issues to consider when writing an RFP for solar PV.

### Some universities may want to maximize cost-effective site opportunities instead of having their RFP address only pre-determined buildings or sites.

If contract officers allow it, encouraging developers to identify the best sites may provide more cost-competitive bids. In addition to bidding on pre-determined sites, RFPs can be written to allow developers to propose additional sites that meet cost thresholds.

**Larger project sizes may be more cost-effective.** Economies of scale can reduce project costs on \$/MWh terms. Consider project sizes of at least 1 MW. For example, Southern Connecticut State University's RFP included a "base bid" for close to 1 MW and a "supplemental bid" for around 700 kW.

### Consider joint RFP opportunities.

Partnering with a school or government in your utility service territory and issuing a joint RFP can lead to a larger procurement. This can entice additional bidders and result in lower procurement costs. For example, the Council of Independent Colleges in Virginia issued an RFP in November 2015 for nearly 38 MW of PV on behalf of 15 colleges and universities.

**Longer terms will result in lower annual costs.** 20- or 25-year terms are common; requesting shorter terms may result in bids not competitive with current electricity prices (depending on the market).

### Be precise where necessary.

If the university will require specific design parameters, mention those and be as specific as possible. For example, if the university will require a 6-foot security fence around the installation, write that into the RFP.

### NREL is assisting universities on a variety of PV procurement topics

#### RFPs:

- Southern Connecticut State University
- University at Albany (NY)
- SUNY College at Oneonta (NY)
- Parkland College (IL)

#### Third-party ownership:

- Kennesaw State University (GA)

#### Collaborative procurement and finance models:

- North Carolina State

#### System Advisor Model (SAM) training<sup>2</sup>:

- Kennesaw State University (GA)
- Ohio University.

<sup>1</sup> Instead of an RFP, some universities have issued a Request for Information (RFI). An RFI can be used to determine options for scoping a project and generally requires less time for developers to complete. University procurement rules may determine whether an RFI can be used in place of an RFP.

<sup>2</sup> SAM makes performance predictions and cost of energy estimates for grid-connected power projects based on installation and operating costs and system design parameters that you specify as inputs to the model.



**Be clear about renewable energy certificate (REC) ownership.**

Many schools are interested in solar in order to meet their Climate Leadership Commitment goals or to join the EPA’s Green Power Partnership, both of which require REC ownership. Decide whether you want to keep the RECs or have developers price them separately so you know how to negotiate. Where RECs may be highly valued, some universities choose to sell them and purchase lower-cost replacement RECs to meet their sustainability objectives. For more information on RECs, see NREL’s *“Renewable Electricity: How do you know you are using it?”*

**Consider requirements to make the system a learning tool.**

PV systems can be great teaching tools. Consider whether the RFP should include a web-based visualization of electricity output and other metrics.

Will faculty and staff have access to the system for field trips and other educational opportunities?

**Use existing RFP templates**

**as a guide.** RFP and PPA resources are available here:

- “Using Power Purchase Agreements for Solar Deployment at Universities” (NREL brochure): <http://www.nrel.gov/docs/gen/fy16/65567.pdf>
- Council of Independent Colleges in Virginia RFP (November 16, 2015): [http://resources.solarroadmap.com/CICV-Solar-RFP\\_2015NOV16\\_as-issued.pdf](http://resources.solarroadmap.com/CICV-Solar-RFP_2015NOV16_as-issued.pdf)
- Many more examples of RFPs: <http://apps3.eere.energy.gov/greenpower/financial/archives.shtml>

- IREC’s “Solar Power Purchase Agreements: A Toolkit for Local Governments”: <http://www.irecusa.org/publications/solar-power-purchase-agreements-a-toolkit-for-local-governments/>
- Standard Commercial PPA version 1.1 (developed by a working group of financial professionals): [https://financere.nrel.gov/finance/content/solar-securitization-and-solar-access-public-capital-sapc-working-group#standard\\_contracts](https://financere.nrel.gov/finance/content/solar-securitization-and-solar-access-public-capital-sapc-working-group#standard_contracts).

NREL will be providing technical assistance to universities going solar through September 2017. For more information, see **“Solar Screenings and Implementation Assistance for Universities”** or contact Jenny Heeter at [jenny.heeter@nrel.gov](mailto:jenny.heeter@nrel.gov).

Cover photos (left to right) from Christopher Nugent, University of California-Irvine; Colorado State University; Mount St. Mary’s University; Arizona State University; Christopher Nugent, University of California-Irvine; and Dennis Schroeder, NREL 19163. Back photo from Mount St. Mary’s University.



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