

## 2014 Tribal Renewable Energy Webinar Series

### Questions and Answers

#### “Successful Project Financing Mechanisms with ESPCs and UESCs” Webinar September 24, 2014

##### Speakers

Doug Dahle *and* Deb Vasquez of the National Renewable Energy Lab (NREL)

and

Chris Gillis of Pacific Gas and Electric Company (PG&E) in San Francisco

**Attendees: 117**

- Q: What steps would you recommend tribal customers take to **set the groundwork** for a customized utility incentive program with a near-future goal of one megawatt of solar PV project?
- A: I recommend first inviting utility leaders to your stakeholder meetings. Provide them with your strategic energy plan (SEP) summary. If you are in the middle of writing your SEP then provide an outline of where you want to go, and the questions you have.
- Q: If an existing utility, say in Alaska, is interested in developing a utility incentives program which would include a UESC for their tribal customers, what essential steps will the utility need to take and how long will it be before the utility will actually offer UESC and ultimately see a profit?
- A: If you have an area wide agreement, it makes for quicker development. Southwest Utility built an arm in 8 to 12 months.
- Q: What rebates are typical in an EERE project using UESCs?
- A: It is different for every utility. The [DSIRE website](#) has good up-to-date information state-by-state.
- Q: What is a typical payback length for UESCs?
- A: Typically it is 16 years, but of course it depends on the project. Lighting upgrades will be a short length, but more involved process may be a 24 year contract.
- Q: Can utilities count tribal EERE projects towards their renewable energy portfolio credits (RECs) if the construction is on tribal land?
- A: All states allow tribal EERE projects to be used toward RPS goals as long as the REC accounting is consistent with other generated EERE projects in the state. This is a good motivator for utilities to work with tribes and offer collaborations. For example a utility may be interested in purchasing the electricity from your potential project to meet RPS requirements.
- Q Deb Vasquez: If tribes choose to finance through a UESC, what types of financing and or appropriations, exactly, are available? Is there an interest rate that would apply to the tribe? If there are rebates, what % of the project is usually rebated?
- A: Financing is arranged by the utility and is generally with financiers that focus on energy performance projects
- Appropriations are the responsibility of the ordering agency. FEMP provides technical assistance at no cost to federal agencies; it would be well worth the effort to explore avenues for funding UESC technical assistance for tribal- utility projects. I would be more than happy to arrange a meeting for a tribal-utility UESC discussion at the FUPWG seminar in November or by conference call and invite utilities and our FEMP Utility Lead.

May 21, 2014



- The rural electric cooperatives have a bank that offers very low interest rates for their UESC projects. I am not aware of such an organization for tribal-utilities.
- Rebates are completely dependent on the location of the facility; I'd recommend starting with the serving utility's website and of course <http://www.dsireusa.org/>

- Q:** Deb Vasquez: In Alaskan rural villages, where energy often consists of diesel generators, would utilities be interested in building infrastructure through a UESC?
- A:** UESCs must be cost effective projects that pay for themselves through energy saved. If the circumstance is that the cost of delivering energy to customers is high enough to pay for infrastructure, then the project is worth considering. There are a number of Utility-ESCO partners that may be willing to explore the possibilities.
- Q:** Deb Vasquez: When you were discussing Areawide Contracts (AWCs), you mentioned they are negotiated with utility service suppliers for the provision of service within the supplier's franchise territory or service area. Would these apply to tribes since tribes are not the same as Federal agencies?
- A:** GSA has a directive, 4800.2H, which seems to imply that tribes can use the AWC. I believe it's safe to say tribes can use the AWC to work with their serving utility to implement EERE projects. The decision will be with the tribe and the serving utility.
- Q:** Doug Dahle: In your Albuquerque example of the ESPC at the Southwest Indian Polytechnic Institute, is 24 years a typical contract term?
- A:** No, in this case the utility energy costs were low, which generates. Of the 300+ we have done the average is 16 years.
- Q:** Doug Dahle: Also in the Albuquerque example, on slide #11, you stated the investment was \$3.9 million and the contractor provided \$7.9 million. Could you break that down more specifically to show when the tribe would begin to re-coop the savings?
- A:** In this example the tribe would re-coop savings after a contract term of 24 years. To keep the term under 25 year contract term limit, 99% of savings is paid to the ESCO over 24 years. Of the \$3.9 million investment, \$4 million was the cost of financing at seven percent APR.
- Q:** Doug Dahle: How common are ESCOs used in the United States?
- A:** In the last 15 years NREL has assisted in 300 ESCO projects so this indicates they are quite common but we do not have an official statistic.
- Q:** Doug Dahle: How large does a project have to be to consider using an ESCO?
- A:** Most ESCO projects show success with an investment of at least \$1 million.
- Q:** Doug Dahle: When selecting two to three approved ESCO to begin the evaluation process, do they charge to spec out the project and provide contract terms?
- A:** Initially when selecting an ESCO from multiple offers they do not charge any project development fees. After selecting the ESCO they conduct an investment grade audit which can range from \$500,000 to \$1 million to set an energy baseline and propose Energy Conservation Measures (ECMs) that cash flow within 25 years or less. The tribe commits no financial obligation until ESPC contract is awarded.
- Q:** Mr. Dahle: As far as I know, currently, due to an OMB memo, the use of ECPC has been severely constrained. Do you see the OMB revising its stance and allow the use of ESPC to widely implement Renewable Energy solutions?
- A:** At this time, despite efforts by DOE FEMP, OMB does not appear to remove the government title retention at the end of ESPC contract term. Prior to an OMB memo several ESPC projects allowed private ownership of renewable energy projects to take advantage of investment tax credits, which effectively reduced capital cost by 40-45%. Those projects were one to four megawatt solar systems. In the past several ESPCs



bundled energy efficiency projects with lower payback and smaller systems (20kW to 200kW of solar PV)The payback is longer and are owned by the tribe at acceptance, and in this case there is not an OMB issue.

DOE launched an ESPC program called EPSC ENABLE, which uses ESPC under GSA schedule. It was designed for smaller federal facilities of 200,000 square feet or less and may be more appropriate for tribes. ECMs are limited to lighting, HVAC, digital controls, and solar PV. The ENABLE site provides a standardized and streamlined process for small facilities to install ECMs in six months or less. Projects are administered through the General Services Administration (GSA) Federal Supply Schedule 84. Tribal entities are entitled to use GSA approved contractors. The site at <http://energy.gov/eere/femp/esp-enable>

allows tribal projects an opportunity to implement specific ECMs including lighting, water, simple HVAC controls, HVAC system replacements, and solar PV. The following contacts are a good place to start asking for help.

ESPC  
Kurmit Rockwell  
DOE FEMP  
202-586-2078  
[kurmit.rockwell@hq.doe.gov](mailto:kurmit.rockwell@hq.doe.gov)

ESPC ENABLE  
Chip Goyette  
DOE FEMP  
(202) 586-9209  
[chip.goyette@ee.doe.gov](mailto:chip.goyette@ee.doe.gov)

- Q: Do you have some sample RFPs for ESCO selection?
- A: If you use the approved ESCOs through the ENABLE program, this can assure some degree of professional and reasonable, and successful contracts. But also there are 16 ESCOs who can assemble a characterization of upgrades. A list of ESCO qualifications is on the [DOE website for ESCOs](#). NREL can assist tribes in developing interview questions for ESCOs.
- Q: Do all utilities offer UESCs?
- A: No but Chris believes that out of 3,000 utilities about 47 to 48 offer UESCs. In the west there are four.
- Q: Why do utilities want to partner at reducing consumption of their product? Won't that reduce their revenues?
- A: This is also a decoupling question. Utility experts separate our sales volume from our profits. Utilities are motivated to provide demand side management to avoid building more power plants. Utilities look at small renewables, demand response, load shifting. All are factors in storage and distributed generation. Decoupling is required by some commissions around the country. Also some are rewarded for production of renewables.
- Q: For a UESC, can a private entity be contracted to work with utilities to perform work? Can a private enterprise partner with utilities to support a UESC?
- A: Yes.
- Q: Can ESPCs apply to new construction?
- A: No. Out of 300 ESPC projects that NREL developed, 3 were pilots and they did not work well with the ESPC model.
- Q: Does the client ever see cost savings in terms of lower utility bills or does the positive cash go towards repaying the contractor? For example, if the savings are better than forecasted, does the client receive that excess?
- A: When an ESCO is under contract, typically they guarantee the cost savings, at about 8% to 9%. If the ESCO is done right, the company will make it a win/win for the utility and the client.
- Q: How does PG&E get reimbursed for lost revenue due to EE projects?



- A: The decoupling of ESCOs is complicated and PG&E has a team of experts that handles this.
- Q: Is biomass a viable renewable for a UESC?
- A: Depends on the size, weather it is electrical or waste heat. Savannah site used biomass instead of coal. If your utility is willing, the main issue will be long term planning for the feedstock, which often runs out without proper planning. Waste to energy should be considered also. See these examples: [Biomass to Energy](#) or [Crow, Yukon Territory](#) waste to energy.
- Q: What is an IGA?
- A: Inter-Governmental Agreement
- Q: Can a private enterprise partner with utilities to support a UESC?
- A: Yes.

### Links to Helpful Resources

There are many resources available to help Tribes decide which renewable resource is best for them. These include:

- The DOE Office of Indian Energy offers [education and training](#) on project development and financing and renewable energy fundamentals and an [Energy Resource Library](#).
- Tribal-specific renewable energy curriculum developed by the DOE Office of Indian Energy can be accessed any time on the [National Training Education Resource website](#).
- Basic information on the [types of renewable energy](#), as well as [tools and resources](#) for assessing renewable energy potential, are available on the NREL website.
- [Energy 101](#) videos developed by the DOE Office of Energy Efficiency and Renewable Energy provide short, basic overviews of the various types of renewable energy.
- The DOE Office of Indian Energy and Tribal Energy Program offer up to 40 hours of in-depth [technical assistance](#) for federally recognized Indian Tribes, tribal energy resource development organizations, and other organized tribal groups and communities to advance tribal renewable energy and energy efficiency projects.
- The DOE offers [approved ESPC contractors](#). Please see this link.
- The DSIRE website records all rebates and resource information by state: <http://www.dsireusa.org/>
- The Tribal Energy Program tribal projects by technology: [http://apps1.eere.energy.gov/tribalenergy/projects\\_technology.cfm#Biomass](http://apps1.eere.energy.gov/tribalenergy/projects_technology.cfm#Biomass)

Answers are provided by the National Renewable Energy Laboratory and webinar guest speakers. If you have additional questions, email [indianenergy@hq.doe.gov](mailto:indianenergy@hq.doe.gov). The Tribal Renewable Energy Webinar Series is sponsored by the DOE Office of Indian Energy, Tribal Energy Program, and Western Area Power Administration.

