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County of Los Alamos

Council Meeting Staff Report

January 15, 2020

Agenda No.:	7.A
Indexes (Council Goals):	DPU FY2020 - 5.0 Achieve Environmental Sustainability
Presenters:	Steve Cummins
Legislative File:	12475-19

Title

Approval of a Power and Renewable Energy Credit Sales Agreement, County Agreement No. AGR20 -926 between Uniper Global Commodities North America, LLC and the Incorporated County of Los Alamos, New Mexico.

Recommended Action

I move that the Board of Public Utilities approve AGR20-936, a Power and Renewable Energy Credit Sales Agreement, between Uniper Global Commodities North America, LLC and the Incorporated County of Los Alamos and forward to Council with a recommendation for approval.

Staff Recommendation

Staff recommends approval as presented.

Body

The Department of Public Utilities has been working to achieve the BPU's 2040 Carbon Neutral strategic initiative. Many paths have been explored for renewable energy projects here in New Mexico whereby DPU could participate and enjoy the economies of scale that come with the very large wind and solar projects. Due to the past and continuing efforts of staff, an exciting new opportunity has been developed with Uniper Global Commodities ("Uniper") to participate in a Power Purchase Agreement (PPA) for combined wind and solar projects in New Mexico that can provide 15MW of low-cost renewable energy. Additional value is added by the firm, Around-The-Clock (ATC) nature of the power, which is very unusual for PPA's of this small scale and cost. This contract will supply 131,400 MWh of energy on an annual basis of which approximately 103,000 MWh is renewable.

The following sections describe the proposed PPA structure, the economic analysis over the term of the PPA that make it a good choice for Los Alamos County, and how it fits well with the County's resource portfolio and Carbon Neutral 2040 strategic initiative.

This Contract Quantity is a Firm 15 MW's ATC, at a Delivered Rate of $36.67/MWh. It is a take-or-pay Power Purchase Agreement for a 15 year term with no escalator. The energy and capacity will be sourced primarily from a wind and solar projects located in New Mexico. Attachment 1 is the Uniper PPA Cost Analysis showing the expected saving over the 15 year term of the PPA. The first ten years has actual load forecast for the combined load for LAC and LANL along with the expect cost of market power over the same period. It must be noted that the estimated cost of market power is not renewable power and it does not include a risk premium for securing power out into the future. None the less it shows a significant savings. For reference, the average cost of power for FY2019 was $48.66/MWh. The average cost of power included market power purchases which averaged $40.89/MWh.

The contract does provide for a possible extension beyond the 15 year term at a re-negotiated

Delivered Rate. The contract also provides for supplemental energy above the 15 MW base Contract Quantity priced at the Palo Verde (PV) index plus $0.75 per MWh. Supplemental Energy will not be firmed by Uniper and therefore would be the responsibility of LAC Power Dispatch on an hourly basis.

The point of delivery will be at the Four Corners hub on PNM's Network using LAC's existing Network Integrated Transmission Service Agreement (NITSA) with PNM. Having the point of delivery at the Four Corners hub allows LAC Power Dispatch the flexibility to take this energy to the market for times when we have excess capacity due to the seasonal fluctuations in demand and generation.

Wind and solar have unique generation profiles that complement each other well when combined along with the geographical separation helps minimize the intermittency associated with any one weather event. Attachment 2 is a wind and solar generation profile depicting a firm 15 MW's ATC using market purchases to fill the troughs when the renewable resources are not generating. Uniper has the resources necessary to forecast the weather and expected generation from the facilities and schedule market purchases when the resources are not available due to inaccurate weather forecasting. Market purchases are anticipated to largely come from fossil fuel generating resources such as natural gas power plants because it is economical and available; renewables are currently absent from the short-term market and storage is cost-prohibitive. Future decreases in the cost of storage or the availability of renewable energy on the Energy Imbalance Market (EIM) may be an option for firming PPA's such as this one, replacing fossil fuels altogether.

Attachment 3 is the Los Alamos Power Pool (LAPP) Future Load and Generation Resources depicting how the energy demands of the power pool are met with the resource mix. It is estimated that this contract will supply an additional 103,000 MWh of clean energy to the already existing 150,000 MWh for an estimated total of 250,000 MWh on an annual basis.

Going forward DPU is making efforts to align the County owned resources or long term PPA's to more closely match the County's load while stepping towards the goal of being carbon neutral electric energy provider by 2040. These efforts include the decision to exit the SJGS in 2022 and exploring options for the disposition of Laramie River Station (LRS) eliminating fossil fuel from the County's resource portfolio. The 15 year term of the Uniper PPA is a good transition resource as we continue to search for replacement resources that are in alignment with our goals.

To insure that the Renewable attributes are not double counted, they will be transferred to LAC through the Western Renewable Energy Generation Information system (WREGIS). In addition to the tracking system, Exhibit A of the contract will list the Facility name, generator identification number, location and type of resource. On an annual basis the seller will supply the County with a generation report for each of the facilities depicting the actual performance for tracking purposes. Attachment 4, is County Agreement No. AGR20-926.

Alternatives

Not approve this PPA at this time and wait until we have disposed of the Laramie River station PPA. Staff is not recommending this alternative since transmission capacity is the limiting factor with these renewable projects specifically in the eastern part of New Mexico where there is an abundance of wind. The current transmission capacity has already been allocated to these projects. New transmission lines could take decades to acquire the permits and build the infrastructure.

Fiscal and Staff Impact

The cost of this PPA is in alignment with the budget for market purchases for the next two years and lower than what was forecast for years 3 through 15 resulting in a savings. There is little impact to staff since Uniper is responsible for delivering firm power. In the few occasions where LAC Power Operations is required to step in and replace the power, Uniper will reimburse the county for the actual cost of replacement power. Currently our Power System Operators perform this function on behalf of Sandia Kirtland.

Attachments

A - Uniper PPA Cost Analysis

B - Wind and Solar Generation Profile

C - LAPP Future Load and Generation Resources

D - Agreement No. AGR20-926