Amendment to the Agreement for a Microgrid Demonstration System









September 20, 2018 Emma Walton, Deputy Director of Engineering Resources

OUR FUTURE IN EVERY DROP

Agenda



The Background

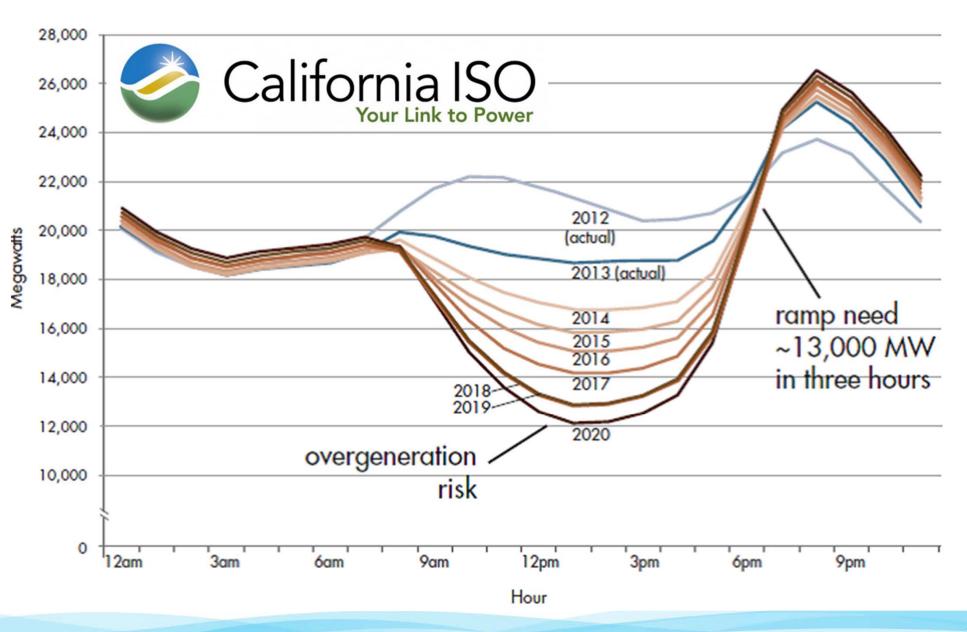


The Project



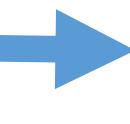
The Amendment

The Background - The Solar Problem



The Background - The Grant

















October 16, 2014

Gordon Kashiwagi, Commission Agreement Officer California Energy Commission 1516 Ninth Street, MS-18 Sacramento, CA 95814

Dear Mr. Kashiwagi:

SCOTT P. BAKTLEY Masor ROBIN SWINTH Vice Musor

FRIN CARLSTROM ICLIE COMBS ERNESTO OLIVARES JAKE OURS GARY WYSOCKY The City of Santa Rosa (the City) owns and operates the Laguna Subregional Wastewater Treatment Plant (LTP) at 4300 Llano Road, Santa Rosa. The LTP operates a 22.34 Million Gallon per Day (MGD) dry weather design flow activated sludge process, with Title 22 water reclamation filtration and disinfection.

The City understands the California Energy Commission (CEC) has issued Solicitation PON-14-301, Demonstrating Secure, Reliable Microgrids and Grid-Linked Electric Vehicles to Build Resilient, Low-Carbon Facilities and Communities. Under the Solicitation, CEC has indicated three specific groups of facilities are sought as demonstration sites. The LTP meets the site requirements of Group 1, Demonstration of Low Carbon-Based Microgrids for Critical Facilities.

This letter is to serve as written authorization for LTP to be listed as a Microgrid Demonstration Project in support of the Rockwood Consulting application in response to Solicitation PON-14-301, Group 1. We understand that if Rockwood Consulting's application is selected, the project may require physical modification of the LTP equipment, and changes to existing operational procedures.

Sincerel

SCOTT P. BARTLEY

C: Sean McGlynn, City Manager

Office of the Many 100 Santa Rosa Acenie - Rosa 10 + Santa Rosa, CA 95404 Phone (CC) 343-10[0 + Ent (CC) 543-302] www.science.

The Project – What is it?







The Project – The Solar Array



The Project – The SCRs

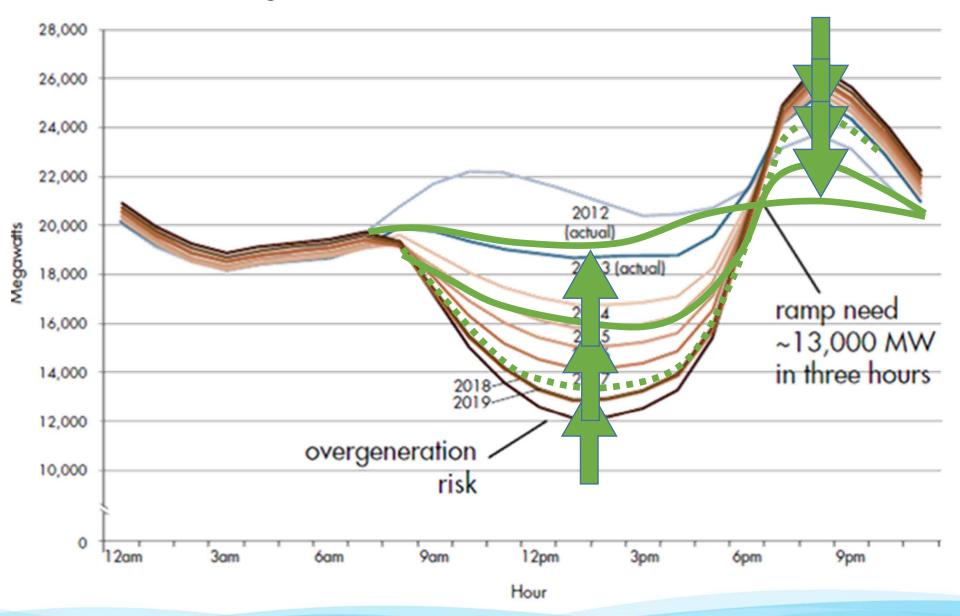


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The Project – The Battery



The Project – How does it help?



The Project – Costs

Estimated Capital Costs Incurred by the City

City's Capital Costs	\$2,218,000
Project Implementation	\$500,000
Infrastructure Upgrades	\$968,000
Matching Funds	\$750,000

Costs Incurred by Others

CEC Grant	\$4,999,804
Trane's Matching Funds	\$2,200,000

The Project – Benefits

Estimated Ongoing Costs/Benefits

Electrical Cost Savings Solar System Savings Potential Revenue

Increased O&M

Net Savings

\$1,000,000/year \$13,000/year \$150,000/year (\$480,000/year) \$520,000/year

City's Capital Costs

\$2,218,000

Simple Payback - 4 years

The Amendment – Costs and Benefits

Estimated Capital Costs

Upgraded Meter (Amendment)	\$13,478
SGIP Application/PDP Services	\$24,780
Total Costs	\$38,258

Estimated Benefits

Rebate at Installation Over next 5-years Total Rebate \$80,000 \$16k - \$32k/year **\$160k - \$240**k

Recommendation

It is recommended by the Water Department that the Board, by motion, approve the First Amendment to the Agreement for the Design, Installation, Operation and Ownership of a Microgrid Demonstration System.

Questions?