



Memorandum

MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT

Reviewed by: Wm Date: 6-11-10
General Manager

DATE: June 11, 2010
TO: General Manager
FROM: Information Systems Manager
SUBJECT: Status Report on Supplying Renewable Energy to Proposed Regional Water Project

With the proposed Regional Water Project (RWP) continuing to move towards implementation, District staff will begin monthly updates to the Board on internal efforts to support the RWP with renewable power from a new Cogeneration Power Plant to be built on the District's southern boundary.

Schedule

RMC has provided District staff, and the local community, with the following updated RWP project schedule:

- Absolute deadline to deliver water is 2016.
- Desalination plant begins delivering water 1st quarter 2014.
- Full power need of 6.3 MW by November 2013 for complete system testing.
- Normal operating power demand will be 5.2 MW (annual average).
- Construction power need of approximately 500 kW beginning mid 2012.

District staff is preparing to have the new cogeneration power plant online by mid 2013 to provide the 6.3 MWs need for testing in November 2013. Staff is completing work on a detailed event schedule for this project.

Cogeneration Power Plant – Project Concept

With the latest power requirements provided by RMC, staff is updating the District's project specifications. In brief, the new cogeneration facility would consist of the following elements:

- Construction of a new 10,000 square foot power plant building capable of housing six 1.5 MW engine/generators with related switchgear (allows for adding two units in the future).
- Installation of four new 1.5 MW engine-generators operating on a blend of biogas/landfill gas and purchased pipeline gas.
- Construction of a new 1 MW engine/generator exhaust heat capture unit.
- Construction of a new power transmission line from the existing District cogeneration plant to the new District cogeneration plant.
- Construction of a new, approximately 1/3 mile long, 4" natural gas pipeline, extending the existing 4" natural gas pipeline servicing the Monterey Regional Water Pollution Control Agency (MRWPCA) cogeneration plant to the new District cogeneration plant.

Staff is also exploring the possibility of constructing two, approximately 1/3 mile long, pipelines to transfer biogas from the MRWPCA facilities to the new cogeneration plant and to transfer engine jacket heat from the new cogeneration plant to the MRWPCA facilities.

Environmental

In coordination with the Marina Coast Water District (Marina Coast), staff has begun the process of environmental review for the new power plant and the transmission line connecting the existing plant with the new plant.

Generators

Staff is working with vendors to develop specifications for the mixed fuel 1.5 MW sized cogeneration units.

Natural Gas

Staff is working with the California Department of General Services and their Natural Gas Services program to finalize the steps necessary to purchase natural gas. Staff is also working with PG&E Gas interconnection on the specific steps required to extend the existing natural gas line to the new plant site.

Air District (MBUAPCD)

Staff is scheduling another meeting with Air District staff to further review and discuss the project.

Cross Site Transmission Line/Existing Plant Modifications

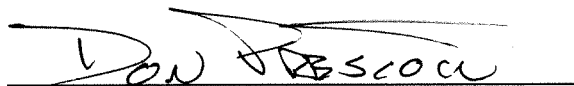
Staff has engaged an electrical engineer to develop a plan to modify the existing power plant and plan the installation of a cross site transmission line to divert power to the new power plant.

Cost Estimate

As details get resolved, staff is continuously updating an internal project cost estimate. Currently, the project cost is an estimated \$20 million depending on components. Following additional staff and consultant review, staff will present a detail cost estimate later this summer.

Funding

The financial model that has been discussed with all parties to the RWP is for the District to enter into a Power Purchase Agreement (PPA) with Marina Coast to sell power at a rate between what it costs Marina Coast to buy power from PG&E and the price PG&E is willing to pay the District for the power. With this PPA, the District will be able to obtain the necessary financing for the estimated \$20 million. Additionally, staff is exploring funding opportunities with the Bureau of Reclamation, Department of Energy/California Energy Commission, Department of Water Resources Prop 84 Integrated Regional Water Management Plan, the Clean Water State Revolving Fund (CWSRF), along with other opportunities. Staff will include financial consultants in these efforts.



Don Prescott