



Memorandum

MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT

Reviewed by: Wmhr Date: 8.12.10
General Manager

DATE: August 13, 2010
TO: General Manager
FROM: Information Systems Manager
SUBJECT: Memorandum of Understanding (MOU) for Supplying Renewable Energy to Regional Water Project

The General Managers from Monterey Regional Waste Management District, Marina Coast Water District, Monterey County Water Resources Agency and the Monterey Regional Water Pollution Control Agency (MRWPCA), along with a representative from RMC have begun meeting regularly on the topic of supplying renewable energy to the Regional Water Project. The group feels it is important to record in an MOU the roles and commitment of the respective agencies to work together to supply renewable energy to the Regional Water Project. The attached MOU will be provided to the California Public Utilities Commission (CPUC), California Coastal Commission, and other agencies to show this commitment.

The MOU is straightforward; the agencies are agreeing to work together to provide and use renewable energy in the various components of the regional water project and the District is designated the lead agency for developing and providing the energy.

The goal is to have renewable energy used at the desalination plant and at the various pump stations throughout the system. The District proposes to provide renewable energy derived from landfill gas or other renewable sources. From the District's power plant, a direct power line will provide electricity to the desalination plant, but this approach will not be possible for the outlying pumps. However, using "Direct Access Service", the District may be able to provide the electricity that PG&E would deliver to these distant pumps. The extent of involvement of the MRWPCA is still under discussion. They are conducting an internal review of their biogas and power generation operations and will be meeting with District staff on possible future operational partnerships in this area.



Don Prescott

Attachment

**Renewable Energy Facility
Planning
Memorandum of Understanding**

This Memorandum of Understanding (hereinafter referred to as "MOU") is made and entered into as of the first day of _____, among the Monterey Regional Waste Management District (MRWMD), Marina Coast Water District (MCWD), Monterey County Water Resources Agency (MCWRA), and Monterey Regional Water Pollution Control Agency (MRWPCA) executing below.

WHEREAS, the Monterey Regional Desalination Project has been identified by California American Water (CAW), MCWD and MCWRA as the preferred alternative to the Coastal Water Project (CWP) to benefit Cities on the Monterey Peninsula, the communities of northern Monterey County, including agricultural interests, and the United States Army; and

WHEREAS, the California American Water Company CWP Final Environmental Impact Report (FEIR) has outlined a regional project that appears to be the most cost effective for ratepayers, has great regional benefit, and will result in an acceptable implementation strategy; and

WHEREAS, the regional plan has identified a need for a new electrical power supply to operate the Regional Desalination Facility; and

WHEREAS, the Monterey County Water Resources Agency has constructed and has initiated operation of the Salinas Valley Water Project, including the Salinas River Diversion Facility (SRDF); and

WHEREAS, the SRDF requires electrical power that is presently being purchased from the electrical grid; and

WHEREAS, the MRWPCA operates the Regional Wastewater Treatment Facility and the Salinas Valley Recycled Water Facility, both of which require electrical power that is presently provided by a combination of on-site cogeneration using digester gas and purchase of electrical power from the electrical grid; and

WHEREAS, the undersigned recognize that a renewable energy facility (REF), based on landfill and digester gas, and augmented with natural gas, is potentially available and could provide significant economic, environmental, and social benefits to the Monterey region; and

WHEREAS, there are engineering, environmental, economic, and financial issues that require a focused effort to resolve: and

WHEREAS, it is further recognized that there is a need to identify, adequately plan, and rapidly implement a renewable energy electrical power supply to augment the water supply solution; and

WHEREAS, the Participating Entities' signatory to this MOU desire to cooperatively engage in renewable energy facility and power supply planning and jointly analyze the proposed project; and

WHEREAS, the Participating Entities are able to furnish financial resources and in-kind assistance in support of this MOU; and

WHEREAS, this MOU provides a practical method to expeditiously create a leadership and management framework responsible for developing and implementing a strategy to provide a renewable energy facility to augment the regional water supply solutions; and

WHEREAS, Participating Entities recognize and respect that member entities retain independent control over their individual facilities.

NOW, THEREFORE, BE IT RESOLVED, that, through this MOU, the Participating Entities desire to complete the institutional framework for a renewable energy facility to supply electrical power to augment the Regional Desalination Project and the Salinas River Diversion Facility to meet the long-term water supply needs, through the proposed regional desalination plant and other regional project elements, for the Monterey Peninsula, the communities of northern Monterey County, including agricultural interests, and the United States Army; and

BE IT FURTHER RESOLVED that the Participating Entities wish to pursue planning of a renewable energy facility to supply electrical power complete a preliminary review of alternative electrical power supplies, collaborate to identify and obtain state and federal grants, and undertake preparation of environmental documents consistent with California Environmental Quality Act and the National Environmental Policy Act requirements; and

BE IT FURTHER RESOLVED that the Participating Entities recognize the Monterey Regional Waste Management District is the appropriate producer of renewable and other electrical power; and

BE IT FURTHER RESOLVED that each of the Participating Entities shall contribute as soon as practical to the financial and technical resources and in-kind assistance necessary to effectively implement the scope of responsibility described above; and

BE IT FURTHER RESOLVED that the Monterey Regional Waste Management District, the Marina Coast Water District, the Monterey County Water Resources Agency, and the Monterey Regional Water Pollution Control Agency shall obtain its respective Board of Directors' approval forthwith.

Monterey Regional Waste Management District

Marina Coast Water District

Leo Laska, Chair

Kenneth Nishi, President

William Merry, General Manager

Jim Heitzman, General Manager

Monterey Regional Water Pollution Control Agency

Monterey County Water Resources Agency

Louis Calcagno, Chair

David Hart, Chair

Keith Israel, General Manager

Curtis Weeks, General Manager



Memorandum

MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT

Reviewed by: [Signature] Date: 8/12/10
General Manager

DATE: August 13, 2010
TO: General Manager
FROM: Information Systems Manager
SUBJECT: August 2010 Status Report on Supplying Renewable Energy to Proposed Regional Water Project

Staff continues its planning and design work to support the proposed Regional Water Project (RWP) with renewable power from a new Cogeneration Power Plant to be built on the District's southern boundary.

Schedule - Update

RMC has provided District staff with the following RWP project schedule:

- Desalination plant begins delivering water 2nd quarter 2014.
- Full power need of 6.3 MWs by March 2014 for complete system testing.
- Normal operating power demand will be 5.2 MWs (annual average).

District staff is preparing to have the new cogeneration power plant online and provide the 6.3 MWs needed for testing in March 2014. Staff is working to address all project design and development issues by December 2011, then engage a firm to draw the plans and build the project. Attached is an event schedule for the project.

Cogeneration Power Plant - Project Concept - Update

With the pending agreement to provide electricity to the Monterey County Water Resources Agency (MCWRA) pumps in the water project's system, 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 one unit in the future).
- Installation of five 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 to allow the existing plant to act as a backup for the new 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 to supply the necessary natural gas.

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.

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MOU with Marina Coast Water District (MCWD), MCWRA and MRWPCA – Update

Please refer to the memo dated August 13, 2010 regarding approval of an MOU with the MCWD, MCWRA, and MRWPCA.

Environmental – Still Current

In coordination with MCWD, 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. The biological survey work has been completed and no “special status” plant species were found on site.

Generators – Still Current

Staff has received an updated budget quote, and technical specifications, for a Jenbacher 420 engine/generator operating on mixed fuel. This latest information confirms the volume of gas that staff had projected would need to be purchased. Similar information from Caterpillar is still pending.

Natural Gas – Still Current

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.

Monterey Bay Unified Air Pollution Control District (MBUAPCD) – Still Current

Staff met with MBUAPCD staff to further review and discuss the project. Further discussions will be taking place in the coming weeks.

Cross Site Transmission Line/Existing Plant Modifications – Still Current

Staff has received a draft report from the electrical engineer engaged to develop a plan to modify the existing power plant and install a cross site transmission line to divert power to the new power plant. The engineering cost estimates are in line with the estimates staff has been using.

Project Development Cost Estimate – Update

As details are resolved, staff is updating an internal project cost estimate. The following is a summary of the Projected Capital Costs at this early stage of the project:

➤	\$2,000,000	Planning, Permitting, Engineering
➤	3,000,000	Building - Capacity 6 Engines
➤	5,000,000	5 Engines Installed
➤	1,500,000	Switch Gear/Gas Skid, Installed
➤	2,500,000	Exhaust heat capture unit - 1 MW
➤	500,000	Gas Pipeline to PG&E/MRWPCA
➤	500,000	Gas Pipeline for LFG
➤	1,000,000	Cross Site Transmission Line
➤	1,000,000	PG&E Interconnection
➤	3,400,000	20% Contingency
➤	\$20,400,000	Total

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Financing this capital outlay at 5.5% for 15 years creates a debt service of \$2 million per year. It is important to note that this debt service only represents about 30% of the project's annual costs. Purchasing the necessary natural gas (40%), along with the annual operation and maintenance costs (30%), accounts for the other 70% of the annual costs. The revenue to cover all of these expenses will come from the power purchase agreements (PPA) that will be signed by MCWD and now the MCWRA.

Funding - Update

The financial model that has been discussed with all parties to the RWP is for the District to enter into PPAs with MCWD and MCWRA to sell power at a rate between what it costs those Agencies to buy power from PG&E and the price PG&E is willing to pay the District for the power. With these PPAs, the District will be able to obtain the necessary financing for the estimated \$20 million project.

Following discussions on this topic with the Finance committee, staff is beginning the process to select a financial advisor to assist in obtaining the necessary funding and is reviewing information from various sources in order to shorten the list of potential advisors. The result of this effort will be to identify the top 10 to 12 firms that demonstrate the expertise, independence, commitment and quality standards required to obtain the lowest cost financing for the project.

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, along with other opportunities.


Don Prescott

Attachment

