



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: May 29, 2012

Approved

Date

6/4/12

SUBJECT: BAY AREA BIOSOLIDS TO ENERGY COALITION AGREEMENT

RECOMMENDATION

Adopt a resolution authorizing the City Manager to execute the Amended and Restated Bay Area Biosolids to Energy Coalition Joint Exercise of Powers Agreement to become a member of the Bay Area Biosolids to Energy Coalition for a contribution in the amount of \$370,588, and consideration for the City's matching contribution in the amount of \$215,000 to an Initial Feasibility Study and Potential Demonstration of a Biomass-To-Energy Technology Facility at the San Jose/Santa Clara Water Pollution Control Plant with the California Energy Commission and Harvest Power, Inc.; and to appoint a City representative, and alternate to the Bay Area Biosolids to Energy Coalition Steering Committee.

OUTCOME

Approval of the Amended and Restated Bay Area Biosolids to Energy Coalition Joint Exercise of Powers Agreement would allow the San Jose/Santa Clara Water Pollution Control Plant to expand its future options for biosolids disposal.

BACKGROUND

On February 6, 2012, staff presented a report on the biosolids transition timing and CIP delivery approach to the Transportation and Environment Committee. Staff reported that as part of the effort to establish regional solutions to mitigate the cost of alternative biosolids processing, staff would bring forward a recommendation to join the Bay Area Biosolids to Energy Coalition (Coalition) for Council consideration. The purpose of the Coalition is to develop regional waste to energy facilities for biosolids. Seven waste water agencies formed the Coalition in 2007 to create a local sustainable solution to biosolids disposition. The Coalition subsequently expanded

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to 17 agencies, operating under a Joint Exercise of Powers Agreement; however, the Coalition is not a separate legal entity.

Most of the participating agencies presently utilize a combination of hauling biosolids for land application and/or alternative daily cover at landfills, and are seeking to preserve these beneficial reuses. Increasingly restrictive regulations in various counties around the state and diminishing landfill capacity have been the impetus to diversify present options with a long-term sustainable alternative. San José was approached to join the Coalition several times since it was formed. Due to the ongoing San Jose/Santa Clara Water Pollution Control Plant (Plant) Master Plan effort, staff decided to wait until the Plant Master Plan was completed to consider joining the Coalition, but has been tracking their efforts for the past several years.

After releasing a Request for Qualifications (RFQ) in 2009, the Coalition received 16 Statements of Qualifications (SOQ) proposing various biosolids-to-energy technologies. In 2010, three of these were short-listed as potential recipients of a future Request for Proposal to build a facility. The Coalition obtained \$1,000,000 in California Energy Commission (CEC) grant funding for a pilot project proposed by Intellergy, one of the short-listed firms. The Coalition has engaged the Water Environment Research Foundation to conduct peer review of the pilot. Following the 2010 short-listing, the Coalition became aware of further technology advancements and new market entrants and decided to invite SOQs from other groups to be considered. The new RFQ was released in April 2012, with SOQs due June 19, 2012.

Throughout the two RFQ processes, the Coalition has contracted with a major engineering firm to review proposals and provide advice regarding biosolids-to-energy technologies. The Coalition has also contracted with advocacy firms in Sacramento and Washington, DC, to lobby on issues related to biosolids-to-energy funding and regulation. Most of the \$1,700,000 contributed by the first 16 members has been committed to these contracts, and have either been paid or encumbered for work to be completed through 2012-2013. About \$330,000 of the original contributions remains uncommitted.

The Coalition has amended its Joint Exercise of Powers Agreement to allow in-kind contributions by new members, to incorporate changes to the original goals, and to facilitate the development of one or more regional facilities using a design-build-own-operate model that will not require capital funding from Coalition members. The Coalition anticipates completing the pilot project and issuing a Request for Proposal for regional facilities by the end of 2012.

ANALYSIS

Membership Benefits

The Plant currently processes about 30,000 dry tons of biosolids every year, which are removed from the solar drying beds after the moisture level falls to about 25 percent. At the time of removal, these biosolids, including the remaining moisture and the clay incorporated during drying operations, amount to about 50,000 to 70,000 tons per year. All of the dried biosolids are

beneficially reused as alternative daily landfill cover at the Newby Island Landfill, in one of the most cost effective and environmentally friendly ways available to reuse biosolids. In order to reduce odor, this system will be replaced by 2018.

The Plant Master Plan recommends that the City secure three biosolids disposition options, including a local or regional biosolids-to-energy project, to reduce the risk of losing disposal options due to contractual or regulatory changes. Offsite disposal currently costs the Plant about \$1,400,000 per year for removal of dried biosolids from the solar drying beds and for the tipping fees charged by Newby Island Landfill to accept the material. The Plant's costs will rise as it moves to mechanical drying and as the tonnage to be hauled away and disposed increases both due to population growth and the higher moisture content of mechanically dried biosolids. A regional solution will benefit the Plant and other Bay Area facilities and is expected to mitigate these disposal costs, including hauling costs and tipping fees. The Plant is already pursuing one biosolids-to-energy project with Harvest Power, and is planning the biosolids transition to control odors and eliminate the sludge lagoons and solar drying beds—an effort which is expected to have capital costs of \$230,000,000 or more. Participation in the Coalition will allow staff to focus on these projects, while monitoring other technologies through the regional effort and being able to participate in the selection of proposals most favorable to the Plant and its users.

Sharing efforts to develop one or more additional biosolids-to-energy projects with the Coalition is expected to result in a lower cost and less risk than if the City pursued alternative projects independently. The value of actively sharing data between the Coalition project and the Harvest Power gasification project supported by the City and the CEC, the benefits of regional biosolids-to-energy technology development, the potential value of joint advocacy efforts regarding biosolids-to-energy funding and regulation, as well as developing additional grants and expanding options analysis for biosolids at the Plant, makes this an ideal time to join the Coalition.

Membership Cost

Coalition membership contributions are related to the size of the facility, based on the 2007 Average Dry Weather Effluent Flow (the Plant's flow was 112 million gallons per day). Each member's contribution also includes a fixed amount of \$40,000. The Plant's calculated contribution would therefore be \$585,588. The San Francisco Public Utilities Commission, the largest current member of the Coalition, has a cost share contribution of \$424,835 (based on 79 million gallons per day of average dry weather Plant effluent flow). Total contributions to the Coalition, if San Jose joins, would be \$2,400,119.

On April 19, 2011, Council approved agreements with Harvest Power and the CEC for a feasibility study and potential demonstration of the Agnion gasification technology for biosolids and wood waste. These agreements implement a \$1,900,000 grant from the CEC, with matching capital funds from Harvest Power, and in-kind contributions from San José. Because of the value of the feasibility research and potential demonstration data to the Coalition members, the \$215,000 value of San José's CEC grant match expenditures for planning and feasibility studies

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was proposed as an in-kind contribution to the coalition. These funds are already fully encumbered in consultant agreements.

Following negotiations, the Coalition agreed to accept the entire San José contribution of \$215,000 to the Harvest Power feasibility study as a credit and the cash contribution for the Plant was reduced to \$370,588, which will be paid from the San José/Santa Clara Treatment Plant Operating Fund.

The additional contributions from San José and from the City of Santa Rosa, which joined in April 2012 with a contribution of \$114,531, will bring total cash contributions to \$2,185,119, with about \$800,000 of that unencumbered and available for 2012 and 2013 Coalition activities.

Under the terms of the Joint Exercise of Powers Agreement, Coalition members may not be required to contribute additional funds without unanimous consent of the members. For San José, such consent would require the approval of the City Council. The members are not committed, either individually or collectively, to enter into any agreements as a result of the planned RFP, although it is the intent of most to proceed with one or more projects if any of the proposals received meet the goals of the Coalition and are acceptably priced.

Legislative advocacy

Increased advocacy efforts for biosolids-to-energy are especially important now, and the opportunity to collaborate with the Coalition provides an efficient and cost-effective means for the City to have an impact in this arena. While it is not likely that individual infrastructure projects will be funded in federal appropriation bills as long as earmark bans continue in force, biosolids-to-energy projects may benefit from increased federal and state funding available for biomass projects generally. At the federal level, a Senate committee has accepted language that would make \$170,000,000 available in the next fiscal year for biomass projects other than algae biofuels and directs the Department of Energy to consider projects that "include biosolids derived from the municipal wastewater treatment process." The Coalition anticipates that San José's membership would add more power and credibility to this effort, which may be needed to include such language in the Department of Energy budget later this year.

The Coalition's Sacramento consultant is primarily focusing on regulations and legislation related to utility funding for renewable energy projects and the greenhouse gas (GHG) emission allowances, which may be available in the 2012-13 budget year. Current work relates to the Electric Program Investment Charge (EPIC), which is intended to replace the Public Goods Charge that funded renewable energy projects; amendments to allow funding of biosolids-to-energy projects in several categories eligible for GHG emission allowances in the future; and exploration of biosolids-to-energy funding opportunities with CalRecycle.

The City's representative to the Coalition will be Jon Newby, Deputy Director Water Pollution Control and the alternate will be Skip Lacaze, Supervising Environmental Services Specialist Zero Waste Planning and Disposal. Their role will monitor legislative positions being considered by the Coalition and will attempt to modify any that are contrary to City policy or

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interests. Any such legislation of importance to the City will be brought to Council as appropriate for action. The Coalition will be instructed to ensure that their communications do not represent a position as unanimous in cases where the City's position differs. Based on the stated goals and previous activities of the Coalition, it is not anticipated that the Coalition will take positions contrary to the City.

EVALUATION AND FOLLOW-UP

Progress of the Bay Area Biosolids to Energy Coalition will be reported to Council and the Treatment Plant Advisory Committee as part of the regular updates to be provided on Plant biosolids transition and Capital Improvement Program progress.

PUBLIC OUTREACH/INTEREST

- Criteria 1:** Requires Council action on the use of public funds equal to \$1 million or greater. **(Required: Website Posting)**
- Criteria 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**
- Criteria 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

This recommendation does not meet any of the above criteria; however, it will be posted on the City's website for the June 19, 2012 City Council agenda.

COORDINATION

This memorandum has been coordinated with the City Attorney's Office, the City Manager's Budget Office, and Office of Intergovernmental Relations. This item is scheduled to be heard at the June 14, 2012, Treatment Plant Advisory Committee meeting.

FISCAL POLICY ALIGNMENT

This recommendation meets the general principles of the 2011-2012 Mayor's June Budget Message of providing essential public services while valuing financial stability and cost recovery.

COST SUMMARY/IMPLICATIONS

As described above, coalition membership costs are related to the size of the facility, based on the 2007 Average Dry Weather Effluent Flow. Each member's contribution also includes a fixed amount of \$40,000. The Plant's calculated contribution would be \$585,588. A portion of this (\$215,000) will be offset by City funds already encumbered for a CEC grant match, approved by the City Council on April 19, 2011. The remaining funding of \$370,588 will be encumbered from 2011-2012 funds available in Environmental Services Department Non-Personal/Equipment appropriation. Under the terms of the Joint Exercise of Powers Agreement, Coalition members may not be required to contribute additional funds without unanimous consent of the members, which, for San José, would require approval of the City Council. The members are not committed, either individually or collectively, to enter into any agreements as a result of the planned RFP.

BUDGET REFERENCE

Fund #	Appn. #	Appn. Name	RC.	Total Appn.	Amt. For This Recommendation	2011-2012 Adopted Operating Budget (Page)	Last Budget Action (Date, Ord. No.)
513	0762	Non-Personal/Equip	N/A	25,548,275	370,588	XI-78	6/21/11 Ord No. 28928

CEQA

Not a Project, File No.PP10-066(g), Memorandum of Understanding

/s/
 KERRIE ROMANOW
 Acting Director, Environmental Services

For questions, please contact Jon Newby, Deputy Director, Environmental Services Department, at 408-635-2000