

Bay Area Biosolids to Energy project: Shortlisted bidders will receive RFP this summer

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A coalition of 16 San Francisco Bay Area wastewater agencies will this summer send a request for proposals (RFP) to build a facility that turns sewage into energy.

Of the 15 groups that responded to a request for qualifications (RFQ) earlier this year, the six highest-ranked were chosen to make presentations on 3 May, said Gary Darling, general manager of Delta Diablo Sanitation District, the agency leading the **Bay Area Biosolids to Energy** project. Those six were: **Covanta Energy Corporation; Enertech Environmental; Intellergy Corporation with Rockwell Automation; MaxWest Environmental Systems; Synagro - WWT, Inc;** and **Veolia Water.**

The project's steering committee will evaluate those six bids next Thursday (20 May) before it determines a final shortlist of companies that will receive an RFP. The RFP process should start in the summer and take at least six months, said Darling. During that process, decisions on financing will be made, including whether a public-private partnership (PPP) will be pursued. At that point, the coalition may need a financial advisor, Darling said.

Other financing options include federal and state grants and credits, he said.

The project is regarded as the biggest of its kind in the US: The 16 agencies represent 2.3m residents in nine Bay Area counties, and include cities such as San Francisco, Vallejo, Fairfield, Antioch, Livermore, Burlingame, and Millbrae.

Suggestions made by the bidders so far range from one large biosolids-to-energy facility to four or five smaller facilities spread throughout the Bay Area. About 5 megawatts of power is expected to be generated, but that could be expanded to 20 megawatts if more Bay Area agencies join. Construction of the biosolids-to-energy facility could start in two years, said Darling.

Biosolids are created after fecal and food waste from homes and businesses are separated from sewage water through a complicated process that involves filtration, settling, biological treatments, and anaerobic digesters. Currently, biosolids are trucked off to landfills or for use in agricultural fields growing non-food crops. The 16 Bay Area agencies argue that there is less and less land available in California for disposing these biosolids and that transporting further afield will become too

expensive. Instead, they argue, the energy-rich biosolids can be turned into either automotive fuel or electricity. "This is a renewable energy resource that has a heating potential like firewood, so why throw it away?" said Darling.

Technologies being considered to turn the biosolids into energy include gasification, pyrolysis, or reverse steam technology, said Darling. Incineration is not in the mix because public opinion opposes it. What's important is that the project is net energy positive and that there's a net greenhouse gas reduction. In the next year, said Darling, a decision will have to be made on what end-product will be made from the biosolids - either electricity or automotive fuel or both.

The agencies are interested in a PPP because of the investment risk in what are essentially evolving technologies. "We're interested to see if private business is interested in taking that risk. We're not looking to shift the burden of responsibility from a regulatory standpoint." Under such a scenario, the private sector would design, build and operate the facility.

Other companies that responded to the RFQ, but were not among the six chosen to proceed, include: **Biosoils of Southern California; Evergreen Joint Venture; NEFCO; N-Viro International Corporation** and **Lathrop Construction; One World Resource Management; Parsons Engineering; United Water/Black & Veatch; Vitag Corp;** and **Green Rite.**

Bruce Allender, a director at Black & Veatch Water, said San Francisco is one of many cities looking for biosolids solutions on their own or in regional efforts. Many are looking for third-party financing for such projects. He said the San Francisco project could take the form of DBO (design, build, operate) or DBFO (design, build, finance, operate). The efforts demonstrate that a number of cities are "thinking outside the box of municipal bond financing," he said.

By Mark Andress and Marlene Givant Star

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