



## COUNCIL AGENDA REPORT

### City of Anaheim PUBLIC UTILITIES DEPARTMENT

**DATE:** SEPTEMBER 3, 2013  
**FROM:** PUBLIC UTILITIES DEPARTMENT  
**SUBJECT:** RENEWABLE POWER PURCHASE AND SALE AGREEMENT  
AND INTERCONNECTION AGREEMENT BETWEEN  
ANAHEIM ENERGY LLC AND CITY OF ANAHEIM

**ATTACHMENT: (Y/N): YES** **ITEM # 09**

#### **RECOMMENDATION:**

That the Public Utilities Board recommends the City Council, by Motion:

1. Approve both the Renewable Power Purchase and Sale Agreement (Agreement) and the Interconnection Agreement between Anaheim Energy LLC (Anaheim Energy) and City of Anaheim (Anaheim);
2. Authorize the Acting Public Utilities General Manager, on behalf of Anaheim, to execute the Agreement and the Interconnection Agreement and any other related documents, and take any and all actions as are necessary, required, or advisable to implement and administer the Agreement and Interconnection Agreement; and
3. Certify that the Agreement complies with the California Energy Commission's (CEC) greenhouse gases Emission Performance Standard (EPS) as enumerated in Senate Bill 1368, and specifically authorize the Acting Public Utilities General Manager or designee, on behalf of Anaheim, to execute such documents and take such further and additional actions as may be required to comply with CEC regulations related to greenhouse gases EPS.

#### **SUMMARY:**

Anaergia Inc. (Anaergia), the project developer for Anaheim Energy LLC, is partnering with Anaheim's solid waste service provider, Republic Services, to build an innovative organic waste digestion project in Anaheim that will produce a high purity biogas (similar to natural gas) that will be used to generate renewable energy. The energy produced will be purchased by Anaheim under a 20-year renewable power sales agreement with Anaheim Energy that will further assist Anaheim's Public Utilities Department (Department) in reaching the state mandated 33% Renewable Portfolio Standard (RPS) target by 2020.

## **BACKGROUND:**

The Department, in conjunction with Public Works Sanitation Division, has been working in concert with Republic Services and Anaergia to take advantage of this unique opportunity that will not only provide a local source of renewable energy but also benefit Anaheim at large by reducing the amount of waste going to the landfills. Both the Department and Public Works continue their efforts to develop projects that demonstrate a public/private partnership that mutually benefits the parties involved, and ultimately improves services to Anaheim's residents and businesses. By utilizing commercial solid waste from Anaheim and converting it into electricity to serve Anaheim customers, this project will clearly meet that objective.

Republic Services will provide the fuel stock to Anaergia from organic waste delivered to its site from trash collected within Anaheim. In addition, Republic Services will provide an area within its property to Anaergia under a lease agreement to (1) separate the organic material from the trash collected within Anaheim, and (2) house the digester equipment and electric generator that will supply the energy output to Anaheim under this Agreement.

The term of the Agreement to provide this energy is 20 years from the start of commercial operation, which is expected by January, 2016. The Agreement allows for the generation of up to 4.5 Megawatts (MW) of energy that will be produced on a 24 hour basis. The energy output from the project will add 1.5% towards the reduction of the Department's greenhouse gas (Assembly Bill 32) compliance target. The initial cost from the energy will be \$5.4 million for the first year, with a 2% escalator thereafter. There are no minimum payments for the energy out of the project; the Department will only pay for the energy delivered. In addition, if any of the project output is no longer deemed a renewable resource due to any change of law or regulations, provisions in the Agreement allow the Department to pay a discounted price to reflect the loss of renewable energy credits.

## **TECHNOLOGY:**

The anaerobic digestion process takes food and other organic material that is typically disposed of in landfills, and accelerates their decomposition to create methane. The methane is used to fuel an electric generator that produces energy, which will supply Anaheim customers locally. The fuel type is recognized by the CEC as a renewable resource, and will count towards Anaheim's renewable energy requirements.

Anaergia provides sustainable solutions for the generation of renewable energy and the conversion of waste to usable resources. Anaergia utilizes proprietary technological solutions to maximize the generation of renewable energy, diversion of waste from landfill, and reduction of greenhouse gases for customers across the municipal, industrial, commercial, and agricultural sectors. It has over 1,500 MW of similarly installed generation capacity utilizing this type of technology, primarily in Europe.

## **PROJECT BENEFITS:**

In addition to adding towards the Department's renewable energy goals, having the facility inside Anaheim provides a variety of additional benefits that ultimately help maintain lower rates to Anaheim residents and businesses, such as:

### **Reducing Local Capacity Requirements**

"Capacity" is the ability to supply additional energy if needed. Anaheim is required to provide, or otherwise pay for, certain specified amounts of capacity to support its customers' electric usage. This is a reliability mandate by the California Independent System Operator (CAISO) that requires all market participants, including Anaheim, to maintain a portion of generating resources within the Los Angeles Basin. The proposed Agreement with Anaheim Energy will help meet these local capacity requirements and offset approximately \$320,000 per year in required alternative capacity purchases.

### **Reducing reliance on out-of-state power**

By building a project within Anaheim's city limits, the Department avoids several cost components that would typically be part of the expenses for importing energy from out-of-state. These include paying transmission rates to move energy into California, typically 3-4 cents/kWh, as well as paying balancing payments to the CAISO for ancillary services associated with out-of-state energy. It also reduces the amount of line losses to transmit energy from our existing out-of-state coal resources by displacing their respective output with output from this local project. In combination, the Department estimates that there is an annual savings of about \$200,000 in transmission-related costs by having this generation inside Anaheim.

### **Greenhouse Gas Emission Credits**

As a renewable resource, energy produced from this process will have little to no Greenhouse Gas (GHG) emissions to mitigate. As a result, the Department will be able to reduce its emission obligation by 33,000 tons of carbon dioxide each year. At a market price for emission credits of \$20/ton, this has a valued savings to the Department of \$660,000 per year.

### **Benefits to the City**

In addition to being a renewable energy resource, the Anaheim Energy project brings with it other tangible benefits for Anaheim, such as:

- New job creation in Anaheim. Staffing to operate the new facility would require 10 to 12 full time employees on a permanent basis. In addition, construction of the project is likely to employ up to 50 craft/trade employees over the two years expected for completion, many of which are expected to be local employees.
- Improved Recycling Recovery – An additional 4% or 32 tons per day of recyclables will be recovered from the current commercial waste stream.

- Improved Landfill Diversion – An additional 20% or 154 tons per day of wet organic material (fuel stock) will be recovered from the current commercial waste stream and sent to the digester for decomposing.
- In total, an additional 24% or 186 tons per day of the current commercial waste stream will be diverted from the Orange County Landfill System. The increased diversion will reduce the amount of solid waste the City of Anaheim currently sends to the landfill resulting in significant positive impacts in prolonging the capacity and useful life of the Orange County Landfill System.
- Overall benefit to the City of Anaheim in meeting Assembly Bill 341 regulations for solid waste, which sets a new statewide diversion goal of 75% by the year 2020.
- Reduced GHG resource under California's Cap and Trade Program, thus lowering Anaheim's GHG footprint in two ways. First, by reducing the amount of waste sent to the landfills, there is less GHG emissions (methane) produced at landfills. Secondly, the additional renewable energy provided by the project reduces the Department's reliance on carbon-generated energy quantified above.

#### **PROJECT SCHEDULE:**

While the project is not anticipated to be in commercial operation until January, 2016, there are several components required to be completed early in the process that cause the Department to seek Agreement approval well in advance of the project's development. As with most renewable projects, federal tax credits are provided to developers to help provide economic incentives to make renewable energy more competitive. These tax credits have been extended by Congress for 2013 but there is no guarantee they will be extended in 2014. The credits are provided under the provision that the developers invest a minimum percentage in the project by the end of the year. With that in mind, the Department, wishing to preserve the economic benefits of the project pricing provided by the federal tax credits, is seeking early Agreement approval in order for Anaergia to remain on schedule to take advantage of the tax credit provisions.

#### **INTERCONNECTION AGREEMENT:**

In order for the project to connect to Anaheim's electrical distribution system, it is necessary for the Department, in conjunction with Anaergia, to develop an Interconnection Agreement. The purpose of the Interconnection Agreement is to identify and facilitate the safe interconnection of the project into Anaheim's electrical system as well as identify the costs to interconnect the project. Any costs required to interconnect the facility to Anaheim's electric system will be the responsibility of Anaergia.

**IMPACT ON BUDGET:**

Sufficient funds have been included in the Department's FY 2013/14 Renewable Portfolio Standards Power Supply budget.

Respectfully submitted,

Dukku Lee  
Acting Public Utilities General Manager

**Attachments:**

1. Renewable Power Purchase and Sale Agreement between Anaheim Energy LLC, and the City of Anaheim.
2. Interconnection Agreement between Anaheim Energy LLC, and the City of Anaheim.