

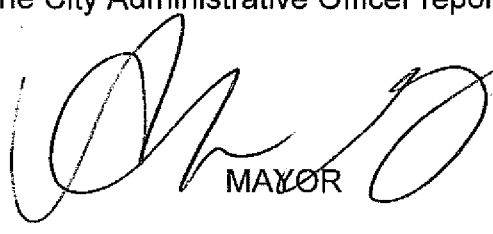
0150-10093-0000

**TRANSMITTAL**

TO The Council	DATE Jan 13, 2014	COUNCIL FILE NO.
FROM The Mayor	COUNCIL DISTRICT	

**Development Agreement with Constellation NewEnergy, Inc. to  
Develop, Design, Construct, Operate, and Maintain  
The Hyperion Treatment Plant Digester Gas Utilization Project**

Approved and forwarded for consideration.  
See the City Administrative Officer report attached.

  
MAYOR (Ana Guerrero)

MAS:WKP:061400471

**Report From**  
**OFFICE OF THE CITY ADMINISTRATIVE OFFICER**  
**Analysis of Proposed Contract**  
(\$25,000 or Greater and Longer than Three Months)

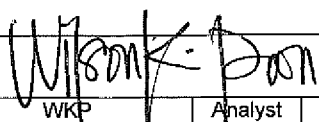
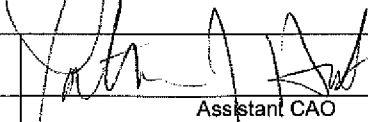


To: The Mayor	Date: 01-13-14	C.D. No. All	CAO File No.: 0150-10093-0000				
Contracting Department/Bureau: Public Works/Sanitation		Contact: Ken Weston, (310) 648-5495; Lisa Mowery, (213) 485-2374					
Reference: Transmittal from the Board of Public Works dated November 25, 2013; referred for report on December 4, 2013.							
Purpose of Contract: To develop, design, construct, operate, and maintain the Hyperion Treatment Plant Digester Gas Utilization Project.							
Type of Contract: ( X ) New contract ( ) Amendment		Contract Term Dates: Design Build (DB) Contract – Date of Execution to Commencement of Operations, Operations & Maintenance (O&M) Contract – 10 Years					
Contract/Amendment Amount: \$227,555,000							
Proposed amount \$227,555,000 + Prior award(s) \$0 = Total \$227,555,000							
Source of funds: Sewer Capital Fund No. 761 and Sewer Operation and Maintenance Fund No. 760							
Name of Contractor: Constellation NewEnergy, Inc.							
Address: 350 South Grand Ave., Suite 2370, Los Angeles, CA 90071							
	Yes	No	N/A*	8. Contractor has complied with:	Yes	No	N/A*
1. Council has approved the purpose	X			a. Equal Employmt. Oppty./Affirm. Action	X		
2. Appropriated funds are available	X			b. Good Faith Effort Outreach**	X		
3. Charter Section 1022 findings completed	X			c. Equal Benefits Ordinance	X		
4. Proposals have been requested	X			d. Contractor Responsibility Ordinance	X		
5. Risk Management review completed	X			e. Slavery Disclosure Ordinance	X		
6. Standard Provisions for City Contracts included	X			f. Bidder Certification CEC Form 50	X		
7. Workforce that resides in the City: 6.7%				*N/A = not applicable ** Contracts over \$100,000			

**COMMENTS**

In accordance with Executive Directive No. 3, the Board of Public Works (Board), on behalf of the Bureau of Sanitation (Bureau), is requesting authority to execute the proposed Development Agreement with Constellation NewEnergy, Inc. (Constellation) to develop, design, construct, operate, and maintain the Hyperion Treatment Plant (HTP) Digester Gas Utilization Project (DGUP). The City will own the project. The Agreement is comprised of a Design Build (DB) contract and Operations & Maintenance (O&M) contract and the terms, funding sources, and amounts of these contracts are as follows:

Contract	Term	Amount	Funding Source
Design Build	N/A	\$127,302,000	Sewer Capital Fund No. 761
Operations & Maintenance	10 Years	\$100,253,000	Sewer Operation & Maintenance Fund No. 760
<b>Total</b>		<b>\$227,555,000</b>	

The DB contract will become effective upon the date of execution and expire on the Commencement of Commercial Operations date and the term of the O&M contract is ten years. In accordance with Los Angeles Administrative Code Section 10.5(a), Council approval of the proposed Agreement is required because the term of the total contract exceeds three years.

 WKP	 Analyst	 Assistant CAO	 City Administrative Officer
06140047			

## **Background**

Since 1995, HTP has been piping digester gas, end products of the wastewater treatment process, to the Los Angeles Department of Water and Power's (LADWP) Scattergood Generating Station, which utilizes the gas in combination with natural gas to generate electricity for the LADWP grid. Under the current energy exchange agreement between LADWP and HTP, the LADWP in return, provides HTP with steam for its digesters and electricity to operate the plant at reduced rates. Due to regulatory requirements, Scattergood must shut down and repower Units No. 1 and 2, which currently utilize the digester gas. The proposed repowered equipment will not be able to utilize digester gas and LADWP explored alternatives and established conceptual designs for converting the HTP digester gas into steam and electricity, but terminated these efforts on November 17, 2009. The current agreement allows Scattergood to continue utilizing HTP's digester gas until December 31, 2015 and the Bureau is working with LADWP to extend the agreement until December 31, 2016. The proposed DGUP will allow the Bureau to continue to use the digester gas, a renewable energy source, to provide steam for its digesters and provide electrical energy for current and future plant operations while minimizing flaring and reducing costs from having to purchase electricity from other sources.

## **Environmental Impact Report (EIR)**

The California Environmental Quality Act (CEQA) was enacted in 1970 for the purpose of providing decision-makers and the public with information regarding environmental effects of proposed projects, identifying means of avoiding environmental damage, and disclosing to the public the reasons behind a project's approval even if it leads to significant environmental impacts. The Bureau conducted an Initial Study or preliminary analysis, which concluded that the project may have a significant effect on the environment. Therefore, a draft EIR was prepared and circulated for a 45-day public review and comment period. The Bureau received three correspondences and responses to these comments were incorporated into the Final EIR.

On October 21, 2013, Council (C.F. 13-1210) approved the Final EIR for the proposed maximum build-out of the project. The EIR concluded that all air quality and health risk impacts to workers and residents are well below significant thresholds. The EIR found that the project would result in significant and unavoidable air quality impacts that cannot be mitigated to insignificant levels so the project will incorporate and utilize best available control technologies. The EIR also found that the greenhouse gas cumulative impacts are potentially significant and a Mitigation Monitoring and Reporting Plan was developed and adopted as part of the Final EIR. The EIR also evaluated the environmental impacts of alternative solutions such as no project and flaring the gas or reducing the number of turbine generators. The EIR found that these alternatives did not meet the majority of the project objectives or did not significantly reduce the environmental impacts. Therefore, a Findings and Statement of Overriding Considerations was developed and adopted by the Council that found that the benefits of the proposed project outweighed the adverse effects.

## **Contractor Selection Process**

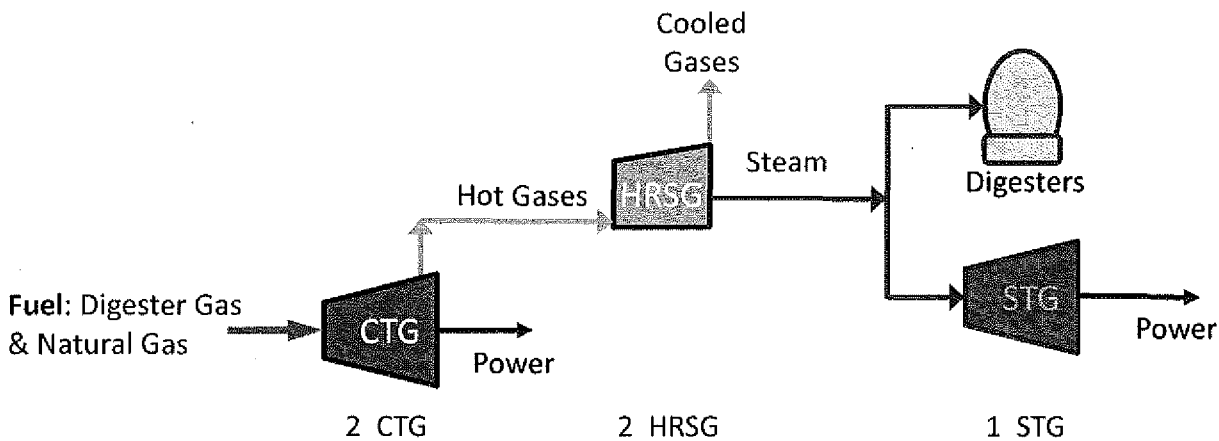
On January 18, 2011, the Bureau issued a Request for Proposals (RFP) for a Development Project to Make the Best Use of HTP Digester Gas. On May 4, 2011, the Bureau received ten proposals from eight proposers. On March 21, 2012, the Board found that one proposer did not meet the City's Good Faith Effort (GFE) Outreach requirements. The Bureau conducted a preliminary evaluation, which included a technical and financial review, of the remaining nine proposals. The technical review

evaluated the feasibility of the proposal, the proposed technology, the proposed plan to build and operate the project, and the proposer's past experience, financial strength, and safety record. The financial review evaluated the proposed costs to design, construct, and operate the project. All proposers passed the preliminary evaluation except for the Southern California Gas Company, which submitted two proposals with non-binding offers. In addition, one proposer withdrew its proposal prior to the preliminary evaluation due to a lack of resources for the project.

The Bureau conducted a final evaluation on the remaining six proposals using the same review criteria in the preliminary evaluations. However, in the final evaluation, the review team considered additional information which was not considered in the preliminary evaluations. This additional information included the responses to questions directly related to each proposal, site visits to each proposer's facility, and interviews with each proposer's project team. Three of the six proposals did not achieve a passing score in the final evaluations. Of the remaining three proposals, Constellation received the highest score and on November 28, 2012, the Board authorized the Bureau to proceed with contract negotiations with Constellation. During the contract negotiations, certain changes were made to the scope of the project to improve the value and address unforeseen issues that arose during the permitting process. Most of these changes would have been required for each of the three highest scoring proposals.

**Project Description and Scope of Work**

The proposed DGUP utilizes two Combustion Turbine Generator (CTG) and Heat Recovery System Generator (HRSG) trains in combination with a Steam Turbine Generator (STG) to produce electrical power and steam to meet the operational needs of HTP. The following diagram illustrates this process:



The steam produced from the two HRSGs will be used to heat the digesters and maintain operating temperatures. However, during the warmer seasons when less steam is required, the leftover steam will be sent to the STG to produce electrical power.

Under the terms of the Development Agreement, Constellation will design and build the project utilizing advanced combustion turbine technology and best engineering practices to generate power and steam in a highly reliable, efficient, and environmentally friendly manner that will completely use the HTP digester gas. The project will be constructed within and around the HTP Energy Recovery Building and include portions of the existing yard area to the east of the structure.

Under the terms of the DB Contract, Constellation will provide the following services:

- Obtaining Contractor Governmental Approvals;
- Preparing and excavating the construction site;
- Demolishing and removing existing decommissioned equipment;
- Removing and disposing of debris resulting from the DB work and any unused soil excavated;
- Designing and constructing the DGUP;
- Installing all necessary utilities;
- Performing environmental mitigation measures identified during the CEQA approval process;
- Developing manuals, plans, and other documents relating to commissioning, start-up, and operations of the system (including safety rules and regulations);
- Conducting commissioning and start-up operations; and
- Conducting performance tests as prescribed in Appendix 10A.

Other significant provisions of the DB Contract include the following:

- Constellation will be required to furnish a performance and payment bond or equivalent security in the amount of the total contract price. In addition, Constellation will be required to provide a guaranty to the City in the amount of \$50 million. These provisions protect the City in the event that the contractor defaults or terminates its contract with the City before the project is completed. In the event of a default, the securities may be used to hire another contractor to complete the project.
- Constellation will prepare and submit for City review and approval the following reports in the following order and prior to the commencement of the construction phase:
  - Preliminary Engineering and Design Report (or 30 Percent Package), which will include construction plans, specifications, and cost estimates to further develop the proposal.
  - Detailed Engineering and Design Report (60 Percent Package), which will include detailed plans, technical specifications, drawings, blueprints, and other design documents.
  - Final Design Report (90 Percent Package), which will include detailed equipment and specific equipment information incorporated into the design.
- Prior to the commencement of commercial operations and final acceptance of the project, Constellation will be required to conduct performance tests to demonstrate that the system has met all performance standards over a continuous 30-day period, pass all City inspection requirements, and deliver to the City all warranties and certificates of insurance.
- Constellation will provide extended warranty coverage for an additional two years after the expiration of the normal manufacturer's warranty or two years after the expiration of the O&M contract for the critical turbine generators, water pumps, gas compressors, and chillers.

Under the terms of the O&M Contract, Constellation will provide the following services:

- Operate and manage the system on a continuous basis in accordance with the O&M Manual developed under the DB Contract;
- Develop a site-specific O&M Plan, which will include the start-up and normal operations of the system, how to operate the system under abnormal conditions, a spare parts list, emergency

shutdown procedures, how to operate the system before and after a declared emergency, and a list of preventive and scheduled maintenance activities;

- Develop environmental, health and safety plans, training programs, and staffing plans;
- Perform site-specific preventative maintenance, repairs and replacement, and major overhauls or refurbishment activities as prescribed in Appendix 3B;
- Perform routine repairs on failed or malfunctioning equipment as prescribed in Appendix 3B and determine root causes of these failures;
- Perform periodic maintenance inspections of the system equipment and structures;
- Develop and transition to the City a Computerized Maintenance Management System, which will provide detailed records of repair and replacement of the system, schedule and log predictive, preventive, and corrective maintenance activities, monitor routine operations of the system, issue work orders and purchase orders, maintain a spare parts inventory, and issue equipment status, equipment performance, cost accounting, and repair priority reports; and
- Provide the Bureau with monthly and annual operations and maintenance reports.

Other significant provisions of the O&M Contract include the following:

- As prescribed in Appendix 41, Constellation guarantees that the system will beneficially utilize 100 percent of the digester gas, supply the electricity required to operate HTP, and meet the steam requirements for HTP. In addition, Constellation guarantees that the system will comply with all emission, noise, and permit requirements. If these guarantees are not met due to defects in design or construction, Constellation will be required to pay all liquidated damages, remedy the defects, and bring the system into compliance.
- Constellation will develop a transition plan at least one year before the termination of the O&M Contract. This plan will include the training of City staff, assignment of all replacement funds and reserve accounts to the City, and the transfer of all supplies, materials, licenses, records, reports, and documents to the City. If the Bureau determines that the transition period will exceed one year, the Bureau will negotiate with Constellation a longer transition period.
- Similar to the DB Contract, Constellation will be required to furnish a performance and payment bond or equivalent security in the amount of the total contract price. In addition, Constellation will be required to provide a guaranty to the City in the amount of \$20 million.

### **Source of Funds, Compensation for Services, and Project Financing**

Funding for this Agreement will be provided through the Sewer Capital Fund (SCMC) and Sewer Operation and Maintenance Fund (SCMO). Funding for the first year of this Agreement is provided in the 2013-14 Budget and subsequent year funding will be provided through the City's annual budget process, which is subject to Mayor and Council approval.

As this Agreement represents a financial commitment from the City which may potentially span one to two decades, the financial solvency of the Fund must be considered. On February 29, 2012, Council (C.F. 10-1947) approved an annual increase to the Sewer Service Charge (SSC) over the next ten years. The financing of the DGUP was factored into the rate increase and no structural issues will occur as a result of the Council's action to approve this Agreement. If the Council elected not to proceed with this project, the Bureau would be required to purchase energy at an estimated cost of \$30 million per year to operate HTP and this ten-year cost without cost escalations would exceed the project costs. In addition, the Bureau would be required to flare the digester gas, which has significant environmental impacts and would result in fines, penalties, and potential litigation.

The DB Contract will be funded from a mixture of available cash and bond funds or Commercial Paper (CP) within the SCMC. The exact amounts of cash and debt financing will be determined as the project moves forward. Constellation will be compensated on a lump sum basis and will receive monthly progress payments based on the percentage of work completed for each milestone on the approved work schedule less the standard five percent retention amount. The Bureau of Engineering will provide construction management and has the authority to issue Change Orders provided that the total net value of the changes does not exceed 25 percent of the DB Contract. The contractor may also initiate Change Orders by submitting a request that justifies the changes and proposes the total cost. If a Change Order is approved, both parties will proceed to negotiate a price to be paid to the contractor. Board approval is required for all Change Orders exceeding \$100,000.

The O&M Contract will be funded from available cash within the SCMO. Constellation will be paid a monthly Service Fee, which is comprised of an O&M Fee and Pass Through Costs. To obtain the benefits of tax-exempt financing, the Internal Revenue Service (IRS) requires the O&M Fee to include a Fixed and Variable O&M Fee. The Fixed O&M Fee represents 80 percent of the total O&M costs and the Variable O&M Fee represents the remaining 20 percent less liquidated damages for failure to meet performance guarantees such as generating sufficient electricity or steam to meet HTP operational needs. Pass Through Costs include reimbursements to the contractor without markups for the purchase of natural gas and chemicals and an annual three percent increase is also applied to the ten-year cost. The total O&M Contract amount also includes a three percent contingency amount.

### **Compliance with City Contracting Requirements**

In accordance with Charter Section 1022, the Personnel Department determined that City employees have the expertise to perform the work proposed to be contracted. However, this Office determined that it is more feasible to contract the work because of the following reasons:

- Insufficient available City staff to perform the work;
- City staff lack the experience and knowledge in digester gas utilization systems;
- Additional staff cannot be employed or trained in a timely manner to meet the implementation deadlines for the project; and
- Different phases of the project require varying staffing levels and the City could not continue employment of persons hired for the DB component of the project.

Constellation has complied with all City contracting requirements and policies. It is estimated that DGUP will create 112 new jobs in the local economy and Constellation has pledged to subcontract \$10,250,000 (or eight percent) of the \$127,302,000 DB Contract amount to Minority/Women/Other Business Enterprises. The City Attorney has reviewed the Agreement as to form.

### **RECOMMENDATION**

That the Council authorize the Board of Public Works, on behalf of the Bureau of Sanitation, to execute the proposed Development Agreement with Constellation NewEnergy, Inc. to develop, design, construct, operate, and maintain the Hyperion Treatment Plant Digester Gas Utilization Project.

## **FISCAL IMPACT STATEMENT**

There is no General Fund impact. The proposed Development Agreement will be fully funded from the Sewer Capital and Sewer Operation & Maintenance Funds. Sufficient funds have been provided in the 2013-14 Adopted Budget to support the first year costs of the Agreement and future year funding will be appropriated through the City's annual budget process and subject to Mayor and Council approval. In addition, the Agreement contains a Financial Liability Clause which limits the City's annual financial obligation to the amount that is approved in the corresponding year's budget. Therefore, the recommendation in this report complies with the City's Financial Policies as ongoing revenues will support ongoing expenditures.

*MAS:WKP:06140047*