

# Agenda Report

June 2, 2008

**To:** CITY COUNCIL

**From:** CITY MANAGER

**Subject:** AUTHORIZATION TO ENTER INTO A CONTRACT WITH ENERGY INNOVATION GROUP, LLC FOR DIRECT INSTALLATION OF ENERGY EFFICIENT EMERGING TECHNOLOGIES AT ELECTRIC UTILITY CUSTOMER FACILITIES IN AN AMOUNT NOT TO EXCEED \$5,000,000 OVER A PERIOD OF THREE YEARS

## **RECOMMENDATION:**

It is recommended that the City Council authorize the City Manager to enter into a contract with Energy Innovation Group, LLC ("EIG") for direct installation of energy efficient emerging technologies at electric utility customer facilities in an amount not to exceed \$5,000,000 over a period of three years. This contract is exempt from competitive bidding pursuant to City Charter Section 1002(c) contracts for products or services available from only one vendor.

## **BACKGROUND:**

The Pasadena Water and Power Department ("PWP") currently offers a wide range of residential and commercial programs that are funded from Public Benefit Charge ("PBC") revenues. In FY2007, PWP's programs yielded 4,280 MWh per year of energy savings and 1.68 MW of peak demand reduction, representing approximately 0.37% and 0.5% of annual energy load and peak demand, respectively. On September 17, 2007, the City of Pasadena adopted new goals that require PWP to quadruple these annual energy savings to 1.33% of load. PWP is ramping up several programs to meet this aggressive goal.

Utilities throughout the country have found that "Direct Install" programs, whereby the utility pays 100% of the cost directly to the vendor to install energy efficient equipment at its customer facilities, are a very cost-effective and efficient means of implementing energy efficiency programs. Direct Install programs are particularly useful in reaching small and medium commercial customers that typically do not have onsite engineers or large energy budgets to implement such improvements, even when rebates are provided. The total costs the utility incurs to implement Direct

Install programs are less than the costs the utility would otherwise incur to procure and deliver the energy saved.

### ***Emerging Technology Direct Install Program***

The PWP Emerging Technology Direct Install program involves installation of new technologies that have demonstrated success in reducing energy consumption but are not yet widely known in the marketplace. PWP recently implemented a pilot program offering its customers a combination of seven proprietary, sole-source technologies provided by EIG at no cost to the customer. The technologies EIG will install include:

- Conquest: A technology that that improves compressor performance in heating ventilation and air conditioning (“HVAC”) systems;
- Delta P Valve: Balances the water flow to reduce pumping cost in a central HVAC system;
- Axis De-lighting Ballast: Detects daylight levels and automatically reduces electric lighting, saving up to 70% of energy while maintaining light levels;
- SterilAir Ultraviolet: Destroys bacteria in HVAC system to keep coils clean and maintain efficiency of HVAC units;
- Energize Hotel Key Card: Eliminates energy waste by turning off lights and/or HVAC systems when guests are not in the room;
- AirTest CO Sensors: Control the amount of outside air to match actual occupancy of a building to eliminate over ventilation cost; and
- Emergency Generator Heat Pumps: Improve generator temperature control to provide energy savings up to 80%.

These technologies have been shown to reduce energy consumption by 8-18% for HVAC systems and up to 70% for lighting. EIG has successfully demonstrated and managed innovative and emerging technology programs with Southern California Edison, in partnership with the Building Owners and Managers Association, under the California Energy Commission’s Innovative Technology Program.

PWP’s pilot phase of the program was well received and quickly fully subscribed. Participating customers such as Pasadena Unified School District, Pasadena City College, Caltech and the City’s Public Works Department have all expressed interest in increased program participation.

Under the recommended contract, EIG will assist in marketing the Emerging Technology Direct Install program, provide technical information and assistance to potential customers, and procure and install equipment at participating customers’ facilities. Customer feedback and site verification will be conducted by PWP and through Interger, a third party engineering firm, through an existing agreement with

## Emerging Technologies Services Contract

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the Southern California Public Power Authority. Upon verification PWP will pay 100 percent of authorized project costs directly to EIG. Over time, PWP anticipates implementing a per-project site cap on costs paid by PWP directly to EIG under this contract to enable participation by a larger number of small and medium customers. For larger projects, the customer would have the option of contracting with EIG to install additional equipment that would be eligible for rebates of up to 50% of the customers cost under PWP's Energy Efficiency Partnering Program. This approach would leverage PWP's expenditures to achieve additional energy savings.

Under the proposed contract with EIG, PWP estimates energy savings of approximately 8,000 MWh/year over three years, or about 15% of PWP's annual energy savings goal for this period. The average lifecycle cost of energy savings will be approximately \$0.06/kWh, about one-half of PWP's avoided costs.

The contract may be awarded on a sole source basis because EIG has exclusive rights to market and install the technologies during the contract period.

The program is one of several Direct Install programs that PWP offers to its customers, and PWP anticipates expanding its offerings over time to include more vendors, services, and products. We are currently looking at two other direct install programs; an LED direct install for wall sconces and down lights; and a small business direct install for efficient lighting and smart thermostats.

### ***Funding***

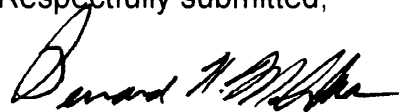
As with all energy efficiency programs, all costs associated with this contract will be charged to the Public Benefit Fund and recovered in the PBC component of Pasadena's electric energy rates. The PBC rate was initially adopted in 1996 as a fixed 0.271¢/kWh rate, then later amended on December 10, 2007 to be a formula-based rate designed to recover all Public Benefit Fund costs associated with meeting the city's increased energy efficiency and photovoltaic program goals. PBC revenues are maintained in a separate fund (Fund 410) that is used only for those purposes authorized under Public Utility Code Section 385(a), which include: (1) Cost-effective demand-side management services to promote energy-efficiency and energy conservation; (2) New investment in renewable energy resources and technologies; (3) Research, development, and demonstration programs for the public interest; and (4) Services provided for low-income electricity customer and rate discounts.

Approximately \$7 million in PBC revenues are anticipated for FY2009. Assuming the costs associated with this contract are spread equally over three years, the Emerging Technology Direct Install program will utilize approximately \$1.7 million, or 24%, of these revenues.

**FISCAL IMPACT:**

Depending upon customer participation in the program, a total cost of up to \$5,000,000 may be incurred over three years. Expenses will be charged to the Public Benefit Fund in accounts 8125-410-831700-0914-23664 and 8125-410-831700-0914-23665. Sufficient funds exist for any costs incurred in FY2008, and funding will be requested for FY2009-FY2011 as needed. The cost associated with this Contract will be recovered in the Public Benefit Charge component of Pasadena's electric energy rates, and will have no impact on the General Fund. Over time, these costs are expected to be offset by reduced purchased power and fuel costs.

Respectfully submitted,



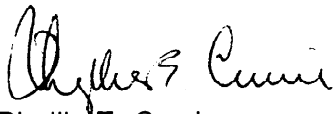
Bernard K. Melekian  
City Manager

Prepared by:



Robert J. Thompson, Jr.  
Commercial Program Manager  
Water and Power Department

Approved by:



Phyllis E. Currie  
General Manager  
Water and Power Department

**Disclosure Pursuant to the  
City of Pasadena Taxpayer Protection Amendment  
Pasadena City Charter, Article XVII**

Contractor/Organization hereby discloses its trustees, directors, partners, officers, and those with more than 10% equity, participation, or revenue interest in Contractor/Organization, as follows:

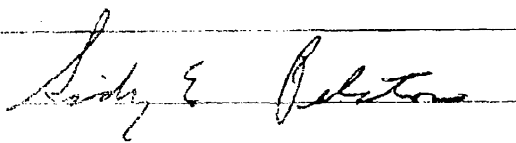
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**1. Contractor/Organization Name:**  
Energy Innovation Group, LLC

**2. Type of Entity:**  
 non-government     nonprofit 501(c)(3), (4), or (6)

**3. Name(s) of trustees, directors, partners, officers of Contractor/Organization:**  
Sidney E. Pelston

**4. Names of those with more than a 10% equity, participation or revenue interest in Contractor/Organization:**  
Sidney E. Pelston

Prepared by: Sidney E. Pelston 

Title: Managing Member \_\_\_\_\_

Phone: 310-313-1917 \_\_\_\_\_

Date: May 30, 2008 \_\_\_\_\_