



## Legislation Text

File #: 2017-574, Version: 1

### Report to Mayor and City Council

Tuesday, July 18, 2017

Discussion

#### **SUBJECT:**

**UPDATE ON THE DEVELOPMENT OF A NET ZERO ADVANCED ENERGY COMMUNITY WITHIN THE CITY OF CARSON - CALIFORNIA ENERGY COMMISSION SOLICITATION NO. GFO-15-312 WITH CHARGE BLISS, INC. (CITY COUNCIL)**

#### **I. SUMMARY**

As part of the City of Carson's commitment to sustainability and alternative energy, the City Council approved a contract with Charge Bliss, Inc (Charge Bliss) to develop a shovel-ready, net zero Alternative Energy Community (AEC) project for the City of Carson. The development of the AEC, including, planning, design, permitting, and the development of financial models, is considered Phase 1. Phase 1 is 100% funded by the California Energy Commission (CEC) and Charge Bliss was awarded 1.5 million dollars to complete this planning phase on Carson's behalf.

City staff has been working with the South Bay Cities Council of Governments (SBCCOG) and Charge Bliss to analyze all City-owned properties in Carson. Teams of qualified individuals have visited each site to determine the viability of (1) solar, (2) LED lighting, (3) charging for electric vehicles, (4) heating, ventilation, air conditioning (HVAC) and chiller upgrades, (5) automated building energy management systems, and (6) battery energy storage for demand management.

At this point, it is critical that Charge Bliss understand the City's intentions for all City-owned properties in the near, mid, and long term so that Charge Bliss does not expend grant dollars to design a system at a City-owned site that will not be a viable option for inclusion in the net zero AEC project. Charge Bliss is also applying for a \$4 million grant related Zero Emissions Vehicle charging stations as part of the project.

Staff recommends that the City Buildings / Facilities Subcommittee be convened to discuss viable sites for inclusion.

#### **II. RECOMMENDATION**

1. Request staff to convene the City Buildings / Facilities Subcommittee in order to discuss

viable sites for inclusion in the net zero AEC project.

2. Report the Subcommittee findings and recommendations to the City Council.

### III. ALTERNATIVES

TAKE another action the City Council deems appropriate.

### IV. BACKGROUND

The CEC's competitive grant solicitation will be funded in two phases. Phase I focuses on the development of innovative planning, permitting, and financing approaches for Advanced Energy Communities, with the deliverable being a "shovel ready" project plan. Only recipients of Phase I funding will be eligible to compete for Phase II funding. The total amount available from CEC for Phase II is \$14 million.

With the receipt of the \$1.5 million dollar CEC award, the Charge Bliss team has begun the preliminary engineering phase of the project. The project could include solar generation, battery storage, electrical vehicle charging stations, power conditioning and controls for City facilities. It was anticipated that Phase 1 would require approximately 12 months for development. The team is on target; however, the project is at a critical point. Charge Bliss needs to have a clear understanding of the City's intentions for all City-owned properties. For example, there has been some discussion about developing the Civic Center. If future redevelopment of the Civic Center is a short term goal for the City Council, then staff would direct Charge Bliss to remove the solar components from this site because solar systems have an effective life of approximately 20 years.

Charge Bliss does not want to expend grant dollars to design a system at a City-owned site that will not be a viable option for inclusion in the project. Having a clear understanding of the City's near, mid, and long term goals for each site will be helpful in moving the project forward. Furthermore, the CEC has specific funding requirements and operational considerations that must be taken into account.

With respect to funding requirements, all systems paid for by the CEC must have a minimum operational life of 10 years.

With respect to operational considerations:

- Solar: Since Charge Bliss is proposing mostly canopy solar systems, the City may re-use, redevelop, or do anything they wish with the **adjoining** buildings and property.
- Battery Energy Storage: Though these can, in some cases, be moved easily, the presumption of the CEC will be that at least a 10 year deployment is expected.
- HVAC/chiller: For these systems, the presumption of CEC is that the subject buildings will benefit for at least 10 years.
- LED: In the scenarios where this involves substantial cost outlays for LED such as inside a large building, the presumption of the CEC would be that it will operate for 10 years or longer.

With all of this in mind, and in the interest of full disclosure, staff is being asked to categorize all City-owned properties using the suggested categories below.

1. Category No. 1: Site is **highly likely** to be sold, or redeveloped in a manner to require de-commissioning or relocation of new energy equipment in the next 5-15 years, or is otherwise infeasible. We will eliminate these from further consideration.
2. Category No. 2: Site is under **consideration** by the City for placement in Category No. 1 **AND/OR** the City would be unlikely to sign a contract. These will almost certainly be eliminated from further consideration. Conversely, the City could allow a site to be included in the project and decide after the project is built to re-develop or sell (the future buyer and the owner of the energy system would have to agree on the new owner assuming the contract obligation).
3. Category No. 3: Site is unencumbered, unlikely to be sold or be redeveloped during the contract period in such a manner as to require equipment re-location.

A list and photos of all City-owned sites (Exhibit No. 1) is included as an attachment. The City Council is being asked to review the list and categorize the facilities in light of the near-, mid-, and long-term goals for each site.

In addition to the planning and design work, Charge Bliss has engaged Carson based LAUSD Science, Technology, Engineering, and Mathematics (STEM) students and faculty in this Net Zero Energy grant project. In addition to securing support from ITEP, Dr. David Bliss presented a Problem Based Learning (PBL) module to the students in order for them to create projects within their own built environment. Charge Bliss is also working with Carson faculty to combine the regional electric vehicle design competition with Electric Car Drive and Ride events for the community. LAUSD Energy Management team is eager to be involved in order to enhance efficiencies. The engagement of STEM students and faculty as well as LAUSD into the overall project is creating educational, experiential, and occupational opportunities for the next generation of Carson residents.

Lastly, it should be noted that Charge Bliss submitted a separate grant proposal to Electrify America to deploy electric vehicle (EV) charging infrastructure in the City of Carson. The Electrify America grant comes as a result of the Volkswagen (VW) legal settlements over their emissions problem. If awarded, the City through Charge Bliss could receive up to \$4 million dollars in grant funds to plan, design, and obtain hardware for electrical vehicle charging stations. Other funding sources are important to help fund the project, but even if the Phase II CEC does not come to fruition, the VW grant through Electrify America will still be available to the City for EV charging stations. Staff solicited support from the City Council and the community. If funding is awarded, staff will update the Council and community accordingly.

## **V. FISCAL IMPACT**

There is no financial impact at this time. City staff is working with the SBCCOG and Charge Bliss to develop potential financial models. The City Attorney's office participated in a recent staff meeting with Charge Bliss, and are aware of ongoing developments. Any approval of site locations or acknowledgement of a proposed financing model by the City Council will not be binding on the City, but will simply give Charge Bliss guidance to further

craft the net zero AEC proposal for the Phase II grant submission.

## **VI. EXHIBITS**

1. List and photos of City-owned Sites. (Pgs. 5 - 24)

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