

STAFF REPORT

DATE: September 21, 2010

TO: City Council

FROM: Ken Hiatt, Director of Community Development and Sustainability
Mitch Sears, Sustainability Program Manager

SUBJECT: PVUSA Expansion – Resolution of Support

Recommendation

Adopt the attached resolution supporting the expansion of solar power production at the Photovoltaic Utility Scale Application (PVUSA) site (Attachment 1).

Fiscal Impact

Direct costs to the City associated with this initial step in expanding solar power production at PVUSA are anticipated to be minimal; 10-20 hours of staff time to support the current lease holder/project developer's application for federal loan guarantees to fund the expansion of solar energy production and associated research at the site.

If the project developer's loan guarantee application is successful, the City will be invited to negotiate for additional solar power supplied by the expanded PVUSA site. The City's fiscal costs and benefits associated with the expansion of the power produced at the site will be addressed if and when the financing for the project is secured. Action by the Council on this resolution does not obligate the City to purchase additional power from the site.

Council Goal(s)

Sustainability. Enact policies that work to conserve natural resources and that are environmentally friendly. Build on Davis's efforts and tradition of being a cutting edge green city by fostering land use patterns and development techniques that preserve agriculture, promote local food production, reduce automobile and energy use, foster a healthy and vibrant economic climate based on green technologies, and a people-centric urban design environment.

- Encourage and support alternative forms of energy production

Background and Analysis

The Photovoltaic Utility Scale Application (PVUSA) solar power plant is located on the City's abandoned wastewater treatment plant. Following years of very limited public use, the City leased 86 acres of the property to a consortium of federal and state agencies and PG & E in 1996 to establish a research site to test the feasibility of utility scale grid-tied solar power.

The original lease was signed in 1996, with the first power being produced in 1997. The site became well known in the solar power industry as it provided a way to test solar panel performance in a real world setting. Today, the site continues to supply important solar panel performance data to the industry.

*Howatt Ranch Solar Farm – Exclusive Right to Negotiate
July 27, 2010*

The site lease passed from PG&E to the California Energy Commission (CEC) in 1997. From 1997 to 2000 the CEC managed the project. In 2000 the CEC announced they would be ending their involvement and sought to transfer the lease and assets to a willing agency or buyer. Unable to attract interest, the CEC announced that the facility would be decommissioned as required by the lease. The City began discussions with private firms and eventually negotiated a transfer of PVUSA to a private firm (Nuon).

The statewide electrical power crisis of 2000-2001 created yet another obstacle in converting the PVUSA site into a power generation facility. Legislative changes in 2001 removed direct access provisions for power customers. This change effectively stranded the power generated at the PVUSA site. With the assistance of then Assemblywoman Helen Thomson, language was added to SB 1038 to provide for a net metering arrangement for the power produced at the PVUSA and purchased by the City of Davis. The legislation was signed by the governor in 2002.

In 2001, Nuon and the City negotiated a 20 year power purchase agreement and lease for up to 1 megawatt of power generated at the site at market rate. In 2004, the City Council approved a lease extension with Nuon through 2023. Since the time the legislation was passed, PG&E has credited city accounts for the power produced at the site. As a result of industry mergers, the lease is currently held by CleanPath Ventures. CleanPath is a solar financing and development firm owned by the Nuon executive who has been involved in PVUSA since very early in the development of the site.

CleanPath has expressed interest to the City over the past two years in expanding the solar power production capacity and research at the site. The firm recently submitted a brief overview of its objectives for expansion of the site (Attachment 2). As outlined in the attachment, CleanPath is seeking federal loan guarantees to finance the expansion. The application deadline for the federal support program is due October 5, 2010 and is being submitted by CleanPath at their expense. The recommended Council action, while not binding, serves to illustrate the City's long-term commitment to local renewable energy production and its support of significantly expanding the power production capacity of PVUSA.

Adoption of the non-binding resolution is consistent with past Council actions and provides a starting point for the next phase of innovation at PVUSA. Along with its recommendation, staff recognizes that establishment of additional renewable energy sources in the Davis area presents a complex set of policy choices for the Council. In the coming months, staff will be outlining these choices for the Council and seeking direction as projects advance beyond the conceptual stages.

Based on the background information provided and the need for timely action by CleanPath on its federal loan guarantee application, staff recommends that the Council approve the resolution supporting the expansion of solar power production and research at PVUSA.

Attachments

1. Resolution supporting PVUSA expansion.
2. Background on PVUSA Expansion – CleanPath

RESOLUTION NO. 10-XXX, SERIES 2010

**RESOLUTION SUPPORTING THE EXPANSION OF THE
PRODUCTION OF SOLAR POWER AT THE
PHOTOVOLTAIC – UTILITY SCALE APPLICATION (PVUSA) SITE
IN DAVIS, CALIFORNIA**

WHEREAS, the City of Davis is a nationally recognized leader in the sustainable communities movement and has partnered with Federal and State agencies over the past 40 years to pioneer community scale energy conservation and local renewable energy production; and

WHEREAS, the City of Davis adopted the Davis Climate Action and Adaptation Plan in June 2010 that further clarifies the critical need for local jurisdictions to engage on the issue of creating renewable-based energy secure communities to promote a climate friendly, viable, and secure domestic energy supply; and

WHEREAS, the City of Davis recognizes the value to the community of developing local alternative energy resources that are renewable, cost effective, and environmentally benign; and

WHEREAS, the City of Davis desires to continue its leadership role in promoting the development and use of local renewable energy resources; and

WHEREAS, the City of Davis desires to continue to provide research and educational opportunities to promote and assist with the deployment of existing and emerging photovoltaic technologies; and

WHEREAS, the City of Davis is the property owner and lessor of the PVUSA site which has continued to provide clean, renewable energy for the past 13 years; and

WHEREAS, the City of Davis desires to see solar power production and related research expanded at the PVUSA site; and

WHEREAS, the City of Davis has worked cooperatively with the United States Department of Energy, the California Energy Commission, the California Public Utilities Commission, Pacific Gas and Electric, the Sacramento Municipal Utilities District, and CleanPath Ventures and its predecessors since 1996 to establish, maintain, and expand the photovoltaic presence on the site.

NOW, THEREFORE, BE IT RESOLVED that the Davis City Council wishes to express its non-binding support for the following:

1. Expansion of solar power production from the PVUSA site from 1 MWdc to approximately 10-15MWdc; and
2. The ability to increase its procurement of locally-generated, renewable energy; and
3. The ability to facilitate the creation of approximately 75-100 local construction jobs and 5-10 local, ongoing green economy jobs; and

4. The ability to raise the City's profile as a center for promoting research, development, demonstration and commercialization of new and significantly improved technologies as part of both the PVUSA expansion project and the continued operation of an expanded testing facility; and
5. Timely environmental review of any plan to expand solar power production at PVUSA, to the extent permitted by applicable law; and
6. Assisting CleanPath with the development of realistic project development timelines; and
7. Modification of existing State regulations to permit an expansion of the amount of energy the City is permitted to purchase from the PVUSA site under an amended power purchase agreement or new power purchase agreement, provided such additional amounts would be beneficial to the City but prohibited by applicable law; and
8. Working in good faith with CleanPath to negotiate a definitive agreement (or amendment to the current PVUSA power purchase agreement), consistent with current regulations, for the purchase of up to 100% of the PVUSA Expansion Project's output at a newly-designated price, subject to market conditions and an economic benefit analysis; and
9. Negotiations of a power purchase agreement between CleanPath and PG&E or another offtaker, at a rate which allows the PVUSA expansion project to have a reasonable prospect of repaying the guaranteed federal loan, in the event that the City cannot or chooses not to purchase 100% of the output from the PVUSA expansion project for whatever reason.

PASSED AND ADOPTED by the City Council of the City of Davis this 21st day of September, 2010 by the following vote:

AYES:

NOES:

Don Saylor
Mayor

ATTEST:

Zoe S. Mirabile, CMC
City Clerk

Background on PVUSA Expansion Project

It is the intention of Clean Energy Assets (CEA) to further develop a significant portion of CEA's PVUSA Solar Site (PVUSA) in Davis, California. CEA is currently the sole leaseholder of PVUSA, and owner of the solar testing facility currently on the site. Working with its development and financial partner CleanPath Ventures (CPV), CEA endeavors to expand its already installed solar array, the power of which is currently procured by the City of Davis (City) via a PG&E transmission line, at PVUSA, from 1MWdc in size to 10-15 MWdc, or more, in size. Upon completion, CEA will remain the leaseholder of the site, and CPV will become the new owner of the expanded facility.

Benefits to the City from the expansion of PVUSA include, but are not limited to:

- An additional 15MW dc of installed solar capacity to supply City with local, renewable energy
- Local job creation
- Efficient utilization of existing energy infrastructure, including co-locating a solar PV field-testing facility on-site which will serve to maintain PVUSA's position as a premier center for solar technology research & development, demonstration and commercialization.

PVUSA is currently situated on an 86-acre parcel of land located on the west side of County Road 101 in an unincorporated area of Yolo County. A site plans is included as Appendix I. The site is approximately 0.5 miles north of the Davis city limits. Sixty-six acres of the site are graded and are in use, and 20 acres are unused. The subject property is zoned A-1 for general agriculture. The subject property is located in Township 9 North, Range 2 East, Section 34 M.D.B.&M., Yolo Country California. The PVUSA project required a Conditional Use Permit issued by the County Planning Commission in 1987 before it could be established on the site. A Negative Declaration, filed on February 18, 1987, concluded the project would not have a significant impact on the environment, and the CUP was issued shortly thereafter.

PVUSA was originally constructed on City owned land in 1987. The City leased the site to PG&E, the original owners of the research facility. The facility was designed to test the practical application of different photovoltaic equipment for commercial markets. PG&E sold the facility asset lease rights to the California Energy Commission in 1997. The U.S. Department of Energy was a major funding source throughout the life of the project. The CEC announced in 2000 that they would be ending their involvement with the facility and sought to transfer the lease and assets to a willing agency or buyer. Ultimately, the facility was transferred from the CEC to Nuon Renewable Ventures, the US based renewable energy subsidiary of the Dutch Utility, Nuon. At that time, the CEO of CPV, Matt Cheney, was the CEO of Nuon Renewable Ventures.

In 1999, Matt Cheney bought Nuon Renewable Ventures from Nuon, forming Renewable Ventures, LLC. In this transaction, CEA became the sole leaseholder of PVUSA. All agreements that PG&E and the City of Davis entered into with Nuon were transferred to CEA and remain as such. Matt Cheney is also the sole proprietor of CEA. Thus today, CEA, along with CPV, plans to continue to support the testing facility by developing a larger solar system at PVUSA. Specifically, CEA and CPV plan to utilize next generation technologies that are more cost effective and efficient than those technologies currently deployed at the site.

Legislative changes in 2001 removed direct access provisions for power customers. The change effectively stranded power generated at the PVUSA site. With the assistance of then Assemblywoman Helen Thomson, language was added to SB 1039 and passed by the assembly and senate and signed by the governor in 2002. The legislation provides for a net metering agreement for the power produced at PVUSA and purchased by the City. To this point, currently there are two related agreement associated with PVUSA, a net metering agreement between the City and CEA that purchases power from the facility and a corresponding agreement between the City and PG&E that credits City accounts with the amount of energy produced by PVUSA. This project, if approved, will require the net metering agreement to be expanded, as per the attached MOU, as is permissible under current regulations. Although we plan to promote expansion of our rights under our current authority, excess power will be sold as produced as we work to expand services to the City.

CPV will pursue a Loan Guarantee from the Department of Energy for the expansion of the facility, under Section 1703 of the U.S. Department of Energy Loan Guarantee Program for Projects that Employ Innovative Technologies. Additionally, CPV will work with its technology partner, PV Evolution Labs, to expand the photovoltaic testing capability of the PVUSA site. CPV shall finance, own and operate all future projects developed at the PVUSA site.

The expansion of PVUSA will create local jobs. Areas of work for local contractors/subcontractors will potentially include land clearing, civil work, electrical work, and/or mechanical work. CEA and CPV will be relying on legal counsel for contract negotiations and federal, state, and local tax analysis. As the first large scale solar PV project in the area, the expansion of PVUSA will have a secondary benefit of providing useful training and experience for local firms and employees. This represents a valuable skill transfer to local personnel that would be applicable for other large scale projects to follow in the future.

Appendix I

