2013 Council Study Issue

ESD 13-01 Power Purchase Agreements for Alternative Energy Allocation

Lead Department Environmental Services

History **1 year ago** None **2 years ago** None

1. What are the key elements of the issue? What precipitated it?

This study was proposed by the Sustainability Commission. The recommendation is for a study to evaluate the City's participation in a Power Purchase Agreement (PPA) to acquire alternative energy on City owned or controlled facilities. A PPA is an agreement with an alternative energy provider that sees the installation of alternative energy at no capital, operation or maintenance cost to the City. The City would then consume the power generated by the system at a predetermined, set rate and any excess would belong to the PPA provider to sell on the open market.

In order to evaluate the viability and participate in a PPA, the City must perform site surveys to determine the alternative energy potential of a site. Site surveys can be submitted to PPA group buys that pool sites in order to increase the financial benefit to participating sites due to aggregation. Additionally, site surveys would facilitate a comparison between a PPA and the City self-financing an alternative energy system.

2. How does this relate to the General Plan or existing City Policy?

Policy 3.5.1 ENERGY

POLICY PURPOSE:
The City of Sunnyvale finds that the preservation of natural resources through the use of energy efficient activities is of great importance to the citizens and businesses of Sunnyvale.
It is the purpose of this Energy Policy to:
• Promote economic development
• Maintain a healthy environment
• Maximize limited natural resources
• Encourage alternative forms of transportation
• Encourage cost reduction in City operations

POLICY STATEMENT:
It is the policy of the City of Sunnyvale that the City will:
• Minimize energy consumption in City operations
• ***Promote the development of alternative energy resources and support the enhancement of existing technologies***
• Provide for efficient vehicular movement on City streets
• Promote alternative modes of transportation to the single-occupant gasoline powered automobile such as mass transit, carpooling, bicycling and walking
• Use energy efficient street light and traffic signal systems
• Reduce energy consumption through Land Use and Community Design Policies
• ***Utilize alternative energy sources at the Sunnyvale Water Pollution Control Plant***
• ***Support installation of cost-effective energy efficiency measures in municipally owned buildings and facilities***
• Support Federal, State, and other Local agency energy-related legislation when consistent with

this policy
• Support efforts to provide affordable, reliable, diverse, safe, and environmentally acceptable power to the citizens and businesses of Sunnyvale

3. **Origin of issue**

Board or Commission Sustainability Commission

4. **Staff effort required to conduct study** Moderate

Briefly explain the level of staff effort required
This study would require a moderate level of effort. A consultant would be required to perform site surveys of designated City sites. There are multiple examples and opportunities for the City to participate in a PPA and much of the work is accomplished through collaboration with the organizing agency and the PPA service provider.

5. **Multiple Year Project?** No **Planned Completion Year** 2014

6. **Expected participation involved in the study issue process?**

Does Council need to approve a work plan? No
Does this issue require review by a Board/Commission? Yes
If so, which? Sustainability Commission
Is a Council Study Session anticipated? No

7. **Briefly explain if a budget modification will be required to study this issue**

Amount of budget modification required 50000

Explanation
The budget estimated for this project is based on the cost of performing site surveys at City properties. It is estimated that a site survey costs about $2,500 per site. Approximately 20 undetermined utility sites could be surveyed as part of this study and the location of these sites would ultimately be determined by staff. A limited amount of the cost would be a result of staff time during the procurement process. Funding for this study would come from Utility Funds.

8. **Briefly explain potential costs of implementing study results, note estimated capital and operating costs, as well as estimated revenue/savings, include dollar amounts**

Are there costs of implementation? Yes

Explanation
The cost of implementing this study is directly related to the cost of performing site surveys. In order to participate in a PPA, sites must be surveyed in order to be eligible. The cost savings from a PPA is dependent on the size of the installation, size of the group buy and the alternative energy source implemented. On average, a PPA can yield a 15-30% energy cost savings per year. The typical term of a PPA is 20 years with options to purchase the system outright, typically after 7 years. There are no capital, operating or maintenance costs associated with a PPA. Those costs are the responsibility of the system provider who is guaranteed the City purchases the power generated at the negotiated price and any excess power is the possession of the system provider to sell on the open market. There may be minor costs associated with staff time to organize and administer a PPA.

9. Staff Recommendation

Staff Recommendation Support

If 'Support', 'Drop' or 'Defer', explain
Staff supports this study. A PPA represents a viable option to promote and use alternative energy with no upfront capital, operating or maintenance costs. The City also benefits from the reduction of greenhouse gases in the community. Due to the fixed prices of energy provided by a PPA, the City can predict energy costs for a minimum of 20 years into the future, based on the PPA agreement. Through the study, the City will also have the information necessary to evaluate whether it should pursue a PPA or to self-finance because the return on investment is within the City's parameters.

Reviewed by		Approved by	
11-13-12		11-13-12	
Department Director	**Date**	**City Manager**	**Date**