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Memorandum

TO: RULES COMMITTEE

FROM: Councilmembers
Judy Chirco and
Sam Liccardo

SUBJECT: Transportation and Environment
Committee Workplan

DATE: May 9, 2007

Approved

Date 5/9/07
5/9/07

Transforming San Jose into America's "Solar City"

RECOMMENDATION

Rules Committee add the following item to the Transportation and Environment Committee Workplan for August: Public Financing Opportunities for Widespread Solar Development & Other Energy-Saving Capital Investments in Public Buildings.

BACKGROUND

Our very competent and innovative Environmental Services staff has worked diligently to find ways to make our city buildings more "green" by meeting LEED targets through incremental improvements in design, construction materials, and the like.

Efforts to integrate solar technology into public building construction, however, have not yet yielded fruit. Despite boasting some of the nation's largest and most innovative solar companies, and despite enjoying a climate of 300 days of sun a year, we still do not have a single City building using photovoltaic cells for energy generation. We are not living up to our logo, which should position us as America's "Solar City."

City staff continues to try to find creative ways to incrementally add solar panels to specific structures, such as at the Sewage Treatment Plant and the Tech Museum of Innovation. Bolder plans - such as a city-wide solar initiative - lack a financing plan. Any broader vision carries a substantial price tag.

Our staff will remain hamstrung from implementing a broader plan without the Council's approval of a financing plan to pay for it. Despite valiant efforts to look for sporadic pots of money, such as CREB allocations from the IRS, we don't have a broad financing strategy.

Now is the time to act on a city-wide solar initiative. With the emergence – and looming expiration – of state and federal subsidies for solar construction, we have a narrow window of opportunity. Companies installing solar cells today estimate that they can pay off the capital investment through cost savings within seven years. Once the capital expense is paid, all energy savings reduce the drain on the General Fund. Those cost savings become crucial as we look for ways to address our structural deficit in the coming months. Of course, the real urgency lies in our planet’s plight, and our moral responsibility to appropriately respond.

We seek to augment the workplan for staff and the Transportation and Environment Committee to find a means for the massive capital investment required to retrofit dozens of our major civic buildings with solar panels – and to include them in projects currently in the pipeline. Other municipalities have tinkered with plans, and we can learn much from those efforts.

Two options appear particularly worthy of consideration, and possibly in tandem:

1. Solar Bond Initiative

Staff from Environment Services and Finance should investigate and report to Council the viability of a bond measure that would finance the installation of solar panels and other energy-saving capital expenditures, such as more efficient HVAC systems to City buildings. The financing would proceed without any additional drain or obligation on the General Fund because these energy-saving improvements reduce operating costs substantively over time. City departments would be required to pay into a bond repayment fund every month an amount equivalent to those cost savings. Any cost savings generated after the payment of the bonds inure to the benefit of the General Fund (minus any annual contribution to a “sinking fund” for ongoing maintenance).

This concept has been tried before, in the form of the City and County of San Francisco’s Measure B in 2001. San Francisco has not yet issued any bonds, however, due to their cold reception in the financial markets. We have reason to believe that we are better situated in 2007 than San Francisco in 2001: improving thin-film technology has led to vastly shorter cost-recovery cycles, and San Jose enjoys far more sun exposure than does its smaller neighbor to the north. Moreover, the City can take advantage of the California Solar Initiative, which offers cash incentives, as well as performance-based incentives for systems installed on tax-exempt governmental facilities.

2. Power Purchase Agreements

The City also could lease the rooftops of its buildings to private contractors who would install the photovoltaic infrastructure, and sell the energy to the City. Private construction and operation of the solar installation would enable those contractors to benefit from tax-based subsidies where the City could not. Through such agreements, the City would avoid capital expenditures, and could immediately benefit from lower General Fund expenditures on reduced energy costs. Under these arrangements, consumers typically enjoy modest cost savings in early years, but those savings grow quickly over time, as utility rate inflation greatly exceeds the solar energy costs. Local companies like MP2 Capital, have experience financing such ventures.

The City should emphasize aggregating the transactions, rather than attempting to lease or sell space on a single rooftop at a time, to reduce transaction costs and achieve beneficial economies of scale.

Conclusion

Either of these options, some combination of the two, or even some “third way” may prove to be the best vehicle for delivering the City to its rightful place as the nation’s green leader. Either way, proportionately big thinking is needed here. Operation and maintenance expenses drive our ongoing structural deficit, and the failure to consider these energy-saving options carries opportunity costs for our City, and for our children.