



SB 77 PACE Financing (Pavley) - Summary of Economic Benefits Environmental Entrepreneurs

Summary

We estimate that proposed bill SB 77 Property Assessed Clean Energy (PACE) financing can catalyze up to \$1 billion in total new projects which in turn may be eligible for up to \$300 million in Federal tax benefits for building owners. We project the following economic benefits to the state of California over the next three years:

- The bill will generate 10,500 direct jobs and an additional 10,000 indirect and induced jobs.
- State revenues from sales tax and income taxes are estimated to be \$67 million.
- In addition, significant energy savings are expected beyond what would happen without significant PACE financing.

Background

The proposed bill SB 77 will lower the costs of financing voluntary energy efficiency and renewable energy improvements for California homes and businesses that participate in Property Assessed Clean Energy (PACE) financings. PACE loans are typically implemented through private bonds repaid by assessments on properties that receive qualifying improvements. The bonds are further secured by a lien on the property.

Per the bill, the state authority (the California Alternative Energy and Advanced Transportation Financing Authority) will establish a reserve fund in the amount of \$50 million. The reserve fund will enable new PACE programs in local governments and qualified entities that choose to participate to get more favorable financing rates and make these loans more attractive to participating residential and commercial building owners. The reserve fund will be funded from the Renewable Resource Trust Fund of the California Energy Commission.

PACE economic modeling

An investment based model is employed to estimate employment and revenue impacts, assuming a \$50 million reserve fund corresponding to \$1 billion in new projects plus additional leverage from federal, state and utility investment credits and rebates. We project this amount can be invested in a three year time frame based on investment rates in existing localities with PACE programs. We assume the breakdown of investments is approximately 60% solar electric systems (solar PV), 15% heating/ventilation/air conditioning (HVAC), 15% windows, and 10% insulation, similar to the distribution observed in Sonoma County's PACE program. Based on this mix of clean energy investments, accounting for an estimated 3% administrative costs, and including federal investment credits, we project a total of \$1.14 billion in investment.

Employment

Employment estimates were derived from three independent sources: an energy efficiency report by the American Council for an Energy-Efficient Economy (ACEEE)ⁱ, an economic study by the Center for



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American Progress (CAP),ⁱⁱ and consultation with a leading energy efficiency services company.ⁱⁱⁱ The first two studies utilize input/output (I/O) economic modeling and estimate 17,100 and 16,600 job-years^{iv}, respectively per \$1 billion in new projects. The key reason for a net increase in jobs is due to the fact that traditional energy sectors in the economy (e.g. coal and natural gas plants) are not labor intensive, so moving investment toward energy efficiency remodeling and retrofitting produces net employment since these investments are more labor intensive. Included in these employment estimates are direct jobs such as construction and installation jobs, indirect “supply chain” jobs associated with manufacturing parts and materials, as well as induced jobs from increases in spending within the local economy from increased overall employee compensation. Direct and indirect employment is in the energy efficiency and renewable energy sector while induced jobs are largely service sector jobs not in the energy industry.

The third employment estimate yields 20,500 job-years and is a “bottom up” employment estimate from a leading energy efficiency services company based on the number of direct jobs that would result from \$1.14 billion in investment (10,500 direct and 10,000 indirect and induced jobs). We believe that this is the most likely case for a California PACE program. The average of the three studies gives 8300 direct jobs and 19,600 total job-years for the projected \$1.14 billion overall investment.

Revenues to state

A total of \$67 million revenue is expected over the three-year investment period from additional sales tax and income tax revenues. The cost of materials is estimated to be 59% of the total investment based on the mix of investments described above, and sales tax at 8.5% yields \$56.9 million to the state over the three year investment period. The remaining investment amount is assumed to support employee compensation with an additional \$10.4 million projected from income taxes.

Other Benefits

The primary benefit to participants is lower financing costs. If there were no state sponsored reserve fund and \$1 billion were invested for clean energy improvements, we estimate a net financing cost savings to participants of \$42 million (in present value), based on an overall cost of capital that is 0.6% lower with a state reserve fund than without the reserve fund.

The bill will increase our ability to get federal dollars into California, reduce pollution, provide money to local businesses and economies, and stimulate activity in the energy efficiency and renewable energy industries. Further, SB 77 is expected to help increase the size of the PACE financing market, and as PACE programs expand in scale lower financing and administrative costs are expected.

ⁱ ACEEE Energy Stimulus Jobs Impact Calculator, available at <http://www.aceee.org/energy/national/recovery.htm>.

ⁱⁱ The Economic Benefits of Investing in Clean Energy How the economic stimulus program and new legislation can boost U.S. economic growth and employment, Center for American Progress, June 2009.

ⁱⁱⁱ Matt Golden, Recurve, personal communication on February 1, 2010.

^{iv} A job-year is defined as one full time equivalent job over the duration of one year.