Abstract

The objective of this project is to study and analyze the Property Assessed Clean Energy (PACE) financing program, to discuss the constraints involved and see how it helps in the development of energy efficiency and renewable energy technologies. For the PACE program to be functional, the state government or the local government has to enact the PACE legislation in their respective states or cities. There are still states which have not yet enacted PACE legislation. So in this project we start with seeing some of the merits of PACE and the roadblocks that can be addressed by a state that has enacted PACE. A case study on a PACE funded project was done. The reasons for failure and limitations of PACE have also been discussed in detail. Finally we analyze and reason why the PACE legislation was not enacted in the state of Arizona. This paper is done as a part of Solar Commercialization course. The target group of readers are people who wish to gain knowledge on PACE programs, finance professionals, household owners willing to go for energy efficient systems and those with similar research interests.

Case Study

CHALLENGE:

POWER DISTRIBUTING, a beer distributor in Orion, Michigan planned to take long term financing resources to enhance the energy conservation facilities within its factory. Orion township district program was started in the year 2015, covering several counties and nearly 52% of Michigan population. A reliable source of financial investment was needed to implement the changes. The requirements include

- Enhancement of building comfort and efficiency
- Installation of PV systems to offset the load.
- To conserve energy and reduction of electricity bills.
- Reduction of operating costs.

PROGRAM DETAILS:
PACE DISTRICT – ORION township, Michigan
PROGRAM – LEEEN and Green Michigan PACE Program.
PROPERTY OWNER – Power Distributing.

SOLUTION: PACE program proved to be a preeminent solution for the requirements of the beer distributing company as it provided a long term solution, such that savings in electricity bill would compensate for the repayment of loan amount in the course of 15 years. More than 18,000 sq.ft of solar panels of 95KW capacity and LED lights were installed for energy conservation. The owners of Power Distributing were aware of low interest rates of PACE program compared to other conventional financing methods and also about the improved value of property due to energy enhancement features and preservation of borrowing capacity.

PROJECT FINANCING:
- Total Assessment amount - $435,000.
- Term – 15 years.

Results

The primary analysis of the building, electricity usage levels and degree of improvements were being taken into account by experts. Terms of the program required a energy analysis by an auditor and the owners were allowed to choose the contractors of their own choice. As a result of this project, PV system offsets 90% of the company’s load. The company saves $40,000 in annual utility bills. In addition, it also receives incentives of about $100,000 from the government.

IMPROVEMENTS MADE:
- 95KW PV system
- LED Lighting system.
- ENERGY STAR rated cooking Equipment.
- Equipment Control Systems.

PACE in Arizona

The states enabling PACE must put forward the policies and pass legislations to legally manage the program. This is followed by selecting sites for energy financing programs. Then local municipalities and counties implement Pace in their respective livelihoods. As of 2015, Arizona has not passed PACE enabling laws, but during the last legislature state representatives Mr.Orr (Republican party) and Mr. Sherwood (Democratic party) have sponsored a bill named HB2205 supporting PACE legislation. But it has not been yet signed into the law. The state act 9&6 enables the local governments and counties to form special economic districts to implement any special programs. A.R.S title 48 includes information to develop special zones such as Anti weed zones(A.R.S 48-301 through 48-322) and Fire districts(A.R.S 48-802 through 48 – 854). The Tax formulating procedures are different to that of general tax procedures.

Conclusion

This report proves to be successful in describing a productive finance program, which carries benefits in improving the sustainability goals of our community and barriers involved in the implementation of the program. The PACE program caters three major benefits as discussed in the report. First, the manner in which the program operates, facilitates positive impact on the regional economy. Pace programs in general provides for recovery of nationwide economy, in particular to the construction sectors. Second, PACE program creates new Job opportunities in the market. PACE program requires involvement from considerable number of contractors, auditors, technicians etc. Thus it regulates the employment in local regions. Third, in a period of indefinite cost and supply of fossil fuels, properties featuring energy efficient technologies are most desirable and have superior prices in the market.

Recommendations

From the report, one would infer the advantages and disadvantages of the program. The failure of residential program is attributed to the senior lien status of the mortgage repayment. The federal housing and funding agency has refused to fund or refinance for mortgages having PACE program in senior lien status. Removal of senior lien status on the PACE funding proves to be a risk for the local governments, as it hinders the flow of investments in the program, hence a better way is to develop a loan reserve program by the counties and local governments as a backup plan, in case if the customer is not able to repay the amount. A special contingency or insurance fee can be charged from the customer to raise funds for loan reserve program.

Implementation of PACE program would prove to be effective in Arizona compared to any other state. Having immense potential for solar resource and land availability, residents of the state can make good use of it when implemented. Additionally it boosts the revenue of the state and also provides more opportunities for local contractors.