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Renewable Energy Benefits

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Home owners, private companies, non-profit institutions and government officials now realize the myriad benefits associated with renewable energy. Whether it's new construction or retrofitting an existing facility, projects, like solar installations, are viewed as a win-win: They're good for the environment and good for the bottom line. Environmentalists support solar installations in particular for a number of reasons: 1) The sun is a largely untapped resource providing "free energy" year-round; 2) Unlike fossil fuels, solar power panels, which require very little maintenance, do not generate CO2 emissions; 3) Because solar energy is clean and quiet, financial incentives and rebates are often available through local, state and federal agencies.

Salem (Mass.) State University serves as a great example for organizations considering renewable, sustainable technologies to supplement or replace existing energy sources. In this case, our company Broadway Electrical, designed, supplied and installed a 68 kW system on the roof of Atlantic Hall, a student residence complex housing with approximately 450 students.

Estimates suggest that that the system we installed—four Fronius Inverters, 252 Suntech 270W solar panels mounted via a Unirac Rail System—will reduce the University's use of grid produced electricity by approximately 95,000 kWh per year. This represents a projected energy budget savings of more than \$12,000 annually, based on a rate of 13 cents per kw/hour.

The installation was funded by Mass. Clean Energy Center's (MassCEC) Commonwealth Solar rebate program and by the Division of Capital Asset Management through Clean Renewable Energy Bonds. The project was completed through the management coordination of the Mass. State College Building Authority (MSCBA) which designs, finances, and constructs housing and student activity facilities for the nine schools in Mass.' state college system.

Governor Deval Patrick recognized Atlantic Hall as a model project: "I commend Salem State University and Broadway Electrical for helping the Commonwealth make the transition to a clean energy economy and setting a great example for communities and businesses throughout the state."

To decide if a solar installation is a good option, we recommend that you do some homework first. Here are a few tips:

- * First, determine if your state offers incentives (go to www.dsireusa.org).
- * Next, find an experienced solar company that can provide advice and guidance, from design and construction through final commissioning. Find out what system's they've installed, ask for references and call them.
- * Learn how these systems perform in settings similar to yours.
- * Understand the economics. Determine how the project will be financed and if there are tax implications.
- * Choose a solar company that can assist with financing, and provide engineering services,

procurement, construction and commission.

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