CRITERIUM®
COMMON FOUNDATIONS

How Can My Association Go Solar?

CRITERIUM—HARBOR ENGINEERS has consulted with several community associations to help them determine if solar Is right for them. A recent client stated,

"XXX"

By converting to solar energy, your association can reap the benefits and be ahead of the curve.

It's no surprise that solar panels have started popping up all over the area. Solar can drastically reduce electric bills, protect against the rising cost of energy, boost U.S. energy independence, protect the environment and more.

The cost of solar panels has decreased significantly over the years and continues to drop. Implementation of "net metering" policies (available in nearly all 50 states, including Maryland and Delaware) allow for the connection of distributed solar systems to the utility grid. This means that solar utility customers can offset their electrical usage with power generated from solar installations, which means lower utility bills. Financial incentives are also available from all levels of government. Currently, depending on your particular circumstances, the transition to solar may be more cost effective than maintaining traditional electrical service.

CAN WE TAKE ADVANTAGE?

It depends. Associations come in all different shapes and sizes. Some condominium buildings have large common roof areas which could be well suited for the installation of solar panels. A homeowners association with common area land might be well suited for a ground mounted, solar array. Be sure to consult with your Attorney about any possible covenants or restrictions in your documents. Even if there are covenants, restrictions or you can't persuade your Association to go solar, both Maryland and Delaware have "solar rights" legislation in place that protects individual homeowners from unreasonable, covenants or HOA restrictions on rooftop solar installations. (MD HB117; DE SB49)

On the other side of the equation, what electrical usage could be supplied with onsite power generation? Common amenities, or common interior areas with separate electrical meters, are logical electrical uses to cover. Some communities may not have any common electrical loads. Regardless, communities may wish to share energy savings among the electrical services for their individual homes, or condominium units.

LEGISLATION AND INCENTIVES

Legislation has been passed for these kinds of situations. Policies referred to as "community solar", or "virtual net metering" allow for the electricity generated from a single solar system to offset electrical usage from multiple meters that are not directly connected to that system. Maryland House Bill 1087, which goes into effect this year, establishes a three-year pilot program for commu-

nity solar. Delaware enacted community solar legislation in 2010 with Senate Bill 267.

Financial incentives are available for the installation of renewable energy systems. The most popular is the federal investment tax credit, which equates to 30% of the cost of a solar installation. The credit was recently extended and will remain in effect through 2019. It will then be phased out through 2022.

Associations may not be able to take advantage of a tax credit if they have elected a tax exempt status, but the credit can still be passed through to the Association's members. The percentage of the credit that members could claim would be prorated, based on their share of the Association expenses. (Be sure to consult with your Accountant.)

In addition to the federal tax credit, there are other incentives including rebates, special financing, property tax exemptions, etc. An up-to-date comprehensive listing (for all 50 states) of all available incentives can be found on a website maintained by the NC Clean Energy Technology Center at the North Carolina State University: www.dsireusa.org .

One incentive is based on the amount of electricity generated by the system (kilowatt hours or, KWH) and is available after installation. The owner of the system can sell "Renewable Energy Credits" (RECs) into markets set up by each state. These markets are supported by state mandates that prescribe a percentage of energy that each utility company must generate from renewable sources. If the utility doesn't install its own renewable generation capacity, it may purchase credits from individual producers. The price for the credits varies on the open market. However, it is supported by a prescribed fee that utility companies must pay in lieu of buying sufficient credits.

An increasingly prevalent method for financing solar systems is called a "Power Purchase Agreement" (PPA). Solar installation companies have developed this model, in which they become the owner of the system and provide electrical power to the homeowner at a predetermined rate. The rate is typically slightly less than the current utility rate, but is then held constant for a period of time, up to 25 years. This has become popular due to the lack of initial investment required from the homeowner. However, the installation company gets to take advantage of all of the available incentives. They roll everything into the proposed electric rate. Therefore, the homeowner may not know the true cost, or the operating margin of the installation company.

Associations are in a unique position however, as opposed to typical homeowners, in that they maintain reserve funds for future capital improvements. Therefore, through proper planning, an association may be able to pay for the installation of a solar system and maintain its full ownership and benefits.

WHAT DO WE DO?

To begin the process an association should retain a qualified licensed, Professional Engineer to provide a, "site evaluation", "energy audit" and "cost savings analysis". Results from these independent reports can help the association determine their best course of action, based on their unique circumstances. An engineering evaluation can also help with important considerations for the interface of a solar system with existing buildings. For roof-mounted systems there are considerations of structural support and, of course, proper detailing of all roof penetrations. A thorough evaluation of the existing electrical systems is also crucial. As with any construction project, the development of engineering specifications can provide for a more competitive bidding process, and an engineering construction review can deliver a more successful project.