

COMMON FOUNDATIONS

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Energy Conservation in Community Associations

With existing buildings consuming 40 percent of our energy supply, they represent a logical and necessary target for energy conservation measures. In this issue of *Common Foundations*, our goal is not to convince you that energy conservation makes sense. Most of us can agree that it does. However, community associations represent an ownership class with a wide range of needs, opportunities, and responsibilities. In this issue, we try to address what a prudent board might do with regard to energy conservation, depending on the type of association the board members manage.

Four Categories of Ownership

We have divided the buildings and areas that comprise most community associations into four basic categories. Within each, we will characterize the most appropriate approach to implementing energy conservation measures.

1. Single-Family Homes and Town Houses

Typically, the individual owner is responsible for the energy consumption within the home, so the association management might limit its

activities to making known resources available. The benefit to the owner is lowered costs and

potentially higher resale values. Complex audits are not generally necessary, and various resources for Do-It-Yourself (DIY) audits are available. The Environmental Protection Agency's Energy Star web site is a terrific source of this type of information. www.energystar.gov. In addition, many utility and energy companies offer audits, some of which involve more sophisticated tools like blower doors and infra-red cameras. However, homeowners can see immediate measurable results by improving lighting efficiency, reducing water use, sealing up leaks, replacing old mechanical equipment, and adding insulation. Associations may also outsource or create buying groups for these products. Various incentives may be available (see sidebar).

2. Garden-Style and/or Low-Rise Buildings with Centralized Systems

The key to this style is whether or not there are centralized systems. If unit owners are responsible for their own heating, cooling, and water supply, the approach is not much different from the one above. However, if centralized systems exist, the analysis may be

more complicated, involving resizing equipment in concert with other improvements, operating changes, and monitoring of systems. Renewable systems like solar thermal or solar



electric systems may also be considered. Here, a licensed engineer or certified energy manager is required to perform the necessary analysis. In addition, the board may have greater fiduciary responsibility if any of the utility costs are paid out of the reserves. Associations should also consider measures such as increasing insulation levels at the time of roof replacement.

3. High-Rise Buildings

In high-rise buildings, the mechanical systems are almost always cen-

Energy Regulations

While community associations are a relatively new area of consideration, various local and state governments have considered enacting, or in some cases have enacted, legislation that directly impacts condominiums. These legislative activities are somewhat localized at the moment but are likely to spread. Following are a few examples:

1. The city of New York has adopted the Green, Greater Buildings Plan. Two elements in particular, the Benchmarking Bill (Int. No. 476-A) and the Audits and Retro-Commissioning Bill (Int. No. 967-A), were opposed by such groups as the Council of New York Cooperatives & Condominiums but nevertheless were enacted. The Benchmarking Bill requires owners of buildings greater than 50,000 square feet to assess their annual energy and water consumption to improve "prospective buyers' and tenants' ability to value the building." Bill 967-A requires energy audits and retro-commissioning for various types of buildings, including "multiple condominium buildings (over 100,000 square feet) owned by the same board of managers."
2. The city of Berkeley, California, requires energy conservation measures for residential and commercial buildings upon sale or renovations valued at over \$50,000.
3. Ontario, Canada, has made amendments to its condominium act, in line with the Green Energy Act, to make it easier to borrow for energy improvements.
4. The city of Aspen and Pitkin County, Colorado, regulates the amount of "exterior energy" that can be used for snowmelt, spas, and pools, thereby encouraging the use of renewable energy.
5. Many municipalities have removed (or have attempted to remove) height restrictions and covenants that prevent the use of renewable energy systems like solar.

Cost-Reducing Incentives

Federal and state governments, along with numerous utilities, have implemented a myriad of incentives to promote conservation and renewable energy resources. The list is far too long to completely consider here. Fortunately, you can reference a listing of most incentives that has been developed, by state, at <http://www.dsireusa.org/>. The acronym DSIRE stands for the Database of State Incentives for Renewables and Efficiency and is operated by NC State University for the Department of Energy. Although associations cannot take any of the available tax credits directly, it is possible that the credits can be passed along to owners. See your accountant to properly structure these investments and credits.

tralized and therefore the responsibility of the association. Even if units are individually metered, the association has a responsibility to ensure that operating costs are kept under control. The association should also work with its reserve study provider to ensure that when it is time to replace equipment, modern and more efficient equipment is specified. Once again, these modifications call for a more experienced professional such as a licensed engineer or certified energy manager. In addition, in certain locations, new laws may have an impact on these larger buildings (see sidebar—previous page).

4. Common Amenities (e.g., Clubhouse, Pool, Landscaping)

The association has a responsibility to manage costs and minimize energy consumption of common amenities. Landscaping with low-maintenance, drought-resistant plants and surfaces reduces water consumption and energy requirements for pumping systems. An array of low-cost or no-cost items can be added to improve the efficiency of common areas (see sidebar). In smaller communities, these are relatively simple improvements to make; in larger communities, experts are required once again.

What Does the Future Hold?

Reducing our reliance on fossil fuels, decreasing greenhouse gas-emitting activities, and reducing energy consumption begin with a few highly leveraged activities. But what is possible? A group called Architecture 2030 – a non-profit, non-partisan, and independent organization dedicated to rapidly transforming the US and global building sector from being the major contributor of greenhouse gas emissions to being a central part of the solution to global

warming, energy consumption, and economic crises – has set as a minimum target that an equal amount of existing building areas shall be renovated annually to meet a fossil fuel, GHG-emitting, energy consumption performance standard of 60 percent of the regional (or country) average for that building type. That is because, according to them, by 2035, approximately 75 percent of the built environment will be either new or renovated.

With rare exceptions (see sidebar), energy targets have not yet been established for community associations. However, successful managers plan to reduce emissions and energy consumption as part of overall operations. In doing so, it is important to measure results and report those results regularly to unit owners. An engineering company like Criterium Engineers can help design and implement such a program. With savings readily available, there is no good reason to delay the process.

Energy-Conserving Measures

The Community Associations Institute publishes guides for energy conservation and green strategies for associations. A few of the top energy-conserving measures to consider include:

- Replace incandescent or low-efficiency fluorescent lights with high-efficiency fixtures, bulbs (CFLs), or LEDs. Potential savings are 50% or more.
- Install programmable thermostats as well as motion and vacancy sensors in common areas. Potential savings – 10 percent or more.
- Lower temperatures in pools and hot tubs, especially in warmer months.
- Establish a monitoring and maintenance program. Systems may become less efficient over time, controls tend to drift from their programmed optimum, and leaks develop as the envelope weather stripping deteriorates. Energy conservation is not a one-time event but an overall approach to building operation and maintenance.
- Don't replace; improve. As new systems become available, consider alternatives rather than just replacing in kind.

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