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Heeding Green Advice

An environmental consulting company reaps rewards by practicing what it preaches

IN THE PAST FEW YEARS, REAL ESTATE investors and tenants alike have realized the benefits of having energy-efficient and sustainable buildings. The rewards are vast and include: lower utility costs and higher net operating income; improved green branding and marketability; greater tenant satisfaction; compliance with local codes; and a reduced impact on the environment.

In response to this growing market interest, green building and green retrofitting has increased significantly in the past several years. This, in turn, has created opportunities for commercial mortgage brokers to guide and advise clients on green financing. It's also created opportunities for engineering, environmental and energy consultants who provide guidance to commercial and multifamily building owners and investors on how to take advantage of green programs.

Partner Engineering and Science Inc. is one of these consulting companies. In the past year, however, the company walked into its clients' shoes during the purchase, renovation and green retrofit of its new headquarters building in Los Angeles.

By using the company's new headquarters as a case study, commercial mortgage brokers can get a bird's eye view of what goes into a green project — from planning to financing and finally to the initial results. As green building and retrofitting becomes increasingly popular, commercial mortgage brokers must know what it takes to successfully fund and close these deals.

Project scope

When working with a client on a green building or retrofit, it's important to know what the client's goals are. In this case, the company's goal was to implement as many sustainable and energy-efficiency

measures as possible with an existing building, for several reasons:

- **To practice advice that is typically given to clients;**
- **To use the building as a platform** to demonstrate that these projects are doable, and that the return on investment is real; and
- **To implement the company's mission statement** to be the best (in this case, literal) home for talented professionals in the field.

A team led by senior company executives worked on designing the concept and implementation plan for the many energy-efficiency measures desired for the building. The aim was to have a smart, green building with many environmentally friendly features, including:

- **A large solar array on the roof;**
- **A live roof of drought-resistant plants;**
- **Solar tubes that bring down natural lighting from the roof to the second floor;**
- **State-of-the-art Energy Star lighting** controlled by timers, motion sensors and a photocell sensor, which adjusts the brightness of the lights according to the amount of ambient light, aka daylighting;
- **Ultra low-flow fixtures and irrigation;**
- **An electric-car charging station;** and
- **A comprehensive building automation system** with temperature and lighting controls.

The renovation also included a complete gutting and makeover of the building interior into an open, warehouse conversion-style space that fits the entrepreneurial culture of the company. The whole process took about eight months.

Financing

Financing is often a concern for many companies that are considering making a move

to a greener building or retrofitting their current property. For this project, the company's combined acquisition and renovation costs totaled slightly less than \$5 million dollars, about 80 percent of which was financed through the U.S. Small Business Administration (SBA) 504 loan program.

In fact, the 504 loan program allows owners to increase the loan amount and project total amount by implementing measures that either reduce energy consumption by 10 percent or generate renewable energy. Although the SBA 504 program worked in this particular case, it is not the only option available for green financing. There are numerous programs that commercial mortgage brokers can use to help clients fund their projects. (See the sidebar next page.)

Results

Green building has obvious benefits for the environment, but many clients will want to measure the results of these changes. Each project will be different, but in this case, the green measures implemented in the new headquarters paid off. The company has seen results on several different levels:

1. **Renewable energy and energy reduction:**
Solar panels power nearly half of the energy use of the building and the servers'

continued >>

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Other financing options

Many energy-efficiency measures can pay for themselves in just a few years, and there are several financing programs, in addition to the SBA 504 loan, to get over the hurdle of funding them:

- **The Green Refinance Plus:** A program between the U.S. Department of Housing and Urban Development and Fannie Mae, it allows owners of affordable housing to finance energy- and water-saving upgrades. The program requires a Green Physical Needs Assessment to be done to identify energy efficiency measures and other property improvements needed.
- **Property Assessed Clean Energy (PACE):** This program is being implemented in states and cities around the country. Owners arrange financing for energy- and water-saving upgrades through an investor of their choice, and a lien is placed on the building that is paid off through annual property taxes.
- **Utility-company incentives:** Many utility companies offer some sort of energy-efficiency incentive, and some have comprehensive programs offering free or subsidized energy audits and/or assistance with retrofitting.
- **Government and other incentives:** Many major metro areas also have publicly funded rebates and incentives for benchmarking, energy audits, retro-commissioning and/or retrofitting.

energy use (servers support 23 remote offices and buildings). This cut about 6,500 kilowatt-hours monthly from the electric bill. There have been significant reductions in energy use from lighting and temperature controls about a 15 percent reduction from what would be expected for a similar building and use.

2. **Employee satisfaction:** The staff excitement for the project was palpable. Some studies also suggest that daylighting increases worker productivity.
3. **Building as a showcase:** The company has taken a number of clients and partners on tours of the new facility. Because it hosts training classes on environmental initiatives such as Leadership in Energy and Environmental Design (LEED) at the building, it is a great opportunity to showcase how these projects play out in the real world.

Lessons

By putting its money where its mouth is, the company was able to get a greater

appreciation of the challenges its clients face as well as a new, environmentally conscious headquarters. A few lessons have been learned along the way, which may help commercial mortgage brokers as they guide clients through this process.

- **Have the right team.** It is critical to have a high degree of comfort, transparency and communication with the lender, the certified development company if you're using an SBA 504 loan, architect, general contractor and other players. The company used its in-house expertise from the due-diligence process to the green retrofitting, but if these resources are not available, it is essential to partner with the right professionals.
- **Understand your goals.** These projects aren't the right fit for every company or every building. Sustainability is important for some clients who focus on corporate responsibility or branding, and they may be interested in LEED certification. Others are less concerned about being green and more about saving green, and they may

focus strictly on energy efficiency. These goals aren't mutually exclusive, but you would approach them differently.

- **Build commissioning.** There are innumerable things that can change or go wrong in a construction project, and the company experienced this first hand. For example, if the city suddenly requires a higher parapet wall on the roof, how does that affect the placement of rooftop solar panels? For those doing new construction or a major building retrofit, it is important to have a certified commissioning professional who is focused solely on ensuring the design and intention for energy efficiency and sustainability measures is implemented correctly, despite any changes that occur.

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The experience of Partner Engineering and Science reflects how proper financing combined with an efficient team of professionals can lead to a smart, efficient and enjoyable building. ●