

# One size fits all doesn't work with green commercial building

In recent articles, we have discussed the different amounts of money that can be saved by building more energy-efficient buildings. Some of the topics we have discussed include heating and cooling systems, insulation and water efficiencies, as well as window types. Several readers have commented on how efficient these products sound, but have also asked how these systems will actually affect the cost of their new buildings.

With energy-efficient construction trends catching on, new studies are beginning to show from no increase to only nominal increases in costs to build green versus building a traditionally designed structure. The goals of cutting the use of energy with good-quality, energy-efficient construction should not cost more money to the owner. Once you move toward more trendy energy-efficient technologies, such as solar panels and geothermal systems, the construction cost will rise.

In a report titled *The Cost and Financial Benefits of Building Green*, 33 buildings in California that had received Leadership in Energy and Environmental Design (LEED) certifications by the U.S. Green Building Council were analyzed for their construction costs. These projects were placed into four categories: Bronze, Silver, Gold and Platinum. The bronze-certified buildings had a cost premium of less than 1 percent, the silver was 2.1



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percent, gold was 1.8 percent and the platinum was 6.5 percent. The report



concluded that the average price increase for all 33 buildings was less than 2 percent.

Because going green can reduce a building's energy consumption by 20 to 30 percent, the 2 percent increase acquired is easily recouped. The payback on many good, energy-

efficient technologies can be less than two years and should not exceed seven years. Some low-cost or no-cost green ideas can even improve employee productivity by including temperature and lighting controls and increasing the amount of natural daylight.

When choosing energy-efficient technologies for your building, keep in mind never to use a one-size-fits-all solution. Each building will have unique usages and challenges. Speak with a professional who has experience using a broad spectrum of technologies and decide what would

be the best fit for your building. The best way to approach energy-efficient construction on your next project is to decide early in the process exactly what you want to accomplish with your building from an energy and sustainability point of view. This decision should be ingrained in all work the designer and contractor perform.

The key for making energy-efficient construction cost-effective is to start early during the project and have everyone on board, including the owner, designer and contractor. Do not think of energy savings as an add-on to your building. Finally, remember that the initial construction cost is only about 11 percent of the first 40-year life cycle cost of your building: 14 percent is financing cost and 75 percent is maintenance/utilities. With proper planning, going green is not only a wise decision, it is the only way to design and build your next building. ■

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