

## **IREM and CCIM Institute Capitol Hill Visits Energy Case Study**

### **Background**

Today, commercial buildings make up 73 billion square feet of real estate in this country. Our lawmakers need to understand the benefits of market-based incentives to retrofit existing buildings for energy efficiency and the serious consequences to mandating the same. In your Capitol Hill Visits, we urge you to bring to them an example of a real or proposed energy efficient retrofit for your properties. If you do not have your own example, feel free to use the following case study.

### **Case Study**

In this hypothetical situation, you, the broker/ manager, are approached by the building owner and informed that the HVAC system needs to be replaced. The owner is considering a more energy efficient model and would like to know what will be the payback. If the improvement costs \$1 million, and the building's energy bills will be reduced by \$80,000 annually, then the payback period will be 12.5 years.

The 12.5 year payback period makes the investment in the expensive, energy efficient model a less attractive choice to the property owner. The new HVAC system would provide financial savings on utility costs and a higher standard of living for tenants in the building. It would also increase the value of the property; however, the owner questions the investment because of the costs associated with a long payback period.

An alternative to replacing the system is to modify the existing system. To repair the existing system would cost \$312,000, which would cost much less than a new system. The utility savings of \$35,000 annually from the improvement would not be as much as if a new system was installed. The payback period under this alternative would be 9 years.

The owner or manager would be faced with deciding between repairing the existing system, or replacing it with a new one. Tax incentives assist owners and managers with this decision.

Tax incentives will reduce the payback period. Currently, a tax deduction of up to \$1.80 per square foot is available to owners of existing commercial buildings that reduce their heating and energy costs by 50%. In this hypothetical scenario, if the building met the criteria, then the building owner would be eligible for the tax deduction. The tax deduction would thus lower the payback period, providing more incentive to the building owner to choose the more energy efficient HVAC system.