

Build out or tenant improvement offers great opportunities to improve the energy efficiency of your space. A few simple decisions can help to reduce your occupancy costs and ensure a healthy environment for your employees.

### Consider This:

Two tenants with similar operating characteristics will lease 100,000 square feet of office space. Each organization employs 500 people and the office space will include the following:

Computers	Monitors	Printers	Copiers	Light Fixtures	Refrigerator	Thermostats
500	500	50	20	255 2-lamp T8 fixtures	3	10

### Let's Get Down to the Numbers:

At an estimated cost of \$30 per square foot, a tenant could be looking at approximately \$3,000,000 in upfront capital costs to build-out the new office space. Based on the office equipment, lighting, kitchen appliances, and HVAC system, the tenant can expect to pay an estimated \$582,400 in energy expenses annually. This equates to \$2,912,000 over the lease term.

Now let's revisit our two tenants who are planning their office space build-outs. The table below displays the estimated cost and associated annual energy spend of the two office spaces.

Tenant	Est. Cost of Build-Out	Est. Annual Energy Spend	5 Year Lease Term Energy Spend + Build out	5 Year Lease Term Savings
Tenant 1	\$3,000,000	\$582,400	\$5,912,000	\$0
Tenant 2	\$3,003,020	\$507,030	\$5,538,170	\$373,830

### Here's the Difference

At the suggestion of its broker during lease negotiations, one tenant insists on installing only ENERGY STAR certified office equipment and decides to implement the following energy saving measures:

- ▶ Transition to a day-cleaning schedule to reduce the evening and weekend energy consumption
- ▶ Install Occupancy Sensors
- ▶ Install 25-watt T8 lamps

Based on the ENERGY STAR equipment calculators, this build out will cost this tenant and estimated \$3,020\*\* more than its counterpart. However, the ENERGY STAR certified equipment and high performance lighting package will reduce energy use by 13% and save more than \$75,000 per year in energy costs. That is a simple payback of less than 2 months!

## Energy Efficient Office Package Cost and Savings

Upgrade	Incremental Cost	Energy Savings (kWh)	Electricity Cost Savings	% Savings	Simple Payback	Lease Term Cost Savings
Computers	\$0	20,170	\$1,940	32%	Immediate	\$9,700
Monitors	\$0	7,400	\$710	21%	Immediate	\$3,550
Copiers	\$0	780	\$75	7%	Immediate	\$375
Printers	\$0	8,240	\$790	36%	Immediate	\$3,950
25W T8 Lights	\$1,200	15,590	\$1,500	22%	1 year	\$7,500
Occupancy Sensors	\$1,100	4,680	\$450	50% of the controlled fixtures	2.5 years	\$2,250
Refrigerator	\$120	130	\$10	20%	3 years	\$50
Programmable Thermostat	\$600	242,660	\$23,300	10% of HVAC Energy	Immediate	\$116,500
Daytime Cleaning	\$0	485,330	\$46,600	8%	Immediate	\$233,000
<b>Total:</b>	<b>\$3,020</b>	<b>784,980</b>	<b>\$75,360</b>	<b>13%</b>	<b>1 month</b>	<b>\$376,875</b>

### The Bottom Line:

Over the five-year term of the lease, the energy efficient office package saves the tenant more than \$376,875 - lowering operating costs by more than \$0.75 per square foot per year!

Improving building energy performance doesn't have to be limited to base building systems and common areas. As a tenant, you are able to make simple, cost effective upgrades to improve the energy efficiency of the space you occupy and capitalize on high return on investment opportunities to save energy and reduce operating expenses. These upgrades not only save money annually on utility bills, they also position your organization as a leader in energy efficiency.

For more information on how you can achieve these savings in your space, contact your property manager or leasing agent today!

\*\*Calculations are based off of ENERGY STAR [Equipment upgrade calculators](#) and use the national average electricity cost of \$0.096/kWh. Lighting package assumes 32-watt T8 lighting with no controls and 9.5 operating hours per day before the upgrade and 25-watt T8 lighting with controls and 6 operating hours per day after the upgrade. Energy expenses were developed using the national average EUI for office buildings and 9.5 operating hours per day. All office equipment prior to the upgrade is assumed to be non-ENERGY STAR certified.