# **HVAC** Controls

# **BUSINESS SOLUTIONS**

HVAC Controls

- ✓ Reduce Energy Waste
- ✓ Reduce Carbon Footprint
- ✓ Save Energy Costs \$\$\$



## **HVAC** Controls

### Smart Energy and Demand Reduction

#### Why Save Energy?

Studies by energystar.gov show that in the U.S., 30% of energy used in buildings is wasted. The effects are increased greenhouse gas not to mention increased operational cost. So, implementing energy-efficiency initiatives can provide benefits which include:

- Increase The Health and Performance for Your Team
- Reduce Operational Costs and Increase Profitability

#### Health

The Department of Energy indicates that many companies have poor Indoor Air Quality (IAQ) effecting the health of their workers. Proper

ventilation can help reduce the concentration of airborne and surface contaminants, including viruses.

• Improperly installed ventilation increases health risks for workers

#### Costs

For many businesses today, operational costs can be as important as sales in determining the profitability for stake holders. The most tangible effect of implementing Energy Conservation Measures (ECM) goes directly to the bottom line; reducing operational cost, increasing profit margins and freeing up cash for other uses.

- Reduce energy costs by 30% to 40%
- Reduce maintenance costs by 5% to 10%

#### Energy Savings Measures (ECM)

- Smart Thermostats for scheduling and optimal start-stop
- Speed Control for Fans and Compressors
- Demand Control Ventilation (condition only when spaces are occupied)
- Smart Energy Management System

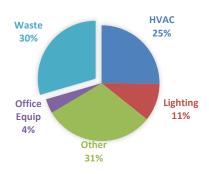


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**COMMERCIAL ENERGY USAGE \*** 



### **HVAC Controls**

Case Study

#### Case Study - Precision Punch

Precision Punch is a typical manufacturing facility located in CT. Faced with high energy costs they enlisted ECES to analyze the facility for Energy Conservation Measures (ECM). In our analysis we recommended retrofitting existing equipment with energy controls; saving energy with minimal capital outlay. Assuming a 3% inflation rate of energy and a company cost of capital of a modest 8% yields

- Project Cost plus Taxes ...... \$391748
- Utility Incentives ..... \$268,249
- Net Project Cost..... \$123,499
- Annual Energy Savings ...... \$60,800
- Simple Payback ...... 2.0 years



#### HVAC Controls – Case Study

- ✓ \$60,800 annual energy savings
- ✓ \$268,249 utility incentives
- ✓ 2-year payback

