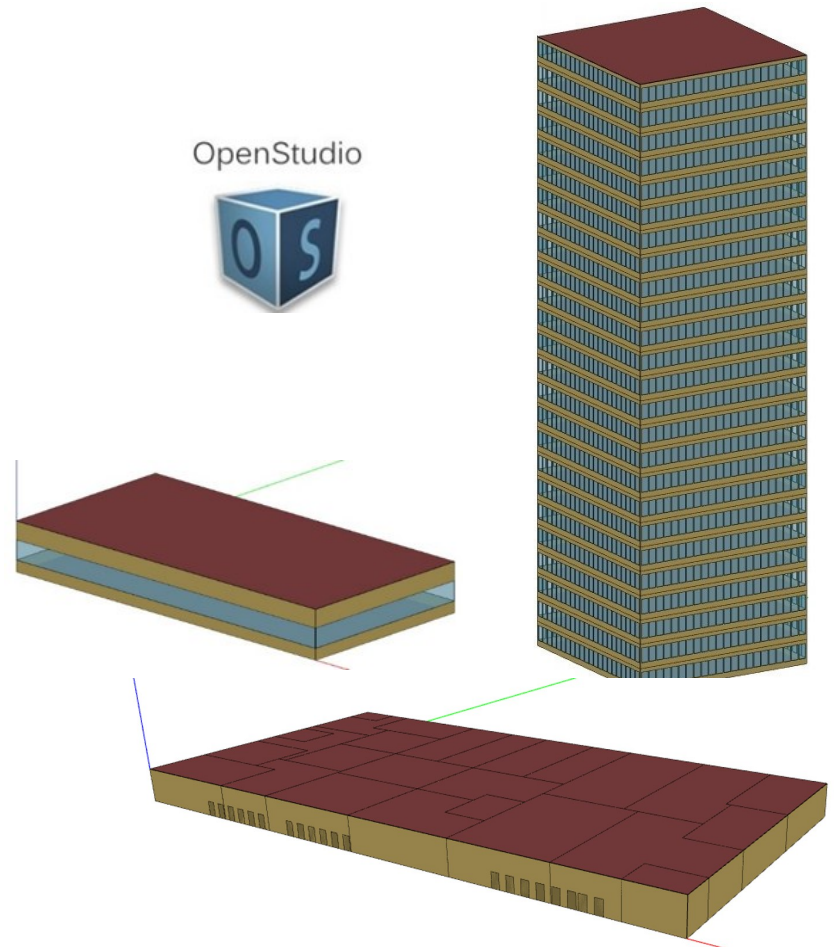


SIMPLE, QUICK, & LOW-COST Building Energy Modeling Services - Evaluate Energy Conservation Measures (ECMs) specific to your project using OpenStudio/EnergyPlus, a 8760 hourly detailed building energy simulation software developed by the U.S. Department of Energy.

ENERGY CONSERVATION MEASURES

- Roof Insulation: R-Value
- Wall Insulation: R-Value
- Window Upgrade
- Window Solar Film (SHGC)
- Window-Wall-Ratio
- Outside Air Reduction
- Infiltration Reduction
- Air-Side Economizer
- Space Temperature Setpoints
- Building Constructions
- Building Geometry & Orientation
- High Efficiency Chiller & Boiler
- Demand Control Ventilation
- Natural Gas vs. Electric Heating
- Air-Source Heat Pump
- VRF System
- Programmable Thermostat
- Heat Recovery Ventilator
- Solar PV
- Energy Storage
- Advanced BMS Controls
- And Others

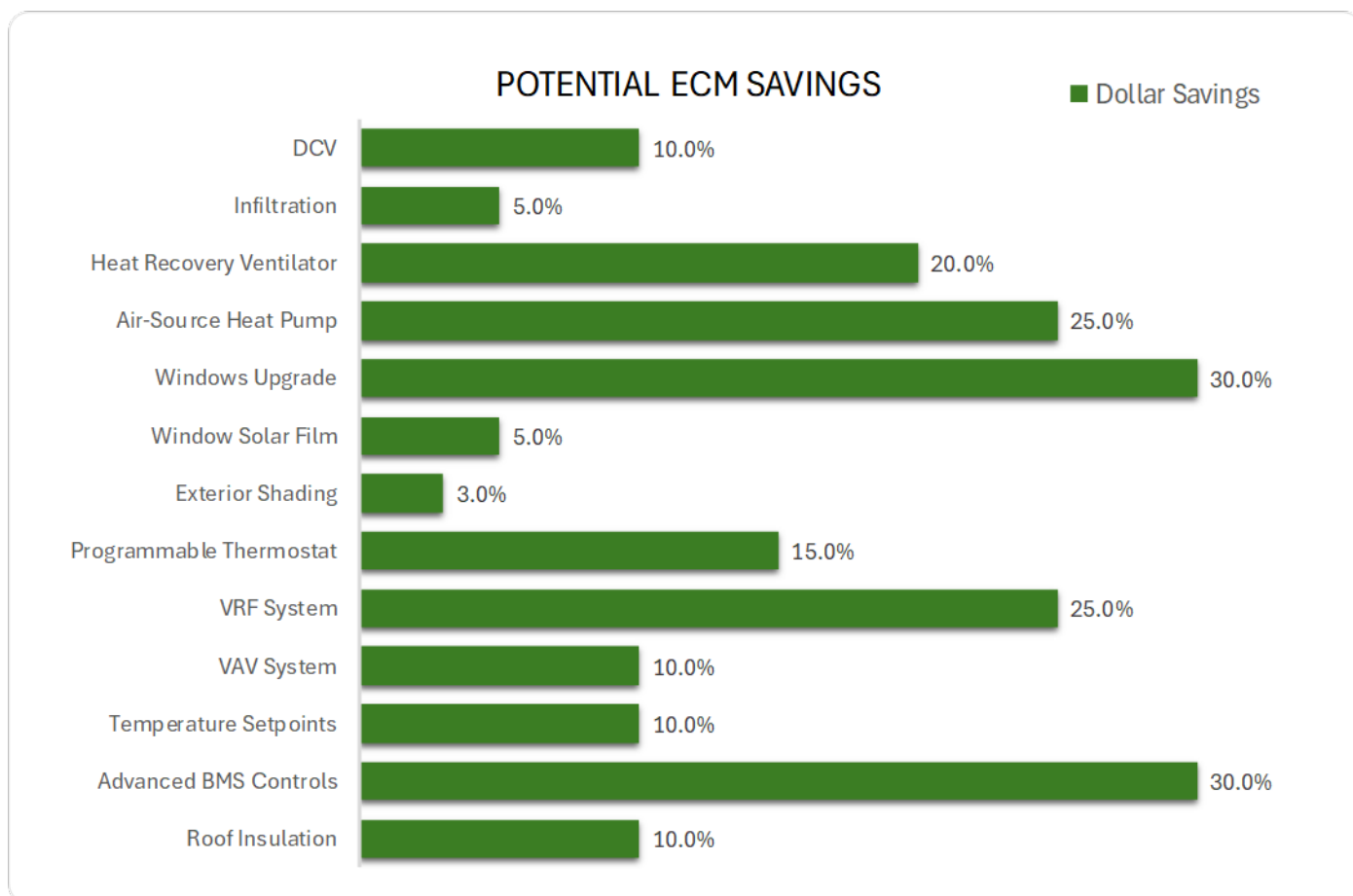


SPECIAL: Get a Basic Energy Model with 1 ECM for only \$195.

BUILDING SPECIFIC KEY INPUTS

- | | | |
|---------------------------|------------------------------|-------------------------------|
| • Location & Weather Data | • Roof & Wall R-Values | • Infiltration Load |
| • Building Constructions | • Equipment Efficiency | • Lighting, Equipment |
| • Hours of Operation | • BMS Controls | • People Loads |
| • Building Orientation | • Fuel Type | • Space Temperature Setpoints |
| • Window-Wall-Ratio | • Utility Rates / Structures | • Outside Air Load |
| • Window U-Value & SHGC | • HVAC Systems | • Floor Plans & Elevations |

ECM SAVINGS - Annual energy savings are specific to a building's construction, hours of operation, internal loads, HVAC equipment, controls, weather data, and many other factors.

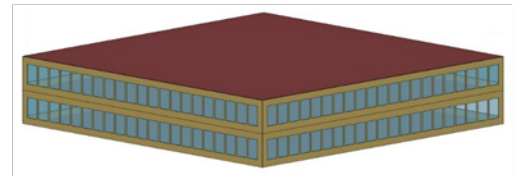


— ENERGY MODEL KEY INPUTS —

Inputs Specific To Your Building

ENERGY MODEL KEY INPUTS	
GENERAL	
Energy Simulation Software	OpenStudio Application 3.11.0 / EnergyPlus
Weather File	USA_NY_New.York-LaGuardia.AP.725030_TMY3.epw
Climate Zone	4A
Address or Location	NYC
Space Type	Parking Garage
Built	N/A
HOURS OF OPERATION	
Monday to Friday	24 Hours
Saturday	24 Hours
Sunday	24 Hours
BUILDING GEOMETRY	
Building Footprint	140 ft x 120 ft
Floor Area	16,800 SF
Floors	1
Gross Floor Area	16,800 SF
Floor Height	12 ft
BUILDING ENVELOPE	
Roof	R-10.46
Exterior Wall	R-9.15
Window: U-Factor	U-0.xx
Window: Solar Heat Gain Coeff.	SHGC = 0.5
Window: Visible Transmittance	VT = 0.7
Window-Wall-Ratio	30%
Infiltration	0.7 ACH
INTERNAL LOADS	
Lighting	1.0 W/SF
Equipment	0.5 W/SF
People	10 People
Ventilation	0.75 CFM per SF (12,600 CFM)
HVAC	
Type	HV-1 with 12,600 CFM of Outside Air, Gas Heat
Cooling System COP	N/A
Heating Efficiency	0.7
Fan TSP	4.0"
Heating Temperature Setpoints	65F
Cooling Temperature Setpoints	None
UTILITY RATE	
Electric Rate	\$0.18 / kWh
Natural Gas Rate	\$1.50 / therm

EVALUATION	
ENERGY CONSERVATION MEASURE	
ECM 1:	Heating Setpoint From 65F to 55F
ECM 2:	Heat Recovery - Air Side
ECM 3:	DCV
ECM 4:	
ECM 5:	



3-D Building Simulation

— INPUT SCHEDULES —

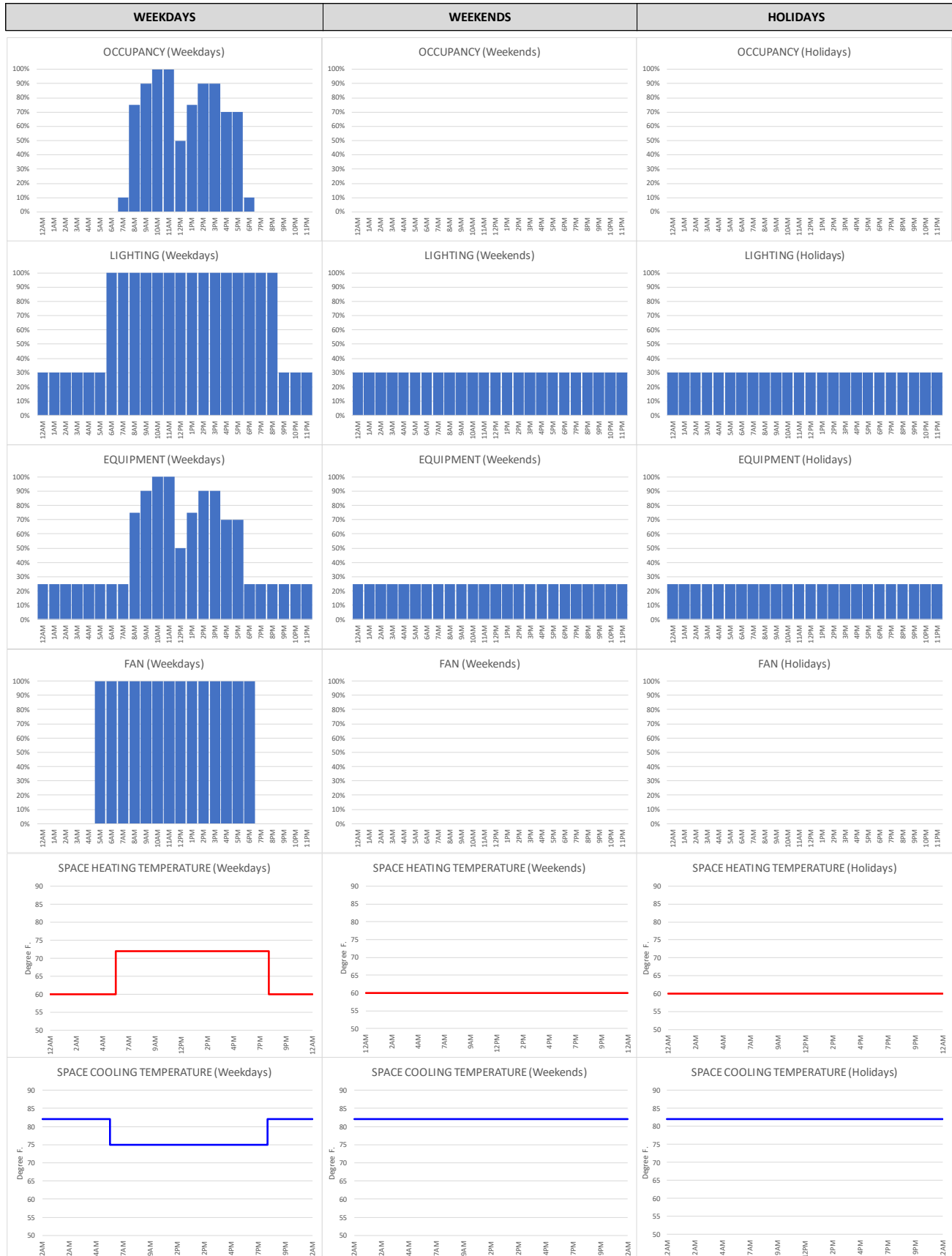
Inputs Specific To Your Building

OFFICE BUILDING (8AM to 5PM)

CS05

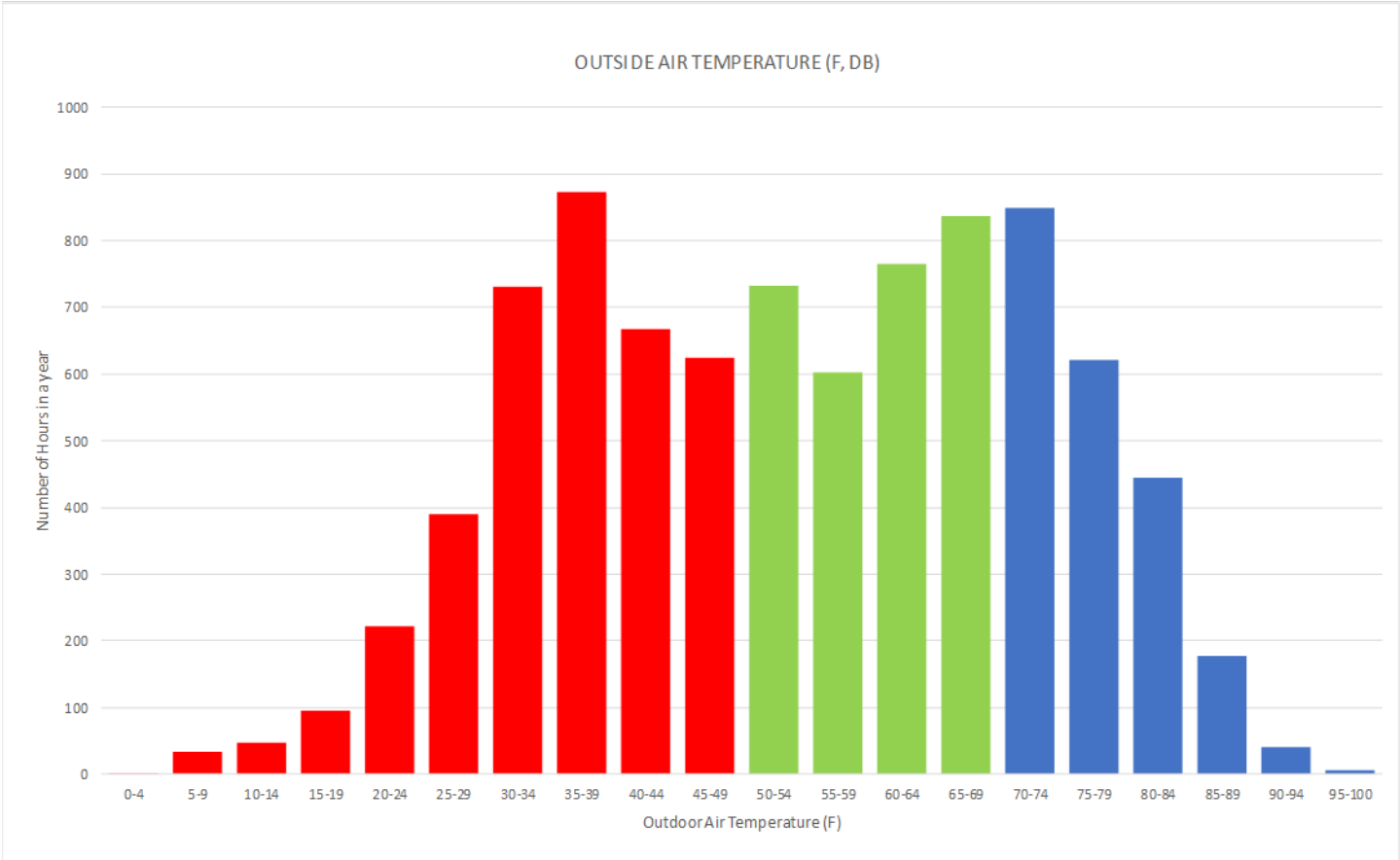
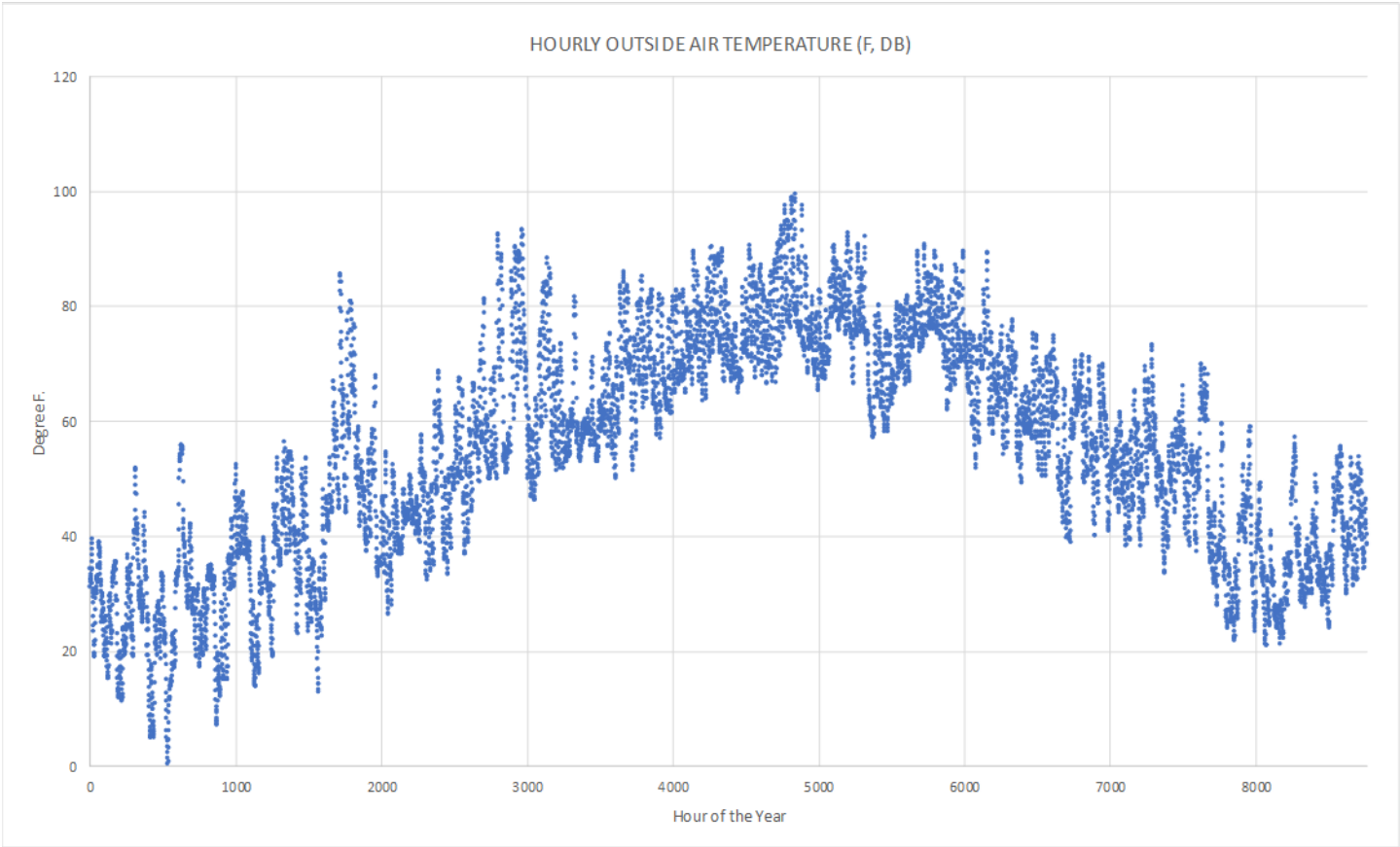
Space Loads Schedule

10/29/22



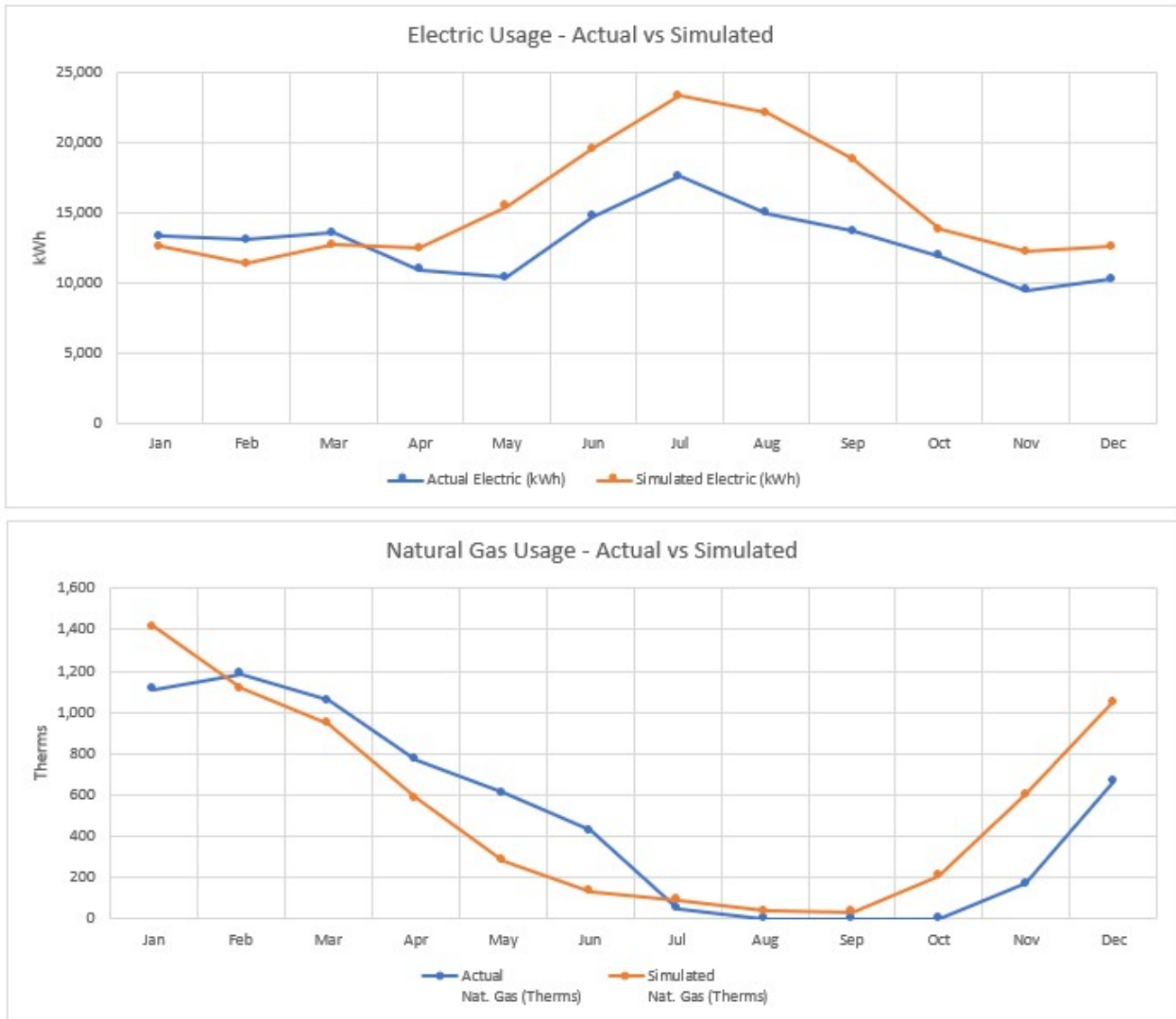
— LOCAL WEATHER DATA —

New York, LaGuardia Airport



— ENERGY MODEL CALIBRATION —

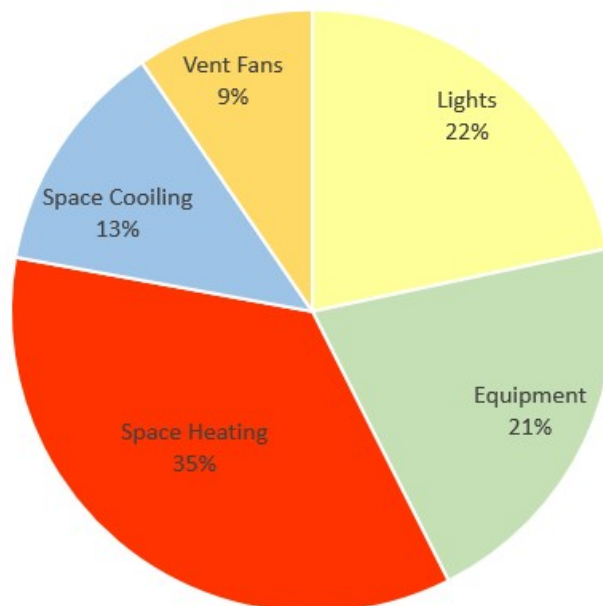
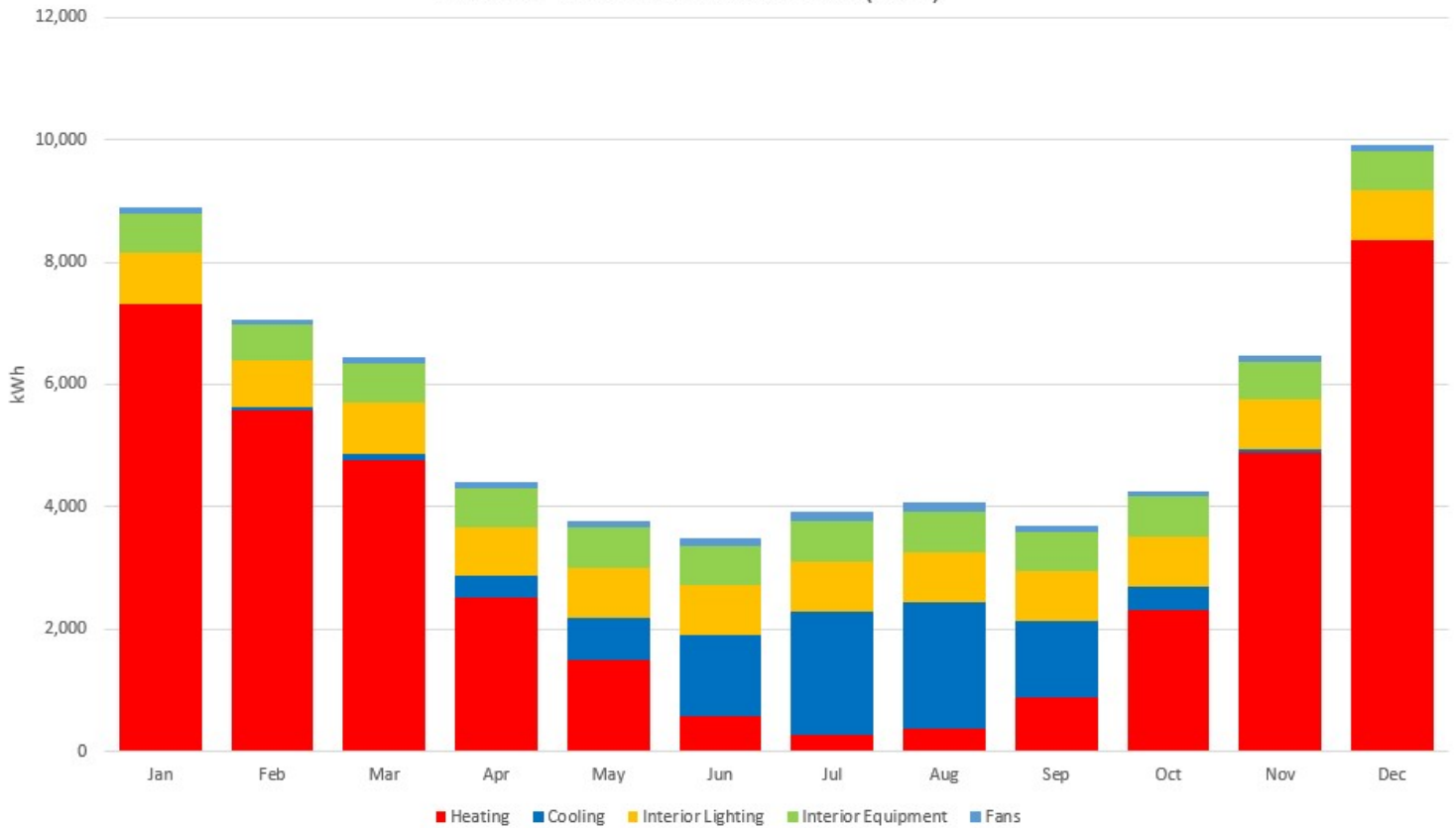
Simulated vs. 2025 Utility Data



— ENERGY MODEL RESULTS —

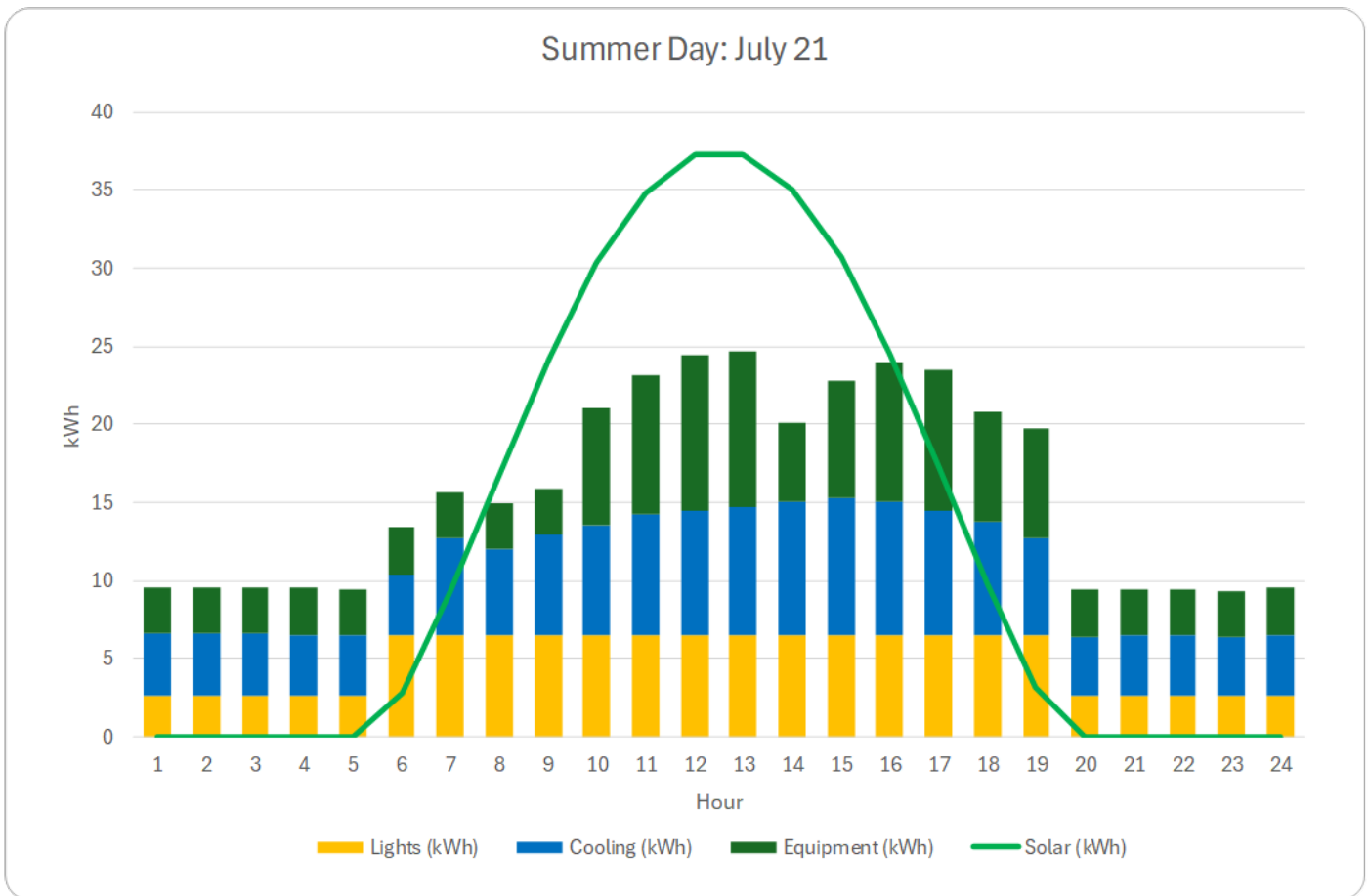
Monthly Energy Consumptions

1,300 SF Box Building in Portland, Oregon
MONTHLY ELECTRIC CONSUMPTION (KWH)



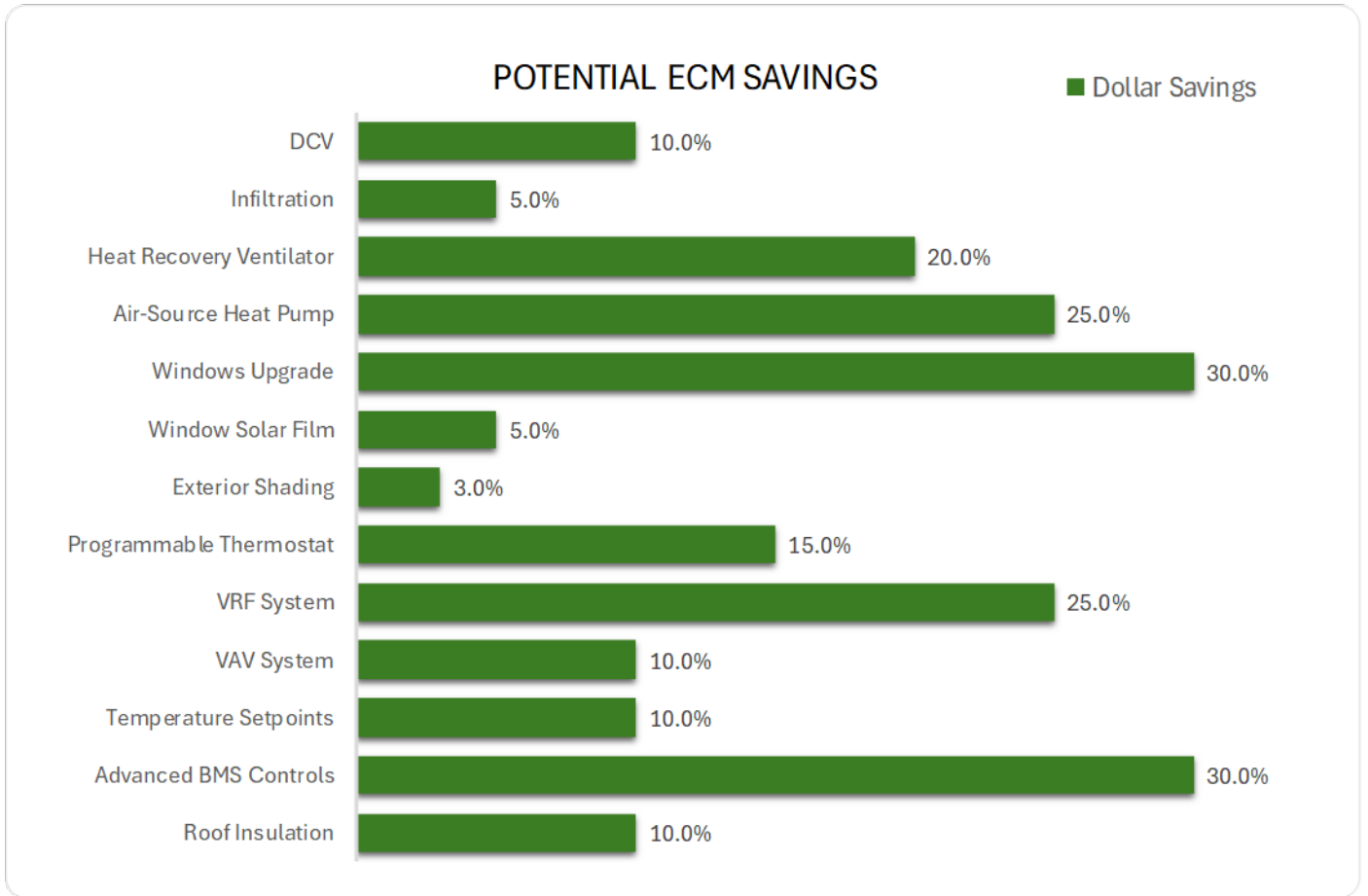
— ENERGY MODEL RESULTS —

Solar PV

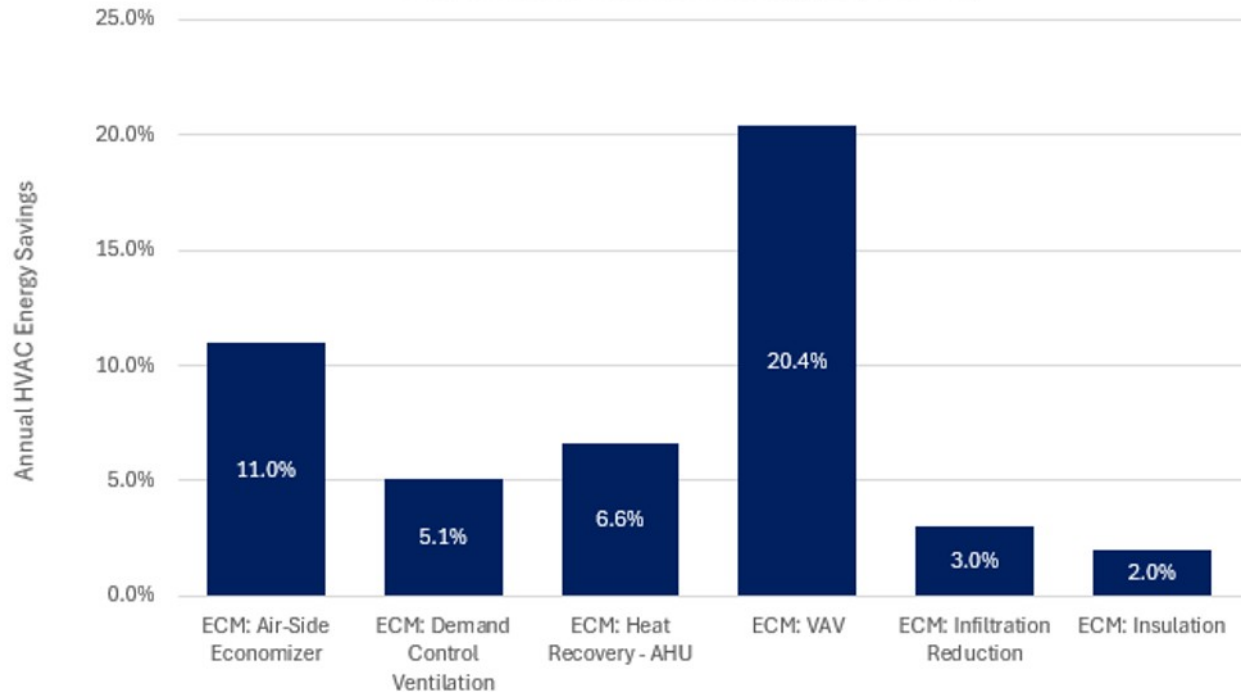


— ECM SAVINGS —

Potential Savings



24/7 Administration Building (20,000 SF)



— 3-D SIMULATIONS —

From OpenStudio Application

OpenStudio

