

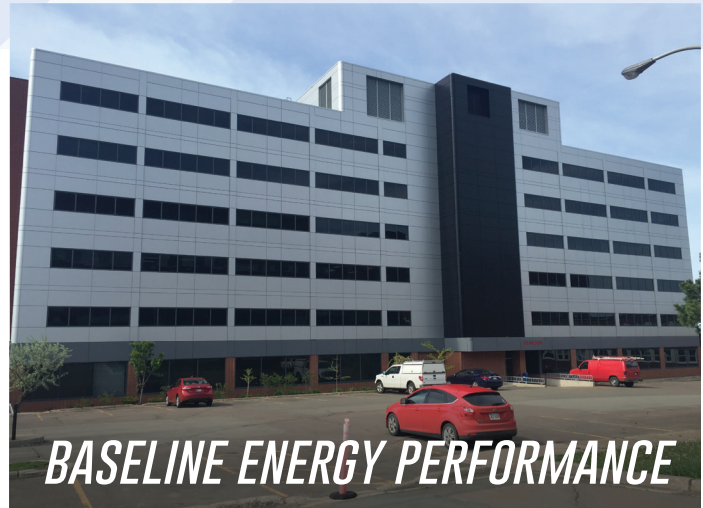
BACKGROUND

This 6 story / 69,000 sq.ft. building is located next to The Moncton Hospital. Tenants include physicians, specialized services clinics, and Nursing Faculty. The building's HVAC system includes washroom exhaust fan system, air handling units, humidifiers, chiller, cooling tower, heat coils, dual duct VAV boxes and baseboard heaters. Prior to engagement with PMC, the PAB consumed over 2.6 million kWh of electricity, resulting in over \$290,000 in annual energy expenditure.

SCOPE

PMC conducted a detailed energy audit, and determined that through the implementation of targeted retrofits, a **62% reduction** in annual energy cost could be attained. The following projects were implemented from 2015 with **no upfront capital cost requirements**:

- 1 Installation of ultra low leakage dampers, modifications to and addition of zone controls
- 2 Separation of the hot deck and cold deck, to each run on their own independent fans
- 3 Chiller replacement
- 4 Building Automation System upgrades and new energy efficient operating sequences



BASELINE ENERGY PERFORMANCE	
Building Size (sq.ft.)	69,000
Annual Electricity Consumption (kWh)	2,626,800
Average Electricity Demand (kW)	8,905
Total Energy Utilization Index (kWh/sq.ft./yr)	38.07
Total Annual Energy Costs	\$294,582

RESULTS

- ENERGY SAVINGS**
 1,480,320 kWh (56%) in annual elec. savings
 3,866 kW (43%) in electrical demand savings
 56% reduction in annual energy use (now at 16.62 kWh/sq.ft./year)
- COST SAVINGS**
 \$183,807 (62%) in annual energy cost savings
 ZERO upfront costs
 5 year payback
- ENVIRONMENTAL BENEFITS**
 414,490 kgCO₂e of annual emissions avoidance (equivalent to over 718 acres of mature forest land)

