Benchmarking Case Study

The facility is a four storey building with a basement and mechanical penthouse. The total floor area is assumed to be 5,700 sq metres. Two key intensity ratios can be calculated based upon the historical data.

1. Demand Intensity

Typical peak demand intensity for building type is: 40 – 100 watts/ m^2

This building demands 380 kW over 5,700 m^2 for: 67 watts/ m^2.

2. Electrical Energy Intensity

Typical energy intensity for building type is: 140 to 260 kWh/ m^2

This building used 1,743,120 kWh, for: 306 kWh/ m^2

3. Fuel (Natural Gas) Energy Intensity

Typical fuel energy intensity for building type is: 120 to 240 kWh/m^2

This building used 961,448 kWh, for: 169 kWh/m^2 (3,461 GJ for the year)

4. Overall Energy Intensity

A best practice benchmark suggests a total intensity of: 200 kWh/m^2