DiMAX
*Driving Building Performance*

# Improving the Bottom Line
## - Multi-Unit Residential

## Issue

Natural gas consumption for a large apartment complex in Toronto was 22% above the norm, resulting in higher than expected occupancy costs. As a result, the owner's profitability was reduced and the asset value was negatively affected.

- 930 suite apartment complex in downtown Toronto.
- HVAC system comprising 16 atmospheric gas boilers, primary-secondary zoned perimeter radiation heating with no in-suite control, make-up air ventilation supplemented by in-suite exhaust and instantaneous domestic hot water heat exchangers heated through the central plant.
- Average natural gas expenditures in excess of $1200 per suite per year.

## Action

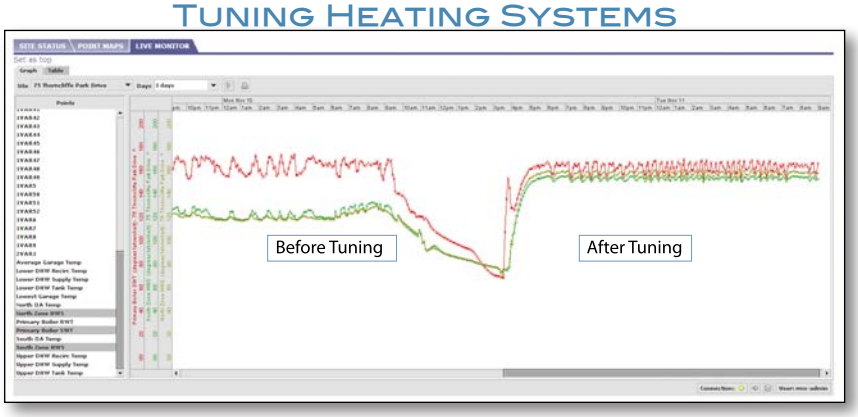
*Dimax* connected their Building Performance solution to the building's intelligent systems to monitor the behaviour of the heating equipment in detail.

*Dimax* quickly identified:

- The aging heating plant was poorly staged, resulting in a low overall seasonal efficiency.
- Heating zones were not properly scheduled.
- The primary heating loop was operating at excessively high temperatures.
- Make-up air units for the three laundry rooms were operating at temperatures too high for the winter, resulting in the space being overheated.
- Garage heating loops and exhaust fans were not being properly operated, resulting in wasted energy.

Without delay *Dimax* implemented measures to correct these operational anomalies, effectively "tuning the heating system."

### Tuning Heating Systems




## Results

Without replacing equipment or compromising tenant comfort natural gas reduction of 14.0% in the first heating season and an additional 7.2% in the ensuing season.