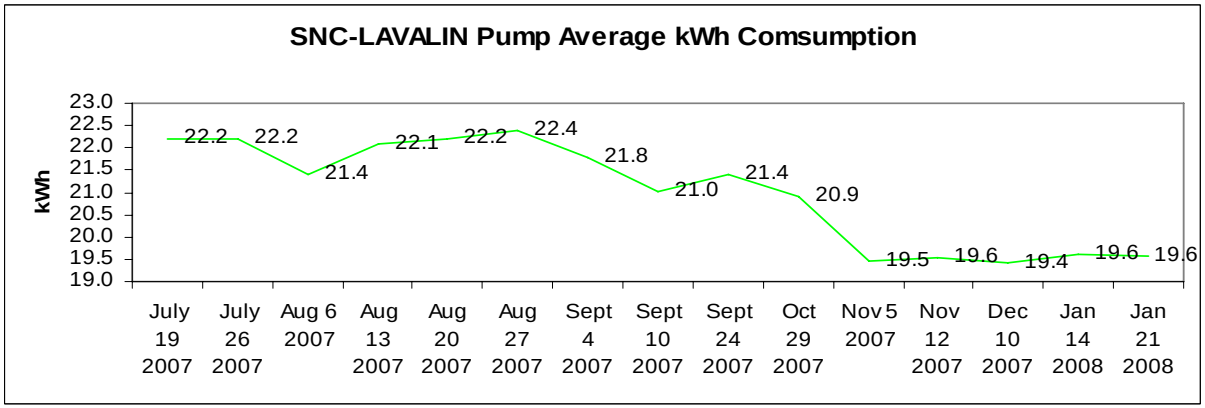
Case Study - Office Building in Montreal

SNC·LAVALIN

SNC-Lavalin is one of the world's leading groups of engineering and construction companies, a key player in facilities, operations, management and infrastructure, with offices in 30 countries and projects in some 100 countries.

12% average kWh Savings



Demonstration Project:

A Power Optimizer™ (rated 25 kVA, 600 volt, 60 Hz) was installed on a water chiller pump serving one of the 23 floors in SNC-Lavalin's head office building located in Montreal, Canada and has been operating for over 26 weeks since July 19, 2007. Based upon the realized savings, plans are underway to install Power Optimizers™ to serve all motors, lighting and electrical outlets throughout the 23 storey building.

Load:

25 hp water chiller pump-motor (575 volt, 1770 rpm, 24 amp, 60 Hz), steady and constant inductive load operating continuously (24 hours, 7 days a week).

Monitoring and Results:

The baseline data was taken to establish the power consumption and other parameters during the period from July 13-19, 2007, prior to the Optimizer installation. kWh results were determined using a kWh meter installed by ProSonic, SNC- Lavalin's electrical contractor. The results were reviewed by an engineering energy expert of SNC-Lavalin. The baseline average energy consumption per hour was 22.2 kWh. After installation of the Optimizer it dropped to 19.6 kWh as measured on Nov. 5, 2007, for a saving of 12% (22.2 → 19.6) . This saving has remained constant for 11 weeks as measured on Jan. 21, 2008. In addition the kVA decreased by 30% (29.9 → 20.9) and the power factor improved by 26% (0.744 → 0.935).

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