Dufferin-Peel R.C.S.S. Board

Demonstration Project

EMS-S296 Installation in

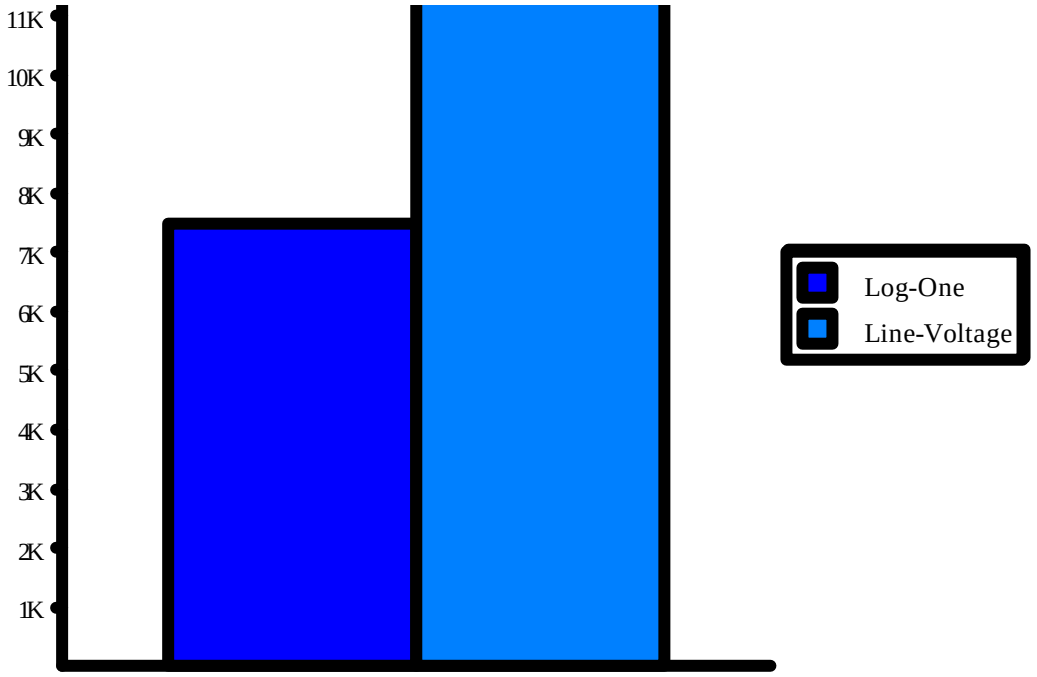
Portable Classrooms

July, 1996

Project Overview:

The Dufferin Peel RCSS Board installed three Log-One EMS S2-95 (equivalent to the newer EMS S-296) controllers in portable classrooms at Queen of Heaven School during October 1995 for evaluation. The controllers were retrofit to three portables, which previously had conventional line voltage thermostats. Energy costs were analyzed vs. those of five identical portables that still had line voltage thermostats. All portables were otherwise identical and heated by two banks of baseboard heating at 5KW per bank. Data loggers were also installed on all portables for a 2-week period and independent testing was conducted by Mississauga Hydro.

Project Results:



Specific Energy Consumption Based on Billing Data (11/30/95 to 5/8/96)			
	LOG ONE EMS S-296	**LINE VOLTAGE THERMOSTAT**	**REDUCTION (%)**
kW Hrs (per portable)	7408	11706	36
Billed Cost ($ per portable)	333.4	530.96	37.6

IMPORTANT: ALL PORTABLES WERE SEPARATELY METERED AND NO PEAK DEMAND CHARGES WERE INCURRED. REDUCTIONS POSSIBLE IN PEAK DEMAND COULD GENERATE SUBSTANTIALLY GREATER SAVINGS FOR MANY BOARDS AS THE S2-96 VERSION ONLY NORMALLY UTILIZES ONLY ONE BANK OF BASEBOARD HEATING (5KW) FOR PREHEAT.

Financial Analysis:

The installed cost on an EMS-S296 is approximately $800.00 (depending on quantity). In Ontario the estimated average annual energy cost for portables is $1,200.00. A 37.6% reduction in energy cost based on $1,200.00 would generate energy savings of about $450.00 per year signifying a payback of less than 2 years. Payback could be reduced when demand charges at an average of $8.00 per kW are included.

Update (2002): Since this demonstration project was completed in 1996, electrical energy costs have increased almost 20% on average. Deregulation of the electricity marketplace has added more uncertainty about long term electricity pricing. Most predictions range from a modest price increase to a double-digit increase over the next three years. The net impact of higher electricity pricing over the past six years and predictions for the future will be to make the installation of Log-One products even more attractive.

Summary:

Installation of the EMS S-296 produced significant savings when compared to a conventional thermostat. The simple payback is typically in the range of 1.5 to 2.5 years. A Log-One representative should be contacted to determine the energy savings potential for each specific application and the expected payback based on actual installation costs, operating conditions and current energy costs.