End Use Energy Efficiency

The Canadian Electricity Industry

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High Investment Levels in Energy Efficiency

- Electric utility companies have spent over $750 million on energy efficiency programs since 1990.
- The current forecast for the next 5-10 years shows electric utilities' spending will exceed $1 billion.
- Such expenditures reflect utility costs associated with business case preparation, program development, promotion and service delivery.

Full Cost Recovery/ Rate of Return Required

- Electric Utilities will only implement energy efficiency programs where a business case supports such an investment.

- The business case will often reflect the following kinds of considerations:
  - Savings from avoided or deferred investment.
  - Improved asset utilization from load shaping.
  - Customer retention/services.
  - Increased power exports.
  - Environmental performance eg. emission credits.
  - Public perception eg. Ability to manage energy costs.

Programs Receiving Investment Dollars

- Compact Fluorescent Lights
- LED Signal Lights
- Refrigerators
- Clothes Washers
- Dishwashers
- Adjustable Speed Drives
- Electronic Ballasts & Thermostats
- Metering
- Ground Source Heat Pumps.

Market Analysis of Energy Efficiency Programs

- 50% of Canadian consumers are in markets which offer major energy efficiency programming.
- 15% of consumers are targeted with ‘For Profit Programs’ – innovative, value added services principally aimed at attracting and retaining customers.
- 5% just provide information services – publications, workshops, metering and advisory services.
- 30% of the Canadian market receive no electric utility sponsored programming.

Energy Savings Achieved

- Electric utility companies' energy efficiency programming has resulted in over 5 million MWhrs/year of energy savings in 2001.
- This has reduced GHG emissions by more than 2 million tons per year.
- Projected energy savings expected to provide a further 5 million MWhrs/year.

More Can be Done

- Better alignment of Federal and Provincial policy and program activity will enhance energy efficiency.
- Regulatory reform and incentives will accelerate and increase energy efficiency programming and technology deployment.
- Improved partnering within industry and with government can facilitate:
  - Raising public awareness
  - Market transformation
  - Best practices
  - Standards development.

Steps Being Taken by CEA

- Letter of Cooperation on End Use Efficiency.
- Canadian GeoExchange Coalition.
- Electricity Trade Sector Review on Metering Regulations
- CAMPUT on Performance Based Regulation
- Data Management and Benchmarking