



# Canadian Industry Program for Energy Conservation

**Summer Study on Energy  
Efficiency in Industry**

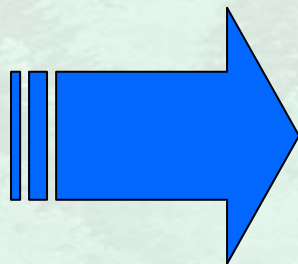
**Niagara Falls, New York  
July 29, 2009**





# Benefits of Energy Efficiency

Energy Efficiency



- Cost savings
- Productivity improvements
- Environmental protection
- Corporate Sustainability



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# About CIPEC



- Since 1975, an industry-government partnership that promotes voluntary actions to reduce industrial energy intensity
  - 52 trade associations
  - more than 1,500 companies are CIPEC Leaders
- Encourage adoption of energy efficiency as a tool to:
  - cut costs
  - improve productivity
  - reduce GHG and other air emissions



# Canadian Industrial Program for Energy Conservation (CIPEC)



- Promote voluntary action to reduce industrial energy intensity by 1% per year;
- Members represent 98% of industrial energy use in Canada



# How CIPEC is Structured





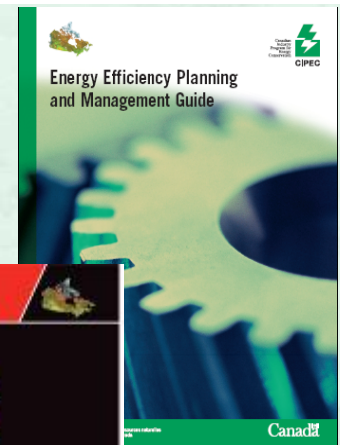
# The Approach





# Raise Awareness

- Sector Task Forces
- Employee Awareness Kits
- Case Studies
- Best Practices Guides
- Twice monthly newsletter – “Heads Up CIPEC”
- CIPEC Annual Report
- Technical Videos
- Conferences and Awards





# Build Knowledge

## Dollars to \$ense Energy Management Workshops

- **Spot the Energy Savings**
- **Energy Monitoring**
- **Energy Master Plan**
- **Energy Efficiency Financing**
- **Customized workshops tailored to companies and sectors**



**Over 14,500 participants to date!**





# Identify Opportunities

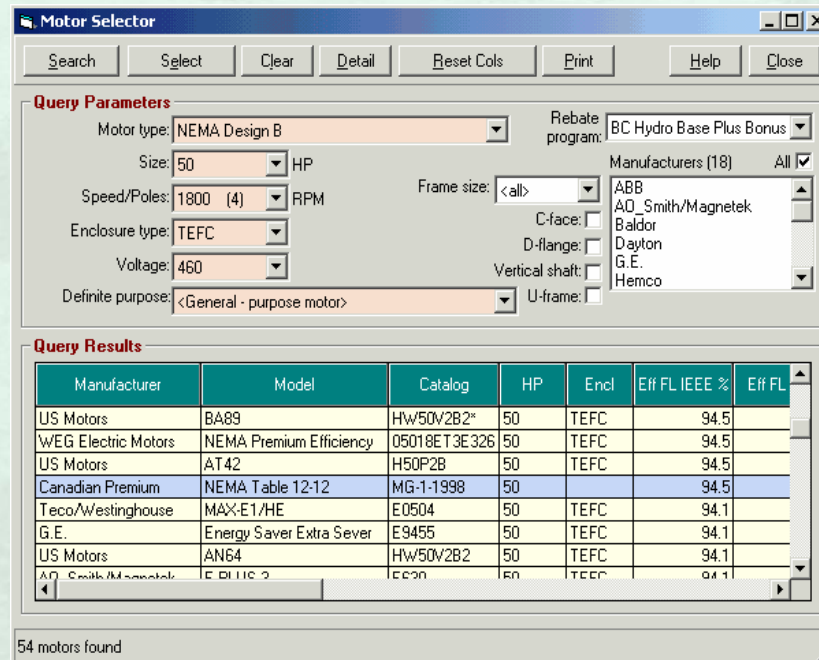
- Energy Audit Manual
- Best Practices Guides
- Benchmarking Guides
- Process Integration
- Computational Fluid Dynamics
- **New:**
  - **EMIS Manual and Tools**
  - **ISO 50001 Energy Management Standard**



# Identify Opportunities

## Downloadable software

- **Boiler Efficiency Calculator** that evaluates boiler performance
- **CanMOST** software program that analyses and compares the efficiency of three-phase electric motors; over 43,000 motors in the database
- **RETSCREEN** assesses the financial viability and risk for various types of energy efficient and renewable energy technologies.



The screenshot shows the 'Motor Selector' application window. It features a search bar at the top with buttons for 'Search', 'Select', 'Clear', 'Detail', 'Reset Cols', 'Print', 'Help', and 'Close'. Below the search bar is the 'Query Parameters' section, which includes dropdown menus for 'Motor type' (NEMA Design B), 'Size' (50 HP), 'Speed/Poles' (1800 (4) RPM), 'Enclosure type' (TEFC), 'Voltage' (460), and 'Definite purpose' (General - purpose motor). There are also checkboxes for 'C-face', 'D-flange', 'Vertical shaft', and 'U-frame'. A 'Rebate program' dropdown is set to 'BC Hydro Base Plus Bonus', and a 'Manufacturers (18)' list is shown with 'All' selected. The 'Query Results' section displays a table with columns: Manufacturer, Model, Catalog, HP, Encl, Eff FL IEEE %, and Eff FL. The table lists several motor models from manufacturers like US Motors, WEG Electric Motors, Canadian Premium, Teco/Westinghouse, G.E., and ABB. At the bottom, it indicates '54 motors found'.

Manufacturer	Model	Catalog	HP	Encl	Eff FL IEEE %	Eff FL
US Motors	BA89	Hw50V2B2*	50	TEFC	94.5	
WEG Electric Motors	NEMA Premium Efficiency	05018ET3E326	50	TEFC	94.5	
US Motors	AT42	H50P2B	50	TEFC	94.5	
Canadian Premium	NEMA Table 12-12	MG-1-1998	50		94.5	
Teco/Westinghouse	MAX-E1/HE	E0504	50	TEFC	94.1	
G.E.	Energy Saver Extra Severe	E9455	50	TEFC	94.1	
US Motors	AN64	Hw50V2B2	50	TEFC	94.1	
ABB	AD_Smith/Magnetek	CC00	50	TEFC	94.1	



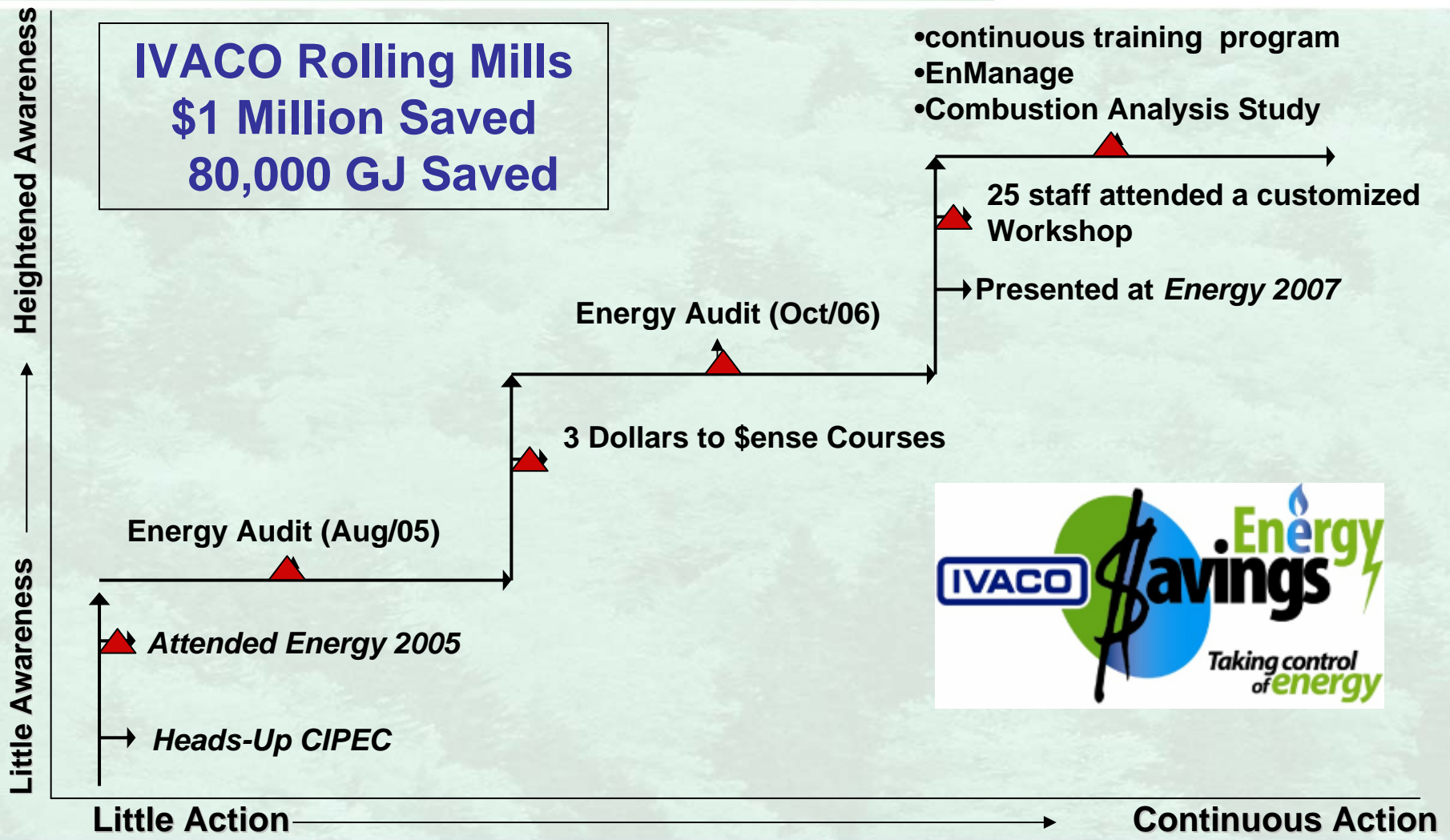
# Take Action Retrofit Incentive

- **Financial incentives for small buildings and industry**
  - Industry <500 employees, unregulated for GHG
  - Buildings  $\leq 20,000 \text{ m}^2$  (216,000 ft<sup>2</sup>)
- **Incentive of \$10 per GJ of annual savings:**
  - Up to \$50,000 **or**
  - 25% of project costs **or**
  - Reduce payback to 1 year
  - Company max of \$250,000





# Services to Drive Your Results





# Cost Savings

- \$1M - IVACO Rolling Mills
- \$60M – Vale Inco
- \$200,000 - Proctor & Gamble
- \$100,000 - 3M Perth
- \$4,250,000 – TD Centre

*\$4B annual energy savings*

# Where to Start?



ecoENERGY  
an ecoACTION initiative

- Become a CIPEC Leader
- Go to: [CIPEC.ca](http://CIPEC.ca)

The screenshot shows the CIPEC website interface. At the top, there are navigation links for 'Français', 'Contact Us', 'Help', 'Search', and 'Canada Site'. Below these are 'Return Home', 'Site Map', 'Text View', 'Print View', and 'NRCan Site'. The main content area features a banner for 'OFFICE OF ENERGY EFFICIENCY' with the headline 'Join the CIPEC Leaders and make a difference to your company's bottom line and the environment!'. A sidebar on the left lists various resources like 'About OEE', 'Business: Industrial', 'Energy efficient equipment', etc. The main text explains the process of becoming a CIPEC Leader, mentioning the need to submit a letter to the Canadian Industry Program for Energy Conservation (CIPEC). Below this, there is a section for assistance in customizing the letter, followed by a sample letter template addressed to Glenn Milfin, Chair of the CIPEC Executive Board. The letter template includes a header with contact information, a salutation, a body paragraph stating support for ecoENERGY objectives, a paragraph about participating as a CIPEC Leader, and a closing statement about registering a facility.



Natural Resources  
Canada

Ressources naturelles  
Canada

Canada