



# **The Federal Buildings Initiative**

## **Natural Resources Canada**

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# Office of Energy Efficiency

*Leading Canadians to Energy Efficiency  
at Home, at Work, and on the Road*

## Mandate:

- Renew, strengthen and expand Canada's commitment to energy efficiency.
- Accelerate the adoption of energy efficient technologies and practices.

## Sectoral Approach:

- Housing, industry, transportation, commercial and institutional buildings, and **government operations.**



# Federal House in Order

*Government of Canada's plan for reducing greenhouse gas (GHG) emissions from its own operations.*

- **Key elements...**
  - Fleet and building operations
  - Commuting and business travel
  - Training and awareness
  - Renewable energy deployment
  - Green procurement
  - GHG inventory and reporting
- Building operations account for 80% of GHG emissions.





## Federal Buildings Initiative (FBI)

- Natural Resources Canada performance based program established in 1991 to assist federal government organizations undertake energy efficiency improvements in order to:
  - Reduce energy consumption and costs.
  - Improve energy efficiency.
  - Demonstrate leadership.
- The FBI is a key strategy for reducing GHG emissions in federal buildings.





# Organizational Barriers

Common barriers to implementing energy efficiency improvements...

- No identified funding.
- Inadequate knowledge of energy management.
- Scarcity of internal resources to implement efficiency improvements.





# Performance Based Program

**The FBI was developed based on the following principles:**

- Performance based (not specification and purchase).
- Guaranteed results.
- Cost savings to pay for the improvements.
- **Once the contract has been paid for, the department retains all subsequent savings.**
- Contracting authority delegated to those responsible for the buildings.
- Program model designed to be replicated in other sectors and by other authorities.



# FBI Products and Services

- Information (case studies, guidance materials).
- Model Energy Performance Contracting documents
- Workshops/Seminars
- Health and safety guidelines
- Environmental advice
- Qualified Bidders List
- Consultation and advice
- National training service
- Employee awareness





# Energy Performance Contracting

- **Comprehensive service based on energy savings:**
  - Energy analysis
  - Procurement of goods and services
  - Engineering and design
  - Project management
  - Energy maintenance
  - Specialized employee training
  - Commissioning and construction
  - Monitoring and verification
  - Guaranteed results







# Savings Financing

## **Energy Service Company (ESCO)**

- Provides the project financing.
- Guarantees that the energy savings will pay down the project costs over a set period.

## **Client Organization**

- Pays the lower energy bill to utility.
- Pays the ESCO the realized energy savings.
- Works with ESCO in a cooperative partnership.





# Qualified Bidder's List

- Pre-qualified to bid for contracts
- Evaluation criteria
  - Project experience
  - Engineering experience
  - Approach to project management
  - Risk management
  - Financial capability
  - Human Resources: qualifications/experience





## Qualified Bidder's List February 2006

- Ameresco Canada Inc.
- Cinergy Solutions-Demand, Ltd
- Dessau-Soprin Inc.
- Direct Energy Business Services
- Ecosystem
- Groupe HBA Experts-conseils S.E.N.C.
- Honeywell Limited
- Johnson Controls L.P.
- MCW Custom Energy Solutions, Ltd.
- Siemens Building Technologies, Ltd.
- Wabco Standard Trane Co.



# Typical Efficiency Improvements

- Lighting Systems
- HVAC Systems
- Building Envelope
- Central Heating Plant Measures
- Renewable Energy Measures
- Training
- Employee Awareness Programs
- Water Efficiency Measures
- Control Systems
- Cogeneration
- Integrated Systems
- Fuel Conversions
- Recommissioning



# Program Results

- Established 1991 – First project 1993
- 80+ project contracts
- \$215 million (US) invested by the private sector
- \$30 million (US) in annual savings.
- Over 200 kt of GHG reductions.
- Fosters job creation in the energy management service industry.





## Program Contact

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