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NRCan Program Update

A Look at Available Tools and Incentives

PLUG Conference

October 24, 2024

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NRCan, Industrial Division*





Canadian Industry Partnership for Energy Conservation

CIPEC Approach

Raise Awareness

- **CIPEC Webinar Series:** free monthly English and French webinars
- **Social media:** LinkedIn, Twitter
- **Videos:** testimonials, case studies

Build Knowledge

- **In-house expertise:** guidance with other programs, incentives and standards
- **Technical tools** and support
- **Networking** opportunities



*Your Partner in
Energy Savings*

www.CIPEC.ca

Encourage Action

- **Cost-shared incentives**
- **50001 Ready Canada** program: step-by-step, self-paced approach
- **ENERGY STAR for Industry:** Challenge and Certification

Help Companies Reap Rewards

- **Lower operational costs** through improved energy management
- **Lower energy intensity** and GHGs
- **Improved competitiveness**
- **CIPEC recognition:** certificates, awards, social media



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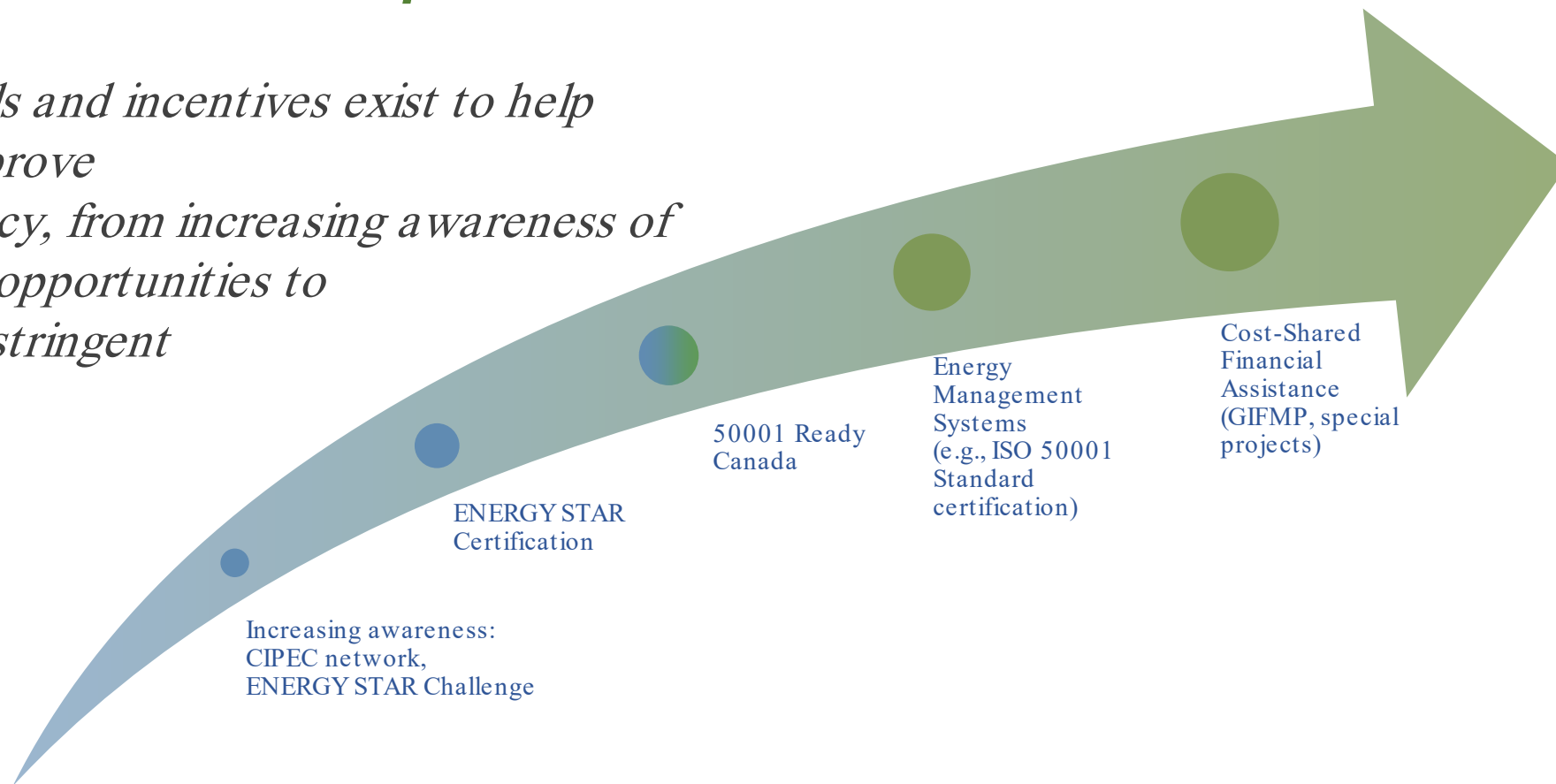
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Improving Industrial Energy Efficiency

Spectrum of Activities and Options

A range of tools and incentives exist to help companies improve energy efficiency, from increasing awareness of energy-saving opportunities to implementing stringent standards.



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ENERGY STAR for Industry

1. **Challenge** – your facility achieves a 10% reduction in energy intensity within five years (ENERGY STAR Achiever)
2. **Certification** – your facility is recognized as a top energy efficiency performer in your industry (ENERGY STAR Certified)



ENERGYSTAR-Industry@canada.ca



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ENERGY STAR Challenge

Facilities Registered for the Challenge (47)

Including:

- Cascades (8)
- Bimbo Canada (7)
- 3M (6)
- Celanese (2)
- Fiat Chrysler (2)
- General Motors (2)
- Baldinger Sons Bakery (2)
- Hershey Company (2)
- Atkore (1)
- CNH Industrial (1)
- Dawn Foods (1)
- Hexion Canada (1)
- Magna Canada (1)
- Winpak (1)



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ENERGY STAR Challenge

Challenge Achievers (7)

1. Fiat Chrysler Automobiles, Windsor Assembly

27.4% reduction from baseline within 3 years

2. General Motors Company, St. Catharines Glendale

11.2% reduction from baseline within 2 years

3. Cascades Canada, Kingsey Falls Paper

12.5% reduction from baseline within 5 years

4. Bimbo Canada, Calgary Bakery

12.0% reduction from baseline within 1 year

5. Bimbo Canada, Moncton Bakery

11.4% reduction from baseline within 2 years

6. Bimbo Bakehouse LLC, Attwell Bakery

15.1% reduction from baseline within 1 year

7. Hexion Canada Inc., St-Romuald

17.4% reduction from baseline within 3 years



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ENERGY STAR Certification

EPIs Available to Canadian industry

- commercial bakeries
- automobile assembly facilities
- automobile engine facilities
- automobile transmission facilities
- integrated steel mills
- cement manufacturing facilities
- frozen fried potato processing facilities
- fertilizer

EPIs for other industrial sectors are under development

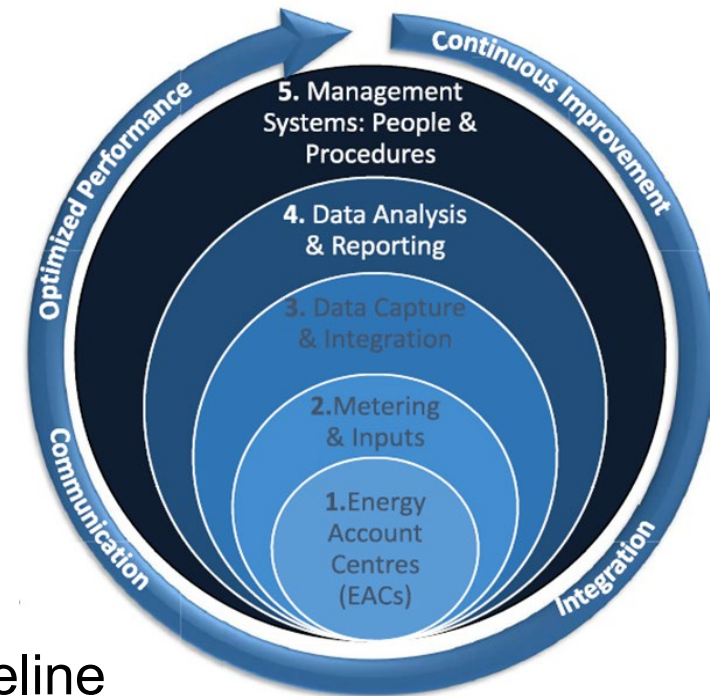


Energy Management Information Systems (EMIS)

An **EMIS** makes energy visible within an organization and enables them to plan and take effective action toward systematically improving energy performance

An **EMIS** is only one element of a comprehensive EnMS albeit an important one without which full benefits will not be achieved and sustained

- ✓ Implementing an **EMIS** will establish a foundation to comply with the ISO 50001 EnMS Standard
- ✓ An **EMIS** will fulfill the requirement of establishing an energy baseline
- ✓ An **EMIS** will lay the foundation to monitor, document and report on energy performance



We are currently updating Canada's EMIS Guidelines and expect a new edition to be released in 2025



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ISO 50001 Energy Management System Standard



What it is

- ✓ An EnMS framework
- ✓ Requirements for establishing, implementing, maintaining and improving an EnMS
- ✓ An international standard that follows the same structure as other widely applied ISO standards, making it easy to integrate

What it is not

- ✓ Sector specific nor just for industrial facilities
- ✓ A technological project such as an energy retrofit -- it involves integrating organizational and behavioural processes in the organization
- ✓ Prescriptive of specific energy performance improvement criteria

What it does

- ✓ Enables organizations to follow a systematic approach in achieving continual improvement of energy performance
- ✓ Helps organization reduce costs and GHGs
- ✓ Supports resiliency and efficiency



NRCan's 50001 Ready Canada Program



- Self-paced approach to establish an energy management system in the structure of the ISO 50001 Energy Management Standard
- The 50001 Ready Canada program offers:
 - Guidance to identify and analyze facility-wide energy use and to develop action plans around energy performance improvements
 - NRCan recognition of Canadian facilities that self-attest to completion of the 25 tasks in the 50001 Ready tool
- Central to the program is the no-cost 50001 Ready Navigator on-line tool that provides step-by-step guidance that helps implement an energy management system

Available at: <https://navigator.canada.lbl.gov>



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The 50001 Ready Canada Tool

The screenshot shows the 50001 Ready Navigator website. At the top left is the logo with the text "50001 Ready™ Navigator". On the top right, there is a "LANGUAGE" dropdown menu set to "English", and links for "Contact", "FAQs", and "Explore". The main content area features a large heading "50001 Ready™" and a sub-heading "Welcome to the 50001 Ready Navigator!". Below this, there is introductory text about the tool's purpose and a note about updates to the ISO 50001 standard in 2018. Three preview cards are displayed: "About the Navigator", "Explore the Navigator" (showing a dashboard with "100% Completed" progress), and a "Create an Account or Log-in to Get Started" form with fields for "EMAIL ADDRESS" and "ENTER PASSWORD", a "Log In" button, and a "Forgot password?" link. At the bottom, logos for "Canada", "U.S. DEPARTMENT OF ENERGY", and "BERKELEY LAB" are shown, along with text stating the program is administered and promoted in Canada by Natural Resources Canada.

Available at: <https://navigator.canada.lbl.gov>



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Crosswalk “50001 Navigator” Tasks & Plan-Do-Check-Act Structure

Navigator Categories

Context of the Organization

1. EnMS & your Organization
2. People and Legal Requirements
3. Scope and Boundaries

Leadership

4. Management Commitment
5. Energy Policy
6. Energy Team and Resources

Planning

4. Risks to EnMS Success
5. Energy Data Collection and Analysis
6. Significant Energy Uses (SEUs)
7. Improvement Opportunities
8. Performance Indicators (EnPIs) and Baselines
9. Objectives and Targets
10. Action Plans

Support

14. Competence and Training
15. Awareness/ Communication
16. Documenting the EnMS

Operation

17. Operational Controls
18. Energy Considerations in Design
19. Energy Considerations in Procurement

Performance Evaluation

20. Monitor/ Measure the EnMS
21. Monitor/ Measure Energy Performance
22. Internal Audit
23. Management Review






Improvement

24. Corrective Actions
25. Continual Improvement

Legend: **Plan** **Do** **Check** **Act**



50001 Ready Canada – Recognized Industrial Facilities

Company	Sector	Facility Location/ 2021	Facility Location/2022	Facility Location/ 2023	Total Facilities (all years)
 ALBERTA PACIFIC FOREST INDUSTRIES INC.	Forestry Products	County Athabasca, AB			1
 NADEAU	Food Processing	Saint-François de Madawaska, NB			1
 MAUSER Packaging Solutions	General Manufacturing	Springhill, NS			1
 COPOL INTERNATIONAL <small>Creating the Clear Advantage</small>	General Manufacturing	North Sydney, NS			1
 GM	Automotive	Oshawa, ON			1
MWCANADALTD material innovations	General Manufacturing			Cambridge, ON	1
3M	General Manufacturing			London, ON Perth, ON Brockville, ON Montreal, PW Morden, MB	5
TOTAL (All Facilities/All Years)					11



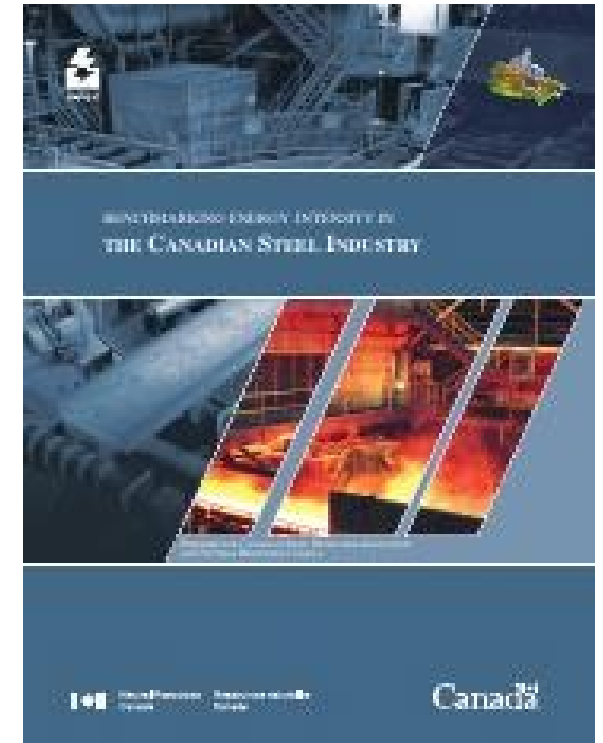
Green Industrial Facilities and Manufacturing Program (GIFMP)

- Announced in the 2022 federal budget and funded at \$194 million for five years (ending 2027).
- GIFMP Round 1 launched May 2023, and Round 2 in June 2024. GIFMP now closed except to Indigenous businesses (to March 31, 2025).
- Delivered under 2 separate Tracks:
 - **Track 1: Energy Efficiency Solutions** – applicants include provinces, territories, utilities
 - **Track 2: Industrial Facility track** – applicants will be industrial facilities
- Eligible Activities:
 - Train energy management practitioners
 - Energy assessments and audits
 - Hire or retain energy managers
 - Implement energy management systems
 - Energy efficiency-focused capital retrofits in existing facilities
 - *Deliver Strategic Energy Management (Track 1 only)*



Potential for Other Cost-shared Projects

- GIFMP funds are allocated, but there may be other cost-sharing opportunities
- NRCan's Industrial Division welcomes opportunities to partner with industry on special projects
- Joint projects (e.g. benchmarking studies), can play an important role in helping a sector or sectors move closer to their energy efficiency goals
- Contact NRCan with ideas and suggestions



GIFMP Will Generate More Opportunities

- The Energy Solutions Track (Track 1) of GIFMP funded up to 100% of eligible implementation costs (to a **maximum of \$20M**) per proposal from provincial and territorial governments, utilities and other qualifying groups capable of delivering programs
- In the coming weeks and months, we will start to see these programs start to roll out, offering facilities yet another opportunity to apply for funding to help reach energy efficiency goals
- SPOILER ALERT:
 - Watch for an announcement for one such program here in Ontario NEXT WEEK!



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CIPEC Webinars

- CIPEC resumed hosting **free** monthly English & French webinars in October 2022
- Recent webinars have covered a range of topics related to industrial energy management, including:
 - Decarbonization through ISO 50001 and RETScreen
 - Together toward a low-carbon, prosperous Québec, Hydro-Québec's support and offers for industries
 - The role of Benchmarking in strategic Energy Management
 - Energy Star for Industry, Certification and Challenge
 - SIF- Net Zero Accelerator Initiative
 - Net-Zero Challenge
- Since October 2022, we have hosted 30 webinars and attracted more than 5,550 participants
- Want to get on our distribution list and get notified of future webinars? Or have an idea for a future webinar topic? Contact us by email:

oe industry-industrie@nrcan-rncan.gc.ca

CIPEC Webinar Series
Energy Management Information Systems (EMIS)



Wednesday, October 30th, 1:00 – 2:00 pm (ET)



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Links and Contact information

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**General inquiries about NRCan industrial energy efficiency
and CIPEC webinars:**

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Directory of NRCan Energy Efficiency Programs for Industry:

<https://oe.nrcan.gc.ca/industrial/financial-assistance/programs.cfm>

Business Benefits Finder – Database of Government Programs

https://innovation.ised-isde.canada.ca/s/?language=en_CA

ENERGY STAR for Industry Program

ENERGYSTAR-Industry@canada.ca

ENERGY STAR for Industry Inquiries

energystarforindustry-energystarpourlindustrie@nrcan-rncan.gc.ca

50001 Ready Canada Tool:

<https://navigator.canada.lbl.gov/>

50001 Ready Canada inquiries:

50001ready@nrcan-rncan.gc.ca

US DOE database of ISO 50001 case studies:

[Energy Management Systems Insights](#)

www.CIPEC.ca

[CIPEC LinkedIn](#)



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Thank you



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