

Expanded Energy Management Program

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Save on Energy Program Implementation Approaches



Powering Tomorrow.



Powering Tomorrow.

Expanded Energy Management Program Industrial Facilities Commercial and Institutional Facilities (GTR)

Energy Manager



Energy Management Learning





Energy practitioners training





Energy Manager Support

The initiative supports hiring and retaining of certified energy managers. Energy managers identify energy saving opportunities, build an energy-savings culture, and implement energy management systems.

- Funding limit: up to \$100,000 per facility per year
- Until **June 30th, 2025, industrial** facilities who join the program will be eligible to apply the Energy Manager funding to an existing employee, without the requirement of an incremental hire.
- This offering has been provided to support industrial organizations mitigate the impact of US tariffs on their energy management activities.



Strategic Energy Management (SEM) Overview



- Develop and energy & GHG emissions management through a combination of education, coaching, peer-to-peer knowledge sharing & technical support
- Current SOE SEM curriculum has been expanded to include savings from all fuel sources
- Performance incentives up to \$100,000 per year, and earned enabling incentives up to \$5000



Energy Management Information Systems (EMIS)



- Industrial facilities with an annual baseline energy consumption of less than or equal to 400,000 GJ are eligible to receive \$50,000
- Industrial facilities with an annual baseline energy consumption of greater than 400,000 GJ are eligible to receive \$250,000, up to 50% of the eligible project costs, for the installation of an EMIS.





How to participate?

- Register your organization: <u>saveonenergy.ca/EEM</u>
- Contact us at <u>SEM@ieso.ca</u>

Once you have contacted us, a knowledgeable energy coach will schedule a free assessment call with you to discuss how the program can meet your specific needs.





19 JUNE 2025

Sustaining energy management information system (EMIS) operational savings

Jay Mullin Energy management coach



Upcoming survey: we want your feedback!



As someone who recently participated in the *What It Means to Become Net-Zero and How to Achieve It* as part of the **Save on Energy | Capability Building Program**, we'd like to know more about your experience. The IESO uses this feedback to monitor the success of the program and improve the offering over time. The survey should take about five minutes to complete.

This survey is conducted by Forum Research, a leading market research company, on behalf of the Independent Electricity System Operator (IESO). Be assured that all answers are completely anonymous and will have no impact on customer incentives.

***Please send any and all inquiries about the Capability Building Program sessions to trainingandsupport@ieso.ca. ***



The survey will be sent from: surveyinfo@forumresearch.com

- Check your email! A survey is coming your way soon
- Why? Help us improve our training programs
- Who? Conducted by Forum Research on behalf of the IESO
- Time? Takes only five minutes to complete
- Confidentiality: your responses are anonymous and will not impact participation or incentives



By the end of this workshop, you will be able to:





Follow along in the Participant Workbook!

Have the workbook open or printed out

Where to find the workbook:

- Click the link in the chat
- Download a copy to your computer
- Open and follow along

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ENERGY		
SUSTAINING EMIS OPERATIONAL SAVINGS		
PARTICIPANT WORKBOOK		
Mary facilities see energy performance improvements after implementing an energy management information system (BHIS), only to see them slip away after initial implementation. Without active strategies to maintain gains, equipment, people, and priorities drift—and so do savings.		
This workshop explores proven strategies to lock in energy savings by integrating EHIS processes into day-to-day operations.		
IN THIS WORKSHOP, PARTICIPANTS WILL:		
 Laws how performance differences and what is required to sustain operational service. Practice identifying common failure points and strategies to sustain savings using real-world earlingte. Develop first stops toward a strategy to sustain operational savings for their own organization. 		
and an a		
This workshop will be		
hested via Nicrosoft Teams. For Instructions or		
troubleshooting please see the last page of this workbook.		
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POWER WHAT

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Why operational savings degrade



The problem: short-lived energy savings

An energy management information system (EMIS) can be an excellent tool to save energy, optimize energy performance and achieve other benefits.

BUT

- Initial efficiency gains are often lost within six to 18 months
- Even after EMIS installation, savings degradation is common
- Root causes are usually operational, not technical



Common causes of savings degradation





Operator overrides

EMIS alarms



Lack of integration



Staff turnover



Case study: compressed air system regression



A mid-sized manufacturing plant implemented an EMIS to monitor equipment, including a compressed air system, to track energy consumption, system pressure and compressed air demand. The EMIS helped the energy team identify several improvement opportunities:

- Repairing leaks throughout the plant
- Reducing overall system pressure
- Implementing automated shutdown procedures for nights and weekends



Case study: compressed air system regression (Cont'd)

Within one month

 These measures resulted in an immediate 8% reduction in energy use for the compressed air system

8 months later

- When the energy manager reviewed the EMIS data, they noticed a significant backslide
- The system was now only showing a 2% energy reduction
- Most of the original savings had been lost



Case study: what might have gone wrong?





Operator overrides

EMIS alarms



Lack of integration



Staff turnover



Savings degradation risk factors

Retooling or operational changes

Shift changes/ staff turnover

Lack of training

No proper documentation

No ownership





Case study: North Found Metals



- Medium-sized die casting facility with stable operations
- Has implemented an EMIS and have achieved 7% energy reduction
- Energy manager has been the driving force
- Restricted EMIS access to minimize training requirements and forego
 documentation development in favour of quick action
- List of alarms sent daily to managers and team leads
- Some teams conduct weekly reviews of EMIS data, but inconsistent



Case study: North Found Metals (Cont'd)

Key risk factors

- Lack of documentation and training and reliance on energy manager
- Lack of ownership and accountability at the team level to review energy performance data and take action on issues or alarms



Assessing your risks

What are the biggest risks in your organization when it comes to the degradation of EMIS-related benefits?

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SAVE

EMIS SAVINGS DEGRADATION RISK CHECKLIST

Use this checklist to evaluate the risks in your facility. For each item, ask: Is this being dane consistently? If not, what could go wrong?

1. Ownership & Accountability

- A specific person, or persons, is assigned to monitor EMIS data daily or weekly.
- Department leads and shift supervisors know their EMIS-related roles.
- Alarms and notifications are acted on, not ignored or disabled.
- Escalation procedures exist for unaddressed energy issues.
- Overall performance of the EMIS, including whether issues are identified and corrective action taken, is reviewed on a consistent basis.

2. Documentation & SOPs

- Key EMIS-related tasks are documented in SOPs or checklists.
- Alarm response procedures are defined and communicated.
- System settings (e.g., pressure setpoints) are documented and reviewed.

3. Training & Knowledge Transfer

- All relevant staff have been trained on EMIS use and energy-saving practices.
- A plan is in place for onboarding new staff.
- Training materials or refreshers are accessible.
- Access is restricted to trained staff

Shift changes / staff turnover

- Staff on all shifts are trained on their EMIS-related responsibilities.
- Corrective actions resulting from EMIS findings are communicated to all shifts and their standards procedure documentation is updated.
- Appropriate EMIS-related training is included as part of staff onboarding.

5. Retooling or operational changes

- Changes to equipment or operations that may impact the EMIS are documented.
- Equipment changes or process shifts trigger EMIS review or re-tuning.
- EMIS alarms are updated to ensure they are relevant and focused on key issues.
- Setpoints and other parameters are regularly reviewed to ensure they are relevant and represent best practice.





Elements of a sustainment strategy



What does sustainment look like?



Operational energy savings sustained over 2+ years

Performance tracked, reviewed and acted on

Practices are embedded, not optional



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Key elements of sustaining EMIS savings



Management commitment (resources and accountability)

- Leadership ensures that trained staff are available to maintain the EMIS and an annual budget is established to maintain and update the EMIS
- A manufacturing VP included monthly EMIS performance reviews in executive meetings to maintain visibility and pressure for follow through

Clear ownership and responsibilities

- Plant manager requires each department to assign an energy point person responsible for energy performance in their department
- Specific individuals are identified and documented so, when alerts are issued, it is clear who should received them and be responsible for resolving them



Regular reviews and corrective actions

- Teams review their energy performance on a weekly basis to identify issues or opportunities
- Performance of the EMIS, including how long it takes to resolve alerts, is reviewed on an annual basis to identify improvement opportunities

Accessible and actionable data

- An automotive supplier developed line-level energy key performance indicators (KPIs) (e.g. kWh/unit) and aligned them with department goals
- A die casting facility used EMIS data to generate weekly dashboards sent to all supervisors with traffic light performance ratings



Integration into processes

- Shutdown checklists include energy items like compressed air isolation and idle equipment verification
- Project processes for retooling presses include steps for verifying EMIS setpoints and reactivating control schedules

Training and reinforcement

- EMIS training relevant to specific roles is incorporated into all staff onboarding
- A maintenance supervisor created a monthly energy update email that summarized key wins, anomalies, actions taken and recognition for staff contributions



Continuous improvement (CI)

- Opportunities identified, alerts issued, alerts resolved and actions taken are all tracked, documented and reviewed to ensure EMIS benefits are being sustained
- EMIS operations are included as part of annual facility energy management system audits to verify if correct processes are being followed and to develop corrective actions if non-conformities are found



Building a sustainment plan





Group activity: plan template walkthrough

- Section 1: system and owner
- Section 2: KPIs and review schedule
- Section 3: escalation and communication approach



EMIS funding is available!

The Expanded Energy Management Program from Save on Energy provides **up to \$250,000** for the installation of an energy management information system.





Stay connected with tools and resources

- Virtual one-on-one coaching: <u>post-webinar support intake form</u> for tailored support for organizations to manage energy resources effectively
- Monthly bulletin: <u>sign up</u> to receive monthly training updates on all Save on Energy training and support new tools and resources
- <u>Live training calendar</u>: visit this page to easily register for upcoming events and workshops
- <u>Training and support webpage</u>: visit this page to access all training and support materials



Thank you!

SaveOnEnergy.ca/Training-and-Support

trainingandsupport@ieso.ca

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