

**50001 READY CANADA**

**CASE STUDY**

**GUIDELINES**



## You’ve been 50001 recognized or ISO/SEP certified. Now what?

Natural Resources Canada (NRCan) encourages you to showcase your 50001 energy management system (EnMS) experience and success. You can share your journey by submitting a case study to the [Energy Management Systems Insights](https://50001insights.lbl.gov/) database. This collection of case studies offers detailed insights into real-world implementations from the 50001 Ready Canada recognition program and the ISO 50001 and Superior Energy Performance (SEP) certification programs. The database provides valuable sector-specific information on the energy, emissions, and cost savings of successful energy management systems.

## Share your experience

Using the guidelines below and the 50001 Ready case study template, create the story of how your organization implemented your 50001 EnMS and the benefits and lessons you learned along the way.

Once your case study is complete, visit the [Insights website](https://50001insights.lbl.gov/) and submit your case study. The Insights database was created and is maintained by Berkeley Lab and the U.S. Department of Energy and contains case studies from around the world. The platform and majority of case studies are currently available in English only however, this guide and the case study template are available in both English and French. You can submit your case study in the language of your choice.

NRCan may also feature your case study in other locations such as our Buildings and Energy Efficiency news, NRCan website, social media and/or communications to current Navigator users.



### GENERAL GUIDELINES

The guidelines below are aimed to help you get started. There are section headings and subheadings. Although we suggest following the **main headings** as outlined, you can add or change section subheadings as needed.

Below you will find guiding questions corresponding to each heading or subheading. Use the questions that best help highlight your experience.

In the case study template, you will find a call out box entitled “Case Study Snapshot”. This is a quick reference to key information you’ll share in your case study. If there is information that you are unable to share publicly, you can leave these sections blank.

Word lengths within the template sections are guidelines only. Elements such as quotes and images are highly recommended. Quotes should highlight a key finding or outcome. We suggest a total case study length of 2 to 6 pages or between 800 and 2000 words.

Sample case studies are provided below and then case study section guidelines follow. The case studies below do not follow the 50001 Ready Canada template exactly but are examples to inspire you. You can use this template and guidance for 50001 Ready recognition and ISO 50001 or SEP certification case studies.

**Sample case studies**

Search the [Insights database](https://50001insights.lbl.gov/) for the examples below or browse other case studies to get started.

Industrial-Manufacturing-3M (2019)

Industrial-Manufacturing-cement-St.Mary's (2011)

Industrial-Manufacturing-mining-NewAfton (2016)

Buildings-Commercial-Pharma-AstraZeneca (2021)

Buildings-Institutional-Oregon Corrections (2019)

Buildings-Commercial-Hotel-Loews (2022)

Buildings-Institutional-Federal Government-ESAP (2021)

### CASE STUDY OUTLINE

The questions below will help you complete each section and subsection of the template. You can change the order of the questions to suit your needs as you complete the case study template.

# Case study year

In the top right corner, in the header of the template, put the last year your organization was recognized or certified.

# Organization Name

Include the name and location of your organization.

**Subtitle highlighting key result of participating in 50001 Ready, ISO 50001 or SEP**

Choose the most significant key result or key finding and create a catchy subtitle.

# Business Case for Energy Management

In this section you can share information about your organization and what motivated your organization to embark on an energy management system journey.

***Organization Profile***

* Organization name
* Site name and location (City, Province, Country)
* What is the general use or space type within your scope and boundaries (eg. Office space, manufacturing site, rental units, campus buildings etc.)?
* What is the total square footage (for commercial and institutional buildings) or total units produced (for industrial facilities) of all of the facilities or buildings within the scope and boundaries of your 50001 project?
* What product is made or what service is provided at your organization?
* What is the approximate number of employees that work within the scope and boundaries of your 50001 project?
* If your organization has multiple facilities or buildings outside of the scope and boundaries of your 50001 project, are you aware of their status/plans for achieving 50001 recognition or certification?

*Key Drivers for Energy Management*

* What were your top motivations for participating in a 50001 EnMS project? (e.g., reducing cost, reducing risk, responding to customer demand, responding to supply chain requirements, etc.)

*History of Energy Reduction*

* Prior to your experience with a 50001 EnMS, what was your organization’s general process for identifying and implementing energy projects? (e.g., focused on end-of- life replacements, energy policy-driven, etc.)?
* Did you participate in any other federal energy management recognition programs (e.g., ENERGY STAR®), utility energy efficiency or utility-based strategic energy management programs and if so, what were they?
* Was your organization aware of ISO 50001 certification or SEP before engaging in 50001 Ready?
* If yes, were you considering pursuing certification? Why or why not?
* Did your organization have experience with other management system standards such as ISO 14001 or ISO 9001 prior to your participation with ISO 50001 EnMS?
* How did you find out about the 50001 program you used?

**Business Benefits**

In this section you will summarize the tangible energy and cost challenges your organization faced prior to implementing ISO 50001 EnMS and the benefits realized as a result of implementation.

*Energy Performance Improvement*

* Has this experience revealed any new energy savings opportunities that otherwise might not have been identified?
* How has your organization’s approach to reducing energy use changed since implementing your 50001 EnMS?
* Has your organization implemented building automation (BAS)**\*** and control systems to optimize various energy-related systems?
* Was there any metering or BAS upgrade projects implemented in together with the 50001 implementation?

**\***BAS refers to integrated systems that control and monitor various building functions, including but not limited to HVAC (Heating, Ventilation, and Air Conditioning), lighting, security, and other mechanical and electrical systems. BAS typically operates on a local level within the building and may include programmable logic controllers (PLCs), sensors, and actuators to automate and optimize building operations.

*Cost Savings*

* How has implementing your 50001 EnMS affected your organization’s operating costs?
* Has your organization been able to reduce costs anywhere else within operations or management, for example reductions in repairs to equipment, or time saved on human resources as a result of a well-documented energy management process?
* What were the associated costs of the metering or BAS upgrade project implemented with the 50001 implementation?

*GHG Reduction*

* Do you see your 50001 EnMS as a way to help you meet your organization’s decarbonization goals? If so, in what ways?
* Were you able to either set achievable targets or see reductions in greenhouse house gas (GHG) emissions as a result of implementing your 50001 EnMS?

*Other Challenges and Benefits*

* What would you say were the top three benefits observed beyond energy savings (e.g., building comfort, health and safety, team building, energy awareness, improved stakeholder trust etc.) that have resulted from the implementation of your 50001 EnMS?

# EnMS Development and Implementation

In this section you will provide additional details of the processes and tactics your organization used to initiate your 50001 EnMS and integrate it into the culture of your organization.

## *Organizational and Team Development*

* Were there any specific tasks that you found to be particularly valuable to your organization?
* How challenging or simple was it to get executive and/or management buy-in to participate in your 50001 EnMS?
* How did you structure your energy management team? (e.g., what roles were represented, and was it a direct or matrixed management structure?)
* What was the approximate in-house effort required to complete the tasks required to complete your 50001 EnMS?
* Did any external organizations help you implement your 50001 EnMS? If so, which type? (e.g., utility program, external consultants etc.)?
* Did you notice any benefits across your teams or within your organization as a result of working together on implementing your 50001 EnMS?
* Were you able to give college or university students opportunities to help implement your 50001 EnMs? How was this mentorship most helpful for them?

*Team Communication and Engagement*

* How do you see your 50001 EnMS spreading within your organization and across your sector?
* What resources/tools/communication/outreach is needed to make that happen?
* Have you found there is better consistency in the way tasks are carried out and completed?
* Did participating in your 50001 EnMS improve your system for documenting policies, processes and procedures for your energy management system?
* How does your organization plan to publicize your achievements?

*Energy review and Analysis*

* How did you decide on the scope and boundaries of your EnMS project?
* Did your organization conduct any type of energy audit/assessment prior to the implementation of your 50001 EnMS?
* How did you approach data collection? (e.g., did you already have data stored in a benchmarking system like ENERGY STAR® Portfolio Manager® or did you create a data tracking system?)
* What did you do to ensure a consistent and accurate method of data collection and analysis?
* Did the data you collected give you insights about your energy usage you may not have known before?
* Were you able to identify significant energy users as a result of conducting regular energy reporting?
* Did data collection help you to set realistic objectives and targets?
* Were you able to establish a cycle of continuous improvement?
* What internal system(s) do you have in place to check your progress and improvement?
* How were energy efficiency opportunities identified and prioritized within your organization?
* What methods were used to track and analyze energy consumption trends over time?
* Were there any unexpected challenges encountered during the data collection or analysis process?
* How were energy savings calculated and verified within your organization?
* Did you involve stakeholders from different departments or levels of the organization in the energy review process? If so, how?
* Were any specific tools or software used to streamline the energy review and analysis process?
* How were energy performance indicators (EnPIs) established and monitored to track progress towards energy management goals?
* Were there any notable changes in energy consumption patterns or trends identified as a result of the review and analysis?
* How were recommendations for energy efficiency improvements prioritized and integrated into operational practices?
* What strategies were employed to communicate energy performance results and recommendations to key stakeholders within the organization?
* Did your organization conduct internal audits of your 50001 EnMS at specified intervals and report the results to management?
* Did your organization develop and document a measurement and verification plan?
* Did you organization develop a processe to continually improve the EnMS and energy performance?

**Lessons Learned**

* Do you have any lessons learned that you think are important to share with other organizations?
* Is there anything you would do differently in terms of the planning and implementation of your EnMS?
* Is there anything you would do differently in terms of organizational and team development?
* What were the biggest challenges or surprises?
* If you were talking to another organization in your sector, what would you say to encourage them to implement a 50001 EnMS?
* How likely do you think it is that you will either renew your 50001 recognition or aim for ISO 50001 or SEP certification in the near future?
* If your organization was already ISO 50001 or SEP certified, how did becoming 50001 Ready recognized add to your accomplishments and/or credibility?

**Keys to Success**

* Can you share any of your keys to success in completing the Navigator tasks? (e.g., for obtaining management buy-in, documentation, etc.)
* If you were talking to another organization in your sector, what would you say are the most important things to have in place at any stage of the planning and implementation of an EnMS?
* How did you ensure alignment between the EnMS goals and the overall strategic objectives of your organization?
* Were there any specific tactics used to engage and motivate employees at all levels of the organization throughout the process?
* What strategies were employed to address potential barriers or resistance to change during implementation?
* Were there any external resources or support networks that proved to be particularly valuable during the implementation process?
* Can you highlight any communication strategies that were effective in keeping stakeholders informed and engaged throughout the process?
* What metrics or measures were used to evaluate the success of the EnMS implementation, and how were they monitored over time?