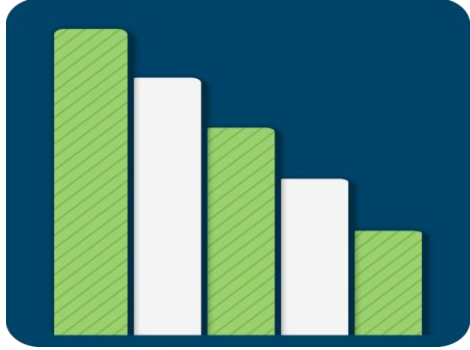




ENERGY MANAGEMENT WORKING GROUP:

INTERNATIONAL COLLABORATION TO
ACCELERATE PROGRESS TOWARD ENERGY &
CLIMATE GOALS

IEA Workshop on Energy Management Systems & Digital Technologies for Industrial Energy Efficiency

Paris, France
December 13, 2017

Sarah Stinson, Director
Buildings and Industry Division
Office of Energy Efficiency
Natural Resources Canada



OUTLINE

TODAY'S DISCUSSION





INDUSTRIAL & COMMERCIAL ENERGY MANAGEMENT

IMPACT AND OPPORTUNITY FOR COLLABORATION

Impact of Energy Management Systems (EnMS)

- Industrial facilities and commercial buildings account for 60% of global energy use
- Global implementation of EnMS could save:
 - 93 EJ of primary energy
 - \$600 billion in energy costs
 - 6,500 Mt of avoided CO₂ emissions

Opportunity for International Collaboration

- Develop policies and programs to support EnMS uptake
- Work with accreditation, certification, and training bodies
- Recognize businesses that adopt EnMS
- Ensure programs are consistent with international best practices



ENERGY MANAGEMENT WORKING GROUP

PURPOSE AND MEMBERSHIP

The **Energy Management Working Group (EMWG)** is an initiative of the **Clean Energy Ministerial**, the **International Partnership for Energy Efficiency Cooperation (IPEEC)**, and the **G20 Energy Efficiency Action Plan** that aims to accelerate the adoption of energy management systems in industrial facilities and commercial buildings worldwide.





ENERGY MANAGEMENT WORKING GROUP

NEW SHARED LEADERSHIP MODEL

Country Lead



Natural Resources
Canada

Ressources naturelles
Canada

Canada

Operating Agent



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

- Leadership role announced at CEM8
 - Provides political and financial support
 - Chairs the EMWG Steering Committee
 - Leads outreach
- Roles as Operating Agent:
 - Administrator
 - Connector
 - Technical advisor
 - Ensures strategic alignment of goals and activities



CANADA AS THE COUNTRY LEAD

HIGHLIGHTS FROM CANADA'S EXPERIENCE

Target: 8% of industry energy use managed with an EnMS by 2030

- National program promotes EnMS certifications
- The **Canadian Industry Program for Energy Conservation (CIPEC)** government-industry partnership
- 35 organizations certified to **ISO 50001** since 2011
- New Gold Inc. awarded the **CEM Energy Management Leadership Award** in 2016





ENERGY MANAGEMENT WORKING GROUP

OBJECTIVES AND SUPPORTING ACTIVITIES

Build the Business Case

- Energy Management Leadership Awards
- Case Studies

Provide Support & Resources

- Measurement & Verification Guidance

Set Policy

- Energy Management Campaign
- Impact Research Network & Impact Estimator Tool
- Energy Professionals International Auditor Certification



BUILDING THE BUSINESS CASE

CASE STUDIES AND LEADERSHIP AWARDS

- Published 90+ **case studies** across 28 industries and 29 countries
- Energy Management Leadership Awards** raise the profile of EnMS
 - Applications are **open!** Due **January 24, 2018**



2017 Award of Excellence Winners!



Winner

Abu Dhabi National Oil Company – 22 sites across United Arab Emirates



Winner

Arabian Cement Company – Ramliya Plant, Egypt



Winner

Mutua Madrileña – 14 sites across Spain



PROVIDING RESOURCES AND SUPPORT

MEASUREMENT & VERIFICATION (M&V) GUIDANCE

Data Quality

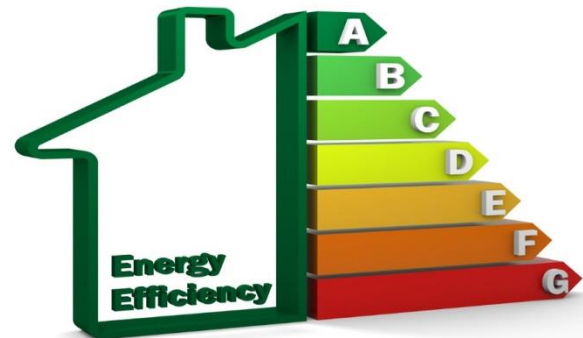
- Enhance data accuracy
- Isolate impacts
- Increase confidence in results

Decision Tree

- Roadmap to promote informed decision-making

Energy Accounting

- Improve data collection consistency
- Enable comparability





SETTING POLICY

ENERGY MANAGEMENT CAMPAIGN



ENERGY MANAGEMENT
CAMPAIGN
A Drive to 50,001 Energy-Saving Partners

Goal: 50,001 global certifications to ISO 50001 by 2020

- 17 countries, 8 companies, 4 organizations have joined the **Energy Management Campaign**
- Partners can contribute to the Campaign goals by:
 - **Endorsing** key principles
 - **Pledging** concrete actions
 - **Committing** to international technical exchange
 - **Recognizing** leadership
 - **Tracking and sharing** progress on uptake

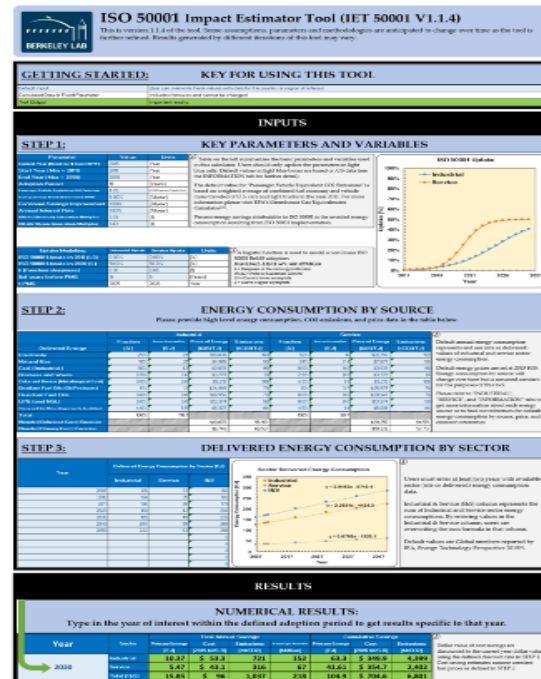




SETTING POLICY

GLOBAL IMPACTS RESEARCH NETWORK

- The **ISO 50001 Global Impacts Research Network** gathers data on the impact of ISO 50001
- The **ISO 50001 Impact Estimator Tool (IET)** predicts, quantifies, and demonstrates the value of ISO 50001
- Supports data-driven business case for EnMS for policy makers





SETTING POLICY

ENERGY PROFESSIONALS INTERNATIONAL CERTIFICATION

- The EMWG works to build **market expertise** in ISO 50001
 - Address challenge of market consistency of ISO 50001 auditor certifications worldwide
- EMWG partners created the **Energy Professionals International (EPI) ISO 50001 Lead Auditor Certification**
 - 35 certified Lead Auditors as of November 2017





EMWG ACTIVITIES

WAYS TO GET INVOLVED

Join the Energy Management Campaign

- Endorse key principles and pledge concrete actions
- www.Driveto50001.org

Promote Energy Management Leadership Awards

- Applications due January 24, 2018
- Establish turn-key national award program based on EMWG program.

Conduct a National ISO 50001 Potential Analysis

- Nominate experts to join the Impacts Research Network
- Use the IET 50001 tool to estimate the national potential impacts of implementing ISO 50001

Support Energy Management Working Group Activities

- Join the EMWG!
- Contribute to the international dialogue on EnMS implementation

For more information about EMWG and its activities, visit:

www.cleanenergyministerial.org/energymanagement