

# Global ISO 50001 Achievements:

Reducing costs, energy use, and CO<sub>2</sub> emissions



2022 ENERGY MANAGEMENT LEADERSHIP AWARDS



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In 2022, 29 organizations received global recognition.

This booklet highlights their successes using the ISO 50001 energy management system standard.

### Clean Energy Ministerial

The **Clean Energy Ministerial (CEM)** is a high-level international forum that brings together the world's largest and leading countries, international organizations and companies to achieve a single mission: accelerate clean energy transitions.

The CEM has been driving the global dialogue on quality ISO 50001 implementation since 2010.

### Energy Management Leadership Awards

To showcase leading organizations and share their ISO 50001 energy management successes, the CEM offers the Energy Management Leadership Awards.

To qualify for these awards, organizations prepare case studies to share a high-quality and replicable description of their ISO 50001 implementation and certification, resulting business benefits, and useful advice on lessons learned and keys to success.

An independent panel of international energy management experts select the winners.

### 2022 Awards Program

In 2022, three organizations received the top honor, the Award of Excellence in Energy Management. Another 26 organizations received Energy Management Insight Awards for helping to build global insight on the benefits of energy management systems.

This booklet showcases these leading organizations and highlights the business benefits achieved through use of ISO 50001 (currency for cost savings are listed in United States dollars).

All awardees are listed on pages 5-6. To see the awardees listed by country, region, or sector, see pages 39-41.

[www.cleanenergyministerial.org/EMAwards](http://www.cleanenergyministerial.org/EMAwards)

## Why ISO 50001?

ISO 50001 is a framework to help organizations of all sizes and in diverse sectors continually improve their energy performance and reduce emissions.

Countries and organizations are looking for strategies to reduce energy and carbon emissions. A strategic approach to energy management has demonstrated value. Energy efficiency is the least expensive, most quickly deployable, and cleanest of all energy resources.

*ISO 50001 Energy management systems – Requirements with guidance for use* (or simply “ISO 50001”) is the international energy management standard that represents the efforts of over 50 countries from around the world to develop an international best practice to help organizations better manage energy.

Leading organizations around the world are achieving their energy and carbon reduction goals by using the ISO 50001 standard. These organizations are proving the business value of ISO 50001 and paving the way for its broad implementation.

The CEM Energy Management Leadership Awards highlight the clear, environmental, energy, and business benefits achieved by the diverse types of organizations that invest in energy efficiency.

The awards also underscore ISO 50001’s flexibility and applicability across sectors, as award winners represent diverse organization types. Within the 2022 class of awardees, twenty recipients are from the industrial sector, four from the commercial sector, and five from the public sector.

Collectively, all 29 of the 2022 winners (representing 173 facilities in 20 countries and regions) reported annual energy cost savings of over \$121 million, and emissions reductions of over 2.2 million metric tons of carbon dioxide, the equivalent of taking 476,383 passenger vehicles off the road.

## CEM 2022 AWARDS OF EXCELLENCE IN ENERGY MANAGEMENT

**Grupo Libertad**  
*Argentina: Córdoba*

**Tyndall National Institute**  
*Ireland: Cork*

**PT. ISM Bogasari Flour Mills Tbk.**  
*Indonesia (2 sites): Jakarta; Surabaya*

## CEM 2022 ENERGY MANAGEMENT INSIGHT AWARDS

### **3M Company**

*Australia: Guildford*

*Belgium: Zwinjndrecht*

*Brazil (4 sites): Itapetinga, Manaus, Ribeirao Preto, Sumare*

*Canada (6 sites): Brockville, ON; London, ON (2);*

*Montreal, QC; Morden, MB; Perth, ON*

*France: Tilloy Lez Cambrai*

*Germany (7 sites): Hilden; Juechen; Kamen; Kempten; Neuss; Seefeld; Wuppertal*

*Mexico (2 sites): Edumex-Juarez, CI; San Luis Potosi*

*Panama: Panama Pacifico*

*Poland (2 sites): Wroclaw (2)*

*South Korea (3 sites): Hwaseong (2); Naju-si*

*Taiwan: Tainan*

*United States of America (27 sites): Aberdeen, SD;*

*Alexandria, VA; Ames, IA; Brookings, SD; Brownwood, TX; Clinton, TN; Columbia, MO; Cordova, IL; Corona, CA;*

*Cottage Grove, MN; Cynthiana, KY; Decatur, AL; Guin, AL; Hartford City, IN; Hutchinson, MN; Little Rock, AR;*

*Menomonee, WI; Midway, TN; Nevada, MO; New Ulm, MN; Moncure, NC; Prairie du Chien, WI; Rockland, MA;*

*Springfield, MO; Tonawanda, NY; Valley, NE; Wausau, WI*

### **Abu Dhabi Sewerage Services Company – ADSSC**

*United Arab Emirates: Abu Dhabi*

### **ADNOC Gas Processing**

*United Arab Emirates (7 sites): Abu Dhabi (7)*

### **ADNOC LNG**

*United Arab Emirates: Abu Dhabi*

### **ADNOC Logistics & Services**

*United Arab Emirates: Abu Dhabi*

### **ADNOC Offshore**

*United Arab Emirates (11 sites): Abu Dhabi (11)*

### **ADNOC Onshore**

*United Arab Emirates: Abu Dhabi*

### **ADNOC Refining**

*United Arab Emirates (7 sites): Abu Dhabi; Musaffah; Sas Al Nakhil (2); Ruwais (3)*

### **ENOC Corporate Real Estate**

*United Arab Emirates: Dubai*

### **ENOC Retail LLC**

*United Arab Emirates (36 sites): Dubai (36)*

### **General Motors do Brazil**

*Brazil: São Jose dos Campos/São Paulo*

### **Laboratorios Farmacéuticos ROVI S.A.**

*Spain: Granada*

### **Loreal Argentina S.A.**

*Argentina: Benavidez*

### **Maynilad Water Services, Inc.**

*Philippines (10 sites): Manila City; Muntinlupa City (2); Paranaque City; Pasay City (2); Quezon City (4)*

### **NTPC Simhadri**

*India: Visakhapatnam*

### **NTPC Sipat**

*India: Bilaspur*

## CEM 2022 ENERGY MANAGEMENT INSIGHT AWARDS (CONTINUED)

**PT Kilang Pertamina Internasional Refinery Unit IV Cilacap**  
*Indonesia: Cilacap*

**PT Pamapersada Nusantara**  
*Indonesia: Sekako*

**PT Pertamina Hulu Energi West Madura Offshore**  
*Indonesia: Gresik*

**Ras Al Khaimah Municipality**  
*United Arab Emirates (10 sites): Ras al Khaimah (10)*

**Raymond Limited**  
*India: Khadki*

**Roads & Transport Authority Dubai**  
*United Arab Emirates (9 sites): Dubai (9)*

**SABIC Polyolefine GmbH**  
*Germany: Gelsenkirchen*

**Schneider Electric**  
*France: Rueil Malmaison*

**Yanbu National Petrochemical Company - YANSAB**  
*Saudi Arabia: Yanbu*

# CEM Energy Management Leadership Awards

## Congratulations to the 2022 Award Recipients!



شركة أبوظبي لخدمات الصرف الصحي  
Abu Dhabi Sewerage Services Company



بلدية رأس الخيمة  
Ras Al Khaimah Municipality

هيئة الطرق والمواصلات  
ROADS & TRANSPORT AUTHORITY





In 2022, the Clean Energy Ministerial honored three organizations with the Award of Excellence in Energy Management:

### **Grupo Libertad**

Grupo Libertad is a brand of superstores and malls, with 15 facilities across Argentina. Libertad set a goal to reduce its energy costs, not only as a business strategy but also as a reinforcement of its commitment to reduce its carbon footprint. Key energy-saving projects included repairs to refrigeration camera doors, optimizing refrigeration compressors, updating lighting across the superstore, and setting up automated controls for air conditioning. As a result of Libertad's efforts, the company's Rivera Indarte location improved its energy performance 12% over two years, for a total energy cost savings of USD 45,000.

### **PT. ISM Bosgari Flour Mills Tbk.**

Bogasari's integrated flour mills operate with a total annual capacity of around 4.4 million tonnes and serve industrial and retail customers domestically in Indonesia and worldwide. The company saw ISO 50001 as a means of maintaining competitive advantage (in terms of costs and prices) without impacts on the labor force or product quality. During the first three years of energy management system implementation, the company improved its energy performance by 16.6%, and realized energy cost savings of USD 3,671,800. The Jakarta site was Bogasari's first facility certified to ISO 50001, and they developed standard operating procedures that the company replicated at other Bogasari plants.

### **Tyndall National Institute**

Energy management and decarbonization are part of the fabric of this European research center, which delivers multidisciplinary energy system research across energy saving, production, and storage technologies, as well as policy, regulation, and business models. A core objective of Tyndall's research strategy is to develop innovative technologies to help address some of the most pressing sustainability challenges facing society today. Energy-focused projects at Tyndall have saved 7,591 GJ of energy, translating into cost savings of USD \$152,373. Beyond the energy and cost savings, Tyndall's sustainability credentials have attracted high-quality staff, grant funding, and onsite company tenants.

# Grupo Libertad



## ISO 50001 Certified:

Sucursal Rivera Indarte

Cost savings: \$45,000 over 3 years

CO<sub>2</sub> reduction: 243,000 metric tons

## PT. ISM Bogasari Flour Mills Tbk.

### **ISO 50001 Certified:**

Bogasari Jakarta and Bogasari  
Surabaya

Cost savings: \$3,671,800 over 3 years

CO<sub>2</sub> reduction: 27,520 metric tons



# Tyndall National Institute



## **ISO 50001 Certified:**

Tyndall National Institute

Cost savings: \$152,373 over 3.5 years

CO<sub>2</sub> reduction: 510 metric tons



In addition, 26 organizations received Energy Management Insight Awards in 2022 for helping to build global insight on the benefits of energy management systems in industrial, commercial, and public-sector facilities.

# 3M Company – Global



## **ISO 50001 Certified:**

56 sites across 12 countries and regions

Cost savings: \$24,000,000 over 6 years

CO<sub>2</sub> reduction: 301,000 metric tons

# 3M Company – Latin America

## ISO 50001 Certified:

6 sites across Brazil, Mexico, and Panama

Cost savings: \$3,984,000 over 6 years

CO<sub>2</sub> reduction: 20,000 metric tons



# Abu Dhabi Sewerage Services Company – ADSSC



## ISO 50001 Certified:

Al Mafraq STP

Cost savings: \$545,757 over 4 years

CO<sub>2</sub> reduction: 2,660 metric tons

# ADNOC Gas Processing

**ISO 50001 Certified:**

7 sites in Abu Dhabi

Cost savings: \$64,900,000 over 6 years

CO<sub>2</sub> reduction: 1,420,000 metric tons



# ADNOC LNG



## ISO 50001 Certified:

Das Island

Cost savings: \$42,000,000 over 7 years

CO<sub>2</sub> reduction: 202,000 metric tons

# ADNOC Logistics & Services

## ISO 50001 Certified:

Shipping Fleet

Cost savings: \$33,500,000 over 3 years

CO<sub>2</sub> reduction: 183,000 metric tons



# ADNOC Offshore



## **ISO 50001 Certified:**

11 sites in Abu Dhabi

Cost savings: \$55,000,000 over 8 years

CO<sub>2</sub> reduction: 864,000 metric tons



# ADNOC Refining



## **ISO 50001 Certified:**

7 sites across United Arab Emirates

Cost savings: \$24,740,000 over 2 years

CO<sub>2</sub> reduction: 239,506 metric tons

# Emirates National Oil Company Limited (ENOC) L.L.C. (ENOC Corporate Real Estate)

## ISO 50001 Certified:

ENOC Complex

Cost savings: \$418,232 over 3 years

CO<sub>2</sub> reduction: 2,446 metric tons



# ENOC Retail LLC



## **ISO 50001 Certified:**

36 sites across the United Arab Emirates

Cost savings: \$1,146,220 over 3 years  
CO<sub>2</sub> reduction: 4,866 metric tons

# General Motors do Brazil complex São José dos Campos

## ISO 50001 Certified:

GMB SJC

Cost savings: \$95,346.90 over 3 years

CO<sub>2</sub> reduction: 144.67 metric tons



# Laboratorios Farmacéuticos ROVI S.A. - Granada



## ISO 50001 Certified:

Laboratorios ROVI GRANADA

Cost savings: \$38,160.13 over 2 years

CO<sub>2</sub> reduction: 3,363 metric tons

# Loreal Argentina S.A. – Distribution Center

## ISO 50001 Certified:

Centro Logistico L'Oréal Norlog

Cost savings: \$11,264 over 1 year

CO<sub>2</sub> reduction: 144 metric tons



# Maynilad Water Services, Inc.



## **ISO 50001 Certified:**

10 sites across the Philippines

Cost savings: \$1,698,413 over 5 years

CO<sub>2</sub> reduction: 10,513 metric tons

# NTPC Simhadri

## ISO 50001 Certified:

Simhadri Super Thermal Power  
Station

Cost savings: \$11,960,000 over 6 years

CO<sub>2</sub> reduction: 100,661 metric tons



# NTPC Sipat



## ISO 50001 Certified:

NTPC Sipat

Cost savings: \$8,300,000 over 4 years

CO<sub>2</sub> reduction: 570,000 metric tons



# PT Kilang Pertamina Internasional Refinery Unit IV Cilacap

## ISO 50001 Certified:

RFCC Plant

Cost savings: \$2,797,027 over 1 year

CO<sub>2</sub> reduction: 26,934 metric tons



# PT Pamapersada Nusantara



## ISO 50001 Certified:

PAMA SMMS

Cost savings: \$12,241,971 over 2 years

CO<sub>2</sub> reduction: 13,922 metric tons

# PT Pertamina Hulu Energi West Madura Offshore

## ISO 50001 Certified:

Poleng Processing Platform (PPP),  
Central Processing Platform (CPP),  
and Onshore Receiving Facility (ORF)

Cost savings: \$931,986 over 1 year  
CO<sub>2</sub> reduction: 48,095 metric tons



# Ras Al Khaimah Municipality



## **ISO 50001 Certified:**

10 sites in Ras Al Khaimah

Cost savings: \$57,700 over 2 years

CO<sub>2</sub> reduction: 472 metric tons

# Raymond Limited – Vapi, Textile Division

## ISO 50001 Certified:

Raymond Limited

Cost savings: \$40,381 over 1 year

CO<sub>2</sub> reduction: 380 metric tons



# Roads & Transport Authority Dubai



## **ISO 50001 Certified:**

9 sites in Dubai

Cost savings: \$80,724,729 over 8 years

CO<sub>2</sub> reduction: 313,610 metric tons

# SABIC Polyolefine GmbH

## ISO 50001 Certified:

SABIC Polyolefine GmbH

Cost savings: \$200,000,000 over 12 years

CO<sub>2</sub> reduction: 51,300 metric tons



# Schneider Electric



## ISO 50001 Certified:

Le Hive

Cost savings: \$282,000 over 12 years

CO<sub>2</sub> reduction: 5,814 metric tons

# Yanbu National Petrochemical Company - YANSAB

**ISO 50001 Certified:**

YANSAB

Cost savings: \$23,264,482 over 11 years

CO<sub>2</sub> reduction: 1,123,040 metric tons



## 2022 Participating Organizations, by Industry

### Automotive

General Motors do Brazil

### Education

Tyndall National Institute

### Electronics and Electrical Equipment

Schneider Electric

### Food Processing

PT. ISM Bogasari Flour Mills Tbk.

### General Manufacturing

3M Company

### Government

Roads & Transport Authority Dubai

### Mining & Minerals Processing

PT Pamapersada Nusantara

### Municipality

Ras Al Khaimah Municipality

### Oil & Gas

ADNOC Gas Processing

ADNOC LNG

ADNOC Logistics & Services

ADNOC Offshore

ADNOC Onshore

ADNOC Refining

ENOC Corporate Real Estate

ENOC Retail

PT Kilang Pertamina Internasional Refinery Unit  
IV Cilacap

PT Pertamina Hulu Energi West Madura Offshore

### Petrochemical

SABIC Polyolefine GmbH

Yanbu National Petrochemical Company -  
YANSAB

### Pharmaceuticals

Laboratorios Farmacéuticos ROVI S.A.

### Power Generation

NTPC Simhardri

NTPC Sipat

### Retail

Grupo Libertad

Loreal Argentina S.A.

### Textile

Raymond Limited

### Water and Wastewater Treatment

Abu Dhabi Sewerage Services Company – ADSSC

Maynilad Water Services, Inc.

## 2022 Participating Organizations, by Country & Region

### Argentina

**Grupo Libertad**, Córdoba, Córdoba

**Loreal Argentina S.A.**, Benavidez, Buenos Aires

### Australia

**3M Company\***, Guildford, New South Wales

### Belgium

**3M Company\***, Zwinjndrecht

### Brazil

**3M Company\***, Itapetininga; Manaus; Ribeirão Preto; Sumaré

**General Motors do Brazil**, São Paulo, São José dos Campos

### Canada

**3M Company\***, Brockville, Ontario; London, Ontario; Montreal, Quebec; Morden, Manitoba; Perth, Ontario

### France

**3M Company\***, Tilloy Lez Cambrai

**Schneider Electric**, Rueil Malmaison

### Germany

**3M Company\***, Hilden; Juechen; Kamen; Kempen; Neuss; Seefeld; Wuppertal

**SABIC Polyolefine GmbH**, Gelsenkirchen

### India

**NTPC Simhadri**, Andhra Pradesh

**NTPC Sipat**, Bilaspur, Chattisgarh

**Raymond Limited**, Khadki, Gujarat

### Indonesia

**PT. ISM Bogasari Flour Mills Tbk.**, North Jakarta, Jakarta; Surabaya, East Java

**PT Kilang Pertamina Internasional Refinery Unit IV Cilacap**, Cilacap, Central Java

**PT Pamapersada Nusantara**, Sekako, Central Borneo

**PT Pertamina Hulu Energi West Madura Offshore**, Gresik, East Java

### Ireland

**Tyndall National Institute**, Cork

### Mexico

**3M Company\***, Edumex, Juárez; San Luis Potosí

### Panama

**3M Company\***, Panama Pacifico

### Philippines

**Maynilad Water Services, Inc.**, Quezon City; Pasay City; Paranaque City; Manila City; Muntinlupa City

### Poland

**3M Company\***, Wrocław

### Saudi Arabia

**Yanbu National Petrochemical Company - YANSAB**, Industrial Yanbu

### Spain

**Laboratorios Farmacéuticos ROVI S.A.**, Granada

### South Korea

**3M Company\***, Hwaseong; Naju-si, Jeollanam-do

### Taiwan

**3M Company\***, Tainan

## 2022 Participating Organizations, by Country & Region (Continued)

### United Arab Emirates

**Abu Dhabi Sewerage Services Company – ADSSC**, Abu Dhabi, Al Mafraq

**ADNOC Gas Processing**, Abu Dhabi

**ADNOC LNG**, Abu Dhabi

**ADNOC Logistics & Services**, Abu Dhabi

**ADNOC Offshore**, Abu Dhabi

**ADNOC Onshore**, Abu Dhabi

**ADNOC Refining**, Abu Dhabi; Sas Al Nakhl; Musaffah; Ruwais

**ENOC Corporate Real Estate**, Dubai

**ENOC Retail LLC**, Dubai

**Ras Al Khaimah Municipality**, Ras Al Khaimah

**Roads & Transport Authority Dubai**, Dubai

### United States of America

**3M Company\***, Aberdeen, SD; Alexandria, VA; Ames, IA; Brookings, SD; Brownwood, TX; Clinton, TN; Columbia, MO; Cordova, IL; Corona, CA; Cottage Grove, MN; Cynthiana, KY; Decatur, AL; Guin, AL; Hartford City, IN; Hutchinson, MN; Little Rock, AR; Menomonie, WI; Midway, TN; Nevada, MO; New Ulm, MN; Moncure, NC; Prairie du Chien, WI; Rockland, MA; Springfield, MO; Tonawanda, NY; Valley, NE; Wausau, WI

\*Indicates sites included in an organization's global or broader regional submission

Clean Energy Ministerial

# Energy Management Leadership Awards

[www.cleanenergyministerial.org/EMAwards](http://www.cleanenergyministerial.org/EMAwards)