

# Global ISO 50001 Achievements:

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



2024 ENERGY MANAGEMENT LEADERSHIP AWARDS



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In 2024, 37 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.

### 2024 Awards Program

In 2024, two organizations received the top honor, the Award of Excellence in Energy Management. Another 35 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 47–48.

[www.cleanenergyministerial.org/EM Awards](http://www.cleanenergyministerial.org/EM Awards)

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

## Why ISO 50001?

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 2024 class of awardees, twenty-two recipients are from the industrial sector, seven from the commercial sector, and eight from the public sector.

Collectively, the 37 winners in 2024 (representing 88 facilities in 9 countries and regions) reported annual energy cost savings of over \$92 million, and annual emissions reductions of roughly 1.7 million metric tons of carbon dioxide, the equivalent of taking roughly 400,000 passenger vehicles off the road, or equivalent to the amount of carbon sequestered by 2 million acres of forest land in one year.



## CEM 2024 AWARDS OF EXCELLENCE IN ENERGY MANAGEMENT

**CHANGSHIN INC Indonesia Factory**  
*Indonesia (2 sites): Karawang, West Java (2)*

**U.S. Air Force Oklahoma City Air Logistics Complex**  
*United States of America: Oklahoma City, OK*

## CEM 2024 ENERGY MANAGEMENT INSIGHT AWARDS

**Abu Dhabi Distribution Company**  
*United Arab Emirates: Abu Dhabi*

**Al-Futtaim Real Estate – UAE Malls**  
*United Arab Emirates: Dubai*

**Apollo Tyres Limited, Chennai Plant**  
*India: Oragadam, Chennai*

**Badak LNG (PT Badak Natural Gas Liquefaction)**  
*Indonesia: Bontang, East Kalimantan*

**The Corporation of the City of Guelph**  
*Canada: Guelph, Ontario*

**Dubai Lubricants Processing Plant – JA**  
*United Arab Emirates: Dubai*

**Dubai Municipality**  
*United Arab Emirates (3 sites): Dubai (3)*

**EFE Valparaíso S.A.**  
*Chile: Valparaíso, Valparaíso*

**Emirates Gas LLC**  
*United Arab Emirates: Jabel Ali Dubai*

**Emirates National Oil Company Limited (ENOC) L.L.C. (ENOC Corporate Real Estate)**  
*United Arab Emirates: Dubai*

**ENOC Retail LLC**  
*United Arab Emirates (32 sites): Dubai (31); Fujairah*

**ENOC Tasjeel LLC**  
*United Arab Emirates: Dubai*

**EPPCO International Limited**  
*United Arab Emirates: Dubai*

**Grupo Libertad**  
*Argentina (4 sites): Córdoba, Córdoba (2); Rafaela, Santa Fe; Rosario, Santa Fe*

**Hawiyah Gas Plant Department – Aramco**  
*Saudi Arabia: Eastern Province*

**Henkel Ankara Plant**  
*Turkey: Ankara, Ankara*

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

**Manifa Producing Department**  
*Saudi Arabia: Eastern Province*

**Marelli Motherson Automotive Lighting India Private Limited, Pune**  
*India: Pune, Maharashtra*

**NTPC Limited, Talcher Kaniha**  
*India: Angul, Odisha*

**NTPC Ramagundam**  
*India: Peddapalli, Telangana*

**PT Pertamina EP Donggi Matindok Field**  
*Indonesia (2 sites): Banggai, Central Sulawesi (2)*

**RAK Transport Authority**  
*United Arab Emirates: Ras Al Khaimah*

**Roads and Transportation Authority – Dubai**  
*United Arab Emirates (9 sites): Dubai (9)*

**Roca Argentina S.A.**  
*Argentina: Lanus, Buenos Aires*

**CEM 2024 ENERGY MANAGEMENT INSIGHT AWARDS (CONTINUED)**

**Sadara Chemical Company**

*Saudi Arabia:* Jubail Industrial City, Eastern Province

**Saudi Arabian Glass Company**

*Saudi Arabia:* Jeddah, Makkah

**Saudi European Petrochemical Company (IBN ZAHR)**

*Saudi Arabia (2 sites):* Jubail Industrial City, Eastern Province (2)

**Saudi Methanol Company (AR-RAZI), SABIC Affiliate**

*Saudi Arabia:* Jubail Industrial City, Eastern Province

**Saudi Standards Metrology and Quality Organization-SASO**

*Saudi Arabia (3 sites):* Riyadh, Riyadh; Jeddah, Makkah; Dammam, Eastern Province

**SMU S.A.**

*Chile (3 sites):* Santiago, Santiago (3)

**Tasnee Petrochemical Complex (TPC)**

*Saudi Arabia:* Jubail Industrial City, Eastern Province

**Toyota Argentina S.A. (TASA)**

*Argentina:* Zárate, Buenos Aires

**Watt's S.A.**

*Chile:* Osorno, Osorno

**YANPET- SABIC-ExxonMobil JV**

*Saudi Arabia:* Yanbu, Al Madinah

# CEM Energy Management Leadership Awards

## Congratulations to the 2024 Award Recipients!





In 2024, the Clean Energy Ministerial honored two organizations with the Award of Excellence in Energy Management:

### **CHANGSHIN INC Indonesia Factory**

CHANGSHIN INC is a specialized Nike footwear manufacturing company that was founded in 1981, with established off-shore factories in Vietnam, China, and Indonesia. In an increasingly competitive global marketplace, an energy management system allows the company to operate sustainably, lower resource consumption and utility costs, and offer eco-friendly products. In response, CHANGSHIN INC Indonesia Factory established a structured energy team to implement an energy management system following the ISO 50001 framework. The team uses the latest technology to monitor electricity consumption and power quality at every electrical panel meter across several buildings. Team members analyze the results, identify energy usage anomalies, and seek energy savings opportunities. CHANGSHIN INC Indonesia Factory successfully achieved a 13% improvement between 2021 and 2023, reduced energy use by 11,720 MWh, saved \$808,382 (USD) in energy costs, and successfully reduced carbon emissions.

### **U.S. Air Force Oklahoma City Air Logistics Complex**

The Oklahoma City Air Logistics Complex (OC-ALC) is the first U.S. government organization certified to ISO 50001. The complex maintains military aircraft for the U.S. Air Force. In 2015, the Air Force Sustainment Center (AFSC, the OC-ALC's parent organization)—recognizing the imperative of energy resilience for operations to U.S. national security—mandated ISO 50001 certification for the three maintenance complexes. Smart meters were installed to track energy consumption, and data from the meters were used to assess the energy performance of facilities and major equipment. The OC-ALC energy team used the results to identify significant energy users—as well as aging infrastructure and inefficient equipment. Since the energy management system's introduction, the OC-ALC has seen 35% energy performance improvement, which translates into energy savings of 1,461,283 MWh, energy cost savings of \$66.4 million, and CO<sub>2</sub>-e emissions reduction of 289,160 metric tons.



# CHANGSHIN INC Indonesia Factory

**ISO 50001 Certified:**

Karawang and Cikampek

Cost savings: \$808,382 over 3 years

CO<sub>2</sub> reduction: 7,565 metric tons



# U.S. Air Force Oklahoma City Air Logistics Complex



## ISO 50001 Certified:

USAF Tinker AFB, OC-ALC

Cost savings: \$66,400,000 over 8 years

CO<sub>2</sub> reduction: 289,160 metric tons



In addition, 35 organizations received Energy Management Insight Awards in 2024 for helping to build global insight on the benefits of energy management systems in industrial, commercial, and public-sector facilities.

# Abu Dhabi Distribution Company

## ISO 50001 Certified:

16 sites throughout Abu Dhabi

Cost savings: \$8,008,974 over 8 years

CO<sub>2</sub> reduction: 31,724 metric tons



# Al-Futtaim Real Estate – UAE Malls



## **ISO 50001 Certified:**

Al Futtaim Real Estate – DFP

Cost savings: \$87,145 over 1 year

CO<sub>2</sub> reduction: 360 metric tons



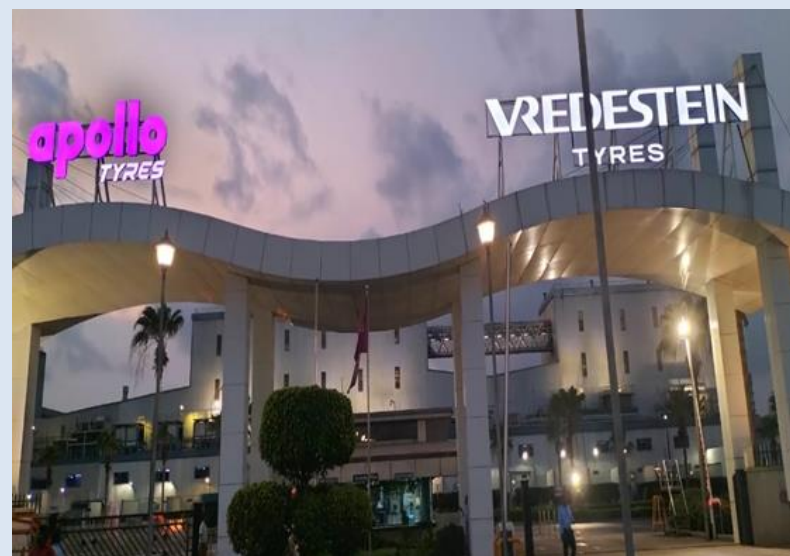
# Apollo Tyres Limited, Chennai Plant

## ISO 50001 Certified:

Apollo Tyres Limited

Cost savings: \$949,828 over 1 year

CO<sub>2</sub> reduction: 5,969 metric tons



## Badak LNG (PT Badak Natural Gas Liquefaction)



### **ISO 50001 Certified:**

Bontang Plant Site

Cost savings: \$198,111,804.31 over 6 years

CO<sub>2</sub> reduction: 1,741,796 metric tons

# The Corporation of the City of Guelph

## ISO 50001 Certified:

The Corporation of the City of  
Guelph

Cost savings: \$171,260 over 1 year

CO<sub>2</sub> reduction: 702 metric tons



# Dubai Lubricants Processing Plant – JA



## ISO 50001 Certified:

Dubai Lubricants Processing  
Plant – JA

Cost savings: \$77,500.60 over 5 years

CO<sub>2</sub> reduction: 147.8 metric tons

# Dubai Municipality

## ISO 50001 Certified:

Al Twar Centre, Al Kifaf Centre, and  
Al Manara Centre

Cost savings: \$1,015,618 over 12 years

CO<sub>2</sub> reduction: 3,391.2 metric tons

بلدية دبي  
DUBAI MUNICIPALITY





# EFE Valparaíso S.A.



## ISO 50001 Certified:

EFE Valparaíso

Cost savings: \$31,977 over 2 years

CO<sub>2</sub> reduction: 174.11 metric tons

# Emirates Gas LLC

**ISO 50001 Certified:**  
Jabel Ali Gas Terminal

Cost savings: \$100,023 over 10 years  
CO<sub>2</sub> reduction: 920 metric tons



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



## ISO 50001 Certified:

ENOC Complex

Cost savings: \$376,115 over 5 years

CO<sub>2</sub> reduction: 1,479.9 metric tons

# ENOC Retail LLC

## ISO 50001 Certified:

32 sites throughout the United Arab Emirates

Cost savings: \$124,706 over 3 years

CO<sub>2</sub> reduction: 2,502 metric tons



# ENOC Tasjeel LLC



## ISO 50001 Certified:

Tasjeel Al Qusais

Cost savings: \$26,798 over 4 years

CO<sub>2</sub> reduction: 113 metric tons



# EPPCO International Limited

## ISO 50001 Certified:

EPPCO International Limited

Cost savings: \$73,946 over 3 years

CO<sub>2</sub> reduction: 303.8 metric tons



# Grupo Libertad



## ISO 50001 Certified:

Rivera Indarte, Jacinto Ríos, Rafaela, and Rosario

Cost savings: \$806,690 over 4 years  
CO<sub>2</sub> reduction: 4,504 metric tons

# Hawiyah Gas Plant Department – Aramco

## ISO 50001 Certified:

Hawiyah Gas Plant

Cost savings: 8.7% of budget over 3 years

CO<sub>2</sub> reduction: 309,309 metric tons



# Henkel Ankara Plant



**ISO 50001 Certified:**

Türk Henkel

Cost savings: \$904,330 over 5 years

CO<sub>2</sub> reduction: 3,820 metric tons

# Loreal Argentina S.A.

**ISO 50001 Certified:**

CD Norlog

Cost savings: \$12,757 over 1 year

CO<sub>2</sub> reduction: 22 metric tons





# Manifa Producing Department



## ISO 50001 Certified:

Manifa

Cost savings: \$9,685,120 over 3 years

CO<sub>2</sub> reduction: N/A

# Marelli Motherson Automotive lighting India Private Limited, Pune

**ISO 50001 Certified:**

MMLI Pune 1

Cost savings: \$248,524 over 4 years

CO<sub>2</sub> reduction: 1,965 metric tons



# NTPC Limited, Talcher Kaniha



## **ISO 50001 Certified:**

Talcher Super Thermal Power  
Station, Kaniha

Cost savings: \$35,200,747 over 5 years

CO<sub>2</sub> reduction: 2,078,391 metric tons

# NTPC Ramagundam

**ISO 50001 Certified:**  
NTPC Ramagundam

Cost savings: \$5,830,000 over 4 years  
CO<sub>2</sub> reduction: 139,759 metric tons



# PT Pertamina EP Donggi Matindok Field



## ISO 50001 Certified:

CPP Donggi and CPP Matindok

Cost savings: \$6,590,973.83 over 2 years

CO<sub>2</sub> reduction: 571,518.76 metric tons



# RAK Transport Authority

**ISO 50001 Certified:**

RAKTA HQ

Cost savings: \$19,832,600 over 5 years

CO<sub>2</sub> reduction: 79,980 metric tons



# Roads and Transportation Authority – Dubai



## **ISO 50001 Certified:**

9 sites throughout Dubai

Cost savings: \$161,000,000 over 9 years

CO<sub>2</sub> reduction: 555,000 metric tons

# Roca Argentina S.A.

## ISO 50001 Certified:

Roca Argentina S.A.

Cost savings: \$511,845.45 over 5 years

CO<sub>2</sub> reduction: 2,293.36 metric tons



# Sadara Chemical Company



## **ISO 50001 Certified:**

Sadara Chemical Company

Cost savings: \$6,569,127 over 3 years

CO<sub>2</sub> reduction: 624,219,88 metric tons

# Saudi Arabian Glass Company

**ISO 50001 Certified:**  
SAGCO

Cost savings: \$910,000 over 4 years  
CO<sub>2</sub> reduction: 110,000 metric tons





# Saudi European Petrochemical Company (IBN ZAHR)



## **ISO 50001 Certified:**

IBN ZAHR and IBN SINA

Cost savings: \$1,071,529 over 1 year

CO<sub>2</sub> reduction: 51,109 metric tons

# Saudi Methanol Company (AR-RAZI), SABIC Affiliate

## ISO 50001 Certified:

Saudi Methanol Company (AR-RAZI)

Cost savings: \$2,353,629.48 over 1 year

CO<sub>2</sub> reduction: 38,000 metric tons



# Saudi Standards Metrology and Quality Organization-SASO



## ISO 50001 Certified:

Prince Turki Ibn Abdulaziz Al Awwal  
Road, Al Sahafa Street, and Prince  
Saudi Al Faisal Road

Cost savings: \$3,669,161 over 4 years

CO<sub>2</sub> reduction: 20,148 metric tons

# SMU S.A.

## ISO 50001 Certified:

CD Lo Aguirre, Principe De Gales,  
and Los Militares

Cost savings: \$47,738.37 over 1 year

CO<sub>2</sub> reduction: 2,528 metric tons



# Tasnee Petrochemical Complex (TPC)



## ISO 50001 Certified:

Tasnee Petrochemical Complex (TPC)

Cost savings: \$8,409,749 over 4 years

CO<sub>2</sub> reduction: 158,503.04 metric tons



# Toyota Argentina S.A. (TASA)

## ISO 50001 Certified:

Toyota Argentina S.A.

Cost savings: \$1,310,078.72 over 4 years

CO<sub>2</sub> reduction: 19,557.46 metric tons



# Watt's S.A.



**ISO 50001 Certified:**  
Watt's Osorno Plant

Cost savings: \$363,801 over 1 year  
CO<sub>2</sub> reduction: 3,204 metric tons

# YANPET- SABIC-ExxonMobil JV

**ISO 50001 Certified:**

YANPET

Cost savings: \$1,049,359 over 2 years

CO<sub>2</sub> reduction: 60,135 metric tons



## 2024 Participating Organizations, by Industry

### Asset Management

Al-Futtaim Real Estate – UAE Malls

### Automotive

Apollo Tyres Limited, Chennai Plant

ENOC Tasjeel LLC

Marelli Motherson Automotive Lighting India Private Limited, Pune

Toyota Argentina S.A. (TASA)

### Chemicals

Henkel Ankara Plant

### Defense

U.S. Air Force Oklahoma City Air Logistics Complex

### Food Processing

Watt's S.A.

### Footwear

CHANGSHIN INC Indonesia Factory

### Glass Containers

Saudi Arabian Glass Company

### Healthcare

Loreal Argentina S.A.

### Municipality

The Corporation of the City of Guelph

Dubai Municipality

### Oil and Gas

Badak LNG (PT Badak Natural Gas Liquefaction)

Emirates Gas LLC

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

ENOC Retail LLC

EPPCO International Limited

Hawiyah Gas Plant Department – Aramco

Manifa Producing Department

PT Pertamina EP Donggi Matindok Field

### Petrochemical

Dubai Lubricants Processing Plant – JA

Sadara Chemical Company

Saudi European Petrochemical Company (IBN Zahr)

Saudi Methanol Company (AR-RAZI), SABIC Affiliate

Tasnee Petrochemical Complex (TPC)

YANPET- SABIC-ExxonMobil JV

### Power Generation

NTPC Limited, Talcher Kaniha

NTPC Ramagundam

### Railway Transport

EFE Valparaíso S.A.

### Retail

Grupo Libertad

SMU S.A.

### Roads and Transportation

RAK Transport Authority

Roads and Transportation Authority – Dubai

### Sanitary Ware, Taps, and Bathtubs

Roca Argentina S.A.

### Standards and Metrology

Saudi Standards Metrology and Quality Organization-SASO

### Utilities

Abu Dhabi Distribution Company

## 2024 Participating Organizations, by Country & Region

### Argentina

**Grupo Libertad**, Córdoba, Córdoba; Rafaela, Santa Fe; Rosario, Santa Fe

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

**Roca Argentina S.A.**, Lanus, Buenos Aires

**Toyota Argentina S.A. (TASA)**, Zárate, Buenos Aires

### Canada

**The Corporation of the City of Guelph**, Ontario

### Chile

**EFE Valparaíso S.A.**, Valparaíso, Valparaíso

**SMU S.A.**, Santiago, Santiago

**Watt's S.A.**, Osorno, Osorno

### India

**Apollo Tyres Limited, Chennai Plant**, Oragadam, Chennai

**Marelli Moterson Automotive Lighting India Private Limited**, Pune, Maharashtra

**NTPC Limited**, Talcher Kaniha, Angul, Odisha

**NTPC Ramagundam**, Peddapalli, Telangana

### Indonesia

**Badak LNG (PT Badak Natural Gas Liquefaction)**, Bontang, East Kalimantan

**CHANGSHIN INC Indonesia Factory**, Karawang, West Java

**PT Pertamina EP Donggi Matindok Field**, Banggai, Central Sulawesi

### Saudi Arabia

**Hawiyah Gas Plant Department – Aramco**, Eastern Province

**Manifa Producing Department**, Eastern Province

**Sadara Chemical Company**, Jubail Industrial City, Eastern Province

**Saudi Arabian Glass Company**, Jeddah, Makkah

**Saudi European Petrochemical Company (IBN ZHR)**, Jubail Industrial City, Eastern Province

**Saudi Methanol Company (AR-RAZI), SABIC Affiliate**, Jubail Industrial City, Eastern Province

**Saudi Standards Metrology and Quality Organization-SASO**, Riyadh, Riyadh; Jeddah, Makkah; Dammam, Eastern Province

**Tasnee Petrochemical Complex (TPC)**, Jubail Industrial City, Eastern Province

**YANPET- SABIC-ExxonMobil JV**, Yanbu, Al Madinah

### Turkey

**Henkel Ankara Plant**, Ankara, Ankara

### United Arab Emirates

**Abu Dhabi Distribution Company**, Abu Dhabi

**Al-Futtaim Real Estate – UAE Malls**, Dubai

**Dubai Lubricants Processing Plant – JA**, Dubai

**Dubai Municipality**, Dubai

**Emirates Gas LLC**, Jabel Ali Dubai

**Emirates National Oil Company Limited (ENOC) L.L.C. (ENOC Corporate Real Estate)**, Dubai

**ENOC Retail LLC**, Dubai; Fujairah

**ENOC Tasjeel LLC**, Dubai

**EPPCO International Limited**, Dubai

**RAK Transport Authority**, Ras Al Khaimah

**Roads and Transportation Authority – Dubai**, Dubai

### United States of America

**U.S. Air Force Oklahoma City Air Logistics Complex**, Oklahoma City, OK



Clean Energy Ministerial

# Energy Management Leadership Awards

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