

# Global ISO 50001 Achievements:

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

2018 ENERGY MANAGEMENT LEADERSHIP AWARDS











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countries/economies received global recognition. This booklet highlights their successes using the

In 2018, 50 organizations across 103

ISO 50001 energy management system standard.

The Clean Energy Ministerial's Energy Management Working Group (EMWG) has been driving the global dialogue on quality ISO 50001 implementation since 2010.

To showcase leading organizations and share their ISO 50001 energy management successes, the EMWG organizes 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 experts select the winners.

In 2018, 50 organizations across 103 countries received global recognition.

In late May, three organizations will receive the top honor, the Award of Excellence in Energy Management, at the ninth Clean Energy Ministerial (CEM9) in Copenhagen, Denmark:

- An Garda Síochána (Ireland)
- PJSC "Magnitogorsk Iron & Steel Works" (Russia), and
- PT PJB Gresik Power Plant (Indonesia).

Another 47 organizations received Energy Management Insight Awards for helping to build global insight on the benefits of energy management systems.

This booklet highlights the business benefits achieved by the awardees through use of ISO 50001. All awardees are listed on the next page, and at the end of the booklet, awardees are listed by country and by sector.

#### **Clean Energy Ministerial**

The Clean Energy Ministerial (CEM) is a highlevel international forum that promotes policies and programs to advance clean energy.

Through the EMWG, government officials worldwide share best practices and leverage their collective expertise to accelerate the use of EnMS in industry and commercial buildings.

Governments participating in the EMWG include Argentina, Australia, Canada, Chile, China, Denmark, the European Commission, Finland, Germany, India, Indonesia, Japan, Mexico, the Republic of Korea, Saudi Arabia, South Africa, Sweden, United Arab Emirates, and the United States. The EMWG was launched in 2010 by the CEM and International Partnership for Energy Efficiency Cooperation.

www.cleanenergyministerial.org/initiative-cleanenergy-ministerial/energy-management-working-group



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 was published in June 2011, and represents the effort 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 using the global ISO 50001 standard for energy management systems. These early adopters are proving the business value of ISO 50001 and paving the way for its broad implementation.

The CEM Energy Management Leadership Awards highlight the strong business benefits realized when organizations of all sizes and in diverse sectors invest in energy efficiency. The 2018 class of awardees represents several sectors new to the competition, such as clay building material and refractories manufacturing, defense, educational services, electricity regulation, hospitality, information technology, machinery manufacturing, public transportation, and shipping ports.

This expansion reflects the growing use of the global ISO 50001 energy management system standard, across sectors and around the globe.

Collectively, the 2018 award recipients reported energy cost savings of up to USD \$383 million and annual greenhouse gas emission reductions of up to 4.3 million metric tons of CO2, which is equivalent to taking 919,000 passenger vehicles off the road per year.



#### CEM 2018 AWARDS OF EXCELLENCE IN ENERGY MANAGEMENT

An Garda Síochána

Ireland (3 sites): Dublin (2); Tipperary

PJSC "Magnitogorsk Iron & Steel Works" (MMK)

Russia: Magnitogorsk

PT PJB Gresik Power Plant Indonesia (3 sites): Gresik (3)

#### CEM 2018 ENERGY MANAGEMENT INSIGHT AWARDS

ABB S.A.

Argentina: Valentín Alsina

**Abu Dhabi City Municipality** 

United Arab Emirates: Abu Dhabi

**Aguas Andinas** 

Chile (2 sites): Santiago (2)

**Allied Irish Bank** 

Ireland (5 sites): Dublin (5)

Banco de Crédito e Inversiones

Chile: Santiago

**Beijing Capital International Airport Co., Ltd.** 

China: Beijing

**Bharat Aluminum Company Limited** 

*India*: Korba

China National Heavy Duty Truck Group Co., Ltd.

China (16 sites): Chengdu; Chongqing; Datong; Hangzhou; Jinan (10); Jining; Yongan

**CMPC Pulp** 

Chile (3 sites): Collipulli, Laja, Nacimiento

**Dubai Municipality** 

United Arab Emirates: Dubai

**Dublin City University** 

Ireland (5 sites): Dublin (5)

**El Araby Company for Trading and Manufacturing** 

Egypt: Benha

**Empresa Nacional del Petróleo (ENAP)** 

Chile (5 sites): Concón; Hualpén; Punta Arenas (2);

Santiago

General Motors Ómnibus BB Transportes S.A.

Ecuador (7 sites): Quito (7)

Google

Belgium: St. Ghislain Finland: Hamina

*Ireland:* Dublin

Singapore: Singapore

Taiwan: Changhua County

United States of America (8 sites): Berkeley County, SC; Council Bluffs, IA (2); Douglas County, GA; Lenoir, NC; Mayes County, OK; Mountain View,

CA; The Dalles, OR

**Grasim Industries Limited** 

India: Veraval

**Grupo Newsan** 

Argentina (2 sites): Ushuaia (2)

Hilton

Worldwide in 103 countries (over 5,100 properties)

JK Cement Ltd.

India: Chittorgarh

**JW Marriott** 

United States of America: Washington, D.C.

**Kangwon Land** 

Republic of Korea: Gangwon-do

L&T MHPS Turbine Generators Pvt. Ltd

*India*: Surat

**LG Display** 

Republic of Korea (2 sites): Gumi; Paju

LG Electronics Inc., Cheongju Plant

Republic of Korea: Cheongju-si

LG Electronics Inc., Gasan R&D Campus

Republic of Korea: Seoul

LG Electronics Inc., LG Digital Park

Republic of Korea: Pyeongtaek-si

LG Innotek Co., Ltd.

Republic of Korea (2 sites): Gumi (2)

**Makstil AD** 

Republic of Macedonia (2 sites): Skopje (2)

**MAS KREEDA Intimo** 

Sri Lanka: Biyagama

Mastellone Hnos. S.A.

Argentina (2 sites): General Rodríguez (2)

**Misr Fertilizers Production Company (MOPCO)** 

Egypt: Damietta

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#### **CEM 2018 ENERGY MANAGEMENT INSIGHT AWARDS (Continued)**

**Municipality of Sovizzo** 

Italy: Sovizzo

Nissan North America, Inc.

United States of America (3 sites): Canton, MS;

Decherd, TN; Smyrna, TN

Oleoductos del Valle S.A. (OLDELVAL)

Argentina: Cipolletti

Pacific (Panyu) Textiles Limited

China: Guangzhou

**Provincial Electricity Regulation Entity (EPRE)** 

Argentina: Mendoza

PT Pupuk Kalimantan Timur (PUPUK KALTIM)

Indonesia: Bontang

PT. Cheil Jedang Indonesia

Indonesia: Pasuruan

PT. Pembangkitan Jawa-Bali Paiton

Indonesia: Probolinggo

Puerto Ventanas S.A.

Chile: Puchuncaví

**Raymond Limited** 

India: Vapi

Roads and Transport Authority Dubai (RTA)

United Arab Emirates: Dubai

SIN PAR S.A.

Argentina: Quilmes

Sungshin Cement Co., Ltd.

Republic of Korea: Danyang-Gun

Vardar Dolomit Dooel

Republic of Macedonia: Gostivar

Viña Cono Sur

Chile: Chimbarongo

**Zhilkomservice** 

Russia: Naberezhnye Chelny





## PARTICIPATING ORGANIZATIONS







Secretaría de

Servicios Públicos









Zhilkomservice



AGUAS andinas.













































PACIFIC TEXTILES HOLDINGS LIMITED











ENAP



























#### **CEM Award of Excellence in Energy Management**

In 2018, three organizations earned the top honor, the Award of Excellence in Energy Management:

#### An Garda Síochána

#### 3 sites in Ireland

An Garda Síochána is the first national police force in the world to achieve ISO 50001 certification. Using an ISO 50001-certified energy management system across its Transport Fleet and at two of its largest sites, Garda Headquarters and Garda College, the agency saved US \$11.3 million and reduced its  $CO_2$  emissions by 70,340 metric tons over eight years.

#### PJSC "Magnitogorsk Iron & Steel Works"

#### 1 site in Russia

MMK, a steel producer and metallurgical company, established an ISO 50001 energy management system that delivers US \$20.5 million in annual savings with no financial investment. Overall, site savings over three years total US \$38.6 million, reducing  $\mathrm{CO}_2$  emissions by 698,186 metric tons.

#### PT PJB Gresik Power Plant

#### 3 sites in Indonesia

The PT PJB Gresik Power Plant operates a combined cycle power plant and four units of steam power plants to supply electricity to East Java. The facility implemented ISO 50001 to achieve government and internal goals; it saved US \$9.69 million and reduced  $CO_2$  emissions by 2.72 million metric tons over three years.



### An Garda Síochána



### **ISO 50001 Certified:**

3 sites: Garda Transport Fleet, Garda Headquarters & and Garda College

Cost savings: \$11.3 million over 8 years

CO<sub>2</sub> reduction: 70,340 metric tons

Payback period: ~4 months





# PJSC "Magnitogorsk Iron & Steel Works"

### **ISO 50001 Certified:**

Magnitogorsk Iron & Steel Works

Cost savings: \$38.6 million over 3 years

CO<sub>2</sub> reduction: 698,186 metric tons

Payback period: >1 month







## PT PJB Gresik Power Plant



#### ISO 50001 Certified:

3 sites in Indonesia

Cost savings: \$9.69 million over 3 years

CO<sub>2</sub> reduction: 2.72 million metric tons

Payback period: ~9 months







In addition, 47 organizations received Energy Management Insight Awards in 2018 for helping to build global insight on the benefits of energy management systems in industrial and commercial facilities.



### ABB S.A.

### **ISO 50001 Certified:**

**ABB Buenos Aires** 

Cost savings: \$55,000 over 5 years

CO<sub>2</sub> reduction: 894 metric tons

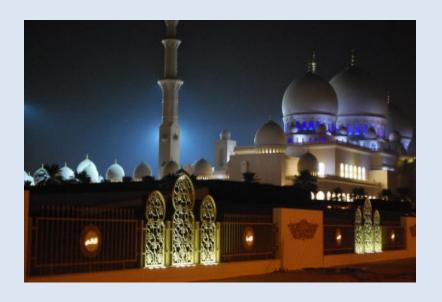
Payback period: 2.2 years







# **Abu Dhabi City Municipality**



### **ISO 50001 Certified:**

Abu Dhabi Municipality Buildings

Cost savings: \$86,398 over 1 year

CO<sub>2</sub> reduction: 354,443 metric tons

Payback period: <10 months





# **Aguas Andinas**

### **ISO 50001 Certified:**

Mapocho Trebal & La Farfana

Cost savings: \$1 million over 5 years

CO<sub>2</sub> reduction: 5,000 metric tons

Payback period: 1.7 years







### **Allied Irish Bank**



### **ISO 50001 Certified:**

1 Bank Center & 4 Head Offices

Cost savings: ~\$1.6 over 4 years

CO<sub>2</sub> reduction: 9,015 metric tons

Payback period: ~7 months





### Banco de Crédito e Inversiones

### **ISO 50001 Certified:**

Edificio Corporativo

Cost savings: \$7,640 over 1 year

CO<sub>2</sub> reduction: 25 metric tons

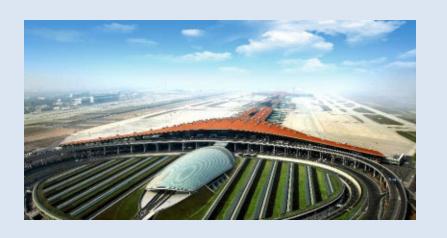
Payback period: 5.8 years







# Beijing Capital International Airport Co., Ltd.



#### ISO 50001 Certified:

Beijing Capital International Airport

Cost savings: \$9.3 million over 3 years

CO<sub>2</sub> reduction: 43,225 metric tons

Payback period: ~10 months





## **Bharat Aluminum Company Limited (BALCO)**

### **ISO 50001 Certified:**

**BALCO** 

Cost savings: ~\$7.32 million over 3 years

CO<sub>2</sub> reduction: 114,264 metric tons

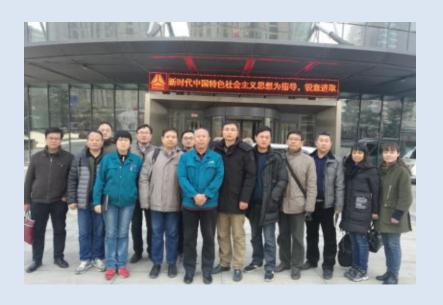
Payback period: 3 months







## China National Heavy Duty Truck Group Co., Ltd.



#### ISO 50001 Certified:

16 sites in China

Cost savings: \$59.1 million over 4 years

CO<sub>2</sub> reduction: 99,600 metric tons

Payback period: 1.2 years





## **CMPC Pulp**

### **ISO 50001 Certified:**

Laja Plant, Pacifico & Santa Fe

Cost savings: \$40.2 million over 4 years

CO<sub>2</sub> reduction: 198,000 metric tons

Payback period: 1.3 years







# **Dubai Municipality**



### ISO 50001 Certified:

Al Tawar Centre

Cost savings: \$423,652 over 6 years

CO<sub>2</sub> reduction: 2,087.2 metric tons

Payback period: 5 months





# **Dublin City University**

### **ISO 50001 Certified:**

5 campuses

Cost Savings: >\$10 million over 11 years

CO<sub>2</sub> Reduction: 50,000 metric tons

Payback Period: <1 year







# El Araby Company for Trading and Manufacturing



#### ISO 50001 Certified:

El Araby Company for Trading and Manufacturing

Cost savings: \$1.7 million over 3 years

CO<sub>2</sub> reduction: 7,901 metric tons

Payback period: 1.1 years





# Empresa Nacional del Petróleo (ENAP)

### **ISO 50001 Certified:**

5 sites in Chile

Cost savings: >\$15 million over 3 years

CO<sub>2</sub> reduction: 95,099 metric tons

Payback period: <3 months







# General Motors Ómnibus BB Transportes S.A.



#### ISO 50001 Certified:

7 sites in Ecuador

Cost savings: \$617,626 over 5 years

CO<sub>2</sub> reduction: 20,463 metric tons

Payback period: <8 months





# Google

### **ISO 50001 Certified:**

HQ and 12 more sites across 6 countries

Cost savings: >\$1 billion

CO<sub>2</sub> reduction: 3.8 million metric tons

over 3 years

Payback period: <1 year







## **Grasim Industries Limited**



### **ISO 50001 Certified:**

Unit - Indian Rayon, Veraval

Cost savings: \$1.27 million over 2 years

CO<sub>2</sub> reduction: 2,318 metric tons

Payback period: ~1 year





## **Grupo Newsan**

### **ISO 50001 Certified:**

Planta 3-4, Planta 6-CLI

Cost savings: \$367,732 over 1 year

CO<sub>2</sub> reduction: 2,620 metric tons

Payback period: ~2 months







## Hilton



### **ISO 50001 Certified:**

Over 5,100 sites globally

Cost savings: \$783.7 million from 2008-

2016

CO<sub>2</sub> reduction: 769,356 metric tons

Payback period: <1 year





### JK Cement Ltd.

### **ISO 50001 Certified:**

JK Cement Mangrol

Cost savings: ~\$3.36 million from FY

2016-2017

CO<sub>2</sub> reduction: 49,026 metric tons

Payback period: <5 months







### **JW Marriott**



### **ISO 50001 Certified:**

JW Marriott Washington DC

Cost savings: \$471,891 over 3 years

CO<sub>2</sub> reduction: 4,136 metric tons

Payback period: 7 years





## **Kangwon Land**

### **ISO 50001 Certified:**

Kangwon Land

Cost savings: \$400,000 over 1 year

CO<sub>2</sub> reduction: 2,002 metric tons

Payback period: 2.2 years







## **L&T MHPS Turbine Generators Pvt. Ltd**



#### ISO 50001 Certified:

L&T MHPS Turbine Generators Pvt.

Ltd

Cost savings: \$1.93 million over 4 years

CO<sub>2</sub> reduction: 9,706 metric tons

Payback period: 6 months





# LG Display

### **ISO 50001 Certified:**

2 sites in Republic of Korea

Cost savings: ~\$11.77 million over 1

year

CO<sub>2</sub> reduction: 169,511 metric tons

Payback period: <5 months







### LG Electronics Inc.



### **ISO 50001 Certified:**

Cheongju Plant

Cost savings: \$328,000 over 1 year

CO<sub>2</sub> reduction: 722 metric tons

Payback period: 2.3 years





## LG Electronics Inc.

## **ISO 50001 Certified:**

Gasan R&D Campus

Cost savings: \$167,400 over 1 year

CO<sub>2</sub> reduction: 340 metric tons

Payback period: 4.51 years







## LG Electronics Inc.



## **ISO 50001 Certified:**

LG Digital Park

Cost savings: \$712,878 over 2 years

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

Payback period: 2.6 years





# LG Innotek Co., Ltd.

## **ISO 50001 Certified:**

2 sites in Republic of Korea

Cost savings: \$1.15 billion over 3 years

CO<sub>2</sub> reduction: 3,236 metric tons

Payback period: <6 months







## Makstil AD



### ISO 50001 Certified:

2 sites in Republic of Macedonia

Cost savings: \$200,000 over 2 years

CO<sub>2</sub> reduction: 2,424 metric tons

Payback period: <4 months





## **MAS KREEDA Intimo**

## **ISO 50001 Certified:**

MAS KREEDA Intimo

Cost savings: \$34,522 over 1 year

CO<sub>2</sub> reduction: 817 metric tons

Payback period: 9 months







## Mastellone Hnos. S.A.



## **ISO 50001 Certified:**

2 sites in Argentina

Cost savings: \$65,658 over 1 year

CO<sub>2</sub> reduction: 263 metric tons

Payback period: <8 months





# Misr Fertilizers Production Company (MOPCO)

## **ISO 50001 Certified:**

**MOPCO** 

Cost savings: \$5.4 million over 2 years

CO<sub>2</sub> reduction: 125,844 metric tons

Payback period: <4 months







# **Municipality of Sovizzo**



## **ISO 50001 Certified:**

Municipality of Sovizzo property management

Cost savings: \$96,251 over 4 years

CO<sub>2</sub> reduction: 146.5 metric tons

Payback period: 3.7 years





# Nissan North America, Inc.

## **ISO 50001 Certified:**

3 sites in United States

Cost savings: \$9.42 million over 3 years

CO<sub>2</sub> reduction: 132,199 metric tons

Payback period: <1 month







# Oleoductos del Valle S.A. (OLDELVAL)



### ISO 50001 Certified:

**OLDELVAL** 

Cost savings: \$585,846 over 1 year

CO2 reduction: 5,342 metric tons

Payback period: <2 months





# Pacific (Panyu) Textiles Limited

## **ISO 50001 Certified:**

Panyu

Cost savings: \$4.89 million from 2011-

2015

CO<sub>2</sub> reduction: 108,902 metric tons

Payback period: <10 months







# **Provincial Electricity Regulation Entity (EPRE)**



### ISO 50001 Certified:

**EPRE Main Office** 

Cost savings: \$3,500 over 3 years

CO<sub>2</sub> reduction: 18 metric tons

Payback period: 3.55 years





# PT Pupuk Kalimantan Timur (PUPUK KALTIM)

## **ISO 50001 Certified:**

PKT-3 Plant

Cost savings: \$641,142 over 1 year

CO<sub>2</sub> reduction: 8,608 metric tons

Payback period: <7 months







# PT. Cheil Jedang Indonesia



### ISO 50001 Certified:

Pasuruan Plant

Cost savings: \$10.75 million over 3 years

CO<sub>2</sub> reduction: 61,053 metric tons

Payback period: <3 months





# PT. Pembangkitan Jawa-Bali Paiton

## **ISO 50001 Certified:**

PT PJB Paiton

Cost savings: \$32 million over 5 years

CO<sub>2</sub> reduction: 3.32 million metric tons

Payback period: 3 months







## Puerto Ventanas S.A.



## **ISO 50001 Certified:**

Puerto Ventanas S.A.

Cost savings: \$136,084 over 4 years

CO<sub>2</sub> reduction: 511 metric tons

Payback period: <1 year





# **Raymond Limited**

## **ISO 50001 Certified:**

Vapi Unit

Cost savings: \$671,142 over 1 year

CO<sub>2</sub> reduction: 4,137 metric tons

Payback period: <6 months







# Roads and Transport Authority Dubai (RTA)



### ISO 50001 Certified:

RTA Dubai

Cost savings: \$12.2 million over 4 years

CO<sub>2</sub> reduction: 81,362 metric tons

Payback period: ~3 months





## SIN PAR S.A.

## **ISO 50001 Certified:**

Conesa 10/21

Cost Savings: \$8,400 over 1 year

CO<sub>2</sub> Reduction: 253 metric tons

Payback Period: 1.1 years







# Sungshin Cement Co., Ltd.



## **ISO 50001 Certified:**

Danyang Plant

Cost savings: >\$7.66 million over 3 years

CO<sub>2</sub> reduction: 59,245 metric tons

Payback period: 1.3 years





## Vardar Dolomit Dooel

## **ISO 50001 Certified:**

**Dolomite Production Facility** 

Cost savings: \$68,375 over 1 year

CO<sub>2</sub> reduction: 125,000 metric tons

Payback period: ~3 months







## Viña Cono Sur



## **ISO 50001 Certified:**

Fundo Santa Elisa

Cost savings: \$21,070 over 3 years

CO<sub>2</sub> reduction: 71.78 metric tons

Payback period: 2.4 years





## **Zhilkomservice**

## **ISO 50001 Certified:**

Zhilkomservice

Cost savings: \$1.16 million over 2 years

CO<sub>2</sub> reduction: 32,400 metric tons

Payback period: <1 month







### 2018 Participating Organizations, by Sector

### **Aluminum Manufacturing**

Bharat Aluminum Company Limited

#### **Automotive & Parts Manufacturing**

- China National Heavy Duty Truck Group Co., Ltd.
- Nissan North America, Inc.
- General Motors Ómnibus BB Transportes S.A.

### **Cement Manufacturing**

- JK Cement Ltd.
- Sungshin Cement Co., Ltd.

### **Chemicals Manufacturing**

- Misr Fertilizers Production Company (MOPCO)
- PT Pupuk Kalimantan Timur (PUPUK KALTIM)
- PT. Cheil Jedang Indonesia

### **Clay Building Material and Refractories Manufacturing**

Vardar Dolomit Dooel

#### Defense

An Garda Síochána

#### **Educational Services**

• Dublin City University

### **Electrical Equipment Manufacturing**

- ABB S.A.
- El Araby Company for Trading and Manufacturing
- · Grupo Newsan
- LG Display
- LG Electronics Inc., Cheongju Plant
- LG Electronics Inc., Gasan R&D Campus
- LG Electronics Inc., LG Digital Park
- LG Innotek Co., Ltd.

#### **Electricity Regulation**

Provincial Electricity Regulation Entity (EPRE)

#### **Financial Services**

- Allied Irish Bank
- Banco de Crédito e Inversiones

### **Food and Beverage Manufacturing**

- Mastellone Hnos. S.A.
- Viña Cono Sur

### Hospitality

- Hilton
- JW Marriott
- Kangwon Land

### **Information Technology**

Google

#### **Insurance and Property Management**

Zhilkomservice

### **Iron Steel and Fabricated Metals Manufacturing**

- Makstil AD
- PJSC "Magnitogorsk Iron & Steel Works" (PJSC "MMK")

### **Machinery Manufacturing**

- L&T MHPS Turbine Generators Pvt. Ltd
- SIN PAR S.A.

### Manufacturing (General)

· Grasim Industries Limited

### Municipality

- Abu Dhabi City Municipality
- Dubai Municipality
- Municipality of Sovizzo

#### Oil and Gas Production

- Empresa Nacional del Petróleo (ENAP)
- Oleoductos del Valle S.A. (OLDELVAL)

#### **Power Generation**

- PT. Pembangkitan Jawa-Bali Paiton
- PT PJB Gresik Power Plant

### **Public Transportation**

- Beijing Capital International Airport Co., Ltd.
- Roads and Transport Authority Dubai (RTA)

### **Pulp and Paper Manufacturing**

CMPC Pulp

### **Shipping Ports**

Puerto Ventanas S.A.

### **Textiles Manufacturing**

- MAS KREEDA Intimo
- Pacific (Panyu) Textiles Limited
- Raymond Limited

#### **Water and Wastewater**

Aguas Andinas



### 2018 Participating Organizations, by Country/Economy

Argentina

ABB S.A., Valentín Alsina, Buenos Aires

Grupo Newsan, Ushuaia, Tierra del Fuego

Hilton\*, 3 sites

Mastellone Hnos. S.A., General Rodríguez, Buenos Aires

Oleoductos del Valle S.A. (OLDELVAL), Cipolletti, Río Negro

Provincial Electricity Regulation Entity (EPRE), Mendoza,

Mendoza Province

SIN PAR S.A., Quilmes, Buenos Aires

Armenia

Hilton\*, 1 site

Aruba

Hilton\*, 1 site

Australia

Hilton\*, 14 sites

Austria

Hilton\*, 4 sites

Azerbaijan

Hilton\*, 1 site

**Bahamas** 

Hilton\*, 2 sites

Barbados

Hilton\*, 1 site

**Belarus** 

Hilton\*, 2 sites

Belgium

Google\*, Saint-Ghislain, Hainaut

Hilton\*, 4 sites

Belize

Hilton\*, 1 site

Accelerating the Global Clean Energy Transition

Hilton\*, 1 site

Brazil

Hilton\*, 5 sites

Bulgaria

Hilton\*, 2 sites

Cameroon

Hilton\*, 1 site

Canada

Hilton\*, 125 sites

Cape Verde

Hilton\*, 1 site

Chad

Hilton\*, 1 site

Chile

Aguas Andinas, Santiago, Santiago Province

Banco de Crédito e Inversiones, Santiago, Santiago Province

CMPC Pulp, Collipulli, Malleco; Laja, Bío Bío; Nacimiento, Bío

Bío

Empresa Nacional del Petróleo (ENAP), Concón, Valparaíso; Hualpén, Concepción; Punta Arenas, Magallanes; Santiago,

Santiago Province

Hilton\*, 3 sites

Puerto Ventanas S.A., Puchuncaví, Valparaíso

Viña Cono Sur, Chimbarongo, Colchagua

China

Beijing Capital International Airport Co., Ltd., Beijing, Beijing

Municipality

China National Heavy Duty Truck Group Co., Ltd., Chengdu,

Sichuan; Chongqing, Chongqing Municipality; Datong, Shanxi; Ethiopia Hangzhou, Zhejiang; Jinan, Shandong; Jining, Shandong;

Yongan, Fujian

Hilton\*, 126 sites

Pacific (Panyu) Textiles Limited, Guangzhou, Guangdong

Hilton\*, 16 sites

Costa Rica

Hilton\*, 5 sites

Croatia

Hilton\*, 2 sites

Curacao

Hilton\*, 1 site

Cyprus

Hilton\*, 2 sites

Czech Republic

Hilton\*, 2 sites

**Dominican Republic** 

Hilton\*, 2 sites

**Ecuador** 

General Motors Ómnibus BB Transportes S.A., Quito,

Pichincha

Hilton\*, 2 sites

Egypt

El Araby Company for Trading and Manufacturing, Benha,

Qalyubia

Hilton\*, 15 sites

Misr Fertilizers Production Company (MOPCO), Damietta,

Damietta Governorate

**Equatorial Guinea** 

Hilton\*, 1 site

Estonia

Hilton\*, 1 site

Hilton\*, 1 site

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Hilton\*, 2 sites

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

### 2018 Participating Organizations, by Country/Economy (continued)

Finland Google\*, Hamina, Kymenlaakso Hilton\*, 3 sites France Hilton\*, 8 sites French Polynesia Hilton\*, 2 sites Georgia Hilton\*, 1 site Germany Hilton\*, 24 sites Greece Hilton\*, 1 site Guam Hilton\*, 1 site Guatemala Hilton\*, 1 site **Honduras** Hilton\*, 2 sites Hungary Hilton\*, 2 sites Iceland Hilton\*, 2 sites India Bharat Aluminum Company Limited, Korba, Chhattisgarh Grasim Industries Limited, Veraval, Gujarat Hilton\*, 17 sites JK Cement Ltd., Chittorgarh, Rajasthan L&T MHPS Turbine Generators Pvt. Ltd, Surat, Gujarat Raymond Limited, Vapi, Gujarat



Indonesia

Hilton\*, 5 sites

PT Pupuk Kalimantan Timur (PUPUK KALTIM), Bontang, East

Kalimantan

PT. Cheil Jedang Indonesia, Pasuruan, East Java

PT. Pembangkitan Jawa-Bali Paiton, Probolinggo, East Java

PT PJB Gresik Power Plant, Gresik, East Java

Ireland

Allied Irish Bank, Dublin, Leinster

An Garda Síochána, Dublin, Leinster; Tipperary, Munster

Dublin City University, Dublin, Leinster

Google\*, Dublin, Leinster

Hilton\*, 6 sites

Israel

Hilton\*, 3 sites

Italy

Hilton\*, 22 sites

Municipality of Sovizzo, Sovizzo, Vicenza

Jamaica

Hilton\*, 3 sites

Japan

Hilton\*, 14 sites

Jordan

Hilton\*, 3 sites

Kazakhstan

Hilton\*, 2 sites

Kenya

Hilton\*, 1 site

Kuwait

Hilton\*, 1 site

Lebanon

Hilton\*, 2 sites

Luxembourg

Hilton\*, 1 site

Malaysia

Hilton\*, 9 sites

Maldives

Hilton\*, 1 site

Malta

Hilton\*, 1 site

Mauritius

Hilton\*, 1 site

Mexico

Hilton\*, 56 sites

Montenegro

Hilton\*, 1 site

Morocco

Hilton\*, 2 sites

Myanmar

Hilton\*, 3 sites

Namibia

Hilton\*, 1 site

**Netherlands** 

Hilton\*, 12 sites

New Caledonia

Hilton\*, 1 site

New Zealand

Hilton\*, 5 sites

Nicaragua

Hilton\*, 1 site

Nigeria

Hilton\*, 1 site

Oman

Hilton\*, 1 site

### Continued, next slide

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

### 2018 Participating Organizations, by Country/Economy (continued)

Panama

Hilton\*, 5 sites

Peru

Hilton\*, 5 sites

Philippines

Hilton\*, 1 site

Poland

Hilton\*, 16 sites

Portugal

Hilton\*, 3 sites

Qatar

Hilton\*, 3 sites

Republic of Korea

Hilton\*, 5 sites

Kangwon Land, Jeongsun-kun, Gangwon

LG Display, Gumi, Gyeongsangbuk-do; Paju, Gyeonggi

**LG Electronics Inc., Cheongju Plant, Cheongju-si, North** 

Chungcheong

LG Electronics Inc., Gasan R&D Campus, Seoul, Gyeonggi

LG Electronics Inc., LG Digital Park, Pyeongtaek-si, Gyeonggi

**LG Innotek Co., Ltd.,** Gumi, Gyeongsangbuk-do

Sungshin Cement Co., Ltd., Danyang-Gun, North

Chungcheong

Republic of Macedonia

Makstil AD, Skopje, Skopje Statistical Region

Vardar Dolomit Dooel, Gostivar, Polog Statistical Region

Romania

Hilton\*, 9 sites

Russia

Hilton\*, 25 sites

PJSC "Magnitogorsk Iron & Steel Works" (PJSC "MMK"),

Magnitogorsk, Chelyabinsk Oblast

Zhilkomservice, Naberezhnye Chelny, Republic of Tatarstan

Saudi Arabia

Hilton\*, 10 sites

Sevchelles

Hilton\*, 3 sites

Singapore

Google\*, Singapore

Hilton\*, 3 sites

Slovakia

Hilton\*, 2 sites

South Africa

Hilton\*, 5 sites

Spain

Hilton\*, 12 sites

Sri Lanka

Hilton\*, 2 sites

MAS KREEDA Intimo, Biyagama, Western Province

Sweden

Hilton\*, 1 site

Switzerland

Hilton\*, 2 sites

Taiwan

Google\*, Changhua County, Taiwan Province

Tanzania

Hilton\*, 3 sites

Thailand

Hilton\*, 10 sites

Trinidad and Tobago

Hilton\*, 1 site

Turkey

Hilton\*, 57 sites

Ukraine

Hilton\*, 1 site

**United Arab Emirates** 

**Abu Dhabi City Municipality,** Abu Dhabi, Emirate of Abu

Dhabi

**Dubai Municipality, Dubai, Emirate of Dubai** 

Hilton\*, 22 sites

Roads and Transport Authority Dubai (RTA), Dubai, Emirate

of Dubai

United Kingdom

Hilton\*, 141 sites

**United States of America** 

**Google\***, Berkeley County, South Carolina; Council Bluffs, Iowa; Douglas County, Georgia; Lenoir, North Carolina; Mayes

County, Oklahoma; Mountain View, California; The Dalles,

Oregon

Hilton\*, 4,307 sites

JW Marriott, Washington, D.C.

Nissan North America, Inc., Canton, Mississippi; Decherd,

Tennessee; Smyrna, Tennessee

Uruguay

Hilton\*, 3 sites

Venezuela

Hilton\*, 2 sites

Vietnam

Hilton\*, 2 sites



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## Clean Energy Ministerial

# Energy Management Working Group (EMWG)

www.cleanenergyministerial.org/initiative-clean-energy-ministerial/energy-management-working-group

