June 2019

Mexico moves to decarbonize its industrial sector and mitigate effects of climate change

Mexico’s industrial sector is hugely diverse and ranges from automotive to petroleum, cement and electronics. These industries, many of which include small-to-medium enterprises, have greatly propped up the Mexican economy over the past several decades and provided millions of jobs.

Nevertheless, Mexico’s industrial sector is the largest source of greenhouse emissions which is contributing to climate change. To help mitigate these impacts, in 2012, Mexico became the second country in the world to enact a national General Law of Climate Change. It has since pledged to reduce its greenhouse gas emissions by 22 per cent below baseline before 2030.

For Mexico to meet these climate commitments, industry and its energy consumption must be prioritized. By improving the industrial sector’s energy management systems, Mexico could reduce its emissions and energy consumption by a projected 41 per cent before 2050.¹

**KEY FACTS**

**Population**: 129.2 million

**National energy mix**

Mexico’s total energy consumption consists mostly of petroleum, followed by natural gas. The country also has set goals for increased renewable energy generation capacity.

**The industrial sector and the economy**

Industries are responsible for 25% of Mexico’s GDP, employing 31% of the working population.

**Industrial energy consumption**

Industry consumes 31% of the country’s energy supply.

**Industrial energy growth**

Industrial energy consumption is expected to grow around 4% per annum from 2016–2030. This growth will be led by export industries such as beverage, vehicle manufacturing and chemical products.

**Industrial energy policy**

Mexico’s General Law on Climate Change mandates sector specific reductions in emissions, which are a strong driver for energy efficiency. A number of national initiatives such as the Strategy of Transition to Promote the Use of Cleaner Technologies and Fuels also demand annual reduction targets in energy intensity. In 2014, Mexico passed its Energy Transition Act as part of its drive to reform energy usage.

**Accelerating industrial energy efficiency in Mexico**

While Mexico boasts a sophisticated suite of policies and regulations designed to drive action on energy efficiency, more support is needed to enable the private sector to adopt efficient energy management systems and technology. Limited access to training and skills, particularly among small-to-medium enterprises, is a major barrier to achieving a systemic nationwide uptake of industrial energy efficiency.

¹ SENER projects (transition scenario).
Improving access to energy management training and accreditation for SMEs

The Accelerator is working with a number of Mexican government agencies to propose a national standard of competence for internal energy management auditors. Qualified personnel are key to safeguarding the quality of installations, operations and maintenance of energy efficiency management systems.

Designed to integrate within the existing labour competencies standard, the energy efficiency standard framework seeks to address accredited energy management skill shortages within industrial companies. Internal energy auditors seeking to become accredited will not require a dedicated college degree to implement, assess and audit an energy efficiency management system. This is particularly important for small-to-medium sized industrial businesses whose energy auditors may have adequate work experience, but simply lack formal qualifications to become certified. The national standard of internal energy auditor competence is promoted by the National Commission for the Efficient Use of Energy (CONUEE) and it will be coordinated by the National Council for Standardization and Certification of Labor Competencies (CONOCER), a federal government entity which delivers and oversees standardisation and certification of labour competences.

SMEs are vital to Mexico’s economy. They make up 99.8 per cent of businesses, are responsible for 63 per cent of formal employment and generate 52 per cent of Mexico’s GDP. In this context, industrial companies represent 12 per cent of the SMEs in the country.

Share of SME activities in Mexico in 2016

<table>
<thead>
<tr>
<th>Industry</th>
<th>Share of SMEs</th>
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<tbody>
<tr>
<td>Retail trade</td>
<td>48%</td>
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<tr>
<td>Accommodation and food services</td>
<td>13%</td>
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<tr>
<td>Educational services</td>
<td>3%</td>
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<tr>
<td>Health care and social assistance</td>
<td>5%</td>
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<tr>
<td>Manufacturing</td>
<td>12%</td>
</tr>
<tr>
<td>Wholesale</td>
<td>3%</td>
</tr>
<tr>
<td>Other services (except Public Administration)</td>
<td>16%</td>
</tr>
<tr>
<td>Wholesale</td>
<td>3%</td>
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</tbody>
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Simultaneously, the Accelerator is delivering a ‘training of the trainers’ on ISO 50001 Energy Management System implementation for senior energy managers. Currently, energy managers seeking to become certified in the internationally recognised ISO 50001 energy management standard must travel abroad to receive training and accreditation. ISO 50001’s data-driven approach to continual improvement of both an organization’s energy management system (EnMS) and energy performance requires a unique combination of skills which are hard to find in Mexico. Through the Accelerator’s ten month ISO 50001 training programme, policymakers, energy managers and consultants are trained in auditing and optimising their organization’s energy management system according to the ISO 50001’s latest criteria.

Specifically, the Accelerator’s ISO 50001 capacity building work in Mexico consists of:

- Preparing training materials and identifying priority sectors for testing
- Running training workshops (train the trainers)
- Small scale rollout and application of ISO 50001 energy management audits in trainee companies
- Mentoring for ongoing maintenance and management of the ISO 50001 standard in trainee companies

About the Industrial Energy Accelerator

In partnership with key government agencies and industry stakeholders, the Industrial Energy Accelerator works on the ground to rally government, industry and finance around solutions that ignite change in energy-intensive industries. We then take our knowledge and experience to the world, sharing what we have learned to inspire a global movement for industrial energy efficiency.