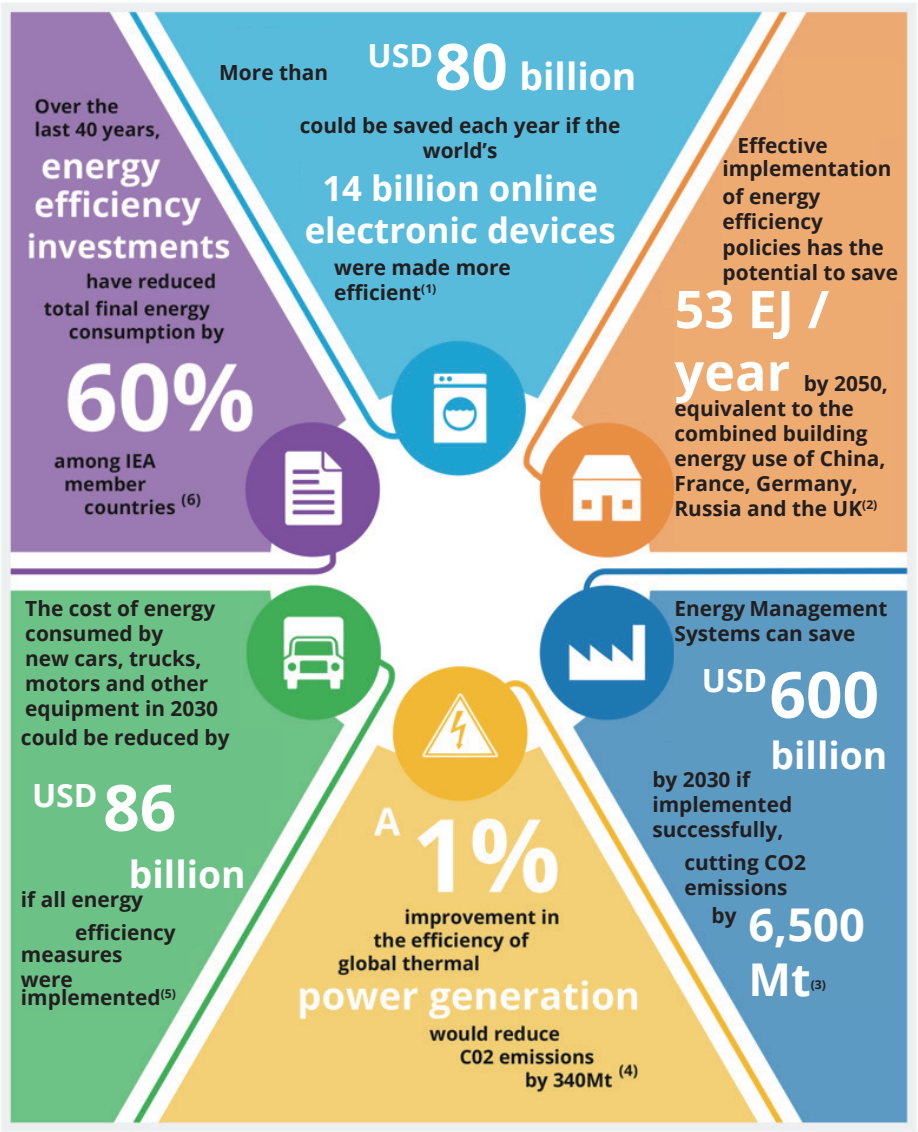
About IPEEC

IPEEC is an autonomous partnership of nations founded in 2009 by the Group of Eight (G8) to promote collaboration on energy efficiency. Its membership now includes 16 of the Group of 20 (G20) economies, which represent over 80% of global energy use and over 80% of global greenhouse gas emissions*.

IPEEC provides information to decision makers in major economies, facilitating candid discussions for exchanging ideas and experiences on energy efficiency. It helps countries undertake joint projects to develop and implement energy efficiency policies and measures at a global scale.

In 2016, IPEEC focused on supporting energy efficiency improvement through the activities of its country-led task groups in the following areas: appliances and equipment, buildings, industrial energy management, electricity generation, transport and cross-sectoral issues. Nine of IPEEC's task groups progress work under the G20 Energy Efficiency Leading Programme (the Leading Programme) - the G20's first long-term framework for energy efficiency - which was endorsed by G20 energy ministers in June 2016. IPEEC was designated the lead coordinating organisation for the Leading Programme, in cooperation with other major international organisations.



Sectoral snapshot of energy use and energy efficiency opportunities

IPEEC task groups support energy efficiency accross six sectoral topic areas: appliances and equipment, buildings, industry, power, transport and cross-sectoral issues.

Footnotes

*OECD. (2015). Air and GHG emissions (indicators). doi: 10.1787/93d10cf7-en.

(1) IEA. (2014). "More Data, Less Energy - Fact Sheet" (p. 1).

(2) IPEEC Buildings Energy Efficiency Task Group (BEET). (2015). *Delivering Energy Savings in Buildings* (p. 3).

(3) Energy Management Working Group (EMWG). "Energy Management and ISO 50001" retrieved from http://www.cleanenergyministerial.org/Our-Work/Initiatives/Energy-Management/Energy-Management-ISO-50001.

(4) IPEEC. (2015). *Report on the G20 Energy Efficiency Action Plan–2015 Outcomes* (p. 15).

(5) Global Fuel Economy Initiative (GFEI). (2015). "LDV fuel economy and the G20" (p. 1).

(6) IPEEC. (2015). *G20 Energy Efficiency Finance Task Group Activity Report 2015* (p. 2).

Accomplishments

In 2016, IPEEC members and task groups made significant progress in the design, acceleration and implementation of cross-sector energy efficiency policies and programmes around the world. They achieved this through the nine work streams under the Leading Programme as well as continued efforts through established task groups.

Appliances and equipment

Super-efficient Equipment and Appliance Deployment (SEAD) Initiative

SEAD aims to accelerate global market transformation toward energy efficient products. The task group's most significant accomplishments in 2016 included:

- Launch of the Advanced Cooling Challenge, which urges governments and industry to develop and deploy at scale super-efficient and affordable cooling techniques.
- Establishment of the SEAD Policy Exchange Forum (SPEx), which promotes discussions among policy makers from all of the SEAD member governments.
- Launch of the sixth Global Efficiency Medal competition, which recognises the world's most energy efficient industrial and outdoor lighting products.
- Joint development of a mobile application to give consumers on-demand access to easily compare labelled products.

Networked Devices Task Group (NDTG) / Connected Devices Alliance (CDA)

In 2016, the CDA fostered international cooperation and helped governments to better understand the issues raised by connected devices. This was achieved through:

- The finalised CDA Voluntary Principles for Energy Efficient Connected Devices, which have been officially supported by a number of industry groups and governments.
- Expansion of the CDA Centre of Excellence, created in 2015, to host more than 50 papers focused on energy policy for connected devices
- A policy workshop and two detailed studies conducted with the IEA 4E Technology Collaboration Programme.

Buildings

Buildings Energy Efficiency Task Group (BEET)

In 2016, the BEET completed its project on the International Review of Residential Building Energy Efficiency Rating Schemes (BEET 5), which is the fifth in a series of work conducted through the task group. The report investigates the design, governance and management of residential energy efficiency rating schemes among IPEEC member countries. The task group also conducted a training webinar on stakeholder engagement in the adoption and implementation of building energy codes. This work helped inform and support the development and implementation of effective building energy efficiency policies.

Industry

Energy Management Working Group (EMWG) and Energy Management Action Network (EMAK)

The EMWG and EMAK aim to encourage greater energy efficiency uptake in the industrial sector by sharing tools and best practices on the use of energy management systems. In 2016, the EMWG:

- Launched the Energy Management Campaign, which aims to reach 50,0001 global certifications to ISO 50001.
- Recognised the inaugural winners of the Energy Management Leadership Awards.
- Certified the first ISO 50001 Lead Auditors under the Energy Professionals International global certification scheme.
- Released the ISO 50001 Impact Estimator Tool (IET 50001), which estimates energy and emissions savings resulting from the implementation of ISO 50001.
- Hosted policy dialogues and exchanges.

EMAK focused on preparing the next event in its workshop series, scheduled for February 2017, which will bring together policy makers and energy managers to exchange information on national and international award programmes for best practices in energy management.

Power

High Efficiency Low Emissions Task Group (HELE)

As part of its efforts to promote energy efficiency improvements in thermal power generation, in 2016 the task group organised a workshop on facilitating HELE technologies in Tokyo, Japan. The event focused on possible policy and finance measures to facilitate the development of HELE technologies and their introduction in countries that face challenges in deploying them. The workshop was followed by a site visit to two thermal power plants in Isogo and Yokohama, Japan.

Transport

Transport Task Group (TTG)

The G20 established the TTG to promote cost effective energy efficiency measures for transport and help reduce the energy impact of major forms of transport, especially heavy-duty vehicles (HDVs). In 2016, the TTG:

- Conducted a survey of participating countries on their institutional needs and technical challenges to inform the development of Policy Roadmaps for motor vehicle and HDV policies and programmes.
- Developed a report evaluating the impacts of implementing world-class efficiency and emissions standards in TTG countries.
- Led policy exchanges among participating countries on experiences and best practices on key issues.

Cross-sector

Energy Efficiency Finance Task Group (EEFTG)

In 2016, the EEFTG focused on building upon the framework it launched in 2015 through the Voluntary Energy Efficiency Investment Principles for Participating G20 Countries, aiming to take this further by identifying best practices among its 15 country members to deliver policies that stimulate and support energy efficiency investments. The EEFTG, working with the United Nations Environment Programme Finance Initiative, also broadened and deepened its engagement with financial stakeholders by:

- Obtaining additional support for its two energy efficiency finance statements from banks and investors. The declarations now include signatures from over 120 banks and investors totaling over USD 4 trillion of funds under management.
- Organising 18 events and consultations with over 1,200 experts around the world.
- Presenting the results of a survey on the implementation of the Principles in member countries at a G20 workshop.

Improving Policies through Energy Efficiency Indicators (IPEEI)

In 2015 the IPEEI promoted energy efficiency monitoring methods in IPEEC and G20 member countries by:

- Conducting cross-country comparisons on the recent energy efficiency trends of G20 countries, based on a centralised data collection system.
- Delivering extensive in-country or regional training on energy efficiency indicators.
- Implementing energy efficiency indicator methodologies on a voluntary basis and through a decentralised data collection system at regional or national level.
- Launching a bilateral programme on exchanging information and good practices for energy efficiency monitoring.

Top Ten Energy Efficiency Best Practices and Best Available Technologies Task Group (TOP TENs)

In 2016, TOP TENs members launched the inaugural round of domestic and international lists for top ten energy efficiency best practices (BPs) and best available technologies (BATs) in the industrial and buildings sectors. The lists were compiled based on a methodology for evaluating and scoring BPs and BATs developed by the task group. The lists were produced to help policy makers promote the most effective energy efficiency solutions in their respective countries.

Outlook for 2017

2017 will see strengthened international collaboration under the G20 Presidency of Germany.

In addition to the continued implementation of previous G20 commitments, including the Leading Programme, the 2017 G20 energy sustainability agenda will focus on the following issues:

- setting the framework for investments in low- and zero-carbon energy technologies, particularly efficiency and renewables
- economic benefits of early, forward-looking action
- avoiding lock-in effects and stranded assets in electricity, heating and cooling, buildings, industry and transport sectors.

In 2017, IPEEC task groups plan to strengthen existing efforts by broadening participation, continuing the implementation of principles, recommendations and policy options developed through G20 collaboration, deepening technical cooperation, and facilitating ongoing dialogue between key stakeholders. In addition, IPEEC will help initiate the development of new work streams under the Leading Programme on district energy systems, energy end-use data and energy efficiency metrics, and knowledge-sharing.

Further information and resources

The full **IPEEC Annual Report 2016** is available at **www.ipeec.org** along with a range of other resources, including:

- reports, communiqués and other outcome documents from the G20 process
- publications from IPEEC task groups
- news, data and multimedia from IPEEC and the broader international energy efficiency community.

IPEEC members