



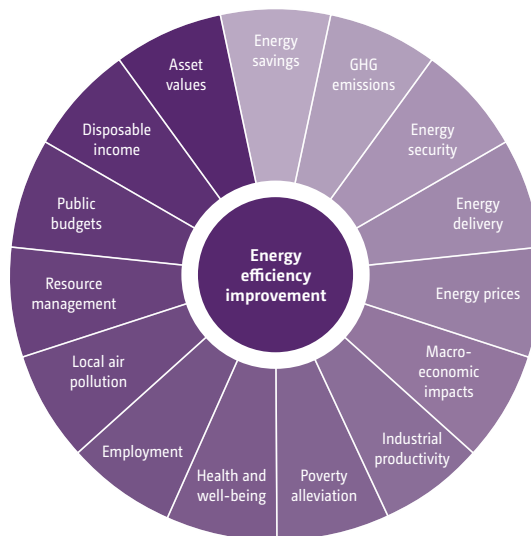
EXECUTIVE SUMMARY FOR DOMESTIC POLICY MAKERS

Industrial Energy and Material Efficiency in Emission- Intensive Sectors

Accounting for over one third of global final energy consumption, the worldwide industrial sector consumes more energy than any other end-use sector. Various energy and material efficiency measures can reduce energy consumption and related greenhouse gas emissions significantly, thereby also offering great cost saving potential and a number of environmental and social co-benefits, such as reduced air pollution and improved working conditions. Despite the high potential for industrial energy efficiency, a number of challenges and unaddressed needs remain, among which lack of awareness of energy efficiency potential, limited access to financing and the need for capacity-building are the prime ones.

ROLE OF DOMESTIC POLICYMAKERS

Policymakers have a critical role to play in setting standards, policies and laws for energy efficiency, addressing barriers that restrict energy efficiency in industry using different approaches and incentivizing various actors in relation to energy efficiency. Approaches range from economic and fiscal instruments, through regulatory measures, to information, education and deployment-related approaches. The table below lists the main barriers to industrial energy efficiency and possible approaches that domestic policymakers can use to address them.



Multiple benefits of energy efficiency
Source: OECD/IEA 2014

Barrier	Possible approaches of domestic policymakers to addressing barrier
Lack of financial resources	Financial incentives and direct investment
Lack of awareness	Information campaigns, performance labels and demonstration projects
Lack of technical know-how	Improvement of training landscape and aid in implementation
Lack of motivation/low priority	Auditing, codes and standards, monitoring, obligation schemes and demonstration projects
Energy price subsidies	Fiscal instruments and phasing out of energy price subsidies
Structural barriers	Institutional creation and long-term strategic planning (including setting of targets)
Lack of access to technology	Research and development programmes
Equipment downtimes/technology lock-in	Financial incentives, and codes and standards

POSSIBLE OPTIONS FOR ACTION

In order to promote industrial energy efficiency, an **adequate policy framework** is crucial. Policymakers can improve the framework for example by anchoring industrial energy efficiency in national energy policy, considering energy efficiency in relevant decisions, establishing a dedicated authority for energy efficiency and taking into account national and regional conditions.

To **stimulate demand for and encourage investment** in energy efficiency, it is important that clear and long-term investment signals are sent. Simplifying public support programmes and the processes for obtaining funding also plays an important role in this context. There is a need to provide new, tailored support programmes for small and medium-sized enterprises and start-ups that develop energy-saving technologies. This way knowledge-based employment can be created, which is crucial for the sustainable development of the country. Another option is to provide incentives, such as tax exemptions for specific voluntary actions of industry actors (e.g. for reaching certain energy reduction targets or for implementing an energy management system).

Energy management systems rank among the most important instruments for increasing industrial energy efficiency. It is therefore recommended to incentivize the broad application of the ISO 50001 standard, for instance through voluntary programmes, subsidies or integration into the regulatory framework. In order to support knowledge exchange and education of industrial actors, the establishment of industrial **energy efficiency networks** has proved to be an effective approach.

To **ensure regulatory compliance**, approaches range from setting incentives, providing information on potential, costs and benefits, and offering training measures. Awareness campaigns can be targeted at industry actors or financial institutions. Actions might focus on improving accessibility of data and knowledge, such as through the creation of databases or platforms. If necessary, enforcement mechanisms (e.g. sanctioning) can be considered, where compliance can be monitored, such as through minimum energy performance standards or energy efficiency performance labelling.

For more information, please read the [TEC Brief on energy and material efficiency in emission-intensive sectors](#)