Institute for Industrial Productivity

FACT SHEET

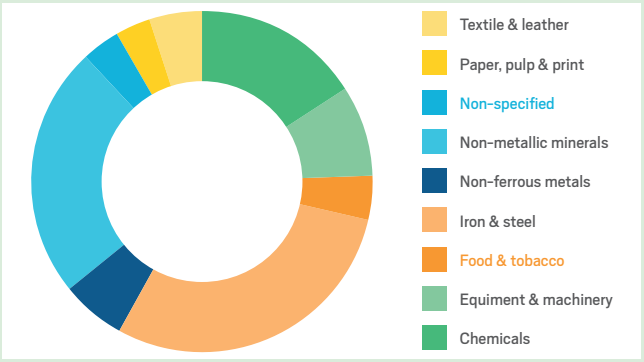
COUNTRY POLICY SUMMARY
United States (Federal)

FACTSHEET TYPE	DESCRIPTION
Policy	

CURRENT ENERGY USE AND GHG EMISSIONS

The industrial sector accounts for about one-third of total GHG emissions in the United States. Industrial energy efficiency in the US has improved substantially over the past 30 years; however, there are still significant opportunities for energy savings. While overall energy efficiency is lower in the US compared to other OECD countries, the energy intensity of the manufacturing sector has been falling and is now comparable to that in the EU-12. The figure opposite illustrates the breakdown of final energy consumption by industry sub-sector (300 Mt of oil equivalent in 2008).

US Final Energy Consumption: sub-sector contribution to manufacturing industry (2008) Source IEA



National Targets

In 2009 at the climate talks in Copenhagen the US pledged to reduce greenhouse gas emissions in the range of 17% below 2005 levels by 2020. Additional climate legislation has been proposed by the U.S. House of Representatives but no bill has yet made it into law (Status Jan 2012). President Obama has also indicated that it is his goal to achieve an 83% reduction in GHG emissions by 2050 but to date this target has also not being carried over into law.

Policy Structure

In the United Sates federal energy efficiency policy has a strong focus on voluntary programs, with targeted mandatory measures only being introduced in recent years. In fact, until 2011, the United States had only a very limited focus on mandatory GHG emission or EE effort-defining policies, which hampered the effectiveness of its policy packages. Today, the Clean Air Act (CAA) policy works on the bottom-end of the market limiting GHG emission levels, while the voluntary targets encourage companies go beyond these actions and aim for higher ambition levels. Unfortunately though, there are still only a small number of federal supporting measures that are linked to energy efficiency and/or emission reductions, which could have an impact on uptake within the voluntary programs. Counteracting this lack of supporting measures, the federal government does however provide an extensive range of implementation tools, such as calculation tools, monitoring formats and free energy management support. that help underpin the voluntary effort-defining policies.

IIP POLICY PYRAMID This pyramid illustrates the different policy approaches related to energy efficiency and GHG emissions.

Effort-defining Policies
Interventions that motivate and drive energy efficiency, energy savings or GHG emissions reduction.

Supporting Measures
Carrot-and-stick policies that encourage action and address or alleviate barriers.

Implementation Toolbox
Guidelines, tools, templates etc. that support the above policies.

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Policy Summary

The following section uses the IIP Policy Pyramid approach to provide an overview of the United States' federal policies and how they typically apply to industry.

Effort Defining Policies

Major US effort-defining policies targeting the industrial sector cover both government regulations and voluntary programs; the latter have the broader reach across the industry sector.

Mandatory policies to reduce GHG emissions have been enacted in the US under the authority of the Clean Air Act (CAA). Large industrial installations are now required to obtain preconstruction and operating permits for greenhouse gas (GHG) emissions and require implementation of Best Available Control Technology (BACT) to control GHG emissions. The CAA has also paved the way for the introduction in 2012 of new standards governing industrial boilers and process heaters. An additional mandatory action is the Electric Motor Efficiency Standard for manufacturers requiring minimum motor efficiency values.

Voluntary programs in the US drive energy efficiency improvements and GHG reductions primarily through encouraging adoption of energy efficient technologies and energy management practices. Participants of these programs are given priority access to subsidized energy assessments and other resources. A strong focus of these programs is placed on agreed energy intensity reductions (Better Buildings, Better Plants program), implementation of the ISO 50001 energy management system standard (Superior Energy Performance program) and general energy monitoring and reporting (Energy Star Program for Industry, and the CHP Partnership).

There is also a new Executive Order (13624), which directs federal government agencies to support a national goal of deploying 40 gigawatts of new industrial CHP by 2020. These agencies are now required to provide technical assistance and use existing federal authorities, programs, and policies to support investments in CHP.

Supporting Measures

Supporting measures in the US are, in the main, provided most comprehensively at a state level. Those measures available at a federal level cover two primary areas, technical assistance and financial incentives.

Technical assistance programs provide guidance directly to companies, typically SME, and connect them with experts in topics such as energy management, control technologies, and energy saving best practices. The E3 program (Economy – Energy – Environment) and Industrial Assessment Centers (IACs) focus on SMEs and provide expert co-ordination and free energy assessments. There is also a State and Local Energy Efficiency Action Network (SEE Action), which provides information resources and technical assistance, to state and local decision makers through eight working groups.

The financial measures available include tax relief and loan guarantees that encourage deployment of energy-efficient and low-carbon technologies. The Business Energy Investment Tax Credit (ITC) provides federal income tax relief for the development and deployment of renewable energy technologies and CHP, while the Loan Guarantee Program encourages deployment of certain clean energy and energy efficient technologies.

Implementation Toolbox

The US federal agencies provide a very comprehensive range of EE tools and guidance to support the largely voluntary nature of EE policy.

Informational resources such as technical reports, market analyses and best practice documents and guidance are available for companies seeking assistance with identifying and implementing energy-savings measures at the project, facility, and corporate level. Software tools such as the Quick Plant Energy Profiler (QuickPEP) can help companies establish energy use baselines, such as required in the BBBP Program. Training and technical assistance are provided to support implementation of many programs, including compliance with the Boiler MACT Rule, participation in BBBP Program, SEP, CHP Partnership, GHG Reporting Program, and the IACs.

This factsheet is based on data from IIP as well as other sources. A full list of references is available under the relevant country entry at **http://iepd.iipnetwork.org**