



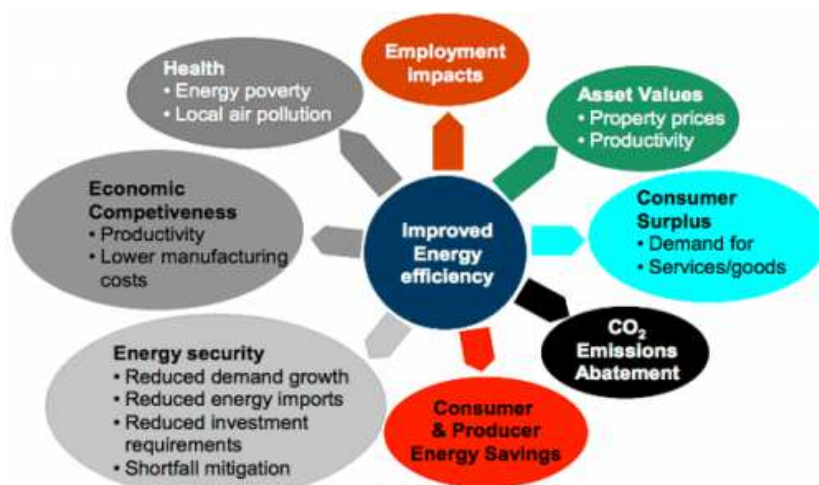
## ENERGY MANAGEMENT POLICIES AND PROGRAMS FROM AROUND THE GLOBE

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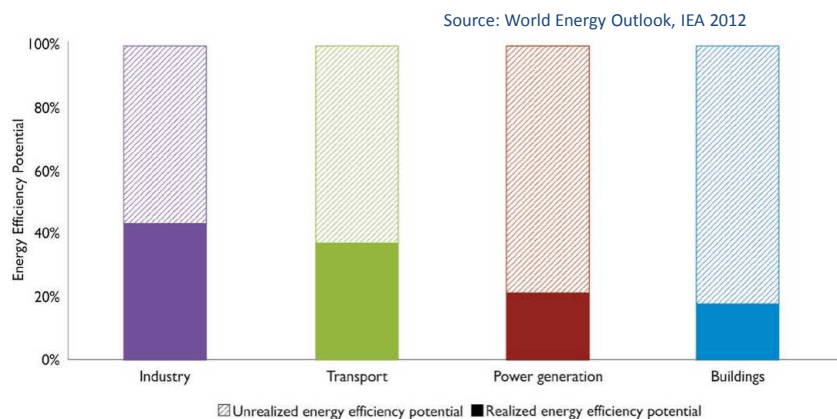
### DRIVERS FOR ENERGY EFFICIENCY



Source: IEA, BofA Merrill Lynch Global Research



## DESPITE SIGNIFICANT BENEFITS....LOTS OF UNTAPPED POTENTIAL



**Problem:** Energy efficiency is not integrated into daily management priorities and practices.

## GOVERNMENT ARE PROMOTING ENERGY MANAGEMENT STRATEGIES TO HELP REALIZE POTENTIAL

- **Solution:** EnMS will help tap unrealized energy efficiency potential by helping industry identify and implement new opportunities for energy and cost-saving objectives on an ongoing basis.
- The publication of ISO50001 International Energy Management System Standard in June 2011 has raised the profile of EnMS as a key energy efficiency strategy.
- Many countries have a long history promoting energy management (e.g. Japan and Ireland)

## GOVERNMENT ENERGY MANAGEMENT PROGRAMS

Government efforts to promote energy management differ from one another in terms of the mix of energy management and policy approaches used, sectors targeted and supportive measures included.

<b>Energy management approach</b>	EnMS or energy management principles
<b>Targeted sectors</b>	Large-industry, SMEs, commercial buildings, public sector, cities
<b>Policy framework</b>	Regulations, incentives or voluntary programs
<b>Supportive measures</b>	Incentives, technical assistance, training, tools, information

## MORE ON SUPPORTIVE MEASURES...

Key to success of government energy management programs!

### Incentives

- Taxes
- Subsidies
- Recognition programs

### Technical Assistance

- Technical expertise made available to facilitate implementation low to no costs

### Training

- In-house staff – broad reach across organization
- Consultant and Auditors

### Information and Knowledge Sharing

- Tool, guides and case studies
- Peer networks to motivate and promote best practices

## PROMOTING ENERGY MANAGEMENT WITHIN VARIOUS POLICY CONTEXTS

Energy Management within Broader Policy Framework

Mandatory Energy Management Policies

Voluntary Energy Management Programs

## ENERGY MANAGEMENT WITHIN BROADER POLICY FRAMEWORKS

Governments are promoting energy management systems as compliance pathways for energy policies with broader energy efficiency goals:

- Energy Savings Targets
- Energy Taxes
- Energy Efficiency Obligation Schemes
- Voluntary Agreements

## ENERGY SAVINGS TARGETS

Energy Savings Targets offer a structured policy approach, providing clear milestones towards achievement of long-term climate and energy goals. A number of countries are positioning energy management systems as key strategy for ensuring targets are met.

### China

China's Top 10,000 Enterprises Program negotiates energy savings targets with large-energy users in order to meet economy-wide targets within the country's 12<sup>th</sup> Five-Year Plan (FYP), has an. Industries obligated under the Top 10,000 Program must collectively meet 37% of the FYP's absolute energy-savings goal of 670 Mtce.

The program also requires local authorities to establish programs to support industry implementation of China's national EnMS standard, GB/T 233331, which was revised in 2012 to align closely with ISO 50001.

## ENERGY TAX POLICIES

Many governments have created energy tax schemes to motivate increased energy efficiency. Some governments offer tax exemptions to companies who have been certified to an EnMS standard, or ISO50001.

### Germany

Germany offers industry exemptions with proof of certified EnMS for its renewable energy and electricity taxes of up to 99% and 90%, respectively.

As of February 2014, German accounts for 52% of global certifications to ISO50001.

## ENERGY EFFICIENCY OBLIGATION SCHEMES

These policies impose energy efficiency obligations on some category of energy market operators, and are sometimes coupled with various trading options (white certificate programs).

Traditionally, these policies include eligible projects that are easier to monitor and verify such as equipment replacement.

Governments are finding innovative ways to include expand programs to include eligible measures like adoption of energy management systems.

### France

Strong incentives for implementing ISO50001 by providing parties with bonuses of 50% to 100% for the white certificates they obtain for energy saving measures in the perimeter of a certified ISO 50001 EnMS. The bonus increases as the EnMS is further developed.

## VOLUNTARY AGREEMENTS

Voluntary Agreements (also known as target-setting or negotiated agreements), have been in use since 1990's and programs exist in many countries including the United States, Canada, Australia, New Zealand, Japan, Republic of Korea, Taiwan Province of China and many in Europe.

Key features of Voluntary Agreements:

- Signed, legally-binding agreements with realistic long-term (typically 5-10 years) target
- Require facility- or company-level implementation plans
- Annual monitoring and reporting
- Strong enforcement mechanism – tax or incentive
- Effective supporting programs

## VOLUNTARY AGREEMENTS AND ENERGY MANAGEMENT

In practice, Voluntary Agreements with an energy management strategy mostly promote energy management system standards adoption. ISO50001 is a requirement of agreements in in Denmark, Ireland and Sweden.

### Sweden

- Program for energy efficiency in energy intensive industries (or PFE) was established in 2005
- Offers attractive tax incentives to energy-intensive industries that join the five-year program.
- The core of the program is certification to ISO 50001.
- As of January 2014, companies volunteering to participate in the PFE represent over 90% of energy use in the Swedish energy-intensive sector.

## MANDATORY ENERGY MANAGEMENT POLICIES

Some governments are also designing policies that mandate adoption of energy management systems or practices. These policies can coexist and compliment policies such as energy savings targets.

	Energy Management Requirement	Excerpt of supportive Measures
<b>Singapore</b> Energy Conservation Act which comes into effect in 2013	Requires large industrial energy users to : <ul style="list-style-type: none"> <li>• appoint energy managers;</li> <li>• report on energy use ,</li> <li>• submit energy efficiency improvement plans.</li> </ul>	Several initiatives in the areas of capability building in energy management, incentive schemes and awareness raising are currently ongoing.
<b>Kazakhstan</b> Policy went into effect January 2014	Requires that large energy users become certified to ISO50001	50% subsidy on the certification of the energy management system

## VOLUNTARY ENERGY MANAGEMENT PROGRAMS

Without regulatory levers or fiscal incentives, voluntary programs depend on market-based strategies to promote adoption of EnMS.

### United States

The Superior Energy Performance (SEP) program is a market-based certification program. SEP has ISO50001 as a foundation with added energy performance improvement requirements. Robust conformity assessment is emphasized in this program.

SEP uses market recognition, technical assistance and training as supportive measures to promote adoption. Though utilities at sub-national level are exploring promotion of SEP to meet energy efficiency obligations.

## DESIGNING ENERGY MANAGEMENT PROGRAMS

A number of domestic factors help shape government program approaches:

- Existing efficiency policy and programs
- Social and political culture
- Level of capacity
- Data availability
- Accreditation and certification infrastructure
- Business culture
- Available government resources
- And others.

No one-size-fits all solution. Government need to consider these factors and others to build nationally appropriate programs.



THANK YOU!

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