



SECRETARÍA
DE ENERGÍA

SENER

CONUEE
COMISIÓN NACIONAL PARA EL
USO EFICIENTE DE LA ENERGÍA

Energy Efficiency designing and monitoring Mexico's experience

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Mexico

Energy Efficiency Metrics and National Energy Efficiency
Assessment in Developing Countries
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Vivir Mejor

Legal framework

The Law for the Sustainable Use of Energy (LASE, November 28th, 2008) and its Regulation (RLASE, September 11th, 2009)

National Information Subsystem for the Sustainable Use of Energy

Federal Public Administration & High consumption users

- Production, exports, imports and energy consumption by type of energetic;
- Energy efficiency in the consumption;
- Implemented measures regarding to energy conservation and
- Results from energy conservation measures derived from their implementation

Catalogue of equipments and appliances

Equipments and appliances that must include their consumption information

- Energy consumption per unit of time in operation;
- If it is the case, standing by energy consumption per unit of time, and
- Quantity of product or service offered by the equipment or appliance per unit of energy, if it is the case.

Trust and Funds information

Federal Government trust and funds that support directly or indirectly the sustainable use of energy

General information, Committee, Programs, Energy savings derived from the implemented programs

Permanent programs

Federal Public Administration

- Strategies, projects and actions for the sustainable use of energy.
- Project and actions priority according to its cost effectiveness.
- Goals and objectives for the correspondent period.

National Information Subsystem for the Sustainable Use of Energy

- ❖ The **Subsystem** has the objective to register, organize, update and spread information about:
 - I. Energy consumption in its main final uses, sectors and subsectors and in the different geographical regions of the country,
 - II. Factors that motivate these uses;
 - III. Energy efficiency indicators that describe the relation between its uses and the factors that motivate them and
 - IV. Energy efficiency indicators from other countries, for comparative use.
- ❖ In order to integrate this information, the Federal Public Administration as well as high consumption users must provide to CONUEE the information of last year as follows:
 - I. Production, exports, imports and energy consumption by type of energetic;
 - II. Energy efficiency in the consumption;
 - III. Implemented measures regarding to energy conservation and
 - IV. Results from energy conservation measures derived from their implementation.

National Information Subsystem for the Sustainable Use of Energy

- ❖ **High consumption users** are those that fulfill the following criteria:
 - I. Last immediate annual electricity consumption has passed 6 GWh
 - II. Last immediate annual fuel consumption has passed 9,000 (BOE) excluding fuels for transport or
 - III. That they have operated with a vehicle fleet of more than 100 units in the last immediate year.

- ❖ **Interconnection.** Entities and units of the Federal Public Administration must interconnect their information about sustainable use of energy with the Subsystem.

Catalogue of equipments and appliances

❖ New equipments and appliances that require energy to work and are distributed or placed on the market in Mexico, must include in a visible and clear way information about their energy consumption.

❖ CONUEE will elaborate and publish a **catalogue** about equipments and appliances that must include their consumption information.

❖ The information regarding these products is:

I. Energy consumption per unit of time in operation;

II. If it is the case, standing by energy consumption per unit of time and

III. Quantity of product or service offered by the equipment or appliance per unit of energy, if it is the case.

Permanent Programs

- ❖ As stated in the National Program for the Sustainable Use of Energy 2009-2012, the Federal Public Administration will elaborate and execute permanent programs for the sustainable use of energy in its buildings as well as by applying this criteria for acquisitions, leasing, modifications and services it hires.
- ❖ Federal Public Administration must provide CONUEE the information regarding its energy consumption and:
 - I. Strategies, projects and actions for the sustainable use of energy, considering the different technologies and best practices available and will be chosen the most cost effective option.
 - II. Project and actions priority according to its cost effectiveness.
 - III. Goals and objectives for the correspondent period.

Trust and Funds

- ❖ CONUEE must implement and update the information about the trust and funds that support directly or indirectly the sustainable use of energy and that were created by the Federal Government, receive federal resources or in which the Federal Government gives guarantees.

Preliminary list of energy efficiency indicators (1/2)

	Monitoring indicators	Level
Industrial Iron and Steel industry Chemistry Cement Glass Aluminum Sugar Cellulose and Paper	<ul style="list-style-type: none"> •Energy consumption for each phase of production processes 	1
	<ul style="list-style-type: none"> •Energy consumption per ton of final product produced 	2
	<ul style="list-style-type: none"> •Energy consumption for each phase of production processes 	3
	<ul style="list-style-type: none"> •Energy consumption for passenger, transport ton and kilometers traveled 	1
	<ul style="list-style-type: none"> •Energy consumption for mode of transport, passenger, transported ton and kilometers traveled 	2
	<ul style="list-style-type: none"> •Energy consumption for mode of transport, passenger, transported ton, kilometers traveled and type of vehicle: light cars, HV, motorcycles, bus, etc.. 	3
	Sector Transport	

Preliminary list of energy efficiency indicators (2/2)

	Monitoring indicators	Level
<p data-bbox="324 486 436 518">Sector</p> <p data-bbox="369 678 627 758">Commercial and Services</p>	<ul style="list-style-type: none"> <li data-bbox="761 486 1456 518">•Power consumption from gross added value <li data-bbox="761 550 1366 582">•Energy consumption per square meter <li data-bbox="761 630 1556 742">•Energy consumption between added value by type of building: government, commercial, education, hospital, hotels, etc.. <li data-bbox="761 774 1556 853">•Energy consumption per square meter per building type <li data-bbox="761 861 1500 973">•Energy consumption per square meter per end use: lighting, air conditioning, water heating, cooking, etc... 	<p data-bbox="1747 494 1769 526">1</p> <p data-bbox="1747 670 1769 702">2</p> <p data-bbox="1747 869 1769 901">3</p>
<p data-bbox="324 1117 436 1149">Sector</p> <p data-bbox="369 1244 548 1276">Residential</p>	<p data-bbox="761 1117 1489 1149">Energy consumption for housing and per capita</p> <p data-bbox="761 1220 1377 1292">Energy consumption by rural and urban housing</p> <p data-bbox="761 1300 1467 1412">Energy consumption for housing by final use: lighting, air conditioning, water heating, cooking, etc...</p>	<p data-bbox="1747 1125 1769 1157">1</p> <p data-bbox="1747 1220 1769 1252">2</p> <p data-bbox="1747 1308 1769 1340">3</p>

The importance of information

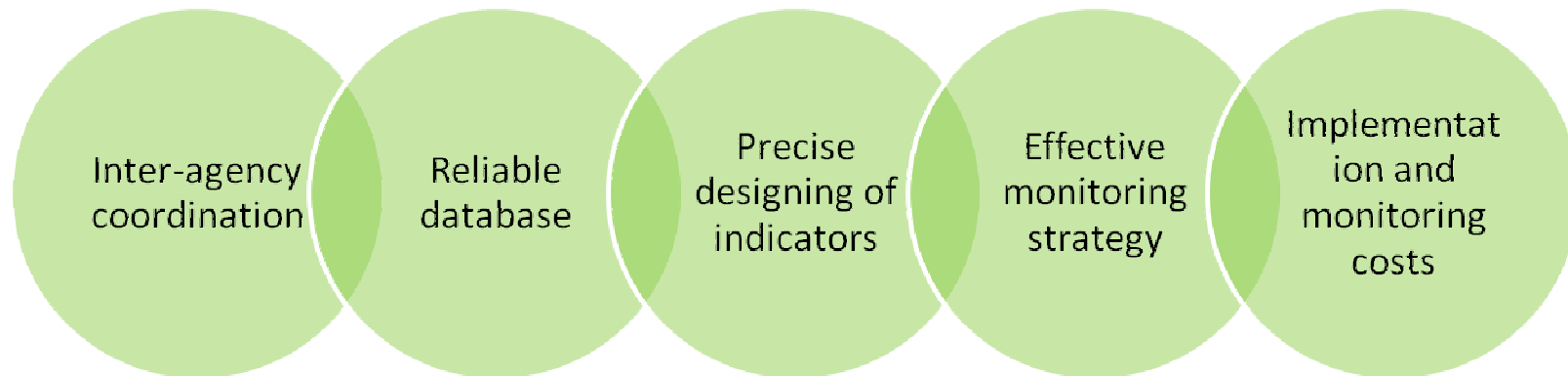
- ❖ The main benefit of having an efficient information schema is the opportunity it provides to monitor and evaluate the results of different policies and the coordination between different level of Governments.
- ❖ In the case of energy efficiency policy, the relevant information is an opportunity to generate a set of energy efficiency indicators to determine if the policy has contributed to improvements on the use of energy.
- ❖ In fact, the design of public policy is a process that is constantly changing because it must conform to the results arising from the assessment and monitoring of results.

What is the challenge?

- ❖ The main challenge in the process of gathering information is located in the scheme of inter-agency coordination and the ability of coordination that must exist between the CONUEE and individuals.
- ❖ This is due to the recent definition of energy efficiency policies framed by the Law for the Sustainable Use of Energy (published November on 28th, 2008), Regulation of the Law for the Sustainable Use of Energy (published on September 11th, 2009) and the National Program for the Sustainable Use of Energy (published on November 17th, 2009).

Energy efficiency monitoring

Technical Committee



Cost of Implementation