Regulating Clean Energy: An International Partnership

Regulatory Capacity Assessment

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Mexico City

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Article 27 of the Constitution, paragraph 6

*… Only the Nation can generate, conduct, transform and distribute and supply electric power to be rendered as a public service. No concessions will be granted in this area.

Legal Framework

Enabled more private participation in electric power generation

Establishment of a regulating agent for the electric sector

Solar, wind and hydroelectric energy

Net metering

The CRE has new powers that allows the profit of renewable energies for power generation

1992	• Reform to the Electric Power Public Utility Act (LSPEE).
1993	• LSPEE By law Publication.
1995	• Approval of the Energy Regulatory Commission Act (CRE).
2001	• Interconnection Contract for Renewable Energy Sources (capacity credit).
2007	• Interconnection Contract for Small-scale Solar Energy.
2008	• **Use of Renewable Energies and the Financing of Energy Transition Act (LAERFTE).**
2009	• LAERFTE By law Publication.
2010	• In April, the CRE published a number of regulatory instruments in order to promote the development of projects with renewable energy sources and efficient cogeneration.

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Electric Power Public Utility Act, 1992

Article 3° - Public Service is not taken into account:

I. Electric power generation for self supply, co-generation or **small scale production;**

III. Electric power generation to be exported, derived from co-generation, IPP and **small scale production**;

Regulation of the Electric Power Public Utility Act

Article 111. Small production is power generation aimed at:

I. All the power generated is sold to CFE, therefore projects might not have a capacity above 30MW in a area allocated by the ministry.

II. Self supply in small rural or isolated communities lack electric power service, so project will not be able to exceed1 MW

III. Exports within the maximum limit of 30 MW

Use of Renewable Energies and the Financing of Energy Transition Act

Article 6. The Ministry will:

I. Develop and coordinate the **special program** FOR the use of renewable energy.

VI. Implement and update the renewable energy **domestic inventory.**

Use of Renewable Energies and the Financing of Energy Transition Act

Article 11. The Ministry of Energy will develop and coordinate the program implementation

II. Setting specific goals and objectives to use renewable energies

III. All goals will be expressed as minimum percentages

IV. Including the construction of the required electric infrastructure for interconnection

V. Taking into account availability in different areas of the country

Use of Renewable Energies and the Financing of Energy Transition Act

Article 14. Based on the previous decisions of SHCP and SENER, CRE will determine the maximum amounts that suppliers will pay to generators using renewable energies.

Those payments will include payments of costs resulting from generation capacity and energy generation related to the project.

Payments could depend on a technology and geographical location of projects.

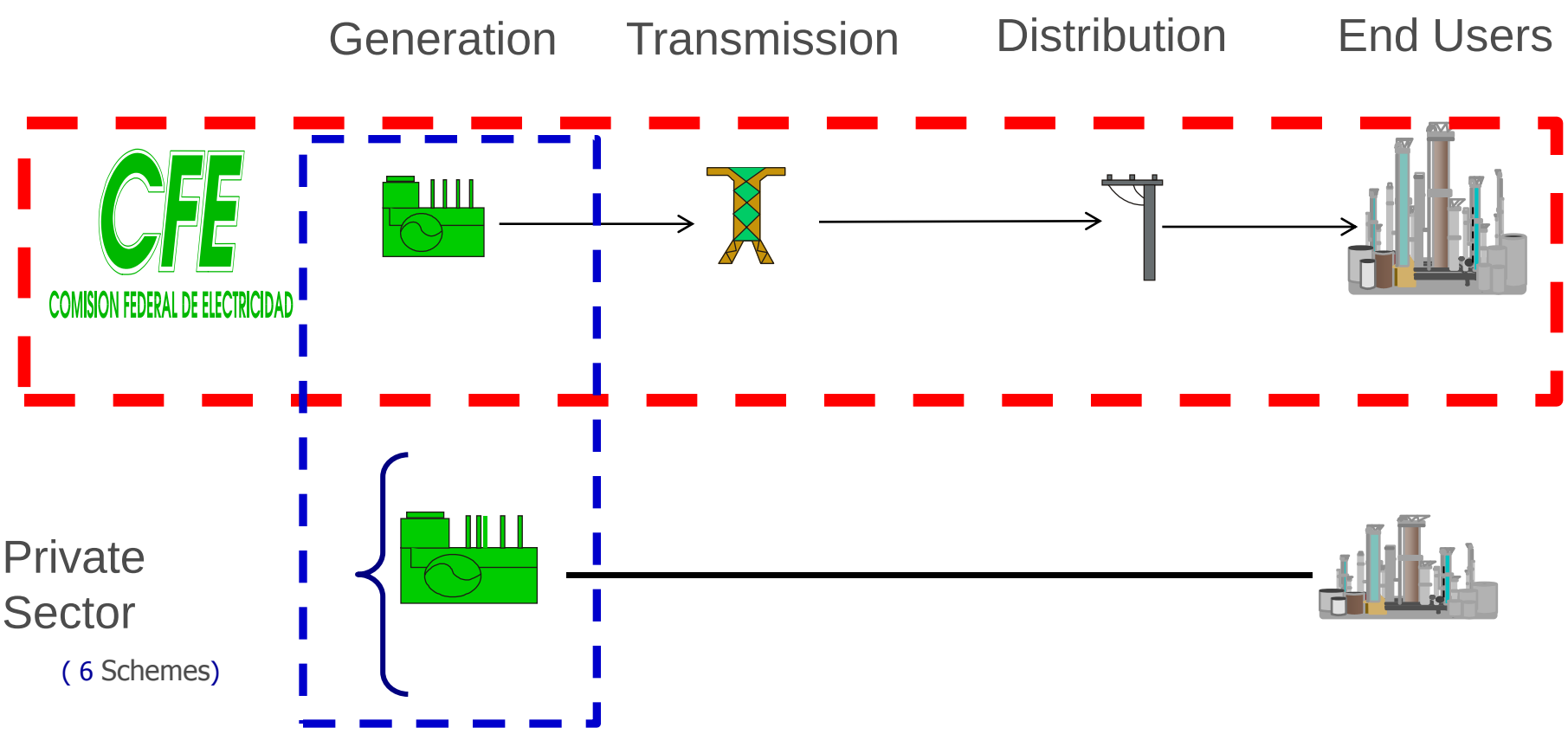
Use of Renewable Energies and the Financing of Energy Transition Act

Amendments as of June 1, 2012 foreseen in its transitory articles:

SENER will set goals

- Maximum share of 65% of fossil fuels for electric power generation by 2024
- 60% by 2035
- 50% by 2050

National Electric System in Mexico



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Schemes of Private Participation

- Generation*
- Imports
- Exports

- Self-supply
- Cogeneration
- Small production
- IPP

**Only for projects > 0.5 MW*

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Mexican electricity sector

Production of electric energy using renewable energy sources or efficient cogeneration

- **Sell to CFE**
  - Request of proposals
  - Without request of proposal small production < 30MW
    - Within the goals of national electric planning program
    - Outside the goals
  - Excess energy → Self Supply and cogeneration
- **Self Supply**
  - Self Supply society
  - Self Supply
  - Small scale
- **Export**
  - Cogeneration (general)
  - Independent Power Production
  - Small production

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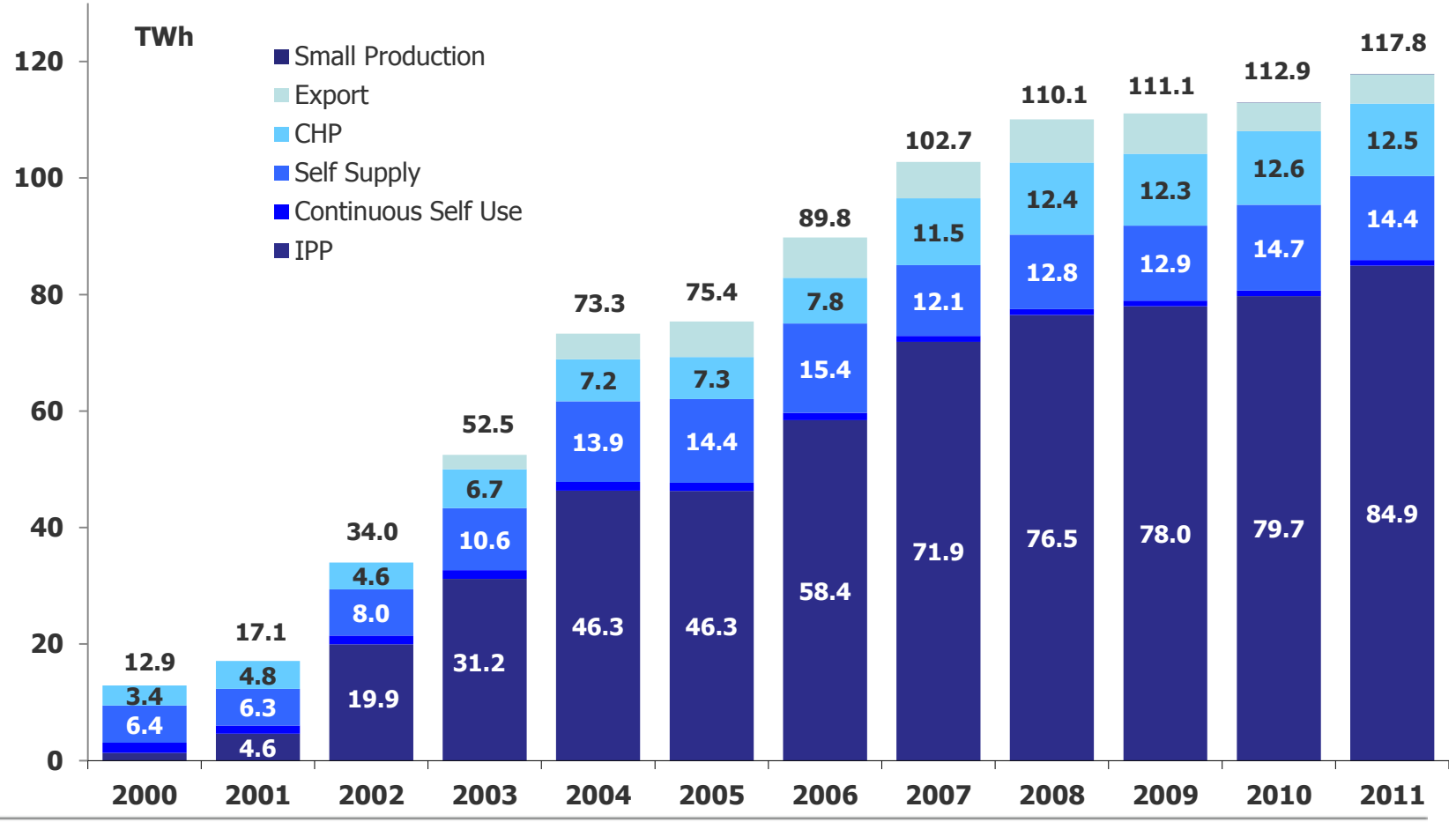
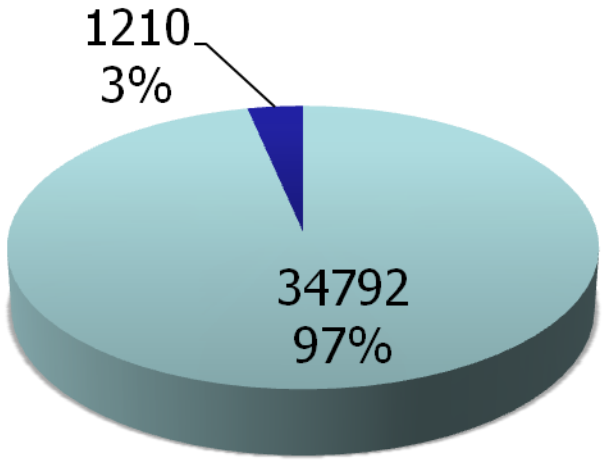
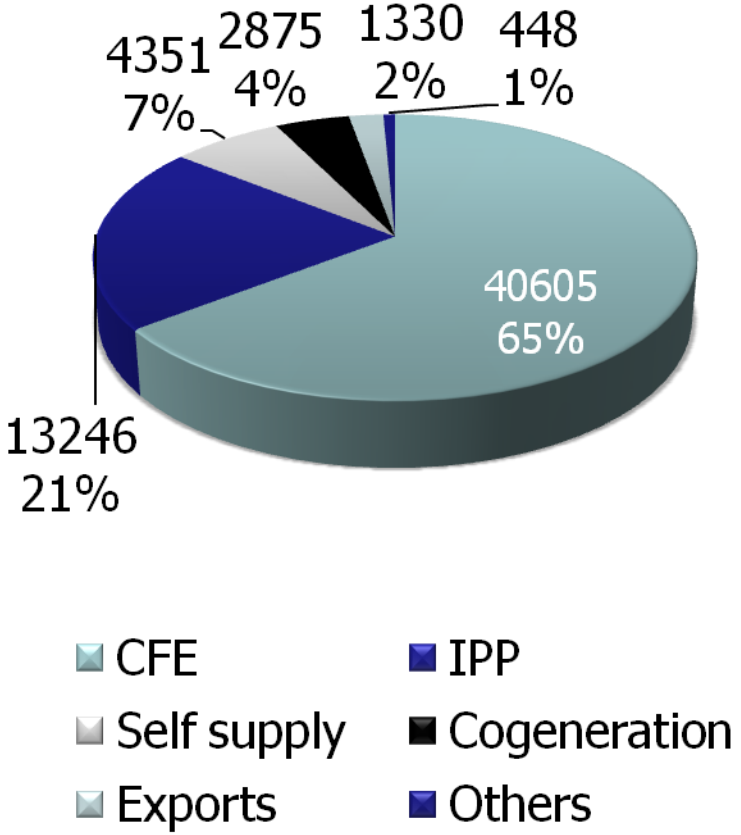
Evolution of private generation, 2000-2012 [TWh]

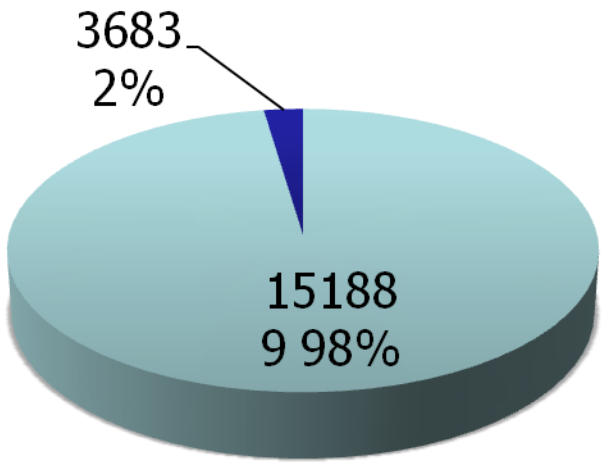


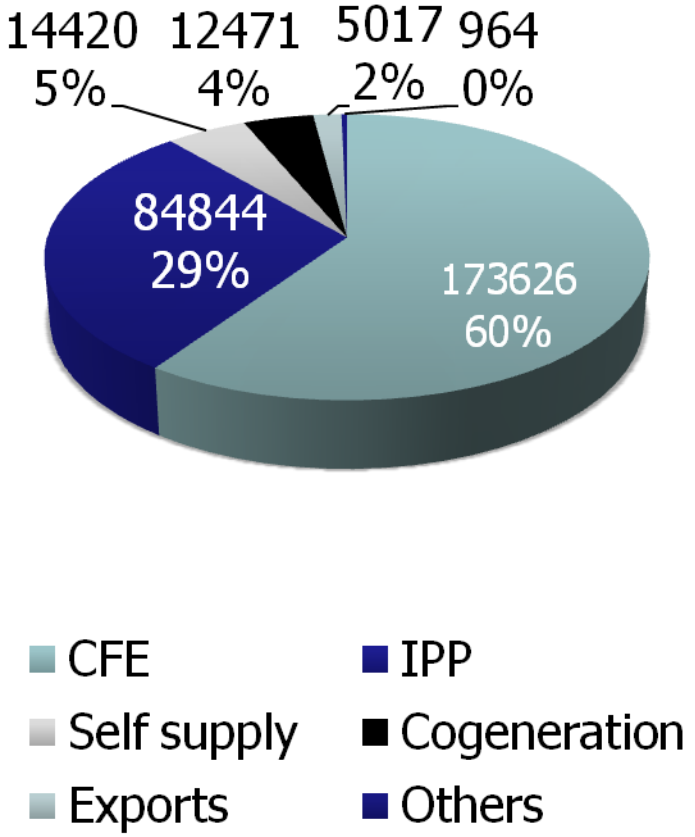
From 1996 to 2011, share in capacity [MW]





From 1996 to 2011, share in energy [MWh]





Payment Methodology

- Determinación de los pagos para las centrales renovables o de cogeneración eficiente con permiso de pequeña producción, de acuerdo con el proceso de subasta:

Opción A

$$P_o = [(V_{max} - Y) - X\ ]$$

Donde:

P_o es el pago unitario [$/kWh]

V_{max} es el precio medio del kWh de la tarifa (HM, HS) o el costo marginal del nodo según el caso

Y Ajuste considerado por CRE de acuerdo a la infraestructura existente, la tecnología, la región, los costos administrativos de CFE, las externalidades, etc. [$/kWh]

X Descuento ofertado en la obtención del clearing price [$/kWh]

Payment Methodology

- Opción B

$$C_m = PE_m + PC_m - G_m[\mathrm{Y+X}]$$

Donde:

C_m Pago a Permisionarios [$].

PE_m [Pago de la energía en punta] + [pago de la energía en media] + [pago de la energía en punta]

PC_m Pago de la potencia promedio en el periodo en punta

G_m Generación del periodo

Y Ajuste considerado por CRE de acuerdo a la infraestructura existente, la tecnología, la región, los costos administrativos de CFE, las externalidades, etc. [$/kWh]

X Descuento ofertado en la obtención del clearing price [$/kWh]

Thanks!

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