CLEAN DEVELOPMENT MECHANISM
PROJECT DESIGN DOCUMENT FORM (CDM-PDD)
Version 03 - in effect as of: 28 July 2006

CONTENTS

SECTION A. General description of project activity

A.1 Title of the project activity:

Santa Catarina Wind Farm Project
Version 1
17/05/2007

A.2. Description of the project activity:

The Santa Catarina Wind Farm Project (SCWFP) is a 20 MW wind project that consists of eight turbines of 2.5 MW each. It is under development by Econergy Mexicana S.A. de C.V. in the state of Santa Catarina in the greater Monterrey metropolitan area, Mexico. The wind farm is projected to have an annual capacity factor of 23% producing on average 40.296 GWh per year. The power from the wind farm will be supplied to three Municipalities in the state of Nuevo Leon; Monterrey, Santa Catarina and Guadalupe, under the Mexico regulatory scheme of "auto-generation" whereby an end user can provide power for its own use.

The project activity involves the development, design, engineering, procurement, financing, construction, operation, maintenance and monitoring of the Santa Catarina plant´s facilities.

Even though Mexico has significant fossil fuel reserves, it is necessary to continue promoting the use of alternative sources of energy, taking advantage of the vast national potential for energy generation through renewable sources, such as solar, wind, mini-hydro and biomass. There are many wind potential regions in Mexico such as: Baja California, Baja California Sur, Zacatecas, Quintana Roo, Hidalgo and Tlaxcala, with a potential capacity between 3,000 and 5,000 MW.

CDM projects have, among others, the main objective of assisting the host country in achieving sustainable development. In this content, Monterrey will benefit from the project and will contribute to sustainable development in the following way:

- The wind park is strategically located between two important population centers (Monterrey and Saltio) providing power at a critical part of the grid.
- Diversification of primary energy sources, reducing the risks to energy supply and stabilizing energy prices in the medium and long terms and improving the use of renewable resources;
- No contamination and erosion in the soil;
- Avoidance of installation and operation of carbon plants and emission of greenhouse gases;
- 100 employees contracted during the construction and 10 during operation phases;
- Revenue for the local economy through local employment, tax and land lease payments;
- This type of renewable energy project based on wind is not common in Mexico and therefore supporting the development of this industry will assist building capacities in Mexico, through advanced technology transfer from industrialized countries. The SCWFP will contribute to the technology transfer process and will foster manufacturing of wind turbines and related equipment in Mexico.

Concluding, SCWFP will allow Mexico to foster regional development that in turn will facilitate a better management of the natural resources, reducing environmental pollution and improving the quality of life of the society.

A.3. Project participants:

Name of Party involved (*) ((host) indicates a host Party)	Private and/or public entity (ies) project participants (*) (as applicable)	Kindly indicate if the Party involved wishes to be considered as project participant (Yes/No)
United Kingdom of Great Britain	Econergy International Corporation UK Limited (private entity)	No

(*) In accordance with the CDM modalities and procedures, at the time of making the CDM-PDD public at the stage of validation, a Party involved may or may not have provided its approval. At the time of requesting registration, the approval by the Party(ies) involved is required.

A.4. Technical description of the project activity:

A.4.1. Location of the project activity:

A.4.1.1. Host Party(ies):

Mexico

A.4.1.2. Region/State/Province etc.:

Nuevo Leon

A.4.1.3. City/Town/Community etc:

Santa Catarina

A.4.1.4. Detail of physical location, including information allowing the unique identification of this project activity (maximum one page):

Figure 1: Geographic Map of Mexico with indication of Monterrey metropolitan region.

A.4.2. Category(ies) of project activity:

Sectoral Scope 1: Energy Industries (renewable/non renewable sources).

A.4.3. Technology to be employed by the project activity:

Wind-driven power plants converts wind energy to electric power by wind turbine. It is based on making useful a dynamic flow of changing continuance and horizontal displacement. The amount of energy obtained is three times proportional to wind speed, which shows how important this factor is.

Wind generators take advantage of wind speed going between 5 and 20 meters per second. With speeds lower to 5 meters per second, the wind generator will not operate, and with speeds over the higher limit it must stop in order to avoid equipment injury.

The 8 wind turbines to be installed for the SCWFP project are manufactured by DeWind (Germany company), with a nominal power output of 2.5 MW, achieving a total installed capacity of 20 MW. The turbines make use steel towers of 80 meter height and 90 meter rotors. The project is expected to generate approximately 40.296 GWh per year. Also, approximately 11 km of 115 kV transmission lines will be installed between the substation and aero-generators.

DeWind has proven in the past that it can design, manufacture, and operate wind turbines with good success. The most recent D8 model which is a 2MW has been successfully operating for 4 years with 41 machines in operation. This model has experienced zero gearbox failures which is fairly unique in the industry. The wind site where the project is operating has Class IV winds which are much lower than the design conditions of the turbine which will provide a forgiving operating environment, further favoring the conservative German engineering and design of the DeWind Turbine.

The project will be signing an O&M agreement with DeWind for their 2-year warranty period which can be extended for up to 5 years at our option. DeWind related companies operate hundreds of MWs of wind turbines in Germany. The O&M agreement contains typical and appropriate guarantees from the operator. This includes a 97% availability guarantee and a 98% power curve performance guarantee.

DeWind will be operating the turbines and providing maintenance and will have contractual responsibility for the equipment performance. The local employees will attend DeWind training seminars in Texas, in order to eventually take over the operation and maintenance of the equipments.

DeWind will transfer the following skills to Loreto Bay Project:

- Wind energy measurement and prediction, and electric energy output estimate;
- Wind turbine assessment according to site conditions;
- Wind farm construction and operation, environmental evaluation and monitoring of wind farms.

Wind Feasibility studies were performed by Jack Kline and 3Tier Environmental Forecast. Jack Kline and 3Tier are leaders in their field and have provided conservative estimates of the long-term wind resource and the performance of the DeWind turbines. The wind resource at the site is very consistent year to year and the estimates are based on the average wind resource. There is significant conservatism built into the DeWind performance curves (which is why they will guarantee 98%) and based on their previous turbine model, the D8, it is expected a 5% increase in performance which will help offset risk associated with the wind resource.

TIC-The Industrial Company of Steamboat Springs, Colorado is fully capable of performing all construction aspects of a major wind farm, from foundations to turbine and tower erection, as well as the complete balance-of-plant installations and electrical collection systems. TIC has successfully installed more than 1,000 wind turbines units throughout the United States in various sizes. This will be the first wind project performed by the Mexico Division of TIC, MexTICa S.A. de C.V. They will be supervised by the experienced US staff.

SACMAG de Mexico, S.A. de C.V. as a subcontractor will perform the final civil, electrical and mechanical engineering.

A.4.4 Estimated amount of emission reductions over the chosen crediting period:

For the first crediting period the total estimation of emission reductions is:

Years	Annual estimation of emission reductions in tonnes of CO_2e

01/10/2008	6,175
2009	24,701
2010	24,701
2011	24,701
2012	24,701
2013	24,701
2014	24,701
31/09/2015	18,526
Total estimated reductions (tonnes of CO_2e)	**172,907**
Total number of crediting years	**7**
Annual average over the crediting period of estimated reductions (tonnes of CO_2e)	**24,701**

A.4.5. Public funding of the project activity:

There is no Annex I public funding involved in the SCWFP activity.

SECTION B. Application of a baseline and monitoring methodology

B.1. Title and reference of the approved baseline and monitoring methodology applied to the project activity:

"Version 6 of ACM0002: Consolidated baseline methodology for grid-connected electricity generation from renewable sources";
"Version 3 of the tool for demonstration and assessment of additionality".

B.2 Justification of the choice of the methodology and why it is applicable to the project activity:

The ACM0002 is applicable to SCWFP as it is a grid-connected renewable power generation project activity under the following conditions:

- Applies to electricity capacity additions from wind sources;
- Does not involve switching from fossil fuels to renewable energy at the site of the project activity;
- The geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available.

B.3. Description of the sources and gases included in the project boundary

	Source	Gas	Included?	Justification / Explanation
Baseline	Grid	CO_2	Yes	Project participants shall only account CO_2 emissions from electricity generation in fossil
		CH_4	No	

		N_2O	No	
Project Activity	There is no emission of the project activity	CO_2	No	There is no emission to be accounted for wind projects.
		CH_4	No	
		N_2O	No	

B.4. Description of how the baseline scenario is identified and description of the identified baseline scenario:

The project activity mainly reduces carbon dioxide through substitution of grid electricity generation with fossil fuel fired power plants by renewable electricity. The baseline scenario is determined analyzing data from the electricity grid to which the project causes emission reductions. The emission reductions will occur within the Baja California Sur grid. Annex 3 provides details of the Mexican grid.

The project activity follows the steps provided by ACM0002. For the calculation of the operating margin emission factor in the STEP 1, the calculation method chosen was: (b) *Simple Operating Margin*, since data are not available for the application of the preferred method – (c) *Dispatch Data Analysis OM*. For the calculation of the build margin emission factor in the STEP 2, the Option 1 was chosen.

B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered CDM project activity (assessment and demonstration of additionality):

Additionality was determined using the "Tool for the demonstration and assessment of additionality (version 3)". The CDM consolidated tool to determine additionality, includes the following steps:

Step 1. Identification of alternatives to the project activity consistent with current laws and regulations

Sub-step 1a. Define alternatives to the project activity

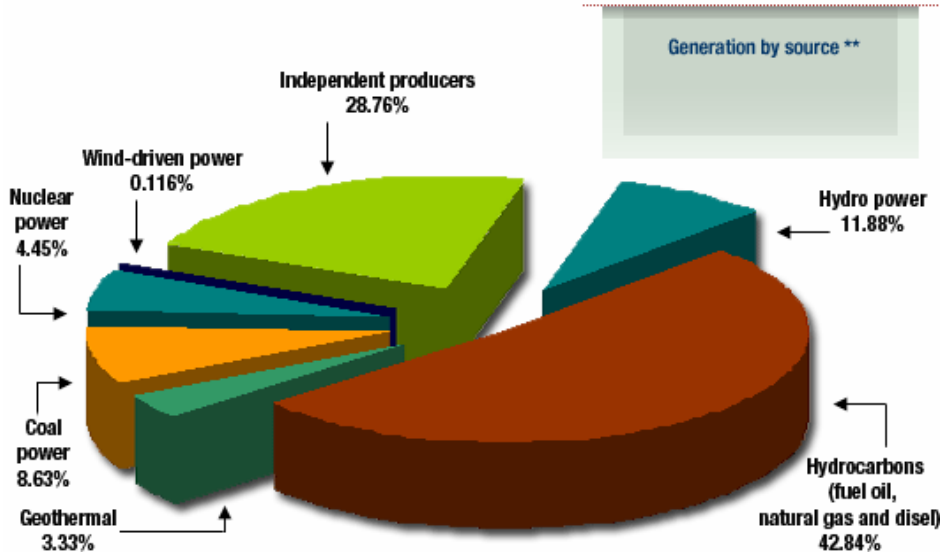
The following alternatives have been considered:

Alternative 1: The proposed project activity undertaken without being registered as a CDM project activity.

Alternative 2: Continuation of the current situation (no project activity or other alternatives undertaken).
By the end of March 2007, CFE, including power independence producers, had an effective rated capacity to generate electricity of 48,259.59 MW, out of which 10,321.90 are generated by Power Independent Producers (thermal power plants), 10,669.98 MW are generated by hydro power plants, 22,257.86 MW by CFE thermal power plants consuming hydrocarbons; 2,600.0 MW by coal fired plants; 959.50 MW by geothermal power plants; 1,364.88 MW by nuclear power plants and 85.48 MW by wind-driven power plants. CFE is a company that provides services of generation, transmission and distribution of electrical power services to 24.5 million customers,

nearly 80 million Mexicans. New power installation is planned by CFE to be mainly from Combined Cycle power plants. The plans for renewable energy projects are limited.

Generation by sources
Source: CFE
(http://www.cfe.gob.mx/en/LaEmpresa/generacionelectricidad/)



Sub-step 1b. Consistency with mandatory laws and regulations

Both alternatives comply with Mexican legislation and regulations.

Step 3. Barrier analysis

The proposal project activity faces barriers that prevent the implementation of this type of project activity and do not prevent the implementation of at least one of the alternatives.

Sub-step 3a. Identify barriers that would prevent the implementation of type of the proposed CDM project activity:

Investment Barrier:
There are no private wind projects in Mexico so the offtakers and finance companies have been hesitant to get involved.
Producers have to pay for their own transmission lines if they want to connect to the grid.

Technological barrier:
There is a supply shortage for wind turbines in the industry causing price increases over the past two years.
Additionally, the electrical distribution system in the region is stressed. So getting commitments for transmission access has been difficult.

Barriers due to prevailing practice:

Mexico is rich in oil and gas reserves; this clearly explains why the prevailing practice in Mexico is fossil fuel-fired electricity generation as of today, and this path is envisaged to continue, as the country still has a vast gas potential unused for electricity generation, which is to be further explored in the coming years.
Today, oil-fired power plants still account for almost 50% of Mexican electricity generation, compared to 11% gas-fired and 10% coal-fired plants. However, the government is encouraging brownfield private investments to convert the majority of these plants into natural gas. Official estimates for the year 2012 forecast the share of natural gas generation as 63% of the total power production in the country, while the use of fuel oil is expected to decrease by 25%.
Moreover, the regulations for renewable energy projects in Mexico are evolving and have not been tested on many projects.
Renewable-energy producers also are faced with certain wariness in the population at large, a problem that wind-power operators encounter in particular when they try to obtain land-use permits.

Sub-step 3 b. Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity):

In case of Alternative 2 (continuation of current situation), there will be no effect of the identified barriers, as this represents a continuation of current practices, development of thermal power plants, a well-established technology in Mexico.

Step 4. Common practice analysis

Sub-step 4a. Analyze other activities similar to the proposed project activity:

There are only two facilities generating from wind in Mexico which are not CDM projects:

- La Venta: located in Oaxaca and started operation in 10 November 1994 with an installed capacity of 1.58 MW;
- Guerrero Negro, located in Baja California Sur and started operation in 10 April 1982 with an installed capacity of 0.6 MW.

Then, the SCWFP is not comparable to these power plants.

The main driver for other activities similar to the proposed project activity is the CDM mechanism that provides additional income and makes these projects viable.

Sub-step 4b. Discuss any similar options that are occurring:

As shown in *Sub-step 4a*, no similar activities are observed and commonly carried out in Mexico without the CERs revenue.

B.6. Emission reductions:

B.6.1. Explanation of methodological choices:

The emission reduction (ER_y) by the project activity during a given year y is the difference between baseline emissions (BE_y), project emissions (PE_y) and emissions due to leakage (L_y), as follows:

$$ER_y = BE_y - PE_y - L_y$$

Where the baseline emissions (BE_y in tCO2) are the product of the baseline emissions factor (EF_y in tCO2/MWh) calculated in Step 3, times the electricity supplied by the project activity to the grid (EG_y in MWh) minus the baseline electricity supplied to the grid in the case of modified or retrofit facilities ($EG_{baseline}$ in MWh), as follows:

$BE_y = (EG_y - EG_{baseline}) * EF_y$

B.6.2. Data and parameters that are available at validation:

Data / Parameter:	**Emission factor / EF_y**
Data unit:	tCO_2 /MWh
Description:	CO_2 emission factor of the connected grid
Source of data used:	CFE (Comisión Federal de Electricidad) http://www.cfe.gob.mx/es/
Value applied:	0.613
Justification of the choice of data or description of measurement methods and procedures actually applied :	Calculated *ex-ante* as weighted sum of the OM and BM emission factors, as explained in section B.6.3 and Annex 3.
Any comment:	None

B.6.3 Ex-ante calculation of emission reductions:

In order to calculate the ex-ante estimation of emission reductions for the first crediting period, estimated figures were used for parameters that are not available when validation is undertaken or that are monitored during the crediting period.

No potential emission sources of leakage and project emissions were identified for this project.

Thus,

$$ER_y = BE_y$$

$BE_y = (EG_{i,y} - EG_{baseline,i}) * EF_{i.y}$

The project activity does not involve retrofits or modifications to existing facilities.
Thus, $EG_{baseline,ex,i}=0$.

Then, $BE_y = EG_y * EF_y$

Where:

EG_y = 40,296 MWh

The baseline emission factor (EF_y) is calculated as a combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) factors. Calculations for this combined margin were based on data from an official source and made publicly available.

Power plant capacity additions registered as CDM project activities were excluded from all calculations below (subsets *j*, *m*, *n* below).

STEP 1. Calculate the Operating Margin emission factor ($EF_{OM,y}$)

Option (a) *Simple OM*, was chosen since the preferable choice (c) *Dispatch Data Analysis OM* would face the barrier of data availability in Mexico and low-cost/must run resources constitute less than 50% of total grid generation in average of the five most recent years.

The provided information comprised years 2003, 2004 and 2005, and is the most recent information available at this stage. The CFE (Comisión Federal de Electricidad) data as well as the spreadsheet data with the calculation of emission factors have been provided to the DOE (Designed Operational Entity) and are indicated in Annex 3.

According to the methodology, the Simple OM Emission Factor is determined using the following equation:

$$EF_{OM,y} = \frac{\sum_{i,j} F_{i,j,y}.COEF_{i,j}}{\sum_{j} GEN_{j,y}}$$

Finally, to determine the baseline *ex-ante*, the mean average among the three years is calculated, finally determining the EF_{OM}:

$$EF_{OM\,2003\_2005} = \frac{EF_{OM,2003} * \sum_{j} GEN_{j,2003} + EF_{OM,2004} * \sum_{j} GEN_{j,2004} + EF_{OM,2005} * \sum_{j} GEN_{j,2005}}{\sum_{j} GEN_{j,2003} + \sum_{j} GEN_{j,2004} + \sum_{j} GEN_{j,2005}} = 0.658$$

STEP 2. Calculate the Build Margin emission factor ($EF_{BM,y}$) as the generation-weighted average emission factor (tCO2/MWh) of a sample of power plants *m*, as follows:

$$EF_{BM,y} = \frac{\sum_{i,m} F_{i,m,y}.COEF_{i,m}}{\sum_{m} GEN_{m,y}}$$

Option 1 was chosen to calculate the Build Margin emission factor $EF_{BM,y\ ex\text{-}ante}$ based on the most recent information available on plants already built for sample group *m* at the time of PDD submission. The sample group *m* consists of either the five power plants that have been built most recently, or the power plant capacity additions in the electricity system that comprise 20% of the system generation (in MWh) and that have been built most recently. Then, the sample group comprises the second option as it consists of the larger annual generation.

$EF_{BM,2005} = 0.491$

STEP 3. Calculate the baseline emission factor EF_y as the weighted average of the Operating Margin emission factor ($EF_{OM,y}$) and the Build Margin emission factor ($EF_{BM,y}$):

$EF_y = w_{OM} * EF_{OM,y} + w_{BM} * EF_{BM,y}$

For wind and solar projects, the default weights are as follows: w_{OM} = 0.75 and w_{BM} = 0.25 (owing to their intermittent and non-dispatchable nature).

$EF_{2003-2005} = 0.75 * 0.653 + 0.25 * 0.491 = 0.613\ tCO_2e/MWh$

Therefore:

BE_y = 40,296* 0.613 = 24,701 tCO_2e

For the first crediting period, the estimated emission reduction in year *y* is:

ER_y = BE_y = 24,701 tCO_2e

Santa Catarina Wind Farm Project									
Item	2008	2009	2010	2011	2012	2013	2014	2015	CERs
Installed Capacity (MW)	20	20	20	20	20	20	20	20	
Estimated net generation (MWh)	10,074	40,296	40,296	40,296	40,296	40,296	40,296	30,222	
Baseline emission factor (tCO2/MWh)	0.613	0.613	0.613	0.613	0.613	0.613	0.613	0.613	
GHG emissions reductions (tCO2)	6,175	24,701	24,701	24,701	24,701	24,701	24,701	18,526	172,907

B.6.4 Summary of the ex-ante estimation of emission reductions:

Year	Estimation of project activity emission (tonnes of CO_2e)	Estimation of baseline emission (tonnes of CO_2e)	Estimation of leakage (tonnes of CO_2e)	Estimation of overall emission reductions (tonnes of CO_2e)
01/10/2008	0	6,175	0	6,175
2009	0	24,701	0	24,701
2010	0	24,701	0	24,701
2011	0	24,701	0	24,701
2012	0	24,701	0	24,701
2013	0	24,701	0	24,701
2014	0	24,701	0	24,701
31/09/2015	0	18,526	0	18,526
Total (tonnes of CO_2e)	0	172,907	0	172,907

B.7 Application of the monitoring methodology and description of the monitoring plan:

B.7.1 Data and parameters monitored:

Data / Parameter:	Electricity quantity / $EG_{,y}$
Data unit:	MWh
Description:	Electricity supplied to the connected grid by the project.
Source of data to be used:	Econergy
Value of data applied for the purpose of calculating expected emission reductions in section B.5	40,296
Description of measurement methods and procedures to be applied:	Directly measured during the crediting period. This data will be archived electronically and according to internal procedures, until 2 years after the end of the crediting period.
QA/QC procedures to be applied:	This data will be directly used for calculation of emission reductions. Sales record to the grid and other records are used to ensure the consistency. Equipments will be calibrated as required by CFE.
Any comment:	Electricity supplied by the project activity to the grid. Double check by receipt of sales.

B.7.2 Description of the monitoring plan:

The measurers of electricity dispatched will be installed at the Santa Catarina Wind Farm´s Substation which is the point of connection of the Santa Catarina Power Plant to the Mexican Interconnected Electric System.

The meter equipments will be provided by the Utility CFE and calibrated by them according to their procedures. The project participant will install its own meter to check against the utility meter.

Since no leakage nor any off-grid emissions change were identified in this project activity, there will be no need to monitor the variables for these cases.

Data monitored and required for verification and issuance are to be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whichever occurs later.

B.8 Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/entity(ies)

The date of completion the application of the methodology to the project activity study is 17/06/2007.

The person/entity determining the baseline is as follows:
Econergy Brasil Ltda, São Paulo, Brazil
telephone: +55 (11) 3555-5700

Contact person: Mrs. Francesca Maria Cerchia.

SECTION C. Duration of the project activity / crediting period

C.1 Duration of the project activity:

C.1.1. Starting date of the project activity:

01/10/2008

C.1.2. Expected operational lifetime of the project activity:

21 years and 0 months

C.2 Choice of the crediting period and related information:

C.2.1. Renewable crediting period

C.2.1.1. Starting date of the first crediting period:

01/10/2008

C.2.1.2. Length of the first crediting period:

7 years and 0 months

C.2.2. Fixed crediting period:

C.2.2.1. Starting date:

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C.2.2.2. Length:

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SECTION D. Environmental impacts

D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts:

The Environmental Impact assessment has been performed and will be submitted to SEMARNAT (Secretaría de Medio Ambiente y Recursos Naturales).
The environmental impact study has been completed and has not found any negative environmental issues.

D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party:

The environmental impacts were not considered significant by the project participants, according to the EIA.

There will be no transboundary impacts resulting from the Loreto Bay Wind Farm. All the relevant impacts occur within Mexican borders and have been mitigated to comply with the environmental requirements for project's implementation. Therefore this project will not affect by any mean Mexico´s neighboring countries, except for the reduction of global emission of GHG.

SECTION E. Stakeholders' comments

E.1. Brief description how comments by local stakeholders have been invited and compiled:

E.2. Summary of the comments received:

No comments have been received.

E.3. Report on how due account was taken of any comments received:

No comments have been received.

Annex 1

CONTACT INFORMATION ON PARTICIPANTS IN THE PROJECT ACTIVITY

Organization:	Econergy International Corporation UK Limited
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Annex 2

INFORMATION REGARDING PUBLIC FUNDING

There is no Annex I public funding involved in the SCWFP activity.

Annex 3

BASELINE INFORMATION

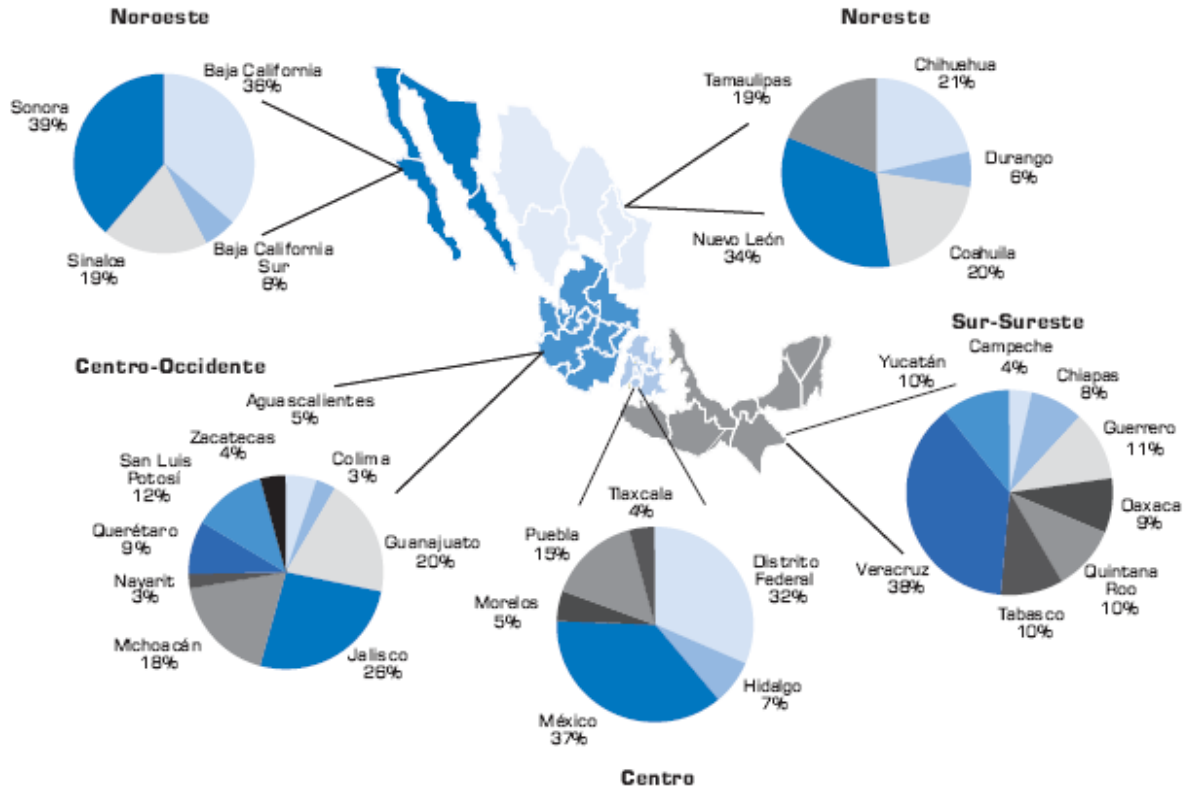
Considering the planning and operation of the Electric National System (SEN – Sistema Eléctrico Nacional) of Mexico, Electricity Federal Commission (CFE - Comisión Federal de Electricidad), divided it in nine areas of generation and transmission. Then, the regional electric systems function more efficiently and economically. They are: Northeast, Northwest, North, West, Central, East, Peninsular, Baja California and Baja California Sur. However, both regions of the Baja California Peninsula are isolated systems, since their interconnection with the rest of national grid is not justified in technical and economical terms.

Electric National System of Mexico
Source: *Programa de Obras e Inversiones del Sector Eléctrico (POISE) 2004-2013*
(http://www.cfe.gob.mx/)

On the other hand, Mexico has five regions identified, that are in conformity to the geographic division of Mexico: Northeast (Noreste), Northwest (Noroeste), Central-West (Centro-Occidente), Central (Centro) and South-Southeast (Sur-Sureste), as shown below.

Regional structure of the electricity sent to the grid by each state (average percentage participation in 2005)

Source: *Prospectiva del Sector Eléctrico 2005-2014*; Secretaría de Energía SENER; México, 2006 (http://www.energia.gob.mx)



Emission factor for the Interconnected Electric System of Mexico according to ACM0002

	2005								
	Name of the Power Plant	Start of operation	Technology and combustible	Electricity generation (GWh)	Efficiency	Fuel consumption (MWh)	Fuel consumption (TJ)	Fuel EF (tCO2/TJ)	Emissions (tCO2)
Northwest	El Novillo	12-Nov-1964	Hydro	405	-	-	-	-	0
	Comedero	13-Aug-1991	Hydro	200	-	-	-	-	0
	Bacurato	16-Jul-1987	Hydro	403	-	-	-	-	0
	Huites	15-Sep-1996	Hydro	1,164	-	-	-	-	0
	Puerto Libertad	1-Aug-1985	oil (CT)	3,518	34%	10,277,534	36,999	77.37	2,833,874
	Guaymas II	10-Aug-1962	oil (CT)	1,358	34%	3,967,280	14,282	77.37	1,093,917
	Mazatlán II	13-Nov-1976	oil (CT)	3,694	34%	10,791,703	38,850	77.37	2,975,648
	Topolobampo II	12-Jun-1995	oil (CT)	2,094	34%	6,117,441	22,023	77.37	1,686,791
	El Fuerte	27-Aug-1960	Hydro	351	-	-	-	-	0
	Humaya	27-Nov-1976	Hydro	394	-	-	-	-	0
	Hermosillo	31-Dec-2005	gas (CC)	165	52%	316,304	1,139	56.10	63,561
	Hermosillo (PIE)	1-Oct-2001	gas (CC)	1,316	52%	2,522,764	9,082	56.10	506,950
	Naco Nogales (PIE)	4-Oct-2003	gas (CC)	1,819	52%	3,487,012	12,553	56.10	700,716
Northeast	Altamira	19-May-1976	oil/gas (CT)	3,776	34%	11,031,259	39,713	74.07	2,911,961
	Río Bravo	1-Jul-1999	oil/gas (CT/TG)	1,513	35%	4,361,362	15,701	74.07	1,151,284
	Río Escondido	21-Sep-1982	carbon	9,357	37%	25,289,189	91,041	94.60	8,440,237
	Carbón II	2-Nov-1993	carbon	9,023	37%	24,386,486	87,791	94.60	8,138,961
	Huinalá I e II	10-Jul-1998	gas (CC/TG)	3,761	44%	8,614,588	31,013	94.60	2,919,115
	La Amistad	1-May-1987	Hydro	109	-	-	-	-	0
	Saltillo (PIE)	19-Nov-2001	gas (CC)	1,432	52%	2,745,136	9,882	56.10	551,636
	Río Bravo II (PIE)	18-Jan-2002	gas (CC)	2,279	52%	4,368,830	15,728	56.10	877,917
	Río Bravo III (PIE)	1-Apr-2004	gas (CC)	1,717	52%	3,291,479	11,849	56.10	661,423
	Río Bravo IV (PIE)	1-Apr-2005	gas (CC)	1,885	52%	3,613,534	13,009	56.10	726,140
	Monterrey III (PIE)	27-Mar-2002	gas (CC)	3,147	52%	6,032,781	21,718	56.10	1,212,288
	Altamira II (PIE)	1-Mar-2002	gas (CC)	3,083	52%	5,910,093	21,276	56.10	1,187,634
	Altamira III e IV (PIE)	27-Dec-2003	gas (CC)	5,932	52%	11,371,609	40,938	56.10	2,285,127
	Francisco Villa	22-Nov-1964	oil/gas (CT)	1,479	34%	4,320,771	15,555	74.07	1,140,570
	Samalayuca	2-Apr-1985	oil/gas (CT)	1,560	34%	4,557,406	16,407	74.07	1,203,035
	Lerdo	18-Jun-1991	oil (CT)	2,305	34%	6,733,859	24,242	77.37	1,856,759
	Samalayuca II	12-May-1998	gas (CC)	3,097	52%	5,936,931	21,373	56.10	1,193,027
	Gomez Palacio	5-Jan-1976	gas (CC)	198	52%	379,565	1,366	56.10	76,274
	El Encino	9-May-2001	gas (CC)	3,053	52%	5,852,583	21,069	56.10	1,176,078
	La Laguna II (PIE)	15-Mar-2005	gas (CC)	2,754	52%	5,279,402	19,006	56.10	1,060,897
	Chihuahua III (PIE)	9-Sep-2003	gas (CC)	1,100	52%	2,108,694	7,591	56.10	423,742
Central-West	Villita	1-Sep-1973	Hydro	1,145	-	-	-	-	0
	Lerma		Hydro	181	-	-	-	-	0
	Aguamilpa Solidaridad	15-Sep-1994	Hydro	1,353	-	-	-	-	0
	Agua Prieta	15-Sep-1993	Hydro	183	-	-	-	-	0
	Manzanillo	1-Sep-1982	oil (CT)	5,846	34%	17,078,586	61,483	77.37	4,709,161
	Manzanillo II	24-Jul-1989	oil (CT)	4,331	34%	12,652,644	45,550	77.37	3,488,774
	Salamanca	19-Jun-1971	oil/gas (CT)	2,546	34%	7,437,920	26,777	74.07	1,963,415
	Villa de Reyes	1-Nov-1986	oil (CT)	3,243	34%	9,474,145	34,107	77.37	2,612,352
	El Sauz		gas (CC)	3,193	52%	6,120,962	22,035	56.10	1,230,009
	Azufres	4-Aug-1982	GEO	1,449	-	-	-	-	0
	Cupatitzio	14-Aug-1962	Hydro	404	-	-	-	-	0
	Cóbano	25-Apr-1955	Hydro	215	-	-	-	-	0
	Santa Rosa	2-Sep-1964	Hydro	206	-	-	-	-	0
	Colimilla	1-Jan-1950	Hydro	42	-	-	-	-	0
	El Sauz (PIE)		gas (CC)	4,698	52%	9,006,039	32,422	56.10	1,809,765
Central	Necaxa		Hydro	323	-	-	-	-	0
	Tula		gas (CT/CC)	11,703	43%	27,091,846	97,531	56.10	5,444,112
	Valle de Mexico		gas (CT/CC)	4,760	43%	11,019,156	39,669	56.10	2,214,302
	Jorge Luque		gas (CC/TG)	647	44%	1,481,957	5,335	56.10	297,799
	Patla		Hydro	106	-	-	-	-	0
	Zimapán	27-Sep-1996	Hydro	1,273	-	-	-	-	0
	Mazatepec	6-Jul-1962	Hydro	415	-	-	-	-	0
	Humeros	30-May-1991	GEO	292	-	-	-	-	0

South-Southeast	Petacalco	18-Nov-1993	dual	14,275	42%	34,257,259	123,326	94.60	11,549,986
	Infiernillo	28-Jan-1965	Hydro	2,749	-	-	-	-	0
	Angostura	14-Jul-1976	Hydro	2,415	-	-	-	-	0
	Chicoasén	29-May-1981	Hydro	5,543	-	-	-	-	0
	Malpaso	29-Jan-1969	Hydro	2,862	-	-	-	-	0
	Penitas	15-Sep-1987	Hydro	1,374	-	-	-	-	0
	Temascal	18-Jun-1959	Hydro	1,501	-	-	-	-	0
	Caracol		Hydro	850	-	-	-	-	0
	Tuxpan	30-Jun-1991	oil/gas (CT/TG)	12,589	35%	36,288,951	130,640	74.07	9,579,325
	Laguna Verde	29-Jun-1990	nuclear	10,805	-	-	-	-	0
	Dos Bocas		gas (CC)	2,665	52%	5,108,789	18,392	56.10	1,026,612
	Poza Rica	4-Feb-1963	oil (CT)	591	34%	1,726,556	6,216	77.37	476,071
	Tuxpan II (PIE)	15-Dec-2001	gas (CC)	3,397	52%	6,512,029	23,443	56.10	1,308,594
	Tuxpan III and IV (PIE)	23-May-2003	gas (CC)	5,464	52%	10,474,456	37,708	56.10	2,104,844
	Lerma	9-Sep-1976	oil (CT)	729	34%	2,129,711	7,667	77.37	587,235
	Mérida II	13-Dec-1981	oil/gas (CT)	1,017	34%	2,971,078	10,696	74.07	784,286
	Valladolid	5-Apr-1992	oil/gas (CT/CC)	1,514	44%	3,426,416	12,335	74.07	904,483
	Campeche (PIE)	28-May-2003	gas (CC)	1,782	52%	3,416,084	12,298	56.10	686,463
	Nachi-Cocom	6-Jun-1962	oil/dies (CT/TG)	264	35%	761,004	2,740	74.07	200,885
	Mérida III (PIE)	9-Jun-2000	gas (CC)	3,371	52%	6,462,187	23,264	56.10	1,298,578

Interconnected Electric System	Electricity generation (GWh)	Electricity delivered to the grid (GWh)	Emissions (tCO2)	EF (tCO2/MWh)
Northwest	16,881	13,460	9,861,458	-
Northeast	62,560	41,221	39,194,106	-
Central-West	29,035	38,843	15,813,475	-
Central	19,519	42,111	7,956,213	-
South-Southeast	75,757	24,294	30,507,363	-
Imports	-	87	0	-
Exports	-	1,291	0	-
Operating Margin	203,752	159,929	103,332,614	0.646

2005

Name of the Power Plant	Date of start operation	Technology and combustible	Electricity generation (GWh)	Efficiency	Fuel consumption (MWh)	Fuel consumption (TJ)	Fuel EF (tCO2/TJ)	Emissions (tCO2)
Río Bravo IV (PIE)	1-Apr-2005	gas (CC)	1,885	52%	3,613,534	13,009	56.10	726,140
La Laguna II (PIE)	15-Mar-2005	gas (CC)	2,754	52%	5,279,402	19,006	56.10	1,060,897
Río Bravo III (PIE)	1-Apr-2004	gas (CC)	1,717	52%	3,291,479	11,849	56.10	661,423
Altamira III e IV (PIE)	27-Dec-2003	gas (CC)	5,932	52%	11,371,609	40,938	56.10	2,285,127
Naco Nogales (PIE)	4-Oct-2003	gas (CC)	1,819	52%	3,487,012	12,553	56.10	700,716
Chihuahua III (PIE)	9-Sep-2003	gas (CC)	1,100	52%	2,108,694	7,591	56.10	423,742
Campeche (PIE)	28-May-2003	gas (CC)	1,782	52%	3,416,084	12,298	56.10	686,463
Tuxpan III and IV (PIE)	23-May-2003	gas (CC)	5,464	52%	10,474,456	37,708	56.10	2,104,844
Monterrey III (PIE)	27-Mar-2002	gas (CC)	3,147	52%	6,032,781	21,718	56.10	1,212,288
Altamira II (PIE)	1-Mar-2002	gas (CC)	3,083	52%	5,910,093	21,276	56.10	1,187,634
Río Bravo II (PIE)	18-Jan-2002	gas (CC)	2,279	52%	4,368,830	15,728	56.10	877,917
Tuxpan II (PIE)	15-Dec-2001	gas (CC)	3,397	52%	6,512,029	23,443	56.10	1,308,594
Saltillo (PIE)	19-Nov-2001	gas (CC)	1,432	52%	2,745,136	9,882	56.10	551,636
Hermosillo (PIE)	1-Oct-2001	gas (CC)	1,316	52%	2,522,764	9,082	56.10	506,950
El Encino	9-May-2001	gas (CC)	3,053	52%	5,852,583	21,069	56.10	1,176,078
Mérida III (PIE)	9-Jun-2000	gas (CC)	3,371	52%	6,462,187	23,264	56.10	1,298,578

Interconnected Electric System	Electricity generation (GWh)	Electricity delivered to the grid (GWh)	Emissions (tCO2)	EF (tCO2/MWh)
Build Margin - 20%	43,531	34,168	16,769,027	0.491

	2004							
	Name of the Power Plant	Type of technology and combustible	Total electricity generation (GWh)	Efficiency	Fuel consumption (MWh)	Fuel consumption (TJ)	Fuel EF (tCO2/TJ)	Emissions (tCO2)
Northwest	El Novillo	Hydro	174	-	-	-	-	0
	Comedero	Hydro	136	-	-	-	-	0
	Bacurato	Hydro	131	-	-	-	-	0
	Huites	Hydro	610	-	-	-	-	0
	Puerto Libertad	oil (CT)	3,081	34%	9,000,876	32,403	77.37	2,481,855
	Guaymas II	oil (CT)	2,044	34%	5,971,370	21,497	77.37	1,646,515
	Mazatlán II	oil (CT)	3,280	34%	9,582,238	34,496	77.37	2,642,156
	Topolobampo II	oil (CT)	1,951	34%	5,699,679	20,519	77.37	1,571,600
	El Fuerte	Hydro	113	-	-	-	-	0
	Humaya	Hydro	141	-	-	-	-	0
	Hermosillo (PIE)	gas (CC)	1,253	52%	2,401,994	8,647	56.10	482,681
	Naco Nogales (PIE)	gas (CC)	1,717	52%	3,291,479	11,849	56.10	661,423
Northeast	Altamira	oil/gas (CT)	3,955	34%	11,554,192	41,595	74.07	3,050,002
	Monterrey	oil/gas (CT)	287	34%	838,446	3,018	74.07	221,328
	Río Bravo	oil/gas (CT/TG)	1,101	35%	3,173,734	11,425	74.07	837,782
	Río Escondido	carbon	8,999	37%	24,321,622	87,558	94.60	8,117,312
	Carbón II	carbon	8,884	37%	24,010,811	86,439	94.60	8,013,579
	Huinalá I e II	gas (CC/TG)	3,451	44%	7,904,532	28,456	94.60	2,678,508
	La Amistad	Hydro	3	-	-	-	-	0
	Saltillo (PIE)	gas (CC)	1,298	52%	2,488,258	8,958	56.10	500,016
	Río Bravo II (PIE)	gas (CC)	3,098	52%	5,938,848	21,380	56.10	1,193,413
	Río Bravo III (PIE)	gas (CC)	2,440	52%	4,677,466	16,839	56.10	939,938
	Monterrey III (PIE)	gas (CC)	2,892	52%	5,543,947	19,958	56.10	1,114,057
	Altamira II (PIE)	gas (CC)	3,155	52%	6,048,117	21,773	56.10	1,215,370
	Altamira III e IV (PIE)	gas (CC)	6,541	52%	12,539,059	45,141	56.10	2,519,726
	Francisco Villa	oil/gas (CT)	1,677	34%	4,899,211	17,637	74.07	1,293,262
	Samalayuca	oil/gas (CT)	1,300	34%	3,797,838	13,672	74.07	1,002,529
	Lerdo	oil (CT)	2,335	34%	6,821,502	24,557	77.37	1,880,925
	Samalayuca II	gas (CC)	3,853	52%	7,386,178	26,590	56.10	1,484,254
	Gomez Palacio	gas (CC)	757	52%	1,451,165	5,224	56.10	291,612
	El Encino	gas (CC)	2,327	52%	4,460,845	16,059	56.10	896,408
	Chihuahua III (PIE)	gas (CC)	1,456	52%	2,791,143	10,048	56.10	560,881
Central-West	Villita	Hydro	1,423	-	-	-	-	0
	Lerma	Hydro	329	-	-	-	-	0
	Aguamilpa Solidaridad	Hydro	2,445	-	-	-	-	0
	Agua Prieta	Hydro	249	-	-	-	-	0
	Manzanillo	oil (CT)	5,355	34%	15,644,172	56,319	77.37	4,313,643
	Manzanillo II	oil (CT)	4,069	34%	11,887,233	42,794	77.37	3,277,724
	Salamanca	oil/gas (CT)	3,183	34%	9,298,861	33,476	74.07	2,454,654
	Villa de Reyes	oil (CT)	3,579	34%	10,455,741	37,641	77.37	2,883,012
	El Sauz	gas (CC)	3,139	52%	6,017,445	21,663	56.10	1,209,207
	Azufres	GEO	1,336	-	-	-	-	0
	Cupatitzio	Hydro	431	-	-	-	-	0
	Cóbano	Hydro	250	-	-	-	-	0
	Santa Rosa	Hydro	291	-	-	-	-	0
	Colimilla	Hydro	58	-	-	-	-	0
	El Sauz (PIE)	gas (CC)	5,257	52%	10,077,638	36,279	56.10	2,025,103
Central	Necaxa	Hydro	348	-	-	-	-	0
	Tula	gas (CT/CC)	11,091	43%	25,675,097	92,430	56.10	5,159,416
	Valle de Mexico	gas (CT/CC)	4,596	43%	10,639,505	38,302	56.10	2,138,011
	Jorge Luque	gas (CC/TG)	581	44%	1,330,783	4,791	56.10	267,421
	Patla	Hydro	145	-	-	-	-	0
	Zimapán	Hydro	1,687	-	-	-	-	0
	Mazatepec	Hydro	577	-	-	-	-	0
	Humeros	GEO	295	-	-	-	-	0

South-Southeast	Petacalco	dual	7,915	42%	18,994,480	68,380	94.60	6,404,073
	Infiernillo	Hydro	3,469	-	-	-	-	0
	Angostura	Hydro	1,358	-	-	-	-	0
	Chicoasén	Hydro	3,169	-	-	-	-	0
	Malpaso	Hydro	2,349	-	-	-	-	0
	Penitas	Hydro	1,243	-	-	-	-	0
	Temascal	Hydro	1,321	-	-	-	-	0
	Caracol	Hydro	1,348	-	-	-	-	0
	Tuxpan	oil/gas (CT/TG)	14,327	35%	41,298,896	148,676	74.07	10,901,818
	Laguna Verde	nuclear	9,194	-	-	-	-	0
	Dos Bocas	gas (CC)	3,086	52%	5,915,844	21,297	56.10	1,188,790
	Poza Rica	oil (CT)	441	34%	1,288,344	4,638	77.37	355,241
	Tuxpan II (PIE)	gas (CC)	3,596	52%	6,893,511	24,817	56.10	1,385,252
	Tuxpan III and IV (PIE)	gas (CC)	7,029	52%	13,474,552	48,508	56.10	2,707,714
	Lerma	oil (CT)	784	34%	2,290,389	8,245	77.37	631,540
	Mérida II	oil/gas (CT)	953	34%	2,784,108	10,023	74.07	734,931
	Valladolid	oil/gas (CT/CC)	1,524	44%	3,449,048	12,417	74.07	910,458
	Campeche (PIE)	gas (CC)	1,772	52%	3,396,914	12,229	56.10	682,610
	Nachi-Cocom	oil/dies (CT/TG)	234	35%	674,527	2,428	74.07	178,057
	Mérida III (PIE)	gas (CC)	3,469	52%	6,650,053	23,940	56.10	1,336,329

Interconnected Electric System	Electricity generation (GWh)	Electricity delivered to the grid (GWh)	Emissions (tCO2)	EF (tCO2/MWh)
Northwest	14,631	12,790	9,486,230	0.742
Northeast	59,809	39,421	37,810,902	0.959
Central-West	31,394	37,451	16,163,342	0.432
Central	19,320	41,006	7,564,848	0.184
South-Southeast	68,581	23,227	27,416,814	1.180
Imports	-	47	0	-
Exports	-	1,006	0	-
Operating Margin	193,735	153,895	98,442,135	0.640

	2003							
	Name of the Power Plant	Technology and combustible	Electricity generation (GWh)	Efficiency	Fuel consumption (MWh)	Fuel consumption (TJ)	Fuel EF (tCO2/TJ)	Emissions (tCO2)
Northwest	El Novillo	Hydro	58	-	-	-	-	0
	Comedero	Hydro	99	-	-	-	-	0
	Bacurato	Hydro	73	-	-	-	-	0
	Huites	Hydro	353	-	-	-	-	0
	Puerto Libertad	oil (CT)	3,127	34%	9,135,261	32,887	77.37	2,518,909
	Guaymas II	oil (CT)	2,485	34%	7,259,714	26,135	77.37	2,001,756
	Mazatlán II	oil (CT)	3,677	34%	10,742,039	38,671	77.37	2,961,954
	Topolobampo II	oil (CT)	2,030	34%	5,930,470	21,350	77.37	1,635,237
	27 de septiembre	Hydro	111	-	-	-	-	0
	Humaya	Hydro	56	-	-	-	-	0
	Hermosillo (PIE)	gas (CC)	1,555	52%	2,980,926	10,731	56.10	599,018
	Naco Nogales (PIE)	gas (CC)	572	52%	1,096,521	3,947	56.10	220,346
Northeast	Altamira	oil/gas (CT)	3,528	34%	10,306,748	37,104	74.07	2,720,709
	Monterrey	oil/gas (CT)	1,784	34%	5,211,803	18,762	74.07	1,375,778
	Río Bravo	oil/gas (CT/TG)	2,068	35%	5,961,200	21,460	74.07	1,573,600
	Río Escondido	carbon	8,387	37%	22,667,568	81,603	94.60	7,565,273
	Carbón II	carbon	8,294	37%	22,416,216	80,698	94.60	7,481,385
	Huinalá I e II	gas (CC/TG)	4,846	44%	11,099,786	39,959	94.60	3,761,242
	La Amistad	Hydro	24	-	-	-	-	0
	Saltillo (PIE)	gas (CC)	1,306	52%	2,503,594	9,013	56.10	503,098
	Río Bravo II (PIE)	gas (CC)	3,300	52%	6,326,081	22,774	56.10	1,271,227
	Monterrey III (PIE)	gas (CC)	3,098	52%	5,938,848	21,380	56.10	1,193,413
	Altamira II (PIE)	gas (CC)	3,138	52%	6,015,528	21,656	56.10	1,208,821
	Altamira III e IV (PIE)	gas (CC)	501	52%	960,414	3,457	56.10	192,995
	Francisco Villa	oil/gas (CT)	1,773	34%	5,179,667	18,647	74.07	1,367,295
	Samalayuca	oil/gas (CT)	1,360	34%	3,973,123	14,303	74.07	1,048,800
	Guadalupe Victoria	oil/gas (CT)	2,037	34%	5,950,920	21,423	74.07	1,570,886
	Samalayuca II	gas (CC)	3,486	52%	6,682,642	24,058	56.10	1,342,878
	Gomez Palacio	gas (CC)	721	52%	1,382,153	4,976	56.10	277,744
	El Encino	gas (CC)	2,870	52%	5,501,773	19,806	56.10	1,105,582
	Chihuahua III (PIE)	gas (CC)	432	52%	828,141	2,981	56.10	166,415

Central-West	Villita	Hydro	1,171	-	-	-	-	0
	Lerma	Hydro	278	-	-	-	-	0
	Aguamilpa Solidaridad	Hydro	2,061	-	-	-	-	0
	Agua Prieta	Hydro	210	-	-	-	-	0
	Manzanillo	oil (CT)	6,328	34%	18,486,708	66,552	77.37	5,097,429
	Manzanillo II	oil (CT)	4,113	34%	12,015,776	43,257	77.37	3,313,167
	Salamanca	oil/gas (CT)	4,249	34%	12,413,088	44,687	74.07	3,276,728
	Villa de Reyes	oil (CT)	4,239	34%	12,383,874	44,582	77.37	3,414,665
	El Sauz	gas (CC)	2,389	52%	4,579,699	16,487	56.10	920,291
	Azufres	GEO	852	-	-	-	-	0
	Cupatitzio	Hydro	387	-	-	-	-	0
	Cóbano	Hydro	241	-	-	-	-	0
	Santa Rosa	Hydro	267	-	-	-	-	0
	Colimilla	Hydro	28	-	-	-	-	0
	El Sauz (PIE)	gas (CC)	4,232	52%	8,112,719	29,206	56.10	1,630,253
Central	Necaxa	Hydro	326	-	-	-	-	0
	Tula	gas (CT/CC)	11,994	43%	27,765,496	99,956	56.10	5,579,482
	Valle de Mexico	gas (CT/CC)	5,425	43%	12,558,597	45,211	56.10	2,523,653
	Jorge Luque	gas (CC/TG)	750	44%	1,717,879	6,184	56.10	345,208
	Patla	Hydro	102	-	-	-	-	0
	Zimapán	Hydro	985	-	-	-	-	0
	Mazatepec	Hydro	548	-	-	-	-	0
	Humeros	GEO	285	-	-	-	-	0
South-Southeast	Petacalco	dual	13,859	42%	33,258,939	119,732	94.60	11,213,398
	M. Moreno T.	Hydro	2,492	-	-	-	-	0
	Infiernillo	Hydro	3,153	-	-	-	-	0
	Angostura	Hydro	669	-	-	-	-	0
	Malpaso	Hydro	1,509	-	-	-	-	0
	Penitas	Hydro	949	-	-	-	-	0
	Temascal	Hydro	1,070	-	-	-	-	0
	Caracol	Hydro	1,369	-	-	-	-	0
	F. Carrillo Puerto	gas (CC)	1,706	52%	3,270,392	11,773	56.10	657,186
	Tuxpan	oil/gas (CT/TG)	13,241	35%	38,168,401	137,406	74.07	10,075,450
	Laguna Verde	nuclear	10,502	-	-	-	-	0
	Dos Bocas	gas (CC)	3,013	52%	5,775,903	20,793	56.10	1,160,669
	Poza Rica	oil (CT)	568	34%	1,659,363	5,974	77.37	457,544
	Tuxpan II (PIE)	gas (CC)	3,540	52%	6,786,159	24,430	56.10	1,363,680
	Tuxpan III and IV (PIE)	gas (CC)	4,636	52%	8,887,185	31,994	56.10	1,785,882
	Lerma	oil (CT)	841	34%	2,456,909	8,845	77.37	677,455
	Mérida II	oil/gas (CT)	1,099	34%	3,210,634	11,558	74.07	847,523
	Campeche (PIE)	gas (CC)	1,093	52%	2,095,275	7,543	56.10	421,046
	Nachi-Cocom	oil/dies (CT/TG)	297	35%	856,130	3,082	74.07	225,996
	Mérida III (PIE)	gas (CC)	3,566	52%	6,836,001	24,610	56.10	1,373,696

Interconnected Electric System	Electricity generation (GWh)	Electricity delivered to the grid (GWh)	Emissions (tCO2)	EF (tCO2/MWh)
Northwest	14,196	12,169	9,937,220	0.817
Northeast	52,953	39,235	35,727,143	0.911
Central-West	31,045	36,242	17,652,533	0.487
Central	20,415	40,969	8,448,343	0.206
South-Southeast	69,172	22,582	30,259,524	1.340
Imports	-	71	0	-
Exports	-	953	0	-
Operating Margin	187,781	151,197	102,024,762	0.675

	tCO2/MWh
EF_{OM}	0.653
EF_{BM}	0.491
EF_{CM}	0.613

	oxidation
coal	98.0%
natural gas	99.5%
oil	99.0%
diesel	99.0%

	efficiency
TG	35%
gas (CC)	52%
CT	34%
diesel (CC)	46%

GEO Geothermic
IC internal combustion
CT conventional thermic
TG Turbogas
CC Conventional cicle

Sources:

- Prospectiva del Sector Eléctrico 2005-2014 (Tables 3 and 4, Cuadro 39); Prospectiva del Sector Eléctrico 2004-2013 (Table 4); Prospectiva del Sector Eléctrico 2003 - 2012 (Table 4) - http://www.energia.gob.mx/webSener/portal/index.jsp?id=48
- 2006 IPCC Guidelines for National Greenhouse Gas Inventories (Table 1.3: Default values of Carbon Content)

Annex 4

MONITORING INFORMATION

The Monitoring Plan is described in B.7.2.