



COMISION FEDERAL DE ELECTRICIDAD

RECENT DEVELOPMENTS AND BUSINESS OPPORTUNITIES

Mexican Electrical Sector

February 19, 2004

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Mexico's economic growth requires a strong electricity sector.

The Federal Government can not provide all the resources needed; there must be private investment.

GROWTH SCENARIOS

CFE updates annually, a 10-year horizon forecast that serves as the base for the prospection on the Electric Sector.

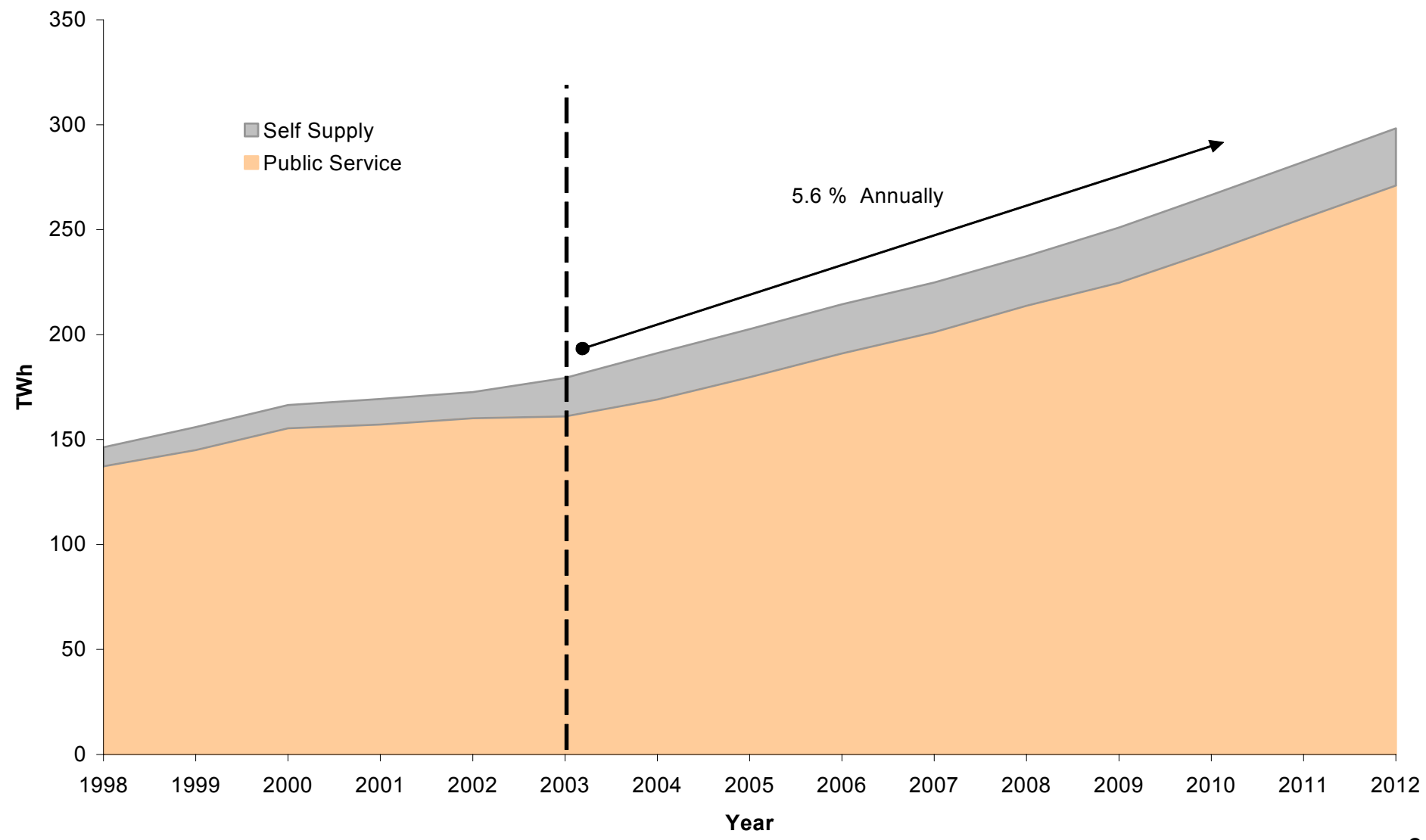
Based on:

- ❖ Analysis of the historical evolution
- ❖ Demographic analysis
- ❖ Growth rates of regional consumptions
- ❖ Country's average economical growth

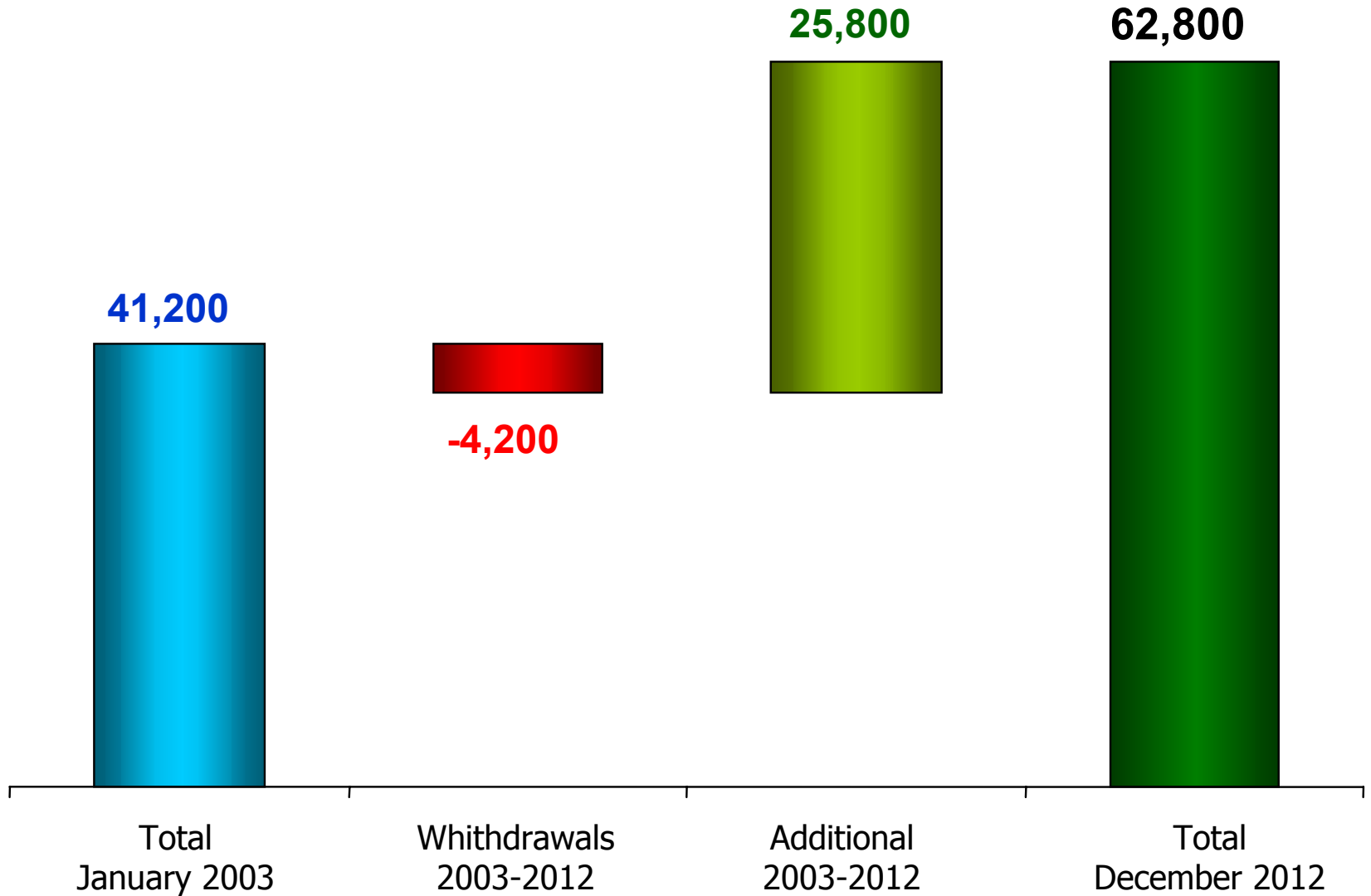
Gross National Product	Scenario		
	Moderate	Planned	High
Estimate 2001-2010	3.8	5.2	5.8
Estimate 2002-2011	3.4	4.5	5.6
Estimate 2003-2012	3.2	4.7	5.6

Electric Power Consumption (%)	Scenario		
	Moderate	Planned	High
Estimate 2001-2010	5.3	6.3	7.0
Estimate 2002-2011	4.7	5.6	6.4
Estimate 2003-2012	4.2	5.6	6.2

National consumption of Electric Power (planning scenario)



National Electric System Capacity 2003-2012 (MW)



TRANSMISSION LINES

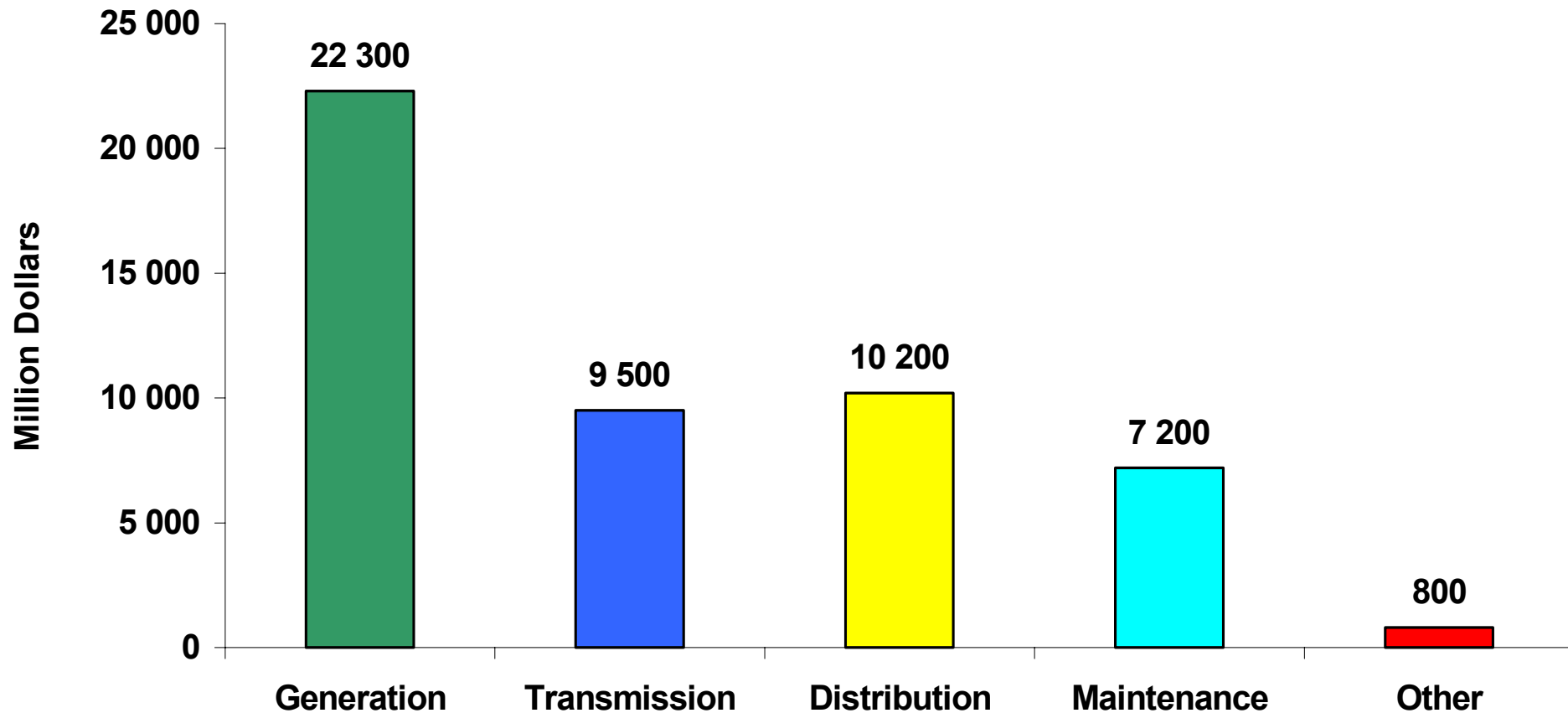
Year		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	TOTAL
Fiscal resources	MM\$	1 050	1 808	1 254	915	891	1 061	1 391	1 530	1 664	1 777	13 342
	km	1 129	2 162	1 001	302	542	610	894	1 121	1 167	1 450	10 378
External resources	MM\$	5 444	3 864	3 216	2 561	2 674	3 182	4 173	4 591	4 993	5 330	40 027
	km	2 609	2 273	2 349	2 711	1 625	1 830	2 683	3 364	3 502	4 351	27 297
Subtotal	MM\$	6 494	5 673	4 470	3 476	3 565	4 243	5 564	6 122	6 657	7 107	53 369
	km	3 738	4 435	3 350	3 013	2 168	2 440	3 577	4 485	4 669	5 801	37 676
Total	MM\$	53 369										
	km	37 676										

Investment in Public Works 2003-2012 (Million Pesos)

SUBSTATIONS

Year		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	TOTAL
Fiscal Resources	MM\$	1 063	3 099	2 357	1 035	1 446	1 459	1 411	1 657	1 883	1 989	17 398
	MVA	1 794	2 010	1 914	419	1 532	1 874	2 260	1 715	1 417	1 971	16 906
External Resources	MM\$	4 320	4 802	5 227	4 531	4 339	4 337	4 232	4 970	5 469	5 967	48 194
	MVA	1 786	3 422	5 233	4 429	4 597	5 622	6 779	5 146	4 252	5 914	47 180
Subtotal	MM\$	5 383	7 900	7 584	5 565	5 786	5 797	5 642	6 627	7 351	7 956	65 592
	MVA	3 580	5 432	7 147	4 848	6 129	7 496	9 039	6 861	5 669	7 885	64 086
Total	MM\$	65 592										
	MVA	64 086										

**Total:
50 000 Million Dollars**



FINANCING SCHEMES

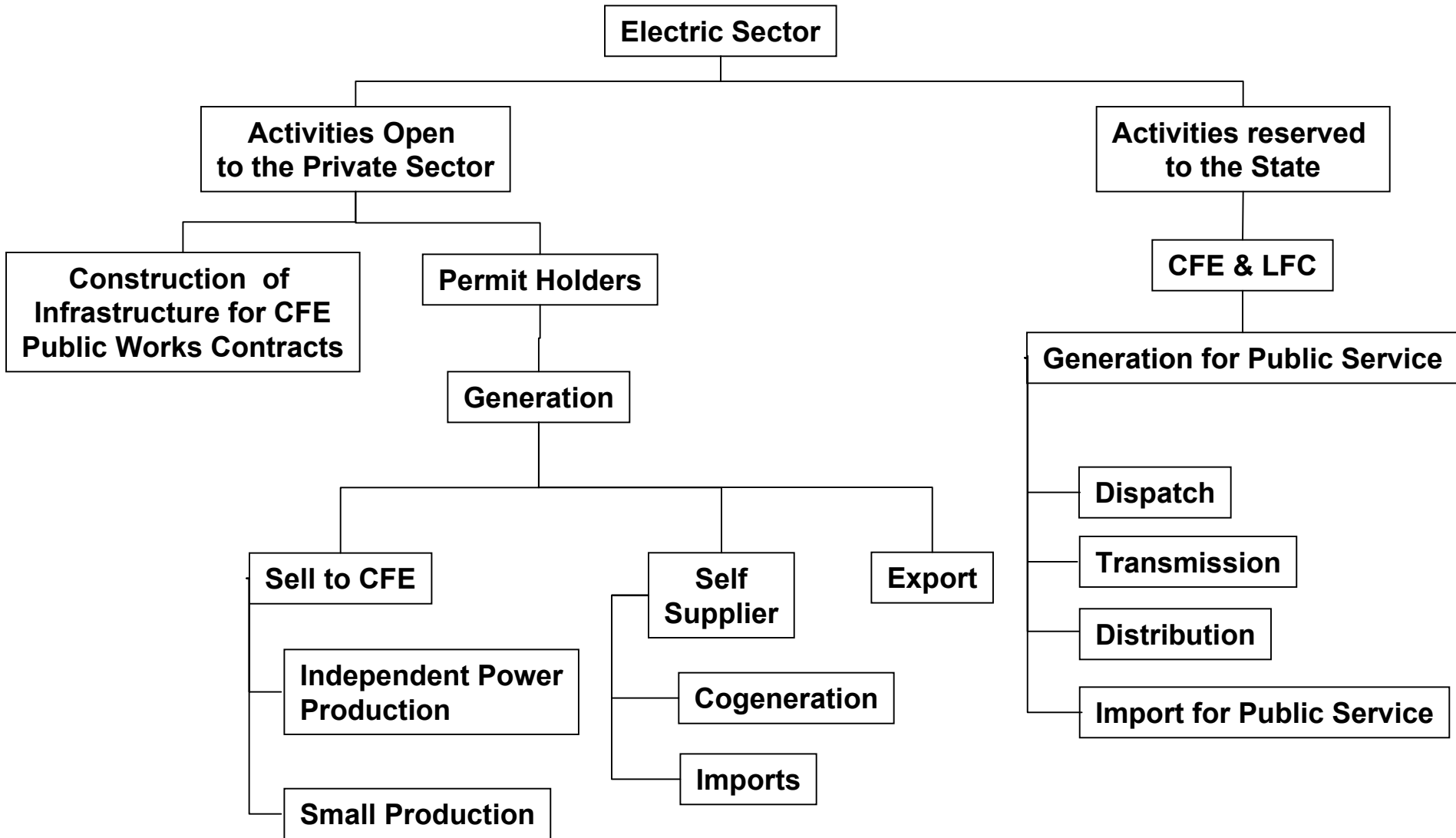
Articles 27 and 28, of the Constitution establish the State's exclusive right to provide electricity as a public service.

- **Activities not regarded as public service were defined in the Electric Energy Public Service Law reform in 1992.**
- **The private sector can participate in the generation of electricity in the following modes:**



- **Independent Power Producers**
- **Cogenerators**
- **Self supplier of energy**
- **Exporter/Importer of energy**
- **Small Producer**

Activities Open to Private Sector



➤ **Self supplier**

- ❖ **Mini-Hydroelectric Power Plants.**
- ❖ **Thermal Power Plants**
- ❖ **Wind Power**

➤ **Cogenerator**

➤ **FINANCED PUBLIC WORKS**

- ❖ **Transmission Lines and Substation Construction**
- ❖ **Distribution Lines and Substation Construction**
- ❖ **Power Plants Upgrading**
- ❖ **Hydroelectric Power Plants**
- ❖ **Small Power Plants**
- ❖ **Repowering**

➤ **INDEPENDENT POWER PRODUCER**

- ❖ **Power Purchase Agreement**

➤ **LONG TERM SERVICE AGREEMENTS**

- ❖ **LNG purchase agreement**
- ❖ **NG transport capacity purchase agreement**

CONSTRUCTION FINANCED BY CONTRACTOR

Lump sum contract: Turn-key Construction Project

Successful bidder responsible for construction and financial costs during construction

CFE responsible for acquisition of rights-of-way

Upon conclusion CFE pays total amount to contractor; long term financing is then undertaken by CFE

PRIVATE INVESTMENT WITH CFE'S GUARANTEE

Producer constructs, finances, operates and owns a power plant under certain standards, and commits himself to deliver a contractual amount of energy to CFE

CFE pays a fixed capacity charge, a fixed operation and maintenance charge adjusted for inflation, and a variable energy charge adjusted to evolution of fuel prices

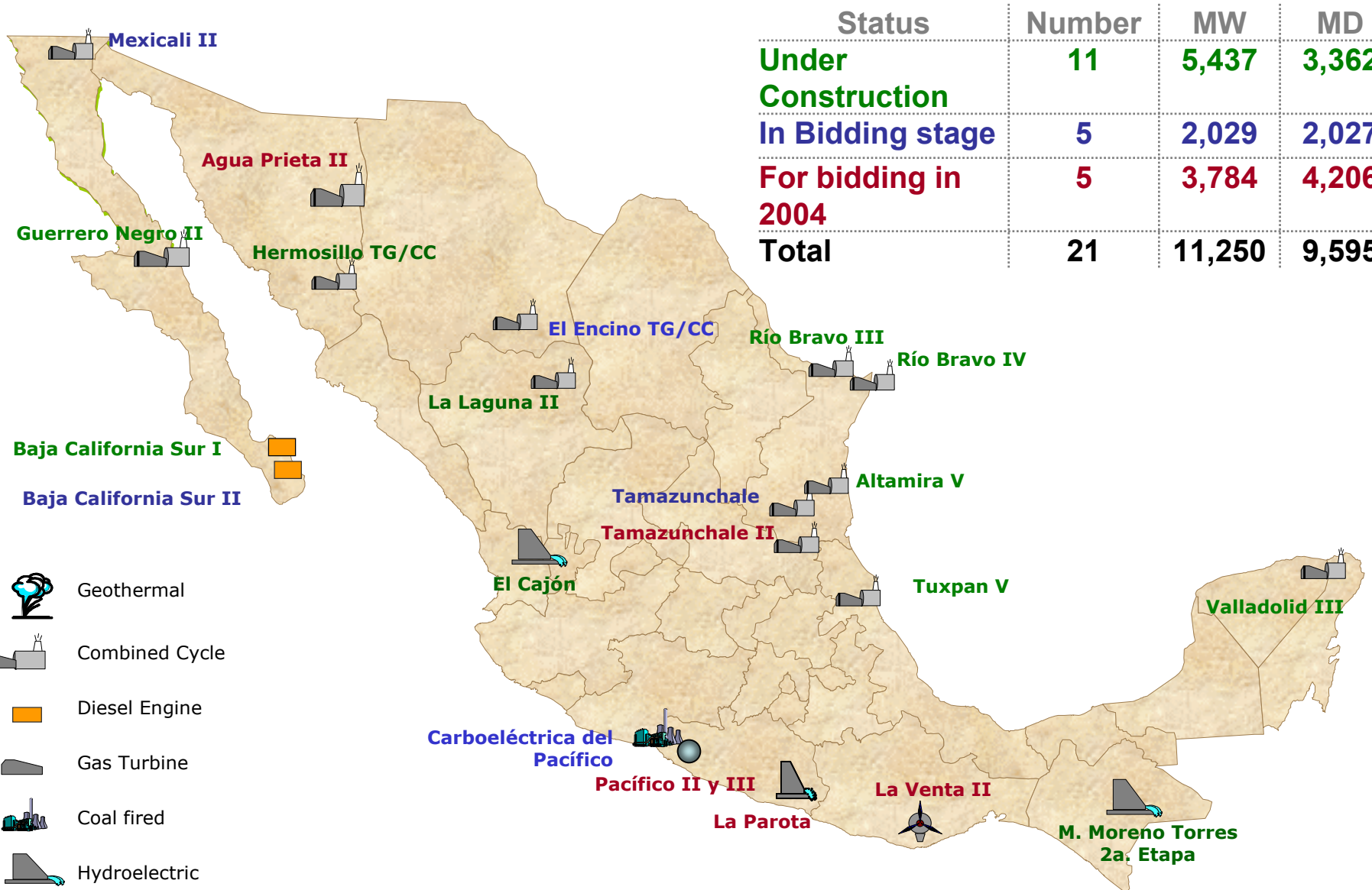
CFE provides feasible site and environmental permits for Power Plant

CFE responsible for gas supply

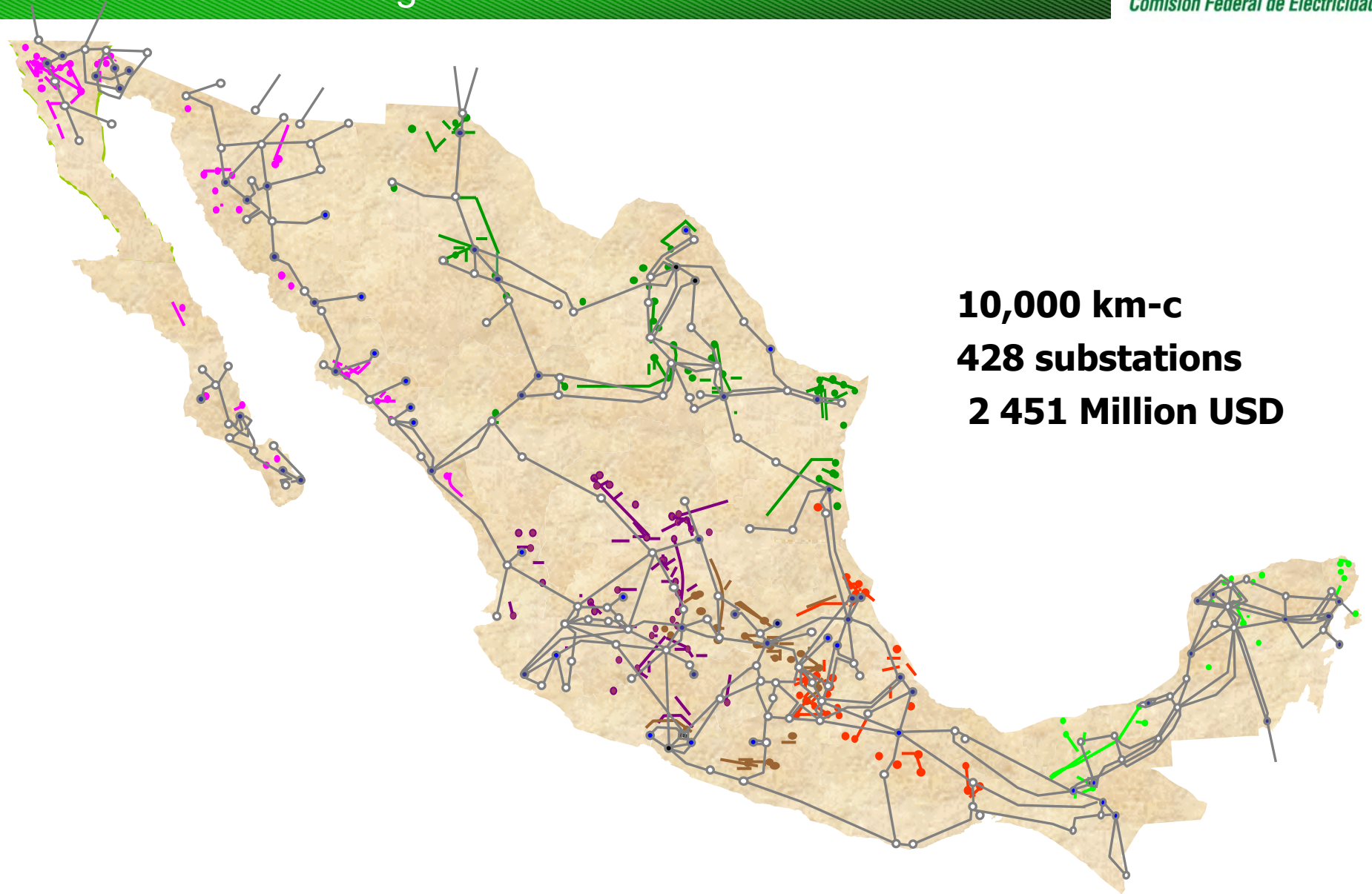
Contract awarded in public bid, to bidder with lowest levelled price per kWh

WORKS IN PROGRESS

Generation: projects under construction



Transmission lines and substations Built between 2001-August 2003



Condition	Number	Km-c	MVA	MUSD
Under Construction	14	3,257	4,051	718
Bidding stage	7	1,833	3,953	244
For future bidding	33	6,616	11,143	2,580
Total:	54	11,706	19,147	3,542

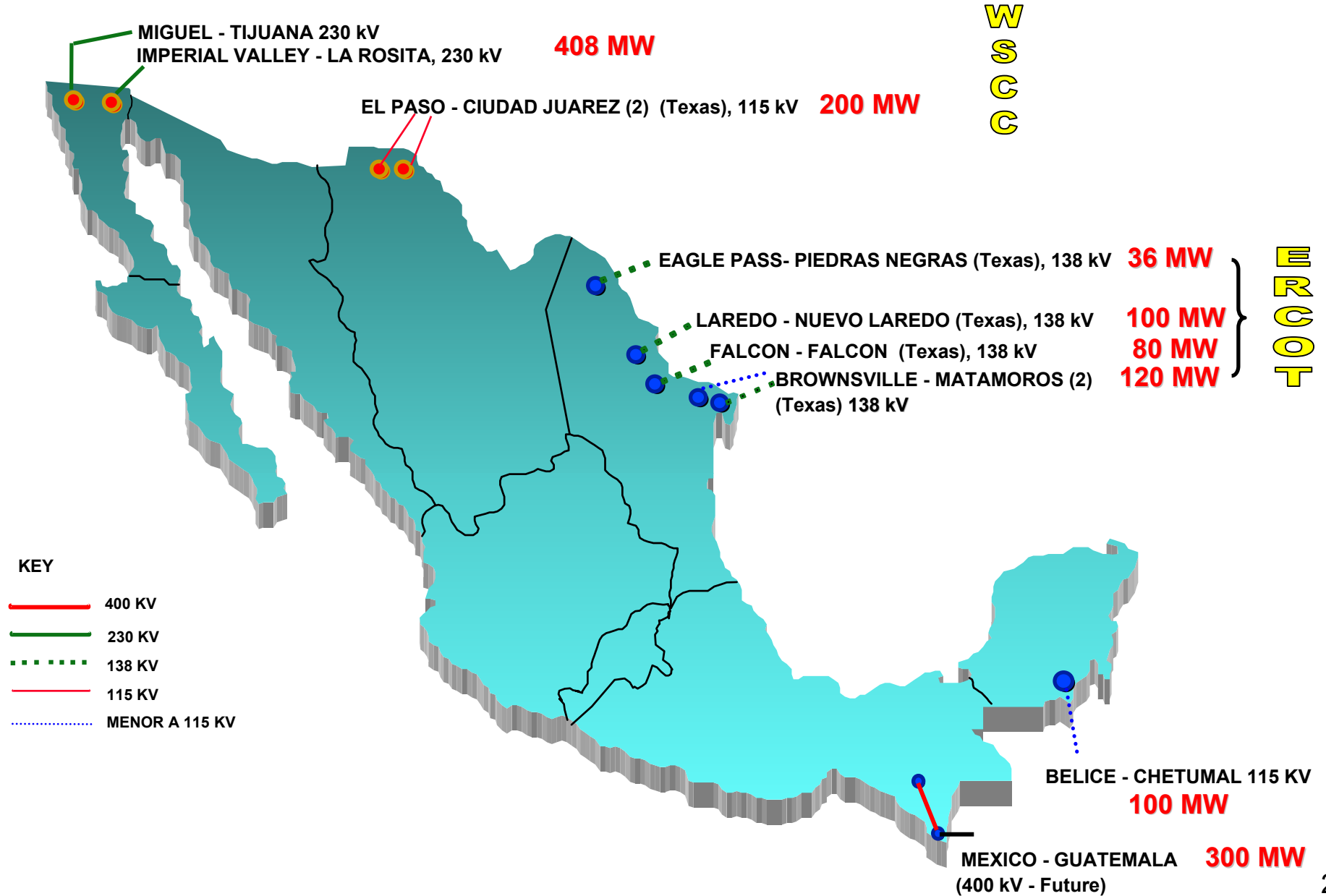
US-MEXICO

and

MEXICO-CENTRAL AMERICA

ENERGY PROJECTS

Present México's Borders Electrical Interconnections



CFE HAS AGREEMENTS WITH CENTRAL AMERICAN COUNTRIES TO EXCHANGE TECHNICAL SUPPORT ON POWER-RELATED PROJECTS, IN ORDER TO CONTRIBUTE TO ESTABLISH THEIR TECHNICAL AND FINANCIAL FEASIBILITY



CFE

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