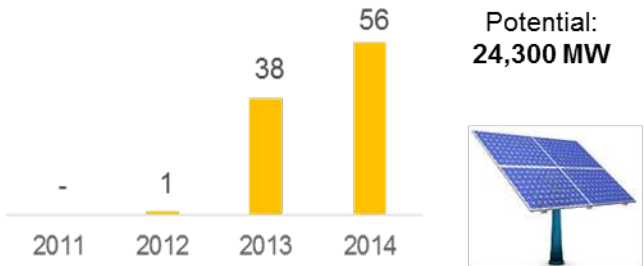


Renewable Energy Project Financing in Mexico

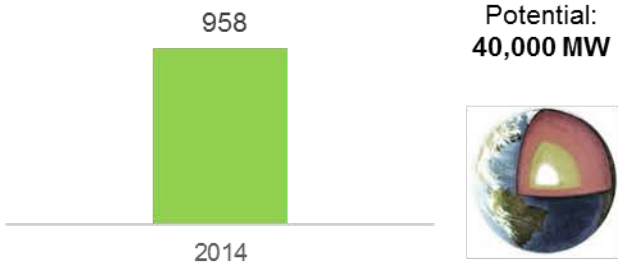
April 2016

Solar Installed Capacity (MW)



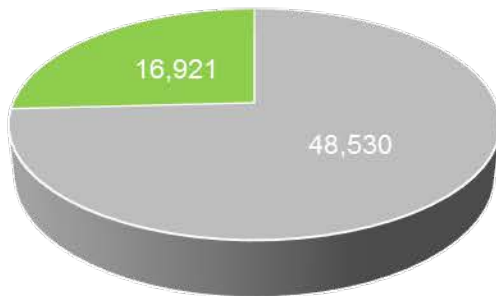
The northwest has one of the most solar radiation intensity area in the country.

Geothermal Installed Capacity (MW)

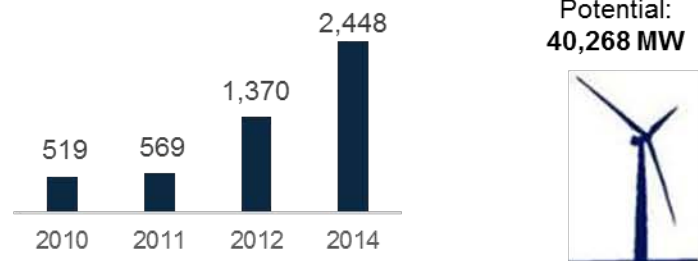


Volcanic axis with huge geothermal potential.

Total Installed Capacity (MW) 2014

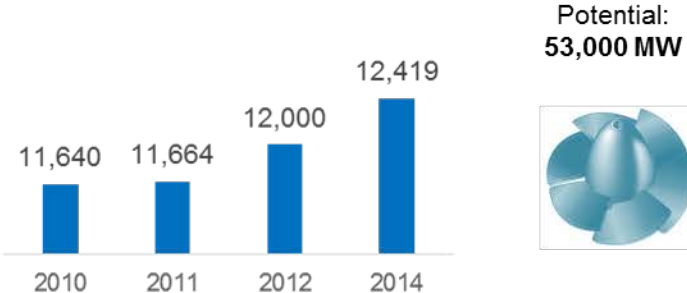


Wind Installed Capacity (MW)



The Istmo wind source reaches up to 40% net capacity factors.

Hydroelectric Installed Capacity (MW)

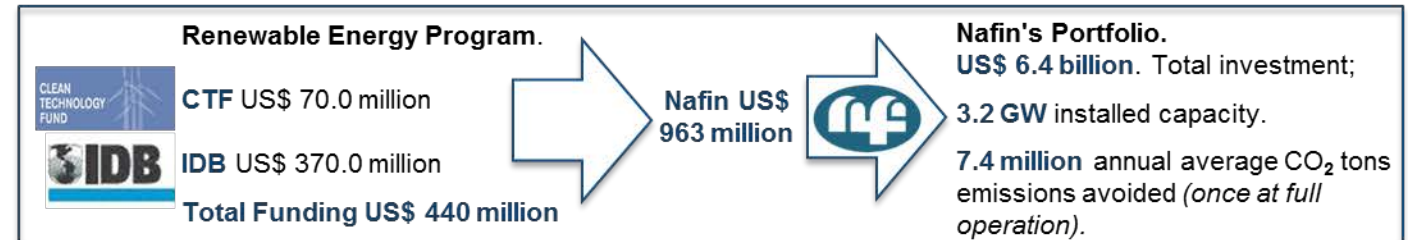
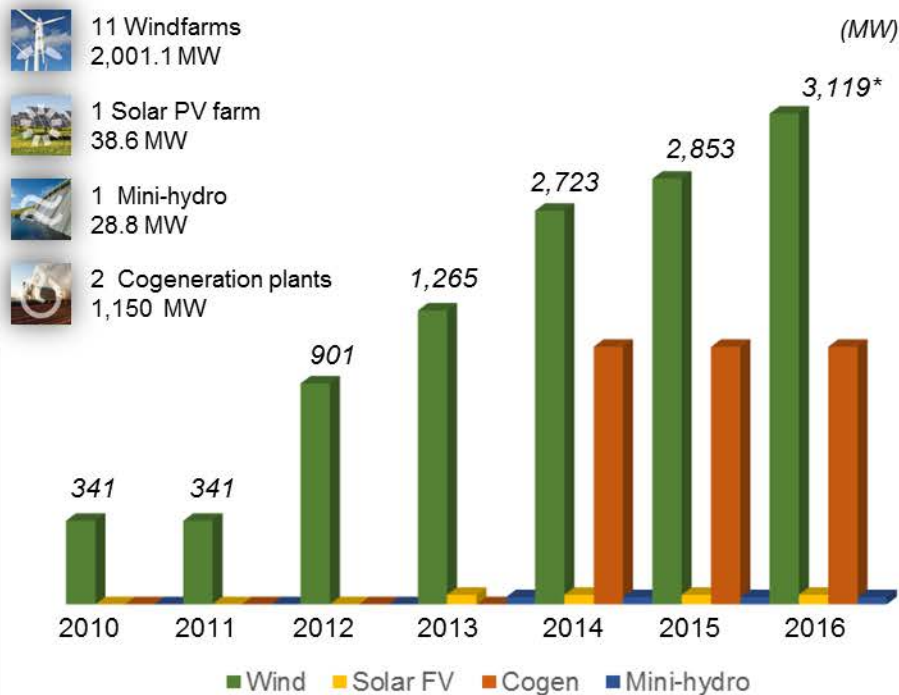


Mexico has hydrological resources for large and mini hydroelectric facilities.



Since 2010, Nafin has set a credit offer for sustainable projects.

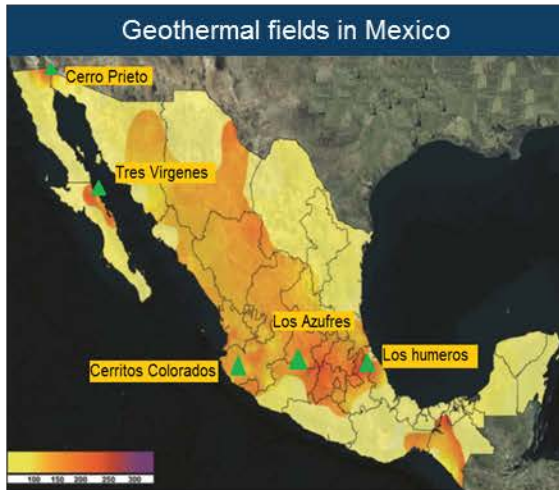
- Focused on **large-scale projects** (more than ~30 million dollars per project).
- **Case by case** analysis, generating tailor-made structures.
- **Partnerships** with commercial, development, national and international financial institutions (e.g. club deals, syndications).



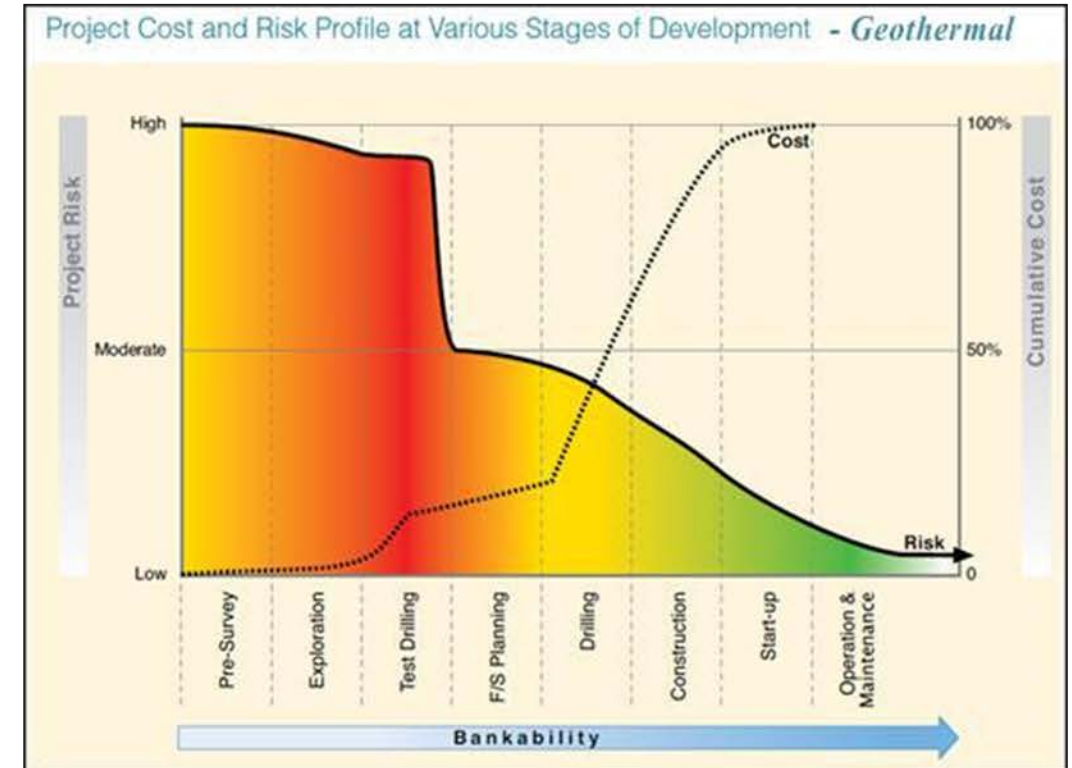
*Includes committed loans.

- Mexico is the **fourth country** in world in **geothermal capacity production**.
- The Federal Electricity Commission has **958 MW of installed capacity** in four geothermal plants, which generate **3.3%** of total electricity in the country.

Geothermal Plant	Location	Start of operations	Actual capacity (MW)	Work in progress (MW)
Cerro Prieto	Baja California	1973	720.0	100.0
Los Azufres	Michocán	1982	188.0	50.0
Los Humeros	Puebla	1990	40.0	35.0
Tres Virgenes	Baja California Sur	2001	10.0	
Cerritos Colorados	Jalisco			25.0
Total			958	210

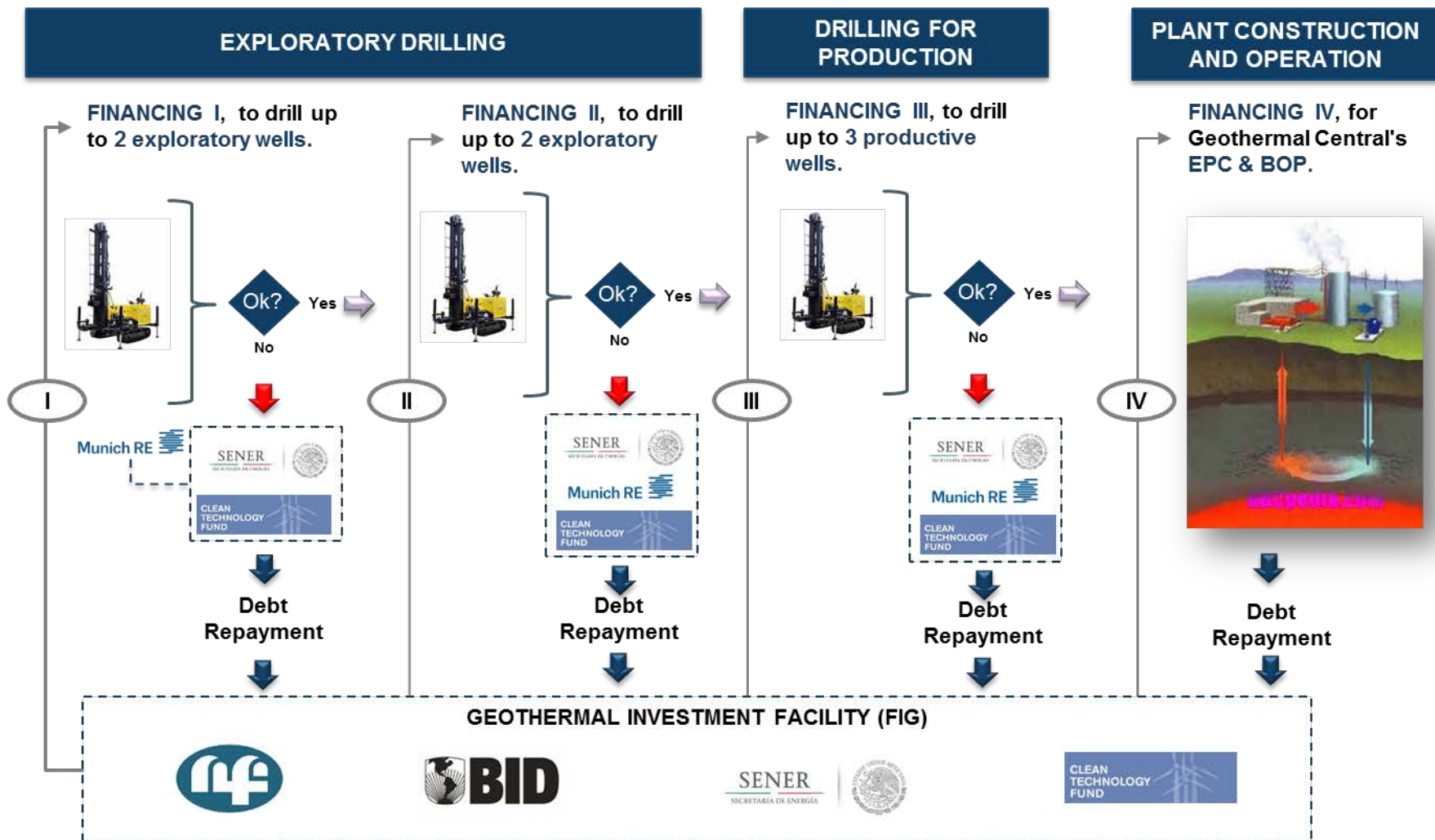


- **Viable:** proven and economically viable technology.
- **Efficient:** supply security (base load power).
- **Clean:** CO₂ emission reduction.
- **Economy:** low production cost (US\$ 0.06 to 0.12/ kWh).
- **Potential in Mexico:** 10-11GW (North - Central, the best areas).



Source: World Bank

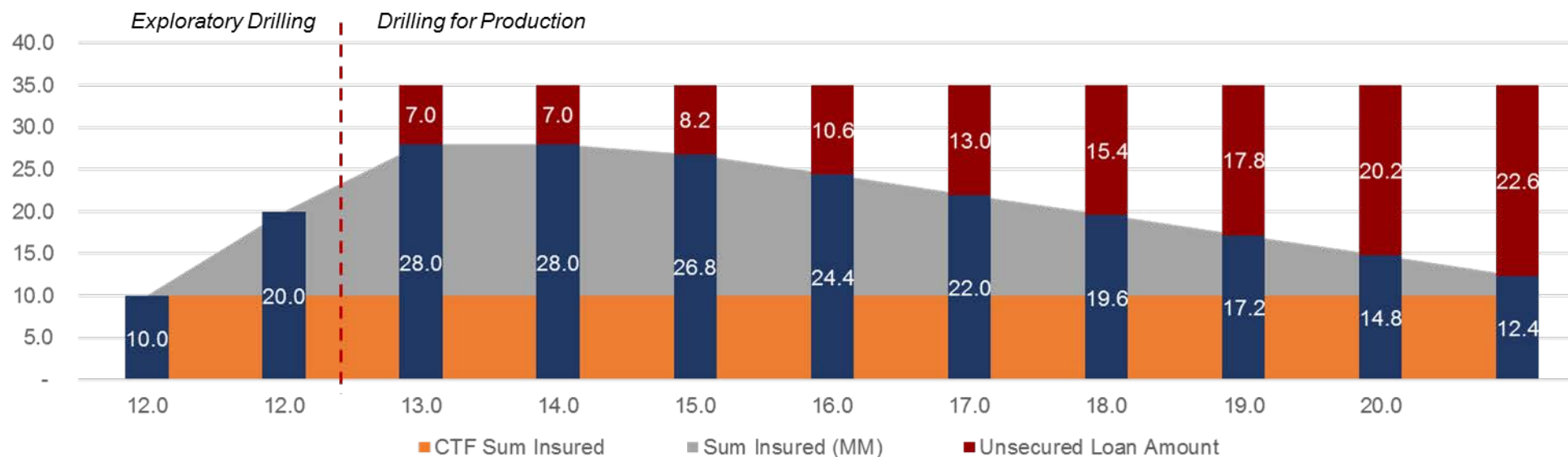
- **NAFIN, CTF, IDB** and **SENER** are working together on the design and implementation of a secured instrument for the exploratory drilling phase, that could be extended up to productive drilling.
- NAFIN channels the funds of the program and applies its own resources on a case by case basis, depending on project risk.



Program's Sources and applications of Funds.		
Technical Assistance		
Source	US\$ Millions	
•CTF	2.8	
Exploratory Drilling		
Source	US\$ Millions	
•SENER	11.5	
•CTF	20.0	
Total	31.5	
Non-Refundable Support	28.6%	
Productive Exploration		
Source	US\$ Millions	
•BID	54.3	
•CTF	31.5	
Total	85.8	
Loans	71.4%	
Total	100.0%	
Program's Total		
Source	US\$ Millions	%
•SENER	11.5	9.6%
•BID	54.3	45.2%
•CTF	54.3	45.2%
Total	120.1	100.0%

Loan Amount- Sum Insured- Collateral

Figures in USD MM except for MW



	Exploratory Drilling		Drilling for Production
Wells	2.0	4.0	7.0
MW found (Accrued)	6.0 MW	12.0 MW	21.0 MW
Loan amount (Accrued)	Up to 10.0 MM	Up to 20.0 MM	Up to 35.0 MW
Equity (30%)	Up to 4.0 MM	Up to 9.0 MDD	Up to 15.0 MM
Total Cost (Debt/Equity: 70/30)	Up to 14.0 MM	Up to 2.09 MDD	Up to 50.0 MM
CTF Sum Insured	10.0 MM	10.0 MM	
Sum Insured	-	10.0 MM	2.4 MM per MW missing (up to 18.0 MM)
Total Sum Insured	10.0 MM	20.0 MM	Up to 28.0 MM

Houston we have a problem!

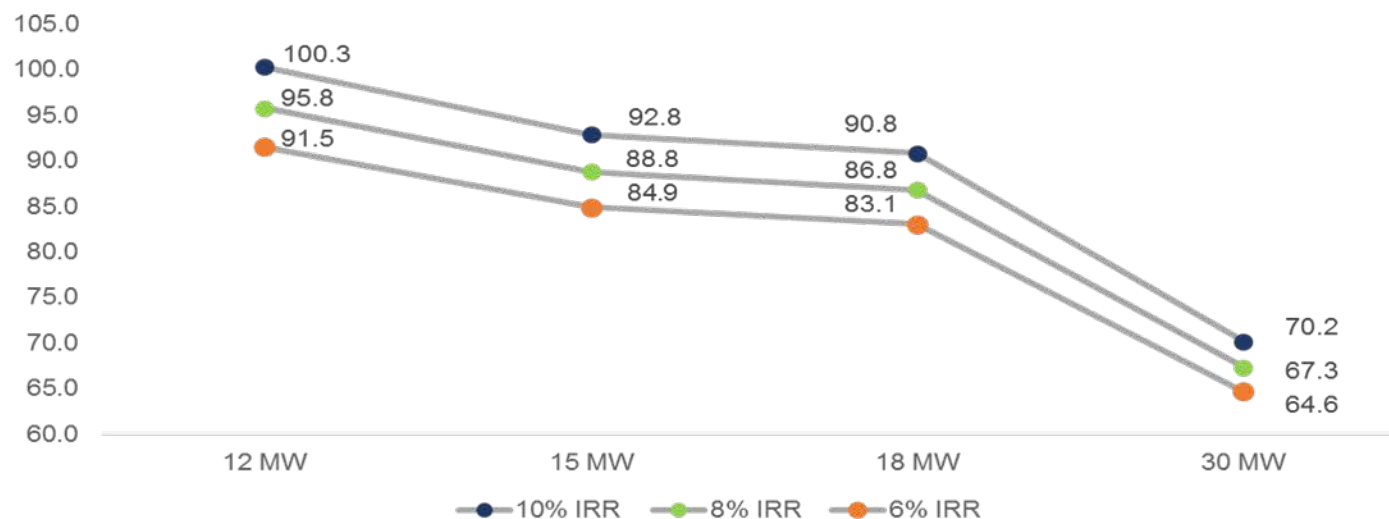
General Conditions

- Investment During Drilling: **USD 50.0 MM**
- Equity/ Debt %: **30 / 70**
- Loan:
 - Term: **20 years**
 - Rate: **Market Rate**
 - Grace Period: **2 years**
- Load Factor: **85%**
- Sum insured during drilling:

MWs Found	Sum Insured During Exploration (USD MM)	Development Loan (USD MM)
12	28.0	38.9
15	24.4	44.9
18	17.2	18.0
21	-	68.1
30	-	70.1

Price / MW

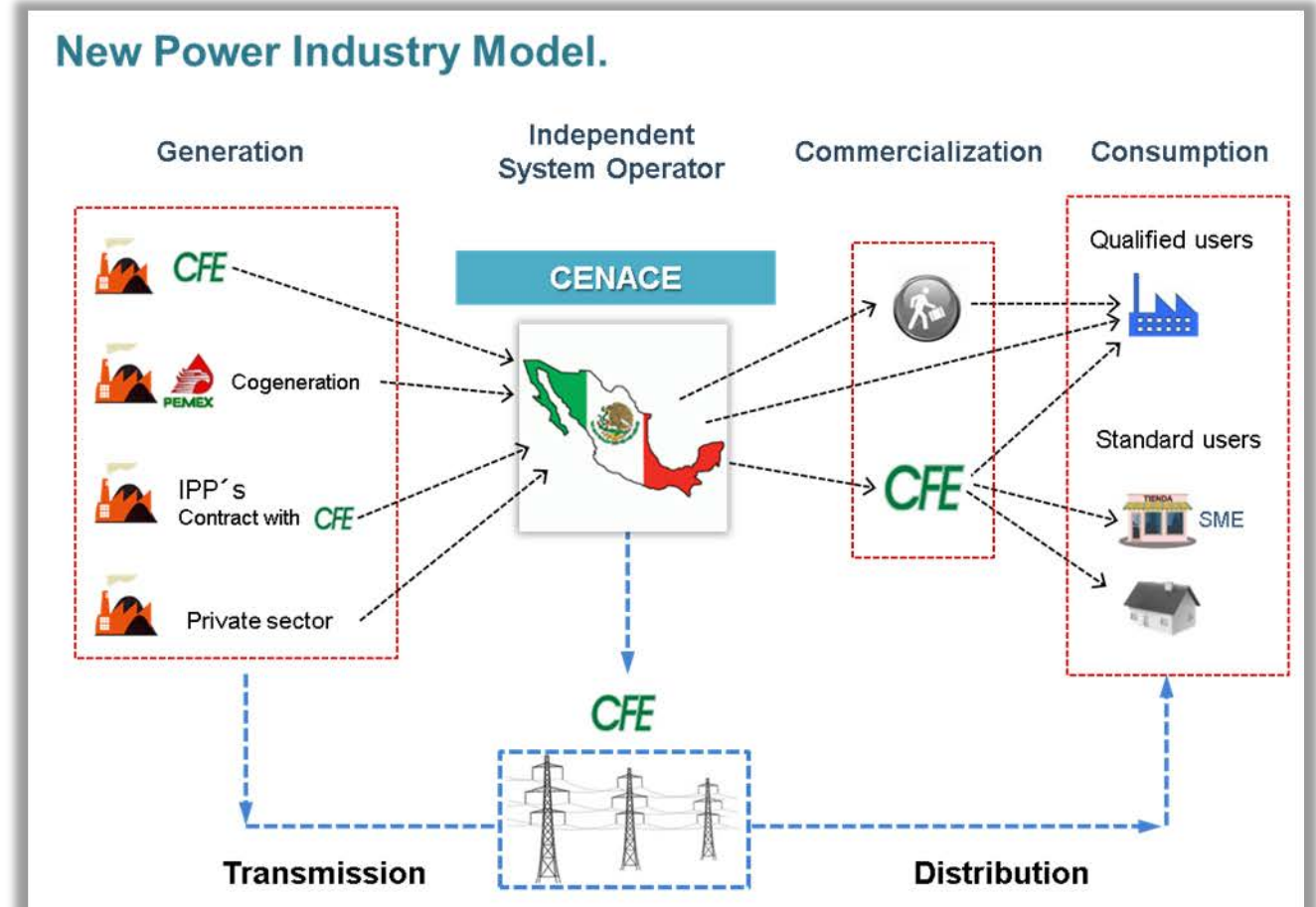
Figures in USD MM



Solar & Wind Bidding Process Prices

Region	Type	Price/ MW
Aguascalientes	Solar	47.2
Queretaro	Solar	44.2
Coahuila	Solar	36.6
Merida	Solar	60.2
Merida	Wind	62.6
Reynosa	Wind	45.5
Baja California Sur	Solar	47.5

- With the recently passed constitutional reform, **Mexico, for the first time in decades, is fully opening** oil, gas, and power sector to foreign and local investors.
- In line with international experience, **energy reform will strengthen the independence and competitiveness in the system**, especially in interconnection capacity of new projects and the creation of a wholesale power market.
- **Long-term** contracts will play an important role to reduce the risk of investments.
- The current Mexican regulatory framework establishes the goal of achieving **35% of electricity generation through non-fossil sources by 2024**. Nowadays this share is around 25%.
- Nevertheless, the price expectancy has pressured the developers for new investments.
- Recent bidding process, resulted in a long term average price of **[USD 43/ MW]** for wind and solar. Thus expected, prices are **low**.



BE THE AGENT OF CHANGE THAT ACCELERATES AND LEVERAGES THE ENERGETIC DEVELOPMENT OF THE COUNTRY.

- On October 2015, NAFIN issued the first **Mexican Green Bond** in the international markets.
- Rationale for a Green Bond:
 - **Commitment** of Mexico to be active in the **mitigation of climate change**.
 - **Promote** the transition to a **low carbon economy**.
- The **net proceeds** of the issue of the Bond shall be used to **partially fund renewable energy projects** mainly wind farms.
- NAFIN's Green Bond follows the guidance of **Green Bond Principles 2015**.
- NAFIN's Green Bond approach has obtained a positive **third party review from Sustainalytics**
- NAFIN's Green Bond has been certified by the **Climate Bond Initiative** according to latest standards on renewable energy.

