

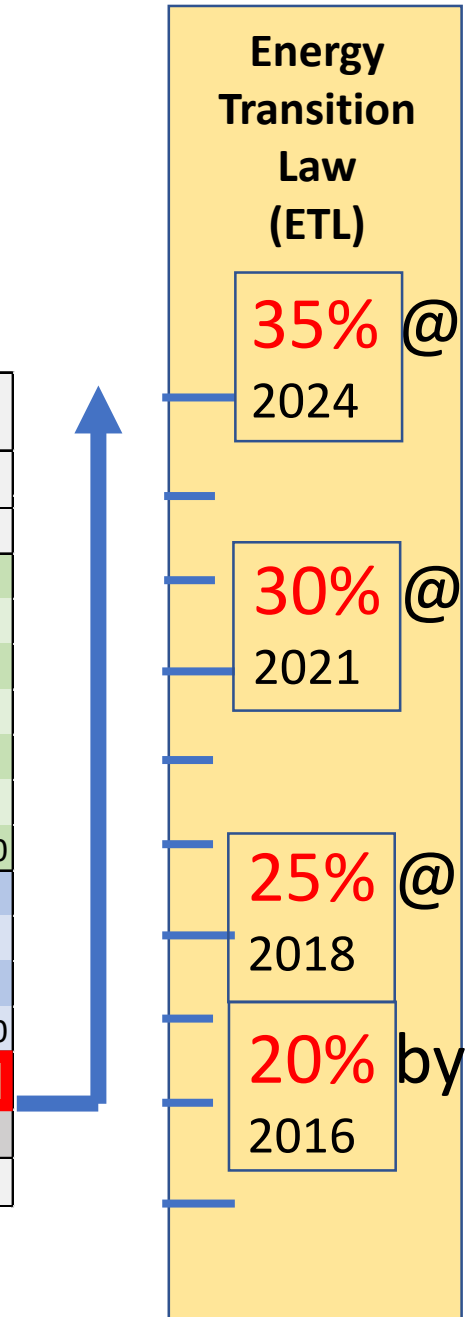
Mexico's Long Term Power Auctions and RE Investment



Mexico's Clean Energy Statistics

CATEGORY	TECHNOLOGY/SOURCE	2015				2016				
		Installed capacity		Gross generation		Installed capacity		Gross generation		
		MW	%	GWh	%	MW	%	GWh	%	
CLEAN ENERGIES	RENEWABLE ENERGIES	HIDROELECTRICITY	12,488.50	18.36	30,891.54	9.98	12,588.99	17.13	30,909.34	9.68
		WIND	2,805.12	4.12	8,745.15	2.83	3,735.42	5.08	10,462.57	3.28
		GEOHERMAL	883.60	1.3	6,330.98	2.05	908.60	1.24	6,148.29	1.93
		BAGASE	670.18	0.99	1,187.26	0.38	798.34	1.09	1,276.37	0.40
		PHOTOVOLTAIC	170.24	0.25	190.26	0.06	388.61	0.53	214.79	0.07
		BIOGAS	80.80	0.12	203.57	0.07	83.17	0.11	194.84	0.06
		HYBRID	0.05	0.00	0.05	0.00	0.07	0.00	0.00	0.00
	OTHER CLEAN	EFFICIENT COGENERATION	583.05	0.86	3,795.22	1.23	1,036.01	1.41	5,053.01	1.58
		NUCLEAR	1,510.00	2.22	11,577.14	3.74	1,608.00	2.19	10,567.17	3.31
		BLACK LIQUOR	25.50	0.04	27.36	0.01	25.50	0.03	37.99	0.01
		REGENERATIVE BRAKES	6.61	0.01	3.60	0.00	6.61	0.01	3.60	0.00
	CLEAN ENERGIES SUBTOTAL		19,223.64	28.26	62,952.13	20.34	21,179.31	28.81	64,867.98	20.31
	FOSSIL ENERGIES SUBTOTAL		48,801.04	71.74	246,600.66	79.66	52,331.12	71.19	254,495.55	79.69
	TOTAL		68,024.68	100.00	309,552.79	100.00	73,510.43	100.00	319,363.53	100.00

Source: SENER



Route to 35% Clean Energy by 2024

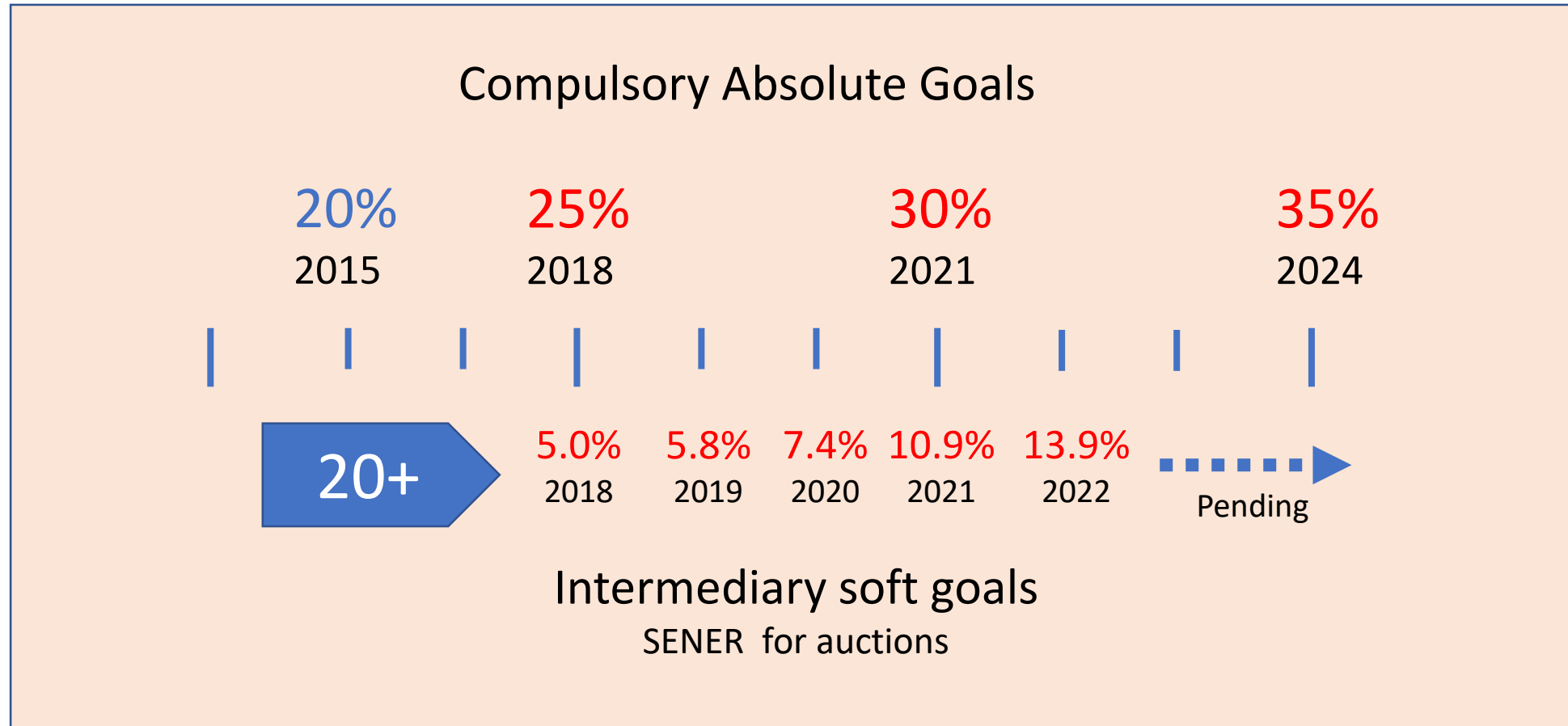
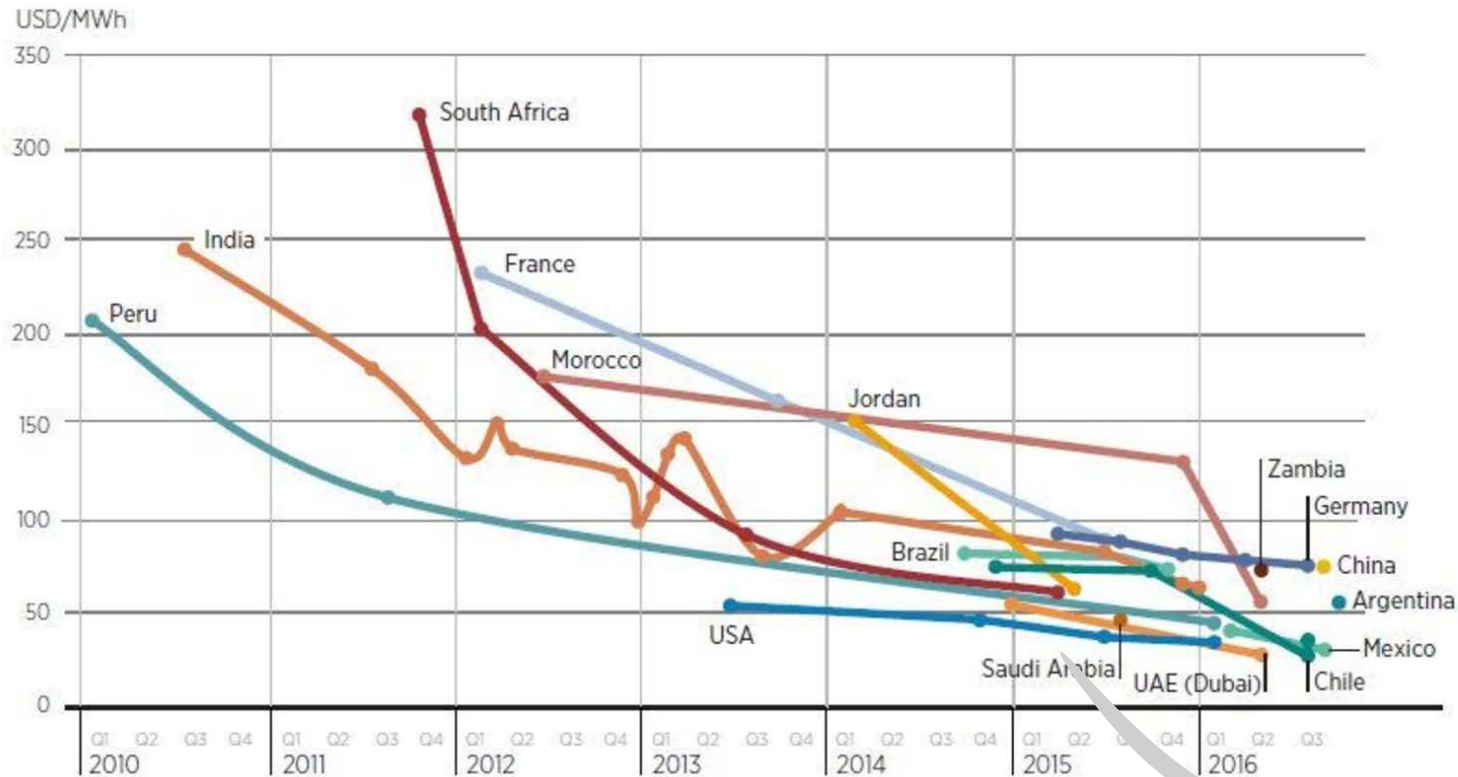


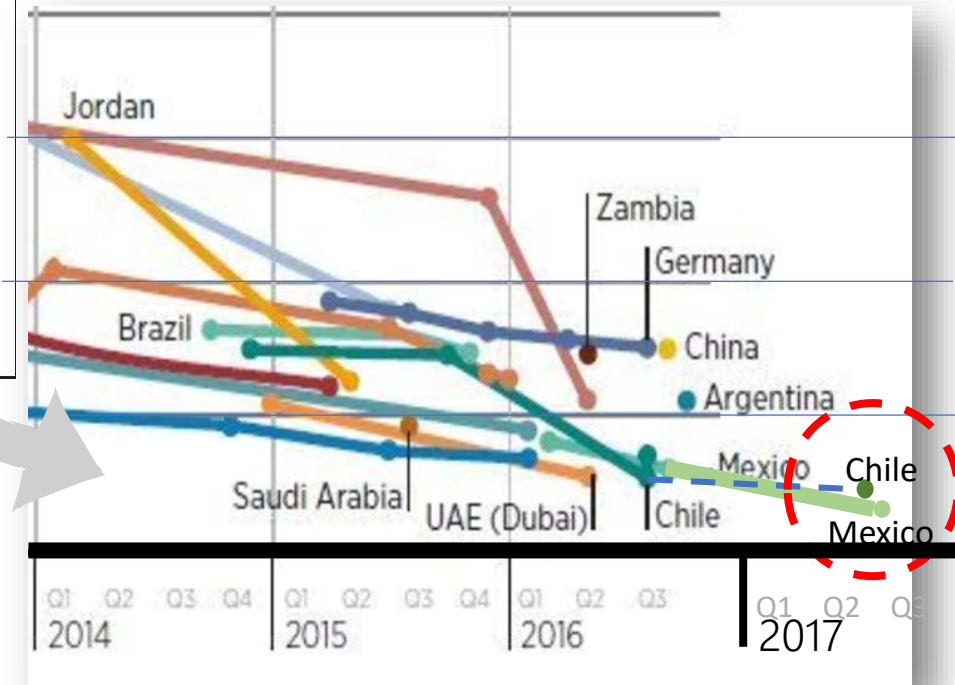
Figure 2.3 Evolution of utility-scale solar PV auction prices around the world



Source: IRENA, 2017a

Source: Bloomberg New Energy Finance

In the 2nd and 3rd auctions, Mexico reached the lowest PV prices in the world at the corresponding dates.



- First Auction winning projects will be operational at the end of 2018.
- By 2018's year end, is expected that the grid will handle 25% clean energy, 5% up from today's.
- Clean energy stats will begin to improve by 2019

As a result of the Energy Transition Law:

ETL compulsory goals for greening the grid are forcing big electricity users to include clean energy in their power mix.

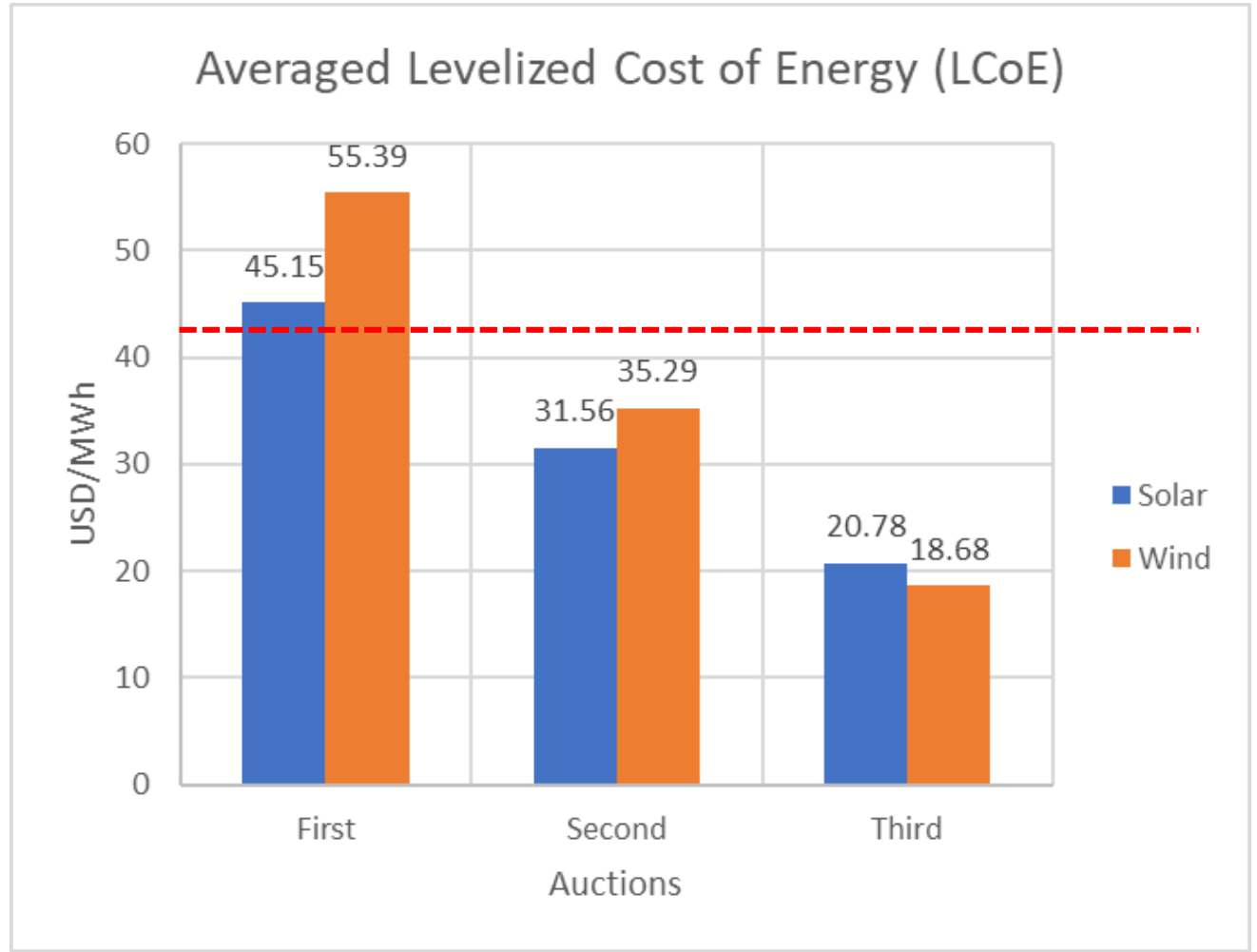
As a result, CFE's subsidiary known as "CFE Basic Supplier", which is the biggest power distributor, has launched three long term auctions to buy clean energy with the following results:

Contracted Capacity,	1st Auction (11)	2nd Auction (23)	3rd Auction (8)	Clean energy SubTotal
Solar	1691 MW	1853 MW	1323 MW	4867 MW
Wind	394 MW	1038 MW	689 MW	2221 MW
Geothermal		25 MW		25 MW
Gas*			550 MW	
Average Price per MWh	USD 41.8	USD 33.47	USD 20.54	
Investment per Auction	2,600 MUSD	4,000 MUSD	2,400 MUSD	
TOTAL (All Auctions)	9,000 MUSD			7,113 MW

* 20 MUSD added just for firm (base load) capacity;

Source: ICM with SENER data

Three Auctions Results



CCGT LCoE

As a comparison, the lowest LCoE (2017) for a combined cycle gas turbine (CCGT) was 42.7USD/MWh, corresponding to the Agua Prieta Plant.

Are Auctions' Prices For Real?

REASONS FOR THE LOW PRICES

- Most bidders were highly experienced and very professional international companies with sound corporate policies. Bidders included ENEL, Acciona, Q-Cells, EDF-Engie and others
- Projects size favored scale economies
- Biggest bidders got favorable financial conditions
- Legal and regulatory framework as well as 15 years contract terms for energy and 20 years for CELs increased investors confidence
- PV equipment prices in the international market have been remarkably cheaper in recent years, and labor costs in Mexico are lower than in other countries
- Contract conditions assume yearly deliveries which are cheaper to achieve than monthly deliveries
- Mexico's macro economics conditions foster investors confidence
- Guarantee of seriousness is worth around 90,000 USD per project, plus 9 USD per offered MWh, and 4.5 USD per CEL
- International auctions prices are consistent with Mexico's prices, particularly in LATAM (see next graph)
- CFE contracts, backed by Mexico's sovereign debt, are very attractive to lenders

Gracias

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