

DEVELOPING AND FINANCING WIND ENERGY PROJECTS IN MEXICO

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POWERING AND FUELING
RENEWABLE ENERGY



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“A pioneering name in the renewable and alternative energy sectors and is renowned for its excellent wind practice”

Andrews Kurth has closed over \$2 billion in wind power project financings in the last three years



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Lay of the Land

- Current installed capacity (end of 2009): 202 MW
- Over 500 MW is under construction
- 6 GW by 2025 and Mexico estimates 40 GW potential
- Mexico has high reserve margin (over 40%) that allows system to absorb intermittency wind
- Desire to add different types of generation to move away from overreliance on oil and gas
- Desire to create jobs and industry in rural areas



Mexican Incentives

- 2008 Law for Use of Renewable Energy and Financing the Energy Transition
- Open Season transmission
- Comision Federal de Electricidad (CFE) PPA Auctions
- Accelerated depreciation (100% on equipment in first year)



Development Areas

- Oaxaca: Isthmus of Tehuantepec
 - Among best wind resource in world: capacity factors reaching 50% with wind speeds of in excess of 10 meters per second
 - 2.5 GW expected to be build in the next couple of years
- Baja California: La Rumorosa
 - Export opportunity into Southern California: 75 miles from San Diego
 - California RPS: 33% by 2020
 - 2.6 GW in development



Development Areas

- Other areas: Tamaulipas, Puebla, Yucatán, Veracruz, Zacatecas, Hidalgo and Sinaloa



Development Issues

- CFE wheeling and other fees
- Land rights crucial (restricted zone, ejidos)
- Employment laws
- Tax structuring



Regulatory Environment

- A private generator may generally sell power in Mexico as either:
 - An Independent Power Producer (IPP), in which case it sells all of its power to the state-owned utility, Comision Federal de Electricidad (CFE)
 - Self Supply, in which the offtaker holds a nominal ownership interest in the project
 - Trick is to find creditworthy industrial customer; price can be attractive to the industrial as compared to the price the industrial pays CFE (US\$ 0.07 v. US\$ 0.10)



Utility Scale Wind (In Operation)

Date	Project	Sponsor	Offtaker	Financing
March 2007 (in operation)	La Venta II: 85 MW with Gamesa turbines (Oaxaca)	CFE	CFE	
2009 (in operation)	Parques Ecologicas de Mexico: 79.9 MW with Gamesa turbines (Oaxaca)	Iberdrola (Spanish)	CFE	
December 2009 (in operation)	Eurus: 250 MW using Acciona 1.5 MW turbines (Oaxaca) (Cost: US\$2.2m/MW)	Acciona (Spanish)	CEMEX: 20-year PPA	US\$375m co-arranged by IDB and IFC, with BBVA, Espirito Santo, Proparco, DEGB, Nafin 15-year tenor
May 2010 (in operation)	La Ventosa: 67.5 MW with Clipper 2.5 MW turbines (Oaxaca) (Cost: US\$2.8m/MW)	EDF (French)	Wal-Mart: 15-year PPA	US\$80.66m provided by U.S. EX-IM initially, and US\$103 provided by IDB and other lenders
January 2010 (in Operation)	La Rumorosa I: 10 MW using Gamesa 2 MW turbines (Baja California) (Cost: US\$2.6m/MW)	Baja California State Government (Mexican)		

Utility Scale Wind (In Construction)

Date	Project	Sponsor	Offtaker	Financing
2009 (in construction)	Bii Nee Stipa I: 26.3 MW using Gamesa turbines (Oaxaca)	CISA/ Gamesa (Spanish)		
2009 (in construction)	Fuerza Eólica del Istmo: 50 MW using Clipper turbines	Fuerza Eólica		
November 2009 (in construction)	Oaxaca I: 101 MW using Vestas turbines (Oaxaca)	Energia Y Recursos Ambientales/ Energias Ambientales (Spanish/Mexican JV)	CFE	
November 2009 (in construction)	Los Vergeles: 160 MW using Siemens 2.3 MW turbines (Tamaulipas)	Grupo Soluciones en Energias Renovables (Mexican)		
February 2010 (in construction)	Piedra Larga: 228 MW using Gamesa 2 MW turbines (Oaxaca) (Cost: US\$1.8m/MW)	Renovalia Energy (Spanish)	Bimbo	



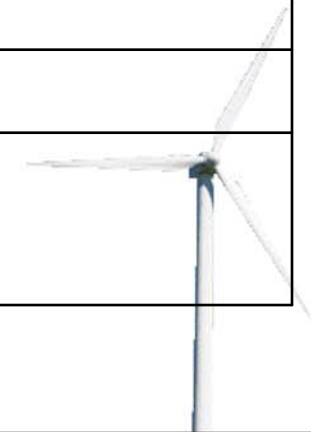
Utility Scale Wind (In Development)

Date	Project	Sponsor	Offtaker	Financing
In Pipeline	250 MW (Oaxaca)	Gas Natural Mexico (Spanish)		
In Pipeline	200 MW (Baja California)	Gas Natural Mexico (Spanish)		
In Pipeline	Aubanel: 1,000 MW to use Gamesa turbines (Baja California)	Cannon Power (U.S.)		
In Pipeline	Oaxaca II: 101 MW to use Acciona turbines (Oaxaca)	Acciona (Spanish)	CFE: 20-year PPA at a price of US\$0.0658 per kWh	
In Pipeline	Oaxaca III: 101 MW to use Acciona turbines (Oaxaca)	Acciona (Spanish)	CFE: 20-year PPA at a price of US\$0.0678 per kWh	
In Pipeline	Oaxaca IV: 101 MW to use Acciona turbines (Oaxaca)	Acciona (Spanish)	CFE: 20-year PPA at a price of US\$0.0637 per kWh	



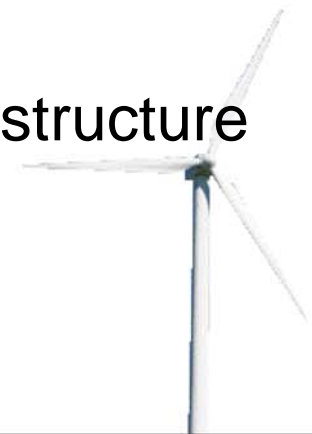
Utility Scale Wind (In Development)

Date	Project	Sponsor	Offtaker	Financing
In Pipeline	Energy Sierra Juarez: 1,000 MW (Baja California)	Sempra Energy (U.S.)	Export to U.S.	
In Pipeline	La Rumorosa: 250 MW (Baja California)	Sempra Energy (U.S.)	Export to U.S.; has one 20-year PPA signed with Southern California Edison	
In Pipeline	La Venta III: 102.85 MW using Gamesas 850 kW turbines (Oaxaca)	Iberdrola (Spanish)	CFE: 20-year PPA	US\$ 78.5m European Investment Bank
In Pipeline	500 MW (Baja California)	Union Fenosa (Spanish)		
In Pipeline	80 MW (Oaxaca)	Iberdrola (Spanish)		
In Pipeline	50 MW (Puebla)	PI Mabe and Apia XXI (Mexican/Spanish JV)	PI Mabe (price projected to be 10% less than cost to buy from CFE)	



Financing Sources

- Multilateral financing (IDB, IFC, EIB)
- Development funding institutions (DEG)
- Export Credit Agencies (US EX-IM) (guarantees or direct loans)
- Commercial financing (BBVA, Espirito Santo)
- Vendor financing
- Private Equity (Macquarie \$440m Mexican Infrastructure Fund; GE Energy Financial Services)



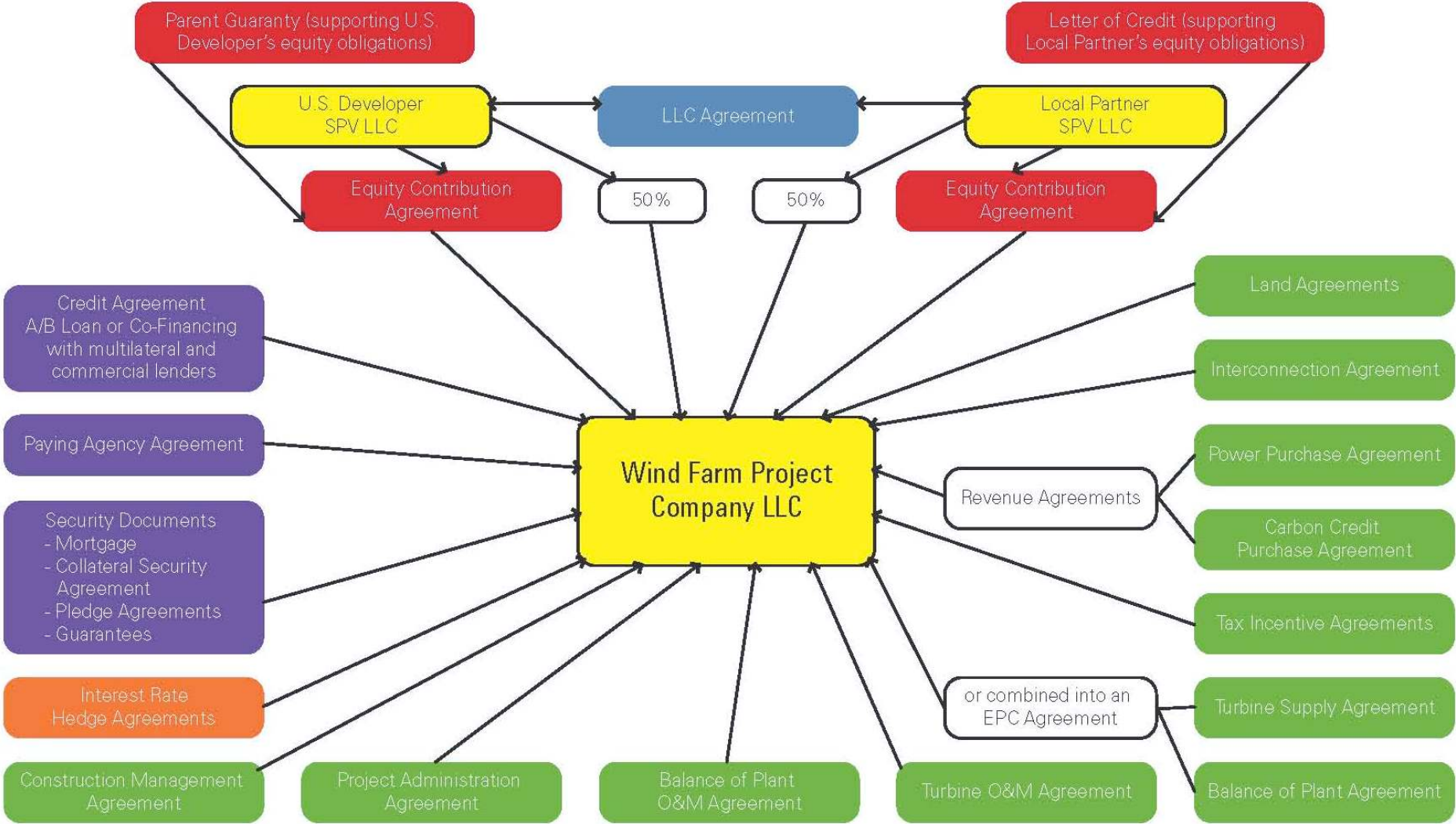
Financing Sources

- U.S. EX-IM and Banobras have signed MOU to jointly fund up to US\$ 1bn projects in Mexico
- IDB: 80% of loans for private energy projects will go to renewables for next three years



Financing

Equity



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