

DIRECTION

THE FUTURE OF WIND



Horse Creek and Electra Wind are two 230-MW wind farms under construction in Haskell and Wilbarger counties, Texas. (Courtesy: Starwood Energy Group Global)

Agreement reached on Horse Creek and Electra wind farm transaction

Skyline Renewables, an independent clean energy platform and Starwood Energy Group Global (“Starwood Energy”), a leading private investment firm focused on energy infrastructure, recently announced they have reached an agreement for Skyline to purchase Starwood Energy’s 51 percent interest in the Horse Creek and Electra wind farms.

Horse Creek and Electra, in Haskell and Wilbarger counties, Texas, are each 230-MW wind projects constructed by Starwood Energy that began operations in late 2016. Each project consists of 100 GE 2.3MW turbines and both include long-term hedges. Skyline will manage the portfolio after the transaction closes.

The transaction follows Starwood’s sale of a 49 percent interest in the wind farms to MEAG, Munich Re’s asset manager, in 2017. Terms of the transaction were not disclosed.

“This transaction is the culmination of many years of work by the Starwood team to develop these high-quality energy infrastructure assets, and create value for our limited partners,” said Himanshu Saxena, chief executive officer of Starwood Energy. “We’re delighted that Skyline’s reputation for skilled and experienced management will continue to provide these communities with valuable revenue.”

With this latest acquisition, Skyline Renewables will grow its wind portfolio to 686 MW of controlled capacity since forming the company earlier this year as a partnership between Ardian and Transatlantic Power Holdings. Skyline Renewables announced its first acquisition of Whirlwind Energy, a 60-MW project in Northwest Texas, and an additional acquisition of Hackberry Wind Farm, a 166 MW, also in Northwest Texas, in September 2018.

“This is a very important step in our goal to become a leading independent clean energy platform with great as-

sets that are well positioned to take advantage of changing dynamics in the renewable energy industry,” said Skyline Renewables President and CEO Martin Mugica. “We pride ourselves in our nimbleness and experienced value driven acquisitions and Starwood did an excellent job developing these wind farms. We look forward to maximizing revenues with our management expertise.”

MORE INFO www.starwoodenergygroup.com

Walmart, EDP Renewables announce three PPAs

Walmart and EDP Renewables (EDPR) recently announced three power purchase agreements (PPA) that will enable the construction of three new utility-scale wind farms — developed, owned, and operated by EDPR — in Il-

linois and Indiana. Walmart’s cumulative 233-MW investment includes the following:

▀ 123 MW from the Bright Stalk Wind Farm (a 205-MW project in McLean County, Illinois, with start of operations expected in 2019; this PPA is a part of the announcement EDPR issued July 3, 2018)

▀ 60 MW from the Headwaters II Wind Farm (a 200-MW project in Randolph County, Indiana, with start of operations expected in 2020; this PPA is a part of the announcement EDPR issued July 3, 2018)

▀ 50 MW from the Harvest Ridge Wind Farm, formerly Broadlands Wind Farm (a 200-MW project in Douglas County, Illinois, with start of operations expected in 2019; this PPA is a part of the announcement EDPR issued May 10, 2018)

Walmart’s purchase through these agreements will produce enough electricity to power more than 60,000



“Walmart has a goal to be supplied by 100 percent renewable energy and sourcing energy from wind farms,” said Mark Vanderhelm, vice president of energy for Walmart. (Courtesy: Walmart)

average homes in Illinois and 15,000 average homes in Indiana with renewable energy each year. Additionally, these wind farms will bring economic benefits to their respective regions and states in the form of jobs, landowner and tax payments, and money spent in local communities.

“Walmart has a goal to be supplied by 100 percent renewable energy and sourcing energy from wind farms developed by partners like EDP Renewables is a core component in the mix,” said Mark Vanderhelm, vice president of energy for Walmart. “Wind energy is an important part of our energy portfolio, and Walmart plans to continue our efforts to pursue renewable energy projects that are right for our customers, our business, and the environment.”

“The declining cost of renewable power has led to an increase in clean-energy procurement from companies like Walmart in recent years,” said Miguel Prado, EDP Renewables North America CEO. “The continued commitment from corporate entities in procuring renewable energy speaks volumes about the importance and value of securing fixed, competitive pricing over the long-term. EDP Renewables appreciates its partnership with Walmart and commends the company in its efforts to source all of its energy from renewable sources.”

EDP Renewables is a wind-industry leader in the states of Illinois and Indiana. To date, EDPR operates 797 MW of wind-energy projects in Illinois and, with the addition of the Bright Stalk Wind Farm and the Harvest Ridge Wind Farm, EDPR will further increase its footprint in Illinois, surpassing 1,200 MW, or 1.2 GW, of operational capacity by the end of next year.

EDPR also operates 801 MW of wind-energy projects in Indiana. With the completion of the construction of the 200-MW Meadow Lake VI Wind Farm, EDPR will exceed 1,000 MW, or 1 GW of operational capacity by the end of 2018. The company will continue to add to its renewable energy portfolio in the state in the coming years with the addition of the Headwaters II Wind



Chinese asset owners, long confined to their domestic market, are now looking to build and buy wind assets abroad. (Courtesy: Wood MacKenzie)

Farm and the 200-MW Riverstart Solar Park that are expected to be operational in 2020 and 2022 respectively.

MORE INFO www.edpr.com

China continues to dominate global wind sector

Chinese operators remain the leaders of the global wind asset market, according to new research from Wood Mackenzie Power & Renewables.

The report, Global Wind Power Asset Ownership 2018, notes Chinese asset owners continue to dominate the global wind power sector following the merger of former top-ranked power producer Guodian Group and seventh-ranked mining and energy company Shenhua into industrial titan CHN Energy.

“Despite the conglomerate’s heavy focus on coal extraction and coal power generation, its wind fleet is more than twice as large as second-ranked utility Iberdrola’s,” said lead author Anthony Logan, research analyst,

North America Wind.

“Many turbines installed during recent years of breakneck growth in China’s wind sector, are reaching the end of their turbine OEM (manufacturer) warranty period,” said Xiaoyang Li, an analyst with Wood Mackenzie Power & Renewables’ Asia Pacific team. “This coming transition, coupled with the low prices seen at new wind energy tenders, is forcing large asset owners to prioritize availability and annual energy production, driving a significant focus on operations and maintenance.”

“Chinese asset owners, long confined to their domestic market, are now looking to build and buy wind assets abroad,” she said. “Australia has been a particularly attractive overseas market, thanks to its open market and high project profits.”

In offshore wind, four large utilities dominate the capital-intensive market, typically developing and selling off about 50 percent of their projects to a more fragmented pool of institutional investors. The growth of the offshore wind sector will affect asset ownership in Asia Pacific from 2022 onwards, boosting the utility market share in Japan and South Korea.

“In the U.S., 2017 saw domestic owners NextEra, BHE, Invenenergy, and Duke complete just 20 percent of their collective average 2015-2016 installation volume as they and several other domestic asset owners used the year to allow their development arms to rebuild exhausted project pipelines,” Logan said. “Canadian and European firms, on the other hand, developed significant new capacity in the country. So far this year, the U.S. has seen institutional investors move to buy portfolios as independent power producers (IPPs) scramble for capital in time to use the Renewable Electricity Production Tax Credit (PTC) before it runs out in 2020.”

In Latin America, competitive auction dynamics in 2017 and 2018 indicate that global IPPs with utility subsidiaries will increasingly build ownership share in the region. Enel divested a majority stake in most of its Mexican renewable power assets to CDPQ and CKD IM via a newly deployed “build, sell, operate” strategy which improves its ability to bid competitively at long-term auctions.

The expiry of subsidies in Northern and Western Europe drove a record year in the region and affected asset owner segmentation; utilities dominated asset ownership in the U.K., while community ownership in Germany peaked. Across Europe in the first half of 2018, utilities and large IPPs drove consolidation to secure a project pipeline that will ensure their positioning in an increasingly competitive market.

In Asia Pacific excluding China, wind asset owners remain tied to their domestic markets with no activity in other key markets of the region, with the exception of Eurus Energy. Siemens Gamesa Renewable Energy consolidated its market-leading position in India, supplying turbines to asset owners around Asia Pacific as well. Due to increasing competition, leading asset owners in Australia did not add new capacity in 2017.

Looking ahead, the phasing out of subsidies in the U.S. and Canada will force a market decline in the early

2020s, which will significantly destabilize the traditional model of independent power producers. Utilities with ambitious rate-basing plans and institutional investors will gain market share in their place. In Europe and the Middle East, competitive auctions will see large IPPs and utilities own more capacity, as they are better able to leverage cost over smaller players.

China will see an increase in ownership share by the turbine OEM segment due to the gradual erosion of the IPP segment. Most Tier I and II turbine OEMs have already reserved wind sites to develop internal wind projects and are looking for development opportunities in the distributed wind power market.

MORE INFO www.woodmac.com

Years of growth ahead for Eastern European onshore wind

Onshore wind energy in Eastern Europe, Russia, and the Caspian will experience a compound annual growth rate of 9 percent from 2018 to 2027, according to new research by Wood Mackenzie Power & Renewables. The latest Eastern Europe Onshore Wind Market Outlook 2018 reports 16 GW of new onshore wind capacity that will be added in the region over the next 10 years.

“The development will be largely driven by the implementation of auction schemes in Russia and Kazakhstan and proposed auctions in Poland and Ukraine,” said lead author Sohaib Malik, market analyst.

Wind-power auctions have fast become a favored policy tool of Eastern European countries as they follow a global trend of moving away from feed-in tariff (FIT). In other markets globally, such auctions have led rapid growth, with Brazil and Saudi Arabia being only two examples.

“Poland will be picking back up as a dominant market in the region soon after the enactment of favorable

amendments introduced to the renewable energy act in July 2018, which will allow the previously permitted, but halted, wind projects to participate in auctions,” Malik said. “This development gives a major boost to the Polish onshore wind market.”

A maturing wind project pipeline in Russia, Ukraine, and Kazakhstan will support the medium-term market outlook. Russia will experience immense growth between 2021 and 2024 as developers are required to connect most of the 3.2 GW of awarded capacity during this period. Ukraine, on the other hand, will have transitioned from the feed-in tariff (FIT) regime to auctions by the end of 2019, which will create more competition between developers to help reduce the cost of wind power.

“We expect significant coal decommissioning in Hungary, Poland, and Romania after 2020 due mainly to an ageing fleet and stricter emissions regulations,” Malik said. “As wind power becomes more competitive due to reductions in technology costs and environmental benefits, it will be in a strong position to displace this coal power capacity in EU member states across the region.”

In the future, an interplay of continued growth in those leading regional markets, as well as the emergence of small, new wind markets such as Armenia, Azerbaijan, Georgia, and Slovakia, will ensure long-term growth prospects.

“Traditionally, a rather small region where developers added 142 MW of new wind capacity in 2017 in three markets, Eastern Europe will grow by more than twofold over the next 10 years,” Malik said.

Only regulatory uncertainty poses a risk to this positive forecast, which can be mitigated by proactive measures by the relevant governments. To ensure that awarded wind power capacity is ultimately commissioned, governments in Eastern Europe will have to streamline permitting and grid integration regulations. ✎

MORE INFO www.woodmac.com