

About Kaxu

News

Images

Videos

Innovative solar power plant to boost national grid launched at the height of South African energy challenges

March 2nd, 2015

- KaXu Solar One is the first Solar Thermal Electric power plant in commercial operation in South Africa.
- This public-private partnership helps meeting the energy needs of South Africa in a reliable and sustainable manner using innovative technology.

March 2nd, 2015 - Abengoa (MCE: ABG.B/P SM /NASDAQ: ABGB), the international company that applies innovative technology solutions for sustainability in the energy and environmental sectors, and state-owned financier, the Industrial Development Corporation (IDC), together with KaXu Community Trust have launched a 100 MW solar plant near the town of Pofadder (Northern Cape Province), capable of providing clean and sustainable power to approximately 80,000 homes in South Africa.

Minister of Economic Development, Mr Ebrahim Patel, officially inaugurated this innovative solar power plant. They were accompanied by Deputy Minister of Public Enterprises, Mr. Bulelani Magwanishe, Premier of the Northern Cape, Silvia Lucas, executives of Abengoa and IDC and representatives of the local community.

KaXu Solar One, the first Solar Thermal Electricity (STE) power plant in South Africa, incorporates a storage system that enables production of 100 MW for 2.5 hours after sunset or before dawn. The project will result in approximately USD 891 million direct and indirect investment inflows to South Africa, generate approximately USD 516 million in taxes over the next 20 years, and created 1,000 construction jobs during its three-year construction period.

This project, a well arranged public-private partnership, was awarded by the Department of Energy of South Africa and it will serve clean and reliable electricity to Eskom, South Africa's power utility, under a 20-year power purchase agreement. Abengoa owns 51 % of the project, the IDC 29 % and KaXu Community Trust 20 %.

Manuel Sanchez Ortega, Vice President and CEO of Abengoa, has stated: "We are proud of the role we are playing to help South Africa meet its ongoing energy demands. This project will leave a legacy that will benefit the community of Pofadder, Northern Cape and the entire country. This would not have been possible without the leadership of the South African Department of Energy".

IDC chief executive, Geoffrey Qhena, has declared: "The project is based on a strong public-private sector partnership and forms part of our efforts to support Government's initiatives to introduce alternative sources of energy into the country's energy mix as contemplated in the integrated resources plan".

Fadiel Farao, the Chairperson of the KaXu Community Trust, says KaXu Solar One will be a catalyst for economic development role in the Khai Ma municipality in the Northern Cape. "The project has stimulated the local economy and will go a long way towards helping to generate much-needed economic opportunities for people in this area". KaXu Community Trust is made up of members of the local community.

Abengoa is building in the region Khi Solar One, a 50MW solar plant using tower technology and has already started the construction of a third project, Xina Solar One, a 100 MW parabolic trough plant. Xina Solar One will shape with KaXu Solar One the largest solar platform in sub-Saharan Africa.



Representatives of the South African government, IDC and Abengoa during the grand opening of Kaxu Solar One.

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Abengoa celebrates an Open Day at the 100 MW Kaxu Solar One plant in Pofadder, Northern Cape, South Africa

April 30, 2014

- The day was attended by more than 150 people.

April 30, 2014.- Abengoa (MCE: ABG.B/P SM /NASDAQ: ABGB), the international company that applies innovative technology solutions for sustainability in the energy and environment sectors, together with its partner Industrial Development Corporation (IDC), today held an open day at Kaxu Solar One, the 100 MW parabolic trough solar plant that Abengoa is constructing in South Africa, near to the town of Pofadder in the northern part of Northern Cape province.

The Open Day consisted of a guided tour of the plant followed by a tasting of typical regional foods.

Kaxu Solar One opened its doors to residents of the Pofadder community as well as anyone else interested in visiting the plant. The day was attended by more than 150 people.

Kaxu Solar One, a parabolic trough solar plant with a 100 MW capacity and three hours of energy storage, will prevent the emission of 315,000 tons of CO₂ every year. Some 1,000 jobs have been created during its construction, in addition to a further 35 positions that will be required to operate and maintain the plant. An additional 200 direct and indirect jobs will be created in the local community.

Kaxu Solar One, together with Khi Solar One, a tower technology plant that Abengoa is also constructing in South Africa, are part of the South African government's plan to generate up to 17,800 MW of renewable power by 2030, reducing the country's dependency on oil and natural gas.

Abengoa will develop a new 100 MW solar plant in South Africa

October 29, 2013

- The parabolic trough plant will have a cutting-edge storage system, being able to generate electricity for five hours after the sunset.
- Abengoa strengthens its position in South Africa with this new plant that will be part of the largest solar complex in Africa.

October 29, 2013 – Abengoa (MCE: ABG.B/P SM /NASDAQ: ABGB), the international company that applies innovative technology solutions for sustainability in the energy and environment sectors, has been selected by the Department of Energy (DOE) of South Africa to develop Xina Solar One, a 100 MW parabolic trough plant with a five-hour thermal energy storage system using molten salts. This project will form the largest solar complex in Africa together with Abengoa's plant KaXu Solar One that is currently under construction in the country.

Abengoa's new project will be constructed close to Pofadder, a city in the north of the Northern Cape Province, next to KaXu Solar One. These two 100 MW plants will jointly shape the largest solar complex in Africa. Xina Solar One will belong to a consortium, 40 % of which is controlled by Abengoa. Other constituents of the consortium are the Industrial Development Corporation (IDC), the Public Investment Corporation (PIC), and KaXu Community Trust.

Manuel Sánchez Ortega, CEO of Abengoa, said, "This project once again illustrates the maturity of solar-thermal technology, which can be efficiently stored and used when it is needed. This clean and non-polluting energy will improve the future of our planet and will help to reduce countries' energy dependency. We are extremely satisfied with the trust that has been placed in us by the South African government and the partners that accompany us in this project".

The parabolic trough technology employs parabolic-shaped mirrors that are set on a structure so they can track the movement of the sun and concentrate solar radiation onto a receiving tube. Inside the tube, a heat-absorbing fluid flows and reaches high temperatures. This fluid transfers the thermal energy to a heat exchanger, then is used to heat water into steam, which ultimately drives a turbine to generate electricity. Additionally, the plant uses the thermal energy storage technology that with a set of thermal storage tanks filled with molten salts, gives the plant the ability to generate electricity after the sunset or in transitory cloudy periods, in addition to the ability to adapt energy production to the peaks of demand.

Xina Solar One will produce the clean energy equivalent to that needed to power approximately 90,000 households, thus preventing the emission of 315,000 tCO₂ annually. Additionally, the construction, operation and maintenance of the plant will stimulate regional socio-economic development by creating numerous direct and indirect jobs, as well as a supply chain that will foster economic growth in the country. Xina Solar One's construction is expected to begin in 2014.

Xina Solar One was awarded to Abengoa in the third round of renewable energy projects organized by the Department of Energy of South Africa, which is part of the national strategy to introduce up to 17,800 MW of renewable energy by 2030 and thus reduce its dependence on oil and natural gas. Abengoa is currently building other two concentrating solar power (CSP) plants in South Africa, therefore granting a cleaner energy future for the country, in addition to boosting economic growth.

Abengoa currently has 1,223 MW in operation and 430 MW under construction, using both, concentrating solar power (CSP) and photovoltaic technology. It is the leading CSP company in the world and one of the few that employs both solar tower and parabolic trough plants.

Abengoa begins construction on two CSP plants awarded by the South Africa Department of Energy

November 6, 2012

- Khi Solar One and KaXu Solar One, will be the first concentrating solar power (CSP) plants in South Africa and will use advanced technology specifically developed for the country's needs.

- Both plants will be able to store energy and generate power after sunset.

Seville, November 6, 2012 - Abengoa, the international company that applies innovative technology solutions for sustainable development in the energy and environment sectors, announced today that it has begun construction on the 50 MW solar power tower Khi Solar One and the 100 MW parabolic trough plant KaXu Solar One in South Africa. The concentrating solar power (CSP) plants were two of the 28 renewable energy projects announced late 2011 by the South Africa Department of Energy (DOE). The DOE intends to bring 17,800 MW of renewable energy online by 2030.

Abengoa is partnering with the state-owned Industrial Development Corporation (IDC), South Africa's largest development finance institution, to create South Africa's clean energy future by allowing the country to reduce its dependence on fossil fuel for power generation, specifically coal. Abengoa, who will build, operate and maintain the plants, owns 51 % of the projects, the IDC holds 29 %, and the Black Economic Empowerment program maintains the remaining 20 %.

Both plants signed today long term power purchase agreements with Eskom, South Africa's power utility, and closed project finance agreements with a group of South African and international financial institutions.

Khi Solar One and KaXu Solar One, located in the Northern Cape Province near Upington and Pofadder respectively, will use advanced technology to provide South Africa with clean energy while creating local jobs and industry in the region. In addition to reducing the country's carbon dioxide emissions by about 498,000 tons each year, the construction of Khi Solar One and KaXu will create roughly 1400 local construction jobs on average per annum, peaking near 2000, and about 70 permanent operation jobs. Numerous direct and indirect jobs will also be created to fulfill the needs required by the plant and its construction.

Abengoa and the IDC are stimulating economic development in the area while building South Africa's solar industry. South Africa has one of the best solar resources in the world with great potential to be a leader in concentrating solar power generation.

Abengoa has developed proprietary technology to meet South Africa's needs and make solar an excellent solution. Both Khi Solar One and KaXu Solar One use the advanced dry cooling technology, which reduces water consumption compared to other CSP plants by approximately two thirds. The plants also have storage capacity of about two hours for Khi and three hours for KaXu, which can be used during transient periods and after sunset. CSP's ability to be dispatchable will be a great advantage for South Africa as it will permit the country to bring more intermittent technologies, such as photovoltaics and wind into their renewable energy mix.

Abengoa currently has 743 MW of installed solar capacity around the world and 910 MW under construction, and it is one of the few in the world that builds and operates both parabolic trough and tower CSP plants. Khi Solar One is Abengoa's third commercial solar power tower and its first outside of Spain. Proprietary innovative technology is developed at Abengoa's R&D Center, Solúcar, which is one of the most important solar R&D centers in the world.

Abengoa awarded two CSP projects by South Africa's Department of Energy

December 7, 2011

- 1,416 MW announced at COP17 included 150 MW for Abengoa's 100 MW parabolic trough plant and 50 MW solar power tower plant.
- Plants will bring economic benefits to the Northern Cape region while providing a clean energy resource.

Seville, Spain.- December 7, 2011- Abengoa (MCE: ABG), the international company that applies innovative technology solutions for sustainable development in the energy and environment sectors, has been awarded the first two CSP projects in the country by the South African Department of Energy. These two projects contribute to South Africa's goal to introduce up to 17,800 MW of renewable energy by 2030 and reduce its dependence on oil and natural gas.

The announcement made at the United Nations Climate Change Conference COP 17 in Durban listed Abengoa's Khi Solar One (50 MW) and KaXu Solar One (100MW) as the only CSP projects. South Africa has one of the best solar resources in the world and the development of these two projects presents an excellent opportunity to become a leader in CSP solar energy generation.

Abengoa's two solar power projects, will not only provide a clean energy future for South Africa, but will also bring economic development to the region. Abengoa will own 51 % of each of the projects, with the remaining 49 % held by the state-owned Industrial Development Corporation (IDC). The Industrial Development Corporation is South Africa's largest development finance institution and has helped build the industrial capacity that fuels the country's economic growth.

Manuel Sanchez, Abengoa's CEO, stated "being awarded these two new projects is the best proof of the ongoing advances in CSP technology as a result of the important investments in R&D programs that the sector and specifically Abengoa are making. CSP will play a key role in the twenty-first century energy mix as it is clean, dispatchable, renewable and able to be stored."

Khi Solar One (50 MW) will be Abengoa's third commercial solar tower and its first outside of Spain. This plant represents important technological advances in efficiency as it uses higher temperatures during the generation process and has more than double the capacity than the last tower Abengoa built in Andalusia. It comes as a result of the latest generation of solar tower technology using superheated steam, which was developed by Abengoa in its R&D centers. The plant will also use the technologically advanced dry cooling, which dramatically reduces water consumption by 80%. The tower plant will be located on a 600 ha site close to Upington, also in the Northern Cape Province. An average of 600 construction jobs will be created during the construction period and around 35

full-time plant operations employees. It will have 2 hours of thermal storage and will prevent approximately 183,000 tons of CO2 emissions per year.

KaXu Solar One, 100 MW parabolic trough plant will have storage capability for 3 hours, and will be located on a 1,100 ha site near the town of Pofadder in the Northern Cape Province. The plant will prevent 315,000 tonnes of CO2 emissions each year. About 800 jobs will be created during the construction period, with about 35 permanent plant operations jobs to follow. Around 200 direct and indirect full-time jobs per year will be created in the local community. This plant also uses the technologically advanced dry cooling system.

Abengoa's two CSP plants, deploying the newest, most efficient solar technologies, will be a part of the foundation for the future of South Africa's renewable energy growth, started by the 1,416 MWs awarded during this tender. The two plants will provide a dispatchable energy resource that will allow the deployment of more intermittent renewable sources to be used, such as wind and PV, thus increasing South Africa's clean energy sources.

Both projects represent a total investment of approximately 1 billion euros.

Abengoa is currently building 1,010 MW of solar plants all over the world, and with an additional 393 MW already operating, is the only company in the world building and operating both trough and power tower CSP plants. Construction on the South African concentrating solar projects is expected to begin in the second half of 2012, bringing the plants online in 2014.

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