

Peabody Honors Global Leadership In Clean Coal Technologies

ST. LOUIS, Dec. 5, 2017 /PRNewswire/ -- Peabody today recognized innovation in clean coal technologies among leading examples of coal-fueled generating plants from the United States, China, Japan and India with their Fourth Annual Peabody Global Clean Coal Leadership Awards. Presented at Power-Gen International 2017 in Las Vegas, the awards recognize the cleanest coal plants in the world and shine a light on the tremendous environmental progress being made to improve emissions through greater use of technology.

"Coal remains an essential part of the energy mix, and technology will continue to play an important role in meeting the world's emissions goals," said Peabody President and Chief Executive Officer Glenn Kellow. "Peabody has advocated clean coal technologies for two decades and we are proud to recognize companies that are advancing these technologies to help achieve energy security, economic progress and environmental solutions."

Honors are based on the best environmental performance for reducing key criteria emission rates and carbon dioxide (CO₂). Categories include leadership in reducing sulfur dioxide (SO₂) and nitrogen oxides (NO_x), and improving efficiency as measured by heat rate, which results in a lower carbon footprint. In addition, Peabody recognized a new coal plant and an industry pioneer advancing carbon capture and storage technologies. A distinguished panel of international experts in high-efficiency, low-emissions (HELE) and carbon capture technologies selected the award recipients following a comprehensive review process.

"Each of these recipients we find to be deserving of the awards as they are advancing projects that exemplify leadership in clean coal technologies," said Dr. Andrew Minchener OBE, General Manager - International Energy Agency Clean Coal Centre, who was among the panel of judges. Other judges included Kipp Coddington, Director – Energy Policy and Economics, School of Energy Resources, University of Wyoming; Carl Bozzuto – independent consultant for the Electric Power Research Institute and Global Carbon Capture and Storage Institute among others; and Dr. Holly Krutka, Vice President - Coal Generation and Emissions Technologies, Peabody.

The award honorees included:

- **Dynegy's Duck Creek Power Station** Honored for SO₂ Leadership and Performance. The 425-megawatt Duck Creek plant operates in Canton, Ill., and virtually eliminated SO₂ emissions. The SO₂ achievement is attributed to the wet flue-gas desulfurization technology paired with low-sulfur Powder River Basin coal.
- **Shenergy Company Limited's Shanghai Waigaoqiao No. 3 Power Generation Co., LTD** Honored for NO_x Leadership and Performance and Heat Rate Leadership and Performance. The 2,000-megawatt (2 units x 1,000 megawatt) Waigaoqiao No. 3 Power Generation plant located in Shanghai has one of the lowest global NO_x emissions profiles at 0.11 pounds per megawatt hour. The power plant's heat rate of 8,141 Btu per kilowatt hour is among the best in the world. Waigaoqiao No. 3 was designed to achieve high-efficiency operation and the plant's operators have made retrofit improvements to further boost the annual average net efficiency to as high as 44.5 percent, lower heating value (LHV).
- **Kyushu Electric Power Company Inc.'s Matsuura Power Station No. 2** Honored for New Coal Plant Leadership and Innovation. The 1,000-megawatt ultra-supercritical plant located in Matsuura, Japan, is currently under construction and expected to come on line in 2019. It is designed to have an efficiency of over 45 percent, LHV, which will make it one of the most efficient coal-fueled power plants in the world, reducing CO₂ and regulated emissions.
- **U.S. Department of Energy's National Carbon Capture Center, managed and operated by Southern Company:** Honored as Carbon Capture and Storage Pioneer. The National Carbon Capture Center in Wilsonville, Ala., is a world-class neutral test facility working to advance technologies to reduce greenhouse gas emissions from coal- and natural gas-based power plants. The center works with third-party technology developers to bridge the gap between laboratory research and large-scale demonstrations. In addition, the National Carbon Capture Center chairs the International Test Center Network to accelerate research, development and deployment of carbon capture technologies.

Nabha Power Limited, a wholly owned subsidiary of Larsen & Toubro, was also recognized as an honorable mention in the Heat Rate Leadership and Performance category. The 1,400-megawatt power plant in Rajpura, Punjab is among the most efficient supercritical plants in India, and last year notably achieved its lowest auxiliary power consumption of 5.2 percent at 77 percent plant load. In addition, the plant implemented a number of environmental controls, including Mitsubishi Advanced Combustion Technology burners for NO_x emissions reduction, 100 percent washed coal, a zero-water discharge system and utilization of 100 percent of its dry fly ash on a sustainable basis.

HELE coal-fueled generation, available today, includes multiple technologies capable of reducing the vast majority of SO₂, NO_x, particulate matter, mercury and other emissions. Advanced HELE technologies result in a smaller environmental footprint, achieving as much as a 25 percent reduction in a plant's CO₂ emissions rate. Longer-term investments in next-generation carbon

capture technologies are necessary to transition to the ultimate goal of near-zero emissions from coal-fueled power.

The Peabody Global Clean Coal Leadership Awards program was established in 2014 to showcase coal-fueled power plants for top environmental performance, highlight innovative leadership and improve education about the benefits of clean coal technologies.

Peabody is the world's largest private-sector coal company. The company is also a leading voice in advocating for sustainable mining, energy access and clean coal technologies. Peabody serves metallurgical and thermal coal customers in more than 25 countries on five continents. For further information, visit PeabodyEnergy.com.

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