

Toshiba Energy Systems & Solutions Corporation Toshiba JSW Turbine and Generator Pvt. Ltd December 11, 2017

Toshiba Turbine Shipments Reach Milestone of 200,000MW

Kawasaki, Japan/ Chennai, India—Toshiba Energy Systems & Solutions Corporation (Toshiba ESS) and Toshiba JSW Turbine and Generator Pvt. Ltd. (Toshiba JSW) today announced reaching a major milestone in its power systems business: the shipment of turbines with a cumulative of 200,000 megawatts output capacity.

"The total represents the achievements of Keihin Product Operations, Toshiba ESS's long-standing main manufacturing base in Yokohama, Japan, and of its only manufacturing facility outside of Japan, Chennai-based Toshiba JSW. The new record was established by shipping a 600MW ultra-supercritical steam turbine from Keihin to Doosan Heavy Industries & Construction Co., Ltd., the main contractor, for EVN Vinh Tan 4 Thermal Power Plant extension project in Vietnam."

Commenting on the record, Mr. Toru Shibagaki, General Manager of Keihin Product Operations, said: "I'm very proud of this achievement. Our highly efficient turbines and generators support us in providing total energy solutions that contribute to the realization of a low-carbon society and stable electricity supply. Our next target is 300,000MW and beyond."

Expressing his delight on achieving this milestone, **Mr. Yoshiaki Inayama**, **Managing Director**, **Toshiba JSW** stated, "We established as our manufacturing hub and export base for thermal power equipment in India with an aim to become World's No. 1 EMPCS (Engineering, Manufacturing, Procurement, Construction and Services) company. We are perfectly matched to meet the demand from India and the neighboring countries, the Middle East and African countries."

Toshiba manufactured its first turbine in 1927, a 23 kW machine. Other achievements along the way to today's record include the 1966 supply of turbine for Matsukawa geothermal power station, Japan's first geothermal power plant, and the 1987 development of the world's very first ultra-supercritical steam turbines, which were installed in Chubu Electric Power Company's Kawagoe Thermal Power Plant Units 1 and 2.

In 2009, Toshiba integrated the thermal power engineering functions of Toshiba India Pvt. Ltd. into Toshiba JSW Turbine and Generator Pvt. Ltd., a manufacturer of turbines and generators

based in Chennai, in India's Tamil Nadu state. The company, which then became Toshiba JSW Power Systems Private Limited in January 2014, delivers full EPC solutions for thermal power plants, and is drawing on these comprehensive capabilities to expand its business in India and the surrounding region. Toshiba JSW shipped the first "Made-in-India" super-critical steam turbine rotor from Chennai in August 2015.

Milestones to 200,000MW

- 1927 Toshiba manufactures its first turbine (23kW)
- 1929 Manufactures an all domestically manufactured steam turbine, the Japan's biggest output—7,500kW
- 1966 Delivers Japan's first ever geothermal power turbine for Matsukawa geothermal power station
- 1979 Delivers turbine for Tokyo Electric Power Company's Fukushima Dai-ni Nuclear Power Station Unit 1.
- 1987 World's first ultra-supercritical steam turbines manufactured for Chubu Electric Power Company's Kawagoe Thermal Power Plant Unit 1 and 2 of
- 1997 Turbine shipments reach a cumulative 100,000MW
- 2016 Cumulative North America deliveries for thermal power steam turbines and generators reach 100 units Delivers the 100th steam turbine for North American Market to be installed at TVA Allen combined cycle power plant, also contributing No.1 share(*) (capacity based) in North American STG Market (accumulated recent 10 years: 2007-2016)
- 2017 Turbine shipments reach a cumulative 200,000MW

About Keihin Product Operations

Established: August 1925

General Manager: Toru Shibagaki

Location: 2-4, Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa

Main Products: Thermal, hydro, nuclear, renewable, new energy generation systems, and

Heavy-ion Radiotherapy System

About Chennai Factory of Toshiba JSW Power Systems Private Limited

Established: September 2008

Managing Director: Yoshiaki Inayama Location: Chennai, Tamil Nadu, India

Main Products: Steam turbine and generator