Triveni TURBINES

Industry Case Study

Biomass IPP

Case Study:

Biomass based power plant in Turkey

The project is driven by a 16 MW Condensing Steam Turbine with an inlet steam parameter of 42 Bar and 450 Deg C with 0.1 Bar Exhaust

Challenge: Fluctuations in the accessibility of biomass fuel sources such as forest waste, paddy waste, canola stalks, sunflower stalks, and sweet corn stalks create challenges for daily operations. The inconsistent supply of fuel inputs directly impacts operational stability. This, in turn, has a cascading effect on the load of the boiler and subsequently influences the performance of the steam turbine.

Solution: The turbine's internal components, including the rotor and blades, along with the turbine controls, have been meticulously engineered to function efficiently and require minimal maintenance, even when operating at lower loads. The Steam Turbine Generator (STG) was delivered within an unprecedented timeframe of 7 months, and its installation and commissioning were successfully executed within a mere 35 days, even amidst the challenges posed by the pandemic conditions.

Benefits: The customer now possesses the capability to operate the power plant under diverse fuel conditions, enabled by the option to occasionally overload the steam turbine generator set.

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Thank you.