



SEI MANGKEI POWER PLANT

Location: Perdagangan, North Sumatra, Indonesia

Project Overview



Industry

Palm Oil Mill

Application

Biomass Power Plant

Technology Applied

2 Elliott Steam Turbines with synchronous generators

Capacity

2 x 3,500 kW

“The priority of the Indonesian energy policy is to reduce oil consumption and to use renewable energy.”¹

“Due to its low chlorine content, shredded EFB fiber is a safe and sustainable bio-fuel resource to replace petroleum, gas and coal.”²

~ Quotes from BioEnergy Consult¹ and “Utilization of Palm Empty Fruit Bunch as Solid Fuel for Steam Boilers,”² published by ID Publications.

Background:

State-owned energy company PT Perkebunan Nusantara III (PTPN III), owner of two palm oil mills in the Sei Mangkei Industrial Estate, built a biomass power plant that uses the empty fruit bunches (EFB) as fuel to power the boiler. The plant generates 7000 kW of low-cost, clean, renewable electricity, enough to power the entire Sei Mangkei Industrial Estate.

Challenge:

To develop a flexible energy power plant that meets governmental environmental policies and provides reliable, low-cost, renewable energy to end-users.

Result:

Elliott provided two 3,500 kW full condensing steam turbine generator sets that use the steam generated from the biomass boiler.

Benefits:

- Replaced fossil fuel power with biomass power generation
- Clean, renewable energy
- Flexible energy power plant
- Lower-cost energy
- Meets environmental guidelines



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