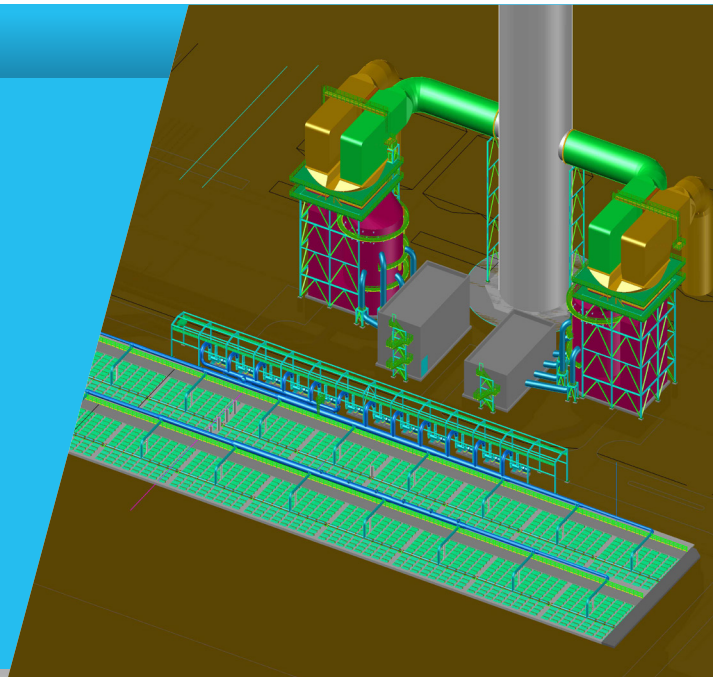


PROJECT PROFILE: Seawater FGD, Vietnam

# Vinh Tan 1

## Seawater flue gas desulphurisation



Doosan Lentjes is delivering seawater flue gas desulphurisation (SWFGD) technology, including the engineering and delivery of key FGD equipment, along with advisory services for erection and commissioning for the newly built 2 x 620 MW<sub>e</sub> coal-fired Vinh Tan1 power plant, located in Vietnam.

### DELIVERABLES

- Engineering and delivery of key FGD equipment such as
  - Spray nozzles and spray banks
  - Mist eliminators
  - Seawater pumps
  - Aeration elements
  - Aeration blowers
  - DCS system for FGD
- Advisory services for erection and commissioning

### CHALLENGES

- Enhancement of the aeration system in regard to limited footprint and high standard of seawater discharge quality

### BENEFITS

- Full compliance with all governmental emission directives
- The FGD system can be flexibly adopted to various load conditions regarding the flue gas flow and sulphur contents

# Proven FGD solution delivering on all environmental goals

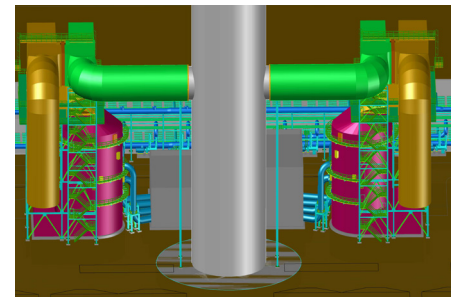
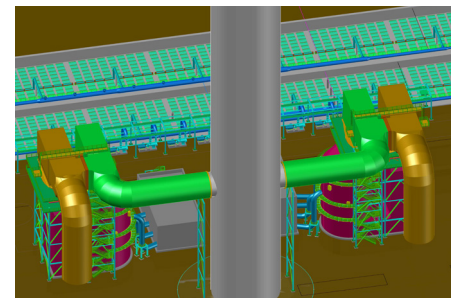
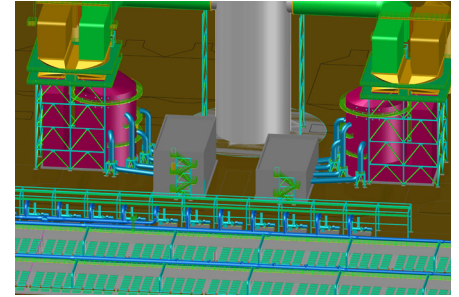
The new 2 x 620 MW<sub>e</sub> coal-fired power plant Vinh Tan1 – currently under construction – is located in Vinh Tan, a major industrial area in Vietnam.

In 2015, Doosan Lentjes was subcontracted by Guangdong Electric Power Design Institute Co. Ltd (GEDI), the main contractor, to provide its proven seawater flue gas desulphurisation technology in order to ensure a full compliance with all governmental emission directives by reducing the sulphur dioxide rates to a legally approved minimum.

Doosan Lentjes' supply includes the engineering as well as delivery of key FGD

equipment such as spray nozzles, spray banks and other internals for the absorbers, seawater pumps, aeration elements for the aeration basin, aeration blowers as well as the DCS system for FGD. The FGD solution is provided along with advisory services for erection and commissioning.

With this current SWFGD project being the second contract awarded to Doosan Lentjes within the Vinh Tan area in the last six month, the company continues to provide proven FGD technology delivering on all the environmental standards.



## Key Project Data

<b>Customer</b>	Vietnam National Coal - Mineral Industries Holding Corporation Limited
<b>Location of power station</b>	Vinh Tan, Vietnam
<b>Award date</b>	2015
<b>Main fuel</b>	Hard coal
<b>Gross power generation</b>	2 x 620 MW <sub>e</sub>
<b>DeSO<sub>x</sub> technology</b>	Seawater FGD
<b>Number of DeSO<sub>x</sub> lines</b>	2
<b>Flue gas flow rate</b>	2,205,000 Nm <sup>3</sup> /h (wet)
<b>Maximum S content in fuel</b>	0.75%
<b>Guaranteed emission data</b>	
SO <sub>2</sub> removal efficiency	90%
Max. SO <sub>x</sub> concentration at stack outlet	144 mg/ Nm <sup>3</sup> at 6 vol. % O <sub>2</sub>



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Doosan Lentjes is a global provider of processes and technologies for energy production from renewable and fossil fuels. Our specific areas of expertise include circulating fluidised bed boilers, key technology for the generation of energy from waste, and flue gas cleaning systems. We have been pioneering energy solutions for 90 years and convert over 9 million tonnes of waste into energy each year.

Doosan Lentjes is part of a powerful combination of companies united under the Doosan Group to deliver complementary technologies, skills and value to customers the world over.

Doosan Babcock

Doosan Lentjes

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