



Narva power plants, Eesti Energia, Estonia NOx reduction installations during 2013–2015

Fortum eNext reduced NOx emissions at Eesti Energia's power plants in Narva by 50%

Fortum eNext supplied low-NOx technology to Eesti Energia, to enable them to meet the European Union's NOx emission limit of 200 mg/Nm³ that came to effect on January 1st 2016. Fortum's delivery contained low-NOx technology installations for Narva power plants' four units and eight boilers in total. Located near the city of Narva in Eastern Estonia, the Narva plants (Narva Elektrijaamad) consist of two of the world's biggest oil shale fired power plants, responsible for over 90% of Estonia's total electricity production.

Fortum eNext delivery

- Modification of 4 units with 8 boilers
- New OFA system and wall corrosion protection system
- Low-NOx combustion system control
- One boiler delivered with SNCR system, the rest with primary methods only
- Warranty value for NOx < 200 mg/Nm³, actual daily average < 180 mg/Nm³

Customer gains

- Meeting EU's environmental regulation
- NOx reduction with primary methods brought emission levels down to 180 mg/Nm³
- Extremely small increase in operational costs
- No need for secondary NOx reduction methods for majority of the boilers

FACTS

- Customer: Eesti Energia, Estonia's biggest energy company
- Oil shale-fired combusting power plants in Narva, Estonia
- 8 units (320 t/h) with two boilers and one steam turbine, and electric output of 200 MW each
- Low-NOx system for boiler 3A installed in 2013. After successful delivery the customer ordered similar deliveries to the remaining 7 boilers, installations were done during years 2014–2015.

"We chose Fortum's low-NOx solution as a result of a European-wide bidding competition. Fortum's clear strengths were its broad and long international experience in combustion technologies. Now we can continue energy production at the power plants also after the EU's new emissions norms have taken effect."

Raine Pajo, Member of the Eesti Energia Management Board