

Oil shale power generation developments in Estonia

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One of the major drivers for the development of mainly fossil fuels based power generation capacities is the continuously toughening environmental regulations. Following are the examples of how Estonian oil shale based power generation has been developed to meet regulatory requirements and ensure the security of the country's supply of domestic solid fuels. On March 2009, Eesti Energia Narva Elektriijaamad AS (EE NEJ AS) awarded Alstom a contract to supply and install the complete NIDTM flue gas desulphurisation systems (DeSOx) on four 200 MWe blocks at Eesti Power Plant to reduce SO₂ emissions and to comply with EU regulations. In summer 2011 EE NEJ AS continued the developments by starting the project to install DeNOx systems to the same previously mentioned energy blocks to reach the full compliance with EU regulations. Both DeSOx and DeNOx will be uniquely designed and specifically customized for oil shale. In parallel to retrofitting the existing capacities, Eesti Energia (internationally known as Enefit) is building new oil shale based power generation capacities. On the 14th of January 2010, a contract was signed with the Alstom Consortium to build up to two energy blocks 300 MWe. New CFB based energy blocks customized specifically for oil shale will have higher efficiency (38.5%), lower emissions and higher flexibility to simultaneously burn different complementary fuels, such as biomass, milled peat etc. The planned construction period is approximately 5 years.