

Prospects of modern coal-fired power plants

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Introduction

Western Balkans region (BIH, SRB, KOS*, MKD, MNE, ALB)

Major underinvestment in the power sector over previous 30 yrs.

Based on 2012-2018 figures:

- Average annual electricity consumption 70 TWh
- Average annual electricity production of 69.3 TWh
- Cumulative net import of 5.2 TWh

60% of production from coal fired power plants.

Existing fleet of coal-fired plants commissioned from 1965-1991 (exc. Stanari).

Stanari project

Project developed under a Build-Operate-Transfer concession model.

Development of Stanari coal mine to annual production of 2.5 million tons (2017).

300 MW TPP Stanari constructed adjacent to the mine – COD in Nov 2016.

Total project capex EUR 540 MM – project financing.

	2017 & 2018
Average annual production (MWh)	2,048,000
Energy availability (%)	86.25
SO ₂ / NO _x / Dust emissions (mg/Nm ³)	195 / 170 / 6.7

Stanari project



Stanari project

Win-win:

- Direct employment - 830 & indirect employment
- No subsidies from the government
- Concession fees, taxes to the state and municipality (EUR 83 MM since 2005; EUR 14 MM in 2018 only)
- Stanari municipality - highest average salary in RS, low unemployment rate, infrastructure development

- Optimized O&M process - competitive cost of production
- Profits to the owner

CO₂ cost

Would existing coal plants go bankrupt due to introduction of CO₂ costs?

Correlation of CO₂ costs with electricity market prices - 2016 vs 2018.

Competitive advantage of modern plants:

- Higher efficiency
- Higher reliability
- Lower cost of production.

Major impact to final consumers (industries, general population).

Developing countries – sustainable development.

EU accession process – method of implementing CO₂ taxes – transition period – minimize adverse impact to development.

Future of WB power sector

Continuous economic and power demand growth.

Renewables:

- Hydro – limited potential
- Solar & wind – large potential driven by cost & technology improvements.

Thermal:

- Decommissioning and refurbishment of existing plants
- Development of modern replacement units.

Energy generation mix: increase of the share of renewables & decrease of the share of thermal.

Modern coal-fired power plants:

- reliable technology, compliant with EU directives
- integrated with coal mines,
remain competitive with sizeable market share.

Thank you!