



## NAMA Seeking Support for Implementation

A.1 Party	The Republic of Serbia		
A.2 Title of Mitigation Action	Thermal Power Project with Capacity and Efficiency Increase II - TTP Nikola Tesla – Unit A3		
A.3 Description of mitigation action	Restoration and modernization of a lignite thermal power plant with capacity increase of 30 MW. Adopted technologies are rehabilitation and modernization of the steam turbine, condensing plant and cooling system unit, boiler and auxiliary equipment (e.g., low/high pressure feed water heaters), as well as revitalization and improvement of the firing system and the combustion process by introducing "Low NOx" burners and increasing the efficiency of the old thermal units.		
A.4 Sector	<input checked="" type="checkbox"/> Energy supply	<input type="checkbox"/> Transport and its Infrastructure	
	<input type="checkbox"/> Residential and Commercial buildings	<input type="checkbox"/> Industry	
	<input type="checkbox"/> Agriculture	<input type="checkbox"/> Forestry	
	<input type="checkbox"/> Waste management		
A.5 Technology	<input type="checkbox"/> Bioenergy	<input type="checkbox"/> Cleaner Fuels	
	<input checked="" type="checkbox"/> Energy Efficiency	<input type="checkbox"/> Geothermal energy	
	<input type="checkbox"/> Hydropower	<input type="checkbox"/> Solar energy	
	<input type="checkbox"/> Wind energy	<input type="checkbox"/> Ocean energy	
	<input type="checkbox"/> Carbon Capture and Storage	<input type="checkbox"/> Other <Pls enter Other text here>	
A.6 Type of action	<input checked="" type="checkbox"/> National/ Sectoral goal		
	<input checked="" type="checkbox"/> Strategy		
	<input checked="" type="checkbox"/> National/Sectoral policy or program		
	<input type="checkbox"/> Project: Investment in machinery		
	<input checked="" type="checkbox"/> Project: Investment in infrastructure		
	<input type="checkbox"/> Other: <Pls enter Other text here>		

### B National Implementing Entity

B.1 Name	Public Enterprise Electric Power Industry of Serbia
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B.4.1 Contact Person	Dragan Vukotic
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C. Expected timeframe for the implementation of the mitigation action	
C.1 Number of years for completion	2
C.2 Expected start year of implementation	2013
D.1 Used Currency	EURO
E Cost	
E.1 Estimated full cost of implementation	47,000,000.00
E.2 Estimated incremental cost of implementation	n/a
F Support required for the implementation of the mitigation action	
F.1.1 Amount of financial support	47,000,000.00
F.1.2 Type of required financial support	
<input type="checkbox"/> Loan (sovereign)	<input type="checkbox"/> Loan (Private)
<input checked="" type="checkbox"/> Concessional loan	<input type="checkbox"/> Debt Swap
<input checked="" type="checkbox"/> Grant	<input type="checkbox"/> Equity
<input type="checkbox"/> Guarantee	<input checked="" type="checkbox"/> Carbon finance
<input type="checkbox"/> FDI	<input type="checkbox"/> Others:<Pls enter Other text here>
F.1.3 Comments on Financial Support	EPS is open for various solutions regarding the finance of the project as stated in F.1.2.
F.2.1 Amount of Technological Support	0.00
F.2.2 Comments on Technological Support	<Pls enter Comments here>
F.3.1 Amount of capacity building support	0.00 <input type="checkbox"/> \$ (Dollars) <input type="checkbox"/> man/hours
F.3.2 Type of required capacity building support	<input type="checkbox"/> Institutional development <input type="checkbox"/> Human capital <input type="checkbox"/> Systemic (policies, legislative, regulatory, etc)
F.3.3 Comments on Capacity Building Support	
G Estimated emission reductions	
G.1 Amount	1.40
G.2 Unit	MtCO2e



G.3 Comments Estimation is calculated based on 15 years of technical life time of instalation after the reconstruction.

H.1 Other indicators of implementation Idea Design and Feasibility Study is under development

I.1 Other relevant information including benefits for local sustainable development

Implementation of the NAMA is meeting majority of the Sustainable Development Indicators in accordance with tree criterion indicated in appendix of the Serbian DNA Rules of procedure.

According to the economic criterion, it satisfies following fields:

1. Economic development of the region - Reconstruction of the TPP Nikola Tesla A3 will improve existing infrastructure; it also contributes to the power system stability and supply security, which consequently have effect on the stability of the prices for electric energy.
2. Employment - Reconstruction of the TPP Nikola Tesla A3 will provide work for many domestic companies.
3. Priorities of the sector - Power generation at the TPP Nikola Tesla A3 will contribute to the power system stability and supply security, which represent one of the priorities in the energy sector.
4. Consumption and generation - Power generation at the reconstructed power plant will reduce need for electricity import, and its modern concept will reduce waste production per unit of generated energy as well as waste management in ecology acceptable manner.

According to the social criterion, it satisfies following fields:

1. Life conditions improvement - Project implementation of such scope, lead up to the employment increase, as well as income increase, on the local and regional level.
2. Capacity increase - According to the work needs and modern equipment maintenance, strategic partner will provide training for the employees, as well as expertise and tools for local companies engaged on this implementation of the project during its operational life.

According to the environment and natural resources criterions, it satisfies following fields:

1. Energy resources – Generation of TPP Nikola Tesla A3 will, due to the higher energy efficiency of the plant, reduce coal consumption for power generation, and significantly reduce need for electricity import.
2. Air - Due to the application of the modern technology and higher energy efficiency of the plant, project will result in reduced emission levels of CO<sub>2</sub>, SO<sub>x</sub> and NO<sub>x</sub>, comparing to the existing thermo power plants in Serbia.
3. Water - Contribution to the sustainable water use would be the application of measures for water treatment of all water quantities used in the technological process of electricity generation.



6. Natural resources - Modern concept of the unit TPP Nikola Tesla A3 will significantly contribute to the sustainable use of mineral resources, because energy efficiency of primary energy transformation ( $\approx 34\%$ ) will be significantly higher than existing thermal power plants in Serbia. Exploitation life of domestic lignite deposits is extended that way.

#### J Links to National Policies and other NAMAs

J.1 Relevant National Policies <http://www.merz.gov.rs/en> ;  
<http://192.168.16.144/Eng/Article.aspx?lista=Sitemap&id=14>