Cabinet of the Minister

To: Ms. Snežana Bogosavljević BOŠKOVIĆ, Minister
Ministry of Agriculture and Environmental Protection, Republic of Serbia

Ref: planned construction of a new lignite power plant at Kostolac and the expansion of lignite pit at Drmno, both projects being located in north-eastern Serbia, by the River Danube, close to the border with Romania.

Dear Ms. Minister,

First, we want to reaffirm Romania’s appreciation and desire to continue good relations with Serbia, especially on transboundary cooperation plans and programs, in which special attention was paid to environmental issues in the interest of both countries.

At the same time, please note that Romania is informed of the intention of Serbia to start the projects of building a new production unit of 350 MW at the power plant based on lignite Kostolac B and the expansion of lignite pit at Drmno, both projects located in the north-eastern Serbia, by the River Danube, close to the border with Romania.

Since these types of projects are listed in Annex I, paragraph 2 and 14, respectively, of the Convention on Environmental Impact Assessment in a Transboundary Context adopted in Espoo on 25 February 1991, and taking into consideration a possible significant adverse transboundary environmental impact, Romania wishes to be notified by Serbia, in accordance with article 3 of the Espoo Convention, in relation to these projects.

On this occasion, I express my willingness to continue the fruitful cooperation and please accept, Ms. Minister, the assurance of my highest consideration.

MINISTER

Grățiea Leocadia GAVRILESCU
From: The Republic of Serbia, Ministry of Agriculture and Environmental Protection, Cabinet of the Minister

To: Mrs. Gratiela Leocadia Gavrilescu, Minister of Environment, Waters and Forests, Romania

Ref. Response to the letter addressed by H.E. Mrs. Gratiela Leocadia Gavrilescu, Minister of Environment, Waters and Forests of Romania, conveyed through the Embassy of Romania in the Republic of Serbia – No. 528 dated 1st April 2015, concerning the planned construction of a new lignite power plant block in Kostolac and the expansion of lignite pit at Drmno,

Dear Madam Minister,

I welcome the expressed desire and determination on your part to continue good neighbourly relations and transboundary cooperation plans and programs in the field of environmental protection in the interest of both countries.

Hereby we would like to confirm that a location around the existing thermal power plant Kostolac is planned for construction of the new block B3 of 350 MW, which is in accordance with the Spatial Plan of the Republic of Serbia and the Energy Development Strategy of the Republic of Serbia by 2025, with projections of the impact on environment by 2030. The new thermal block is planned to be built on the right bank of river Danube at a distance of 5 km, and 19 km air distance from the Romanian border.

It is envisaged that the thermal power plant (TPP) will use coal-lignite of 7,240 kJ/kg energy value, from the existing pit Drmno and that its annual consumption would be 3,300,000 tons. The project construction activities have not started because the process of obtaining relevant permits and approvals has not been finished yet.

In the period between October 2013 and December 2013 the competent authority conducted an environmental impact assessment procedure for the concerned project, which included:

- a decision on defining the scope and content of the Environmental Impact Assessment Study (17th May 2013)
- a decision on approval for the Environmental Impact Assessment Study (30th December 2013)

We particularly emphasize that the expansion of the lignite pit Drmno was not included in the above mentioned EIA Study for the construction of thermal block B3. The expansion of the lignite pit Drmno is a separate project requiring permit and approval procedures to be conducted in accordance with appropriate regulations, separately from the concerned project which refers solely to the construction of thermal block B3.

During the procedure all competent authorities and the public received relevant information through the media and website of the competent authority. The public and relevant stakeholders delivered their comments either during public consultation or in writing. The representatives of local government and non-governmental organizations were particularly active, and received feedback on the process of decision-making regarding the approval of the Study and acceptance of comments that were later incorporated into a revised Study.

The Republic of Serbia, which ratified the Espoo Convention, did not apply provisions of that Convention in case of the concerned project. Thermal power plant projects are included in the Annex to the Convention, but in this case we are not talking about constructing a new thermal power plant with all accompanying technical-technological segments constituting one whole, but of installing a new block within the existing thermal power plant Kostolac B whose blocks have been operating since 1987 and 1991. The concerned plant design matches contemporary standards of environmental protection, the LCP and IE Directives, as well as:
IPPC – Best Available Techniques Reference Document (BREF) for Large Combustion Plants, July 2006;
IPPC – BREF for Energy Efficiency, February 2009;
IPPC – BREF for General Principles of Monitoring, July 2003;

This will all contribute to raising the efficiency of the existing power plant, which includes the reduction of air, water and soil pollution. The EIA procedure was completed in accordance with the national law through the adoption of a Decision on approval for the EIA Study for the construction of Block B3 within TPP “Kostolac B”, at the end of December 2013.

After reviewing the documentation and publishing the Decision, NGO filed an appeal to the Administrative Court based on a claim of incomplete implementation of procedure and non-compliance with provisions of the Convention on Environmental Impact Assessment in a Transboundary Context, i.e. claiming that the competent authority had not informed the neighboring countries in this case Romania, where a transboundary impact of the project could take place, during the decision-making process.

The proceedings before the Administrative Court of the Republic of Serbia is in progress. In accordance with the decision made by the Administrative Court, the authority in charge of the EIA procedure will repeat the EIA procedure (or certain part of it depending on the nature of the Administrative Court’s decision) and will send to you, in line with Article 3 of the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) a notification for the project of constructing thermal block B3 in Kostolac while
fully adhering to the time frame provided for in the national legislation and the Espoo Convention.

All the above mentioned information were communicated to the Espoo Convention Implementation Committee.

Sincerely,

MINISTER

Snežana BogosaVljević Bosković, PhD
Ministry of Environment, Waters and Forests of Romania
Minister
Mrs. Cristiana Pașca – Palmer

Dear Minister,

In accordance with art. 3 of the Convention on Environmental Impact Assessment in transboundary context (ESPOO), we hereby notify you that Serbia intends to develop “the project for the construction of new Block B3 at Thermal Power Plant (TPP) Kostolac B, on cadastral parcel 303, Cadaster Municipality (CM) Kostolac-Selo, on the territory of the city of Požarevac.”

We are enclosing the Notification to an affected Party of a proposed activity as required by article 3 and by Decision 1/4 of the Espoo Convention.

Would you be so kind as to notify us as soon as possible but no later than 4 weeks from the day of the receipt of this notification, if Romania would like to participate in the EIA procedure for the project of construction the new Block B3 at Thermal Power Plant (TPP) Kostolac B, on cadastral parcel 303, Cadaster Municipality (CM) Kostolac-Selo, on the territory of the city of Požarevac.”

In the case that your decision is to participate in the procedure, please send the response to the notification, including information on the potentially affected environment, on the activities within the potential affected region etc., in the format required by Decision 1/4 of the Parties to the Espoo Convention.

We look forward to accessible cooperation between our two ministries.

Yours sincerely,

[Signature]
Professor Snežana Bogosavljević-Bošković, Ph.D
NOTIFICATION TO AN AFFECTED PARTY OF A PROPOSED ACTIVITY UNDER ARTICLE 3 OF THE CONVENTION

1. INFORMATION ON THE PROPOSED ACTIVITY

   (i) Information on the nature of the proposed activity

<table>
<thead>
<tr>
<th>Type of the activity proposed</th>
<th>Construction of the new thermal power plant unit on the location of TPP Kostolac B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the proposed activity listed in Appendix I to the Convention?</td>
<td>Yes, under Paragraph 2 &quot;Thermal power stations and other combustion installations with a heat output of 300 megawatts or more....&quot;</td>
</tr>
<tr>
<td>Scope of proposed activity (e.g. main activity and any/all peripheral activities requiring assessment)</td>
<td>Construction of the new thermal power unit, including Main Power Generation Island (including systems for fly gas cleaning and discharge) with all associated sub-systems (Balance of Plant), as well as systems for common fly ash, bottom ash and gypsum suspension final disposal.</td>
</tr>
<tr>
<td>Scale of proposed activity (e.g. size, production capacity, etc.)</td>
<td>The power output of the unit is 350 MW electrical (gross)</td>
</tr>
<tr>
<td>Description of proposed activity (e.g. technology used)</td>
<td>Boiler plant of Unit B3 includes boiler with related equipment and auxiliary systems and devices to allow normal operation of the boiler from fuel intake to the flue gas discharge, as well as from the feed water inlet to the fresh and reheated steam outlet. The steam boiler is a once-through, tower type, fired by a pulverized lignite with steam reheating. It belongs to a group of boilers with the supercritical parameters. The boiler structure is suspended, having the entire load transferred through the structural steel columns on the boiler foundation. The boiler is equipped with a three-stage live steam superheater, an economizer, membrane walls, two-stage reheater and two rotary air heaters.</td>
</tr>
</tbody>
</table>
Boiler is a one-pass type. Boiler structure is adapted to pulverized coal combustion with applied primary measures for nitrogen oxides emission reduction, by installing the Low-NOₓ burners and by introducing the tertiary air in the zone above the pulverized coal burners – OFA combustion. Firing is performed with pulverized coal by means of eight tangentially arranged burners. Two burners are placed on each side of the furnace. For start-up and fire stabilization purposes the fuel oil burners shall be installed.

Boiler plant is equipped with eight fan mills. In each of the mills, where two simultaneous processes are taking place, grinding and drying, the coal is, additionally, intensively dried until the appropriate moisture and grinding fineness is achieved. Pulverized coal is then conveyed into the burners, together with the transporting fluid via air mixture ducts.

Turbine unit consists of condensing steam turbine (supercritical parameters) with eight unregulated steam extractions, condenser and regenerative heating system for condensate and feed water. Regenerative heating system includes four LP regenerative heaters of condensate, feed water tank with deaerator and three regenerative HP feed water heaters, two main condensate pumps (2x100%) and three makeup water pumps with electric motor and hydraulic couplings (3x50%).

Turbine unit shall also include a vacuum maintenance system in condenser, by means of two vacuum pumps (2x100%), and a condensate polishing system enabled during Unit operation.

Steam turbine is three-cylinder type, with once-through HP and MP cylinders, placed in a common outer casing, and a double-flow LP cylinder in a separate casing. Live steam inlet into HP turbine is provided by means of two combined stop and control valves (placed in a common casing). Admission of reheated steam into MP turbine is enabled through the two stop and two control valves (placed in a common casing). The steam from the MP turbine is introduced in the LP turbine through an overflow pipe. LP turbine shaft is directly coupled with the generator rotor. A separate system to supply the turbine with gland steam shall also be provided.

Unit generator will be synchronous generator with 350MW, 50Hz, 22kV, 0.85PF (lagging) and static excitation. Insulation class is F and temperature rise limit is class B. The generator will be totally enclosed, with horizontal shaft, stator wind of water cooling type while the rotor winding and stator core will be of hydrogen cooling type.
The generator is three phase non-salient pole synchronous generator, including stator, rotor, end shield and the bearing, hydrogen cooler, oil seal, sole plate, brush holder, sound-proof house etc.

Flue gases are coal combustion products and present gaseous waste. Due to high content of pollutants comparing to regulation requirements, before discharge to the atmosphere, fly gases should be cleaned by appropriate measures and systems application, including:

- Primary measures for nitrogen oxides emission reduction
- Electrostatic precipitators (dry and wet) for flue gas de-dusting
- Flue gas desulphurization for sulphur dioxide emission reduction.

Emission limit values criteria definition have been done in line with EU Directive 2010/75/EU (Directive on Industrial Emissions, Annex V, Part 2) and national By-law on emission limit values into the air from combustion plants (Off. Gazette RS No. 6/2016). The following limit values are adopted as design parameters for air emission control mitigation measures:

- Sulphur dioxide \(150 \text{ mg/m}^3\)
- Nitrogen dioxide \(200 \text{ mg/m}^3\)
- Particulate matter \(10 \text{ mg/m}^3\)
- Carbon monoxide \(250 \text{ mg/m}^3\).

All values are for reference flue gas conditions, i.e.: dry flue gas, 6 % \(O_2\), 0 °C, 1013 mbar.

The cooling water supply for Unit B3 shall be provided via the flow-through cooling system, using water from the River Danube. The cooling water system provides the required cooling water quantity supply for the turbine and technical cooling systems of the Unit.

The demineralized water treatment system for Unit B3 will be a new one, with the capacity of 50 t/h. The raw water supply is envisaged to be from the River Danube.

According to raw water quality parameters and above required demineralized water quality, reverse osmosis (RO) has been chosen for raw water pre-treatment in demineralized water production plant.
All waste waters generated during Unit B3 operation shall be collected depending on their origin and kind of pollution and transferred to the common Waste Water Treatment Plant, designed for the needs of all three Units B1, B2 and B3.

Fly ash shall be collected under its corresponding extraction points and conveyed to fly ash silos by means of appropriate pneumatic conveying system of positive pressure type.

Bottom ash will be collected under the outlet of the Boiler Submerged Scraper Conveyor (SSC) and transported to the Bottom Ash Silos hydraulically as BA slurry. Before entering the silos the BA slurry should be passed through appropriate dewatering system.

The solution for ash transport and disposal, in the mixture with FGD gypsum suspension, is dry mechanical system by using one line of troughed belt conveyors for ash transport and spreader in combination with mobile equipment for ash disposal. Before loading to the conveyor system the fly ash from the silos is wetted with water amount of 25-30 %. The micro location of ash yard within mine is defined according to coal production dynamics.

<table>
<thead>
<tr>
<th>Description of purpose of proposed activity</th>
</tr>
</thead>
</table>

In accordance with the needs of economic development of Serbia and the expected growth in electricity demand, in 2002 the Electric power industry of Serbia started activities aimed to increase its production capacities and to adapt the power system to meet those needs. Part of the activities, aimed at the rehabilitation of the existing capacities, which implies the replacement of old equipment, upgrading and technological progress to increase the capacity, and the introduction of modern plants to reduce emission of gases and particulate matters. Since the oldest and economically unfavourable plants shall be turned into a cold reserve, or be permanently decommissioned, the said repowering of existing facilities is not sufficient to cover the long-term electricity demands. It is necessary to build new production facilities: thermal power, hydro power and other plants, utilizing the renewable energy sources.

For the needs of Serbian Electric Power System, the new unit shall operate for about 7,900 h in the first ten years (2020-2029 period), then about 7,200 h in the next ten years (2030-2039 period). In the last five years of analyzed period the unit shall operate 6,500h. The mean unit operation time will be 7,500 h per year.
| Rationale for proposed activity (e.g. socio-economic, physical geographic basis) | Activities aimed at the building of new thermal generating capacities include, among others, completion of construction works for the TPP Kostolac B. Basic concept of construction, envisaged to build four units, installed capacity 350 MW each. During Phase I two power units were built, which were put into operation in 1988 (Unit B1) and in 1992 (Unit B2), respectively. This phase also included construction of common plants and facilities and the infrastructure, providing a possibility for the implementation of phase II, i.e. for the construction of the remaining two units.

During the 2009, the conditions have been met for the start of phase II. It was followed by the development of project documentation, which analyses the possibilities for the construction of new Unit of variable power, with due consideration to the coal reserves available for its operation. The two options for building a new Unit were observed:

- Unit with rated power of 350 MW
- Unit with rated power of 600 MW.

After reviewing the results of various aspects of the analysed possibilities and a feasibility of building a new unit, it is adopted that the new building shall be with rated generation capacity of 350 MW.

Major turning point in intensifying the works on the implementation of the phase II was signing of international agreement on credit arrangement between the Republic of Serbia and the People’s Republic of China. It has been anticipated that the funds of this agreement shall be invested in two phases: the first phase includes rehabilitation of existing units of TPP Kostolac B, that is construction of Railway, Flue gas desulphurization plant for units B1 & B2, Port at the River Danube, while the second phase comprises new B3 Power Unit, and Open cast mine (OCM) Drmno capacity increase (from 9 to 12 million tons of coal production). The first part of credit arrangement related to the TPP&OMCs Kostolac, to be implemented with the Chinese partners, started in 2012, while the other activities, including the preparation of documentation considered and subject to the second part of the same, are currently in progress. |

<table>
<thead>
<tr>
<th>Additional information / comments</th>
</tr>
</thead>
</table>
### (ii) Information on the spatial and temporal boundaries of the proposed activity

<table>
<thead>
<tr>
<th>Location</th>
<th>The location of the new Unit B3 is within the yard of the existing TPP Kostolac B.</th>
</tr>
</thead>
</table>
| Description of the location (e.g. physical-geographic, socio-economic characteristics) | The existing TPP Kostolac B is located in the city of Pozarevac in the north-eastern part of Kostolac Coalfield, near the village Drmno (Figure 3-1). It is situated on the right bank of the River Danube, 5 km from Kostolac city and about 120 km downstream from Belgrade.  
TPP Kostolac A is disposed nearby as well as currently operating open cast mine Drmno and already closed open cast mine Cirikovac.  
There are several settlements in the vicinity of TPP Kostolac B: the town of Pozarevac, 15 km to the south, town of Kostolac, 5 km to the northwest, village Drmno, 2 km to the south-east.  
In the vicinity of TPP Kostolac B there is an archaeological site Viminacium and tourist resort Srebrno Jezero (Silver Lake) and Golubac. |
| Rationale for location of proposed activity (e.g. socio-economic, physical-geographic basis) | As the basic concept of TPP Kostolac B construction implies four units of rated power of 350 MW to be built in two phases, the space for the new unit is reserved and infrastructure and certain common facilities for both phases was built. Thus, there is no need for any further land acquisition or rent for the purpose of the new Unit.  
Coal supply for the new unit will be provided from the Opencast Mine Drmno (OCM), situated in the vicinity of the plant location, at the distance of some 2 km. The capacity of the mine will be increased to 12 mil. tons per year, enough to supply existing and new unit, as well as other industrial and non-industrial consumers. The balanced coal reserves are about 363 mil. tons of coal, enough for the lifespan needs of the mentioned consumers. The range of the main coal quality parameters are: low heat value 5,200-15,000 kJ/kg, ash content 8-38 % and humidity 22-49 %. Design coal quality is: 8,000 kJ/kg, ash content of 21.5 % and humidity of 40 %. Annual consumption of coal shall be about 2,8 mil. tons. |
<table>
<thead>
<tr>
<th>Time frame for proposed activity (e.g. start and duration of the construction and operation)</th>
<th>Construction of the new Unit B3 is planned to start in the second half of 2016 and Unit start up is scheduled at the beginning of 2021.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maps and other pictorial documents with the information on the proposed activity</td>
<td>Attached are narrow and wide project layout</td>
</tr>
<tr>
<td>Additional information/comments</td>
<td></td>
</tr>
</tbody>
</table>

### (iii) Information on the expected environmental impacts and proposed mitigation measures

<table>
<thead>
<tr>
<th>Scope of assessment (e.g. consideration of cumulative impacts, evaluation of alternatives, sustainable development issues, impact of peripheral activities, etc.)</th>
<th>Environmental Impacts Sources during Plant Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected environmental impacts of the proposed activity (e.g. types, locations, magnitudes)</td>
<td>This section outlines the main sources of environmental impacts generated during Unit B3 construction phase, based on expected pre-construction and construction works, as well as necessary labor requirements (working staff present on the construction area). Location of the Unit will be on the designated area within TPP Kostolac B, next to the existing units B1 and B2 in the south-east direction. On the considered area there are some above ground structures (storage places and other) that will be demolished and removed before the construction of the new Unit. Also, pre-construction works will include top soil removal together with existing vegetation (trees and bushes) followed by terrain levelling. During construction phase, the following activities shall be mentioned as considerable sources of environmental impacts:</td>
</tr>
</tbody>
</table>
- Preliminary construction works – Establishment of temporary facilities, modification/reconstruction of site roads access, drainage, auxiliary services, fencing
- Earthworks – Piling and foundations works (establishment of base slabs, footings, pits and foundations), including area dewatering (in case of shallow groundwater plate)
- Steel works – Construction of all kind of steel structures for buildings and equipment support
- Construction of the water intake/outfall tie-in structures
- Construction materials and equipment transport, delivery and storage
- Buildings and structures construction
- Equipment assembling – Installation of mechanical, electrical and I&C equipment
- Auxiliary activities of the workers and other employees taking part in the plant construction.

It has been assumed that the new plant will use existing cooling water intake and outfall facilities.

Construction impacts are temporary and will last during the construction phase only. In relation to the spatial effects of the construction impacts, those shall be classified as local. The exception is construction traffic, which may have regional impacts.

Environmental Impacts Sources during Plant Operation

Under normal operation of Unit B3, waste materials are generated during the following processes:

- Combustion of coal in boiler, which produces large volume of wastes including flue gas, non-combustible residues in the form of fly and bottom ash, and waste heat
- Chemical water and condensate polishing treatment
- Coal delivery and storage
- Flue gas desulfurization
- Disposal of fly/bottom ash and gypsum
- Auxiliary processes.

Emission to Air

Under the operation of Unit B3 the emissions of pollutants to the air are generated during the following processes:
- Combustion of coal in boiler, which produces flue gases containing different pollutants,
- Coal and limestone handling (reception, storage and internal transport),
- Solid waste handling (collection, treatment and disposal) such as: fly/bottom ash and gypsum.

**Liquid Waste**

Since the treatment of wastewaters shall not be performed within the Unit B3 process technology, this section will present the estimated quantities of liquid pollutants to be produced during the operation of Unit B3, which shall be channelled towards a common plant.

**Process wastewaters include:**
- Oily waste waters (loaded with oil derivatives),
- Sludgy waste waters (with a high content of solids, which can be chemically aggressive),
- Saline waters (with higher concentration of salt, which can be chemically aggressive).

**Oily wastewaters** are produced within the fuel oil system, in Main power building (MPB), oil and lubricant storage, workshops and garages, mainly due to the leakage from valves, as a contaminated condensate during transportation of fuel oil and from washing of working surfaces and floors.

Oily wastewaters are not produced on continuous basis, and their quantity varies. Estimated quantity of oily wastewaters is max. 20 m³/h.

**Sludgy and salted wastewaters** generated within the TPP contain wastewaters from Chemical water treatment plant, boiler house of MPB and from FGD plant.

Wastewaters from FGD plant are generated in the case when performing secondary gypsum dewatering (production of dry gypsum with 10% moisture), in order to maintain the concentration of chloride and particulates in a recirculated slurry at the required level. Estimated amount of wastewater, about 8 m³/h, shall be channelled towards a treatment plant. Concentration of chloride in the wastewater is about 8000 ppm, and particle content of about 3%.

Estimated amount of the two mentioned waters is max. 900 m³/h.
In the case of gypsum slurry disposal (50 % of solids), the waters in the amount of 20-23 m³/h are removed together with the slurry, so that further separation of wastewater is not required.

Wastewaters from coal storage and from the coal supply system shall be channelled toward a sump, which is disposed near the storage, from where they will be conducted to further treatment.

Wastewaters from fly/bottom ash and gypsum conveying system, are produced due to the draining and flushing of pipelines, and also include return water from the landfill. These waters shall be recirculated within the fly/bottom ash and gypsum conveying system.

Storm waters are defined as waters, which in the form of precipitation, rain, snow and ice occur on surfaces of the TPP site. These waters belong to the group of neutral wastewaters which may, after collection, be discharged into natural recipient without special treatment. Storm water sewage from the Unit B3 location shall be connected to the old storm water sewage of the B1 and B2 Units area.

Sanitary wastewaters occur in sanitary facilities of the TPP buildings. These waters are loaded with particles and other mineral and organic matters and microorganisms. The average daily volume of sanitary wastewaters is approx. 40 m³/day. The maximum amount of wastewaters relevant for sizing of sewage network is 5 l/sec.

Solid Waste

Solid waste, resulting from power plant operation, are fly and bottom ash, and also gypsum, which is produced in a flue gas desulfurization process, and is not delivered to the external consumers, but is, in the form of dense slurry, disposed of on a landfill, together with fly and bottom ash.

According to the waste classification, Regulation on categories, testing and waste classification (Off. Gazette of RS 56/2010), these wastes are classified as the non-hazardous waste, with index numbers:

- 10 01 01 fly ash, bottom ash and boiler dust
- 10 01 05 calcium-based solids in flue gas desulfurization process.

The expected quantities of solid waste produced during Unit B3, to be disposed of on a landfill are:

- 600.000 t/year of fly and bottom ash
- 163.500 t/year of gypsum.
The main inputs for the Unit B3 operation shall be:
- Coal (lignite), in the amount of 2.8 mil. tons/year (375 t/h)
- Limestone, in the amount of 90,000 tons/year (12 t/h)
- Water for cooling purposes, in the amount of 44,680 m³/h
- Raw water for the process (make-up and FGD water) in the amount of 500 m³/h
- Chemicals for water treatment plant: HCl acid, NaOH, FeCl₃, polyelectrolytes, Na-hypochlorite, Na-bisulphites and some other chemicals in small quantities

Unit B3 is not classified as Seveso plant.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Clean flue gas concentrations</th>
<th>Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mg/m³ (ref. conditions)</td>
<td>kg/h</td>
</tr>
<tr>
<td>Sulphur-dioxide</td>
<td>150</td>
<td>176</td>
</tr>
<tr>
<td>Nitrogen oxide</td>
<td>200</td>
<td>235</td>
</tr>
<tr>
<td>Particulates</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Chloride, Cl⁻</td>
<td>5</td>
<td>1.5</td>
</tr>
<tr>
<td>Carbon-dioxide</td>
<td></td>
<td>320630</td>
</tr>
</tbody>
</table>

* For effective Unit operation of 7,500 h/year

Clean flue gases shall be discharged into the air through the 180 m high and 6.8 m outlet via stack. Dimensions of stack are defined according to the criteria for ambient air quality, in compliance with Serbian regulations.
After treatment in the common Waste Waters Treatment Plant, to achieve the prescribed quality for discharge into the recipient (according to Serbian regulation), the following wastewaters shall be released into the recipient:

- Oily wastewaters, after treatment;
- Cooling water (no treatment);
- Sanitary wastewaters, after treatment;
- Storm waters after pre-treatment.

No wastewaters shall be discharged into the ground waters during normal operation of the unit.

The amounts of solid wastes is described in the previous Section of this Notification. Treatment of these wastes will be described below, in the scope of designed mitigation measures.

<table>
<thead>
<tr>
<th>Transboundary impacts (e.g. types, locations, magnitudes)</th>
<th>Transboundary impacts are mainly related to emissions of pollutants via high stacks. As described in the next Section, the considered Project proposes emission reduction measures for air pollutants in accordance with new EU Directive 2010/75/EC – Industrial Emission Directive, Section III. As so, a small amount of pollutants are expected to participate in transboundary transport and contribute to air pollution in the regions of surrounding countries. In favour to this, treated flue gases are of lower temperature and exit velocities comparing to hot gases, which also decreases long-range transport.</th>
</tr>
</thead>
</table>

| Proposed mitigation measures (e.g. if known, mitigation measures to prevent, eliminate, minimize, compensate for environmental effects) | **Gaseous Wastes Treatment**  
1. Gaseous wastes treatment includes the following:  
   
   **Flue gases treatment:**  
   - Reduction of NOx emission using the primary measures in the process of coal combustion in the boiler furnace  
   - Reduction of SO2 emissions by flue gases cleaning in flue gas desulfurization plant. The adopted |
technology of desulfurization implies wet limestone–gypsum process, with limestone as the absorbent and gypsum as the end by-product. In order to achieve the required, very low SO2 concentration of 150 mg/m³ in clean gas, as well as high SO2 removal efficiency, a dual loop absorber system has been adopted as optimal choice. Designed value of desulfurization efficiency is min. 98%.

- Reduction in hydrogen chloride emissions from the flue gas is achieved by the reaction with limestone in desulfurization process, with an efficiency of about 90%, resulting in considerably lower chloride concentrations in the flue gas with respect to the limit value of 30 mg/m³.
- Reduction in particulates emission from flue gases, shall, in the first stage, be performed in electrostatic precipitator (to the outlet concentration of 30 mg/m³, and then in FGD plant (scrubbing of flue gas by recirculating suspension in the absorber) and then in a wet ESP, which removes the fine particles and aerosols to the outlet concentration of 10 mg/m³. Total designed value of flue gas de-dusting process efficiency is ≥99.986%.

Treatment of gaseous waste products in the collection and indoor fly/bottom ash conveying system

- De-dusting of conveying air used in fly ash pneumatic transport system, from ESP hoppers to the silos, is provided by installing fully automated bag filters with impulse blowing with compressed air. Filtration efficiency shall provide outlet concentration of purified air to be below 20 mg/m³.

- De-dusting of mixing unit, where the preparation of „dense” slurry is taking place, shall be done by washing (spraying) in scrubber. The maximum concentration of particles in the outlet air stream is 20 mg/m³.

Treatment of gaseous wastes in coal and limestone supply system:

- Cleaning of air polluted by coal particles within the coal supply system is envisaged as follows:
  - The bunker bay provides for the ventilation of space where the air, before being discharged into the environment, passes through the bag filter; the efficiency of filter is so as to ensure outlet concentration of particulates in the air of 20 mg/m³.
  - At the transfer points, during coal transportation, dust removal is performed by using the water mist, which drops down the coal particles and prevents both the dispersion and the emission in the environment.

- During limestone reception, transport and handling dust pollution of the surrounding work space may occur, due to the presence of small fractions in the mass of received material. In order to suppress dust dispersion, the following systems are envisaged:
  - De-dusting system for unloading terminal and transport system from unloading points to
the storage. A wet process, with the formation of water mist under high pressure. For efficient de-dusting of these points a very good seal has to be provided therewith.

- Limestone silos de-dusting system, which envisaged dry process with bag filters to be placed on the silos. The efficiency of a bag filter is so as to ensure the outlet concentration of particulates in the air of max. 20 mg/m³.

**Liquid Waste Treatment**

Wastewaters, produced during the Unit B3 operation, shall be collected by the origin of contamination (oily, sludge and saline, storm and sanitary waters) and channelled via the special pipeline to the appropriate treatment facility.

Some of the treated waste waters shall be re-used in the power plant, primarily for ash wetting.

**Solid Waste Treatment**

The project envisages common fly/bottom ash and gypsum disposal by means of belt conveyers, on the landfills, at the excavated area of Drmno mine.

Bearing in mind that the fly/bottom ash, produced by the combustion of Kostolac coal, and the gypsum suspension, generated during FGD process, are classified as non-hazardous waste, in order to improve the properties of disposed material, it has been considered that these wastes, in the form of mixture slurry, should be disposed in a common landfill. Mixing of fly/bottom ash and gypsum suspension should be done in a mixer before conveying line leading to the landfill.

According to the experience in EU countries, as well as in line with the recommendations in the reference EU document on BAT technologies for large combustion plants (LCP BREF), separate landfilling of the considered wastes is possible. However, it has been found that mixing FGD gypsum slurry with ash shows better landfill properties than each component alone. These properties are mechanical strength, permeability and leachability.

The landfill site is located on excavated parts of the mine, which is in fact degraded land (Mining law of RS, Off. Gazette of RS no. 44/95 i 34/06). An integral part of the documentation, required for approval of mining activities, is the project of reclamation of degraded land. Filling the depression by fly/bottom ash and gypsum, under the strictly defined conditions, represents a kind of technical reclamation of the said area.
Treatment of solid wastes, generated during the operation of Unit B3 (fly/bottom ash and gypsum) with respect to the protection of air, water and land, is integral part of the technology of its collection, transport and disposal. Design of this system is in line with the Regulation on waste disposal in landfills, Off. Gazette of RS no. 92/10, which includes the following precautions:

- **Insulation of bottom and sides of the landfill:** Insulation of bottom and sides (embankment) of landfill shall be made in two layers. The first protection layer is designed of composite geotextile with bentonite powder, connected by sewing. The condition is that the membrane replaces the 1 m thick natural clay layer with the permeability coefficient of $10^{-9}$ m/s. The second 2 mm thick layer of protection is designed of smooth, high density polyethylene (HDPE) membrane. This provides full protection of groundwater from the harmful effects of the leachate from the landfill.

- **Protection of ambient air:** To ensure protection from possible dispersion of ash in extreme weather conditions (on a very windy and dry weather), the existing spraying system shall be used. Spraying process shall use the drainage water from the landfill.

- **Recirculation of water:** drainage water from the landfill together with storm water overflow is, through the sump and drainage system, collected in the collecting tank, and uses to prepare „dense“ slurry, i.e. it is returned into the process. So there is no discharge of wastewater from the landfill, and the system is completely closed.

- **Reclamation of landfill:** after completion of exploitation, each operating cassette shall be closed by forming the top cover layer (impermeable ≥ 0,5 m thick mineral layer and ≥ 0,5 m thick reclamation layer), according to the requirements of Appendix 4 of the Regulation on waste disposal in landfills (Off. Gazette of RS no. 92/10).

After landfill closure, as described above, it shall be necessary to make green area in accordance with the landfill reclamation project.

**Waste Heat Treatment**

Waste heat is removed “in once-through” cooling system, whereby the cooling water is taken from the River Danube through the old Mlava’s riverbed that is connected with pumping station via the cooling water supply channel. After cooling process, the cooling water is returned in the River Danube via the cooling water channel. Return cooling water is by its composition unchanged with respect to the raw water, but its temperature is raised to max. 10°C with respect to the inlet water. Expected flow of the return cooling water is 12,4 m³/s.
Noise Control

For noise control, several measures will be adopted as follows:

- For the main equipment, noise-decreasing requirements will be presented to manufactures
- As to the instruments with high noise level, necessary isolating covers or installation in the closed rooms will be adopted
- All the steam safety valves which are likely to be operated often will be provided with silencers to reduce the noise level during steam release
- Trees and/or adequate green belt will be planted as the sonic barrier in the plant area, especially at the plant boundary.

Carbon dioxide emission control

Carbon dioxide emissions reductions are one of the main instruments to combat climate changes. Serbia ratified United Nations Framework Convention on Climate Change (including Annexes) in 2001, as well as Kyoto Protocol to the United Nations Framework Convention on Climate Change in 2008.

The current status of CC technologies development does not offer enough data to consider CC Plant installation. According to available information it should be emphasized that CC process is highly energy consuming and may rise electricity price up to 50%. However, there are no operation experience of any CC Plant in the real scale on the existing power plants that may give more precise figures related to CAPEX and OPEX data.

The presented Basic design does not envisage carbon capture system for CO₂ emissions reduction, but the arrangement of Unit B3 equipment allows future accommodation of the same. The so called “CCS ready” concept of TPP has also been analysed as well as the related requirements implied therein.

In line with this concept, the feasibility study did not include costs of CC system installation, neither its operation costs.
On the other hand, in order to introduce the aspect of future obligations of Electric Power of Serbia regarding CO₂ emissions control, it has been decided to analyse the influence of "carbon taxes" payment on the project feasibility. According to data presented above, CO₂ allowance price is assumed to be in the range 5-25 EUR/ton.

<table>
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<tr>
<th>Additional information/comments</th>
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(iv) Proponent/Developer

| Name, address, telephone and fax numbers | Republic of Serbia  
Public Enterprise Electric Power Industry of Serbia  
+381 11-20-24-600  
Carice Milice 2  
11000 Belgrade |

(v) EIA documentation

| Is the EIA documentation (e.g. EIA report or EIS) included in the documentation? | EIA for the considered Project is in the process of approval with the Authorities |

| If no/partial, description of additional documentation to be forwarded and (approximate) date(s) when documentation will be available |

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| Authority responsible for coordinating activities relating to the EIA (refer to decision I/3, appendix) | 1. Zeljko Lazović – Manager of the Kostolac B3 Unit Construction Project  
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                                                                                                  | 2. Milka Domazet – in charge for environmental protection for the Project  
Public Enterprise Electric Power Industry of Serbia, Balkanska 13-15, 11000 Belgrade 011/3952-319 |
|                                                                                                  | 3. Dejan Vuksanovic – in charge for permitting issues for the Project  
Public Enterprise Electric Power Industry of Serbia, Balkanska 13-15, 11000 Belgrade 011/3952-341 |

(i) Points of contact for the potentially affected Party or Parties
<table>
<thead>
<tr>
<th>List of affected Parties to which notification is being sent</th>
<th>Romania</th>
</tr>
</thead>
</table>
| (ii) Authority responsible for coordinating activities relating to the EIA (refer to decision I/3, appendix) | Republic of Serbia  
- Name, address, telephone and fax numbers  
- Ministry of Agriculture and Environment of the Republic of Serbia,  
  Environmental Impact Assessment Department  
- Omladinskih brigada 1  
  11070 New Belgrade |
| 3. INFORMATION ON EIA PROCESS IN THE COUNTRY WHERE THE PROPOSED ACTIVITY IS LOCATED | |
| (i) Information on the EIA process that will be applied to the proposed activity |  
- Application procedure for determining the scope and contents of the Environmental Impact Assessment (EIA) Study of the Kostolac B3 Unit Construction Project in progress, by the ministry in charge for environmental issues, according to the Environmental Impact Assessment Law (Official Gazette RS, No. 135/04, 36/09)  
- Once the scope and contents have been defined, an open public procurement procedure will be conducted for the EIA Study developer.  
- This is followed by the study preparation by the selected developer  
- Finally, approval process for the study needs to be conducted, involving stakeholder |
engagement, when all interested organisations, authorities and the public may review and provide their opinion to the study.

- According to plans, the EIA Study will be finalised by May – June 2016. The precise timeframe may not be defined at this time.

<table>
<thead>
<tr>
<th>Opportunities for the affected Party or Parties to be involved in the EIA process</th>
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<tbody>
<tr>
<td>Opportunities for the affected Party or Parties to review and comment on the notification and the EIA documentation</td>
</tr>
<tr>
<td>Nature and timing of possible decision</td>
</tr>
<tr>
<td>Process for approval of the proposed activity</td>
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<tr>
<td>Additional information/comments</td>
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</tbody>
</table>

### 4. INFORMATION ON THE PUBLIC PARTICIPATION PROCESS IN THE COUNTRY OF ORIGIN

**Public participation procedures**

Under the Environmental Impact Assessment Law (Official Gazette RS, No. 135/04, 36/09), all stakeholders (authorities, organisations and the public) may review and provide their opinion during the entire environmental impact assessment procedure, from the time of application for determining the scope and contents of the EIA Study until its approval by the ministry in charge for environmental protection. All stakeholders may review the application and the EIA study, according to the Law, for 20 days from the date of publication of the application and the EIA Study.
<table>
<thead>
<tr>
<th>Expected start and duration of public consultation</th>
<th>The expected period for public review of the application and the EIA Study is April 2016, while the public consultations for the Kostolac B3 Unit Construction Project EIA Study will be held during June/July 2016. Precise dates may not be provided at this time.</th>
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<tr>
<td>Additional information/comments</td>
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5. **DEADLINE FOR RESPONSE**

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<tr>
<th>Date</th>
<th>30 day after receiving the notification by the affected party.</th>
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</table>
Ref.: Response to the Questions related to the Environmental Impact Assessment of the project for the construction of TPP KO B3 in accordance with ESPOO Convention, at the request of “Implementation Committee, Convention on Environmental Impact Assessment in a Transboundary Context and Protocol on Strategic Environmental Assessment (Palais des Nations CH-1211 Geneva 10 Switzerland) of 7 April, 2016.

Dear Minister,

With the present letter I would like to inform you that the Ministry of Agriculture and Environmental Protection has prepared the Response to the Questions related to the Environmental Impact Assessment of the project for the construction of TPP KO B3 in accordance with ESPOO Convention, at the request of “Implementation Committee, Convention on Environmental Impact Assessment in a Transboundary Context, Protocol on Strategic Environmental Assessment.

- Also, I would like to inform you that Approval of the previous EIA Study of the Project for the construction of new Block B3 at TPP Kostolac B expired on 31 December 2015.
- Amendment to the technical solution in the Preliminary Project Design from 2013 was made and used as a basis for the development of the Study on the assessment of the environmental impact, which consists of the following:
  - Extension of the coal warehouse with the construction of the third landfill line and equipped with a crusher (project amendment)
  - Amendment to the external method of the transport of ash, slag and gyspum from Block B3 and depositing in the excavation area of Open Cast Mine (OCM) “Drmo” (project amendment)
- New conditions and approvals as well as the location permit were obtained in accordance with the amended technical solution:
In that respect, and pursuant to Article 12 of the Law on the Environmental Impact Assessment ("Official Gazette of the Republic of Serbia", Nos. 135/04, 36/09), the Ministry of Agriculture and Environmental Protection received a Request for determining the scope and content of the EIA Study on the Project for the construction of new Block B3 at TPP Kostolac B, on cadastral parcel 303, CM Kostolac-Selo, on the territory of the city of Požarevac and a notification letter, according to the procedure of the ESPOO Convention, which will be submitted to Romania, as a potentially affected country by the project.

Let me take this opportunity to express my highest consideration.

Sincerely Yours,

[Signature]

MINISTER

[Seal]

Professor Snežana Bogosavljević-Bošković, Ph.D
Ref: RESPONSE TO THE QUESTIONS RELATED TO THE ENVIRONMENTAL IMPACT ASSESSMENT OF THE PROJECT FOR THE CONSTRUCTION OF TPP KO B3 IN ACCORDANCE WITH ESPOO CONVENTION

At the request of "Implementation Committee, Convention on Environmental Impact Assessment in a Transboundary Context and Protocol on Strategic Environmental Assessment (Palais des Nations CH-1211 Geneva 10 Switzerland),

Public Company Electric Power Industry of Serbia initiated a new procedure for the development of the Study on the assessment of the environmental impact of the Project for the construction of new Block B3 at Thermal Power Plant (TPP) Kostolac B, on cadastral parcel 303, Cadastre Municipality (CM) Kostolac-Selo, on the territory of the city of Požarevac for the following reasons:

- Consent to the previous Study on the assessment of the environmental impact of the Project for the construction of new Block B3 at TPP Kostolac B expired on 31 December 2015.

- Amendment to the technical solution in the Preliminary Project Design from 2013 was made and used as a basis for the development of the Study on the assessment of the environmental impact, which consists of the following:
  - Extension of the coal warehouse with the construction of the third landfill line and equipped with a crusher (project amendment)
  - Amendment to the external method of the transport of ash, slag and gypsum from Block B3 and depositing in the excavation area of Open Cast Mine (OCM) "Drmno" (project amendment)

- New conditions and consents as well as the location permit were obtained in accordance with the amended technical solution:

In that respect, and pursuant to Article 12 of the Law on the Environmental Impact Assessment ("Official Gazette of the Republic of Serbia", Nos. 135/04, 36/09), the Ministry of Agriculture and Environmental Protection received a Request for determining the scope and content of the Study on the assessment of the environmental impact of the Project for the construction of new Block B3 at TPP Kostolac B, on cadastral parcel 303, CM Kostolac-Selo, on the territory of the city of Požarevac and a notification letter, according to the procedure of the ESPO Convention, which will be submitted to Romania.
a) **Question:** Please provide a map showing the exact location of the open cast mine (in the vicinity of the lignite thermal power plant) and its distance from the border with Romania.

**Answer:**

- The distance from the open cast mine to the Romanian border (air distance) is 15.325 km (see the enclosed map of the area).
b) **Question:** Taking into consideration the definition of the "proposed activity" on the basis of the Espoo Convention, i.e. "any activity" or "any major change in the activity that is subject to the decision of the competent authority in accordance with the applicable national procedure", as well as the Decision from the meeting of the parties that the "notification shall be necessary unless it is not possible to exclude adverse transboundary impact (Decision IV/2, Annex I, paragraph 54), please clarify and provide an explanation:

i. Why does the Republic of Serbia believe that the extension of the lignite open cast mine is not a project covered with the scope of the Espoo Convention, and that, consequently, it is not subject to the assessment of the transboundary environmental impact?

ii. For what reason did the Republic of Serbia not implement the local procedure for the environmental impact assessment for the planned open cast mine?

**Answer:**

- The plan is to increase production in OCM Drmno from 9 to 12 million tons of coal a year, *within the limits of the existing exploitation field*, all for the purposes of the operation of the new Block B3 in TPP Kostolac B. The production increase in OCM Drmno is included in the Feasibility Study with the Preliminary Project Design for the provision of the required quantities of coal for the operation of the existing thermal power plants in Thermal Power Plants and Mines (TF-KO) Kostolac and new Block B3 (350 MW).

- The environmental impact of coal mining in OCM Drmno was analysed in the Study on the assessment of the environmental impact of coal exploitation open cast mine “Drmno” in
Kostolac, for the capacity of nine million tons of coal a year, by the processing facility, i.e. the Mining and Geology Faculty in Belgrade, in 2009. The competent authority gave consent to the Study with Decision No. 353-02-0360/2008-02 dated 10 April 2009.

- A procedure for deciding on the need for impact assessment was conducted for the Preliminary Project Design for the provision of the required coal quantities for the operation of the existing thermal power plants in TE TO Kostolac and new Block B3 (350 MW) in OCM Drmno, from 9 to 12 million tons a year. The Decision of the competent authority No. 353-02-901/2013-05 of 26 July 2013 sets out that there is no need to develop the Study on the assessment of the environmental impact. The Decision requires implementation of the environmental protection measures defined in the Study on the assessment of the environmental impact of coal exploitation open cast mine Drmno in the capacity of 9 million tons a year.

- The environmental protection measures defined in the Study include:
  ✓ Measures for the prevention, reduction and elimination of adverse environmental effects envisaged by the Law (air protection, noise protection, water protection, fire protection)
  ✓ Measures to be taken in case of an accident
  ✓ Environmental protection technical solutions (recycling, treatment and disposal of waste substances, reclamation, remediation, etc.)

In addition to the envisaged measures, the monitoring system was also defined for the area of OCM Drmno. The system ensures reliable assessment of the size and intensity of pollution and possible damage, as well as timely taking of measures for the prevention of harmful pollution, or for successful remediation of detected and recorded pollution.

c) **Question:** Can the Republic of Serbia confirm that the proposed activity has no significant transboundary environmental impact?

**Answer:**

The proposed activity is not introducing innovations in terms of excavation technology and types of the main excavation, transport and landfill machinery, or innovations in the auxiliary machinery and other supporting mining operations. There are no new identified sources of pollution, except for those analysed in the Study on the assessment of the environmental impact of coal exploitation open cast mine “Drmno” in Kostolac, for the capacity of nine million tons of coal a year, and where environmental measures are defined.

d) **Question:** Is the increase in lignite production in the open cast mine considered to be part of the project for the extension of TPP Kostolac B?

**Answer:**

The raw material base for Block B3 is open cast mine “Drmno” which belongs to the eastern part of the Kostolac coal basin. This mine supplies coal to blocks 1 and 2 of TPP "Kostolac B", blocks at TPP "Kostolac A", and one part of coal quantities is allocated for mass consumption.
c) **Question:** What lignite quantities are excavated in the open cast mine and what is the planned production after its extension?

**Answer:**

Currently, the thermal power plants of the total capacity of 697 MW supply coal from the open cast mine Drmno. The current project capacity of OCM "Drmno" is $9 \times 10^6$ t/year, and project TPP "Kostolac B3" plans capacity increase to $12 \times 10^6$ t/year.

f) **Question:** According to the legislation of the Republic of Serbia, does the extension of open cast mines undergo the environmental impact assessment?

**Answer:**

The answer is provided in item b).

g) **Question:** When did the Republic of Serbia start with lignite exploitation in this open cast mine? Was the procedure for the environmental impact assessment conducted before commencement of the exploitation of the open cast mine? If YES:

i. **Question:** Was the environmental impact assessment conducted, how long did it take, and was the procedure completed before the start of exploitation?

ii. **Question:** Did this procedure also include the extension of the open cast mine?

**Answer:**

Lignite exploitation in the open cast mine Drmno commenced in 1987 with the commencement of the operation of Block B1 of the Thermal Power Plant Kostolac.

The first Law on the Environmental Impact Assessment was adopted in 2004 and published in the "Official Gazette of the Republic of Serbia", 135/04, and amended in 2009, therefore, there was no Law on the Environmental Impact Assessment when open cast mine Drmno started its operation.

A procedure for deciding on the need for impact assessment was conducted for the Preliminary Project Design for the provision of the required coal quantities for the operation of the existing thermal power plants in TE TO Kostolac and new Block B3 (350 MW) in OCM Drmno, from 9 to 12 million tons a year.

**Question:** In addition to the above stated, please answer the questions related to the planned construction of the new block in TPP Kostolac B.

**Answer:**

The basic concept of the construction of this thermal power plant envisaged construction of four blocks of installed capacity of 350 MW each. During the implementation of Phase I, two blocks were constructed and commissioned in 1988 (Block B1), i.e. in 1992 (Block B2).

The construction of the Blocks reserved space, and an area of shared plants and facilities as well as infrastructure was built for the needs of Phase II of TPP "Kostolac B". The plan was to locate the blocks to be built in Phase II next to the existing ones, or next to the thermal power plant of the Main Plant Facility. In 2009, conditions were met to commence with the implementation of this phase, when the development of the project documentation started,
which included an analysis of a possibility for the construction of a block with a different capacity, and available coal reserves were considered for its operation (previous works for the construction of the new block at TPP Kostolac B).

The documentation served as a basis for the development of the previous feasibility study and General Design, which included an analysis of two-way solutions (Block with installed capacity of 350 MW and 600 MW) for the purpose of viewing various aspects of the justifiability of their construction. The Block with a capacity of 350 MW was selected, with supercritical steam parameters and high efficiency.

Facilities on Block B3 will be located southeast from existing Blocks B1 and B2, and south from the coal warehouse.

Expected completion of the construction of Thermal Power Plant Kostolac B3 is in 2020.

h) **Question:** Please provide information on the capacity of (i) Block B3 and (ii) the whole Power Plant.

**Answer:**

Lignite thermal and energy block of TPP "Kostolac B3" from open cast mine "Drmno" will have electrical capacity of 350 MW, on generator terminals, whereas the expected capacity in the network is about 308 MW.

Thermal power plant Kostolac B has two existing Blocks B1 and B2 with an installed capacity of 348.5 MW each. (2X348.5 MW)

i) **Question:** Please provide information about the current state of affairs in court proceedings – appeal pending before the Appellate Court in the Republic of Serbia against the validity of the decision on the environmental impact assessment, which was submitted by the non-governmental organization, and used to contest the validity of the decision; when was the appeal submitted and when shall the proceedings be completed?

**Answer:**

- The Citizens Association of the Center for Ecology and Sustainable Development of NGO (CEKOR) initiated proceedings before the Administrative Court of Serbia, Nemanjina Street No. 9, Belgrade – the appeal was registered under number III-U6832/14 of 6 May 2014, and the Ministry of Agriculture and Environmental Protection (formerly the Ministry of Energy, Development and Environmental Protection, Nemanjina No. 22-26, 11000 Belgrade) is in the capacity of the defendant.
- Public Company Electric Power Plant of Serbia – Company TE KO Kostolac, Nikole Tesle Street No.5-7, 12208 Kostolac (Document No. 3301 dated 29 October 2014) submitted a reply to the appeal in the capacity of a stakeholder.
- There have been no invitations from the Administrative Court of Serbia for discussions/hearings until today (1 June 2016).

j) **Question:** Please state the location of a cooling water intake for Project Kostolac B3.
Answer:

A flow system with cooling water from the Danube River is envisaged for Block B3 of TPP “Kostolac”. Space of the existing cooling water service station (for Blocks B1/B2) does not envisage space for the installation of additional equipment for the new block, only construction of a new (separate) facility of the service station, together with the existing facility was envisaged by using the existing supply channel of the cooling water from the river. The designed quantity of cooling water for Block B3 amounts to 44,680 m³/h (12.40 m³/s).

The construction of existing Blocks B1 and B2 envisages a centralised plant for the chemical preparation of additional, demineralised water for the compensation of losses in the circular flow of water - steam. The plant is designed to be able to accept extension for the requirements of the second phase. The current quality of the produced demi water meets the requirements of the existing blocks, however, stricter requirements should be taken into consideration in terms of the quality of feed water, as well as the possibility of demi water quality degradation in the future operation of the lines due to the aging of the equipment. In terms of this, construction of a new plant for chemical preparation of water for Block B3 was envisaged. The new plant includes two lines for complete demineralisation of water, 50 m³/h in capacity, and they are supplied with raw water from the Danube River.

k) Question: How many blocks are in TPP Kostolac B? Is their combined impact taken into account in the implementation of the procedure for the environmental impact assessment and the Study on the assessment of the environmental impact?

Answer: Thermal Power Plant Kostolac B has two Blocks TE KO B1 and B2. The combined impact will be considered in the implementation of the repeated procedure of the environmental impact assessment.

Yours sincerely,

[Signature]

Sabina Ivanovic,
Serbian point of contact to the ESPOO Convention

Cc: Secretariat: Ms. Aphrodite Smagadi, UNECE
    Ministry of Environment, Waters and Forests of Romania,
    Cabinet of Minister
ANSWERS TO ROMANIA'S QUESTIONS/COMMENTS REGARDING THE UNIT B3 CONSTRUCTION PROJECT AT THE KOSTOLAC LOCATION

QUESTION 1.

The Romanian interested public and authorities are concerned about the possible impact of the project on the air quality in the Romanian neighbourhood of Kostolac, in the context of emissions of pollutants into the atmosphere from the new thermal power plant. Although projected within the limits allowed by Directive 2010/75/EC on industrial emissions, these emissions can contribute, in a transboundary context, to the degradation of air quality in the Danube border area of Caras-Severin County in Romania.

Romania considers that reducing the likelihood of a significant negative cross-border impact, especially on air quality, would be closely related to a possible comparative analysis of the sets (projected measures to reduce pollutant emissions in the atmosphere - Emissions of pollutants into the atmosphere) in relation to the best available techniques for emission reductions - emission levels associated with Best Available Techniques presented in the Best Available Techniques Reference Document for Large Combustion Plants - Draft Final June 2016, developed by the Joint Research Center - the European Institute for Prospective Technological Studies (Sustainable Production and Consumption Unit) - the European IPPC Bureau, coordinated by the European Commission. Details concerning this subject are presented below:

a) The projected emission limit values for sulphur dioxide, nitrogen oxides and particulate matter exceed the emission levels associated with the best available techniques for new lignite-fired power plants presented in the Best Available Techniques Reference Document for Large Combustion Plants, listed below:

- \( \text{SO}_2 \): 10-75 mg/Nm\(^3\) Annual average; 25-110 mg/Nm\(^3\) Daily average
- \( \text{NO}_x \): 50-85 mg/Nm\(^3\) Annual average; 80-125 mg/Nm\(^3\) Daily average
- PM: 2-5 mg/Nm\(^3\) Annual average; 3-10 mg/Nm\(^3\) Daily average

b) The project does not foresee the implementation of secondary measures to reduce nitrogen oxides (NOx) emissions in order to achieve the emission levels associated with the best available techniques for new lignite-fired power plants presented in the Best Available Techniques Reference Document for Large Combustion Plants. For example, the selective catalytic reduction (SCR) process is widely applied to reduce nitrogen oxides in combustion gases from large combustion plants in Europe and other countries around the world.

c) The values for heavy metals emissions associated with the project were not specified. These are needed to assess compliance with air quality standards. Thus, for newly built power plants using lignite as a fuel, the Best Available Techniques Reference Document for Large Combustion Plants, sets for mercury emission limit values, an interval between 1-4 \( \mu \)g/Nm\(^3\)

ANSWER 1

National legislation

TPP Kostolac B3 unit has been designed in accordance with the applicable national legislation in the field of environmental protection. When talking about emissions of air pollutants, the plant is designed with emissions in line with the ELVs defined by the Regulation stipulating Air Emissions Limit Values for Pollutants from Combustion Plants.
International obligations

By signing the Energy Community Treaty, the Republic of Serbia has committed to, inter alia, implement certain environmental regulations. In the field of air protection, obligations applicable to the new TPP Kostolac B3 unit are related to the application of the Industrial Emissions Directive - Chapter III as of 1 January 2018. The new unit has been designed in such a way to comply with ELVs prescribed by IED - Chapter III and the corresponding Annex V.

EU integration process

New draft LCP BREF document is available. According to practice, once the new BREF document has been adopted, negotiations with EU Member States commence relating to the revision of legislation in line with the new conclusion proposals given by BREF or emission limit values from large combustion plants, as well as deadlines for their achievement. On the basis of the final arrangements, new EU directives are prepared and adopted defining emission limit values applying to the “new” and “existing” facilities. This also entails changing/shiftng the time limits defining the status of facilities (new - existing).

EU accession process of the Republic of Serbia is in progress, which involves an obligation to harmonize national legislation with the relevant EU regulations, including environmental regulations. In addition to the transposition of EU legislation into the national law, during the negotiations, time limits for the compliance of individual plants with the relevant EU regulations will be defined.

Accordingly, the Republic of Serbia will also enter negotiations regarding its commitments to comply with new ELVs for its facilities, as well as the schedule to implement these changes. It can be expected that during the operating life of the Unit B3 some upgrades/modernisations of individual systems will be necessary relating to limiting pollutant emissions. In this regard, the Unit B3 Project provides for the modernisation of the technical solution by installing the following systems:

- NOx emissions reduction system through secondary measures, based on the selective catalytic reductions (as indicated in the Study)
- CO2 emissions reduction system – area left inside the unit B3 location to construction this system, when some technology is commercially available, depending on obligations agreed at the level of the Republic of Serbia, regarding CO2 emissions
- Following the heavy metals flue gas content measurements once the unit B3 has been commissioned, the need to introduce measures for their reduction will be established.

The design solutions for sulphur oxides and dust emissions reduction can be modernised to achieve higher emissions reduction efficiency.

QUESTION 2

The project vulnerabilities regarding climate changewere not assessed. In 2014, the Drmno mine was flooded twice with major consequences on the environment and the capacity of ensuring a stable electricity production. Analysis should be carried out on the likelihood of flooding, potential adverse effects and preventive measures applied. It should also be examined whether, in dry seasons, there is a risk of conflicts over water use.

ANSWER 2

Unit B3 location is not at risk from flooding. Analysis of the Drmno mine vulnerability is not within the scope of the Study. There is a separate study, analysing environmental impacts of the Drmno mine operations.
QUESTION 3

Page 8 - 2. 3 Compliance of the project with the spatial planning documentation "The Assembly of Pozarevac made a Decision adopting and implementing the spatial plan for the TPP Drmno on 28 September 1982 (Off. Gazette of the Municipality Pozarevac, No.13182). Furthermore, it also adopted a Decision implementing the Spatial Plan for the TPP Drmno area on 31 October 2006, stipulating that the Spatial Plan of the TPP Drmno (Off. Gazette of the Municipality Pozarevac, No.13/82) remains fully valid. The Serbian Government adopted a Decree establishing the Spatial Plan for the Special Purpose Area of the Kostolac Mining Basin (SPSP), published in the Official Gazette RS, No. 1 I 13. SPSP for the Kostolac Mining Basin establishes the basic concept of development, utilization, organization, planning and improvement of the area for the period until 2022."

This urban plan was not subject to a strategic environmental assessment procedure either at national level or in a cross-border context, mandatory under the provisions of the SEA Protocol (in Kiev), just like the Serbian Energy Strategy in which the unit 83 construction project at the Kostolac thermal power plant is comprised, has not benefited from a strategic environmental assessment. The Espoo Convention Implementation Committee and the Kiev Protocol are currently investigating this issue (more details in the Implementation Committee report of September 2016) and expressly requests Serbia to provide information on the impact on both the environment and the health of the population of these programs. Moreover, the urban plan referred to above also aims at increasing the production capacity of the Drmno lignite mine, which supplies fuel to the Kostolac thermal power plant, from 9 million Tons today to 12 million Tons of lignite per year. This increase in production has not been subject to an environmental impact assessment. Therefore, we believe that the legal steps that Serbia should have taken to align with international law in the matter have not been respected.

In addition, the environmental impact has to be assessed cumulatively - both the impact of the construction of a new unit and the expansion of the open-pit mining activity.

ANSWER 3

Answer provided in Attachment 1.

QUESTION 4

Pages 193- 195, Section 3.3. 7. Cumulative influence of work of OCM Drmno and TPP Kostolac
The cumulative impact on water sources is mentioned, but there is no analysis.

ANSWER 4

The Study concluded that the measurements had not recorded any mine water impacts to the cooling water quality with which it is mixed. For this reason, further analyses were not conducted.

QUESTION 5

Page 203, Section 4.1 Version for the power and technical solution of the unit
For the alternatives to the 400 and 500 MW capacities, mentioned in the report as being taken into account, the emission limit values presented are not in line with the Directive on Industrial Emissions, Annex V, Part II, which has been transposed into Serbia’s legislation. In addition, alternatives to the project using different fuels as well as different locations should be considered, based on the demand for thermal agent.
ANSWER 5

Unit B3 has been designed as a planned capacity increase of the TPP Kostolac B. Therefore, assessing fuel and location alternatives is not applicable in the case of this project. Unit capacity was analysed by taking into account the remaining coal reserves from the Drmno mine, which is the only fuel source for the TPP Kostolac B.

QUESTION 6

Page 208 - Table 5.1-2: Maximal permitted concentration of the pollutants into air (aim values for human health protection and in case of dedicated measuring)
Emissions of heavy metals into the atmosphere are provided only as a limit required by the legislation in force - the Air Quality Directive. The document does not present measurements of these pollutants, it does not indicate whether these limits are currently being met or provide a modelling for the proposed new unit showing its specific emissions.

ANSWER 6

Following the heavy metals flue gas content measurements once the unit B3 has been commissioned, the need to introduce measures for their reduction will be established.

QUESTION 7

Pages 217-218 Tables maximal and mean monthly daily values of PM10 concentration into the air 2013-2015
From the values provided, long series of data are missing:
- In 2013, there are no data for four consecutive months, from September to December.
- In 2015, there are no data for January, February, March and December.

We consider that the lack of these measurements leads to an erroneous conclusion on the annual average of particulate matter (PM10), which is even more worrying as it is known that these values tend to be higher in the winter months as a result of the inversion phenomenon of the temperature. Independent measurements made by Bankwatch with a certified analyser (GRIMM EDM164) for a period of one month between November 17 and December 16, 2016, even in the village of Drmno, where the lignite mine is located and in the immediate vicinity of the Kostolac B plant, showed that the daily values for PM10 were exceeded in 16 of the 30 days monitored. Values for PM2.5 have been steadily above the limit of 20 μg/m³ recommended by the World Health Organization (in 26 of the 30 days of measurements). The results of Bankwatch’s independent measurements are available at http://bankwatch.org/campaign/coal/airpollution. Furthermore, the air quality monitoring station closest to the thermal plant does not even record PM values, but only CO and SO₂⁴

http://www.ams.kv.seg.rs/spravljena_dodatak.php?stanica=#4

ANSWER 7

The Study indicated that the past measurements will not be used as reference measurements during Unit B3 operation (after 2020), bearing in mind that new air emissions reduction systems will be constructed on all of the Kostolac A and B units (reconstruction projects on all units are under way). Bankwatch measurements performed during Jan-Dec 2016, relating to PMs should be considered in light of the following facts:

- There is no necessary evidence about the measuring device (its calibration, measurement method applied, authorised institution that conducted the measurements);
- It has not been proven whether the measuring point is representative: the report stated that the measuring point is located in the village of Drmno, at a distance of 500 m from TPP Kostolac. TPP Kostolac B is located at a distance of over 1.5 km from the village of Drmno. Therefore, it is not clear where the measuring point exactly is. It is unlikely that the pollution of the measured
intensity can be registered from a 250 m high stack at a distance of 500 m. It is customary to indicate the exact measuring point location on a map and furnish details about it.

- Operating state of the TPP Kostolac A and B units throughout the measurement period has not been specified: engaged capacity, ESP operation, coal quality, etc.
- Weather conditions during the measurement period have not been indicated: wind direction and velocity, wind resistance, air temperature, cloud cover, precipitation, which are crucial to analyse the results.
- Operating status of the Drmnino mine machinery during the measurement period has not been specified.
- PM content analysis has not been carried out (combustible, non-combustible, soluble, etc.).

In view of all of the missing data, authenticity of the presented measurements and sources resulting in these air pollution levels cannot be established.

QUESTION 8

Page 283, Section 6.3.8. Impact on climate
It is recommended that the consistency of the 83 unit project with the 2050 Energy Roadmap of the European Union and the correlation with the Paris Agreement, as this document provides for decarbonisation of the energy sector by 2050 and Kostolac 83 would continue to operate at that time, to be analysed.

ANSWER 8

Design solution of Unit B3 leaves space inside the unit location to build the CO₂ emission reduction system, when some technology becomes commercially available, and depending on the commitments agreed at the level of the Republic of Serbia in terms of CO₂ emissions reduction.

Please note that there is still no commercial technology to reduce CO₂ emissions, and that such measures have not yet been applied on much larger units (emitters) both inside the EU and internationally. Furthermore, the BREF document does not propose BAT for CO₂ emissions reduction. Unit B3 efficiency is in line with the new proposal set out in the LCP BREF (Final Draft 2016) document, which meets this requirement relating to CO₂ emission from the Unit B3.

Other obligations of Unit B3 that may arise in the future as a result of Serbia’s obligations in terms of reducing CO₂ emissions are unknown at the moment.

QUESTION 9

Page 285 - 6.3.12. Trans boundary pollution transport
The measurements used refer only to emissions of SO₂ and NO₂ during the period 2000-2013, without taking into account PM10 and PM2.5 particulate emissions, the latter being shown to have a significant cross-border impact, being airborne on distances of several hundred kilometres.

Moreover, the environmental impact assessment report does not provide a modelling of the future impact of the Kostolac 8 plant with the addition of a new production unit. A realistic analysis should present projections of the transboundary impact of all regulated pollutant emissions during the proposed new unit operation, cumulated with those of existing units.
**ANSWER 9**

Bearing in mind that dust emission from Unit B3 will be very low (for a concentration of 10 mg/Nm², amounting to 12 kg/h), their share in the cross-border transport is much smaller than in the case of other considered pollutants, as well as existing dust pollution sources. We believe that the cross-border transport of particles from the Unit B3 stack is negligible, as shown by the calculations of their air concentrations.

Similarly, under conditions when all emission reduction measures have been undertaken on LCP plants, pollution of an area is primarily caused by local sources, not cross-border transport, which is the objective of the legislation relating to ELVs.

Thus, for example, when sulphur oxides emissions in Serbia are reduced by about 95%, proportionally lower sulphur amounts will be deposited in Romania, compared to the values shown in Tables 6.3.12-3 and 6.3.12- 4 (in 2013, no FGD plant was in operation in Serbia).

The study will predict the share of Unit B3 in deposited sulphur and nitrogen amounts.

**QUESTION 10**

Impact on Natura 2000 sites: On the Romanian side of the Danube, in the area of potential impact, there are two Natura 2000 sites: ROSCI 0206 Iron Gates and ROSPA0080 Almajului - Locvei Mountains. The impact on them has not been analysed.

**ANSWER 10**

The area on the Romanian side of the Danube is included in the presented calculations relating to air propagation of pollutants up to a distance of about 30 km from Unit B3. Having in mind the foreseen pollution levels, operation of all of the TPP Kostolac A and B units will not exceed pollution levels in this area after 2020. Please note that the vegetation protection limit values have been defined only as mean annual values.

**QUESTION 11**

At page 159, table 3.3.5-22, measurement units associated to the presented results need to be specified.

**ANSWER 11**

Results indicated in Bq/kg.

**QUESTION 12**

We would also ask for the relevant figures/images/diagrams which have only Serbian texts, to include their translation into English, in order to facilitate the good understanding.

Romania is looking forward to receiving the answers to all the above comments/observations and requests, coming from interested public and authorities with responsibilities for environmental protection, with regard to this project.

On this occasion, I express my willingness to continue the fruitful cooperation and please accept, Mr. Minister, the assurance of my highest consideration.
ANSWER 12

We believe that attachments do not furnish any additional information compared to what has been given in the English version of the Environmental Impact Assessment Study, which has been provided.
INFORMATION REGARDING THE REPORT ON STRATEGIC ENVIRONMENTAL ASSESSMENT FOR THE ENERGY SECTOR DEVELOPMENT STRATEGY OF THE REPUBLIC OF SERBIA BY 2025 WITH PROJECTIONS UNTIL 2030, WHICH WERE UNDERTAKEN BY THE MINISTRY OF MINING AND ENERGY REPUBLIC OF SERBIA

In accordance with the Energy Law (Official Journal of Republic of Serbia No 145/2014), article 3, the three main strategic documents are:

- the Energy Strategy,
- the Program for the implementation energy strategy, and
- the Energy Balance.

The Energy Sector Development Strategy of the Republic of Serbia by 2015 was adopted by Serbian Parliament in May 2005 and published in "Official Gazette of the Republic of Serbia", No. 44/05 (in the attachment of this letter). This document defines five priorities for the development of Serbian energy sector in the period up to 2015. In the document you can find the table 4.1Program Priorities: Continuity of Technological Modernization of the Existing Energy Sources/Facilities and of Construction of New Energy Sources/Facilities, Including Introduction of New Energy Efficient and Environmentally Acceptable Technologies, where are presented all measures and activities for all energy sectors. In this table for the power sector it is defined, as one of the activities, building of new lignite fueled TPP (700 MW/4800 GWh).

The activities regarding the building of new TPP Kostolac B3 have been started on the base of this Strategy and the Law on Ratification of the Agreement on economic and technical cooperation in the field of infrastructure between the Government of the Republic of Serbia and the Government of the People's Republic of China, which was adopted in 2009 ("Official Gazette of the Republic of Serbia -International Treaties", No. 90/09).

The Energy sector development strategy for the period up to 2025 with the projections up to 2030 (in the further text Serbian Energy Strategy) was adopted by Serbian Parliament on December 4, 2015.

Serbian Energy Strategy is document which defines the main strategic framework and main priorities for the development of Serbian energy sector and gives the list of the potential projects and activities for each energy subsector (electricity, heat, coal, oil, gas, renewable energy sources, energy efficiency). In accordance with the Law on Strategic Environmental Impact Assessment ("Official Gazette of the Republic of Serbia", No. 135/2004 and 88/10), the Report on Strategic Environmental Assessment (SEA) has been prepared based on the decision of the Ministry of Mining and Energy (then Ministry of Energy, Development and Environmental Protection) No.: 312-01-00731/2013-04 of 11.06.2013 (published in the Official Journal of the Republic of Serbia No 56/13) on undertaking a strategic environmental assessment for the Energy Sector Development Strategy of the Republic of Serbia by 2025 with projections until 2030. We send in the attachment of this letter SEA for the Serbian Energy Strategy in English.
We would like to stress that the draft of the Decision was previously sent for the consideration and comments to the next institutions:

1. Ministry of foreign affair for their consideration and comments,
2. Ministry of defense,
3. Ministry of finance and economy,
4. Ministry of Labor, Employment and Social Policy,
5. Ministry of Education, Science and Technological development,
6. Ministry of Agriculture, Forestry and Water management,
7. Ministry of health,
8. Ministry of internal affair,
9. Ministry of Natural resources, Mining and Spatial planning,
10. Ministry of Regional development and Local self- government,
11. Republic Secretariat for Legislation
12. Republic hydrometeorological office,
13. Agency for environmental protection,
14. Republic Agency for spatial planning,
15. Institute for nature conservation of Serbia
16. Provincial Secretariat for Urban Planning, Construction and Environmental protection, Vojvodina

In the document Serbian Energy strategy you can find in the Chapter 5. ENERGY SECTOR DEVELOPMENT, table 5.1 Potential projects for the new production capacities in electric energy sector.

Table 5.1: Potential projects for the new production capacities in electric energy sector

<table>
<thead>
<tr>
<th>Project name</th>
<th>Installed capacity</th>
<th>Estimated time necessary for project implementation</th>
<th>Approximate investment value €</th>
</tr>
</thead>
<tbody>
<tr>
<td>TENT B3</td>
<td>750 MW</td>
<td>4-6 years</td>
<td>1 600 000 000</td>
</tr>
<tr>
<td>TPP Kostolac B3</td>
<td>350 MW</td>
<td>4 years</td>
<td>450 000 000</td>
</tr>
<tr>
<td>TPP Novi Kovic</td>
<td>2 x 350 MW</td>
<td>6 years</td>
<td>1 330 000 000</td>
</tr>
<tr>
<td>TPP Stavilj</td>
<td>300 MW</td>
<td>5 years</td>
<td>850 000 000</td>
</tr>
<tr>
<td>CHP Novi Sad</td>
<td>340 MWe</td>
<td>2-3 years</td>
<td>400 000 000</td>
</tr>
<tr>
<td>Natural gas fired CHP</td>
<td>860 MWe *</td>
<td>4 years</td>
<td>1 500 000 000</td>
</tr>
<tr>
<td>HPP Velika Morava</td>
<td>147,7 MW**</td>
<td>3-7 years</td>
<td>360 000 000</td>
</tr>
<tr>
<td>HPP Ibar***</td>
<td>117 MW**</td>
<td>2-7 years</td>
<td>300 000 000</td>
</tr>
<tr>
<td>HPP Middle Drina***</td>
<td>321 MW**</td>
<td>5-9 years</td>
<td>819 000 000</td>
</tr>
<tr>
<td>RHPP Bistrica</td>
<td>4 x 170 MW</td>
<td>5 years</td>
<td>560 000 000</td>
</tr>
<tr>
<td>RHPP Djeerdap 3 (I)</td>
<td>2 x 300 MW</td>
<td>5 years</td>
<td>400 000 000</td>
</tr>
<tr>
<td>phase)</td>
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</tr>
<tr>
<td>Mini HPP</td>
<td>387 MW</td>
<td>6 (191 location)</td>
<td>500 000 000</td>
</tr>
</tbody>
</table>

a - The total power of CHP (Pancevo, Belgrade, Nis, etc.)
b - The total power of the cascade HPP
v - Implementation according to the Law on Ratification of the Agreement between the Government of the Republic of Serbia and the Government of the Republic of Italy on cooperation in the field of energy ("Official Gazette of RS - International Treaties, No. 7/12")
g – Including and investment in mine

The Ministry of Mining and Energy organized in the period from August 16, 2013 to October 11, 2013 public consultation for the prepared document Serbian Energy Strategy. All comments and suggestions was sent on the email strategija@merz.gov.rs. During the public consultations, the 6 public hearing were organized: three in Belgrade, one in Kragujevac, one in Nis and one in Novi Sad. The last public hearing (of those six) was organized on October 11, 2013 for the representatives of EU Delegation in Serbia, the representatives of Energy Community Secretariat and the representatives of international institutions and diplomatic corps. The representative of Embassy of Romania was participated on that public hearing.

The Report on public consultations were prepared.

Considering the need to undertake the subject SEA, in the procedure for low-value public procurement No.15/2013, the Ministry of Energy, Development and Environmental Protection of the Republic of Serbia, as a promoter of the SEA, has commissioned the Institute of Architecture and Urban & Spatial Planning of Serbia to undertake the SEA.

The report on strategic environmental assessment for the energy sector development strategy of the Republic of Serbia by 2025 with projections until 2030 was prepared in Serbian and English and the public consultations for the SEA were organized in the period from October 30, 2013 up to November 25, 2013. All comments and suggestions was sent on the email strategija@merz.gov.rs. During this period the public hearing was organized on November 22, 2013 in the Chamber of Commerce and industry of Serbia. During the public consultations, The SEA together with the draft of the Serbian Energy Strategy was also sent for the consideration and comments to the next:

2. Ministry of foreign affairs for their consideration and comments,
3. Ministry of defense,
4. Ministry of economy,
5. Ministry of finance,
6. Ministry of Labor, Employment and Social Policy,
7. Ministry of Education, Science and Technological development,
8. Ministry of Agriculture, Forestry and Water management,
9. Ministry of health,
10. Ministry of internal affair,
11. Ministry of Natural resources, Mining and Spatial planning,
12. Ministry of Regional development and Local self- government,
13. Republic Secretariat for Legislation
14. Republic hydrometeorological office,
15. Agency for environmental protection,
16. Republic Agency for spatial planning,
17. Institute for nature conservation of Serbia
18. Provincial Secretariat for Urban Planning, Construction and Environmental protection, Vojvodina

The Ministry of Mining and Energy did not received any comments on the SEA and the draft of the Serbian Energy Strategy from neighboring countries in the requested period. The Report on public consultations for the report on the SEA was prepared and we send it in the attachment of this letter in Serbian.

In accordance with the Law on Strategic Environmental Impact Assessment, the Ministry of Mining and Energy (then Ministry of Energy, Development and Environmental protection) submitted for the approval the Report on SEA and the Report on public consultations for the report on the SEA to the Department for planning and management in the environment, Group for Strategic Environmental Impact Assessment. The approval was defined in the act No 350-02-145/13-05 from December 17, 2013.

The new Serbian energy Strategy was presented on the Bilateral screening meeting with European Commission which was held in Brussels in June 2014.

The new Serbian energy Strategy was adopted by Serbian parliament in December 2015 ("Official Gazette of the Republic of Serbia" No 101/15).

In accordance with the Energy Law, article 5 and 6, the detailed measures, activities and projects which should be realized in the next period (2017-2023) will be defined in the document Program for the implementation energy strategy. This document will be prepared this year and adopted by the Serbian Parliament. For this document the Report on Strategic Environmental Assessment for the Program for the implementation energy strategy for the period 2017 up to 2023 will be also prepared on the base of the decision of the Ministry of Mining and Energy No.: 312-01-00493/2016-06 of June, 6, 2016 (published in the Official Journal of the Republic of Serbia No 56/16).