HEP d.d.

Hrvatska Elektroprivreda d.d. (HEP)

Plomin C Coal-Fired Power Plant Project

REQUEST FOR EXPRESSIONS OF INTEREST FOR THE PARTICIPATION AS A STRATEGIC PARTNER IN THE DEVELOPMENT, CONSTRUCTION, OPERATION AND MAINTENANCE OF THE PLOMIN C COAL-FIRED POWER PLANT

Pre-Qualification Document

July 24, 2012

IMPORTANT NOTICE

This pre-qualification document (hereinafter "**Pre-Qualification Document**") is issued by Hrvatska elektroprivreda d.d. ("**HEP**") for information purposes only and is being provided solely for use by interested investors to assist them in submitting Expressions of Interest pursuant to Appendix A – Contract Notice attached hereto.

Neither HEP nor any of their respective agents, representatives, advisers, or Consultants make, will make, or will be deemed to have made, any representation or warranty, express or implied, as to the accuracy, reliability, or completeness of the information contained herein, in the data room, or any information otherwise provided, whether orally or in writing, other than such representations or warranties as may be contained in the final Project documentation. Neither the receipt of this Pre-Qualification Document, nor any information contained herein or supplied herewith or subsequently communicated to any Person, whether orally or in writing, in connection with a proposed transaction involving HEP, Consultants to HEP, or their subcontractors, is to be taken as constituting the giving of investment, legal, technical, or other advice. None of the information set forth herein constitutes an offer or invitation to sell, or any form of commitment or recommendation or the solicitation of any offer to sell, any of the assets or securities of HEP.

HEP reserves the right, in its sole discretion, to modify any of the rules or procedures relating to this Pre-Qualification Document and any subsequent tender, including the right to refuse to accept offers or, without prior notice or assigning any reason therefore, to terminate the tender. Neither HEP nor any agent, representative, adviser, or Consultant of HEP, will be liable or responsible to any Person for any cost or expense incurred in responding to this Pre-Qualification Document or in any investigation, negotiation, or transaction, whether or not consummated, which may follow.

Neither this Pre-Qualification Document nor any other written or oral information made available to any potential bidder or any other Person or their respective representatives, agents, or advisers will form the basis of any offer or contract. A proposal regarding the Project or any part thereof will give rise to contractual obligations only if and when the final Project documentation related thereto has been executed in writing by HEP and the successful bidder.

All prospective bidders or interested Persons are advised to seek their own independent financial, legal, tax, technical, and other advice. Recipients of these materials should inform themselves about and observe any applicable legal requirements in their jurisdictions.

In providing materials in connection with the proposed transactions, HEP undertakes no obligation to correct, amend, or update such materials.

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PART 1 - INTRODUCTION

1. Hrvatska Elektroprivreda d.d ("**HEP**") is conducting an international competitive tender (the "**Tender Process**" or the "**Tender**") to select an investor, or consortium of investors, (the "**Strategic Partner(s)**") to develop a new coal-fired power plant with a nominal capacity of approximately 500 MW as an Independent Power Project ("**IPP**") on a Build Own Transfer ("**BOT**") basis at Plomin, in the Republic of Croatia (the "**Project**"). The Tender Process will be conducted under a negotiated procedure conducted in accordance with EU Directive 2004/17.

2. The purpose of this Pre-Qualification Document is to invite interested investors to participate in the Tender Process by submitting Expressions of Interest demonstrating that they meet the pre-qualification criteria for the Project and to present background information to investors interested in designing, engineering, financing, constructing, operating and maintaining the Project.

3. HEP estimates that the capital cost of the Project will be approximately €800 million. HEP and the Strategic Partner shall jointly invest in a new special purpose vehicle (the "**Project Company**") which shall be used to realize the Project. HEP expects the Project to be financed on a non-recourse basis. It is envisaged that HEP will enter into a long-term power purchase agreement ("**PPA**") to off-take a minimum of 50% of the capacity of the Project for a period of 20 to 30 years. The Project Company may sell any remaining capacity to third parties under arrangements to be agreed by the Project Company and such third parties.

3. The Project also requires that the Strategic Partner manage the supply of fuel for the Project in a manner that ensures long-term security of supply and enables the Strategic Partner to bid a firm energy price for the term of the PPA. After Croatia becomes a member of the European Union, the Project Company shall be required to comply with the European Union Emissions Trading System by ensuring that it possesses a sufficient number of emission allowances to operate the Project.

4. HEP has developed a preliminary design for the Project which requires seven location permits; two of which have been obtained by and HEP, and five of which HEP is in the process of obtaining. It is expected that the process of obtaining the remaining location permits shall be completed prior to the Project being awarded to the Strategic Partner. In addition, an environmental impact assessment has been completed for the Project in accordance with Croatian law (and consistent with EU law), which was accepted by the Commission of the Ministry of Environment Protection of the Republic of Croatia on 21st June 2012. Further information about the Republic of Croatia, HEP and the Project can be found at Appendix G. Arrangements for the dissemination of additional information will be forwarded to all prospective bidders in due course. Short-listed bidders will be given access to detailed information.

5. Development of the Project components shall be pursued in compliance with EU Directives and other best practices in electrical power generation, as well as in a manner consistent with international best practices in regard to the management of social, economic, and environmental impacts of such a large-scale undertaking.

Definitions

6. The following terms in this Pre-Qualification Document will have the meaning indicated below, unless otherwise stated:

"**Applicant**" means an investor, or Consortium of investors, who provides an application to pre-qualify for the Tender Process in response to this Pre-Qualification Document

"**Croatia**" means the Republic of Croatia.

"Data Room" means the room or rooms located in Zagreb, at the premises of HEP, and the associated internet web site containing information pertaining to the Project.

"Consultant" means the financial and technical consultant appointed by HEP responsible for short-listing of bidders, tendering, and all required financial and technical assistance to HEP prior to and during negotiations and execution of the Project Documents.

"**Expressions of Interest**" means the response to this pre-qualification document submitted by interested investors.

"**MW**" means megawatt.

"**Person**" means any physical person or undertaking, including a partnership, legal person, company, association, joint venture, trust, or other entity or organisation (including, without limitation, any limited liability entity).

"Plomin A" means the existing Block A of the Plomin Coal-Fired Thermo Power Plant in Plomin, Croatia, with 120 MW installed capacity, and expected end of its life cycle in 2017.

"Plomin B" means the existing Block B of the Plomin Coal-Fired Thermo Power Plant in Plomin, Croatia, with 210 MW installed capacity.

"**Pre-Qualified Bidders**" means those prospective bidders or bidding consortia who have been pre-qualified in accordance with the criteria established in this Pre-Qualification Document.

"**Project**" means the project described in this document consisting of the design, construction and development, and operation and maintenance of the Block C of the Plomin TPP by HEP and its Strategic Partner.

"**Project Documents**" means the agreements to be executed between HEP and the Strategic Partner following the selection of the Strategic Partner via the Tender, for joint implementation of the Project.

PART 2 - INFORMATION ABOUT THE REPUBLIC OF CROATIA & HEP

Background information about Croatia

The Republic of Croatia is a European country, geographically located in between Central and Southeast Europe. According to listings from 2011, Croatia has 4.29 million residents, its land area is 56.543 km^2, and its territorial sea area 31.067 $km^{2.}$

Croatia has a very high Human Development Index, which is 0.796. The International Monetary Fund has classified Croatia as an emerging and developing economy with a GDP per capita of $14,457, and the World Bank has identified Croatia as a high income economy. Croatia is a member of the United Nations, the Council of Europe, NATO, the World Trade Organization, CEFTA and is a founding member of the Union for the Mediterranean. Croatia will become a full member of the European Union in 2013.

Electricity consumption in Croatia is increasing at an average annual growth rate of 1.7% (2004 to 2009), while electricity imports amount to 22-35%. This is because there is a net deficit of electricity production in Croatia compared to consumption requirements, which is met by the importation of electricity. This net electricity deficit will be exacerbated by 2020, because a number of power plants in Croatia will be decommissioned as they come to the end of their life cycle, and some power plants will be decommissioned in order to meet EU emissions regulations.

The Strategy and the Physical Planning Program of the Republic of Croatia (OG 50/99) allows for the modernization and reconstruction of Croatian power plants on their existing locations to increase capacity to a minimum of 350 MW for each power plant. The Energy Strategy of the Republic of Croatia (OG 130/09) also specifies the need to construct new thermal power plants with a total capacity of not less than 2400 MW. In April 2010, the Government of the Republic of Croatia adopted the Conclusion on Establishing Priorities in the Construction of Power Facilities which specifies that a capacity increase on the TPP Plomin site as a priority.

Background information about HEP

Hrvatska Elektroprivreda ("**HEP Group**") is a national electricity company of the Republic of Croatia which has been engaged in electricity production, transmission, distribution and supply for more than a century, and has undertaken heat supply and gas distribution for the past few decades.

HEP Group is organized in the form of a holding company with a number of affiliated companies. The parent company of the HEP Group, Hrvatska Elektroprivreda d.d., performs the function of HEP Group corporate management and guarantees the conditions for secure and reliable electricity supply to customers. Within HEP Group there is a division between those companies which perform regulated activities (transmission and distribution) from those companies that perform non-regulated activities (generation and supply).

HEP Group owns and operates 4,000 MW of installed capacity for electricity production and 974 MW of heat production capacity. Within HEP Proizvodnja d.o.o. there are 25 hydro power plants and eight thermal power plants fired by oil, natural gas or coal. Some of these power plants produce both electricity and heat in a combined-cycle, forming the backbone of

the district heating system in the cities of Zagreb and Osijek. Both HEP Proizvodnjad.o.o., pumping station and Buško blato d.o.o., are situated in the area of Bosnia-Herzegovina. Apart from HEP Proizvodnja d.o.o, electricity within HEP Group is produced by TE Plomin d.o.o., a company co-owned by HEP-a d.d. and RWE Power which operates a 210 MW thermal power plant. HEP d.d. is also a co-owner of the Krško Nuclear Power Plant in Slovenia.

PART 3 - PROJECT SCOPE

a) Design

1. The Project Company shall be required to design and engineer (or cause the design and engineering of) the Project based on the existing preliminary design and in accordance with all European Union social and environment protection standards.

b) Construction

2. The Project Company shall be required to construct (or cause the construction of) the Project, including

(i) the power plant, including the boilers, turbines, generators, and balance of plant,

(ii) all connection facilities required up to the delivery point at the outgoing gantry at the substation adjacent to the power plant,

(iii) appropriate upgrades to the coal jetty and the coal-handling equipment,

(iv) an enclosed coal-storage facility (optional),

as well as all other civil engineering works and constructions envisaged by the preliminary design.

c) Operation & Maintenance

3. The Project Company shall be required to undertake all operations and maintenance of the Project.

d) Coal Supply Management

4. The Project Company shall be required to supply all fuel (including coal, light fuel oil, and, if necessary, propane) required to fuel the Project in a manner that ensures long-term security of supply and enables the Strategic Partners to bid a firm energy price for the term of the PPA.

e) Energy Trading

5. Whilst HEP shall commit to purchasing a minimum of 50% of the contract capacity of the Project under a long-term PPA, the Project Company shall be allowed to sell the remaining installed capacity to third parties under terms and conditions that are satisfactory to the Project Company.

f) Carbon Trading

6. Once Croatia joins the European Union, the Project Company will be required to comply with the European Union Emissions Trading System .

h) Carbon Capture and Storage

The Project Company will be requried to comply with the obligations referred to in Article 36 of EU Directive 2010/75 (the Industrial Emissions Directive) in relation to ensuring that sufficient space is available at the Site to retrofit the Project with carbon capture and compression equipment.

h) Potential Involvement of Plomin B in the Project

7. In 2015, HEP will become the sole owner of Plomin B, which currently produces electricity for the Croatian market and is located adjacent to the site upon which the Project shall be constructed. Plomin B was developed by RWE and is presently owned and operated by TE Plomin d.o.o, which is jointly owned by RWE and HEP under a BOT scheme. Plomin B has a nominal capacity of 210 MW and from 2015 shall have a projected life span of a further 15 years. HEP is currently considering its options with respect to Plomin B and may offer the Strategic Partner the opportunity to own, operate and maintain the plant as part of this transaction.

Further information about the Project can be found in Appendix G of this Pre-Qualification Document.

PART 4 - PRE-QUALIFICATION PROCEDURES

1. HEP intends to conduct an international competitive tender to select the Strategic Partner using a negotiated procedure conducted in accordance with EU Directive 2004/17. HEP's procurement policy requires new investments in power generation projects to be procured through a transparent international competitive bidding process. For the development of the Project, bidding will be restricted to a short-list of Pre-Qualified Bidders. Interested investors must apply for pre-qualification to be eligible for selection to the short-list of bidders.

2. If more than three Applicants meet the requirements established in Part 5 – Minimum Conditions for Participation, and Part 6 – Conditions for Participation, of this Pre-Qualification Document, HEP may evaluate the Expressions of Interest and qualifications submitted by Applicants to determine a short-list of Pre-Qualified Bidders. Such process will employ the scoring criteria and methodology set out in Part 6 of this Pre-Qualification Document, from which the top scoring applicants will be selected for the short-list of Pre-Qualified Bidders.

3. The timetable for pre-qualification and short-listing is as follows:

- Applicants must submit their credentials for pre-qualification in response to this Pre-Qualification Document by 14th September 2012 at 12:00 PM, Zagreb time (the "**Deadline for Submission of Expressions of Interest**").
- Announcement of the short-list of pre-qualified bidders shall be by 28th of September 2012.

4. HEP with the support of its financial, technical and legal advisers shall prepare the Request for Proposals ("**RFP**") to be issued to Pre-Qualified Bidders who have been short-listed with the objective of soliciting feedback and discussion on the proposed transaction structure as well as the contractual package through which the transaction will be realised. Following a pre-bid conference, HEP may revise the RFP to reflect those comments it receives from Pre-Qualified Bidders it agrees with.

5. It is expected that the RFP will be distributed to the short-list of Pre-Qualified bidders in due course.

6. A Data Room will be set up in Zagreb for the short-list of Pre-Qualified Bidders on the 28th of September 2012.

7. Applicants are encouraged to form consortia (a "**Consortium**") should they need to improve their qualifications. An Applicant may be a private entity, a government-owned entity or any combination of such entities in the form of a Consortium. In the case of a Consortium:

A. The Consortium shall nominate a representative who shall have the authority to conduct all business for and on behalf of any and all the Consortium partners during the process (the "**Lead Member**"), including, but not limited to, the submission of their response to this Pre-Qualification Document on behalf of the Consortium.

B. The Lead Member must demonstrate that it is duly authorised, through a Power of Attorney in the form outlined at Appendix C, by all other Consortium members to act

on their behalf, and that the Consortium has the legal authority to communicate with HEP and perform all legal acts required by this Pre-Qualification Document. A written Power of Attorney shall be signed by all Consortium members.

C. An Applicant wishing to qualify as a Consortium must submit a letter duly executed by each member of the Consortium, which confirms each member's commitment to the Consortium. The Lead Member shall also provide an undertaking that there will be no change in the organisation of the Consortium without the prior written consent of HEP.

8. Each Applicant may submit only one application in response to this Pre-Qualification Document. A member of a Consortium may not participate in the selection of a Strategic Partner simultaneously as a member of another Consortium or as an independent Applicant by submitting an application in response to this Pre-Qualification Document.

9. No Applicant may have between them common members, whether directly or indirectly, and no Applicant may have control over another Applicant.

11. Each Applicant shall bear all costs associated with the preparation and submission of its Expression of Interest in response to this Pre-Qualification Document, including, without limitation, all costs and expenses related to the Applicant's preparation of responses to questions.

12. HEP will not meet any Applicants interested in the Project until such Applicant has been selected as a Pre-Qualified Bidder. If an Applicant would like to undertake a site visit, such visits shall be organised at the cost of the Applicant and shall be subject to the approval and discretion of HEP.

13. The applications in response to this Pre-Qualification Document, and all correspondence and documents related thereto, shall be submitted in English or the Croatian language.

14. Questions regarding this Pre-Qualification Document, the procurement process, or any aspect of the proposed Project should be directed in writing to:

Hrvatska elektroprivreda d.d.
Attention: Mr. Vedran Jurić
Ulica grada Vukovara 37
Zagreb 10000, Republic of Croatia
Telephone: +385 1 63 22 145
E-mail: vedran.juric@hep.hr

Please ensure that any verbal communication is confirmed in writing immediately thereafter. Where requests relate to clarifications, additional information or omissions within this Pre-Qualification Document, the reply shall be circulated via e-mail.

PART 5 - MINIMUM CONDITIONS FOR PARTICIPATION

1. Each Applicant must submit documented evidence that it meets the minimum conditions for participation set out in this Part 5 and shall complete the Basic Information Form attached at Appendix B and each Applicant shall sign and submit as cover to their application in response to this Pre-Qualification Document, an Expression of Interest for Bidding attached at Appendix D and each Applicant shall complete the Confidentiality Agreement attached at Appendix F. If the Applicant is a Consortium, each individual member of the Consortium shall complete the Basic Information Form attached at Appendix B, the Expression of Interest for Bidding attached at Appendix D and the Confidentiality Agreement attached at Appendix F.

2. Each Applicant must also provide, for each and every credential they submit in response to Part 6 - Conditions for Participation, a completed Experience Declaration Form, attached at Appendix E. In the event the Applicant is a Consortium, only the Lead Member of the Consortium shall be required to meet the requirements under this paragraph 2 of Part 5 on behalf of the Consortium.

3. In addition to meeting the minimum conditions for participation outlined above between paragraphs 1-2, each Applicant must also submit a signed statement certifying that:

A. it is not the subject of proceedings for the declaration of bankruptcy, is not bankrupt or being subject to liquidation proceeding, nor is under suspension of business;

B. none of its officers or directors have been convicted for an offence relating to corruption, the laundering of income from criminal activities or for an offence relating to fraud or organised criminal activity;

C. it has fulfilled all obligations related to the payment of direct and indirect taxes, in accordance with applicable regulations in the Republic of Croatia or regulations in its country of registration.

7. In the event that an Applicant fails to meet the requirements of this Part 5 - Minimum Conditions for Participation by failing to complete any of Appendices and or conditions outlined in paragraph 1 to 3 above, such application shall be regarded as a “non-responsive bidder” and rejected.

PART 6 - CONDITIONS FOR PARTICIPATION

1. For an Applicant to be considered for the short-list of Pre-Qualified Bidders, its Expression of Interest, written in English or Croatian, must contain qualification information in sufficient detail to allow HEP to assess such firm's, or Consortium's, ability to develop the Project within the requirements set by HEP. If an interested party has insufficient experience in a specific area, it may, and is encouraged, to associate with others by way of a Consortium to enhance its qualifications.

The following table will be used in determining an Applicant's qualifications:

Pre-Qualification Criteria Table

Qualification Criteria	Minimum to Pre-Qualify
(i) **Financial Capacity**: The Applicant must demonstrate financial capacity to fund, or experience in arranging financing, for the investment required for a large coal-fired power plant (potentially over €500 million). Please describe all the thermo power generation projects over the last 15 years in which the Applicant has invested, in particular coal-fired plants, clearly listing the location, year of financial closing, the total capital amount, debt ratio, and the role of and amount invested by the Applicant.	o The Applicant shall provide evidence that it, if not a Consortium, or the Lead Member if a Consortium, has arranged financing for an IPP with a financing amount (debt plus equity) of at least € 500 million. o The Applicant's shall further provide evidence that (a) its revenues have exceeded the amount of EUR 3 billion or its equivalent in other currency annually for the last 3 business years; (b) the Applicant's total assets must exceed the amount of EUR 8 billion or its equivalent in other currency for the last business year; (c) the Applicant must be awarded a credit rating of no less than "BBB minus" by Standard and Poor's or Fitch, or "Baa3" by Moody's. o Applicants must submit audited financial statements for the previous three years demonstrating that they meet the Financial Capacity criteria.
(ii) **Project Management and Sponsorship**: The Applicant must demonstrate that it has the capabilities to successfully manage the contracting, financing, design, engineering, procurement, construction, start-up, operation, and site restoration of a large coal-fuelled power station. Please describe all the thermo power generation projects, in particular coal-fired projects, over the last 10 years in which the Applicant has played	o The Applicant shall provide evidence that it has <u>managed the development</u> of coal-fired power plants of at least 1500 MW total installed electric power generating capacity (at a single or in aggregate across multiple locations).

a management role, clearly indicating the size (throughputs) of the project, location, year of completion of construction, and whether the Applicant acted as lead or participant.	
(iii) **Construction and Engineering**: The Applicant must demonstrate it (or its construction subcontractors) has the past experience to successfully engineer, procure, and construct a power station of size as at (ii) above. Please describe all (but not to exceed ten power stations) relevant power stations in which the Applicant (or its subcontractors) has been lead constructor, clearly indicating the size (throughputs) of the project, location, year of completion of construction, technology, and manufacturers of major equipment.	○ The Applicant shall provide evidence that it (or its construction subcontractors) has served as the lead construction entity in at least two projects of a similar nature and complexity as the Project that have been completed and operated successfully for at least 18 months;
(iv) **Operation and Maintenance**: The Applicant must demonstrate it (or its operations subcontractors) has the experience to operate and maintain a power station of size as at (ii) above. If the operator is a subcontractor, the contract must be for at least 5 years. Please describe all (but not to exceed ten) relevant O&M contracts into which the proposed operator(s) has entered in the last 10 years, clearly indicating the location, years under contract, size, and technology of each contract.	○ The Applicant shall provide evidence that it (or its lead operations subcontractor) has operated coal fuelled power generation capacity of at least 1500 MW (at a single or in aggregate across multiple locations) for at least 3 years since 2004.
(v) **Coal Supply Management:** The Applicant must demonstrate it (or its operations subcontractors) has experience to operate and maintain a long term coal supply management system for a power station of size as at (ii) above.	○ The Applicant shall provide evidence that it (or its lead operations subcontractor) has developed and operated a 20 year coal supply management system for a coal fuelled power generation capacity of at least 1500 MW (at a single or in aggregate across multiple locations) for at least 3 years since 2004.
(vi) **Energy Trading:** The Applicant must demonstrate it has experience to develop an energy trading system for a power station of size as at (ii) above and that the Applicant is present at the current Europ electricity market.	○ The Applicant shall provide evidence that it (or its lead operations subcontractor) has participated in markets for the sale of electricity and managed an energy trading system for a power generation capacity of at least

	1500 MW (at a single or in aggregate across multiple locations) for at least 3 years since 2004.
(vii)**Carbon Management:** The Applicant must demonstrate it has experience in complying with the obligations imposed by the EU Emissions Trading System in accordance with EU law for a power station of size as at (ii) above, and that it has experience in complying with the obligations imposed by Article 36 of EU Directive 2010/75 (the Industrial Emissions Directive) in relation to ensuring that sufficient space is available at the Site to retrofit the Project with carbon capture and compression equipment..	o The Applicant shall provide evidence that it (or its lead operations subcontractor) has experience complying with the European Union's Emissions Trading System in relation to coal fired power generation capacity of at least 1500 MW (at a single or in aggregate across multiple locations) for at least 3 years since 2004.

2. Each Applicant's minimum qualifications in relation to the above Qualification Criteria will be evaluated on the basis of a PASS-FAIL approach.

3. For determining the experience and technical capability of a Consortium, the required experience and technical capability outlined above in the Pre-Qualification Criteria Table of each member may be combined for evaluation. However, experience and resources of subcontractors to the Applicant shall be taken into account in determining the Applicant's compliance only with Pre-Qualification Criteria (iii), (iv) and (v) in the above Pre-Qualification Criteria Table.

4. Applicants must provide audited financial statements to support their Financial Capacity. Applicants who submit Expressions of Interest as a Consortium may use the combined Financial Capacity of all Consortium members to meet the Financial Capacity Qualification Criteria set out in the above Pre-Qualification Criteria Table. In circumstances where members of a Consortium are combining their Financial Capacity, each member of the Consortium must provide audited financial statements for their contribution to the Consortium's financial capability.

5. A Pre-Qualified Bidder will be an Applicant who meets or exceeds the Qualification Criteria listed above in the Pre-Qualification Criteria Table. An Applicant must demonstrate its experience in the areas of financing, project management and sponsorship, construction and engineering, operations and maintenance, coal supply management, energy trading and carbon trading of projects of similar nature and complexity to the proposed Project.

6. Expressions of Interest which are provided on behalf of a Consortium must clearly identify the Lead Member, its relationship to a parent company (if any), and details of all other firms that comprise the Consortium. The name, mailing address, telephone and facsimile numbers, and e-mail address of the Applicant's project manager to whom all correspondence will be directed in relation to the Project shall be provided in the submission.

7. Submissions should be made (by hand or by prepaid, registered, or certified mail or by overnight courier, but not by facsimile, electronic mail, telex or telegram) in a sealed envelope to the address below not later than 1200 hours (Zagreb time) on 14th of September 2012, signed and certified by an officer of the firm (or the Lead Member of the Consortium), and clearly marked "Expression of Interest for Development of the Plomin Block C." The submission shall contain one original and five (5) copies of the firm's or Consortium's: Expression of Interest, qualifications, as well as the completed and duly signed forms contained in Annex B, D, E and F of this Pre-Qualification Document. In the event that Applicant is a Consortium, the Applicant's Expression of Interest must also contain the Power of Attorney attached at Appendix C signed by all Consortium members appointing the Lead Member of the Consortium.

Hrvatska elektroprivreda d.d.
Plomin Block C Strategic Partner Selection Process
Attention: MrZlatko Koračević
Ulica grada Vukovara 37
Zagreb 10000, Republic of Croatia
Telephone: +385 1 63 22 720
E-mail: ljubica.cvenic@hep.hr

8. HEP reserves the right, in its sole discretion, to accept or reject any application, to waive minor informalities in applications received, to extend the deadline for submission of applications, or to amend the requirements for the Pre-Qualification at its discretion.

9. In the event that HEP receives more than three Applicants which all meet the Part 5 Minimum Conditions for Participation and the Part 6 - Conditions for Participation, HEP will evaluate each application submitted and qualifications for compliance with the Pre-Qualification Criteria minimums and, if necessary, may reduce the list to a maximum of approximately three Pre-Qualified Bidders.

10. In such circumstance, HEP and its advisers will form a short-list of the most highly qualified bidders to HEP, employing a weighted scoring mechanism which shall be as follows:

SCORING CRITERIA	**Points**
- Financial Capacity	30
- Coal Supply Management	25
- Project Management Sponsorship	20
- O&M Experience – Coal/Lignite Generation	10
- Energy Trading	5
- Carbon Trading	5
- Bidder/Consortium Structure*	5

* Consortium Structure scoring shall favor Pre-Qualified Bidders who are a single organisation with equity interest in generation activities, then secondly consortia in which members individually hold equity interests in generation activities.

11. HEP will notify in writing the signatory to Appendix D Expression of Interest for Bidding or if the Applicant is a Consortium the Lead Member, of the names of firms or consortia on the short-list on or before 28 September 2012.

12. Only the short-listed firms will be invited by HEP to participate in the forthcoming Tender, for which HEP will make the full RFP available in due course. The Applicants who are successful in the forthcoming Tender will be required to arrange the necessary financing and to finalise the engineering, procurement, construction, operation and maintenance, coal supply and all other contracts required for Project development and implementation.

PART 7 – BACKGROUND STUDIES AND REPORTS

1. The following table of studies/analyses relevant to the Project have been completed:

Document	Completion Date	Status
[Conceptual Design]	2010	Completed
[Feasibility Study "Project Plomin"]	2010	Completed
Environmental Impact Assessment Study	2010	Completed
[Non-technical summary of the Environmental Impact Assessment Study of TPP Plomin Restructuring]	2011	Completed

APPENDIX A—CONTRACT NOTICE

Hrvatska Elektroprivreda d.d. (HEP)

Request for Expressions of Interest for
Design, Construction, Development and Operation & Maintenance
of the Block C of Plomin TPP

NOTIFICATION OF REQUESTS FOR EXPRESSIONS OF INTEREST

for the participation of a strategic partner in:

(a) the design, engineering, financing, construction, operation and maintenance of a coal-fired power station with a capacity of approximately 500 MW located in Plomin, Croatia that will be known as the Plomin-C Coal-Fired Thermal Power Plant, including

(b) the supply of all fuel required to operate Plomin-C,

in compliance with applicable social and environmental requirements and the obligations Croatia will have under the European Union Emissions Trading System.

The bidder that submits the most economically advantageous tender will be selected as the strategic partner pursuant to a negotiated procedure conducted in accordance with the EU procurement Directives.

Hrvatska Elektroprivreda d.d. is the national electricity company of the Republic of Croatia. It has been engaged in the production, transmission and distribution of electricity for more than a century The HEP group owns and operates over 4,000 MW of installed generation capacity and 974 MW of heat production capacity, including 25 hydroelectric plants and eight thermal power plants fired by oil, natural gas, and coal.

The pre-qualification criteria, which must be satisfied by candidates seeking to participate in the tender, are defined in the Pre-Qualification Document which can be obtained by emailing Vedran Jurić of HEP at plomin-c@hep.hr or at the offices of HEP at Ulica grada Vukovara 37, Zagreb 10000, Republic of Croatia, phone +385 1 63 22 145, fax +385 1 63 22 143.

The deadline for submission of expressions of interest is 14th September 2012 at 12.00 noon, Zagreb time at the same address.

APPENDIX B - BASIC INFORMATION FORM

Pre-Qualification Applicant information:

Name:

Type: (Corporation, Partnership, etc.)

Commercial registration N°:*

Domicile:

Address of principal office:

Telephone number:

Fax number:

E-mail address:

Primary areas of business:

Declaration of true owners**

Shareholder certificate (attach separately)***

Consortium members information:
(if applicable, fill in details for all members, identifying the Lead Member)

Name:

Type: (Corporation, Partnership, etc.)

Commercial registration N°:*

Domicile:

Address of principal office:

Telephone number:

Fax number:

E-mail address:

Primary areas of business:

Declaration of true owners**

Shareholder certificate (attach separately)***

* Official excerpt from the register of commercial companies of Applicant's country of incorporation, showing that the Applicant is duly formed in accordance with the laws of the country of incorporation

** Declaration of True Owners will specify any natural person which is, directly or indirectly, owner of more than 25% of stocks or more that 25% shares or more than 25% of voting rights or more than 25% of other forms of ownership rights or participation in the Applicant (in case of entities such as trusts), or which may in any other way may influence the management of the Applicant or control the adoption of financial or business decisions of the Applicant. Declaration of True Owners not required in case the Applicant is a publicly listed/traded company.

*** Shareholder certificates and Declaration of True Owners are not required in case the Applicant is a publicly listed/traded company.

APPENDIX C - FORM OF POWER OF ATTORNEY

Date [_____]

I, the undersigned, Mr./Ms._____ citizen of_____, ID number: _____, as a _____ of [Name of Candidate/Lead Member of the Consortium] with its registered seat in, (hereinafter: the "**Company**"), in the name and on behalf of the Company hereby nominate, constitute and appoint the following person:

Mr./Ms._____ in his capacity as _____ (the "**Attorney**") to:

i. Execute under hand, or under seal, deliver to HEP and receive all necessary documents with respect to the Expression of Interest of the Company in relation to the procedure for the selection of a strategic partner for the financing, design, construction, engineering, operation and maintenance of Block C of the Plomin TPP; [procedure number];

ii. Do all things necessary and incidental in respect of the matters set out herein including to execute and perform any other deed or act required to be done, executed or performed to perfect or otherwise give effect to the documents necessary to complete the Company's Expression of Interest.

The powers and authorities hereby given shall remain in full force and effect until their revocation by written notice.

[Name of Candidate/Lead Member of the Consortium] will, upon request, ratify and confirm the actions of the authorised person as to whether they are in compliance with this Power of Attorney.

The Attorney is hereby authorised to appoint others for all or part of the powers delegated by the present Power of Attorney.

This signature on the Power of Attorney shall be notarized by a public notary or other competent authority in the country in which it is being issued.

IN WITNESS WHEREOF [Name of Legal Entity/Leading Member of the Consortium] has executed this
Power of Attorney under seal (as appropriate) on the date set out above.

[SEAL and signature]

APPENDIX D – EXPRESSION OF INTEREST FOR BIDDING

Re: Pre-Qualification for Bidding

Hrvatska elektroprivreda d.d.
Plomin Block C Strategic Partner Selection Process
Attention: Mr. Zlatko Koračević
Ulica grada Vukovara 37
Zagreb 10000
Republic of Croatia

Pursuant to the Pre-Qualification Document dated [●] 2012, and the procedures and criteria for bidding included therein, [*Name of Applicant*] *("Applicant")* hereby submits its Expression of Interest for Bidding and requests to be considered for pre-qualification.

All capitalised terms used in this Application are defined in the glossary of the Pre-Qualification Document, unless otherwise indicated.

Applicant hereby applies to become pre-qualified in the Tender for the Project.

Applicant hereby confirms that it:

(a) agrees to comply with the pre-qualification criteria and all other rules, laws and regulations governing the Tender;

(b) acknowledges that HEP reserves the right to declare the Tender void or otherwise without effect for any reason or no reason or to reopen the pre-qualification or the Tender or to accept or reject any application for pre-qualification at any time, and that such action will not entitle any Applicant to any claim whatsoever against HEP or any of its respective agents, representatives, advisors or Consultants;

(c) accepts the right of HEP to: (i) request additional information from Applicants; (ii) amend the pre-qualification criteria and rules or make clarifications thereof; and (iii) extend or amend the schedule of the pre-qualification and the Tender;

(d) accepts the exclusive application of the law applicable in Croatia with respect to these pre-qualification rules and the Tender; and

(e) accepts that each Applicant will be required to perform its own investigation and analysis to the extent it deems necessary with respect to the Project, including, without limitation, financial, technical, tax and legal aspects.

Applicant hereby represents and warrants that as of the date of this letter:

(a) all of the information submitted or to be submitted by the Applicant is accurate in all respects;

(b) it has not been subject to any voluntary or involuntary bankruptcy or insolvency or similar proceeding during the last five years; and

(c) it has paid all taxes due, except those which are being contested in good faith by appropriate proceedings and for which adequate reserves have been established.

Attached herewith to this Expression of Interest for Bidding are the following documents, as appropriate:

(a) the properly completed Experience Declaration Form as set forth in Annex E to the Pre-Qualification Document;

(b) copies of the current bylaws and articles of incorporation or articles of association of the Applicant or other equivalent constitutional documents;

(c) the audited financial statements of the Applicant as required by the pre-qualification rules;

(d) the document or documents (such as powers of attorney or corporate minutes) evidencing the authority of the officer or director who shall execute this letter of application; and

(e) the Confidentiality Agreement set forth in Annex F of the Pre-Qualification Document executed by an officer or director of the Applicant who has the legal capacity and authority to bind the Applicant with respect to matters in the pre-qualification process.

As required by the pre-qualification rules, Applicant hereby designates_____ _____ as its representative and _____ as its alternate to receive notices in respect of the pre-qualification and the Tender at the following address, telephone and facsimile numbers:

[Representative's and alternate's address, telephone and facsimile numbers.]

Very truly yours,

[*Name of Applicant*]

By: _____ Date: _____
Name: _____
Title: _____

APPENDIX E – EXPERIENCE DECLARATION FORM

THE APPLICANT [Insert Name]

The Applicant is/are local/international investors or a consortium of investors with a proven track record in ownership, financial capability and technical competence to construct, own and manage coal preparation facilities and associated power plant. Accordingly, the Applicant submits the attached documentation as verifiable evidence of its technical, managerial and financial capability.

The pre-qualification criteria that the Applicant meets and for which Applicant has supplied evidence herewith includes but is not limited to the following:

1. evidence that it, if not a consortium, or the lead member if a consortium, has arranged financing for an independent power and/or mining project with a financing amount (debt plus equity) of at least €[●] million.
2. evidence that it, if not a consortium, or a consortium member if a consortium, has managed the development of a coal- or lignite-fired independent power producer(s) of at least [●] MW gross electric power generating capacity.
3. evidence that it, if not a consortium, or a consortium member if a consortium, (or its, or a consortium member's, construction subcontractors) has served as the lead construction entity in at least two projects of a similar nature and complexity as the Project which have operated successfully for at least 18 months; and
4. evidence that it, if not a consortium, or a consortium member if a consortium, (or its, or a consortium member's, construction subcontractors) has operated coal or lignite fuelled power generation capacity of at least [●] MW (at a single or in aggregate across multiple locations) for at least 3 years since 2004.

METHOD OF APPLICATION

The Applicant, as a single or consortium of investors, has supplied the following documentation and information:

- For the applicant company, or if a consortium, for each member of that consortium, the full name of that company and a lead contact person, postal address, telephone / fax numbers and e-mail address.

- For the applicant company, or if a consortium, for each member of that consortium, the ownership structure of the company; name(s) of major shareholders, and percentage shareholdings; composition and profile of management team showing qualification and years of relevant experience.

- For the applicant company, or if a consortium, for each member of that consortium, the ownership structure of the company; audited financial statements for up to the past three (3) years and most recent management accounts.

- Technical and operational capabilities per the above criteria.

- Evidence of financial resources per the above criteria.

Very truly yours,

[*Name of Applicant*]

By: _____ Date: _____
Name: _____
Title: _____

APPENDIX F – CONFIDENTIALITY AGREEMENT FORM

Hrvatska elektroprivreda d.d.
Ulica grada Vukovara 37
Zagreb 10000
Republic of Croatia

Pursuant to the Pre-Qualification Document issued by HEP (this and other capitalised terms used here shall have the meaning given to them in the Pre-Qualification Document unless it is otherwise indicated) on [●], 2012, we understand that HEP will, in due course, initiate a Tender and invite investors to submit their proposals for the participation in the Project as a Strategic Partner. As part of the Tender, HEP is prepared to disclose certain Confidential Information (as hereinafter defined) to potential bidders in order to assist them in evaluating the Project and in preparing their bids. As an entity interested in the Tender, the undersigned recipient (the "Recipient") of Confidential Information hereby executes and delivers this letter agreement (the "Confidentiality Agreement"). By this Confidentiality Agreement, the rights and obligations of the Recipient concerning the use, protection and disclosure of Confidential Information, which may be provided to the Recipient, are set forth below.

Definitions.

"Confidential Information," as used herein, shall include information of whatever nature and on whatever medium relating to the Project which is obtained in connection with the Tender, in writing, orally or by any other means by the Recipient, its employees, directors, officers, agents or advisors from HEP or its employees, directors, officers, agents or advisors. Confidential Information does not include (1) information which is or becomes publicly available, other than as a result of a breach of this Confidentiality Agreement or a similar Confidentiality Agreement signed by another Recipient, (2) information which becomes lawfully available to the Recipient from a third party which is free from any confidentiality restriction, (3) information which prior to being imparted to the Recipient during the Tender was already properly in the Recipient's possession, and (4) information which was independently created by the Recipient without the use or knowledge of Confidential Information.

"Restricted Person," as used herein, shall include the Recipient's and Recipients' affiliates employees, directors, officers, agents and advisors.

Undertakings of the Recipient.

The Recipient hereby undertakes that:

(i) Recipient shall use the Confidential Information only for the purpose of evaluating the Tender and preparing its bid for the Project;

(ii) Recipient shall treat and safeguard as private and confidential all Confidential Information from the time of receipt until notified by HEP;

(iii) Subject to (ix) below, Recipient shall not any time until notified by HEP, without the prior written consent of HEP directly or indirectly disclose or permit the disclosure of any Confidential Information to any Person or other party whatever, other than to Restricted Persons who need to know or see the same in the course of the Recipient's evaluation of the Tender and the preparation of its bid;

(iv) Recipient shall be responsible that all Restricted Persons observe the terms of this Confidentiality Agreement and maintain the confidentiality of all Confidential Information. Recipient shall impose upon each Restricted Person who receives Confidential Information an obligation of confidentiality equivalent to or greater than the obligations placed on Recipient herein, and Recipient shall be responsible for any disclosure of Confidential Information by any Restricted Person in violation of the terms of this Confidentiality Agreement;

(v) Except as permitted by the Tender, Recipient shall not and shall ensure that Restricted Persons shall not at any time during the Tender discuss with, communicate with, or solicit information from HEP, their employees, directors, officers, agents or advisors concerning any matter related to the Project without the prior written consent of HEP, and shall notify HEP of any information received outside the formal Tender;

(vi) Recipient shall not and shall ensure the Restricted Persons shall not at any time during the Tender directly or indirectly disclose or permit to be disclosed to any Person, except other Restricted Persons, that discussions are taking place between (a) the Recipient or Restricted Persons and (b) HEP or its agents in relation to the Tender or the contents of such discussions, without the prior written consent of HEP;

(vii) Recipient shall only make such copies of any document or other material (in whatever medium) embodying or including any Confidential Information as are necessary for evaluating the Tender and preparing its bid. Recipient shall keep a record of the location of and Person holding all Confidential Information, and copies thereof;

(viii) Recipient shall promptly return to HEP, (i) upon the request of the HEP (ii) upon the Recipient's decision not to further participate in the Tender, or (iii) upon the termination of the Tender, all Confidential Information (and copies thereof) which was supplied to the Recipient or a Restricted Person, which physically can be returned and which is in the Recipient's possession or the possession of a Restricted Person. Recipient shall destroy any paper or other record (including records stored on computers or similar devices) containing Confidential Information, and shall at the same time deliver to HEP a certificate signed by Recipient that all Confidential Information and copies have been so returned or destroyed;

(ix) If Recipient is requested or required (by judicial or regulatory order or demand or otherwise) to disclose any of the Confidential Information, Recipient shall notify HEP promptly so that the HEP may seek any appropriate protective order and/or take any other action. In the event that such protective order is not obtained, or that HEP waives compliance with the provisions hereof, (a) Recipient may disclose to any tribunal or other Person only that portion of the Confidential Information which the Recipient is advised by legal counsel in writing is legally required to be disclosed and shall use Recipient's best efforts to obtain assurances that confidential treatment will be accorded such Confidential Information, and (b) Recipient shall not be liable for such disclosure unless such disclosure to such tribunal or other person was caused by, or resulted from, a previous disclosure by the Recipient which was not permitted by the Confidentiality Agreement.

No Representations or Warranties.

Except as may be contained in the final transaction documentation executed by HEP: (a) HEP, its directors, officers, advisors, agents, employees, have not made at any time, now or in the future, any representation or warranty (express or implied) concerning or related to HEP, the Tender, the accuracy or completeness of any Confidential Information, or any other information concerning the Project or the Tender, (b) no representation or warranty is or will be made that such information will remain unchanged, (c) HEP shall have not responsibility or liability whatever arising from any Confidential Information or any other information supplied to the Recipient.

In particular, but without prejudice to the generality of the foregoing, any projected results for future periods which may be contained in the information which Recipient may receive are for indicative purposes only, and HEP, its directors, officers, advisers, agents, employees, and associates do not warrant or in any way accept liability for their accuracy. Recipient must make its own independent assessment of the Tender and rely on Recipient's own judgment in reaching any conclusion.

No Offer; Independent Contractor.

Recipient agrees that any document or information (whether Confidential Information or not) with the exception of the definitive Project agreements to be executed by the awardee(s) of the Tender, made available to Recipient does not and will not constitute an offer or invitation or form the basis of any contract. HEP shall be entitled at any time to decline to provide or to continue to provide any Confidential Information to the Recipient.

Nothing in this Confidentiality Agreement shall be deemed to constitute any party a partner, agent or legal representative of any other party or to create a fiduciary relationship between the parties.

Other Provisions.

HEP, their directors, officers, advisors, agents, employees and associates shall not be and are not under any obligation to reimburse any costs and expense which the Recipient or any Restricted Person may incur in connection with the process.

The Recipient acknowledges that the Confidential Information is the exclusive property of HEP and it shall not be deemed to confer upon Recipient any rights whatsoever in respect of any part thereof, except for the purpose of the Tender and preparing of its bid.

The Recipient acknowledges that any breach of the terms of this Confidentiality Agreement may give rise to severe damage to HEP, and that HEP may disqualify the Recipient from any further participation in the Tender should it violate the terms of this Confidentiality Agreement; it being understood that invoking the sanctions above shall not preclude HEP from seeking any additional remedies available under law or equity. A continuing violation of this Confidentiality Agreement shall be considered a single violation so long as the Recipient takes prompt, reasonable actions to terminate the violation. Failure to take prompt, reasonable actions to terminate the violation shall be considered a separate violation.

This Confidentiality Agreement shall be governed and construed in accordance with the laws of Croatia.

This Confidentiality Agreement may only be modified or amended in writing with the consent of all the parties hereto. If a provision, clause, phrase, word or term of this Confidentiality Agreement is found to be ambiguous, the parties hereby agree that such ambiguity shall not cause the provision, clause, phrase, word or term to be read against, or in favor of any party. The invalidity or unenforceability of any provision of this Confidentiality Agreement shall in no way affect the validity or enforceability of any other provision. Any invalid provision shall be deemed severed from this Confidentiality Agreement and the balance of this Confidentiality Agreement shall be reformed in such a manner as to give effect to the maximum extent possible the original intent of the parties. This Confidentiality Agreement constitutes the entire understanding between the parties regarding Confidential Information, superseding, but not relieving [counterparty] of its prior obligations for, all prior or contemporaneous communications, agreements and undertakings between the parties relating to Confidential Information. This Confidentiality Agreement may be executed in several counterparts, which shall constitute one and the same instrument.

Very truly yours,

[*Name of Applicant*]

By: _____ Date: _____
Name: _____
Title: _____

APPENDIX G - PROJECT BACKGROUND

1. Project Description

The Project includes the reconstruction of TPP Plomin – replacing the existing TPP Plomin 1(TPPP 1) - aimed at modernization and capacity increase. The purpose of the respective project is to construct a long-term safe and stable source of electricity. The replacement unit(TPPP C) will have a capacity of 500 MW at the generator, instead of existing 125 MW at the generator. After the reconstruction, the existing capacity at site in the order of 335 MW will be increased to 710 MW.

TPP Plomin is located on the southeastern coast of the Istria peninsula, i.e. in a small bay at the very end of the Plomin Bay. The area accommodating power plants covers about 54 ha, and consists of a complex of cadastral plots owned by HEP, while a part of maritime domain (narrow coastal belt of the jetty), for which concession (3 ha) has been obtained, is used for coal reception and transport.

The area mostly belongs to the municipality of Kršan, and to a lesser extent (the coastal edge of the Plomin Bay) to the City of Labin. In addition to a Mediterranean climate (warm summers and mild winters), the location is also suitable due to the vicinity of the sea and raw water from the spring Bubić Jama. Infrastructural connection is rather good due to the proximity of the road junction Vozilići, ferry port for the islands of Cres and Lošinj, as well as for international traffic (Venetia, Ravenna), and the jetty for coal delivery located in the middle of the Plomin Bay (along the southern side of the bay). The terrain on TPP Plomin site is indented, rocky karts with shallow soil overgrown with grassland and low, bushy vegetation. The location is geographically oriented to the Plomin Bay, and the torrential water flow Čepić Kanal runs through its center.

The planned project implies the modernization and capacity increase at Plomin thermal power plant's site, through the replacement of TPPP 1 and the reconstruction and/or replacement of common buildings of thermal power plants Plomin 1 and 2. The replacement unit TPPP C, with the appertaining infrastructure, will be located at the existing TPPP 1 and 2 site, the area that mostly belongs to the municipality of Kršan, and to a lesser extent (the coastal edge of the Plomin bay) to the City of Labin.

TPPP C is foreseen as a modern coal fired thermal power plant using clean coal technology, with an aim to improve environmental conditions through the operation of unit C and the shutdown of TPPP 1. By applying modern supercritical pulverized coal technology, the thermal power plant could achieve an efficiency of 45%, which is much higher than today's conventional power plants that have a degree of conversion of 32 to 37%.

TPPP C is designed fully in accordance with the principles and recommendations arising from the EU guidelines on the application of best available techniques (BAT) for large combustion plants. The term "Best Available Techniques" is the guiding principle of EU Council Directive 96/61/EC (2010/75/EU) on Integrated Pollution Prevention and Control (IPPC) in terms of "the most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole."

As for the environmental burden, this power plant can be classified into so called 'near zero emission' power plants, according to the framework categorization used by the Coal Research Institute of the International Energy Agency.

The accommodation of a coal-fired TPPP C on a site belonging to the existing power plants TPPP 1 and 2 and their auxiliary facilities was considered which, without a substantial expansion of the surrounding area, requires a reorganization of some existing systems and facilities. The considered logical units of TPPP C are shown in Table 1, whereas the best location for the accommodation of TPPP C is adjacent to TPPP 2, on today's coal yard.

Table 1 *The TPPP C logical units taken into consideration*

Logical unit
Main and auxiliary facilities
Closed coal storage - silos (4 silos, each with capacity of maximum 100.000 m^3)
Conveyor belt for coal transport from jetty to silos
Jetty and conveyor belt for by-products
400kV switchyard
Sea water cooling system (intake, transport, discharge)
Raw water supply system
Wastewater drainage and treatment system
Storages, garages and workshops
CO_2 capture area

Imported bituminous coal of the same characteristics as for TPPP 2 will be used for TPPP C. On average, coal for TPPP 1 and 2 had lower calorific value of 26.3 MJ/kg (median 25.8 MJ/kg), 0.7% sulfur (median 0.69 %) and 10.2% ash (median 10.0%).

TPPP C is designed as a condensing unit with a capacity of 500 MWe at generator terminals, with pulverized coal combustion in the area and supercritical steam parameters (PC-SC) of 300 bar and 600 °C, with single steam reheating at 600 °C. While selecting technical solution, numerous power plants in the world have been analyzed and the Torrevaldaliga thermal power plant in Italy was chosen as a reference plant.

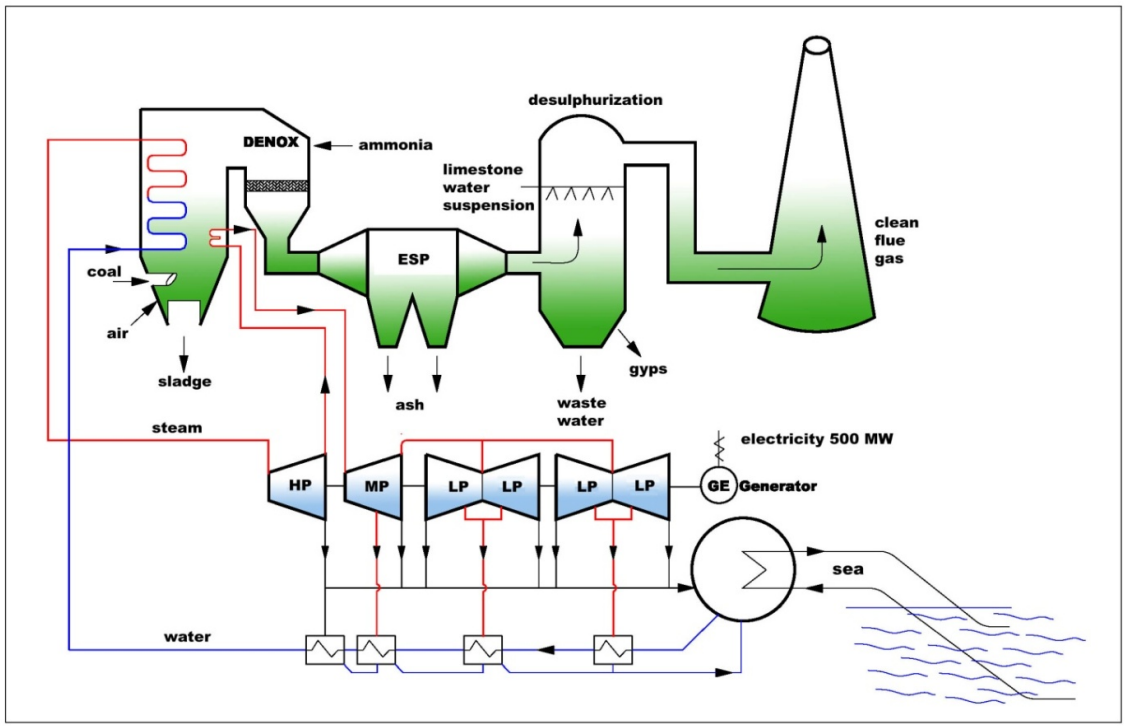
Table 2 *Basic characteristics of the power plant, at nominal and maximum capacity*

Value		Unit	TPPP C	
			Nominal capacity	**Maximum capacity**
Coal	**Fuel consumption**	kg/s	39.7	40.8
		t/h	142.9	146.9
	Lower calorific value	MJ/kg	26.3	26.3
	Fuel-entered heat	MJ/s	1,044	1,073
Capacity	**Generator**	MW	500	515
	Own consumption	MW	25.3	26.0
		%	5.1	5.0
	Power plant threshold	MW	474.7	489.0
Efficiency	**Gross (generator)**	%	47.90	47.99
	Net (threshold)	%	45.48	45.57
Electricity generation on power plant's threshold at 7600 hours of operation		GWh/year	3608	3716

1.1. Main and auxiliary facilities

Northern part of today's open coal storage was chosen as the micro-location of TPPP C main and auxiliary facilities. Main operating facilities of TPPP C are: supercritical pulverized steam boiler (300 bar, 600 °C) with a single reheating, one high-pressure (HP) and one low-pressure (LP) turbine, one synchronous generator and two double-current low-pressure turbines (LP) and 7regenerative heaters. The TPPP C own consumption is estimated at 25 MWe. Net unit capacity (capacity at power plant's threshold) is 475 MWe, which along with fuel-entered heat of 1044 MJ/s represents a net efficiency of 45%.

Figure 1*Simplified diagram of TPPP C*



1.2. Air emission reduction systems

Reduction of NOx emission

Primary measures were chosen in the furnace: low NOx burners and air staging, by which a reduction of NOx emission up to 400 mg/Nm³ is achieved, and selective catalytic reduction (SCR).The SCR system shall have NOx separation rate of 80%, using ammonia as a reagent. Due to safety reasons, a variant of urea solution hydrolysis has been selected. Solid-state urea will be the initial substance, which will be delivered by tank trucks and directly dissolved in the tank up to32% water solution. An alternative to such solution is a system with aqueous ammonia as a reagent, which is planned to be installed in TPPP 2 as well.

Reduction of particle emission

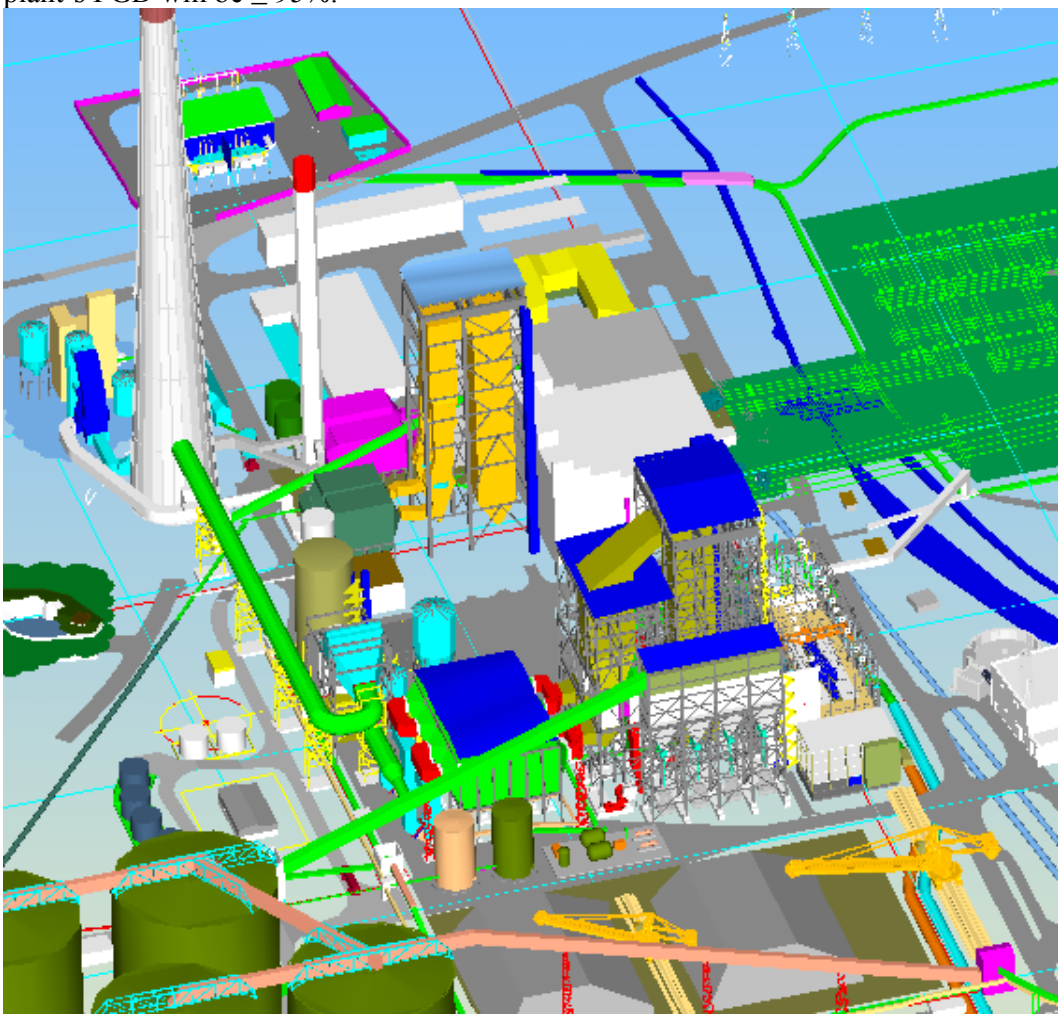
Of two alternative solutions: bag filters and electrostatic precipitators, electrostatic precipitator was selected for the removal of particles from flue gases of TPPP C. In combination with enforced spray in a desulphurization plant, electrostatic precipitators can achieve sufficiently low levels of particles emission, are simpler for maintenance and recommended by BAT. Total separation rate through electrostatic precipitators coupled with the separation in the desulphurization plant will be higher than 99.9%.

Reduction of SO_2 emission

Wet desulphurization of flue gases with water limestone slurry was selected, which is technologically identical to the system used in TPPP 2. This technological solution is characterized by high operational reliability and a high level of SO2 separation for different conditions of operation and characteristics of coal. Today, it is the most represented desulphurization technology in thermal power plants. The final product is gypsum, which is used in construction, so that the amount of waste for disposal is relatively small. Scrubbing of

particles, heavy metals, HCl, HF and other compounds also takes place within the desulphurization plant's absorber.

The process is based on the reaction of SO2 from flue gases with limestone; CaCO3 from the suspension is oxidized and CaSO4 (gypsum) produced. The desulphurization rate of TPPP C plant's FGD will be ≥ 95%.



References: Conceptual design TEP C, Elektroprojekt, URBIS72, IGH, Consulting

Figure 2*Location of emission to air reduction system in TPPP C*

1.3. Coal silos

For the needs of TPPP 2 and TPPP C, a replacement of open coal yard with closed coal silos is foreseen. Four silos have been foreseen, each with a capacity of up to 100.000 m³. They will be located between the main plants and auxiliary facilities of TPPP C and the main filing tower to which the coal from the jetty will be delivered by a rubber pipe conveyor. Silos will be displaced in the direction of slag and ash disposal site. This will allow the use of the main field of the existing coal yard and a smooth operation of the existing power plants during the construction of silos. After ensuring coal supply to TPPP 2 from the silo, the remaining system of the open coal yard will be removed and the space will be used to lay cooling water intake and outlet pipeline for TPPP C, as well as convey or belt sand roads for the shipment of slag, ash and gypsum from TPPP 2 and TPPP C to end users.

1.4. Coal transport system from jetty to silos

For the needs of TPPP 2 and TPPP C, coal can be transported to four new silos using the existing method. Coal is transported from the jetty to the filing tower located at the jetty by a conveyor belt. The filing tower at jetty is equipped with a balance and a magnetic separator. Thereafter, coal is transported to the filing tower at the coast, where sample collector and a sieve are located. Coal is delivered to the main filing tower by rubber pipe conveyor. The route of the pipe conveyor is laid above the ground along the access road and a cooling sea water channel.

The utilization of the existing jetty will increase by TPPP C operation, and it is foreseen in the future that up to two ships a year will be required to cover the needs of the nearby industrial producers. Depending on coal characteristics, 27 to 28 ship arrivals per year will be required.

To increase system reliability, contingent installation of an additional ship unloader of identical performances as the current one is foreseen. New ship unloader would use the existing rails at the jetty, and the average unloading capacity would increase by 10 to 20%.

1.5. Jetty and conveyor belts for by-products

In the analysis of possible solutions for the disposal of by-products, a disposal in cement plants was recognized as the best and the most efficient solution (several cement manufacturers expressed their interest). Most of by-products will be transported by bulk cargo ships with deadweight capacity of 2,500 dwt. For the purposes of such transport, the existing "Austrian jetty" will be reconstructed.

By-products would be transported from TPPP C site to a new jetty by means of a rubber pipe conveyor in a similar way the coal is currently transported. Rubber pipe conveyor, about 1,500 m long, would be laid down on concrete pillars next to the existing coal conveyor. Thus conceived system would provide for 2,200 t ship loading.

In case that by-products shipment and/or their placement into one of cement plants is not possible, by-products will be disposed at the existing slag and ash disposal site via the existing central conveyor, to which conveyor belts from slag, ash and gypsum silos will be connected. In order to increase the capacity of by-products disposal, this disposal site will be reconstructed.

1.6. Switchyard

The 400 kV switchyard has approximate ground plan dimensions 75 m x 50 m (approx. 0.4 ha). It is designed as an enclosed SF6 system, thereby reducing the required space by several times compared to conventional switchyard. The area north of TPPP 1 parking lot, i.e. west of the existing 110 kV transmission line corridor, was chosen as the micro-location of a new switchyard. The location is mostly owned by HEP and is located near the potential corridor of the 400 kV Plomin-Pazin transmission line. The switchyard shall be connected with a block transformer via cable tunnels and bridges. The infrastructure for energy placement into the power grid is the responsibility of the Transmission System Operator.

1.7. Cooling water system

The analysis of possible solutions to TPPP C cooling system considered a number of different options, from the standpoint of intake point, discharge point, manner of laying, pipeline route, technical design of the pipeline and initial design parameters. The analyses have shown that the cooling system design with an open intake channel and discharge into the Čepić canal is

not an adequate solution for TPPP C because it would cause excessive heating of the sea in the inner part of the Plomin Bay. Unfavorable configuration of the terrain (SW part of the Plomin Bay is sloped 60-65°) makes overhead laying of cooling sea water intake and discharge pipeline quite expensive and less acceptable solution for the environment, and pipe laying at the bottom of ash allow, muddy Plomin Bay is complex from technical point of view and also problematic from the environmental protection point of view. Therefore, a new pumping station will be located next to the existing one, and the cooling sea water will be supplied and discharged through a newly-built tunnel through the Osoj hill. Given the location of cooling sea water discharge, several options have been taken into consideration and the option with discharge near the pumping station was selected as the optimum one.

Cooling sea water intake will be at a depth of 35-45 meters. Cooling water discharge into the sea will be performed on the eastern side of the existing pumping station, as a surface discharge, with the speed of cooling water discharge which enables fastest mixing.

1.8. Wastewater treatment system

For the purpose of wastewater discharge and treatment in TPPP C, closed distribution system has been foreseen, located south of the main operating plants. For process wastewater, physical chemical treatment methods have been foreseen, which produce sludge that is disposed of according to regulations for waste disposal.

Conditionally contaminated storm water will be treated through a clarifier and an oil separator at potential pollution points.

Sanitary wastewater of TPPP C will be treated in a separate device in 2 stages. The first stage includes physical-chemical treatment, while the second stage includes biological treatment (aeration, aerobic stabilization of active sludge with the possibility of sludge recycling back into biological pre-stage and the main stage).

1.9. Storage, garages and workshops

These auxiliary systems are also located south of the main operating facilities of TPPP C, next to the wastewater treatment system.

1.10. Auxiliary boiler room

Auxiliary boiler room is planned south-east of the boiler plant in order to provide for independent start of TPPP C. Extra light fuel oil will be used as fuel, and flue gases will be discharged through a 40 m high stack.

1.11. CO2 capture area

Since the technology of carbon dioxide capture from flue gases has not yet been developed up to commercial application, a space for potential construction of a CO2 capture system in the future has been reserved at the TPP Plomin site for the purposes of TPPP C. The reserved space is located on the surface area which is divided into two parts. One area is located on the north eastern part of the site, in the immediate vicinity of the stack, and another area is to the north of the main operating plant.

1.12. Common systems of TPPP 2 and TPPP C

TPP Plomin units, which will be in operation after project construction (TPPP 2 and TPPP C), will have the following common systems:

- stack;

- coal silos;
- coal jetty;
- coal conveyor belt;
- slag and ash (and other residues) disposal site;
- slag and ash transport system with a jetty;
- raw water supply;
- traffic infrastructure at the site and auxiliary facilities.

Figures 3 and 4 show an illustration of the future state at the TPP Plomin site.

Figure 3*Illustration of the future state at the TPP Plomin site*

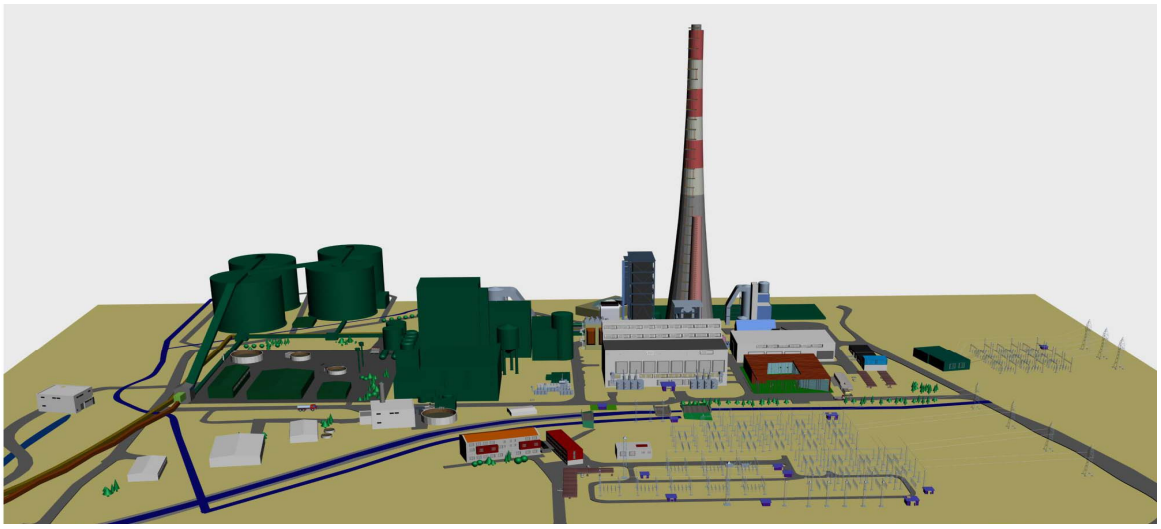
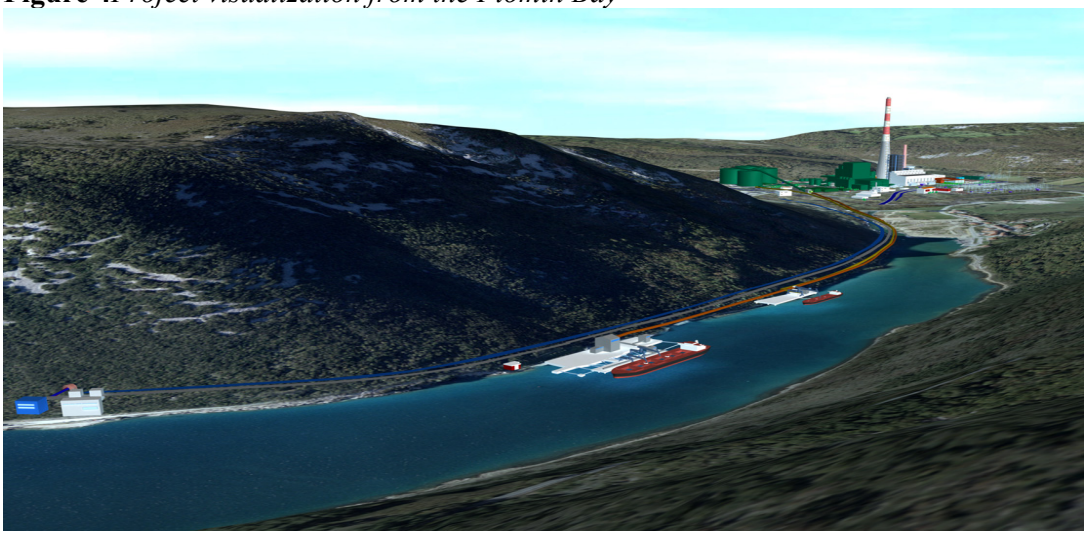


Figure 4*Project visualization from the Plomin Bay*



1.13. Overview of main substances during TPPP C operation

Table 3 gives a brief overview of main inlet and outlet substances and their quantities for TPPP Cooperation at nominal capacity of 500 MW with design coal combustion at 7600 operating hours per year.

Table 3 *Overview of main inlet and outlet substances of TPPP C for design coal at 7600 operating hours and at a capacity of 500 MW*

Inlet		
Coal	1.100.000	t/year
Limestone for desulphurization	35.000	t/year
Cooling sea water	~16	m^3/s
Raw water	max. 75	l/s
Urea or Urea solution for deNOx (Aqueous ammonia)	2.240 6.900	t/year t/year
Air for combustion	1.200.000	m^3/h
Outlet		
SO_2 emission	1.200	t/year
NO_xemission	800	t/year
Particles emission	100	t/year
CO	300	t/year
CO_2 from coal combustion	2.607.000	t/year
Wastewater (process) Wastewater (sanitary)	max 80 max 44	m^3/h m^3/day
Slag	12.700	t/year
Ash	114.000	t/year
Gypsum	62.000	t/year
Filter solid residue	2.500	t/year

Energy source is imported bituminous coal with the following assumed properties (overview in Table 4):

Table 4 *Range of basic properties of imported coal*

Value	**Unit**	**Coal**		
		'Worst-quality' coal	**Design**	**'Best-quality' coal**
H_d	MJ/kg	24.0	26.3	29.3
Carbon	% by mass	59.7	65.4	72.5
Hydrogen	% by mass	3.9	4.3	4.7
Sulfur	% by mass	1.5	1.0	0.3

Nitrogen	% by mass	1.4	1.4	1.5
Oxygen	% by mass	6.0	8.0	6.5
Humidity	% by mass	12.0	7.6	6.5
Ash	% by mass	15.0	11.7	8.0

1.14. Technical solution benefits

Desired technical solution was selected within a number of iterations (current state of technological development, the selection of a reference power plant, conceptual design). Through previous studies dealing with the development of individual subsystems and overall power plant solution, numerous variants have been taken into consideration. The decision on the selection of a particular solution was based on the consideration of technical, economic and environmental aspects.

Out of possible clean coal technologies, super critical pulverized coal (SCPC) technology was chosen as the most favorable one. Relatively low investment costs, high energy efficiency, the largest commercial representation and high reliability of existing plants of this type still give preference to the SCPC technology over other clean coal technologies.

The selected overall solution offers the following benefits:

- Closed coal storage eliminates fugitive emissions from open coal yard and improves the landscape;
- Tunnel-based cooling system does not require additional space; new system has very small visual impact;
- The existing capacity of the coal jetty and coal transport will be used, which increases power plant's efficiency at no additional environmental impact;
- The existing stack will be used, thus avoiding new construction at the site, while discharge conditions remain favorable for the dispersion in the atmosphere (low local impact);
- Wastewater treatment system is designed for maximum water savings through recycling;
- Switchyard with gas insulated circuit breakers (SF6 circuit breakers) will occupy minimum additional space;
- A jetty for slag and ash transport will be reconstructed at the place where there is already an existing building and new space will not be occupied;
- Slag and ash will be transported from the site, whereby the site will not be loaded with solid waste;
- By constructing an ammonia treatment plant, hazards due to possible incidents during transport, storage and manipulation of hazardous ammonia will be avoided;
- The proposed solution to raw water supply, which anticipates co-financing of the extension of existing waterworks capacity, is recognized as useful for community in general;
- The space for CO2 capture plant will be reserved, if future analysis shows that it is justified.