
IV. Appendices

APPENDIX A – TERMS OF REFERENCE

APPENDIX A – Terms of Reference

1. Background

The Slovak Republic undertook a commitment to shut down Units 1 & 2 of Bohunice V1 NPP (V1 NPP) in 2006 and 2008 respectively through the adoption of Resolution No. 801/99 of the Slovak Government of 14 September 1999. The shutdown commitment forms part of the Energy Policy, which was adopted by the Slovak Government on 12 January 2000.

The European Commission launched the initiative to establish the Bohunice International Decommissioning Support Fund (BIDSF). The purpose of the Fund is to accept and make use of funds provided by Contributors for the provision of technical assistance, public information, consultancy, civil works and engineering services and the acquisition, installation and placing into operation of equipment:

- (a) to finance or co-finance, through specific grants, the provision of goods, works and services necessary to support the decommissioning work;
- (b) to finance or co-finance, through specific grants, the provision of goods, works and services in the energy sector in support of measures which are consequential to the decision taken of final shutdown and decommission Bohunice V1 NPP and which would assist the necessary restructuring, upgrading and modernisation of the energy production, transmission and distribution sectors as well as to improve energy efficiency; and
- (c) to pay for the costs and expenses arising from or in connection with the carrying out of such activities and incurred in accordance with the Rules.

The European Bank for Reconstruction and Development was invited by the European Commission to administer the Bohunice International Decommissioning Support Fund, and the Bank's Board of Directors approved this proposal in June 2000.

A Grant Agreement between SEPS, a.s. and the Bank was approved by the meeting of the Assembly of Contributors on 14 December 2010 and SEPS, a.s. intends using the proceeds of the Grant from the BIDSF towards the cost of the PMU Consultant assignment.

2. Objective(s) of the Assignment

The PMU Consultant assignment is to assist and support SEPS, a.s. in implementation of Complex ES Bystričany - Transformation 400/110 kV, which is necessary in order to adapt it to the conditions of the Slovak grid after final shutdown of V1 NPP.

SEPS, a.s. will contract the services of a project management and engineering consulting organisation, the "PMU Consultant".

The objective of the PMU Consultant is to provide experienced project management and technical consultancy services to the PMU within SEPS, a.s. for the timely and cost

effective planning, execution, management, co-ordination and monitoring of all aspects of the implementation of the Project. The consultancy services shall include expert advice in overall organization and management of the Project, provisions of conceptual and other engineering services as required to review, complete and validate technical specifications and background studies for procurement packages, procurement of qualified contractor(s), who will supply the equipment, goods, works and services as required for the Individual Projects, follow-on co-ordination, monitoring and supervision of all aspects of contract(s), interface management, risk assessment management, licensing, environmental due diligence and quality management.

3. Scope of Services, Tasks (Components) and Expected Deliverables

The PMU Consultant's contractual responsibilities will include but not be limited to the following tasks and deliverables:

3.1 Overall Project Management

The Consultant shall provide management support to SEPS, a.s., co-ordination and monitoring of all aspects of implementation of the Project so all aspects of the Individual Projects are implemented in a timely and cost effective manner and to the appropriate and applicable Slovak and international safety standards.

3.2 Project Organisation

The tasks and functions presented below relate to the Project Organisation and are applicable for Stage 1, Stage 2 and Stage 3.

The Project Organisation Chart is included in Annex 2 of these Terms of Reference. It identifies the place of the PMU within the global organisation chart of SEPS, a.s. and also shows all project implementation interfaces between the institutions related to the Projects.

The PMU Consultant shall assist SEPS, a.s. in the effective operation of the PMU organisational structure to satisfy the established requirements of the overall PMU scope and responsibilities.

The PMU Consultant will be responsible for the following tasks:

- Assist SEPS, a.s. in establishing, implementing and operating an effective PMU organisational structure including but not limited to:
 - Staffing the PMU with appropriate PMU Consultant experts;
 - Assistance in defining and implementing an effective organisational structure which integrates SEPS, a.s. and PMU Consultant staff and forms the overall PMU;
 - Providing and regularly updating the PMU organisational manual that shall include a description of the key positions, roles and functions, responsibilities and interfaces between all PMU members and a job description for each PMU position; and

- Providing a streamlined Project Procedures Manual, customising the standard PMU Consultant's manuals and procedures to the Project, and regularly updating those manuals and procedures. The Project Procedures Manual should include but not be limited to project co-ordination and management, interface management, engineering, contract procurement, contract implementation, safety/licensing, quality assurance, reporting, and documentation preparation and control.

The specific deliverables and milestones associated to this task are the following:

No.	Deliverables	STAGE 1 Submission date (Effective Date + months)	STAGE 2 Submission date	STAGE 3 Submission date
D1	Inception Report consisting of: Project organisation manual, including the organisation chart for the PMU, defined roles and responsibilities, interfaces between all PMU members, description of PMU positions, job descriptions for each PMU position	+ 2 months and updating in line with Project Development	Updating in line with Project Development	Updating in line with Project Development
D2	Project procedures manual and including project management procedures, planning, monitoring, co-ordination, engineering, procurement, contract implementation, safety and licensing, quality assurance (QA) and reporting	+ 3 months	Updating in line with Project Development	Updating in line with Project Development

3.3 Engineering Services

The tasks and functions presented below relate to required Engineering Services and are applicable for Stage 1, Stage 2 and Stage 3.

SEPS, a.s. has developed a set of technical studies defining the technical aspects of the Project, including the specification for the main components, the estimation of the project budget and the implementation time schedule. These technical studies have been the basis for

SEPS, a.s. to request the necessary administrative authorisations and permits to implement the Projects. The scope of engineering services of the PMU Consultant specified in this section refers to any additional necessary conceptual engineering activities and to engineering management of the detailed engineering and work packages to be procured.

The scope of engineering services shall include the assistance in:

- Verification and/or validation of the existing design requirements, calculations, supporting studies, specification of scope of supply, and project schedules and cost estimates.
- Verification and/or validation of compliance of the existing studies with applicable Slovak and EC codes and standards.
- Preparation of any additional supporting studies, as might required upon the task above.
- Preparation of Technical Specifications for the procurement of the detailed engineering and/or supply packages.
- Engineering management implies close supervision of the contracted scope by representatives of the PMU Consultant, as well as concept clearance and approval at key project stages.
- Representatives of the PMU Consultant should follow up the planning and implementation of the Projects, and approve the hypothesis and basis of the studies and investigations to be made. The objective of this task is to ensure technical quality and cost optimisation of the Projects implementation, and a predictable and smooth licensing process.
- Review of the contents of the documents and drawings by turnkey suppliers, advising on appropriate and applicable international practices, codes and standards, ensuring adequate project interfaces.
- Environmental due diligence.
- Technical assistance in Stage 3 - the Defect Notification Period of each Individual Project.

The deliverables associated with engineering services are the following:

No.	Deliverables	STAGE 1 Submission date (Effective Date + months)
	Review of the technical specifications of the equipment for project:	

D3.1	Transformation 400/110 kV Bystričany (Phase 1), Enlargement of 400 kV substation Horná Ždaňa (Phase 3), Enlargement of 400 kV substation Križovany (Phase 5)	+ 4 months *
D3.2	Double overhead power line 400 kV Horná Ždaňa - Bystričany / Oslany (Phase 2)	+ 3 months *
D3.3	Double overhead power line 400 kV Bystričany - Križovany (Phase 4)	+ 3 months *

3.4 Scheduling and Planning

The tasks and functions presented below relate to Scheduling and Planning and are applicable for Stage 1, Stage 2 and Stage 3.

The scope of scheduling and planning services shall include the following:

- Definition of procedures for scheduling, schedule management and reporting;
- Provision and training and communication capabilities required for scheduling;
- Preparation of the detailed work breakdown structures for the overall Project scope, allocation of staff and resources and assignment of budgets;
- Development of an integrated Project baseline time schedule including Project budget. The schedule will cover all stages of the Project and will be the basis of monitoring progress of work and will provide the means for achieving the most effective co-ordination and interface control;
- Identification of the projects' critical paths to support management decisions, and minimise any possible conflicts and mitigate their impact; and
- Regular updating of the integrated PMU Project time schedule, monthly review of the status to provide timely information for assessing project status and applying recovery measures, and preparation or verification of regular reports;

The specific deliverables and milestones related to the scheduling responsibility are the following:

No.	Deliverables	STAGE 1 Submission date (Effective	STAGE 2 Submission date	STAGE 3 Submission date

		Date + months)		
D4	Integrated Project Time Schedule	+ 3 months	Monthly updating in line with Project Development	Updating in line with Project Development
D5	Proposal of equipment purchase prices margin	+ 4 months		

3.5 Cost Control

The tasks and functions presented below relate to Cost Control requirements and are applicable for Stage 1 and Stage 2.

Cost control shall include:

- Establishment and implementation of an effective overall Project cost control system;
- Early warning of any actual or potential variance in the Project cost;
- Preparation of cost reports showing the original budget, revised outcome estimate and variance for each budget item;
- Verification and certification of Contractor's invoices regarding their compliance with the contracts and submittal to SEPS, a.s. for payment approval;
- Preparation of a certificate to accompany each disbursement application confirming that the itemised expenditures have been properly incurred in accordance with the Project plan and budget.

The deliverables associated with Cost Control are the following:

No.	Deliverables	STAGE 1 Submission date (Effective Date + months)	STAGE 2 Submission date
D6	Project cost estimates including detailed engineer's estimates.	+ 4 months and updating in line with Project Development	Updating in line with Project Development

3.6 *Interface Management*

The tasks and functions presented below relate to Interface Management and are applicable for Stage 1 and Stage 2.

The PMU Consultant shall be responsible for:

- Optimising project interfaces at the planning and implementation stage through appropriate management procedures;
- Establishment and updating of a Project interface table; and
- Provide the assistance in management of Project interfaces including but not limited to:
 - Interfaces between Individual Projects;
 - Interfaces between contractors of the Individual Projects;
 - Interfaces between contractors and their subcontractors within particular Individual Project;
 - Interfaces to statutory, governmental and regulatory bodies;
 - Interfaces to EBRD; and
 - Interfaces to other co-operation partners of SEPS, a.s..

The responsibilities of the PMU Consultant will also include identification of interface problems, co-ordination and optimisation of interface activities, and developing recommendations for remedial actions.

The deliverables associated with interface management are the following:

No.	Deliverables	STAGE 1 Submission date (Effective Date + months)	STAGE 2 Submission date
D7	Interface Plan/Schedule	+ 6 months	Monthly updating in line with Project Development
D8	Interfaces with particular financial subjects considering combined financing of the Project	+ 8 months	

3.7 Risk Assessment and Management

The tasks and functions presented below relate to Risk Assessment and Management and are applicable for Stage 1 and Stage 2.

The PMU Consultant shall identify potential project risks together with assessments of their impact. This will include a detailed assessment of the identified risks, their impacts and mitigating actions. During the implementation of the contract the risk assessment will be used as a management tool and the PMU Consultant will be required to review and update the risk management register/matrix on a regular basis.

The specific deliverables associated with risk assessment and management are the following:

No.	Deliverables	STAGE 1 Submission date (Effective Date + months)	STAGE 2 Submission date
D9	Risk Register/Matrix	+ 6 months	Monthly updating in line with Project Development

3.8 Contract Procurement

The tasks and functions presented below relate to Contract Procurement and are applicable for Stage 1 and Stage 2.

The PMU Consultant shall provide the assistance to the Client in planning and implementing BIDSF financed or co-financed procurement activities related to the Projects in strict compliance with EBRD Procurement Policies and Rules and BIDSF Rules, including but not limited to:

- Development of procurement strategies, including preparation and scheduling of the overall procurement process, taking into consideration the appropriate Project delivery strategy and addressing external and internal factors influencing the Projects, relationships and specific characteristics of the Projects, SEPS, a.s. practice, capabilities and experience, applicable laws and regulations, market conditions and industry practices;
- Development of the procurement plans, modes of procurement and time schedules consistent with the overall Project Baseline Schedule;
- Pre-qualification where appropriate;

- Preparation of tender documentation and implementation of the procurement process including preparation of the notification opportunities for tendering and invitation to tender;
- Issuance of tender document and tender evaluation; and
- Contract awarding, and finalisation of the contracts for signing by SEPS,a.s. and the contractor.

The extent of the procurement process and specific procedure, including the EBRD methodology to be followed for each step, will depend on the method for procurement selected.

The deliverables associated with the Contract Procurement task are the following:

No.	Deliverables	STAGE 1 Submission date (Effective Date + months)
D10	Procurement Plan and Schedule	+ 4 months at the latest, before the date of Invitation Letter for supplier tenders issue
	Tender Package, based on the Conceptual Project Design and information listed in Deliverable D3.x for turnkey supply for project:	
D11.1	Transformation 400/110 kV Bystričany (Phase 1), Enlargement of 400 kV substation Horná Ždaňa (Phase 3), Enlargement of 400 kV substation Křižovany (Phase 5)	+ 5 months
D11.2	Double overhead power line 400 kV Horná Ždaňa - Bystričany / Oslany (Phase 2)	+ 4 months
D11.3	Double overhead power line 400 kV Bystričany - Křižovany (Phase 4)	+ 7 months

3.9 Contract Implementation

The tasks and functions presented below relate to Contract Implementation and are applicable for Stage 2 and Stage 3.

The PMU Consultant shall assist the Client in providing the complete set of tools (procedures, manuals, etc) and implementing the complete set of tasks necessary for contract implementation up to commissioning and/or completion of the contracts. The PMU Consultant will act as “the Engineer” according to *FIDIC Conditions of Contract for Plant and Design-Build* (FIDIC Yellow Book). This assistance includes but is not limited to project management, financial management, contract management and monitoring of all performance measures related to the contracts including engineering, manufacturing and construction to ensure timely and successful completion of the transmission sector projects consequential final shutdown of Bohunice V1.

Contract implementation tasks will include, but will not be limited to:

- Monitoring all technical and financial aspects related to contracts, including but not limited to engineering, manufacturing, construction and commissioning;
- Progress checking and expediting through implementation and follow up of corrective actions;
- Monitoring of and timely dealing with any deviations, claims, variation of orders, and management of deficiencies, defects and disputes;
- Supervision of installation, testing, commissioning and acceptance of the works;
- Preparation of the Final Contract Completion Report for the Projects.

No.	Deliverables	STAGE 3 Submission date
	Preparation of the Final Contract Completion Report for project:	
D12.1	Transformation 400/110 kV Bystričany (Phase 1), Enlargement of 400 kV substation Horná Ždaňa (Phase 3), Enlargement of 400 kV substation Križovany (Phase 5)	Defined later
D12.2	Double overhead power line 400 kV Horná Ždaňa - Bystričany / Oslany (Phase 2)	Defined later
D12.3	Double overhead power line 400 kV Bystričany - Križovany (Phase 4)	Defined later

3.10 Safety and Licensing

The tasks and functions presented below relate to Safety and Licensing and are applicable for Stage 1 and Stage 2.

SEPS, a.s. via its Headquarters safety organisation, has full legal responsibility as a licensee and will have overall management responsibility for licensing BIDSF financed or co-financed Projects. In particular, the PMU Consultant will be responsible for ensuring compliance of all BIDSF-related deliverables with conventional safety and environmental protection standards and regulations in accordance with both Slovak law and international guidance.

The safety and licensing tasks of the PMU Consultant will include but not be limited to:

- Technical and engineering support of the licensing process and development of the licensing schedules;
- Identification, compilation and analysis of a complete set of standards and regulations to be applied to the BIDSF financed Projects and incorporation of the relevant regulatory requirements in all Project documents;
- Provision of assistance to SEPS, a.s. in its relations with regulatory bodies regarding the BIDSF-financed Projects.

In executing these tasks, the PMU Consultant will act in agreement with SEPS, a.s. Management.

3.11 Quality Assurance

The tasks and functions presented below relate to Quality Assurance and are applicable for Stage 1, Stage 2 and Stage 3.

The PMU Consultant shall assist in establishment and implementation of the Project Quality Assurance System in accordance with the ISO 9000, 10000 families and 14000 families of standards including but not limited to the following:

- Preparation of the PMU QA Plan;
- Preparation of the PMU QA Manual including QA procedures;
- Monitoring of QA Contractors' activities, including travel to contractors' facilities for inspection, monitoring, testing and design reviews;
- Internal and external QA audits;
- Identification and tracking deviations and corrective actions and system; and
- Auditing quality reports prior to equipment handover.

The specific deliverables associated with Quality Assurance are as follows:

No.	Deliverables	STAGE 1 Submission date (Effective Date + months)	STAGE 2 Submission date	STAGE 3 Submission date
D13	Draft Quality Assurance (QA) Plan (See also D1 regarding QA Manual and Procedure)	+ 2 months		
D14	Final QA Plan (See also D1 regarding QA Manual and Procedure)	+ 3 months	Updating in line with Project Development	Updating in line with Project Development
D15	QA procedures for project management	+ 3 months	Updating in line with Project Development	Updating in line with Project Development

3.12 Reporting

The tasks and functions presented below relate to Reporting and are applicable for Stage 1, Stage 2 and Stage 3.

The PMU Consultant will be responsible for reporting to SEPS, a.s. and the EBRD on the following:

- Monthly progress reports to the Head of the PMU and the EBRD including as a minimum:
 - Inception report
 - Summary of accomplishments during the reporting period;
 - Summary of main issues arising during reporting period;
 - Conclusions and recommendations on resolution of deviations and variations;
 - Current critical issues and corrective actions;
 - Progress by Contractor;
 - Disbursements - Plan Vs Actual, including summary chart;

- Schedule - Baseline Vs Actual for each Project and/or package of activities;
- Summary - Critical Path;
- Regulatory Progress and Issues; and
- Financial reports.

The Monthly Progress reports should be provided on the deadlines and with the format agreed upon by SEPS, a.s. and the EBRD.

- Reports at the request of SEPS,a.s. to statutory bodies, e.g. URSO;
- Special reports relating to unforeseen financial or technical problems of a significant scale and nature at the request of SEPS, a.s.;
- Completion report for each BIDSF financed or co-financed project; and
- Project completion report.

The specific deliverables associated with the reporting responsibility are the following:

No.	Deliverables	STAGE 1 Submission date (Effective Date + months)	STAGE 2 Submission date	STAGE 3 Submission date
D16	Monthly Reports	To be submitted on the 10 th of each month reporting on the previous month's progress.	To be submitted on the 10 th of each month reporting on the previous month's progress.	
D17	Final Project Completion Report			+ 78 months

Taking any action under a civil works contract designating the Consultant as “Engineer”, for which action, pursuant to such civil works contract, the written approval of the Client as “Employer” is required.

4. Client's Input and Counterpart Personnel

(a) Services, facilities and property to be made available to the Consultant by the Client:

SEPS, a.s. shall provide services and working infrastructure to the Consultant in accordance with the terms agreed between SEPS, a.s. and respective Consultant as defined in the relevant contract.

The resources may include, but shall not be limited to:

All technical and commercial data, documentation, drawings etc. relevant for the BIDSF financed Project, which are available at SEPS, a.s. Any use of these data and documentation by the Consultant and all his staff shall be subject to strict confidentiality rules in accordance with the terms agreed between the SEPS, a.s. and the respective Consultant.

Office accommodation for the PMU in Bratislava of at least 30 m² (one room) in good decorative order and suitable for fitting out by the Consultant with office furniture and with the following services:

- Heat, light and power at no cost to the Consultant;
- Permission for reasonable use by the Consultant of other facilities, e.g. meeting rooms, by agreement with SEPS, a.s. staff;
- Access to the Bratislava, Mlynské Nivy 59/A headquarters building and particular sites of implementation of the Projects, including required facilities for washing and changing of clothes, toilets etc.;
- Assistance to the Consultant in the case of first aid, hospital or emergency services. All Consultant staff should be covered by a proper international health insurance underwritten between him/her and his local insurance company, as is common in all EU countries;
- Entry, parking and storage at no cost to the Consultant, in Bratislava, Mlynské Nivy 59/A and in the particular sites of implementation of the Projects;
- Internet connection.

(b) Professional and support counterpart personnel to be assigned by the Client to the Consultant's team:

The following are the human resources provided by SEPS, a.s as full-time members of the PMU, which are responsible:

Head of the PMU	Head of the Department
PMU Member	Engineering, Procurement
PMU Member	Engineering, Procurement

Other specialists of SEPS, a.s. will be available when required to perform necessary PMU activities.

- Licensing and Legislation specialist, with practice and experience in:
 - implementation of legislation requirements
 - organisation of the relations with relevant regulatory offices
 - supervision and dealing with legislation requirements

- Procurement specialist, with practice and experience in:
 - development of procurement strategies
 - development of procurement methodology
 - procurement planning
 - tendering
 - supervision of procurement process

- Financing specialist, with practice and experience in:
 - development of the cash flow diagrams
 - supervision of the cash flow compliance with invoice documents
 - regular evaluation of the process

- Scheduling specialist, with practice and experience in:
 - development of time schedules, including activities breakdown and milestones, critical path identification
 - regular evaluation of the time schedules
 - timely updating of the time schedules

- Investment specialists

- Specialists from the operation and maintenance department

- Specialist from the Slovak Power Dispatching Centre

- Development specialists

5. Overall description of the PMU Consultant assignment

5.1 Description of SEPS a.s. PMU organization

Annex 2 to these Terms of Reference includes a description of SEPS, a.s. organisation and main responsibilities in the implementation of the Project. Annex 2 provides the PMU organisation chart, identifying the place of the PMU within the global organisation chart of SEPS a.s. and shows all Project's implementation interfaces between the institutions related to the Project.

5.2 Overall organisational arrangements of the PMU

The PMU Consultant will integrate with SEPS, a.s. and will form the PMU, which will be staffed by professional and support personnel from SEPS, a.s. and the PMU Consultant to form a well-integrated team. The Head of the PMU will be appointed by SEPS, a.s. and will be legally empowered to act on behalf of SEPS, a.s. in all matters relating to the discharge of the overall responsibility for the execution of the Project. The leader of the PMU Consultant, represented as Deputy PMU Manager, will report to the Head of the PMU. The PMU Consultant will be responsible for the implementation of tasks and responsibilities in accordance with the contract between SEPS, a.s. and the PMU Consultant and to the satisfaction of SEPS, a.s. and the EBRD.

5.3 Implementation of the PMU Consultant assignment

The scope of the PMU Consultant Services will be implemented in two phases to reflect BIDSF arrangements. At the time Expression of Interest was published, it was expected that Phase I will commence in May 2014, however now the commencement of Phase I is expected in **September 2014** with completion at the end of **December 2016**. Phase II will commence immediately after the Phase I and will last until the end of December 2020, when of all Individual Projects under the Complex ES Bystričany transformation 400/110 kV will be duly completed.

In order to recognise and distinguish different activities of the PMU Consultant that are required for the implementation of Individual Projects, SEPS has envisaged that each of Individual Project will be implemented in 3 Stages:

Stage 1 will involve those PMU Consultant's activities that are necessary to commence and complete the procurement of Individual Project. Stage 1 of each Individual Project will be considered as completed on achievement of the Contract award for the Individual Project. It is expected that Stage 1 of all Individual Projects will be completed during the Phase I of the PMU Consultant assignment.

Stage 2 will commence immediately after the Stage 1 and will last until the completion of implementation activities, as defined in each awarded contract for Individual Project, are completed. It is expected that Stage 2 of all Individual Projects will be completed approximately in **October 2018**.

Stage 3 will commence immediately after the Stage 2 and will last until the end of all Defect Notification Periods of all Individual Projects, which is expected to be approximately in **October 2020**.

The PMU Consultant is expected immediately commence the activities of Stage 2 as soon as each contract for Individual Project's is awarded. As all the contracts of the Individual Projects will not be placed simultaneously, the completion of Stage 1 and commencement of Stage 2 for different Individual Projects will overlap. Likewise, the PMU Consultant is expected immediately commence the activities related to each placed contracts Defect Notification Periods (Stage 3 activities) as soon as implementation of each contract (Stage 2) is completed. As all the contracts of the Projects will not be implemented simultaneously and the Defects Notification Periods may vary between different individual contracts, the completion of Stage 2 and commencement of Stage 3 for different individual contracts will overlap. Considering the above and the BIDSF funding requirements, the initial PMU Consultant's contract will only be for Phase I (i.e. until the end of 2016) with a possibility to (i) amend required PMU Consultant's inputs for Stage 2 and Stage 3 during the Phase I (to reflect outputs of Stage 1 of Individual Projects) and (ii) to extend initial contract to cover Phase II activities (to incorporate remaining activities of Stage 2 and Stage 3). Although the activities of Phase II are tentatively presented in these ToR, they will not be included in the initial contract and will be contracted separately as additional services via the amendment to PMU Consultant Contract.

Annex 1 of the Terms of Reference

Description of the Complex ES Bystričany - Transformation 400/110 kV

The further measures in the Slovak transmission system are closely related to the shutdown of Bohunice V1 NPP. The two units of this nuclear power station, with an electric output of 880 MW, are connected to the Slovak transmission system via 220 kV block lines to substation 220 kV Križovany. The shutdown of Bohunice V1 will increase the 220 kV grid adverse balance up to a level that the existing 400/220 kV transformers currently installed in the Slovak transmission system along with the plants connected in the distribution system cannot substitute. Bohunice V1 NPP represents a significant fraction of the maximum load in this part of the 220 kV grid.

Introduction

Bohunice V1 NPP was interconnected with the Slovak transmission system via 220 kV lines. The early shutdown of Bohunice V1 NPP of some 880 MW has increased the passive balance of the 220 kV network up to a level that eventually cannot be met by the existing 400/220 kV transformers in the Slovak transmission system along with the generation sources embedded in the distribution networks of the region. Therefore, Slovenská elektrizačná prenosová sústava, a.s. (below "SEPS, a.s.") as the transmission system operator wishes to implement the Project with the support of a Grant from the BIDSF.

Brief description

The new double circuit 400 kV line between the site Bystričany and substation 400 kV Križovany, in a length 80 km will be constructed mostly along the route of existing 220 kV line Bystričany – Križovany, instead of this line, while there will be an extension of the original protective zone of V274 line from the current 55 m to 80 m. By the implementation of these projects, there will be a new 400 kV interconnection Križovany – Bystričany, thus the another conditions of gradual replacement of the 220 kV system in SR to 400 kV will be fulfilled. The proposed construction will strengthen possibilities of national electricity transmission system, as well as strengthen an industrial development potential at region Horná Nitra, in case of creation a 400 kV node Bystričany. The new 2 x 400 kV line between site Bystričany and 400 kV substation Horná Ždaňa in length 31 km will be built in a new corridor, where also a new protective zone will be created. The proposed construction will strengthen possibilities of national electricity transmission system, as well as the industrial development potential at region Stredné Pohronie and in case of creation of the 400 kV node Bystričany. The region Horná Nitra will be strengthened as well. The construction of Transmission line 2 x 400 kV Bystričany – Križovany – Horná Ždaňa is a part of a complex of projects "ES Bystričany – Transformation 400/110 kV", which is divided in the following parts:

Complex ES Bystričany – Transformation 400 / 110 kV

Phase 1: A new 400 kV substation and two new 400/110 kV transformers to be constructed adjacent to Bystričany 220 kV substation;

Phase 2: A double circuit 400kV overhead line to be constructed between Horná Ždaňa substation and Bystričany substation and Oslany municipality (near to Bystričany) to connect the new Bystričany 400 kV substation to the 400 kV network.

Phase 3: The 400 kV substation Horná Ždaňa will be enlarged by two bays, to permit connection of the proposed 400 kV double circuit overhead line from Bystričany substation.

Phase 4: A double circuit 400 kV overhead is proposed between Bystričany substation and Križovany substation to connect the new 400 kV Bystričany substation to Križovany to provide network resilience. One circuit of this overhead line would be operated at 220 kV level by the year 2025.

Phase 5: The 400 kV substation in Križovany will be enlarged by one bay to permit the connection of the new 400 kV overhead line from Bystričany substation.

Annex 2 of the Terms of Reference

Description of SEPS, a.s. PMU organisation

Objectives of the PMU

The Project Management Unit is established to ensure the proper implementation of the project by finalising the project design, preparing the tender documents, supporting all the procurement made under the Grant Agreement, supervising the execution and the completion of the work and managing the Project. The PMU also ensures that SEPS, a.s. fulfills its obligations under the Grant Agreement with the Bank including the implementation of the environmental and safety standards.

PMU organisation and staffing

The PMU is headed by SEPS, a.s. that will appoint a Head of PMU for the whole duration of the projects of “Complex ES Bystričany - Transformation 400/110 kV”. (below: the Projects).

The duties of the Head of PMU are defined below.

The PMU receives support from SEPS, a.s. staff (namely the investment staff of SEPS, a.s.) and personnel in particular sites of Projects implementation when/if required for performing its duties. In addition an independent external consultant (“the PMU Consultant”) supports the PMU daily activities. The PMU Consultant’s activities are described in section 4 of these Terms of Reference.

The PMU is set up under the authority of SEPS, a.s.. It however is staffed by SEPS, a.s. with the support of the PMU Consultant. Both the PMU and the PMU Consultant must be acceptable to the Bank throughout the duration of the project implementation as covenanted in the Grant Agreement with the Bank.

It should be noted that an Independent Engineer (“the I.E.”), whose Terms of Reference are given in a separate document, will monitor for the Bank the progress made in implementing the Project.

– The Head of PMU

The Head of PMU supervises the execution of the Individual Projects until their completion. He reports to SEPS, a.s. Director of Investments. He ensures that all obligations of SEPS, a.s. related to the project under the Grant Agreement are met. He has the final decision making authority on acceptance of any work or any invoices; handling of disputes within the PMU would follow the principles set out in the draft Contract provided in Attachment 3 to the Request for Proposals.

He performs the following duties:

- establishes and updates an overall Project Implementation Plan (PIP) for the project in liaison with the Project Directors;
- establishes and updates the list and duties of each PMU member and ensures that the PMU is staffed with adequate personnel and receives adequate support from SEPS a.s. and the PMU external consultants;
- provides information to the Bank as specified under supervises the preparation of the tender documents and the tender process for any item procured for the implementation of the Individual Projects;
- organises the Evaluation Committee for any tender organised under the project and ensures compliance with the applicable procurement rules;
- chairs all Evaluation Committees;
- reviews reports prepared by the PMU before they are submitted to the Bank, or any party involved in the reconstruction project;
- co-ordinates and supervises the activities of the PMU;
- monitors and proactively leads PMU activities and the progress of the Project work including:
 - overall construction
 - procedures for information flow within and outside the PMU
 - budget and disbursement schedules
 - management systems and procedures for the cost control and monitoring;
- controls and expedites payment of invoices;
- handles complains and disputes with any party regarding the reconstruction project;
- organises and makes available all required services for the expatriate staff of the PMU Consultants that is to be provided by SEPS a.s. under Clause 4 of these terms of reference.

– *PMU Specialists*

The PMU Specialists handle the following aspects within their respective part of the Projects:

- Procurement

They received the support the PMU Consultant and SEPS, a.s. procurement experts to (i) prepare the tender documents, (ii) define the tender strategy, (iii) handle the tender process (inc. drafting of the pre-qualification of the tenders when appropriate, invitation to tender according to the relevant rules of each funding agency), (iv) handle the evaluation process, (v) prepare the evaluation report for the funding agency approval, (vi) prepare the contract documents.

They keep the Head of PMU and the funding agencies informed of the progress of the procurement processes. They prepare and submit for the Head of PMU approval all documents required towards the tender process approval and the contract signature.

- Project monitoring and supervision

The Specialists monitor the progress of the work for their respective contract and take any necessary action in liaison with the Head of PMU to ensure a smooth project implementation. To that extent, they receive support of the PMU Consultant and SEPS, a.s. staff when/if required.

They hold regular (at least once a month) meetings with the Contractors in charge of their project component. Minutes of these meeting are prepared and distributed to the participants, the Head of PMU, SEPS, a.s. Director for Investments, the PMU consultant, and any others deemed desirable by the Head of PMU.

They update monitoring tables and chart along with the progress of the work on site indicating the timetable, budget information; they report any technical problem or discrepancies with the initial plan and take all necessary actions to have Project Accounts set at the amount required under the Grant Agreement.

- Compliance with the grant agreement

The Specialists prepare for the Head of PMU approval any document required under the Grant and the associated Guarantee Agreements or any other agreements relating to the project or their specific portion of the project.

- Invoice processing

The Specialists control and approve all invoices relating to the Projects before submission to the Head of PMU for final approval decision.