

Terms of Reference (TCS 29372)**ID-40518 - Hydropower Rehabilitation Project (Ukraine)****Lender's Engineer****1. Background**

OJSC "UkrHydroEnergo" ("UHE" or "the Company") is Ukraine's main hydropower generation company. Its generating units are the major contributors to the stability and quality of the national electricity network. The company's nine hydro power plants (HPPs) on the Dnipro and the Dniester rivers meet around 7% of the total electricity demand in the country (see Annex 1 for more details). In 1996, the Government of Ukraine launched a major rehabilitation program to refurbish all UHE's HPPs (around 4,600MW, 99 units) using the Company's own funds and external financing.

UHE has signed two EUR 200m loans with the European Bank for Reconstruction and Development ("EBRD") and the European Investment Bank ("EIB") (or collectively the "Banks"), resp. on 29 September 2011 and September 2012 to finance the EUR 400m phase of the rehabilitation program between 2013 and 2019 listed below and in Annex 2 (the "Project"). The EBRD loan is effective since 30 December 2012.

The Client has been implementing the Project using a specially established Project Implementation Unit (PIU) responsible to plan, organise and control all aspects of the project, including supervision of all technical specifications, procurement of services and equipment, and monitoring of Contracts implementation. A new PIU consultant (to be hired after the expiration in March 2018 of the previous PIU Consultancy Contract) is under selection at present to work alongside UkrHydroEnergo/PIU staff so as to help them to deliver the project on time and to budget, in a manner transparent to the Lenders. The Bank will finance approximately 12 contracts procured under EBRD PP&Rs. The procurement process for the Bank financed contracts is on-going (8 Contracts signed up to date). The Project is managed in accordance with a Project Implementation Plan (PIP) approved by the Lenders in October 2012, which fully describes the improvement projects and the procedures for their implementation.

As part of the project, an Environmental and Social Action Plan (ESAP) has been developed to help the Company implement best international practices in terms of environmental and social management and to implement the Bank's Performance Requirements.

In addition to these arrangements the Lenders will appoint a new Lenders Monitoring Consultant (LMC) to monitor all stages of project implementation on their behalf, in accordance with the requirements of these ToRs.

The rehabilitation program is divided in several contracts and aims at:

- extending the lifetime of the units by at least 20 years;
- improving the environmental impact, reliability and operation costs of the power plants by installing new state-of-the-art generation equipment (turbine, generator) and transmission equipment (switchyard);
- optimising the use of the water resource by increasing the efficiency of the units by around 5% and their output by up to 10%;
- reinforcing the safety of the power plant by rehabilitating the gates.

Actual status of procurement is presented in the following table.

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STATUS OF PROCUREMENT			
Package		Contract price \ estimate M€	Activity status
Contracts signed			
GEN	Generators Rehabilitation for Kremenchug and Dnipro 2 HPP	14.5	Contract was awarded in May 2014 Contract is completed
TKNV	Rehabilitation of 7 Units and Auxiliaries for Kaniv HPP	48	Contract was awarded in November 2016 Several Contract amendments have been signed. Dismantling activities are on-going. Latest additional Agreement No.6 is under signature. The Contract completion date according to the updated time schedule is now planned in March 2021.
PSKNV	SCADA protection and control system for 8 units for Kaniv HPP	3.8	Contract was awarded in January 2016 Several Contract amendments have been signed. Design stage is almost completed. Latest additional Agreement No.2 was signed on 28.11.2018. According to this Contract amendment, the works completion date according to the updated time schedule is now planned in March 2021
TFCS-1	Rehabilitation of 3 units for Kyiv PSPP	16.5	Contract was awarded in December 2016 Several Contract amendments have been signed. Latest additional Agreement No.8 is under signature The Contract completion date according to the updated time schedule is now planned in February 2021.
TFCS-2	Rehabilitation of 3 units for Dnipro-1 HPP	58.2	Contract was awarded in December 2016 Several Contract amendments have been signed Latest additional Agreement N. 4 was signed on 30 November 2018 to include additional scope of works. Additional Agreement N.5 is at present under review by the Bank to cover the unexpected additional scope of works. The Contract completion date according to the updated time schedule is now planned in June 2021.
TKAP 2	Kaplan Rehabilitation for Serebnodniprovska	29.5	Contract was awarded in November 2017 Several Contract amendments have been signed Latest additional Agreement No.2 was signed on 04.12.2018. Discussions are on-going with the Bank to optimise the Contract schedule since contract completion is now scheduled on 23.09.2021, which is beyond EBRD loans availability periods (until 30.06.2021)

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TKAP 3	Kaplan Rehabilitation for Dnipro-2 HPP	28.2	Contract was awarded in November 2017 Several Contract amendments have been signed Latest additional Agreement No.2 was signed on 04.12.2018. Discussions are on-going with the Bank to optimise the Contract schedule. Contract completion is now scheduled on 23.04.2021, but some delays have been registered in the design stage, which requires Contract schedule update.
DKVP	Kyiv PSPP - dam safety	1.5	The contract has been signed on 26.02.2019
Tender under evaluation			
TKRE	Rehabilitation of 2 units at Kremenchug HPP (former TKAP Lot 1)	53	Expected Contract signature is March 2019
TRF	Procurement of 10 Transformers	11.3	Expected Contract signature is March 2019
PC	PIU Consultant	1.3	Expected Contract signature is April 2019
Tender under preparation			
WMS	single-stage tendering «Water management system»	0.6	The beginning of the Tender Documents preparation was postponed to give priority to other tender packages It is envisaged to hold a meeting with the concerned parties to define the goal and role of the Water Management System for UHE
HMEC	single-stage tendering «Hydro-mechanical equipment at Kremenchuk and Dnipro HPPs	26.2	The beginning of the Tender Documents preparation was postponed to give priority to other tender packages

Detailed Actual Procurement Plan (April 2018 update) is presented in Attachment #2. In the beginning of 2018 a significant loan proceeds saving (the difference between the estimated cost of the packages and the actual price of the concluded contracts) appeared as a result of completed tender procedures and as of the end of March 2018 equals EUR 111 mil.

2. Objectives

The Banks, represented by EBRD, wish to engage an independent consultant (the “**Consultant**”) to act as the Lender’s Engineer for the Project with the view of (i) monitoring the Project progress in line with the Project Implementation Plan prepared by the Borrower, (ii) ensuring the compliance with the various policies and agreements, including the Bank’s Procurement Policies and Rules (PP&R), the Bank’s environmental policies, and the Loan and Project Agreements between the Lenders and the Client (Project Agreements). On behalf of the lenders the Consultant will in particular carry out the following tasks:

- Provide technical and procurement support during procurement process until contracts signing and for Contracts’ amendments;
- Supervise and monitor progress of the specific Contracts’ implementation starting from the stage of equipment design and manufacturing till construction / installation and commissioning, reporting on a quarterly basis, including the implementation of the corporate Environmental and Social Action Plan and project’s Environmental and Social Action Plan that were agreed with the Client as part of the original loan agreement and project agreement;
- Review the operations, invoices and the certificates of completion;
- Verify the completion of all condition precedents to disbursement related to the environmental, social and technical aspects of the project implementation and agreements,
- Provide the advice required by the Banks in order that (i) it can make the disbursements in accordance with the loan agreement, (ii) it can be concluded that covenants in the Loan Agreement, and in relation to Section 3 tasks below, are fulfilled, (iii) it can be concluded that the Project has been successfully completed in line with the objectives set in the project implementation plan.
- Guide the Lenders re operational/staffing/procedural approaches in place in the PIU and OJSC “Ukrhydroenergo” and propose improvements, if needed.
- Report on the completion of each package and the Project

The Consultant will alert the Banks to any emerging problems, be they of a contractual, technical, environmental or financial nature, which have the potential to jeopardise the achievement of the Project objectives. In particular, the Lender’s Engineer will advise the Banks on any proposed waivers or amendments to legal agreements and interpret any other matters of material interest to the Banks. If necessary, the Consultant will assist the Banks in negotiations to achieve the required corrective action - any such additional work will be agreed with the EBRD’s Operation Leader in advance.

3. Scope of work

The Consultant will monitor the activities of the PIU and project implementation whilst reporting quarterly to the Lenders and providing ongoing advice on such other items as shall be requested from time to time by the Lenders or as required for smooth implementation of the project.

Specifically, the Consultant will perform the following tasks depending on the status of each specific project component:

Task 1 – Support during procurement process

The Consultant shall monitor the procurement process and in particular:

- Review and opine on the tender documents including technical specifications prepared by the Client and its consultant and alert the Bank to any deficiencies or omissions;
- Advise the Bank whether the tender specifications are sufficiently clear and comprehensive, and comply with (a) the Bank's Standard Tender Documents for the contract and (b) the Bank's Procurement Policies and Rules;
- Review and opine on the technical content of any addenda/clarifications issued to the tender documents and alert the Bank to any deficiencies or omissions
- Review the tender evaluation reports for the Bank-financed contracts under the Project prior submission to the Bank for its formal *No Objection*;
- Review the finalisation of Bank-financed Contracts to ensure compliance with contract conditions from those on which tenders were invited;
- Review of proposals of Contracts modifications and change orders to assess their eligibility for Bank funding according to EBRD minimum requirements;
- Ensure all Bank no-objections have been issued.

Task 2 - Construction Monitoring

It is assumed that the day to day project supervision will be performed by the Company's Engineer, who has to report to the Consultant on a quarterly basis for each package / Contract financed by the Bank.

In order to control the project implementation in terms of time schedule, quality of work and the performance of project participants, the Consultant will review the received quarterly reports of the Company's Engineer and monthly reports of the general contractor(s) as well as carry out quarterly site visits. The Consultant shall verify that the loan proceeds are being used in accordance with the contractual project schedule and implementation plan.

During each site visit of the project, the progress of the equipment manufacturing and site works will be checked with respect to the following reviews or validations:

- (i) Execution of the work in line with the contracts, approved documentation, plans, specifications, Environmental Social Action Plan, cost breakdown and time schedules
- (ii) Equipment design and manufacturing status to assess risk of delays and / or negative impact to the site works

- (iii) Site preparation, construction and installation activities
- (iv) Subcontractors capacity and all contract(s) arrangement in place
- (v) Permits, licenses and authorizations for construction and operation,
- (vi) Quality of design and work, team organization, progress and cost control systems in place
- (vii) Achievement of payment milestones in accordance with payment requests of contractors
- (viii) Attention to the Health & Safety regulations
- (ix) Attention to the environmental and social restrictions
- (x) Attendance at acceptance meetings, if possible
- (xi) Estimation of delays for completion due to delayed construction progress.
- (xii) Reasonableness of "Change Orders", if any, instructed under the contract: appropriateness, rationale, financial value, likely impact on Project implementation, i.e. schedule and budget

Task 3 - Approval of the Drawdown Requests

Based on the information and documentation prepared by the Company and as well as own inspection on site as described above, the Consultant will check the fulfilment of the conditions of the related Construction and Supply Contracts in terms of completion of the agreed milestones and their accordance with the payment schedule.

In order to issue a drawdown certificate, the LMC will check relevant invoices compare them with the contracts between the Client and the supplier/contractor/consultants and the PIP. Specifically this certificate will confirm:

- that the disbursement application is correctly completed and justified and the itemised expenditures have or will be properly incurred in accordance with the contracts between the Client and the supplier/contractor/ consultants and the PIP;
- there is evidence of present or future cost overruns which could cause the final project cost to be more than 20% above the original budget as agreed with the Lenders.

The Consultant shall review and verify whether certified progress payments to the contractors are based on estimated achieved progress (from progress reports) and conform to the payment schedule in the contracts. He shall assess the final contracts costs and Project costs versus estimates.

Task 4 – Project performance monitoring

The Consultant will assess adequacy of Client's PIU's resources, organisation and operational procedures in place necessary for smooth and transparent implementation of procurement functions and contract management under the Project. The Consultant will review the test log upon Client's confirmation that in his view the tests have been completed, in order to state an opinion as to whether the acceptance tests have been satisfactorily passed and a recommendation will be made to the Banks on whether or not to accept the contract as completed. Specifically, the Consultant will:

- review test log report and certificates including data and conclusions

- review completion certificate - items to be included in the certification:
 - test report review
 - facility design versus actual installation
 - compliance with ESAP, environmental, social, health, safety, and other regulatory requirements.
 - confirmation that required regulatory permits and licenses have been obtained for construction and operation

One site visit should be planned to be performed by the Consultant during the commissioning phase of the facilities, object of the contract. One experienced Engineer/Procurement Expert of the Lender's Engineer team will be assigned to work in the office of the PIU for 24 hours every month in the course of the first six months of the LE's assignment in order to assess adequacy of PIU staffing, necessary organisational and operational procedures being in place, required for efficient and transparent performance of project procurement and implementation tasks. The Consultant will review the relevant Construction and Supply contracts and will verify the regulations on acceptance procedures concerning tests on completion, applying to the acceptance and final payment of the Contractor, defects liability, issue of performance certificates and payment of money.

This documentation will be reviewed and commented with regard to fulfilment of standards and adequacy for quality assurance. The provision of the as-built documentation will be checked.

In the course of the monitoring of the taking over procedures, the Consultant will verify the elaboration of the punch list by the Company and its Engineer, assess the importance of the detected defects and give advice on the possible acceptance of the works or its rejection. If possible in accordance with planned site visits, the Consultant will attend the hand-over tests and acceptance meetings on site or review their fulfilment based on the information and documentation received from the Company in case of long lasting trial tests. The Consultant will check and confirm to the Banks the delivery of as- built and operation manuals.

The Consultant will confirm in its Final Report that the Project successfully achieved the main economic goals set by the Banks based on the Technical Due Diligence, notably with regards to the project targets listed in Section 1 of the present document.

4. Deliverables

I. Inception Report

The LMC shall submit a written Inception Report within six (3) weeks after mobilisation. The Inception Report should line out progress made and arrangements discussed as specified in Task 1 – Task 4 and propose a detailed template for the Lenders approval indicating how the Consultant will satisfy the deliverables.

II. Quarterly Reports

The LMC shall submit progress reports to the Lenders every quarter. The progress reports should dovetail with the PIU reporting schedule as agreed in the Loan documents and be agreed with the PIU and the Lenders. The detailed content and structure of these reports shall be agreed upon between the Consultant and the Lenders prior to submission of the first report. The Consultant shall submit his reports only to the Lenders except where there are written instructions to submit to other recipients.

The progress reports shall include (not limited to):

- Executive Summary

- Detailed information of issues discussed during site visits
- Conclusions and Recommendations

III. Ad-hoc Review Reports (as per ad-hoc requests issued by EBRD)

The LMC shall submit, to the Lenders, reports documenting the conclusions from the review of reports or documents prepared by the project parties. The LMC shall prepare such reports as and when requested in writing by the Lender, but may also prepare and submit such reports as and when deemed appropriate.

The ad-hoc Review Reports will typically be issued to review suitability for No-objection of the following documents:

- Project Implementation Plan and its specific parts (e.g. procurement plan, project integrated schedule; project financial plan etc.);
- Procurement documentation pertaining to the procurement of consultants (e.g. requests for proposals, proposal evaluation, contract preparation) to ensure compliance with EBRD PP&R (Section 5 – Procurement of Consulting Services);
- Tender documents for goods/supply and install/works contracts to ensure compliance with EBRD PP&R, EBRD Standard Tender Documents and associated guidance material;
- Tender evaluation reports (in the event of two-stage tender, the first and/or second stage tender evaluation report) to ensure the appropriate EBRD Tender Evaluation Report format is used, the tender evaluation process has been undertaken in accordance with the evaluation criteria contained in the tender document no-objectioned by the Bank, the Bank's PP&Rs and EBRD Tender Evaluation Guidance Note;
- Variation/change orders and/or amendments issued under contracts to ensure compliance with the relevant conditions of contract and to determine their eligibility for financing from the EBRD/EIB loan;
- Issues pertaining to contract finalisation (including the review of any draft contracts) and other related contract issues; and,
- Proposed responses to procurement related complaint/concerns;

IV. Presentations

The consultation may from time to time be requested to attend meetings and make presentations on the progress of the Project in Kiev and/or on site.

V. Final Report

Within one month of the date of completion of all works defined in the safety upgrade schedule for each power plant the LMC shall prepare a Draft Final Report and submit it to the Lenders for review and comment. Within one month of receiving the Lenders' comments on this draft report the LMC shall submit a Final Report to the Lenders.

The Consultant will report to the EBRD's Operation Leader, based at the EBRD's Headquarters in the Kiev Resident Office. All reports (draft and final), covering in detail all points specified in Section 3 Scope of Work and Tasks, shall be produced in English and be made available in hard copy and in electronic format (in Word and Excel as well as in pdf-format) to the Banks. All written communication between the Consultant and the Client or the Banks shall be in English. The Consultant will handle any translation and interpretation that may be necessary for the implementation of this assignment, in particular for any local documents in Ukrainian or Russian.

5. Staffing

Consultant Profile: Corporate services are sought. The consultant is likely to be a consulting engineer, a consortium of firms providing experts with relevant experience and professional qualifications in Hydro Power Plant Project, preferably in Eastern European countries with similar environments and construction regulation.

The following is the minimum experience and expertise required for this assignment:

- A senior engineer/Team Leader with an engineering degree, with minimum 10 years' experience in design of Hydro Power Plant and dams, and with in-depth knowledge of Power Plant project schedule and management, good understanding of the financing requirements of EBRD/EIB or other international financial institutions; and
- A pool of technical experts to provide support from the back office with an engineering degree and with minimum 5 years' relevant experience to cover design and procurement of (i) electrical equipment, (ii) electro-mechanical equipment, (iii) gates and hydro-mechanical equipment, (iv) other BOP equipment.
- A Procurement Expert with at least 10 years of proven procurement experience in similar assignments (preferable HPPs) with relevant IFI's experience.
- An Environmental and a Social Expert with an engineering degree, with minimum 5 years' experience in Hydro Power Plant and dams, and with in-depth understanding of the EBRD's requirements or other international financial institutions;
- A Financial expert (anticipated part time) with proven financial experience in similar assignments and familiar financial ratios, and
- A local expert with an engineering degree and with minimum 10 years' experience in Hydro Power Plant and spillway equipment design and procurement.

6. Timetable and implementation arrangements

The Bank will enter into the consultancy contract with the consultant. The assignment is expected to take place from June 2019 until completion of the project (expected date of completion June 2021).

The Consultant is expected to provide all the resources necessary for covering the requirements of this TOR for the duration of the project.

Throughout the execution of the project the Consultant shall have access to the same information as the PIU staff, and shall have the option to attend any such project management meetings as suitable, both in Kyiv and at the project sites. The Consultant shall also have access to the project sites that are implementing the specific project components.

Annex 1: UHE's existing assets (indicative figures)

Plant Name	Installed Capacity MW	Turbine Type and Number	Year of Commission	Average Production, GWh p.a.	Plant Factor %
Kyiv	419,0	Bulb (20)	1964-1968	749,6	21
Kyiv PSP	235,5	Frances (6)	1971-1972	182,9	9
Kaniv	458	Bulb (24)	1972-1975	924,5	24
Kremenchug	625	Kaplan (12)	1959-1960	1496,6	27
Dniprodzerzhinsk	365,2	Kaplan (8)		1278,9	41
Dnipro HPP-1	629	Frances (6)	1932-1950	3851,4	29
Dnipro HPP-2	876,6	Kaplan (2) Propeller (6)	1974-1980		
Kakhovka	329	Kaplan (6)	1955-1956	1439,2	53
Dniester	702	Kaplan (6)	1981-1983	1060,2	17
TOTAL UHE	4639.3	99		10983,3	27,6

**Annex 2: Rehabilitation scope of work – procurement plan
(updated April 2018)**

PROCUREMENT PLAN																	
EBRD ID 40518, 47947; EIB 31.177 - Hydro Power Rehabilitation Project																	
(Amount in Million w/o VAT)																	
Currency: Euros																	
Disbursement Period: 2012-2021																	
Tendering Schedule																	
Contracts - Loans financing (in EUR million)																	
1	2	3	4	5	6	10	11	12	13	14	15	16	17	18	19	20	21
№	Package	Description	Estimated Value* w/o VAT	Financed by EIB	Financed by EBRD	Financing by others		Contract type	Procurement method	Tender Invitation mm/yy	Contract Award mm/yy	Completion of works mm/yy ***	Contractor	Contract Price w/o VAT	Financed by EIB	Financed by EBRD	Notes
						Financier	Amount										
7	GEN	Rehabilitation of 3 generators: Lot 1. Kremenchug HPP - rehabilitation of 2 generators Lot 2. Dnipro-2 HPP - rehabilitation of 1 generator	52.2	15.80	36.40			supply and install	open 1 stage tender	January 2013	May 2014	February 2018	SE plant "Electrotyazhmash", Ukraine	14.5	1.30	13.40	Contract price in EUR as per NBU currencies exchange rate on the date of the Contract signing May 30, 2014, 1 EUR=16.028126 UAH: UAH 272 344 208,73 = EUR 16 991 643,86. Contract is completed (Warranty Guarantee for Unit No.9 till 05.11.2019 Unit No.17 till 20.07.2019 Unit No.8 till 12.02.2020) Final Contract amount including amount of adjustment (according to the condition of Amendment No.2 dd. 20.08.2015) is UAH 388 687 282,15 excluding VAT (or EUR 14 569 747,55).
8	TKNV	Kaniv HPP rehabilitation of 2 blocks, including: - 7 Turbines+generators, - 8 speed governing systems, - 2 oil pressure devices (OPD) for 2 blocks, - 2 blocks of 6.3kV busbars and related equipment, - MV Boards 6.3kV for 2 blocks (2 sets - 14 bays), - 8 axial compressors and associated motor 6.3kV and soft starting, - 8 excitation systems, - 4 generator circuit breakers (GCB), additionally installation of 4 circuit breakers - only installation of HV disconnectors 110kV, - 6 HV block current transformers 110kV.	66.5	35.71	30.76			supply and install	open 2 stage tender	May 2013	November 2016	September 2021	PJSC "Turboatom", Ukraine	48.0	24.00	24.00	Contract price in EUR as per NBU currencies exchange rate on the date prior the date of tender submission deadline April 04, 2016, 1 EUR= 29,847209 UAH: UAH=1 430 765 205,94 = EUR 47 936 314,78
9	PSKN	Kaniv HPP - SCADA protection and control system for 8 units and 2 blocks	5.2	2.81	2.39			supply and install	open 1 stage tender	November 2014	January 2016	September 2021	Emerson LLC, Ukraine	4.0	2.00	2.00	Contract price in EUR as per NBU currencies exchange rate on the date prior the date of tender submission deadline March 30, 2015, 1 EUR= 25,449314 UAH: UAH 97 995 216,89 = EUR 3 850 603,47
10	TFCS	Rehabilitation of 6 units (turbine-generator and auxiliaries): Lot 1. Kyiv PSPP - rehabilitation of 3 units Lot 2. Dnipro-1 HPP - rehabilitation of 3 units	87.2	51.0	36.2			supply and install	open 2 stage tender	November 2013	December 2016	June 2021	PJSC "Turboatom" (in Consortium with SE plant "Electrotyazhmash"), Ukraine	17.0	9.9	7.1	LOT 1; Contract price in EUR as per NBU currencies exchange rate on the date prior the date of tender submission deadline August 08, 2016, 1 EUR= 27,67318 UAH: UAH 468 692 224,00 = EUR 16 936 695,53
												July 2021	ANDRITZ HYDRO GmbH, Germany-Austria	58.2	33.8	24.4	LOT 2; Contract price in EUR as per NBU currencies exchange rate on the date prior the date of tender submission deadline August 08, 2016, 1 EUR= 27,67318 UAH: UAH 1 609 223 737,25 = EUR 58 151 023,38
11	TKAP	Rehabilitation of 4 units: (Lot 1. Kremenchug HPP - rehabilitation of 2 units - CANCELLED) Lot 2. Seredniodniprovska HPP - rehabilitation of 2 units Lot 3. Dnipro-2 HPP - rehabilitation of 2 units	106.1	53.1	53.1			supply and install	open 2 stage tender	May 2015	November 2017	November 2021	TKAP2 - PJSC "Turboatom" (in Consortium with SE plant "Electrotyazhmash"), Ukraine	29.5	17.1	12.4	LOT 2; Recalculation of Contract price in EUR performed as per NBU currencies exchange rate on the date prior the date of tender submission deadline July 03, 2017, 1 EUR= 29,697866 UAH: UAH 877 536 179,00 = EUR 29 548 795,83
												June 2021	TKAP3 - PJSC "Turboatom" (in Consortium with SE plant "Electrotyazhmash"), Ukraine	28.2	11.8	16.4	LOT 3; Recalculation of Contract price in EUR performed as per NBU currencies exchange rate on the date prior the date of tender submission deadline July 03, 2017, 1 EUR= 29,697866 UAH: UAH 838 025 040,00 = EUR 28 218 358,85

1	2	3	4	5	6	10	11	12	13	Tendering Schedule			Contracts - Loans financing (in EUR million)				
										14	15	16	17	18	19	20	21
12	TKRE	Rehabilitation of 2 units at Kremenchug HPP	53.0	26.5	26.5			supply and install	open 1-stage tender	January 2017	July 2018	December 2021					
13	DKVP	Kyiv PSPP - dam safety	1.0		1.0			supply and install	open 1 stage tender	May 2018	September 2018	January 2020					
14	HMEC	Hydro-mechanical equipment for Kremenchug HPP and Dnipro HPP in 2 Lots: Lot 1: Two cranes, motorisation for 16 gates, replacement of supporting beams for cranes, rail tracks and electricity supply lines for Dnipro HPP. Lot 2: One crane for Kremenchug HPP.	26.2	15.1	11.1			supply and install	open 1 stage tender	November 2018	April 2019	June 2020					
15	WMS	Water management system (Kyiv, Kaniv, Kremenchuk, Dnipro, Dniprodzerzhynsk and Kakhovska HPPs)	0.6		0.6			supply and install	open 1 stage tender	October 2018	February 2019	April 2020					
16	TRF	Procurement of 10 Transformers: Lot 1. Kyiv PSPP - 1 transformer. Lot 2. Kaniv HPP - 2 transformers. Lot 3. Seredniodniprovska HPP - 1 transformer. Lot 4. Dnipro HPP-1 - 4 transformers. Lot 5. Kakhovska HPP - 2 transformers.	11.3	5.65	5.65			Goods	open 1 stage tender	April 2018	July 2018	December 2020					
17	CS	PIU support consultant (2014-2018)	1.925		1.925			Consultancy services	Direct Contracting		November 2014	March 2018	Electricite de France (EDF)	2.14		2.14	Procurement in accordance with Section 5.9 of PPR. The Contract's scope and ceiling price extended from EUR 1.92m to EUR 2.57m, as per Amendment 4 to the Contract. The Contract completed on 30.03.2018. Total Contract amount of 2 138 935,03 EUR.
18	CSA	PIU support consultant (2018-2021)	1.3	1.3				Consultancy services	Competitive procedure	July 2017	May 2018	June 2021					
19		Intermediate Contract for Project consultancy additional services (PIU consultant)	0.075		0.075			Consultancy services	Direct Selection without a short list		July 2014	November 2014	Electricite de France (EDF)	0.075		0.075	Direct selection, contract amount below threshold
20		PIU support consultant (2010-2014)	2.0			EU-NIF	2.0	Consultancy services	Competitive procedure	Mach 2010	November 2010	August 2014					Contract dd. November 22, 2010 for an amount of EUR 1 996 572,00. The Contract completed on August 31, 2014.
21		Lender's Engineer	0.6			Donor	0.6		Competitive procedure	October 2013	August 2015	May 2017	Fichtner GmbH & Co. KG (Germany)				As informed by the EBRD, the Contract Start Date is September 01, 2015 and the Contract ceiling amount is EUR 599 960,00. The Contract Completion Date is May 24, 2017.
22		TOTAL				UHE	214.6			Tentative Project deadline	September 2021	Allocated	201.6	99.9	101.9		
Notes: * includes 15% contingencies			** open tender Ukrainian rules			*** indicated date is the last date of Operational Acceptance. If the contract completion period lasts beyond the LAD, the remaining part of these works will be financed using UHE local funds.											
			Total	EIB	EBRD												
TOTAL for the Project			€ 614.6														
Financing by other sources			€ 214.6														
Total Loans of EBRD-EIB, incl.:			€ 400.0	€ 200.0	€ 200.0												
Total contracted			€ 201.6	€ 99.9	€ 101.9												
Estimated Value of not-contracted packages			€ 93.4	€ 48.6	€ 44.9												
Cost Savings			€ 108.2	€ 51.3	€ 57.1												