



PERÚ

Ministerio
de Economía y Finanzas

Agencia de Promoción
de la Inversión Privada

Dirección de Portafolio
de Proyectos

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Republic of Peru



ProInversión

SGT Concession Contract

Project

**"500 KV HUÁNUCO – TOCACHE – CELENDÍN – TRUJILLO LINK,
EXTENSIONS AND ASSOCIATED SUBSTATIONS"**

- Initial Version of the Contract-

June 10, 2022

Important: This is an unofficial translation. In the case of divergence between the English and Spanish text, the version in Spanish shall prevail.



"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Table of Contents

1. PRELIMINARY PROVISIONS	¡Error! Marcador no definido.
2. STATEMENTS OF THE PARTIES	¡Error! Marcador no definido.
3. LEGAL NATURE, PURPOSE, DURATION, AND TERM OF THE CONTRACT	¡Error! Marcador no definido.
4. CONSTRUCTION	¡Error! Marcador no definido.
5. COMMERCIAL START-UP	¡Error! Marcador no definido.
6. CONTRACTS WITH THIRD PARTIES	¡Error! Marcador no definido.
7. INSURANCE CONTRACTS	¡Error! Marcador no definido.
8. RATE REGIME	¡Error! Marcador no definido.
9. CONCESSION FINANCING	¡Error! Marcador no definido.
10. FORCE MAJEURE OR FORTUITOUS EVENT	¡Error! Marcador no definido.
11. PENALTIES AND SANCTIONS	¡Error! Marcador no definido.
12. GUARANTEES	¡Error! Marcador no definido.
13. TERMINATION OF THE CONTRACT	¡Error! Marcador no definido.
14. DISPUTE RESOLUTION	¡Error! Marcador no definido.
15. ECONOMIC-FINANCIAL BALANCE	¡Error! Marcador no definido.
16. TAX REGIME	¡Error! Marcador no definido.
17. ASSIGNMENT OF RIGHTS	¡Error! Marcador no definido.
18. AMENDMENTS TO THE CONTRACT	¡Error! Marcador no definido.
19. NOTIFICATIONS	¡Error! Marcador no definido.
Annex No. 1	¡Error! Marcador no definido.
Annex No. 2	69
Annex No. 3	71
Annex No. 4	78
Annex No. 5	79
Annex No. 6	81
Annex No. 7	82
Annex No. 8	83
Annex No. 9	86
Annex No. 10	91
Annex No. 11	98
Annex No. 12-A	100
Annex No. 12-B	102



"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Project SGT Concession Contract
"500 kV Huánuco-Tocache-Celendín-Trujillo 500 kV Link, Extensions and Associated Substations"

Mr. Notary Public:

Please extend in your Registry of Public Deeds one recording the Guaranteed Transmission System Concession Contract for the design, financing, construction, operation, and maintenance of the project "500 kV Huánuco-Tocache-Celendín-Trujillo Link, extensions and associated substations" (hereinafter, Contract) entered into between:

The State of the Republic of Peru (hereinafter, GRANTOR) acting through the Ministry of Energy and Mines, represented by _____, Mr. _____, identified with DNI No. _____, empowered by Ministerial Resolution No. _____, with domicile at Av. De Las Artes Sur No. 260, San Borja, Lima - Peru; and, _____, (hereinafter, CONCESSIONAIRE) duly represented by _____, identified with _____, with domicile for these purposes at _____ - Peru, duly empowered by means of power of attorney registered in Entry No. _____ of the Registry of Legal Entities of the Registry Office of Lima and Callao; under the following terms and conditions:

1. PRELIMINARY PROVISIONS

Background

- 1.1 By Ministerial Resolution No. 422-2020-MINEM/DM of December 30, 2020, the 2021 - 2030 Transmission Plan was approved, which included the "500 kV Huánuco-Tocache-Celendín-Trujillo Link, extensions and associated substations" project (hereinafter, the "Project").
- 1.2 By Ministerial Resolution No. 146-2021-MINEM/DM of May 18, 2021, PROINVERSIÓN was entrusted with the process of promoting private investment in various binding projects of the 2021 - 2030 Transmission Plan, which includes the Project.
- 1.3 Through PROINVERSIÓN Agreement No. 116-1-2022-CD adopted by the Board of Directors of PROINVERSIÓN in its session of April 5 and 6, 2022, the incorporation of the Project to the private investment promotion process and the Public-Private Partnership modality applicable to the Project was approved.
- 1.4 Through PROINVERSIÓN Agreement No. 116-2-2022-CD adopted by the Board of Directors of PROINVERSIÓN at its meeting held on April 5 and 6, 2022, the Pro Mining and Energy Committee Agreement No. 67-1-2022-Transmission Lines was ratified, through which the Project's Promotion Plan was approved.
- 1.5 The Record of Presentation of Envelopes No. 1 and No. 2, and the awarding of the bid, dated ____/____/____, in which the awarding of the bid is recorded.
- 1.6 Ministerial Resolution No. _____-MINEM/DM, which authorized _____ to sign the Contract.

Definitions:

- 1.7 In the Contract:
 - a) Capitalized terms, whether used in the singular or plural, shall have the meanings set forth in Annex No.3.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- b) Capitalized terms, whether used in the singular or plural, that are not defined in Annex No.3 or other sections of the Contract shall have the meanings ascribed to them in the Bidding Terms, the Applicable Laws and Provisions or the meaning given to them, having regard to their function and use, in the ordinary course of business in Peru.
- c) All references made in the Contract to "Clause", "Annex", "Subsection" or "Literal" shall be understood to be made to Clauses, Annexes, Subsections or Letters of the Contract, unless expressly indicated to the contrary.
- d) Headings have been included for the sole purpose of systematizing the exposition and shall not be considered as a part of the Contract to limit or expand its contents or to determine the rights and obligations of the Parties.
- e) Terms in the singular shall include the same terms in the plural and vice versa. Terms in the masculine shall include the feminine and vice versa.
- f) The use of the disjunction "or" in an enumeration shall be understood to include one or more of the elements of such enumeration.
- g) The use of the conjunction "and" in an enumeration shall be understood to include all the elements of such enumeration or list.

2. STATEMENTS OF THE PARTIES

- 2.1 The Contract results from the process of promotion of private investment that the Private Investment Promotion Agency – PROINVERSIÓN conducted within the framework of Legislative Decree No. 1362, Legislative Decree that regulates the promotion of private investment through public-private partnerships and projects in assets, its Regulations, approved by Supreme Decree No. 240-2018-EF, Law No. 28832, Law on Efficient Development of Electricity Generation, the Transmission Regulations, approved by Supreme Decree No. 027-2007-EM, Decree Law No. 25844, Law on Electricity Concessions, its Regulations approved by Supreme Decree No. 009-93-EM, and other Applicable Laws and Provisions.
- 2.2 The Contract has been drafted and executed in accordance with the domestic law of Peru; and its content, execution and other consequences arising therefrom shall be governed by the aforementioned law.
- 2.3 The Parties acknowledge that the economic and financial equilibrium situation of the Contract, in terms of rights, responsibilities and risks assigned to the Parties, is that in force at the Closing Date. The Parties undertake to maintain the economic and financial balance of the Contract during its term.
- 2.4 The execution of the Contract does not eliminate or affect the obligation of the CONCESSIONAIRE to request, execute and comply with the Definitive Electric Transmission Concession Contract that the CONCESSIONAIRE must process before the Ministry of Energy and Mines, in its capacity as Relevant Governmental Authority.

For such purposes, the CONCESSIONAIRE shall attach to its request a copy of the Schedule and of the Construction Performance Guarantee in force, in accordance with the provisions of the second paragraph of Article No. 25 of the Decree-Law No. 25844, Law on Electricity Concessions, and article No. 37-D of its Regulations, approved by Supreme Decree No. 009-93-EM.
- 2.5 The CONCESSIONAIRE guarantees to the GRANTOR, on the Closing Date, the truthfulness and accuracy of the following statements.
 - a) That, (i) it is duly incorporated and validly existing under the Applicable Laws and Provisions; (ii) it is duly authorized by its board of directors or other similar body to assume its obligations under the Contract in all jurisdictions in which such authorization is required by the nature of its business or the ownership, leasing or operation of its assets, except in those jurisdictions in which the lack of such authorization would not have a material adverse effect on its business or operations; and, (iii) it has complied with all the requirements necessary to formalize the Contract and to comply with the commitments stipulated therein.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- b) That the signature, delivery and performance of the Contract by the CONCESSIONAIRE are within its powers and have been duly authorized by its board of directors or other similar body.
 - c) That, it is not necessary for the CONCESSIONAIRE to carry out other acts or procedures in order to authorize the subscription and fulfillment of the obligations corresponding to it under the Contract.
 - d) That, the Contract has been duly and validly signed and delivered by the CONCESSIONAIRE, and constitutes a valid, binding and enforceable obligation for the CONCESSIONAIRE in accordance with its terms.
- 2.6 The GRANTOR guarantees to CONCESSIONAIRE, as of the Closing Date, the truthfulness and accuracy of the following statements:
- a) That, it is duly authorized under the Applicable Laws and Provisions to act as such in this Contract. The signature, delivery and performance by the GRANTOR of the commitments contemplated in the Contract are within its powers, are in accordance with the Applicable Laws and Provisions.
 - b) That, no other action or proceeding by the GRANTOR or any other Relevant Governmental Authority is necessary to authorize the execution of the Contract or for the performance of the obligations of the GRANTOR contemplated therein. The Contract has been duly and validly signed by the authorized representative(s) of the GRANTOR and, together with the signature and delivery thereof by the CONCESSIONAIRE, constitutes a valid, binding and enforceable obligation for the GRANTOR.
- 2.7 The CONCESSIONAIRE guarantees to the GRANTOR that during a period from the Closing Date and until ten (10) years of commercial start-up of the Project are completed, the Qualified Operator shall be the holder of the c, and the responsible for the technical operations of the Concession from the very design of the Project until the conclusion of such term.
- During the first three (3) years of the term indicated in the preceding clause, the Qualified Operator may not be replaced. After this term, at the CONCESSIONAIRE's request and before the expiration of the period indicated in the preceding clause, the GRANTOR may accept that the Qualified Operator be replaced by another one, provided that it complies with the qualification requirements set forth in the Tender Terms and Conditions. The GRANTOR shall give its prior written consent to the requested change. After thirty (30) days without a written answer from the GRANTOR, the request shall be considered denied. However, the CONCESSIONAIRE may submit the request again, for which thirty (30) Days elapsed without a written answer from the GRANTOR, the request shall be deemed accepted. The denial of the application may only be based on the lack of compliance with the requirements demanded by the Bidding Terms and Conditions for the Qualified Operator.
- 2.8 The Rate Base incorporates the concepts indicated in Clause No. 8.1, as well as the work of the Qualified Operator; therefore, in no case shall any other consideration or compensation that the CONCESSIONAIRE may have agreed or may agree with the future Qualified Operator be added to it.
- 2.9 The CONCESSIONAIRE, as of the Closing Date, shall be liable, in accordance with the Applicable Laws and Provisions, for the Concession Assets and/or the damages, damages or losses caused thereto. As from the integration to the SEIN certified by the COES, the CONCESSIONAIRE shall also be responsible for the rendering of the Service, notwithstanding the provisions of Clause No. 8.
- 2.10 The CONCESSIONAIRE shall hold harmless the GRANTOR with respect to any action or exception of a legal, administrative, arbitration or contractual nature, or claim of any nature with respect to the Concession Assets or the provision of the Service, except in the event that the damages are caused by the GRANTOR, its personnel, representatives, agents or the Inspector.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

3. LEGAL NATURE, PURPOSE, DURATION AND TERM OF THE CONTRACT

- 3.1 The Concession, which is the subject of this Contract, is granted for the design, financing, construction, operation, and maintenance of the Project.
- 3.2 The CONCESSIONAIRE undertakes to design, finance, supply the required goods and services, construct, operate and maintain the Project, as well as provide the Service in compliance with the Service Levels, all in accordance with the Contract and the Applicable Laws and Provisions. For said reason, the CONCESSIONAIRE shall develop the Project as indicated in Annex No.1, with the purpose of meeting the milestones within the maximum deadlines set forth in Annex No.7. Errors in the design of the Project shall in no way limit or exonerate the CONCESSIONAIRE in relation to its obligation to comply with the Service Levels.
- 3.3 The activities or services that form part of the Concession and that, therefore, constitute the object of the rights and obligations assumed by the Parties, are those contained in the Contract.
- 3.4 The project shall be developed under a self-financed Public-Private Partnership.
- 3.5 While the Contract is in force, the CONCESSIONAIRE shall be the owner of the Concession Assets, in accordance with the provisions of subsection No. 3.7 of Article No. 3 of the Transmission Regulations and shall use them for the provision of the Service. Upon termination of the Contract, the CONCESSIONAIRE shall transfer the Concession Assets to the GRANTOR in accordance with the provisions of Clause No. 13.28.
- 3.6 The Contract becomes effective on the Closing Date and terminates thirty (30) years after Commercial Start-up.

4. CONSTRUCTION

- 4.1 The electric rights (Definitive Electric Transmission Concession Contract), the imposition of easements and in general any other authorization or similar that, according to the Applicable Laws and Provisions, the CONCESSIONAIRE requires for the fulfillment of its obligations under the Contract, are Concession Assets, and must be requested by the CONCESSIONAIRE to the Relevant Governmental Authority according to the respective procedure and complying with the requirements set forth in the Applicable Laws and Provisions.

The Ministry of Energy and Mines, in its capacity as Relevant Governmental Authority, shall impose the easements that may be required in accordance with the provisions of the Applicable Laws and Provisions, whereby the costs incurred to obtain or preserve such easements shall be borne by the CONCESSIONAIRE.

Likewise, the CONCESSIONAIRE shall obtain the permits, licenses, authorizations, concessions, easements, rights of use and other surface and similar rights, in accordance with the requirements and formalities demanded by the Applicable Laws and Provisions. For such purposes, it must comply with the priority in proceedings provided in Article No. 10 of Legislative Decree No. 1362.

- 4.2 The CONCESSIONAIRE shall obtain and maintain title to the rights over the land required for the Project and its future expansions, as indicated in Annex No. 1, and, if applicable, shall carry out the corresponding legal physical reorganization. If the legal physical reorganization is required, it shall be carried out by the CONCESSIONAIRE within a maximum term of eighteen (18) months from the date of Commercial Start-up. The fulfillment of this obligation must be communicated to the GRANTOR with the respective support.

In addition, regarding the availability of use of the lands of the future expansions indicated in Annex No. 1, the CONCESSIONAIRE undertakes to safeguard and keep available the lands whose rights of use have been obtained until their respective delivery or use.

Likewise, the CONCESSIONAIRE shall acquire and install in the lines and substations, new equipment, and materials in accordance with this Contract, taking into account the homologation

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

criteria and other technical aspects included in Annex No. 1. Manufacturers of such equipment and materials shall be ISO 9001 certified. Equipment and materials whose date of manufacture is not older than two (2) years prior to the Closing Date and which have not had any use shall be considered as new.

Used equipment or materials may be used only during the operation of the Project, provided that doing so is necessary to temporarily address defects or failures while the committed equipment or materials are being replaced with new ones. The maximum term of use of the equipment or materials used shall be twelve (12) months. These decisions shall be communicated to the OSINERGMIN, who shall carry out the due supervision, according to the procedure approved for such purpose.

Contractors and subcontractors for the construction of the project must be ISO 9001 certified and comply with labor laws.

- 4.3 The milestones set forth in Annex No. 7 shall occur within the maximum terms set forth in said Schedule, without prejudice to the suspension of terms set forth in this Clause No. and in Clause No. 10.

When non-compliance with any of the aforementioned milestones is due to the improper action or omission of the Relevant Governmental Authority, the deadlines for compliance with the milestones set forth in Annex No. 7 shall be suspended for a period equivalent to that of the stoppage or delay, provided that the critical route for the construction of the Project has been affected. For such purposes, the execution of an addendum shall not be required.

The improper action or omission of the Relevant Governmental Authority shall be understood as the paralysis or delay in the approval of authorizations related to the Commercial Start-up, as well as in the granting of permits, licenses, authorizations, concessions, easements, rights of use and other similar surface rights necessary for the construction of the Project (despite the fact that the CONCESSIONAIRE has complied in form and substance with all the requirements and procedures demanded by the Relevant Governmental Authority in accordance with the Applicable Laws and Provisions).

The CONCESSIONAIRE shall notify the GRANTOR of the improper action or omission of the Relevant Governmental Authority within ten (10) Days after its commencement. Subsequently, and within fifteen (15) days after the Governmental Authority has complied with its obligations, the CONCESSIONAIRE shall request to the GRANTOR the suspension of the corresponding term, as set forth in Annex No. 7, attaching the respective supporting documentation, with a copy to OSINERGMIN.

Notwithstanding the foregoing, if the compliance of the Governmental Authority has not occurred ninety (90) calendar days after the occurrence of the improper action or omission of the Relevant Governmental Authority, the fifteen (15) Days term for the CONCESSIONAIRE to request to the GRANTOR the suspension of the corresponding term, shall begin to be computed from the day after the ninety (90) days indicated above have elapsed.

In this case, the CONCESSIONAIRE shall submit a request with the complementary information for the GRANTOR to consider a suspension for terms longer than ninety (90) calendar days. For such purpose, the CONCESSIONAIRE shall have a maximum of ten (10) days after the Governmental Authority's compliance has occurred to submit the request with the complementary information supporting such additional period.

The GRANTOR shall resolve the suspension request within sixty (60) days after its submission. If the GRANTOR requires additional information, clarification and/or correction from the CONCESSIONAIRE, it shall grant the latter a term of no more than thirty (30) days. In this case, the term to resolve the request shall be suspended according to the term granted by the GRANTOR to the CONCESSIONAIRE for the submission of additional information, clarification and/or correction. The failure of the GRANTOR to make a pronouncement within the term foreseen shall be treated as an acceptance by the GRANTOR of the suspension request.

From the request for suspension of the term referred to in the preceding paragraph until the GRANTOR's response, the latter may not charge and, consequently, require the payment of penalties for breach of contract arising from the facts that support such request.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

In case the GRANTOR rejects the CONCESSIONAIRE's request, the GRANTOR shall be entitled to request the applicable penalties. Any dispute regarding the suspension of deadlines shall be resolved in arbitration in accordance with the provisions of Clause No. 14.

- 4.4 Prior to the start of construction, the CONCESSIONAIRE shall have complied with the following: (i) obtain the certificate of conformity of the EPO from the COES, according to the requirements and procedures of said entity; (ii) obtain the conformity of the Ministry of Energy and Mines and the favorable technical opinion of OSINERGMIN of the definitive engineering according to Clauses No. 4.8 and 4.9, (iii) accredit the Financial Closing and (iv) obtain the approval of the corresponding Environmental Management Instrument, according to the requirements and procedures of the Relevant Governmental Authority.
- 4.5 The CONCESSIONAIRE undertakes to hire the Supervising Company whose selection shall be in accordance with the Terms of Reference set forth in Annex No. 10. The Supervising Company may be the same company hired by the CONCESSIONAIRE within the framework of the financing of the Concession. The expenses required for such supervision are part of the CONCESSIONAIRE's Offer. The CONCESSIONAIRE shall send a copy of the supervision contract to the GRANTOR within five (05) days of the completion of all the formalities of its execution.

The Supervising Firm shall start its work from the beginning of the engineering of the Project or the EPO, whichever occurs first.

In the event of early termination of the Contract, the supervision contract establishes the scope and mechanisms for retribution to the Supervising Company. If the term of the Concession is suspended, the CONCESSIONAIRE, with the prior consent of the GRANTOR, may totally or partially suspend the corresponding supervision work for the duration of the suspension.

- 4.6 Notwithstanding the foregoing, OSINERGMIN shall be entitled, through its own personnel or specialized companies, at its own account, cost and risk, to carry out follow-up work on the execution of the works and the technical inspection of the construction quality, for which purpose the CONCESSIONAIRE shall provide such facilities as may be reasonably required, provided they do not affect the normal development of the Schedule.

However, if during the technical inspection deficiencies of such nature that alter the scope of the Project, affect the technical quality of the facilities or put the quality of the Service at risk are detected, the OSINERGMIN shall request the CONCESSIONAIRE, with a copy to the Ministry of Energy and Mines, to make the necessary corrections as a prior condition to the continuation of the works or facilities subject of the observation.

For such purposes, the OSINERGMIN shall submit to the CONCESSIONAIRE all the information that supports the deficiencies detected and that effectively merit the corrections requested, together with the report issued by the Supervising Company in this regard.

The CONCESSIONAIRE shall have a term of ten (10) days, computed as from the reception of the aforementioned information, to correct the observations made.

- 4.7 From the sixth month after the Closing Date, the CONCESSIONAIRE shall have the obligation to report monthly to the Ministry of Energy and Mines and OSINERGMIN, within the first fifteen (15) calendar days following the end of the month being reported on the progress of the Project, including the development of the engineering, acquisition of equipment and materials, construction of the works and other relevant aspects required by the GRANTOR and/or OSINERGMIN. The structure of the aforementioned report shall be established by OSINERGMIN.
- 4.8 The Schedule shall be delivered duly paginated and endorsed by the CONCESSIONAIRE to the OSINERGMIN and to the GRANTOR, within twelve (12) months as from the Closing Date. Likewise, the Schedule shall be submitted valued in Dollars, considering monthly periods, in a printed version, duly numbered and stamped by the CONCESSIONAIRE, and in a digital version (MS Project). The digital version of the Schedule shall allow OSINERGMIN to carry out the verifications in an automated way and clearly distinguish the critical path of the work as a whole.

Within the same term, the CONCESSIONAIRE shall also deliver to OSINERGMIN and to the Ministry of Energy and Mines source magnetic files containing the Project's final level engineering project

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

including the Work Specifications indicated in Annex No. 8, and the following sections: Justifying Calculations, Measurements, Supply and Assembly Specifications, and Drawings in Autocad format. The engineering project shall comply, both with the technical scopes specified in Annex No. 1, as well as with the results of the previously approved EPO, considering what is indicated in the first paragraph of Clause No. 4.9.

- 4.9 With the presentation of the engineering project at the final level, the CONCESSIONAIRE shall attach the report of the Supervising Company verifying that the referred engineering project complies with the technical scopes specified in Annex No. 1 and the EPO, approved in accordance with the procedures established by COES, such as COES Technical Procedure PR-20 or the one that replaces it, as well as others that may be applicable. In case of discrepancy in the technical scopes between Annex No. 1 and the EPO approved by COES, the latter shall prevail in the scope of its competence, within the framework of COES Procedure PR-20 and without this implying any modification of the basic configuration established in Annex No. 1, nor causing any variation of the Rate Base.

Within twenty (20) days from the reception of the engineering project, OSINERGMIN shall issue a favorable technical opinion on the final engineering project, which shall then be sent to the Ministry of Energy and Mines for its respective approval within twenty (20) days. In case there are observations, they must be corrected by the CONCESSIONAIRE within the term established by OSINERGMIN or the Ministry of Energy and Mines, as the case may be. The responsibility for compliance with the technical aspects contemplated in the Contract and in the EPO corresponds to the CONCESSIONAIRE, so that in no case may responsibility be imputed to the GRANTOR; or, shall limit or release the CONCESSIONAIRE from complying with its obligations in relation to the Service Levels.

Any conformity of the Ministry of Energy and Mines with respect to the engineering project at the final level does not imply nor should it be interpreted as the CONCESSIONAIRE transferring to the GRANTOR, in whole or in part, the design, financing or construction risks, which are the sole and exclusive competence and responsibility of the CONCESSIONAIRE.

- 4.10 The CONCESSIONAIRE shall consider that the engineering project at the definitive level may be modified or corrected by virtue of any change requested by the Relevant Governmental Authority for the granting of the rights, licenses and authorizations required under the Contract and to be recorded in the works notebook. Changes requested under this clause may not modify aspects contemplated in Annex No. 1 and the EPO.

The modifications or corrections regulated in this clause may not generate, under any circumstances, recognition of any amount in favor of the CONCESSIONAIRE or reduce the Service Levels or the maximum terms indicated in Annex No. 7.

The amount of investment for the works shall be determined at the CONCESSIONAIRE's risk and expense. There shall be no possibility of claim between the Parties for a greater or lesser amount of investment executed by the CONCESSIONAIRE, provided that the Service Levels are complied with.

- 4.11 The CONCESSIONAIRE shall submit to OSINERGMIN and to the Ministry of Energy and Mines, an updated version of the Schedule eighteen (18) months from the Closing Date. The CONCESSIONAIRE shall initiate and, in general, carry out all the activities of the Schedule taking the necessary foresight that corresponds to a diligent electric transmission concessionaire, in order to avoid delays or non-compliance with the Schedule.
- 4.12 The application of the provisions of Clauses No. 4.3 and 10 shall entail, as applicable, the modification of the Schedule, taking into account that, in accordance with the provisions of Article No. 37-D of the Regulations of the Law on Electricity Concessions, the definitive concession includes the schedule for the execution of works stipulated in the Contract.
- 4.13 The progress reports submitted by the Supervising Company must be in accordance with the structure of the current Schedule, with a precise distinction of the critical path. In the event that the critical path is altered and this leads to a delay of more than thirty (30) calendar days in the date foreseen for the Commercial Start-Up, the CONCESSIONAIRE shall submit to the Ministry of Energy and Mines and OSINERGMIN an updated Schedule within ten (10) calendar days following the

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

occurrence of such event, for supervision and follow-up purposes, detailing the corrective actions, without prejudice to the application, if applicable, of the penalties pursuant to Subsection No. 4 a) of Annex No. 11.

A copy of the reports prepared by the Supervisory Company indicated in the previous paragraph shall be delivered monthly to OSINERGMIN and to the Ministry of Energy and Mines within the first fifteen (15) calendar days of the following month.

- 4.14 The CONCESSIONAIRE is obliged to open and maintain a works notebook, in triplicate pages, duly foliated and authorized by a Notary Public, which shall be opened prior to the commencement of the execution of the works and in which the duly accredited representatives of the Supervising Company and the CONCESSIONAIRE shall note and sign all important incidents in the course of execution of the works. The works notebook shall be kept permanently on site and in the custody of the CONCESSIONAIRE. OSINERGMIN shall have access to the work notebook. At the end of each month, the CONCESSIONAIRE shall deliver a copy of the updated work notebook to OSINERGMIN.

5. COMMERCIAL START-UP

- 5.1 Once construction has been completed and the internal operation tests have been carried out, which correspond to functional tests of the equipment, among others, with the system not energized, the CONCESSIONAIRE shall proceed, in the presence of the Inspector, the Supervising Company and OSINERGMIN, to carry out the commissioning tests, the purpose of which is to verify, following the methodology established in Annex No. 2, that the Project complies with the requirements indicated in Annex No. 1 and the EPO approved by the COES.

The CONCESSIONAIRE shall provide the facilities to the Inspector for the performance of the required technical inspections.

- 5.2 The Inspector referred to in the previous subsection shall be chosen by the CONCESSIONAIRE from a list of at least three (3) legal persons that the Ministry of Energy and Mines shall propose within twelve (12) months prior to the date foreseen for the Commercial Start-Up, in order for him/her to begin his/her functions at least eight (8) months prior to said date.

If the Ministry of Energy and Mines has not sent the aforementioned list ten (10) months before the date set for the Commercial Start-Up, the CONCESSIONAIRE may send a communication to the Ministry of Energy and Mines for said entity to nominate the list of legal entities from which the Inspector shall be selected, indicating that if said nomination is not made within thirty (30) calendar days of receipt of the communication, the CONCESSIONAIRE may freely choose the Inspector. Once the term of thirty (30) calendar days has expired without nomination by the GRANTOR, the CONCESSIONAIRE may freely choose the Inspector. It may also choose it freely if it has not made the aforementioned communication and the Ministry of Energy and Mines has not nominated the list before the nine (9) months prior to the date foreseen for the Commercial Start-Up.

The negotiation of the contract and the hiring of the Inspector shall be the responsibility of the CONCESSIONAIRE. The expenses required for the inspection work are part of the CONCESSIONAIRE'S Offer. The scope of the Inspector's contract shall have the prior approval of the Ministry of Energy and Mines and shall include the functions foreseen for the Inspector in this Contract. The cost of the Inspector's fees shall be covered by the CONCESSIONAIRE.

The result of the selection shall be sent to the Ministry of Energy and Mines and OSINERGMIN for their information.

- 5.3 The CONCESSIONAIRE shall provide the Relevant Governmental Authority with such information and inspection facilities as the latter may require controlling the proper performance of its obligations under the Contract. Inspections shall be conducted in a manner that does not affect the operation of the Project.
- 5.4 The CONCESSIONAIRE shall be a member entity of COES prior to the start of the Experimental Operation. The Experimental Operation shall be developed for a period of thirty (30) calendar days and shall start when the Project Commissioning Test Execution Procedure contained in Annex No. 2 is successfully completed, with the approval of OSINERGMIN of the final report referred to in said annex and when the COES approves the integration of the Project to the SEIN (according to the

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

COES Technical Procedure PR-20 or the one that takes its place, and the Applicable Laws and Provisions).

If the Project and its components operate during this period without interruptions attributable to the engineering study, operability study, material quality, construction quality or system equipment, the Commercial Start-Up shall automatically begin, without prejudice that, for rate purposes, OSINERGMIN and the CONCESSIONAIRE sign the corresponding act within a term no longer than five (5) days, which shall include the date of the beginning of the Commercial Start-Up.

- 5.5 If during the Experimental Operation period there are interruptions attributable to the engineering study, the operability study, the quality of the material, construction quality or the system equipment, the referred period shall be suspended by means of a communication issued by OSINERGMIN. If the respective correction and tests require more than five (5) consecutive calendar days to overcome the interruption, a new Experimental Operation period shall begin. In case a time less or equal to the five (5) days indicated is required, the Experimental Operation period shall continue to be calculated.
- 5.6 The right to receive the payment of the rate regime referred to in Clause No. 8, originates with the Commercial Start-up.
- 5.7 The CONCESSIONAIRE shall hold harmless the GRANTOR with respect to any action or exception of a legal, administrative, arbitration or contractual nature, or claim of any nature with respect to the Concession Assets or the provision of the Service, except if the damages are caused by the GRANTOR, its personnel, representatives, agents or the Inspector.
- 5.8 The Service shall be provided in accordance with the Service Levels, in such a way as to guarantee quality, efficiency and continuity.

Non-compliance with the Applicable Laws and Provisions by the CONCESSIONAIRE during the provision of the Service shall be sanctioned by the OSINERGMIN, in accordance with the Classification of Violations and Scale of Sanctions established for such purpose, which does not exclude compensation as specified in the Technical Standard for the Quality of Electrical Services (NTCSE), when applicable, in accordance with the provisions of Clause No.11.4.

At the expiration of each calendar month, the CONCESSIONAIRE shall inform OSINERGMIN about the fortuitous and programmed unavailability of all the elements and/or equipment that make up the Project during said month. The CONCESSIONAIRE shall inform the OSINERGMIN, with the support of the case, the cause and duration of the unavailability, as well as the measures adopted to achieve its availability in the shortest period technically possible.

The fact that the CONCESSIONAIRE does not operate the elements and/or equipment to maximize their availability to the service of the SEIN or does not take measures to achieve availability in the shortest technically possible term or does not truthfully inform about the events that produce the unavailability, shall be considered, any of them, as a serious breach of the CONCESSIONAIRE's contractual obligations pursuant to Clause No. 13.5.2, Subsection I).

In accordance with the Applicable Laws and Provisions, the CONCESSIONAIRE shall allow third parties access to the Essential Facilities subject of this Contract, in such a way that they may connect to such facilities if it is economically and technically feasible and does not affect the rendering of the Service. To this end, the CONCESSIONAIRE is obliged to allow the use of its facilities by third parties, who shall assume the corresponding costs. The variation of the facilities shall be communicated to the GRANTOR and OSINERGMIN.

If in addition to such costs, the third party pays the CONCESSIONAIRE compensations or other concepts for the use of the facilities, such amounts shall be discounted from the Rate Base in the corresponding liquidation process.

- 5.9 The CONCESSIONAIRE shall provide the Service subjecting its performance to the provisions established by the COES, both in normal operation conditions, maintenance programming, as well as when a state of alert, emergency or recovery arises, according to the definitions attributed by said entity to each of these states.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- 5.10 The CONCESSIONAIRE shall maintain an updated inventory of the Concession Assets, indicating their characteristics, location, state of conservation, operation and performance, dates of manufacture and installation, among others. Said inventory shall contain the valuation of the Concession Assets in accordance with the audited financial statements. The format for the presentation of such inventory shall be sent by the Ministry of Energy and Mines.

The CONCESSIONAIRE shall update the inventory of the Concession Assets annually as of the closing date of the audited financial statements, and shall deliver each updated inventory to the Ministry of Energy and Mines and OSINERGMIN, at the latest, on June 30 of each year, accompanying the audited financial statements of the immediately preceding fiscal period, as well as the supporting documentation of those Concession Assets that have been incorporated to the financial statements during the corresponding year. In case the CONCESSIONAIRE develops more than one electric transmission concession, it must keep separate accounting for the Project.

For this purpose, the CONCESSIONAIRE shall organize the accounting accounts related to the Project, so that the economic-financial situation of the Project may be evaluated independently from other accounting accounts. The accounting inclusion of other projects or assets not related to the Project shall not diminish, modify, or avoid the Project's set of accounting accounts and its independent economic-financial evaluation.

- 5.11 The CONCESSIONAIRE shall implement and maintain an adequate quality assurance program that complies, at least, with the provisions of the standards NTP-ISO-9001 during the construction of the Project, and NTP-ISO-9004-2 during the operation of the Service, or those that replace them.
- 5.12 The CONCESSIONAIRE does not have the right to question in any way or in any jurisdiction, any facility that according to the Transmission Plan or the Transmission Investment Plan must be integrated to the Project, or Reinforcement to be executed in accordance with Section b) of subsection No. 22.2 of Article No. 22 of Law No. 22 of the Law No. 28832 and Subsection No. 7.6 of article No. 7 of the Regulations approved by Supreme Decree No. 28832. 027-2007-EM or regulations that replace or modify them, nor the Rate Base that OSINERGMIN would have approved for the Reinforcement. You may only exercise or not exercise your right of first refusal to make a Reinforcement.

If the CONCESSIONAIRE does not exercise its right of first refusal to execute a Reinforcement in the manner and time provided by the Applicable Laws and Provisions, the Ministry of Energy and Mines shall send the CONCESSIONAIRE a communication indicating the facilities that the latter must provide during the bidding process, as well as the facilities, coordination and distribution of responsibilities for the design, construction, operation and maintenance of the reinforcement, as well as the budget approved by the Ministry of Energy and Mines of the connection costs, proposed by the CONCESSIONAIRE.

The additional costs caused by the activities requested by the Ministry of Energy and Mines by virtue of this clause shall be covered by the new concessionaire performing the Reinforcement.

If the CONCESSIONAIRE disagrees in whole or in part with the aforementioned communication, the dispute shall be resolved in accordance with Clause No. 14. The initiation of the reinforcement bidding process or the facility to be integrated into the Project is not subject to the conclusion of the arbitration, but the awarding of the reinforcement bidding process may be subject to the conclusion of the Arbitration, if so deemed by the Ministry of Energy and Mines.

- 5.13 The CONCESSIONAIRE shall be penalized with the payment in favor of the GRANTOR, when the service exit rate of the line exceeds the tolerance indicated in Paragraph 3.2.6 i) of Annex No. 1, in accordance with Subsection No. 8 of Annex No. 11.

For such purpose, the procedure stipulated in Clause No. 11.3 of the Contract shall apply. Said penalty shall be applied independently of the compensations in favor of third parties specified in the NTCSE, when applicable.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

6. CONTRACTS WITH THIRD PARTIES

6.1 In all contracts, conventions, or arrangements that the CONCESSIONAIRE enters into with its partners or third parties that are directly related to the construction, operation and maintenance work and the provision of the Service, except (i) those contracts by adhesion with administratively approved contracting clauses and (ii) the contracts to be entered into with the Permitted Creditors, shall include clauses that contemplate the following:

- a) The GRANTOR is not liable for any claims or rights arising from third party contracts with the CONCESSIONAIRE.
- b) Limit their duration so that, in no case, they exceed the duration or term of the Contract.
- c) The waiver of the third party to file civil liability actions against the GRANTOR and its officers, representatives and any type of personnel linked to it.
- d) To allow the GRANTOR, at its sole option, to assume the contractual position of the CONCESSIONAIRE in such contracts, through an assignment of contractual position irrevocably authorized in advance by the corresponding legal entity, in the event of the termination of the Contract for any cause, enabling the continuation of such contracts under the same terms, or their renegotiation if applicable, and, therefore, the execution of the Project or the provision of the Service.

In the contracts or agreements that the CONCESSIONAIRE enters with third parties and with the Permitted Creditors, it shall be stipulated that the GRANTOR is not liable for the credits or rights derived from third party contracts with the CONCESSIONAIRE. These contracts are not enforceable against the State. Thus, none of the CONCESSIONAIRE's contracts or agreements shall in any way limit the performance of the obligations assumed in this Contract, and any costs and cost overruns shall be the sole responsibility of the CONCESSIONAIRE.

The CONCESSIONAIRE shall submit to the GRANTOR, with a copy to OSINERGMIN, within ten (10) calendar days after its execution and/or modification, as applicable, a copy of the contracts considered indispensable for the execution of the Project and the rendering of the Service (construction, operation and maintenance or similar contracts).

Likewise, it shall submit a detailed and complete list of all the contracts subscribed and in force related to the execution of the Project and the provision of the Service, which shall be submitted within the first fifteen (15) calendar days of each calendar year.

If applicable, the CONCESSIONAIRE shall deliver copies of the contracts additionally requested by the GRANTOR within ten (10) calendar days, computed as of the reception of the corresponding request.

In no case shall the CONCESSIONAIRE be exempt from liability before the GRANTOR, for acts or omissions derived from the execution of the contracts entered into with third parties, which may have an impact on the Concession.

The GRANTOR shall keep confidential the information submitted under this clause unless the Applicable Laws and Provisions determine the need for its publicity.

6.2 In its labor relations, the CONCESSIONAIRE shall comply with the Applicable Laws and Provisions.

The CONCESSIONAIRE shall have its own or subcontracted personnel team, which, in the event of any emergency situation, shall guarantee the adequate provision of the Service during the hours agreed upon for the operation.

In the event of termination of the Contract, the CONCESSIONAIRE is exclusively responsible for the payment of all labor benefits, remunerations and other legal, conventional, or unilateral benefits owed to its workers up to the date of termination of the Contract.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

If the GRANTOR is judicially ordered to pay any labor claim in favor of one or more workers of the CONCESSIONAIRE, which may have arisen during the term of the Contract, the GRANTOR shall be fully entitled to reimburse the CONCESSIONAIRE.

The CONCESSIONAIRE shall freely determine the number of personnel it requires to comply with this Contract.

7. INSURANCE CONTRACTS

7.1 The CONCESSIONAIRE shall contract and keep in force all insurance policies required under this Contract with insurance companies with a minimum rating of "A", whose evaluation has been carried out by a national risk rating company duly authorized by the Superintendency of the Securities Market (SMV).

In the event that the insurance companies to be contracted by the CONCESSIONAIRE do not operate in the Republic of Peru, the CONCESSIONAIRE shall accredit before the GRANTOR, for its conformity, that the referred company:

- a) It is legally constituted in its country of origin and capable of insuring risks originating abroad;
- b) It is empowered in accordance with the legislation of its country of origin to issue the policies required in this clause.
- c) It has an international risk rating equal to or better than "BBB+" (or equivalent rating). Such rating shall be granted by a risk rating agency that rates the Republic of Peru.

The international reinsurers covering the risks of the insurer contracted by the CONCESSIONAIRE shall have a minimum rating of "A-", granted by an international risk rating entity that rates the Republic of Peru, at the time of contracting and successive renewals.

7.2 During the term of the Contract, the CONCESSIONAIRE, assuming all costs, including the deductible, deductibles, deductibles and/or coinsurance, shall take out and maintain from the beginning of the work, except for the insurances indicated in Paragraph b), the following insurances, which shall not exclude or restrict the responsibility of the CONCESSIONAIRE for the obligations assumed in the Contract:

- a) Liability insurance against any damage, loss or injury that may occur to property and persons. It shall cover an amount not less than five million dollars (US\$ 5,000,000) per event. In this case, the GRANTOR shall be listed as additional insured.
- b) Insurance covering the value of the Concession Assets and policy for completed civil works, taking into account the specific risks identified in the risk study. The coverages of this insurance shall be at least the following: partial or total damage, water or flood damage, earthquake, landslides, fire, terrorism, vandalism, civil commotion, robbery, theft, unlawful appropriation and damage caused by error or fault of third parties. The insurance indicated in this paragraph shall cover an insured sum for an amount not less than the probable maximum loss (PMP) determined by the risk study that the CONCESSIONAIRE shall contract with a specialized company of recognized international prestige. These insurances must be in force from the completion of the works.
- c) Labor insurance, as required by applicable laws and regulations.
- d) Likewise, during construction, the CONCESSIONAIRE must contract or cause to be contracted the CAR/EAR (*Construction All Risk/ Engineering All Risk*) policy, which must include at least sections (coverages) A and B, as well as malicious damage, vandalism, terrorism, theft, subway cables, piping and other subway installations, design errors, weakening of shear elements and any other coverage considered in a CAR/EAR policy.

7.3 The insurance certificates for each policy shall have the following characteristics:

- a) Contain a statement in which the GRANTOR is listed as an additional beneficiary as appropriate.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- b) Contain a statement that the insurance company has waived subrogation rights with respect to the GRANTOR.
 - c) To contain the waiver to file any claim or to file any judicial or extrajudicial action against the GRANTOR and its officers, representatives and any type of personnel linked to it.
- 7.4 The CONCESSIONAIRE shall renew the insurance policies at least twenty-five (25) days prior to their expiration.
- 7.5 In the event of underinsurance or events not covered due to inadequate insurance by the CONCESSIONAIRE, the latter shall be liable for the amount not covered.
- 7.6 The policies issued in accordance with the provisions of this clause shall contain the following stipulations:
- a) The insurance company is obliged to notify the GRANTOR of any omission of payment by the CONCESSIONAIRE, no less than twenty-five (25) days prior to the date on which such omission may determine the expiration or loss of validity of the policy in whole or in part. The notification obligation shall also apply in the event of cessation, withdrawal, cancellation or non-renewal of any insurance that the CONCESSIONAIRE is required to maintain under the Contract.
 - b) In case of Total Destruction, the beneficiary of the policy shall be the GRANTOR and the benefits of the policies shall be delivered by the insurance company to a trust constituted by the CONCESSIONAIRE, who shall also assume the cost thereof. If the Parties reach a reconstruction agreement within the term provided in Clause No. 13.9, the trustee shall be instructed by the GRANTOR to deliver the money to the CONCESSIONAIRE as agreed by the Parties. In the event that the Parties do not reach an agreement for reconstruction, the trustee shall perform the work of liquidation of the Contract as provided in Clause No. 13.
- 7.7 If the loss does not qualify as Total Destruction:
- a) The CONCESSIONAIRE undertakes to use the money received from the insurance to replace and/or repair the property affected by the respective loss.
 - b) In the event that the insurance resources are not sufficient to replace or repair the affected property, the CONCESSIONAIRE shall be responsible, at its own cost, for covering the remaining amount.
 - c) The replacement and/or repair of the goods shall be carried out in such a way that the Service shall not be suspended except for the minimum time necessary.

8. RATE REGIME

- 8.1 For the purposes of this Clause, the following definitions shall apply:
- a) Rate Base: Annual Amount defined in article No. 1 of Law No. 28832, to be recognized for the rendering of the Service and determined in accordance with this Clause No. 8.
 - b) Investment Cost: the amount of _____ (US\$ _____). It constitutes the investment or investment component referred to in articles No. 24 and 25 of Law No. 28832 (Forms 4, 4-A and 4-AA included as Annex No. 6).
 - c) Annual Operation and Maintenance Costs: the amount of _____ US\$ _____. The efficient operation and maintenance costs referred to in Articles No. 24 and 25 of Law No. 28832 (Forms 4, 4-A and 4-AA included as Annex No. 6).
 - d) Recovery Period: corresponds to a term of thirty (30) years, counted from the date of Commercial Start-up.
 - e) Restatement Rate: corresponds to the value of the restatement rate referred to in Article No. 79 of the Law on Electricity Concessions, in effect on the date of the call for bids for the concession delivery of the Project.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- f) Updating Index: is the WPSFD4131 (Finished Goods Less Food and Energy) index; published by the U.S. Department of Labor, U.S. Government. The last data published as definitive on the update date shall be used.

The initial index shall be the last data published as definitive corresponding to the month of the date of presentation of Offers.

In the event that the WPSFD4131 index is discontinued, it shall be replaced by the equivalent index that replaces it in accordance with the official statement of the Department of Labor of the Government of the United States of America or the agency that replaces it.

- g) The update of the Investment Cost and O&M Costs shall be made annually by multiplying the value resulting from the bidding process by the following factor:

$$Fa = IPPn / IPP0$$

Where

Fa : Update Factor

IPPn : Updating Index, the last definitive data of the indicated series, available on the corresponding date of the update, shall be used.

IPP0 : Initial Updating Index, the one that corresponds to the month of the Offer Submission Date shall be used.

8.2 The Investment Cost and the Operation and Maintenance Cost indicated in Clause No. 8.1 are expressed as of the date of presentation of Offers. Such amounts shall be updated annually using the Restatement Index indicated in Letter f) of Clause No. 8.1. The updated values are those expressed at the end of each rate period.

8.3 The Rate Base shall be governed by the provisions of Law No. 28832 and the Transmission Regulation, in force as of the date of presentation of Offers.

8.4 The OSINERGMIN establishes the Rate Base according to articles No. 24 and 25 of Law No. 28832 and Article No. 22 of the Transmission Regulations, using the Restatement Rate defined in Letter e) of Clause No. 8.1.

8.5 The Rate Base shall be paid by the users in accordance with the provisions of Article No. 26 of Law No. 28832 and Article No. 27 of the Transmission Regulation. For the calculation of the monthly rate, the Restatement Rate defined in Section e) of Clause No. 8.1 shall be used.

8.6 The Rate Base includes the results of the annual liquidation to be carried out by OSINERGMIN in accordance with the stipulations of Article No. 24, letter c) of Law No. 28832 and Subsection No. 22.4 of Article No. 22 of the Transmission Regulation.

8.7 The OSINERGMIN shall approve the detail procedures required for the application of this Clause No. 8, including the conversion to Dollars of the income received in Soles, the rounding of the figures, the pre-settlement of income, as well as the information and documentation that must be submitted, according to the Applicable Laws and Provisions.

8.8 The Rate Base remunerates all costs associated to the Project and provision of the Service.

9. CONCESSION FINANCING

9.1 To comply with the object of the Contract, the CONCESSIONAIRE may obtain such financing with its own resources or from third parties as it may deem convenient. PROINVERSIÓN's obligations indicated in this clause shall remain in force until the Commercial Start-up.

9.2 The provisions of the foregoing Clause shall not exempt the CONCESSIONAIRE from its obligation to comply with every one of the provisions of this Contract, of the Definitive Electric Transmission Concession Contract and of the Applicable Laws and Provisions. The financial entities or any person acting on behalf of the CONCESSIONAIRE shall not be liable for the performance of the obligations of the CONCESSIONAIRE set forth in the Contract and in the Applicable Laws and Provisions.

9.3 In structuring the financing, the CONCESSIONAIRE may include:

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- a) Guarantees in favor of the Permitted Creditors, including liens on the Concession Assets, the Concession right, shares or participations in the CONCESSIONAIRE, or any right corresponding to the CONCESSIONAIRE under the Contract. For these purposes, by means of the subscription of the Concession Contract, the GRANTOR authorizes the granting of such guarantees to the Permitted Creditors.
- b) The transfer in fiduciary domain of the Concession right to a trust, in which case, to be accepted by the GRANTOR, the CONCESSIONAIRE shall maintain all the obligations to which it is committed by this Contract, without any exception whatsoever.

In this case, the prior approval of the GRANTOR is required, who shall issue a decision within a term not exceeding thirty (30) Days, computed as from the receipt of the request submitted by the CONCESSIONAIRE. The GRANTOR shall be entitled to request additional information from the CONCESSIONAIRE, in which case the above term shall be suspended.

The term shall be counted again when the CONCESSIONAIRE submits the additional information required. If the GRANTOR does not decide within the aforementioned term, the request for transfer in fiduciary domain referred to in this paragraph shall be deemed rejected for all purposes

- c) If the rejection indicated in Paragraph b) above occurs because the GRANTOR did not make a decision as indicated in said paragraph, the CONCESSIONAIRE may submit a new application for approval by the GRANTOR. The GRANTOR shall have the same term and shall follow the procedure indicated in Paragraph b) above to make its decision. In case the GRANTOR does not pronounce itself within the established term, or once the extension of the term to pronounce itself has expired, it shall be understood that the application has been approved. In the event of approval, this shall not be understood as an endorsement or insurance by the GRANTOR with respect to the agreements reached by the CONCESSIONAIRE for the financing of the Project.
- d) If the guarantees include only (i) liens on the shares or participations in the CONCESSIONAIRE other than the Minimum Interest or (ii) the cash flows for the provision of the Service, prior approval of the GRANTOR shall not be required.

9.4 In the case of Permitted Secured Indebtedness through credit agreements, the CONCESSIONAIRE must request PROINVERSIÓN to review and issue conformity with respect to the corresponding Permitted Creditor. For such purposes, the CONCESSIONAIRE shall submit an affidavit issued by the potential Permitted Creditor in accordance with Annex No. 12-A in which it declares that it complies with the qualities established in the definition of "Permitted Creditor" of the Contract. For purposes of the foregoing, PROINVERSIÓN shall only decide whether the Permitted Creditors comply with the definition set forth in this Contract.

9.5 In case of an issue in the capital market, the CONCESSIONAIRE may submit to PROINVERSIÓN a request for such issue to be classified as Permitted Secured Indebtedness. For such purposes, the CONCESSIONAIRE must submit an affidavit issued by the representative of the bondholders in accordance with Annex No. 12-B for PROINVERSIÓN to consent that such issue constitutes Permitted Secured Indebtedness. For purposes of the foregoing, PROINVERSIÓN shall only decide whether the affidavit includes all the information indicated in Annex No. 12-B.

9.6 Upon delivery of the request referred to in Clause No. 9.4 or 9.5, as applicable, PROINVERSIÓN shall communicate to the GRANTOR and the CONCESSIONAIRE the result of the review within a term no longer than ten (10) Days. PROINVERSIÓN shall be entitled to request additional information to the CONCESSIONAIRE, in which case the previous term shall be suspended. The term shall be counted again when the CONCESSIONAIRE submits the additional information required. If PROINVERSIÓN does not issue a decision within the aforementioned term, then the documents shall be understood as rejected for all purposes.

If the request referred to in Clause No. 9.4 or 9.5 is rejected because PROINVERSIÓN did not issue a decision as indicated in the preceding paragraph, the CONCESSIONAIRE may resubmit the documentation for PROINVERSIÓN's approval. In this case, PROINVERSIÓN shall have a term of five (5) days and shall follow the same procedure indicated in the previous paragraph. In case

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

PROINVERSIÓN does not issue a decision within the established term, or upon expiration of the extension of the term to issue a decision, it shall be understood that the respective request has been approved.

The provisions of the preceding paragraphs do not release the CONCESSIONAIRE from compliance with each one of the provisions of the Contract and the Applicable Laws and Provisions.

The rejection of the request referred to in Clause No. 9.4 or 9.5 shall be generated in a duly reasoned manner.

- 9.7 The same procedure indicated in Clause No. 9.4 shall apply each time the CONCESSIONAIRE wishes to credit a new Permitted Creditor.
- 9.8 The contracts supporting the Permitted Secured Indebtedness shall stipulate:

- a) That the resources to be obtained:
 - i. They shall be used solely to finance the Concession Assets, for the acquisition of goods and services required to provide the Service, or as working capital for the exploitation of the Concession Assets, as well as to construct, equip and operate the Concession.
 - ii. Without prejudice to the provisions of section i. above, the long-term financing that may be arranged by the CONCESSIONAIRE may be used: (a) to pay bridge loans and other indebtedness used for the acquisition of Concession Assets, or for the provision of working capital necessary for the exploitation of the Concession Assets; or, (b) to replace loans from shareholders or Related Companies (as long as they have been used for the purposes indicated in section i. above or in this paragraph), in accordance with the maximum indebtedness parameters set forth in the financing agreements entered into above or in this paragraph), in accordance with the maximum indebtedness parameters set forth in the financing agreements entered.
- b) That none of such operations may have the direct or indirect effect of exempting the CONCESSIONAIRE from its obligation to comply with each and every one of the provisions of the Contract and the Applicable Laws and Provisions.
- c) That the referred contracts are not opposable to the GRANTOR.
- d) That the CONCESSIONAIRE and the Permitted Creditors shall lift all guarantees, charges and encumbrances that may exist on the Concession Assets or on the Concession right, at the latest, at the end of the term of twenty-nine (29) years counted as from the Commercial Start-up. In the event of termination of the Contract for causes other than the expiration of the term of the Contract and mutual dissent, the aforementioned obligation shall be fulfilled within a term no longer than one hundred and twenty (120) days from the communication of the decision to terminate the Contract in application of the corresponding cause.

The obligations set forth in this paragraph shall be enforceable even if any outstanding obligation remains owed by the CONCESSIONAIRE to the Permitted Creditors or third parties. Non-compliance or partial, late or defective compliance with these obligations shall cause the CONCESSIONAIRE to pay the GRANTOR the penalty set forth in Subsection No. 6 of Annex No. 11.

- 9.9 The contracts supporting the Permitted Secured Indebtedness may provide for:
- a) That, if the CONCESSIONAIRE or the Permitted Creditors so request, the GRANTOR shall send to the Permitted Creditors a copy of the communications sent by the GRANTOR to the CONCESSIONAIRE regarding the progress of the Project and shall inform them of any event that may cause the termination of the Contract. The Permitted Creditors shall indicate to the GRANTOR the communications sent to the CONCESSIONAIRE whose copy they request.
 - b) That the Permitted Creditors may request the GRANTOR to replace the CONCESSIONAIRE, without the consent of the CONCESSIONAIRE being required, upon the occurrence of an event of material breach, as defined as such in each financing agreement.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

To make this request, the Permitted Creditors must have notified the CONCESSIONAIRE of such event and have proceeded in accordance with the provisions of the financing agreement itself. Once such request has been submitted, the GRANTOR shall be prevented from declaring the Termination of the Contract for a period of four (4) months from the date of receipt of the request.

For the replacement of the CONCESSIONAIRE, the following procedure shall be followed:

- i. The Permitted Creditors shall propose to the GRANTOR a legal person with the technical qualifications that fulfills directly or through Related Companies, the Qualification requirements that at the time were demanded in the Tender, to assume the contractual position of the CONCESSIONAIRE or change the Qualified Operator, as the case may be, and guarantee the continuity of the Service.
- ii. The GRANTOR shall not deny the substitution without cause and shall answer the request within thirty (30) days; otherwise, it shall be understood as accepted.

The new Concessionaire shall have a term of one hundred and eighty (180) calendar days, counted as of the presentation of the request, to start its operation. Upon expiration of the aforementioned term, the GRANTOR shall have the right to request the termination of the Contract.

- c) That the Permitted Creditors, in the event of early termination of the Contract, shall have the right, after the application of Clause No. 13.35, to receive the sums of money that may be due.

- 9.10 The CONCESSIONAIRE shall submit the documents supporting the Financial Closing to PROINVERSIÓN for review and approval, pursuant to the provisions of Subsection No. 26.4 of Article No. 26 of Legislative Decree No. 1362.

In order to evidence the Financial Closing for the total amount of investment required until Commercial Start-up, including interest during construction and other indirect expenses, the CONCESSIONAIRE must submit the following: (i) copy of the duly executed financing contracts; (ii) literal copy of the CONCESSIONAIRE's entry, issued by the corresponding Public Registry stating the capital contribution issued no later than thirty (30) Days prior to its submission; and (iii) in the case of financing contracts with Permitted Creditors, sworn statement issued by the Permitted Creditor stating that it meets the qualities established in the definition of "Permitted Creditor" of the Contract in accordance with the format of Annex No. 12-A.

For the accreditation of the Financial Closing, a minimum of fifty percent (50%) of the amount required for the Financial Closing must be accredited through Permitted Secured Indebtedness.

- 9.11 The approval to be issued by PROINVERSIÓN shall be subject to the following: i) that the amounts of available capital, amounts of equity and amounts of indebtedness cover the needs for the construction and equipping of the project according to the financial plan submitted by the CONCESSIONAIRE based on the valuation schedule referred to in Clause No. 4.8; and ii) in the case of financing with Permitted Creditors, it shall be verified that the amounts committed comply with the minimum indicated in the previous Clause.

Neither the GRANTOR nor PROINVERSIÓN shall evaluate the financing terms. PROINVERSIÓN, within a term no longer than thirty (30) days, shall communicate to the GRANTOR and the CONCESSIONAIRE the result of the review. PROINVERSIÓN shall be entitled to request additional information to the CONCESSIONAIRE, in which case the term to communicate to the GRANTOR shall be suspended. The term shall be counted again when the CONCESSIONAIRE submits the additional information required. In case PROINVERSIÓN does not pronounce itself within the established term, it shall be understood that the documents have been approved.

In any case, the referred contracts or agreements shall expressly contain a provision referring that in case the financing becomes ineffective, or the CONCESSIONAIRE incurs in any cause that triggers its termination or resolution, the Permitted Creditor shall communicate within five (5) Days such situation to the GRANTOR.

The CONCESSIONAIRE shall deliver to the GRANTOR a simple copy of any modification to the financing contracts, within thirty (30) days after its modification. In the same way, the

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

CONCESSIONAIRE shall inform the GRANTOR every six months regarding the debit balances with each creditor. The GRANTOR shall keep confidential the information submitted under this clause unless the Applicable Laws and Provisions determine the need of its publicity.

- 9.12 This Contract does not contemplate the granting or contracting of financial guarantees by the State in favor of the CONCESSIONAIRE.

10. FORCE MAJEURE OR FORTUITOUS EVENT

- 10.1 The provisions of Clauses No. 10.2 to 10.8 are applicable to the construction stage, which runs from the Closing Date to the Commercial Start-Up.

From the integration of the Project to the SEIN declared by the COES until the end of the term of the Contract, the investigation, assignment of responsibilities, determination and payment of compensation, review or challenge, request for force majeure or fortuitous event for issues related to the interruption of supply, as well as any other matter related to the NTCSE and its complementary standards, shall be governed by the provisions of said standard, its complementary standards, amendments, and the Applicable Laws and Provisions.

- 10.2 None of the Parties shall be liable for the non-performance of an obligation or for its partial, late or defective performance, if caused by force majeure or fortuitous event.
- 10.3 For the purposes of Clause No. 10.2, force majeure or fortuitous event is an event, condition or circumstance not attributable to the Parties, indistinctly, of an extraordinary, unforeseeable and irresistible nature, which prevents any of them from performing the obligations at their charge or causes their partial, late or defective performance.

The event must be beyond the reasonable control of the Party invoking the cause, which despite all reasonable efforts to prevent or mitigate its effects, cannot prevent the non-compliance situation from arising.

Force majeure or fortuitous event includes, but is not limited to, the following, provided that the event satisfies the above definition:

- a) Any act of external, internal or civil war (declared or undeclared), state of siege, invasion, armed conflict, blockade, revolution, riot, insurrection, civil commotion or acts of terrorism, which prevents the CONCESSIONAIRE from fulfilling its obligations within the term of the Contract.
- b) Any stoppage or strike of workers who do not maintain a labor or commercial relationship with the CONCESSIONAIRE or its suppliers, which prevents it from complying with its obligations within the term of the Contract.
- c) Any protest, act of violence or force carried out by community, social, trade union or political organizations that directly affect the CONCESSIONAIRE due to causes beyond its control, which are not attributable to it and which are beyond its reasonable control.
- d) The discovery of archaeological and/or paleontological remains that prevent the CONCESSIONAIRE from completing the execution of the works within the term of the Contract, or that the works are ordered to be stopped by order of the Relevant Governmental Authority.
- e) Any earthquake, flood, drought, fire, explosion, or any meteorological or hydrological phenomenon, provided that it directly affects in whole or in part the Concession Assets and/or the Work or its elements, and which in turn prevents the CONCESSIONAIRE from complying with its obligations within the term of the Contract.
- f) Any epidemic, contamination, plague or similar event that prevents or limits the CONCESSIONAIRE from fulfilling its obligations within the term of the Contract.
- g) The eventual destruction of the Works, in whole or in part thereof, or damage to the Concession Assets, provided that they prevent the CONCESSIONAIRE from complying with its obligations.
- h) The eventual confiscation or requisition of the Concession Assets and the impossibility of recovery thereof, caused by order of any authority, for causes not attributable to the

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

CONCESSIONAIRE, which seriously affect the performance of the Contract, preventing the CONCESSIONAIRE from complying with the obligations for which it is responsible.

- 10.4 In cases where the timely fulfillment of any of the milestones established in Annex No. 7 is affected, an event of force majeure or fortuitous event may be sustained only when the critical path of the construction of the Project has been affected.
- 10.5 The Party affected by an event of force majeure or fortuitous event shall inform the other Party within seventy-two (72) hours of its occurrence or knowledge, as the case may be, of such event:
- a) The facts that constitute such event of force majeure or fortuitous event; and,
 - b) The estimated period of total or partial restriction of its activities and the degree of expected impact.

In addition, it shall keep the other Party informed of the development of such events.

In case the Party that is affected does not inform within the established term, it shall be understood that such event does not constitute an impediment for the total or partial fulfillment of the obligations to which it is responsible, unless it justifies within the same term that it requires more time to comply with the above mentioned content.

- 10.6 Either Party may request, due to force majeure or fortuitous event, if the circumstances so require, the suspension of the affected obligation or of the time periods indicated in Annex No. 7. For the event of force majeure to occur, the qualification of the other Party shall be required. The Party that is affected shall have a maximum period of fifteen (15) Days, counted from the end of the event of force majeure or fortuitous event, to submit its request for qualification of force majeure or fortuitous event and suspension to the other Party.

Notwithstanding the foregoing, if the end of the event of force majeure or fortuitous event has not occurred ninety (90) calendar days after its beginning, the term of the preceding paragraph shall begin to be computed as of the day following the ninety (90) days indicated above.

The affected Party shall attach, as part of its request, the corresponding technical and legal reports, which must be substantiated, as a minimum:

- a) The occurrence of the event, indicating the start date and the estimated term of the total or partial suspension of obligations, including the estimated term for the reactivation of the works.
- b) The obligation or condition affected.
- c) The degree of impact expected as a result of the affected obligation or condition, including the impact on the critical path.
- d) Mitigation measures adopted.
- e) Proposed insurance regime, contractual guarantees, and other obligations whose fulfillment is not directly affected by the event.
- f) Other actions derived from these events.

In the event of what is indicated in the second paragraph of this paragraph, the affected Party shall submit a request with the complementary information for the other Party to consider recognizing periods longer than ninety (90) days. For this purpose, the affected Party shall have a maximum of ten (10) days from the end of the event of force majeure or fortuitous event to submit the request with the complementary information supporting such additional period.

In either case, the Party receiving the request must respond within sixty (60) days after its submission. The Party receiving the request may ask the affected Party for additional information, clarification, and/or correction of observations, granting it a period of up to thirty (30) days. In this case, the term to resolve the request shall remain suspended until the presentation of the additional information, clarification, and/or correction. The omission of pronouncement of the Party receiving the request within the time limit shall be treated as an acceptance of the request for force majeure qualification and suspension of the time limit.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Until the Party that is requested to pronounce on the force majeure or fortuitous event does not respond to the request for suspension indicated in this Clause, the qualification of force majeure or fortuitous event shall not be generated and, therefore, the obligations may not be understood to be suspended for any effect, nor may the cause for termination indicated in Clause No. 13.8 be invoked. Likewise, to execute the suspension of the obligation and/or contractual term accepted by the counterparty, the execution of an addendum is not required.

If the Party that notified the event of force majeure or fortuitous event pursuant to Clause No. 10.5 does not request the suspension pursuant to this Clause, it shall automatically be understood that such Party declares and accepts that the notified event does not constitute an impediment for the total or partial performance of its obligations.

If the request for qualification of force majeure or fortuitous event is rejected, the affected Party shall be entitled to request performance of the respective obligation(s). Any dispute regarding the suspension of deadlines shall be settled by arbitration in accordance with the provisions of Clause No. 14.

- 10.7 The declaration of force majeure or fortuitous event shall not give rise to any right of indemnity between the Parties.
- 10.8 If one of the Parties does not agree with the qualification of the event as force majeure or fortuitous event, or its consequences, it may resort to the dispute resolution procedure of Clause No. 14, according to the rules of national arbitration.
- 10.9 The CONCESSIONAIRE has the obligation to minimize scheduled shutdowns for maintenance and similar events, in accordance with Applicable Laws and Provisions, and failing that, with the best industry practices.
- 10.10 Force majeure or acts of God shall not release the Parties from the performance of obligations that are not affected by such events. The CONCESSIONAIRE shall ensure the resumption of the corresponding activity or performance as soon as possible after the occurrence of such events. Likewise, if the GRANTOR invokes the occurrence of a force majeure or fortuitous event, it shall make its best efforts to overcome such situation.
- 10.11 The CONCESSIONAIRE may not invoke the approval or effects of Applicable Laws and Provisions as an event of force majeure or fortuitous event in relation to the performance of its obligations.

11. PENALTIES AND SANCTIONS

Penalties for breach of contract

- 11.1 Without prejudice to other remedies or powers that the Contract or the Applicable Laws and Provisions provide in favor of the GRANTOR, in the event of non-performance of the CONCESSIONAIRE's obligations, the GRANTOR may require the payment of penalties as indicated in Annex No. 11. This power may be exercised without prejudice to whether or not the GRANTOR decides to terminate the Contract pursuant to Clause No. 13. The application of penalties does not exempt, suspend or limit (i) the performance of the obligation that the CONCESSIONAIRE had pending and that originated the application of the respective penalty; and, (ii) the liability that the CONCESSIONAIRE had before third parties.
- 11.2 The events of default referred to in the preceding clause shall entail the application of the applicable penalty and the subsequent obligation to pay it, without the need for prior notice; likewise, the payment of the penalty shall not release the CONCESSIONAIRE from compliance with the corresponding obligation, even in the cases in which the defaults are a consequence of contracts entered into with the constructor, suppliers or other contractors or subcontractors. No such obligation to pay penalties shall be generated as long as there is a request for suspension of the pending term, in accordance with the provisions of Clause No. 4.3 and Clause No. 10.
- 11.3 The payment of penalties is subject to the following rules:

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- a) The payment shall be required in writing by the GRANTOR to the CONCESSIONAIRE, indicating the bank account in which the corresponding amount shall be deposited, which shall occur within ten (10) days after receiving the requirement.
- Within the aforementioned term, the CONCESSIONAIRE may contradict the validity of the payment request, in which case a controversy shall have arisen, which shall be resolved in accordance with the provisions of Clause No. 14.
- The term provided in the first paragraph of this paragraph for the payment of the penalties shall be suspended in the event that the CONCESSIONAIRE does not agree with the payment request.
- b) Once the controversy is resolved in favor of the GRANTOR, either by direct treatment, by arbitration award or upon expiration of the ten (10) days term indicated in the previous paragraph, without the CONCESSIONAIRE contradicting the payment requirement, the obligation to pay the penalty shall be enforceable in the agreed terms, in those fixed by the award or in its original terms, respectively to the assumptions listed in this letter.
- In this case, the obligation to pay the penalty shall be fulfilled the day after the expiration of the aforementioned term, or three (3) days after the CONCESSIONAIRE is notified with the arbitration award, or three (3) days after the controversy is resolved in direct treatment, as the case may be.
- c) In the event the CONCESSIONAIRE fails to pay the penalty, the GRANTOR shall be entitled to request the execution of the respective Contract Performance Guarantee.

Administrative sanctions for non-compliance with regulations

- 11.4 Failure to comply with current regulatory provisions shall be sanctioned by OSINERGMIN, in accordance with the Classification of Infringements and Scale of Sanctions, which does not exclude compensation as specified in the NTCSE, when applicable.

12. GUARANTEES

- 12.1 In order to guarantee the faithful performance of the obligations corresponding to the CONCESSIONAIRE under the Contract, including the payment of the penalties referred to in Clause No. 11 and the payment of the sums ordered by final final judgment or enforceable arbitration award derived from the execution of the Contract, the CONCESSIONAIRE shall deliver to the GRANTOR the Guarantee of Faithful Performance of the Contract, in accordance with the following rules:
- a) Delivery of the Construction Performance Guarantee to GRANTOR is required by the Closing Date.
- b) The Construction Performance Guarantee shall be in effect from the Closing Date until one month after Commercial Start-up. Said Construction Performance Guarantee shall be granted for annual periods until the term described above is fulfilled. Likewise, it shall be returned upon delivery of the Performance Guarantee described in Letters d) and e) of this clause.
- c) In the event of delay in the commencement of Commercial Start-up, the Construction Performance Guarantee shall be renewed or extended until the penalty is paid or it is finally resolved that no penalty is payable, as the case may be.
- d) The Performance Guarantee shall be delivered at the time indicated in Letter b) of this clause and shall remain in force for up to six (6) months after the expiration of the term of the Contract.
- e) The Performance Guarantee shall be granted for annual periods and shall be renewed or extended until the transfer of the Concession Assets is completed or as long as controversies relating to the Contract, or its termination remain.
- f) Both guarantees must be joint and several, irrevocable, unconditional, without benefit of excussion or division and of automatic realization, issued by any of the Financial Institutions indicated in the Guidelines, following the format and for the amount indicated in Annex No. 4.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- 12.2 If the guarantee is not renewed by the CONCESSIONAIRE no later than thirty (30) calendar days prior to its expiration, the GRANTOR may fully execute the respective guarantee. In this case, the funds resulting from the execution shall be automatically constituted, without the need for additional approval, in the corresponding guarantee until such time as the CONCESSIONAIRE delivers to the GRANTOR a new Guarantee of Faithful Fulfillment of the Contract.

Once it is delivered, the GRANTOR shall immediately proceed to deliver to the CONCESSIONAIRE the funds resulting from the execution of the original guarantee, without interest.

- 12.3 In the event of partial or total execution of the Contract Performance Guarantee, the CONCESSIONAIRE is obliged to reinstate it at the original amount and under the same conditions set forth in Clause No. 12.1, which must be done within thirty (30) calendar days following the date on which the execution of such bond, whether partial or total, took place, except when it had been executed in compliance with Clause No. 13.37.

In the event that such term expires without the CONCESSIONAIRE having reimbursed the total amount of the Contract Performance Guarantee, the GRANTOR may exercise its right to terminate the Contract pursuant to the provisions of Clause No. 13.

13. TERMINATION OF THE CONTRACT

Causes for termination and classification

- 13.1. The Contract shall terminate by:

- a) Expiration of the term;
- b) Mutual dissent;
- c) Non-compliance of the CONCESSIONAIRE;
- d) Non-compliance of the GRANTOR;
- e) Unilateral decision of the GRANTOR;
- f) Force majeure or fortuitous event;
- g) Total Destruction;
- h) Application of anti-corruption clause.

- 13.2. The CONCESSIONAIRE shall be attributed with the following grounds: c) (non-compliance by the CONCESSIONAIRE) and h) (application of the anti-corruption clause). The GRANTOR shall be attributable to the GRANTOR on the grounds set forth in letters d) (non-compliance of the GRANTOR) and e) (unilateral decision of the GRANTOR). The rest of the causes are not attributable to the Parties.

Configuration of the grounds for termination

- 13.3. The Contract terminates upon expiration of the term set forth in Clause No. 3, unless there has been an extension or suspension of the concession term.

- 13.4. The Contract terminates, at any time, by written agreement between the CONCESSIONAIRE and the GRANTOR.

- 13.5. The Contract is terminated for serious breach by the CONCESSIONAIRE and at the request of the GRANTOR.

- 13.5.1. Serious breaches by the CONCESSIONAIRE, by their sole occurrence, are those listed below:

- a) The verification, after signing the Contract, of the lack of truthfulness of any of the statements made in Clause No. 2.5.
- b) The delay of more than one hundred and fifty (150) calendar days with respect to the term in which any of the milestones indicated in Annex No. 7 must be met. The verification of

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

this term shall take into account any suspensions that may have occurred due to the application of Clause No. 4.12.

- c) The partial or total transfer of the Contract, by any title, of the CONCESSIONAIRE's rights derived from the Contract or the assignment of its contractual position without the prior and written authorization of the GRANTOR.
- d) The sanction with non-tax administrative fines issued by the GRANTOR or OSINERGMIN with respect to the Concession, which in one (1) calendar year (calendar year being understood as each period between January 1st and December 31st) exceeds ten percent (10%) of the Rate Base of the previous year, provided that such fines had been final in administrative or judicial venue. This cause is applicable as from the second year of the commercial start-up.
- e) The declaration of insolvency, dissolution, liquidation or bankruptcy of the CONCESSIONAIRE.
- f) The commission of any act or omission that constitutes a fraudulent breach by the CONCESSIONAIRE resulting in the commission of a public action crime to the detriment of the GRANTOR when so ordered by a final or consented court judgment.
- g) The issuance of a final or consented court order or a final administrative decision that prevents the CONCESSIONAIRE from carrying out a substantial part of its business, provided that such measure remains in force for more than sixty (60) calendar days. The facts considered for the issuance of the judicial or administrative decision must be related to circumstances attributable to the CONCESSIONAIRE.
- h) Failure to comply with the provisions of Article No. 33 of the Regulations of Legislative Decree No. 1362, approved by Supreme Decree No. 240-2018-EF, referring to the contracting of natural or legal persons from the private sector, for the preparation of studies and consultancies for the Project, during the promotion process of the Project.
- i) The expiration of the Definitive Electricity Transmission Concession by means of a final administrative or judicial resolution.

13.5.2. Serious breaches of the CONCESSIONAIRE are those listed below, provided that the CONCESSIONAIRE does not remedy them within thirty (30) calendar days following the requirement of the GRANTOR or within the extended term in case it has been granted by the latter Party. The extension shall be calculated immediately after the end of the original term and shall not exceed thirty (30) calendar days:

- a) Failure to grant, renew, extend or reimburse the Performance Guarantee, as provided in Clause No. 12 of the Contract.
- b) To cease operating the Project, without just cause, as indicated in the Applicable Laws and Provisions.
- c) Failure to comply with its obligations to provide the Service in accordance with the safety standards and quality standards established in the Contract and the Applicable Laws and Provisions, despite having been administratively sanctioned by OSINERGMIN, provided that such sanctions have been final in administrative or judicial proceedings.
- d) The initiation, at the CONCESSIONAIRE's request, of a corporate, administrative or judicial process for its dissolution or liquidation.
- e) The initiation, at the request of the CONCESSIONAIRE or its shareholders, of a merger, spin-off or transformation procedure of companies or other corporate reorganization, without the prior written authorization of the GRANTOR.
- f) The disposition of the Concession Assets in a manner different from that provided for in the Contract by the CONCESSIONAIRE, without the prior written authorization of the GRANTOR.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- g) Failure to contract, reinstate or renew the insurance policies required in the Contract or the contracting of such policies without contemplating the terms and conditions set forth in Clause No. 7.
- h) The execution of the Permitted Secured Indebtedness agreements without including the stipulations indicated in Clause No. 9.9, or having included them, failing to comply with them.
- i) The unjustified breach of any of the activities requested by the GRANTOR, indicated in the second paragraph of Clause No. 5.12.
- j) The declaration made by the Relevant Governmental Authority by means of a firm administrative or judicial resolution that determines the serious alteration of the environment, of the nation's cultural heritage and/or of the natural resources, as a result of the fraudulent or culpable violation of the obligations of the corresponding Environmental Management Instrument.
- k) Failure to comply with the obligations of the Qualified Operator during the term required in the Contract, related to (i) Maintain the Minimum Interest and/or; (ii) Maintain or exercise the right and obligation to control the technical operations.
- l) The unjustified and repeated failure to comply with any substantial obligation established in the Contract or the Applicable Laws and Provisions, other than those contained in the preceding paragraphs.

For the purpose of this paragraph, material breaches are those related to the achievement of the object of the Contract, as expressed in Clause No. 3.2 and/or the obligations established by Applicable Laws and Provisions that have become final in administrative or judicial proceedings, provided that such breaches are unjustified.

The non-compliance shall be understood as reiterative if it has occurred: i) three (3) times since the Closing Date for all the obligations of the Contract or, ii) by means of two (2) firm administrative resolutions, it has been determined that the CONCESSIONAIRE committed a serious fault to the detriment of other agents of the electricity market for two (2) consecutive years.

- 13.6. The Contract is terminated for serious breach by the GRANTOR and at the request of the CONCESSIONAIRE.

Serious breaches of the GRANTOR are those listed below, provided that the GRANTOR does not remedy them within thirty (30) calendar days after the requirement of the CONCESSIONAIRE or within the extended term in case the latter had been granted by the latter Party. The extension shall be computed immediately upon expiration of the original term and shall not exceed thirty (30) calendar days:

- 13.6.1. If any of the terms indicated in Annex No. 7 were extended for more than twelve (12) months, due to an undue action or omission attributable to the GRANTOR.
 - 13.6.2. Unjustified failure to comply with the procedure foreseen for the reestablishment of the economic-financial equilibrium established in Clause No. 15 of the Contract.
- 13.7. The Contract terminates by unilateral decision of the GRANTOR based on duly motivated reasons of public interest. For the configuration of this cause, the GRANTOR shall notify its decision previously and in writing, both to the CONCESSIONAIRE and to the Permitted Creditors, no less than six (6) months prior to the term foreseen for the termination of the Contract. This communication must also be signed by the Relevant Governmental Authority in charge of addressing the public interest problem invoked.
- 13.8. The Contract terminates for reasons not attributable to the Parties, at the request of any of the Parties, when an event of force majeure or fortuitous event referred to in Clause No. 10 occurs and this, or its effects, could not be overcome despite twelve (12) continuous months have elapsed since the beginning of such event. Once the Commercial Start-up has begun, for the configuration of this cause, there must be a loss in the operative capacity of more than sixty percent (60%) of the capacity

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

reached at the time of the occurrence of the event of force majeure or fortuitous event, except in the case of Total Destruction.

- 13.9. The Contract terminates if sixty (60) Days have elapsed since the Total Destruction occurred without the Parties having agreed on the technical and economic convenience of restoring the damages occurred, as well as the establishment of the terms and conditions under which the corresponding reconstruction and the resumption of the Service would be carried out.

13.10. Anti-corruption clause

The CONCESSIONAIRE declares that neither it, nor its shareholders, partners or related companies, nor any of their respective directors, officers, employees, nor any of their advisors, representatives or agents, have paid, offered, or attempted to pay or offer, or shall attempt to pay or offer in the future any illegal payment or commission to any authority related to the awarding of the successful bid for the bidding process, the Concession or the execution of this Contract.

It is expressly established that in the event that it is verified that any of the natural or legal persons mentioned in the preceding paragraph have been convicted by a final or enforceable judgment, or have admitted and/or acknowledged the commission of any of the crimes defined in Section IV of Chapter II of Title XVIII of the Peruvian Criminal Code, or equivalent crimes in the event that they have been committed in other countries, before any national or foreign competent authority, in relation to the execution of this Contract, the Concession or the awarding of the successful bid, the Contract shall be terminated by operation of law and the CONCESSIONAIRE shall pay the GRANTOR a penalty equivalent to ten percent (10)% of the amount resulting from the application of the Contract liquidation procedure set forth in Clause No. 13.32.3, without prejudice to the execution of the Performance Guarantee.

For the determination of the economic linkage referred to in the first paragraph, the provisions of SMV Resolution No. 019-2015-SMV/01 or rule that replaces it shall apply.

Contract termination procedure

- 13.11. The termination procedure of the Contract begins with the invocation of the termination of the Contract (except when the termination process is automatic) and continues with the Intervention of the Concession and with the Liquidation of the Concession. During the Intervention of the Concession, the GRANTOR shall decide if it is appropriate to carry out the Concession Bidding and the Transfer of the Concession Assets shall also be carried out.
- 13.12. The Parties may invoke the termination of the Contract up to a maximum of six (6) months after the termination cause invoked, except when, according to the Contract, it is not necessary to do so. After said term without any invocation having been made, it shall be understood that the Parties have waived their right to request the termination of the Contract by resorting to the facts that constituted any of the grounds for termination.
- 13.13. In the case of the causes of expiration of the term, unilateral decision of the GRANTOR, Total Destruction and application of the anti-corruption clause, it shall not be necessary to invoke the termination of the Contract, since it shall occur automatically once said causes are configured according to the provisions of Clause No. 13.3 and Clause No. 13.10, as the case may be.
- 13.14. In the case of mutual dissent, the termination of the contract shall be invoked with the first communication that initiates the negotiations between the Parties for these purposes. Within five (5) days of the commencement of the negotiations, the CONCESSIONAIRE shall notify the Permitted Creditors of this fact.
- 13.15. In the case of non-compliance of the CONCESSIONAIRE, non-compliance of the GRANTOR and force majeure or fortuitous event, the invocation shall be made in accordance with the procedure described below:

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- 13.15.1. The Party invoking the corresponding cause for termination shall communicate in writing to the other Party through a notary public its intention to terminate the Contract, describing the breach or event and indicating the respective termination clause.
 - 13.15.2. Upon receipt of the notarized letter of termination of the Contract, the addressee of such letter may express its disagreement with the existence of a cause for termination, for which purpose it must send a notarized letter to the other Party, which must be received within a maximum period of fifteen (15) days, counted from the date of receipt of the first notarized letter.
 - 13.15.3. Upon expiration of the aforementioned period of fifteen (15) days without the addressee of the first notarized letter expressing its disagreement, the configuration and/or invocation of the cause shall be irrefutable and uncontroverted for the Parties.
- 13.16. In the event the Party does not agree with the configuration and/or invocation of the termination of the Contract, such Party may discuss them by applying Clause No. 14. However, this shall not limit or postpone the intervention of the Concession or the effective termination of the Contract.
- 13.17. From the invocation of termination of the Contract until the effective termination of the Contract pursuant to Clause No. 13.31, the CONCESSIONAIRE shall continue providing the Service under the same conditions established in the Contract and shall continue receiving the Rate Base as long as it effectively provides the Service.

Concession Intervention

- 13.18. The intervention of the Concession shall commence: (i) twelve (12) months before the date foreseen for the expiration of the term of the Contract, in the case of the cause for expiration of the term; (ii) on the date established by the Parties, in the case of the cause for mutual dissent or; (iii) on the date indicated by the GRANTOR, for the rest of the termination causes; or (iv) on the date indicated by the GRANTOR after acceptance of the CONCESSIONAIRE's substitution request referred to in Clause No. 9(b).9.
- 13.19. In the case of termination causes, the intervenor may be a legal entity, a committee of natural persons or a management or line organ of the Ministry of Energy and Mines, at the choice of the latter in its capacity as GRANTOR, and shall hold, by the sole merit of its designation, the broadest powers to determine the actions of an administrative and/or technical nature that allow the continuation of the construction phase of the Project or the provision of the Service, as the case may be.
- 13.20. In the case of the case indicated in paragraph b) of Clause No. 9.9, the intervenor shall be elected by the GRANTOR from a list of three names proposed by the Permitted Creditors, within a maximum term of thirty (30) days after the list of three names has been proposed. If the GRANTOR does not choose the intervenor within the established term, the Permitted Creditors may choose the intervenor from the list that was proposed. In this case, the intervenor, by the sole merit of his appointment, shall have the powers described in Clause No. 13.19.
- 13.21. The intervention of the Concession shall end with the transfer of the Concession Assets, except in the following cases:
- 13.21.1. When by application of Clause No. 9.9 b), the Permitted Creditors have requested the change of the Qualified Operator without a change of the CONCESSIONAIRE, the intervention of the concession shall terminate with such change.
 - 13.21.2. If the termination of the Contract is caused by a declaration of expiration of the Definitive Electric Transmission Concession and the CONCESSIONAIRE has decided to judicially contradict such declaration, the intervention of the Concession shall be extended for the entire period of time that delays the conclusion of the contradiction. If the result confirms the expiration of the Definitive Electric Transmission Concession, the clauses leading to the effective termination of the Contract shall be applied without restrictions.
- 13.22. The CONCESSIONAIRE may request reconsideration of the controller's instructions before the General Directorate of Electricity of the Ministry of Energy and Mines. To do so, the

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

CONCESSIONAIRE must send a formal communication supporting the reason for the reconsideration. The General Directorate of Electricity shall resolve the request within a maximum period of ten (10) days; otherwise, the aforementioned request shall be understood to be accepted. During the first five (5) Days, the General Electricity Directorate may request additional information from the CONCESSIONAIRE. The resolution term shall be suspended until the delivery of the required information, and the remaining term for the pronouncement of the General Electricity Directorate shall be resumed.

- 13.23. The CONCESSIONAIRE shall not be liable for damages resulting from the instructions of the controller.
- 13.24. During the intervention of the Concession, the CONCESSIONAIRE may not make new investments without the express authorization of the GRANTOR.
- 13.25. The total expenses demanded by the Concession Intervention shall be borne by the CONCESSIONAIRE, without the right to reimbursement, except when Clause No. 13.32 expressly indicates a different treatment.

Concession Bidding

- 13.26. From the invocation of the termination of the Contract, the GRANTOR may evaluate the convenience of organizing and carrying out the Concession Bidding for a new concessionaire to be in charge of the provision of the Service and thus subscribe a new concession contract or shall determine the best way to continue with the provision of the Service, in accordance with the Applicable Laws and Provisions.
- 13.27. In case the GRANTOR decides to carry out a bidding process, it shall observe the following rules, unless the Applicable Laws and Provisions have provided a specific form for this type of bidding process:
- 13.27.1. The GRANTOR, or PROINVERSIÓN on behalf of the former, has the broadest powers to organize, call and execute a public bidding for the transfer of the Concession and delivery of the Concession Assets to the new Concessionaire, within a term no longer than twelve (12) months from the date of having initiated the termination procedure pursuant to Clause No. 13.11 and following.
 - 13.27.2. The bidders in the bidding shall be qualified by the GRANTOR or PROINVERSIÓN, as the case may be. In the event of termination of the Contract for causes attributable to the CONCESSIONAIRE, the CONCESSIONAIRE, its main partners, and the related companies of both may not present themselves as bidders.
 - 13.27.3. The competition factor for the bidding shall be determined in accordance with the conditions established in the bidding documents and considering the Applicable Laws and Provisions. In the absence of an applicable regulatory provision, the competition factor shall be the highest amount of money offer from a base amount.
 - 13.27.4. The base amount of the Concession Bidding shall be determined by the GRANTOR. When the termination is due to a cause attributable to the CONCESSIONAIRE, the following shall be observed: i) In case the termination occurs after the Commercial Start-Up, the base amount shall not be less than the Book Value. ii) In case the termination occurs before the Commercial Start-Up, the base amount shall be the Book Value plus the Pre-operating Expenses.
 - 13.27.5. In case the first bidding is void or the concession contract is not subscribed, no more than sixty (60) days may elapse for the publication of the second call for bids. For this second call, the GRANTOR may reduce up to twenty-five percent (25%) of the base amount of the first bidding.
 - 13.27.6. When the termination of the Contract has been invoked due to a cause attributable to the CONCESSIONAIRE, the term of the new contract to be entered into with the new

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Concessionaire shall be the remaining term of the Contract as of the date of termination, and shall consider the same terms and conditions of the latter.

- 13.27.7. The amount bid by the winning bidder must be paid in cash, in U.S. dollars, and within the term and other conditions established in the bidding documents.
- 13.27.8. All costs associated with the Concession Bidding shall be borne by the CONCESSIONAIRE, without the right to reimbursement, except when a different treatment is expressly indicated in Clause No. 13.32. **Transfer of Concession Assets**
- 13.28. The CONCESSIONAIRE shall transfer the Concession Assets, in accordance with the following:
- 13.28.1. The Concession Assets, in any case, must be transferred to the new Concessionaire, to the GRANTOR or to whoever the latter designates, as appropriate; so as to guarantee the reliability and continuity of the Service with the Service Levels.
- 13.28.2. The CONCESSIONAIRE shall transfer the Concession Assets free of any liens or encumbrances and in good operating condition and shall also deliver the following technical information:
- a) File of construction drawings of the Project, updated with the extensions and modifications that have been executed.
 - b) Projects and studies carried out that are related to the Project.
 - c) Updated inventory list and technical information on each of the assets. It shall contain, among others, the remaining useful life of the equipment, major maintenance (*overhaul*) and tests performed; in general, information on the operating status of the equipment.
 - d) The Project's operation and maintenance procedures and manuals.
 - e) Service quality assurance manuals.
 - f) Any other information relevant to the continuity of the Service.
- 13.28.3. The CONCESSIONAIRE shall grant the public deeds and other private or public documents required for the transfer of the Concession, including, if applicable, assignments of rights, assignments of contractual position, among others. This obligation includes contracts entered into with third parties to the extent that the GRANTOR or the new concessionaire accepts the assignment of contractual position.
- 13.28.4. The CONCESSIONAIRE shall provide its full cooperation, in order to ensure an orderly delivery of the Concession Assets, so that there is no interruption in the provision of the Service.
- 13.28.5. All costs and expenses involved in the transfer of the Concession Assets shall be borne by the CONCESSIONAIRE, without the right to reimbursement.
- 13.29. The procedure for the transfer of the Concession Assets culminates upon the concurrent fulfillment of the following conditions: i) the GRANTOR has issued a transfer deed in which the fulfillment of the transfer is recorded in accordance with Clause No. 13.28 and; ii) the new Concessionaire assumes the provision of the Service or the GRANTOR assumes the full and direct administration of the Concession Assets and the provision of the Service in accordance with Clause No. 13.30.
- 13.30. The GRANTOR shall assume the full and direct administration of the Concession Assets and the provision of the Service when:
- 13.30.1. The new Concessionaire has not assumed the effective provision of the service at the date of termination of the term of the Contract or eighteen (18) months after the commencement of the intervention for other reasons, unless, in both cases, the Parties agree on the continuation of the provision of the Service with the participation of the CONCESSIONAIRE.
- 13.30.2. During the intervention process, the CONCESSIONAIRE becomes insolvent, or if for any other reason it is unable to maintain the Service or implement the instructions provided by the intervenor.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

13.31. With the completion of the transfer of the Concession Assets, the Contract shall be effectively terminated. If the transfer of the Concession Assets cannot be completed due to a cause attributable to the CONCESSIONAIRE pursuant to Clause No. 13.37.4, the effective termination of the Contract shall occur on the date determined by the GRANTOR, without prejudice to the possible existence of a dispute as set forth in such clause.

Settlement of the Contract

13.32. The Settlement Amount shall be the only concept recognized by the GRANTOR in favor of the CONCESSIONAIRE for the termination of the Contract and shall depend on the reason for such termination, as indicated below:

- 13.32.1. In the case of termination due to expiration of the term, the Settlement Amount shall be equal to zero (0), unless there is a remaining value of the Reinforcements executed during the term of the Contract and which has been calculated by OSINERGMIN.
- 13.32.2. In the event of termination by mutual dissent, the Liquidation Amount shall be the Book Value. If the Contract is terminated prior to Commercial Start-up, the Settlement Amount shall be the aforementioned value plus Pre-operating Expenses.
- 13.32.3. In the event of termination due to non-compliance by the CONCESSIONAIRE, the Settlement Amount shall be the amount determined as a result of the Concession Bidding, pursuant to Clause No. 13.27, and in no case may it be greater than (i) the Book Value plus the Pre-operating Expenses if the event is prior to the Commercial Start-up, or (ii) the Book Value if the event is subsequent to the Commercial Start-up.

In the event that the first call for bids does not materialize, the second call for bids is not successful or the concession contract resulting from the bidding is not signed, the Settlement Amount shall be the lesser of the amount resulting from the first call for bids or the amount of the concession contract resulting from the bidding:

- a) The base amount of the first or second call for the Concession bidding process, and;
- b) The Book Value plus Pre-operating Expenses, if the event is prior to Commercial Start-up; or,
- c) The Book Value, if the event occurs after Commercial Start-up.

In case the GRANTOR decides not to carry out the Concession bidding, the Settlement Amount shall be the one indicated in Letter b) or c) above, as the case may be.

- 13.32.4. In case of termination for cause attributable to the GRANTOR, the Settlement Amount shall be:
 - a) The Book Value plus the Pre-operating Expenses plus the total costs of the Concession Intervention and the Concession Bidding, if applicable, if the termination of the Contract occurs before the Commercial Start-up;
 - b) The greater of (i) the Book Value and (ii) the present value of the economic (nominal) cash flows of the Project that would have been generated during the balance of the term of the Contract using a discount rate of 12% nominal in Dollars, plus the full costs of the Concession Intervention and the Concession Bidding, if any, if the termination of the Contract occurs after Commercial Start-up.
- 13.32.5. In the event of termination by Total Destruction, the Liquidation Amount shall be equal to the amount delivered by the insurance company pursuant to Paragraph b) of Clause No. 7.6 for the destroyed Concession Property and the Book Value for the remaining Concession Property, plus one-half of the costs of the Concession Intervention and the Concession Bidding, if any. If the Contract terminates prior to Commercial Start-up, the Liquidation Value shall be the amounts indicated above plus Pre-operating Expenses.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- 13.32.6. In case of termination due to Force Majeure or Act of God, the Liquidation Amount shall be the Book Value plus half of the costs of the Concession Intervention and the Concession Bidding, if applicable. If the Contract terminates before Commercial Start-up, the Liquidation Value shall be the amounts indicated above plus the Pre-operating Expenses.
- 13.32.7. In the event of termination due to the application of the anti-corruption clause, the Settlement Amount shall be the determined according to Clause No. 13.32.3 (termination due to CONCESSIONAIRE's breach); without prejudice of the penalty stipulated in Clause No. 13.10.
- 13.33. The Book Value and the Preoperative Expenses, if applicable, shall be determined by the Expert. The Expert shall be a natural or legal person chosen by the Parties, who shall comply at least with the following characteristics: i) have no economic relationship with the CONCESSIONAIRE, in accordance with the provisions of SMV Resolution No. 019-2015-SMV/01 or rule replacing it; ii) have not contracted with the CONCESSIONAIRE in the twelve (12) months prior to its election; and iii) have at least five (5) years of experience in financial valuation of companies or infrastructure projects. The fees of the Expert shall be assumed by the Parties in equal proportion.
- For the determination of these values, the appraiser must consider that:
- 13.33.1. The Book Value and Pre-Operating Expenses, if any, shall be determined as of the effective date of termination of the Contract in accordance with Clause 13.31.
- 13.33.2. The GRANTOR may question those Concession Assets that are oversized with respect to what is required in Annex No. 1 or notoriously overvalued with respect to their market value.
- 13.33.3. The GRANTOR would have authorized the CONCESSIONAIRE to make new investments. In the absence of such authorization, the values of such investments shall not be taken into account for these purposes.
- 13.34. The GRANTOR shall deliver the Settlement Amount to a trust previously constituted by the CONCESSIONAIRE, who shall assume the corresponding expenses. The time of delivery of money to the trust shall be as indicated below and the delay in delivery shall generate interest in favor of the CONCESSIONAIRE:
- 13.34.1. If the monetary source for the liquidation of the Contract is the Concession bidding, the GRANTOR shall deliver the Liquidation Amount to the trust no later than thirty (30) calendar days after the new Concessionaire has cancelled its offer pursuant to Clause No. 13.27.7.
- 13.34.2. If the monetary source is different from the one indicated in Clause No. 13.34.1 or the event of Clause No. 13.29 has occurred, the GRANTOR shall schedule and make this payment at the latest until the first quarter of the fiscal year following the effective termination of the Contract when the Contract has been terminated for causes not attributable to the CONCESSIONAIRE; and for the rest of the causes, it shall schedule the delivery at the latest until the third quarter of such fiscal year.
- 13.34.3. The GRANTOR, when the Contract has been terminated for cause attributable to it, shall pay interest from the completion of the Transfer of the Concession Assets until the effective delivery of money to the trust. In the case of other causes, the GRANTOR shall pay interests in case of delay in the delivery of money to the trust according to the moments indicated in Clauses No. 13.34.1 and 13.34.2.
- 13.34.4. The interest indicated in Clause No. 13.34.3 shall accrue at a rate equivalent to the average of the six (6) months, prior to the payment date, of the effective legal interest rate in foreign currency published by the Superintendence of Banking, Insurance and AFP plus a spread of 2%.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- 13.35. The Trustee, in accordance with the instructions of the CONCESSIONAIRE, shall first pay the following items in the following order of priority: (i) the remunerations and other labor rights of the CONCESSIONAIRE's workers, accrued up to the date of payment and pending payment; (ii) the sums of money that must be delivered to the Permitted Creditors to satisfy the totality of the financial obligations, including the principal in force and the interest and commissions accrued up to the date of payment; (iii) taxes related to the Project, except those guaranteed under the Applicable Laws and Provisions; (iv) any fines or penalties that have not been paid by the CONCESSIONAIRE; (v) any other liabilities of the CONCESSIONAIRE related to the Project that are in favor of the State and; (vi) other liabilities not considered in the preceding paragraphs. The remainder shall be delivered to the CONCESSIONAIRE. In case the Applicable Laws and Provisions provide for an order of priority different from the aforementioned, the order of priority contemplated therein shall prevail.
- 13.36. The payment instructions to the trustee indicated in Clause No. 13.35 shall be made by the CONCESSIONAIRE, subject to the approval of the GRANTOR. The CONCESSIONAIRE shall deliver such instructions to the GRANTOR and the Permitted Creditors. Any dispute or controversy as to the determination of the values indicated in Clause No. 13.33 shall be treated as a Technical Dispute, pursuant to Clause No. 14.
- 13.37. For the purposes of the termination of the Contract and in particular the liquidation thereof, the Parties agree as follows:
- 13.37.1. Termination of the Contract for causes attributable to the CONCESSIONAIRE shall not give rise to any right of indemnity in favor of the CONCESSIONAIRE. Likewise, the GRANTOR shall execute the Contract Performance Bond, without the CONCESSIONAIRE being entitled to its reimbursement.
- 13.37.2. The GRANTOR may demand compensation for damages, without prejudice to the application of the corresponding penalties, when the Contract is terminated due to a cause attributable to the CONCESSIONAIRE.
- 13.37.3. The GRANTOR shall return to the CONCESSIONAIRE the Contract Performance Guarantee no later than thirty (30) days after the occurrence of the moment indicated in Clause No. 13.31, unless it has been executed or should be executed in accordance with the rules of the Contract.
- 13.37.4. Any cause attributable to the CONCESSIONAIRE that has the purpose and/or effect of delaying the termination procedure of the Contract shall generate an additional daily penalty equivalent to the amount indicated in Paragraph a) of Subsection No. 4 of Annex No. 11. For these purposes, the GRANTOR shall request in writing to the CONCESSIONAIRE the correction of any action or omission that is delaying the termination procedure and shall grant a maximum term of ten (10) days for this purpose. If the CONCESSIONAIRE does not agree with the requested correction, a dispute shall arise and shall be settled in accordance with the rules of Clause No. 14 for national arbitration. The initiation of direct treatment or arbitration shall not suspend the collection of the aforementioned penalty.

14. DISPUTE RESOLUTION

14.1 Applicable Laws and Provisions

The Contract shall be governed and interpreted in accordance with the Applicable Laws and Provisions. Therefore, the Parties express that the content, execution, controversies and other consequences arising therefrom shall be governed by such laws. Scope of Application

This clause regulates the solution of all those controversies that are derived from the present Contract, as well as those related to the execution, interpretation, resolution, ineffectiveness, nullity or invalidity of the Contract.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- 14.2 The decisions of OSINERGMIN or other Competent Governmental Authorities that are issued in execution of their administrative competencies attributed by express norm, whose claim is through administrative channels, may not be subject to direct treatment or arbitration.

14.3 Interpretation Criteria

The Contract shall be interpreted as a unit and in no case shall each of its clauses be interpreted independently.

In case of divergence in the interpretation of this Agreement, the following order of priority shall be followed to resolve such situation:

- a) The Contract and its amendments;
- b) The Official Letters referred to in the Bidding Terms; and
- c) The Bidding Terms.

The Contract is entered into only in the Spanish language. In the event of any difference between any translation of the Contract and this Contract, the text of the Contract in Spanish shall prevail. Translations of this Contract shall not be considered for purposes of interpretation.

The terms "Clause" or "Letter" are understood to refer to the Contract, unless expressly indicated to the contrary or, from the context, it is unequivocally and undoubtedly deduced that they refer to another document.

The time periods established shall be computed in days, calendar days, months or years, as appropriate.

14.4 Waiver of Diplomatic Claims

The CONCESSIONAIRE and its partners, shareholders or stockholders expressly, unconditionally and irrevocably waive any diplomatic claim for controversies or conflicts that may arise from the Contract.

14.5 Direct Deal

The Parties declare that it is their shall that all conflicts or uncertainties of arbitrable nature, with legal relevance that may arise with respect to the interpretation, execution, fulfillment, existence, validity, effectiveness or termination of the Contract and any other aspect related to the Contract, shall be resolved by direct agreement between the Parties, in a term no longer than three (03) months counted from the date on which one Party communicates to the other, in writing, the existence of the conflict or uncertainty with legal relevance. The aforementioned request for initiation of direct treatment must include a comprehensive description of the dispute and its due substantiation, as well as be accompanied by all the corresponding means of evidence.

The term referred to in the preceding paragraph may be modified by joint decision of the Parties, in view of the circumstances of each dispute, and an early termination of the direct agreement may also be agreed. Such agreement shall be in writing.

In the event that the Parties reach an agreement during the direct dealings, they shall sign a minute in which all the adopted agreements shall be recorded. For these purposes, within a maximum term of ten (10) days, the CONCESSIONAIRE shall send a draft of the corresponding minutes to the GRANTOR, and the latter, within the same term as indicated above, shall express its conformity, and shall send the CONCESSIONAIRE signed copies of the minutes at the same time. The modifications due to material, linguistic and similar issues may be solved directly between the Parties before the expiration of the term that the GRANTOR must answer.

Only the substantial observations shall be made in writing by the GRANTOR, indicating the reasons for its disagreement and proposal of the alternative text. In this last case, the Parties shall have ten (10) days to agree on the final text of the minutes.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

In case the Parties, within the direct dealing period, do not resolve the conflict or uncertainty raised, they shall define it as a conflict or uncertainty of a technical or non-technical nature, as the case may be. Technical conflicts or uncertainties shall be resolved in accordance with the procedure set forth in Clause No. 14.7, Letter a). Conflicts or uncertainties of a non-technical nature shall be resolved in accordance with the procedure set forth in Clause No. 14.7, Letter b).

When the Parties do not agree on the nature of the dispute, both Parties shall support their position in a written communication to be sent to their counterpart. In this they shall explain the reasons why they consider the dispute to be of a technical or non-technical nature.

In the event of persistent disagreement between the Parties as to whether the dispute raised is a Technical Dispute or a Non-Technical Dispute, or in the event the dispute has Technical Dispute and Non-Technical Dispute components, then such dispute or uncertainty shall be considered a Non-Technical Dispute and shall be resolved in accordance with the respective procedure set forth in Clause No. 14.7 b).

14.6 Arbitration

- a) **Conscientious Arbitration:** Any and all Technical Disputes that cannot be resolved directly by the Parties within the direct dealing period shall be submitted to conscientious arbitration, pursuant to subsection No. 3 of Article No. 57 of Legislative Decree No. 1071, in which the arbitrators shall resolve them according to their knowledge and best knowledge and understanding.

The arbitrators may be national or foreign experts, but in all cases, they must have ample experience in the subject matter of the respective Technical Dispute and must not have any conflict of interest with any of the Parties at the time and after their appointment as arbitrators.

The Arbitral Tribunal may request from the Parties such information as it deems necessary to resolve the Technical Dispute before it, and therefore may submit to the Parties a proposal for conciliation, which may or may not be accepted by them. The Arbitral Tribunal may act on all evidence and request the Parties or third parties to provide such evidence as it deems necessary to resolve the claims raised.

The Arbitral Tribunal shall prepare a preliminary decision which it shall notify to the Parties within thirty (30) Days after its installation, and the Parties shall have five (5) Days to prepare and deliver to the Tribunal their comments to such preliminary decision.

The Arbitral Tribunal shall issue its final decision on the Technical Dispute raised within ten (10) Days following: i. the receipt of the Parties' comments to its preliminary decision or ii. the expiration of the time limit for submitting such comments, whichever occurs first.

The proceedings for the resolution of a Technical Dispute shall take place in the city of Lima, Peru. Exceptionally, and due to the nature of the specific case, the Arbitral Tribunal shall move to another location only for the purpose of acting evidentiary means such as an expert opinion, an ocular inspection or any other evidentiary means that is necessary to act in another location, for a term not exceeding ten (10) days.

The members of the Arbitral Tribunal shall maintain absolute confidentiality and secrecy regarding all information they become aware of as a result of their participation in the resolution of a Technical Dispute.

The dispute shall be resolved through arbitration which shall take place in the city of Lima, Peru, in Spanish language, and shall be administered by the Arbitration Center of the Lima Chamber of Commerce. The Rules of said institution shall be applicable in all matters not provided for in this Agreement.

- b) **Arbitration at Law:** Non-Technical Disputes shall be resolved through arbitration at law, in accordance with Article No. 57, paragraphs 1 and 2 of Legislative Decree No. 1071, procedure in which the arbitrators shall analyze and resolve in accordance with the applicable Peruvian legislation, including Legislative Decree No. 1362 and its Regulations, approved by Supreme Decree No. 240-2018-EF, and rules that modify or replace them, and the following shall be considered:

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- i. In the event that the Parties do not reach an agreement within the term of the direct treatment referred to in Clause No. 14.6, the disputes arising shall be resolved by arbitration at law, and shall be administered by the Arbitration Center of the Lima Chamber of Commerce.
- ii. The arbitration shall take place in the city of Lima, Peru, and shall be conducted in Spanish. The Rules of said institution shall apply in all matters not provided for in this Contract.
- iii. The Parties agree that the provisions of "Emergency Arbitration", "Expedited Arbitration", "Expedited Arbitration", "Express Arbitration", "Expedited Arbitration", "Expedited Arbitration" or similar shall not apply, and therefore no party to this Agreement may request the application of their provisions under the Center's rules.

14.7 Common Procedural Rules

For both Conscientious Arbitration and Arbitration at Law referred to in this clause, the following general provisions shall apply:

- a) The Arbitral Tribunal shall be composed of three (3) members. The Party filing a request for arbitration must include in it the designation of its arbitrator and request the other party to comply with the appointment of its arbitrator within thirty (30) days from the date of receipt of the respective request for appointment.

Within thirty (30) days from the date of the appointment of the second arbitrator, the Parties shall consult in order to designate by mutual agreement the Chairman of the Arbitral Tribunal. The Parties may extend this time limit by mutual agreement. If one of the Parties fails to designate its Arbitrator, or if the Parties do not reach an agreement on the appointment of the Chairman of the Arbitral Tribunal within the established time limit, the arbitrators not appointed by such date shall be appointed, at the request of any of the Parties, by the arbitration center.

- b) The Arbitral Tribunal may, at its discretion, fill any difference or gap in the law or the Contract by applying general principles of law.
- c) Pursuant to the provisions of paragraph 133.2 of Article No. 133 of the Regulations of Legislative Decree No. 1362, approved by Supreme Decree No. 240-2018-EF, arbitrators must allow the participation of the Regulator for arbitration proceedings in which decisions and matters related to the competence of such Regulator are discussed.

The Parties agree that the award rendered by the Arbitral Tribunal shall be final and not subject to appeal. In this sense, the Parties must consider it as a final judgment, with the authority of res judicata. Consequently, the Parties declare that said award shall be binding, of definitive compliance and of immediate execution, except in the case of the causes listed in Article No. 63 of Legislative Decree No. 1071, as the case may be. Arbitration awards resulting from the aforementioned mechanism must be published by the corresponding Arbitration Center in their respective institutional portals, without prejudice to the exceptions established in the applicable rules of transparency and access to public information in force.

- d) During the arbitration proceedings, the Parties shall continue with the performance of their contractual obligations, to the extent possible, including those that are the subject matter of the arbitration. If the subject matter of the arbitration is the performance of the obligations guaranteed under Clause No. 12, the guarantees required from the CONCESSIONAIRE shall remain in force until the end of the arbitration proceedings.
- e) All expenses incurred in the resolution of a Technical or Non-Technical Dispute, including the fees of the arbitrators involved in the resolution of a dispute, shall be borne by both Parties in equal proportions, unless otherwise determined by the Arbitral Tribunal. The same rule applies in the event that the respondent or counterclaimant accepts or recognizes the claim of the claimant or counterclaimant. Likewise, if the award is partially in favor of the Parties, the Arbitral Tribunal shall decide on the distribution of such costs, taking into account the circumstances of the case.

In the event that the proceeding is terminated without a decision on the merits of the claims due to settlement or conciliation, such agreement shall establish the responsibility to assume the

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

referred expenses. If the settlement or conciliation does not so provide, each party shall cover its own expenses.

Excluded from the provisions of this clause are costs and expenses such as internal costs or others that are attributable to an individual Party.

15. ECONOMIC FINANCIAL BALANCE

15.1 The Parties acknowledge that the economic and financial equilibrium situation of the Contract, in terms of rights, responsibilities, and risks assigned to the Parties, is that in force at the Closing Date. The Parties undertake to maintain the economic and financial balance of the Contract during its term.

15.2 This clause stipulates a mechanism for the reestablishment of the economic and financial equilibrium, to which the CONCESSIONAIRE and the GRANTOR shall be entitled, in the event that the Concession is affected, exclusively and explicitly due to changes in the Applicable Laws and Provisions, insofar as it is exclusively related to financial economic aspects linked to the variation of: i) investment costs, ii) income or iii) operation and maintenance costs related to the rendering of the Service.

15.3 Any of the Parties that considers that the economic-financial balance of the Contract has been affected, may invoke its reestablishment when the percentage established in Clause No. 15.6 has been reached, proposing in writing to the other Party and with sufficient support the solutions and procedures to be followed for its reestablishment. The copy of the request shall be sent to OSINERGMIN, so that it issues a technical-economic opinion in relation to the request within twenty (20) days, which shall be evaluated by the GRANTOR without such opinion being binding.

The Party receiving the request must respond within thirty (30) days. In case there are observations, these shall be resolved within a maximum period of thirty (30) days of receipt of the notification, and the pronouncement shall be communicated within the following thirty (30) days. If the requesting Party does not agree with the decision, it may consider that a non-technical dispute has arisen, which shall be resolved in accordance with Clause No. 14. The time limits provided for in this clause may be extended by agreement between the Parties.

15.4 The affected Party may invoke breach of the economic-financial equilibrium at the following times:

- a) Within the first six (6) months counted as from the Commercial Start-Up, for the provisions of Clause No. 15.6, Paragraph a).
- b) After the expiration of twelve (12) months counted from the Commercial Start-Up and during the term of the Contract, for the provisions of Clause No. 15.6, Letter b).

15.5 The reestablishment of the economic financial equilibrium shall be made on the basis of the audited financial statements (or the information used in the preparation thereof) of the CONCESSIONAIRE for the period in which the variations in revenues, investment costs or operation and maintenance costs referred to above are verified or other documentation agreed upon by the Parties.

If the CONCESSIONAIRE has several concessions, it must submit the additional information necessary to support the division of income or costs, as appropriate, among its various concessions.

15.6 The economic and financial equilibrium shall be reestablished if, as a consequence of the provisions of Clause No. 15.2, and in comparison with what would have happened in the same period had the changes referred to in said clause not occurred:

- a) Vary the investment costs incurred by the CONCESSIONAIRE from the Closing Date until the Commercial Start-Up by an amount equivalent to ten percent (10%) or more of the Investment Cost set forth in Section b) of Clause No. 8.1, and the totality of the variation shall be considered for the reestablishment of the economic and financial equilibrium; or,
- b) The income or operation and maintenance costs of the Service are affected in such a way that the difference between the income minus the operation and maintenance costs of the CONCESSIONAIRE in the operation of the Service, during a period of twelve (12) consecutive months or more, varies in the equivalent to ten percent (10%) or more of the current Rate Base.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- 15.7 The calculation of the impact of a change in the Applicable Laws and Provisions is made in comparison with what would have happened in the same period if the changes had not occurred. In the case of Paragraph b) of Clause No. 15.6, if the change in Applicable Laws and Provisions has effects in subsequent years, the affected Party may again request the reestablishment of the economic equilibrium, provided that the imbalance reaches the percentage indicated in said Letter.
- 15.8 The provisions of this clause shall not be deemed applicable to those changes produced as a consequence of provisions issued by the Relevant Governmental Authority, which establish infractions or sanctions, or the application of penalties that were contemplated in the Contract or that were as a consequence of acts, facts attributable to or resulting from the performance of the CONCESSIONAIRE.
- 15.9 The existence of an imbalance may only give rise to the modification of the provisions contained in this Contract for the purpose of restoring the balance but shall not give rise to the suspension or termination of the Contract.

16. TAX REGIME

- 16.1 The CONCESSIONAIRE shall be subject to the applicable national, regional and municipal tax legislation, and shall comply with all tax obligations corresponding to the exercise of its activity.

The CONCESSIONAIRE shall be obliged, under the terms set forth in the Applicable Laws and Provisions, to pay all taxes, contributions and fees applicable, among others, to the Concession Assets or those to be constructed or incorporated to the Concession, whether such taxes are administered by the national, regional or municipal government, provided that such taxes, contributions and fees are directly related to the exercise of the activities under the Contract.

The CONCESSIONAIRE may enter into a legal stability agreement with the GRANTOR, which in accordance with the applicable regulations has the status of a legal contract, pursuant to the provisions of Legislative Decrees No. 662 and No. 757 and the first and second paragraph of Article No. 19 of the Sole Ordered Text of the regulations with the status of Law that regulate the concession to the private sector of public infrastructure and public service works approved by Supreme Decree No. 059-96-PCM, subject to compliance with the conditions and requirements established in said regulations.

- 16.2 Likewise, the CONCESSIONAIRE may access the corresponding tax benefits, provided that it complies with the procedures, requirements and substantial and formal conditions set forth in the Applicable Laws and Provisions.

17. ASSIGNMENT OF RIGHTS

- 17.1 The CONCESSIONAIRE may transfer or assign its rights or obligations, assign its contractual position or novate all or any of its obligations, in accordance with the Contract, provided that it has the prior written consent of the GRANTOR, which may not be denied without express grounds.
- 17.2 The waiver by either Party of one or more of its rights under the Contract shall only be effective if made in writing and with due notice to the other Party. If at any time one of the Parties waives or ceases to exercise a specific right set forth in the Contract, such conduct shall not be considered by the other Party as a permanent waiver to enforce the same or any other right to which it is entitled under the Contract.

18. AMENDMENTS TO THE CONTRACT

- 18.1 Modifications and clarifications to the Contract shall only be valid when they are agreed in writing and signed by representatives with sufficient power of attorney of the Parties and comply with the relevant requirements of the Applicable Laws and Provisions.



"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- 18.2 If any provision of the Contract is held to be void, invalid or unenforceable by an arbitration award, such decision shall be strictly construed as to such provision and shall not affect the validity of the other provisions of the Contract.

19. NOTIFICATIONS

Except as otherwise expressly provided in the Contract, notices, summons, petitions, demands and other communications due or permitted under the Contract shall be in writing, by personal service, to the following postal or electronic addresses:

- a) If it is addressed to the GRANTOR:

Name: Ministry of Energy and Mines.
Address: Av. De Las Artes Sur No. 260, Lima 15036 - Peru.
Attention:
E-mail:

- b) If addressed to the CONCESSIONAIRE:

Name:
Address:
Attention:
E-mail:

The addresses indicated above shall remain in full force and effect as long as their modification is not communicated to the other Party.

By the GRANTOR:

By the CONCESSIONAIRE:

Representative's signature
Date of signature: ____ / ____ /20__.

Representative's signature
Date of signature: ____ / ____ /20__.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No. 1

TECHNICAL SPECIFICATIONS OF THE PROJECT

"500 kV Huánuco-Tocache-Celendín-Trujillo Link, Extensions and Associated Substations".

1. GENERAL CONFIGURATION OF THE PROJECT

The Parties shall take into account the following general scopes:

- 1.1 The Project described in this annex has been included in the Transmission Plan for the period 2021-2030, approved by Ministerial Resolution No. 422-2020-MINEM/DM of December 30, 2020, and prepared on the basis of a preliminary engineering project of referential nature, with the purpose of delimiting its scope, as well as its connection with the existing facilities of the SEIN.
- 1.2 This Annex No. 1 defines the Basic Project Configuration, which includes the characteristics of the facilities and main equipment, as well as the minimum required capacities.
- 1.3 The CONCESSIONAIRE, within the limits established in this Annex, shall carry out the corresponding designs, analyses, evaluations and investigations to define the Project's equipment and facilities. Likewise, it shall comply with the construction, safety, operation and maintenance regulations in force in order to provide an efficient, safe, reliable and quality service.
- 1.4 The design criteria used in the development of the project must be consistent with the existing facilities, with the design criteria established in the COES Technical Procedure PR-20 "Entry, Modification and Withdrawal of Facilities in the SEIN", with the requirements of the National Electricity Code CNE-Supply and CNE-Utilization and other national and international standards, as indicated in this annex, in force at the date of signing the contract.
- 1.5 The CONCESSIONAIRE shall be responsible for including minor equipment complementary to the main equipment indicated in the Basic Project Configuration, not described in this annex, which are required to guarantee the correct operation of all the facilities and the provision of quality service in compliance with the standards applied in the National Interconnected Electric System (SEIN).
- 1.6 The CONCESSIONAIRE, pursuant to Letter c) of Subsection No. 3.1 of this annex, may request the GRANTOR to make minor modifications to the definitive technical characteristics of the Project. In case the GRANTOR does not approve the requested minor modifications, according to the procedures established in this contract, the CONCESSIONAIRE shall comply with the technical specifications contained in this annex. The eventual modification indicated shall not imply, in any case, variation of the Basic Configuration of the Project described in Subsection No. 2.
- 1.7 This annex includes the scope, specifications, and technical characteristics of the Project. In case of any discrepancy with what is indicated in the preliminary engineering design, the provisions of this annex shall prevail. In this sense, the preliminary engineering design must be considered as a document with information of a referential nature.
- 1.8 Regarding the technical characteristics of the main equipment, including its sizing, these shall be those approved by the COES in the Pre-Operational Study (EPO), in the areas of its competence as established in the COES Procedure PR-20, without this implying a modification of the Basic Project Configuration established in this Annex, as described in Subsection No. 2.

The purpose of the EPO is to verify that the Project operates correctly within the SEIN. That is to say, to determine and evaluate the impact of the new facility on the operation of the SEIN, on the capacity of the transmission system, as well as on the reliability and quality of its

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

operation. The proposal to be developed in the Final Engineering of the project must comply and agree with the approved EPO.

2. BASIC CONFIGURATION

The basic configuration of the Project, whose one-line diagram is shown in Diagram No. 1 (at the end of this Annex) comprises the following installations and main equipment:

i. 500 kV Nueva Huánuco - Tocache Transmission Line

Single-terminal configuration and approximately 193.32 km long, with 1400 MVA of design power.

ii. 500 kV Tocache - Celendín Transmission Line

Single-terminal configuration and approximately 294.7 km long, with 1400 MVA of design power.

iii. 500 kV Celendín - Trujillo Nueva Transmission Line

Single-terminal configuration and approximately 174.33 km in length, with 1400 MVA of design power.

iv. 220 kV Cajamarca Norte - Cálclis (L-2192) Alternative Transmission Line.

It consists of two sections of line in double ternary configuration of approximately 11.1 km in length, of 220 MVA/line of design power that shall link this line with the Celendín substation from a derivation or sectioning point.

v. 500/220/138 kV Nueva Huánuco Substation Extension (*)

Of double busbar connection configuration with switch and medium with GIS equipment, comprising the following installations:

- a) One (01) diameter with two (02) cells equipped with GIS technology (equivalent to 2/3 diameter), for the line to the Tocache substation.
- b) One (01) GIS technology cubicle for the 500 kV line reactor bank.
- c) One (01) 500 kV line reactor bank, consisting of three single-phase units plus one standby unit, at voltage $500/\sqrt{3}$ kV and with a three-phase power of 100 MVAR.

(*)500/220/138 kV Nueva Huánuco substation name corresponds to Yaros 500/220/138 kV substation according to COES registry.

vi. 500 kV Tocache Substation

Of double busbar connection configuration with switch and medium at 500 kV, comprising the following installations:

- a) One (01) line cell to Celendín, equivalent to one diameter.
- b) One (01) line cell to Nueva Huánuco, equivalent to one diameter.
- c) One (01) 500 kV - 150 MVAR line reactor bank, consisting of 3 single-phase units of 50 MVAR each, plus a backup unit.
- d) One (01) 500 kV - 100 MVAR line reactor bank, consisting of 3 single-phase units of 33.3 MVAR each, plus backup unit.
- e) Two (02) 500 kV - 120 MVAR bus reactor banks, consisting of 3 single-phase units of 40 MVAR each, plus backup unit.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- f) One (01) automatic series compensation equipment (EACS) at 500 kV (FACTS-Flexible AC Transmission System equipment) , with regulation in the capacitive range up to a maximum of 50% of the series reactance of the Tocache-Nueva Huánuco line, with a minimum capacity of 1400 MVA.
- g) One (01) automatic series compensation equipment (EACS) at 500 kV (FACTS equipment), with regulation in the capacitive range up to a maximum of 50% of the series reactance of the Tocache-Celendín line, with a minimum capacity of 1400 MVA.

vii. 500/220 kV Celendín Substation

▪ 500 kV side

Of double busbar connection configuration with switch and medium at 500 kV, comprising the following installations:

- a) One (01) line cell to Trujillo Nueva, equivalent to one diameter.
- b) One (01) line cell to Tocache, equivalent to 2/3 of the diameter.
- c) One (01) 500 kV / 220 kV transformer substation.
- d) One (01) 500 kV - 150 MVAR line reactor bank, consisting of 3 single-phase units of 50 MVAR each, plus a backup unit.
- e) One (01) 500 kV - 87 MVAR line reactor bank, consisting of 3 single-phase units of 29 MVAR each, plus backup unit.
- f) One (01) bank of autotransformers 500 kV / 220 kV / 33 kV - 600 / 600 / 200 MVA (ONAN) - 750 / 750 / 250 MVA (ONAF), consisting of 3 single-phase units of 200/200/66.6 MVA (ONAN) - 250/250/83.3 MVA (ONAF) each, plus backup unit.

▪ 220 kV side

Also, a double bus connection configuration with a 220 kV transfer switch, comprising the following installations:

- a) Four (04) 220 kV line cells.
- b) One (01) 220 kV coupling cubicle.
- c) One (01) 220 kV transformer substation for a bank of 500 kV / 220 kV / 33 kV single-phase power autotransformers.

viii. 500/220 kV Trujillo Nueva expansion of the substation.

Of double busbar connection configuration with switch and medium with AIS equipment, comprising the following installations:

- a) One (01) line cell to Celendín equivalent to 1/3 diameter.
- b) One (01) three-phase bank of 500 kV - 87 MVAR line reactors, consisting of three single-phase units of 29 MVAR each, plus one standby unit.
- c) One (01) cubicle for the three-phase bank of 500 kV line reactors.

3. TECHNICAL CHARACTERISTICS OF THE PROJECT

3.1. GENERAL TECHNICAL REQUIREMENTS

- a) The CONCESSIONAIRE shall be responsible for the selection of the route and route of the transmission line. The preliminary route selected for the transmission line contained in the preliminary engineering project shall be evaluated by the CONCESSIONAIRE, which shall define the final route.

The line's route shall avoid passing through archeological zones, national parks and restricted areas.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- b) The CONCESSIONAIRE shall be responsible for everything related to the construction and maintenance of accesses to the substations, for which purpose it shall comply with the corresponding standards in force.
- c) No modifications to the requirements and technical specifications indicated in this Annex shall be accepted. Exceptionally, the CONCESSIONAIRE, at its own cost and risk, may request or propose minor modifications to the requirements and technical specifications indicated in Subsections No. 3.2.6, 3.3.5, 4.1 and 4.2 of Annex No. 1, submitting the due technical support and the GRANTOR approves them. The GRANTOR shall communicate to the CONCESSIONAIRE, with copy to OSINERGMIN, its decision to approve or not the requested minor changes within thirty (30) days. In case the GRANTOR does not make a decision within such term, it shall be understood that the request has been denied.

The modifications indicated are of a minor nature and correspond to those that may be required to improve and/or specify the technical characteristics referred to in the preceding paragraph. They do not imply any variation of the main equipment and facilities that make up the Basic Configuration of the Project.

- d) Among others, the CONCESSIONAIRE shall be responsible for the following activities:
- Management of easement rights and payment of compensation to the owners or possessors of the land.
 - Obtaining the Definitive Electric Transmission Concession.
 - Coordinate with concessionary companies that are developing any project or that have facilities within the route of the line, or where it is necessary to carry out works for the connection to the substations that are part of the scope of this Project.
 - Obtaining the CIRA (certification from the Ministry of Culture on not affecting archaeological remains).
 - Preparation of the corresponding Environmental Management Instrument and its monitoring plan, which shall be developed within the current legal framework, in addition to having the approval of the corresponding public entities.
- e) In Annex No. 9 of the Contract, the National Service of Natural Areas Protected by the State (SERNANP) certifies that the referential route of the Project does not overlap with a Natural Protected Area or Buffer Zone.
- f) The width of the easement strip for 500 kV transmission lines shall be at least 64 m and must comply with the requirements of Rule 219.B.2 of the National Electricity Code (Supply 2011). Likewise, in areas with the presence of trees or objects that due to their height and proximity to the line represent a potential danger for people circulating in the area, or for the line itself (in the event of dangerous approaches or a possible fall of these trees on the line), the corresponding measures must be taken to eliminate or minimize these risks, such as, for example, removing or cutting the trees.

3.2. TRANSMISSION LINES

3.2.1. General technical characteristics

a) Thermal Limit Transmission Capacity

The minimum transmission capacity per thermal limit (design power) of the lines shall be:

TRANSMISSION LINE	MINIMUM THERMAL LIMITING TRANSMISSION CAPACITY
500 kV Nueva Huánuco - Tocache T. L.	1400 MVA
500 kV Tocache - Celendín Transmission T. L.	1400 MVA
500 kV Celendín - Trujillo Nueva T. L.	1400 MVA

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

TRANSMISSION LINE	MINIMUM THERMAL LIMITING TRANSMISSION CAPACITY
220 kV Cajamarca Norte - Cálclit (L-2192) double circuit line T.L. variant, from the sectioning point to the new Celendín substation.	220 MVA (*)

(*) Design power value of the 220 kV Cajamarca Norte – Cálclit T. L. (L-2192)

b) Emergency Condition Transmission Capability

In emergency conditions of the SEIN, for a period of up to thirty (30) minutes, the transmission line shall be able to withstand an overload of not less than 30% above the Thermal Limit Transmission Capacity.

A temperature higher than 75 °C shall be allowed in the conductor during the indicated period, keeping the safety distances established in the applicable standards.

c) Design factors

The line shall be considered acceptable when it complies with the following:

c.1) Thermal limit

According to the Transmission Line Design Criteria established in Chapter No. 1, Annex No. 1 of the Technical Procedure COES PR-20, described in section a).

c.2) Voltage drop

According to the Performance Criteria established in Annex No. 2 of COES Technical Procedure PR-20, Item 8.

3.2.2. 500 kV Nueva Huánuco - Tocache Transmission Line

This single-terminal transmission line shall be built to link the Nueva Huánuco and Tocache substations.

The main features of this line are:

- Design power : 1400 MVA per circuit line
- Approximate length : 193.32 km
- Number of tribunals : One (01)
- Voltage : 500 kV
- Maximum system voltage : 550 kV
- Phase arrangement : horizontal or triangular type
- Type of supports : Self-supporting truss, galvanized steel
- Phase conductor : Bundle of four sub-conductors, of different sizes according to altitude:

Altitude (masl)	Driver
0 -2000	4 x 800 MCM
2000 - 3000	4 x 900 MCM
3000 - 4000	4 x 1000 MCM
4000 - 4500	4 x 1000 MCM

- Number of conductors per phase : Four (04)
- Guard cables : Two (02) cables: one of the OPGW type, minimum 36 fibers, and one of the EHS galvanized steel cable type.
- Altitude : Minimum 529 meters above sea level
Maximum 3577 masl

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

3.2.3. 500 kV Tocache - Celendín Transmission Line

This single-terminal transmission line shall be built to link the Tocache and Celendín substations.

The main features of this line are:

- Design power : 1400 MVA per circuit line
- Approximate length : 294.7 km
- Number of circuit lines : One (01)
- Voltage : 500 kV
- Maximum system voltage : 550 kV
- Phase arrangement : horizontal or triangular type
- Type of supports : Self-supporting truss, galvanized steel
- Phase conductor : Bundle of four sub-conductors of different sizes according to altitude:

Altitude (masl)	Driver
0 -2000	4 x 800 MCM
2000 - 3000	4 x 900 MCM
3000 - 4000	4 x 1000 MCM
4000 - 4500	4 x 1000 MCM

- Number of conductors per phase : Four (04)
- Guard cables : Two (02) cables: one of the OPGW type, of 36 fibers minimum, and the other of the EHS galvanized steel cable type.
- Altitude : Minimum 626 masl
Maximum 4142 masl

3.2.4. 500 kV Celendín - Trujillo Nueva Transmission Line

This single-terminal transmission line shall be built to link the Celendín and Trujillo Nueva substations.

The main features of this line are:

- Design power : 1400 MVA per circuit line
- Approximate length : 174.33 km
- Number of circuit lines : One (01)
- Voltage : 500 kV
- Maximum system voltage : 550 kV
- Phase arrangement : horizontal or triangular type
- Type of supports : Self-supporting truss, galvanized steel
- Phase conductor : Bundle of four sub-conductors of different sizes according to altitude.

Altitude (masl)	Driver
0 -2000	4 x 800 MCM
2000 - 3000	4 x 900 MCM
3000 - 4000	4 x 1000 MCM
4000 - 4500	4 x 1000 MCM

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- Number of conductors per phase : Four (04)
- Guard cables : Two (02) cables: one of the OPGW type, of 36 fibers minimum, and the other of the EHS galvanized steel cable type.
- Altitude : Minimum 198 masl
Maximum 3802 masl

3.2.5. 220 kV Cajamarca Norte - Cálclíc alternative T. L. (L-2192)

The 220 kV Cajamarca Norte - Cálclíc (L-2192) alternative transmission line shall be made up of double-terminal line sections that shall link said line with the Celendín substation from a derivation or sectioning point, from which the Cajamarca - Celendín (L-2192a) and Celendín - Cálclíc (L-2192b) lines shall be formed, as shown in Diagram No. 1.

The main features of this line are:

- Design power : 220 MVA per circuit line
- Approximate length : 11.1 km for each double-terminal section.
- Number of three (3) : Two (02)
- Voltage : 220 kV
- Maximum system voltage : 245 kV
- Phase arrangement : Vertical type
- Type of supports : Self-supporting truss, galvanized steel
- Phase conductor : ACAR 750 MCM (same as existing)
- Number of conductors per phase : Two (02)
- Guard cables : Two (02) cables, one OPGW type of 111 mm² and other EHS steel (same as existing ones)
- Altitude : Minimum 2486 masl
Maximum 3190 masl

3.2.6. Technical Requirements of the Line

- a) The lines, according to their voltage level, must meet the following minimum requirements:

500 kV T. L.

- Rated operating voltage : 500 kV
- Maximum operating voltage : 550 kV
- Holding voltage at atmospheric impulse : 1550 kV_{pico}
- Holding voltage at impulse type maneuvering (phase-ground) : 1175 kV

220 kV T. L.

- Rated operating voltage : 220 kV
- Maximum operating voltage : 245 kV
- Holding voltage at atmospheric impulse : 1050 kV_{pico}
- Holding voltage at industrial frequency (60 Hz) : 460 kV

The above values shall be corrected according to the altitude of the installations. Likewise, safety distances on supports and insulation shall also be corrected for altitude.

- b) The length of the line of leakage of the T.L. insulation must be verified according to the level of contamination of the areas through which it passes, the maximum voltage level reached and the altitudes of these areas.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

The minimum leakage lengths to be considered shall be:

- In coastal areas with altitude up to 1000 m above sea level : 31 mm/kVphase-phase
 - In jungle areas with altitude up to 1 000 m above sea level : 20 mm/kVphase-phase
 - In areas with altitude over 1000 m above sea level : 20 mm/kVphase-phase
- c) The minimum phase-to-ground clearances in structures shall be obtained using the methodology of IEC 60071.
- d) The resistance of the individual grounding on the line structures should not exceed 25 Ohms. This value should be verified for normal ground conditions and in no case after rain or when the ground is wet. However, this value should be verified to comply with NEC Rule 036.A (Supply 2011). Compliance with this value does not exempt the verification of the maximum touch and step voltages allowed in case of faults, as well as the measures necessary to maintain these values within the allowed ranges.
- e) The values explained below must be complied with:
- e.1) The maximum surface gradient per phase is given by the average value of the maximum surface gradient values of each subconductor.
The maximum surface gradient in the conductors must not exceed the following critical gradient values:
- 18.5 kVrms/cm, in areas with altitudes higher than 1,000 masl. This value is referred to sea level and must be corrected for altitude.
- Note:** Not applicable for the variant of the existing 220 kV Cajamarca Norte - Cálclis (L-2192), in which the gradient values of the original design shall be maintained.
- e.2) The limits of non-ionizing radiation at the limit of the easement strip, for population exposure according to Annex No. C4.2 of the CNE-Utilization 2006.
- e.3) The audible noise at the boundary of the easement strip, for residential areas according to Annex No. C3.3 of the NEC - Use 2006.
- e.4) Radio interference limits shall comply with Chapter No. 1, Annex No. 1 of COES Technical Procedure PR-20.
- f) The safety distances considering a 20-year creep in the conductor of the transmission lines shall be calculated according to Rule 232 of the National Electricity Code (CNE) Supply 2011 or the one in force at the closing date of the concession contract. For the application of Rule 232, the electrical component values indicated in Table 232-4 of the aforementioned code shall be used. Likewise, the safety distances shall not be less than the values indicated in Table 232-1a of the same code.
- g) THE CONCESSIONAIRE shall consider a number of transpositions for the transmission lines as indicated in Chapter No. 1, Annex No. 1 of COES Technical Procedure PR-20.
- h) The CONCESSIONAIRE shall consider in the design of the lines, a failure rate for atmospheric discharges as indicated in Table N°6 of Chapter No. 1, Annex No. 1 of COES Technical Procedure PR-20.
- Note:** The 220 kV line sections generated by the sectioning of line L-2192 shall maintain the original design fault rate values.
- i) The design of insulation, safety distances, grounding, the use of appropriate materials, as well as the correct execution of maintenance works, among other aspects, must be such that the line out-of-service rate does not exceed "1 outage/(100 km/year)", for the 500 kV level and "2 outages/(100 km/year)", for the 220 kV level.
- To comply with the indicated exit rate, by way of reference, the following is recommended:
- Verify that the insulation level of the line is appropriate.
 - Verify that the resistance value of the grounding of the supporting structures is appropriate.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- Conduct a shielding study.
- Use materials (insulators, hardware, OPGW cables, etc.) of proven quality, using supplies with a minimum of 10 years of experience, manufactured and used worldwide.

Unscheduled outages exceeding this limit shall be penalized, as indicated in Clauses No. 5.13 and 11.1 of the Contract, as well as in Item 8 of Annex No. 11 of the Contract.

The penalties indicated do not exclude compensation as specified in the NTCSE, when applicable.

- j) A 36-fiber OPGW type guard wire shall be used, in addition to another 7/16" EHS galvanized steel, which shall allow the line differential protection to be activated quickly, safely and selectively, as well as the sending of data to the COES in real time, remote control and telecommunications.

The OPGW guard wire as well as the galvanized steel cable shall be capable of withstanding an estimated short circuit to ground that guarantees a useful life of not less than 30 years of service. The Concessionaire shall support the calculation methodology.

In the case of the 220 kV variant, two (2) guard cables shall be implemented, one 111 mm² OPGW type and another 70 mm² EHS steel cable, similar to the existing one in line L-2192, in order to maintain the same design criteria of the existing protection and communications systems.

- k) For line maintenance services, a satellite cellular communication system may be used instead of a UHF/VHF radio system.
- l) ACAR type conductor may be used, according to the transport capacity, loads, spans and adequate spans that present the best construction and operation option, as long as a useful life time of no less than 30 years is guaranteed.

Note: For the 220 kV variant, conductors similar to the design of the existing lines shall be used.

- m) The maximum referential limits of Joule losses, calculated for an output power value equal to that indicated in the table below, with a power factor equal to 1.00, and voltage at the busbar equal to 1.00 p.u. shall be those indicated in the following table:

Line	% of Losses /Circuit		
	Approximate length (km)	Reference Power (MVA) (See Note 1)	Maximum Losses (%/km)
500 kV Nueva Huánuco - Tocache T. L.	193.32	700	0.0068
500 kV Tocache - Celendín T. L.	294.7	700	0.0068
500 kV Celendín - Trujillo Nueva T. L.	174.33	700	0.0068
220 kV Cajamarca Norte - Cállic (L-2192) double circuit line L.T. variant, from the sectioning point to the new Celendín substation.	11.1 (*)	250	0.033

(*) Length for each double circuit line section

Note 1: Estimated prevailing transmission power in the operation of the line.

Compliance with these loss levels may be verified by the Grantor, by means of the conductor design calculations, prior to the acquisition of the supplies by the Concessionaire. The installation of the conductor shall not be authorized in case of non-compliance with the limiting loss values.

The calculation formula to verify the level of Joule losses shall be:

$$Pérdidas = \left(\frac{P_{ref}}{V_{nom}} \right)^2 \times \frac{R_{75^{\circ}C}}{P_{ref}} \times 100\%$$

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Where:

- P_{ref} = Reference power in MVA
 V_{nom} = Nominal voltage of the line in kV
 $R_{75^{\circ}C}$ = Total line resistance per phase (per km), at a temperature of 75 °C and frequency of 60 Hz.

- n) Unavailability due to scheduled maintenance: The number of hours per year out of service due to scheduled maintenance of each transmission line shall not exceed two days of eight hours each.
- o) Maximum post-fault resetting time: the maximum line resetting time shall not exceed 15 minutes after the COES order, in application of COES Technical Procedure No. 40.

3.3. SUBSTATIONS

The new substations shall be designed and projected according to AIS technologies in 500 kV using the switch and medium connection type configuration, and in 220 kV using the double busbar configuration with transfer switch. In this sense, the CONCESSIONAIRE shall provide the necessary spaces and areas for these types of configurations, as well as the areas foreseen for future expansions.

Transit areas within the substations must be equipped or built with asphalt or a similar layer.

It should be noted that only for the expansion of the Nueva Huánuco substation shall GIS equipment be considered, since the existing substation is equipped with the same technology.

3.3.1. Expansion of the 500 kV Nueva Huánuco substation.

The 500/220/138 kV Nueva Huánuco substation, owned by Consorcio Transmantaro S.A., is an existing substation located in the district and province of Huánuco, department of Huánuco, at an altitude of approximately 2380 meters above sea level and at the following UTM coordinates (WGS84 datum, Zone 18 L):

EAST COORDINATE	NORTH COORDINATE
368378	8904361

These coordinates are referential and shall be verified by the CONCESSIONAIRE according to the location of the area selected for the substation expansion.

The Nueva Huánuco substation has a double busbar connection configuration with switch and a half at the 500 kV level, with GIS equipment, and is connected to the SEIN, to the Yanango substation at 500 kV, to the Yungas, Vizcarra and Chaglla substations at 220 kV.

The expansion of this 500 kV substation includes the following facilities:

- a) One (01) diameter with two (02) cells equipped with GIS technology (equivalent to 2/3 diameter), for the line to the Tocache substation.
- b) One (01) GIS technology cubicle for the 500 kV line reactor bank.
- c) One (01) 500 kV line reactor bank, consisting of three single-phase units plus one standby unit, at 500/ $\sqrt{3}$ kV voltage and with a three-phase power of 100 MVAR.
- d) Complementary systems for protection, control, measurement, communications, gantries and busbars, grounding, auxiliary services, civil works, etc. The proposed equipment shall maintain the compatibility of the design of the existing facilities.

The CONCESSIONAIRE shall be responsible for coordinating with the owner of the Nueva Huánuco substation and others involved in the area of influence of the present project, in order to carry out, at its own cost, the adaptations and/or modifications required for the coordination of the control, protection and telecommunications systems in the substation.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

In order to maintain equipment compatibility, the equipment to be installed in the Nueva Huánuco substation must have similar or superior characteristics to the backyard equipment to be installed in said substation.

3.3.2. 500 kV Tocache Substation

New conventional substation to be located in the district of Uchiza, province of Tocache, department of San Martín, at an altitude of approximately 500 meters above sea level.

The proposed location has the following UTM coordinates (datum WGS84, Zone 18 L):

EAST COORDINATE	NORTH COORDINATE
338769	9062666

The substation shall be built at the proposed location according to the coordinates indicated. Exceptionally and due to technical impediments, a different location may be considered, which shall be contiguous or as close as possible to the proposed location.

For such purpose, the CONCESSIONAIRE shall carry out the pertinent analyses and studies, which demonstrate the impossibility of building the substation in the proposed location, due to technical reasons, which originate the need for a new location of the substation. Said analyses and studies shall be submitted to the GRANTOR, for its evaluation and eventual approval of the new location of the substation.

According to the scope foreseen for the implementation of the future Tocache substation, it includes the following equipment:

500 kV side

The 500 kV busbar system and yard equipment shall have a breaker-and-a-half connection configuration, comprising the following facilities:

- One (01) line cell to Celendín, equivalent to one diameter.
- One (01) line cell to Nueva Huánuco, equivalent to one diameter.
- One (01) 500 kV - 150 MVar line reactor bank, consisting of 3 single-phase units of 50 MVar each, plus a backup unit.
- One (01) 500 kV - 100 MVar line reactor bank, consisting of 3 single-phase units of 33.3 MVar each, plus backup unit.
- Two (02) 500 kV - 120 MVar bus reactor banks, consisting of 3 single-phase units of 40 MVar each, plus backup unit.
- One (01) automatic series compensation equipment (EACS) at 500 kV, with regulation in the capacitive range up to a maximum of 50% of the series reactance of the Tocache-Nueva Huánuco line, with a minimum capacity of 1400 MVA.
- One (01) automatic series compensation equipment (EACS) at 500 kV, with regulation in the capacitive range up to a maximum of 50% of the series reactance of the Tocache-Celendín line, with a minimum capacity of 1400 MVA.
- Complementary systems for protection, control, measurement, communications, gantries and bars, grounding, auxiliary services, civil works, etc.
- Space available for future expansion of the substation:
 - Space for four (04) future 500 kV line cells.
 - Space for two (02) future 500 kV transformation cells.
 - Space for two (02) single-phase power autotransformer banks, 500 kV / 220 kV, future.

220 kV side

Space available for future expansion of the substation:

- Space for nine (09) future 220 kV line cells.
- Space for one (01) future 220 kV coupling cubicle.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- Space for two (02) future 220 kV transformation cells.

The equipment and facilities indicated are the minimum required for the Project. The CONCESSIONAIRE, at its cost and risk, may present in the Engineering Project at the definitive level, any additional equipment to that indicated in this section, which it considers pertinent for the adequate operation of the substation.

3.3.3. 500/220 kV Celendín Substation

New conventional substation to be located in the district of José Gálvez, province of Celendín, department of Cajamarca, at an altitude of approximately 2610 meters above sea level.

The proposed location has the following UTM coordinates (datum WGS84, Zone 17 M):

EAST COORDINATE	NORTH COORDINATE
819079	9231723

The substation shall be built at the proposed location according to the coordinates indicated. Exceptionally and due to technical impediments, a different location may be considered, which shall be adjacent or as close as possible to the proposed location.

For such purpose, the CONCESSIONAIRE shall carry out the pertinent analyses and studies, which demonstrate the impossibility of building the substation in the proposed location, due to technical reasons, which originate the need for a new location of the substation. Said analyses and studies shall be submitted to the GRANTOR, for its evaluation and eventual approval of the new location of the substation.

According to the scope foreseen for the implementation of the future Celendín substation, it includes the following equipment:

500 kV side

The busbar system and yard equipment at 500 kV shall have a breaker-and-a-half connection configuration, comprising the following facilities:

- a) One (01) line cell to Trujillo Nueva, equivalent to one diameter.
- b) One (01) line cell to Tocache, equivalent to 2/3 of the diameter.
- c) One (01) 500 kV / 220 kV transformer substation.
- d) One (01) 500 kV - 150 MVar line reactor bank, consisting of 3 single-phase units of 50 MVar each, plus a backup unit.
- e) One (01) 500 kV - 87 MVar line reactor bank, consisting of 3 single-phase units of 29 MVar each, plus backup unit.
- f) One (01) bank of autotransformers 500 kV / 220 kV / 33 kV - 600 / 600 / 200 MVA (ONAN) - 750 / 750 / 250 MVA (ONAF), consisting of 3 single-phase units of 200/200/66.6 MVA (ONAN) - 250/250/83.3 MVA (ONAF) each, plus backup unit.
- g) Complementary systems for protection, control, measurement, communications, gantries and bars, grounding, auxiliary services, civil works, etc.
- h) Space available for future expansion of the substation:
 - Space for six (06) future 500 kV line cells.
 - Space for one (01) future 500 kV transformer substation.
 - Space for one (01) bank of single-phase power autotransformers, 500 kV / 220 kV / 33 kV, future.

220 kV side

The 220 kV busbar system and yard equipment shall have a double busbar configuration with transfer switch, comprising the following installations:

- a) Four (04) 220 kV line cells.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- b) One (01) 220 kV coupling cubicle.
- c) One (01) 220 kV transformer substation for a bank of 500 kV / 220 kV / 33 kV single-phase power autotransformers.
- d) Complementary systems: Protection, control, measurement, communications, gantries and bars, grounding, auxiliary services, civil works.
- e) Space available for future expansion of the substation:
 - Space for five (05) future 220 kV line cells.
 - Space for one (01) 220 kV transformation cell in the future.

The equipment and facilities indicated are the minimum required for the Project. The CONCESSIONAIRE, at its cost and risk, may present in the Engineering Project at the definitive level, any additional equipment to that indicated in this section, which it considers pertinent for the adequate operation of the substation.

3.3.4. Expansion of the 500 kV Trujillo Nueva substation.

The 500/220 kV Trujillo Nueva substation is an existing substation owned by Consorcio Transmantaro S.A. (CTM) located in the district of El Porvenir, province of Trujillo, department of La Libertad, at an altitude of approximately 165 meters above sea level and at the following UTM coordinates (WGS84 datum, Zone 17 L):

EAST COORDINATE	NORTH COORDINATE
717951	9109700

These coordinates are referential and shall be verified by the CONCESSIONAIRE according to the location of the area selected for the substation expansion.

The Trujillo Nueva substation has a double bus connection configuration with switch and a half at the 500 kV level, with AIS equipment, and is connected to the SEIN, to the Chimbote substation at 500 kV, to the Trujillo substation at 220 kV.

The expansion of this 500 kV substation includes the following facilities:

- a) One (01) line cell to Celendín equivalent to 1/3 of diameter.
- b) One (01) three-phase bank of 500 kV - 87 MVAR line reactors, consisting of three single-phase units of 29 MVAR each, plus one standby unit.
- c) One (01) cubicle for the three-phase bank of 500 kV line reactors.
- d) Complementary systems for protection, control, measurement, communications, gantries and busbars, grounding, auxiliary services, civil works, etc. The proposed equipment must maintain design compatibility with the existing facilities.

The CONCESSIONAIRE shall be responsible for coordinating with the owner of the Trujillo Nueva substation and others involved in the area of influence of this project, in order to carry out, at its own cost, the adaptations and/or modifications required for the coordination of the control, protection and telecommunications systems in the substation.

In order to maintain equipment compatibility, the equipment to be installed in the Trujillo Nueva substation must have similar or superior characteristics to the backyard equipment to be installed in said substation.

3.3.5. Substation Technical Requirements

It should be noted that during the development of the definitive study of the Project, the CONCESSIONAIRE must carry out all those studies that guarantee the correct operation of the equipment of the proposed system. In addition, it shall comply with the following requirements:

a) General technical characteristics

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- a.1. The low voltage equipment of the control, protection, measurement and telecommunications systems must be of the latest technology and have accredited operating references corresponding to the last three (03) years.
- a.2. References of similar supplies (High Voltage Equipment) and accredited references of successful operation of equipment, issued by transmission system operators, corresponding to the last ten (10) years, must be submitted.
- a.3. The equipment shall have certified reports from recognized international institutes showing that it has successfully passed the Type Tests. All equipment shall be subjected at least to all Routine Tests established in the applicable norms.
- a.4. Equipment shall comply with the following standards: IEC, ANSI/IEEE, VDE, NEMA, ASTM, NESC, NFPA, as applicable.

b) Location and space for substation expansions

- b.1. For the new substation, the CONCESSIONAIRE shall acquire ownership of the necessary land, including the areas for future expansions, established in this annex and as indicated in Chapter No. 1, Annex No. 1 of the COES Technical Procedure PR-20.
The spaces for future expansions must be at least levelled and leveled, and the necessary cutting and filling of the land must be carried out, as well as being within the perimeter fence of noble material (brick and concrete) of the substation, in such a way that the CONCESSIONAIRE has control over them.
- b.2. The CONCESSIONAIRE shall be responsible for managing, coordinating or acquiring under any title the right to use the available spaces in the existing substations, establishing the respective agreements with the substation owners.
- b.3. The CONCESSIONAIRE shall also be responsible for acquiring the ownership of the land adjacent to the existing substations, where this is necessary or required, and to carry out the works for the modification and adaptation of the substations.

c) Voltage levels and insulation

c1. Voltage levels at 500 kV

Rated voltage	500 kV
Maximum operating voltage	550 kV
Holding voltage at atmospheric impulse	1550 kVpeak 1800 kVpeak (*)
Holding voltage at impulse type shunting	1175 kV 1300 kVpeak (*)

(*) for Celendín S.S. and Nueva Huánuco S.S.

c2. Voltage levels at 220 kV

Rated voltage	220 kV
Maximum operating voltage	245 kV
Atmospheric impulse withstand voltage	1050 kVpeak
Holding voltage at industrial frequency	460 kV

c3. Levels of Protection

Minimum leakage line Phase-Phase	
In coastal areas with altitude up to 1000 m above sea level	31 mm/kV _{phase-phase}
In areas with altitude over 1000 m above sea level	20 mm/kV _{phase-phase}
Protection against atmospheric discharges minimum	Class 4 (220 kV) and Class 5 (500 kV)

c4. Safety distances

Phase separations for bare conductors and busbars to the outside shall be at least:

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- In 500 kV : 8.00 m.
- In 220 kV : 4.00 m.

All distances shall comply with IEC 60071 and ANSI/IEEE standards. The values indicated for safety distances are referred to sea level and should be corrected according to the altitude of the installations where applicable.

d) Current levels

All switching equipment (switches and disconnectors) shall comply with the following characteristics:

	<u>500 kV</u>	<u>220 kV</u>
Minimum rated current	2500 A	2500 A
Three-phase short-circuit breaking capacity, 1s	40 kA	40 kA
Three-phase short-circuit breaking capacity	104 kA _{peak}	104 kA _{peak}

Reactor connection switches shall comply with IEEE Std.C37.015 related to current closing and opening requirements.

e) Current transformers

Current transformers in 500 and 220 kV transmission lines shall have at least four secondary cores:

- a) Three 5P20 protection cores.
- b) A class 0.2 core for measurement.

Current transformers at 500 and 220 kV in autotransformers and reactors shall have at least three secondary cores:

- a) Two 5P20 protection cores.
- b) A class 0.2 core for measurement.

e) Seismic requirements

Regarding the seismic requirements of the equipment, it must comply with the IEEE 693-2018 Standard or the version that replaces it, in terms of seismic qualification and others. Likewise, the foundations and structures, support for high voltage equipment shall be designed to operate in the seismic conditions indicated in Chapter No. 1, Annex No. 1 of the Technical Procedure COES PR-20;

∴

g) Automatic Serial Compensation Equipment (EACS)

The EACS must be designed to compensate, in a continuous capacitive region, the series reactance of the 500 kV Tocache – Huánuco, and Tocache - Celendín transmission lines. This equipment shall be installed at the Tocache substation. However, they should be able to operate in all the region that their capacity allows, depending on the technology to be considered.

h) Autotransformers and Reactors

h1. Autotransformers

A bank made up of single-phase autotransformers (3 units plus a reserve unit) shall be considered, which must comply with the corresponding requirements established in Section 2.3.5 Technical Requirements for Substations.

Autotransformers shall be supplied with current transformers incorporated in the *bushing* insulators, with three 5P20 protection cores, for the three phases and in the three windings, in addition to the corresponding cores for regulation and thermal image protection.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

The rated voltage, voltage regulation and connection group of the 500/220/33 kV autotransformer bank shall be as follows:

- Tensions
 - Primary voltage 500 kV
 - Secondary voltage 220 kV
 - Tertiary voltage 33 kV
- Connection group YN / YN / d(Δ)
 - Primary side, 500 kV Star, solidly grounded neutral
 - Secondary Side, 220 kV Star, solidly grounded neutral
 - Tertiary side Delta (Δ)
- Power rating
 - Three-phase bank (500/220/33) kV 600/600/200 ONAN
750/750/250 MVA ONAF
 - Single-phase unit (500:√3/220:√3/33) kV 200/200/66.6 ONAN
250/250/83.3 MVA ONAF

As a reference, a regulation under load of $\pm 10\%$ is recommended, on the 220 kV side, with 1% steps. However, the Concessionaire must define the nominal voltages, the number and variation range of taps, as well as the transformer drive and control mechanisms, in accordance with what is defined, supported, and approved in the Pre-Operational Study.

h2. Reactors

A bank consisting of single-phase reactors with grounded neutral (3 units plus a reserve unit) shall be considered, which must comply with the corresponding requirements established in Subsection No. 2.3.5 Technical Requirements for Substations.

Reactors shall be supplied with current transformers incorporated in the bushing insulators, phase, and neutral side, of two 5P20 protection cores, in addition to the current transformers in the neutral of the three-phase assembly.

The values of reactance, power, and the definitive characteristics of the equipment shall be determined by the Concessionaire, according to what is defined, supported and approved in the Pre-operational Study.

h3. Losses

The levels of losses in the autotransformers shall be guaranteed for permanent load levels of 100%, 75%, and 50% of the rated power. The value of the losses in the reactors operating at rated voltage shall also be guaranteed.

The guaranteed values shall comply with IEC 60076 or its ANSI/IEEE equivalent.

h4. Fire protection

To prevent fires, each autotransformer and on-load tap changer unit shall be equipped with an explosion and fire prevention system. This system shall depressurize the autotransformer tank, tap changer, or reactors in the minimum time necessary to prevent explosion.

Explosion and fire prevention protection of autotransformers shall comply with current NFPA 850 or equivalent.

In order to test the correct operation of the overpressure device, the manufacturer shall supply an additional unit of this device, which shall be field tested.

h5. Oil recovery

All transformer units and reactors shall have a system for oil collection and recovery in case of failure.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

h6. Firewalls

In the transformation units and reactors, firewalls must be installed in order to isolate the units from each other. These firewalls must be built in reinforced concrete, notwithstanding this, alternative constructions and/or materials with the same or better technical characteristics than those of reinforced concrete may be presented, with due support, in the Engineering Project.

i) 500 kV equipment

The recommended equipment shall be for outdoor installation (AIS) and for a double bus configuration with switch and a half. Only for the expansion of the Nueva Huánuco substation shall GIS equipment be considered since the existing substation has the same technology.

The cells shall consist of at least the following equipment:

- a) Line connection cubicle: lightning arrester, capacitive voltage transformer (*), line disconnecting switch with grounding blade, current transformers, single-three-pole operating switch, busbar disconnecter, and wave trap.
 - b) Switchgear for connection to the autotransformer bank: lightning arresters, current transformers, single-pole operating switchgear (with switch synchronization device) and busbar disconnectors.
 - c) Switchgear for connection to the reactor bank: lightning arrester, single-pole operating switchgear (with synchronized switching device) and busbar disconnecter.
- (*) It shall be of the inductive type in the case of GIS substations.

j) 220 kV equipment

The required equipment shall be for outdoor installation (AIS) and for a double bus configuration with transfer switch.

The cells shall consist of at least the following equipment:

- Line connection cubicles: lightning arresters, capacitive voltage transformer, line disconnecting switch with grounding blades, current transformers, single-pole operation switch, busbar disconnecting switch and wave traps.
- Switchgear for connection to the transformer bank: lightning arresters, current transformers, single-pole operating switchgear with switch synchronization device and busbar disconnectors.

k) Protection and measurement

Requirements established in Chapter No. 2, Annex No. 1 of COES Technical Procedure PR-20 and the corresponding blueprint of the project shall be complied with.

Protection of the transmission system should be composed of a main, secondary and backup protection, in different physical units.

k1. Transmission Lines

The transmission line shall have the following protections:

- Main protection: it shall consist of a line differential relay (87L), which includes, among others, the functions of phase and ground distance, blocking against power oscillation, directional ground overcurrent, overvoltage, synchronism, reclosing, fault location, etc.
- Secondary protection: Same as the main protection, in a separate protection unit from the main one.
- Back-up protection: in a protection unit other than the main and secondary. It shall consist of a protection relay for phase overcurrent, phase and ground directional overcurrent, synchronism check functions, bay controller function, etc.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

The single-phase reclosure must be coordinated with the teleprotection system for the tripping of the circuit breakers located at both ends of the line.

Likewise, the protection system of the 500 kV transmission line shall have synchronized phasor measurement units (PMU). The scope of installation of the PMUs shall consider a Wide Area Monitoring Protection and Control (WAMPAC) scheme. Likewise, synchrophasor data concentrators (PDC) shall be installed in the new substations (Tocache and Celendín).

Note: Regarding the new line sections generated by the sectioning of line L-2192, the protection relays to be implemented in the 220 kV Celendín substation at the level shall maintain the same existing protection philosophy.

k2. Autotransformers

Autotransformers shall have the following protection as a minimum with the following protection:

- Main protection: consisting of a transformer differential protection relay (87T), phase and ground overcurrent, phase and ground distance, negative sequence overcurrent, etc.
- Secondary protection: Same as the main protection, in a separate protection unit from the main one.
- Backup protection: in a protection unit other than the main and secondary. It shall consist of a phase and ground overcurrent relay, zero sequence overvoltage, negative sequence overcurrent.

k3. Reactors

Reactors shall have the following protection as a minimum with the following protection:

- Main protection: consisting of a reactor differential protection relay (87R), restricted earth differential protection, overvoltage, under- and overfrequency protection, etc.
- Secondary protection: Same as the main protection, in a separate protection unit from the main one.
- Backup protection: in a protection unit other than the main and secondary. It shall consist of a ground overcurrent protection relay, associated to the neutral reactor.

k4. Busbar system

For both bus configurations, two bus differential relays will be implemented (one for each bus in separate protection units), of the non-centralized type, which must incorporate the breaker failure and overcurrent functions for the coupling.

l) Telecommunications

There must be a main telecommunications system (fiber optic - OPGW), plus a backup system (satellite, carrier wave or other considered by the CONCESSIONAIRE), the latter so that, in emergency situations, at least permanent voice and data communication between the substations and with the COES shall be possible.

m) Ancillary services

The auxiliary services system for new installations must consider the criteria established in Chapter No. 1, Annex No. 1 of COES Technical Procedure PR-20.

In the case of expansion of existing installations, the system to be used must be compatible with the existing one.

n) Control

The control and supervision system for new installations must comply with the minimum equipment requirements of the automation and control system established in Chapter No. 3, Annex No. 1 of COES Technical Procedure PR-20.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

The control of each cubicle or bay shall be carried out from bay control units (BCU), one for each high voltage cubicle, which shall be different from the units incorporated in the protection relays.

In the case of expansion of existing facilities, the UCBs of the line cells shall be integrated to the control and supervision system of the existing substations. For this purpose, the CONCESSIONAIRE shall install its own SCADA system to exchange information with the existing SCADA system in the substation.

o) Ground mesh

The grounding system of new installations must comply with the minimum requirements established in Chapter No. 1, Annex No. 1 of COES Technical Procedure PR-20. Likewise, all de-energized elements (equipment, metallic structures, support insulators, and others) shall be connected directly to the deep grounding grid by means of exothermic welding splices.

p) Civil works

p1. In general, the scope of the civil works includes the expansion works to be executed at the existing Nueva Huánuco and Trujillo Nueva substations (if applicable), as well as the new facilities at the Tocache and Celendín substations, such as earthworks, excavations, bases and foundations for equipment, porticos, concrete gutters, power cable ducts, drainage, construction of huts, carriageways, demolitions, perimeter fence of noble material (concrete or brick), among others, which includes the substation area plus the space for future expansions.

Transit areas inside the substations must be equipped or built with asphalt or similar.

Civil works shall be executed in compliance with the requirements of the National Building Regulations.

p2. Channels and ducts for power and control cables must be provided with metal supports or shelves that allow power, control, and communications cables to be classified in a separate and organized manner.

4. ADDITIONAL TECHNICAL SPECIFICATIONS

4.1. TRANSMISSION LINES

4.1.1. Bracket configuration

For the transmission line, the layout of the conductors shall be as shown in the following table:

Transmission Line	No. Circuit lines	Conductor per phase	Guard Cables	Supports	Conductor arrangement
500 kV Nueva Huánuco - Tocache Transmission Line	1	4	2	Lattice type	Horizontal or triangular
500 kV Tocache - Celendín Transmission Line	1	4	2	Lattice type	Horizontal or triangular
500 kV Celendín - Trujillo Nueva Transmission Line	1	4	2	Lattice type	Horizontal or triangular
220 kV Cajamarca Norte - Cálclil (L-2192) double circuit line Alternative Transmission Line, from the sectioning point to the new Celendín substation.	2	2 (*)	2	Lattice type	Vertical

(*) Similar to that considered in the design of the existing line (L-2192) Cajamarca Norte - Cálclil.

4.1.2. Transmission line structures

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

The structures shall be designed for the configurations indicated in Subsection No. 4.1.1, lattice type and self-supporting. The 500 kV structures shall have four conductors per phase and two (02) guard cables, one of the OPGW type and the other of the conventional EHS type.

4.1.3. Phase conductors

In the new 500 kV transmission lines, the CONCESSIONAIRE shall select the type of cable that guarantees compliance with the technical requirements established in Items 3 and 4 of this Annex. For this purpose, it may evaluate the types of ACAR cable, according to the transport capacity, the number of conductors per phase, the mechanical design loads, the length of the spans, and the climatic conditions of the different areas crossed by the lines, in such a way that the selected alternative constitutes the best final construction option. For the 220 kV Cajamarca Norte-Cáclic Transmission Line variant (L-2192), ACAR 750 MCM conductor (same as the existing one) shall be used.

4.1.4. Conventional type guard wire

The conventional type guard wire preliminarily foreseen for the 500 kV lines is of high resistance galvanized steel (EHS) with a minimum nominal section of 7/16" (11.11 mm diameter); however, it is up to the Concessionaire to select the most convenient type and section of wire, in such a way as to guarantee compliance with the technical requirements established for the line.

The conventional guard wire shall be capable of withstanding an estimated short-circuit to ground that guarantees a useful life of not less than 30 years of service. The Concessionaire shall support the calculation methodology.

4.1.5. OPGW guard wire

The OPGW cable shall be composed of optical fibers for telecommunications, contained in a central fiber optic protection unit, surrounded by one or more layers of concentrically stranded metallic cables.

The optical unit shall be designed to contain and protect the optical fibers from damage due to mechanical stress caused by traction, bending, torsion, compression, or moisture. The cable configuration shall be of the "loose" type and shall be sealed longitudinally against water ingress.

The cable must have the electrical and mechanical characteristics required for the design of transmission lines and must ensure that the optical fibers are not stressed during the life of the cable.

The OPGW guard wire shall be capable of withstanding an estimated short-circuit to ground that guarantees a service life of not less than 30 years of service. The CONCESSIONAIRE shall support the calculation methodology.

The CONCESSIONAIRE is responsible for determining the technical characteristics and final specifications of the OPGW cable, for which it must take into account standards such as IEEE 1138, ITU-T G.652, or equivalent, that guarantee a selection with the quality levels required for the SEIN.

4.1.6. Driver Accessories

Scope

These specifications establish the technical requirements for the supply of conductor accessories, such as arming rods, splice sleeves, repair sleeves and tools for their application, spacers, dampers, and others to be used with the selected conductor.

Standards

For the design, manufacture and transport of the accessories, the current versions of the following standards shall be used, but not limited to: CNE Current supply, ASTM A 36, ASTM A 153, ASTM B201, ASTM B230, ASTM B398, IEC 61284, UNE 207009:2002.

Technical Characteristics

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- a) Reinforcing rods: they shall be of aluminum alloy of helical shape and of the preformed type, to be easily mounted on the conductors. The dimensions of the reinforcing rods shall be appropriate for the conductor cross-sections selected.
Once assembled, the rods should provide a uniform protective coating, without gaps and with adequate pressure to prevent loosening due to aging.
- b) Splice sleeves: shall be of the compression type, of the appropriate material and diameter for the selected conductor. The minimum breaking load shall be 95% of that of the corresponding conductor.
- c) Repair sleeves: they shall be of the compression type or other repair system. They shall be used only in cases of slight damage to the outer layer of the conductor. The mechanical characteristics shall be similar to those of the splice sleeves.
- d) Dampers: should be of the stock bridge or spacer-damper type, depending on the conductor bundle configuration, to control wind vibration levels within the permitted safety limits, maintaining their mechanical and damping properties throughout the useful life of the line.

4.1.7. Isolators

In general, the type and material of the insulators shall be selected according to the characteristics of the areas crossed by the lines, considering the best practices and previous and recent experiences of transmission lines built in similar areas nationwide. In this sense, the CONCESSIONAIRE shall investigate those contaminating agents or potential sources of contamination existing in the areas where the line runs, which may affect the performance of the insulators. The insulation coordination studies involving insulators shall comply with IEC 60815-1 and IEC 60815-2 standards, particularly regarding contamination.

Based on the results of the investigation, should determine the measures to minimize the impact of contamination, such as: rethinking the line layout, increasing the leakage line, and using of rings to improve the performance of contaminated insulators in wet areas. The result of the investigation shall also allow the selection of the material and type of insulator to be used.

The insulators shall guarantee the required insulation level against atmospheric overvoltages, switching overvoltages and overvoltages at industrial frequency, for the same altitude conditions previously mentioned and the insulation levels c in section 3.2.6 of this annex.

In all cases, it must be verified that the mechanical resistance of the insulators is adequate, according to the working conditions to which they are subjected; evaluating, if necessary, the use of insulators with a higher breaking load.

4.1.8. Accessories for insulators

Scope

These specifications establish the requirements for the design and manufacture of insulator assembly accessories, both in suspension and anchorage, including adapters, shackles, suspension and anchorage clips, counterweights, arresters, etc.

Standards

For the design, manufacture and transport of the accessories, the current versions of the following standards shall be used, but not limited to: CNE Supply 2011, ASTM B6, ASTM A153, ASTM B201, ASTM B230.

4.1.9. Grounding

Grounding conductors and electrodes (rods) shall be made of copper and/or copper clad steel. The connectors to be used shall be appropriate for the materials indicated.

The grounding shall be designed not to exceed the maximum value of grounding resistance, established in this annex, Letter d) Subsection No. 3.2.6, as well as to withstand the applicable short-circuit ground current.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

4.2. SUBSTATIONS

In general, the equipment specifications indicated in this section shall be respected, and any modification or change proposed by the CONCESSIONAIRE, or the substation concession holders shall be previously reviewed and approved by the GRANTOR.

The specifications of the yard equipment shall comply with the voltage and current levels indicated in Section **c) Voltage and Isolation Levels** and **d) Current Levels** of Section 3.3.5 of this Annex.

- a) They shall comply with the minimum design criteria established in Chapter No. 1, Annex No. 1 of COES Technical Procedure PR-20.
- b) The IEC standards that apply for each equipment and/or those that comply with them shall be applied.
- c) Control cabinets and boxes shall have an IP-54 degree of protection.
- d) All metallic parts shall be hot-dip galvanized according to ASTM or VDE Standards, and the windings shall be of insulated copper.

e) Switches

The switches to be used shall be of the live tank type and shall be supplied with earthquake dampers, if required.

The switches shall have the following complementary characteristics:

Description	500 kV	220 kV
Short circuit duration	1"	1"
Total opening time	2 cycles	3 cycles
Sequence of operation:		
a) Autotransformer and reactor operation	CO-15"-CO	CO-15"-CO
b) Line maneuvering	O-0.3"-CO-3'-CO	O-0.3"-CO-3'-CO
Type	Exterior	Exterior

f) Disconnectors

Disconnectors shall be of the pantograph, semipantograph, or conventional three-column side-opening type (with central rotating column), DC motorized, with local and remote control.

Disconnectors shall be capable of opening and closing circuits with residual currents under voltage. The main and earthing disconnector blades shall have a mechanism to prevent the closing of one blade when the other is in the closed position.

For all disconnectors and earthing blades, there shall be an electric lock that shall be necessary to release to perform the manual operation of opening or closing. For line disconnectors, there shall be a local control lock, both manually and electrically operated.

An automatic mechanical interlock shall be provided to prevent any untimely movement of the disconnect in its extreme open or closed positions.

g) Current Transformers

The current transformers shall be single-phase, secondary ratio, outdoor, vertically mounted, of the oil bath or SF6 gas insulated type, and hermetically sealed.

They shall be able to carry the rated primary current for one minute, with the secondary circuit open.

The core shall be toroidal and shall consist of magnetic steel sheets with very low specific losses and the windings shall be of insulated copper.

For transformers working in association with disconnectors, high-frequency currents and voltages transferable to secondary and ground circuits during switching of adjacent live disconnectors must be taken into account. The constructive design of the manufacturer shall be such as to prevent:

“Decade of Equal Opportunities for Women and Men”.
“Year of Strengthening National Sovereignty”.
“Bicentennial Year of the Congress of the Republic of Peru”.

- g1) The high current density at certain points of the equipment may cause localized overheating.
g2) Internal overvoltages of very short duration that cause dielectric breakdown of liquid and solid insulators.

The current transformers shall have the following complementary characteristics:

Description	500 kV	220 kV
Continuous service current	2500-1250-625 A	2500-1250-625 A
Secondary current	1 A	1 A
Short-circuit thermal current	40 kA	40 kA
Characteristics of measuring cores		
a) Accuracy class	0,2 %	0,2 %
b) Power	5 VA (minimum)	15 VA (minimum)
Characteristics of protection cores		
a) Accuracy class	5P20	5P20
b) Power	15 VA (minimum)	15 VA (minimum)

For 220 and 500 kV levels, capacitive type transformers shall be provided according to their application. In the case of GIS equipment, the use of inductive type voltage transformers shall be evaluated.

It should be taken into account that transformers should not produce ferro-resonance effects associated with overhead line capacities.

Voltage transformers shall have the following main characteristics:

Description	500 kV	220 kV
Type of installation	Exterior	Exterior
Secondary voltage	110/ $\sqrt{3}$ V	110/ $\sqrt{3}$ V
Characteristics of measuring cores		
a) Accuracy class	0,2 %	0,2 %
b) Power	15 VA (minimum)	15 VA (minimum)
Characteristics of protection cores		
a) Accuracy class	3P	3P
b) Power	10VA (minimum)	15VA (minimum)

h) Autotransformers and Reactors

The autotransformers and reactors shall be of the oil immersed type for outdoor installation, cooled by natural oil and air circulation (ONAN) and forced ventilation (ONAF) with the following characteristics:

Autotransformers

Description	SE Celendín 500 / 220 kV
Primary winding voltage	500 / $\sqrt{3}$ kV
Secondary winding voltage	220 / $\sqrt{3}$ kV
Tertiary winding voltage	33 kV
Type	Single-phase autotransformer
Rated power per single-phase unit	250 MVA
Nominal power of the three-phase bank	750 MVA Plus a single-phase standby unit
Cooling	ONAF
Neutral connection	Solid to ground
Accessories	Bushing type current transformers

Reactors

Description	Huánuco-Tocache-Celendín-Trujillo T. L.
Primary winding voltage	500 / $\sqrt{3}$ kV
Type	Single-phase
Rated power per single-phase unit	According to the value of the bank

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Nominal power of the three-phase bank	Between 87 and 150 MVar (**) Plus a reserve unit
Cooling	ONAN
Neutral connection	Direct to ground
Accessories	<i>Bushing</i> type current transformers

(**) The sizing, as well as the basic specifications of the reactive compensation equipment shall be defined by the Concessionaire and approved by COES-SINAC in the Pre-operational Study.

i) Automatic Serial Compensation Equipment (EACS)

The EACS must be designed to compensate, in a continuous capacitive region, the series reactance of the 500 kV Tocache - Huánuco and Tocache - Celendín transmission lines. This equipment shall be installed at the Tocache substation. However, they should be able to operate in all the region that their capacity allows, depending on the technology to be considered.

The CONCESSIONAIRE shall prepare the electrical studies of steady state operation, permanent and transient stability, as well as electromagnetic transients, to demonstrate that the proposed EACS complies with all functionality characteristics mentioned and has a positive impact on the SEIN.

j1. EACS capacity

The EACS must operate under the following service conditions:

- a) Tension levels
 - Rated voltage 500 kV
 - Maximum operating voltage 550 kV
- b) Frequency range
 - Nominal frequency 60.0 Hz
 - Sustained variations ± 1.0 Hz
 - Sudden variations ± 3.0 Hz.
- c) Rated current
 - Normal operation 1620 A
 - Contingency (for 4 hours): +20%
- d) Short-circuit current 40 kA (1 second)

The EACS must have the capacity to withstand the maximum short-circuit currents foreseen in the 500 kV bus of the 500 kV Tocache substation with a 30-year horizon.

j2. EACS configuration

The EACS must be continuously adjustable, without mechanical switching (by means of a switch), allowing to regulate in a capacitive reactance region, between 0% (or a value close to 0%) and 50% of the reactances of the 500 kV Tocache - Huánuco and Tocache - Celendín lines. However, the EACS must be able to operate in all the range that its capacity allows, depending on the technology to be considered.

The EACS must have the capacity to operate with overvoltages with the same tolerances of the transmission line to which it shall be connected.

j3. Control System

The EACS control strategy should be based on the automatic and continuous regulation of the compensation of the series reactance per phase of the line based, as a minimum, on the power flow control in the trunk lines. In case of single-phase faults, the protection system shall by-pass the faulted phase.

The EACS electronics shall be connected to its control system via fiber optics.

j4. Harmonic control

The EACS equipment must be designed so as not to inject harmonics into the SEIN according to the limits established by the Technical Standard for the Quality of Electrical

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Services (NTCSE) and not to deteriorate the levels before the EACS connection of the Total Distortion Factor of Voltage Harmonics (THD) nor the individual harmonic voltages.

To verify compliance with this requirement, the Concessionaire shall perform harmonic measurements at the 500 kV busbar of the 500 kV Tocache substation, before and after the connection and commissioning of the EACS.

j5. Subsynchronous Resonance Phenomenon

The design of the EACS must be neutral to the phenomenon of Subsynchronous Resonance (RSS), that is, the equipment must not induce or excite this phenomenon in the subsynchronous frequency range (5 Hz to 50 Hz), therefore, it must not impair the steady state torsional stability or produce high transient shaft torques in the event of disturbances in the generation units connected to the 500 kV and 220 kV grids.

The Concessionaire shall demonstrate through electrical studies that the proposed EACS is neutral to the SSR phenomenon.

j6. Control functions

The EACS equipment control system shall have, as a minimum, the following functions:

- Power flow control with remote manual or automatic activation modes.
- Control of inter-area or local power oscillations (POD - Power Oscillation Damping).
- Fast control of reactive compensation series with manual remote or automatic activation modes.

j) Lightning Arrester

k1. Scope

These specifications cover the scope of the minimum characteristics required for the design, manufacture, and testing of surge arresters at all voltage levels, including the auxiliary elements necessary for their correct assembly and operation.

k2. Standards

The current versions of the following standards shall be used for the design, manufacture, and transportation of lightning arresters, but are not limited to: NEC Supply, IEC 60099, IEC 60099-4, ANSI C.62.11.

k3. Constructive characteristics

In general, zinc oxide (ZnO) arresters shall be supplied for outdoor installation, minimum class 4 for 220 kV and minimum class 5 for 500 kV.

They shall be suitable for the protection of equipment against atmospheric overvoltages and switching overvoltages. The permanent current shall return to a constant, non-increasing value after dissipation of the transient produced by a discharge.

The arresters shall be suitable for solidly grounded neutral systems, and the residual voltage of the impulse currents should be as low as possible.

There shall be no corona discharges. Sharp points at terminals or ends shall be adequately shielded using anti-corona rings to comply with radio interference and corona requirements.

The material of the resistive unit shall be zinc oxide, and each arrester may consist of one or several units, each one being an arrester in itself. They shall be provided with discharge counters.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

5. FACILITIES MAINTENANCE

The CONCESSIONAIRE shall schedule periodic inspection and cleaning activities of the conductors and insulators of the line, in order to control the accumulation of contamination and guarantee adequate levels of transverse losses (due to corona effect and leakage currents), as well as the radio interference effect.

From the first year of Commercial Start-up of the Project, the CONCESSIONAIRE shall carry out the following activities:

- a) Periodic visual inspections.
- b) Contamination sampling.
- c) Conductor cleaning.
- d) Cleaning of insulators

Before concluding the first year of Commercial Start-up, the Company shall submit to OSINERGMIN, the detailed and specific procedures, as well as the inspection and cleaning programs.

The CONCESSIONAIRE shall define the methodology for this activity based on experiences in countries with 500 kV lines.

5.1. PERIODIC VISUAL INSPECTIONS

The CONCESSIONAIRE shall carry out visual inspections in order to identify the sections of line with high levels of surface contamination of conductors and insulators.

The inspections cover the entire length of the line and shall be carried out at least once a year. OSINERGMIN has the power to witness the inspections and request repetition, if necessary, in order to verify the level of contamination reported.

The contamination levels of conductors and insulators shall be qualified as Low, Medium and High, applying the criteria indicated in Table N° 1.







The procedure for visual inspections is as follows:

- a) The inspections shall be carried out by technicians specialized in transmission lines, equipped with safety equipment, binoculars and digital camera with date stamp.
- b) Inspections shall be carried out only during the day, with the presence of sunlight, absence of rain, low humidity and no strong wind.
- c) The technician in charge of the inspection shall be located on the ground at a distance of 30 to 50 meters from the line axis; using binoculars he shall observe the accumulation of contamination on the surface of the conductors and insulators of the three phases of the span. If necessary, he shall carry out the inspection with scaling to the structure of the line.
- d) Special attention should be paid to the installation points of the spacers and shock absorbers, in order to verify the condition of the conductors at the attachment points.
- e) Using the criteria indicated in Table N° 1, the technician shall qualify and record in the inspection logbook the level of contamination of conductors and insulators.
- f) If the contamination level corresponds to Medium or High levels, the technician shall take a photographic record.
- g) The steps indicated in Subsections c) to f) shall be repeated for each of the other spans of the inspected line, until 100% of the sections to be inspected are completed.

The CONCESSIONAIRE shall verify the contamination level rating reports and group the sections by contamination level. In case there are observations to the qualification, it shall reassign the correct qualification by means of photography or, if applicable, a new field inspection shall be carried out.

“Decade of Equal Opportunities for Women and Men”.
 “Year of Strengthening National Sovereignty”.
 “Bicentennial Year of the Congress of the Republic of Peru”.

Table N° 1: Criteria to qualify Contamination Levels

Level	Visual Appearance		Description
Low			Minimal contamination, no accumulation spikes.
Medium			Visible Contamination with presence of small accumulation spikes along the conductor.
High			Visible contamination with presence of large accumulation spikes.

Visual inspection reports shall be submitted to OSINERGMIN.

5.2. CONTAMINATION SAMPLING

Based on the results of the visual inspections, the CONCESSIONAIRE shall prepare a program to verify the level of contamination by taking samples for all those sections classified as Medium or High level, or in those sections in which the visual inspection has not been decisive.

The sampling work shall be carried out with the lines de-energized; therefore, the CONCESSIONAIRE shall coordinate with the COES the schedule for taking the lines out of service, preferably coinciding with the scheduled maintenance outage periods.

The sampling procedure shall be as follows:

- Sampling is performed with the transmission line out of service, with the presence of sunlight, absence of rain, low humidity and no strong wind.
- Samples are taken in portions of 60 to 100 m of conductor, from one of the three phases of the selected section.
- The conductor cleaning equipment is used to collect the contamination on the surface of the conductor.
- The contamination collected is weighed on a precision balance expressed in milligrams.
- The contamination level (NC) in mg/cm² is determined by applying the formula:

$$NC = \text{Contamination weight [mg]} / \text{Conductor surface [cm}^2\text{]}.$$

Where:

the surface area of the conductor is $2\pi r L$,
 r is the radius of the conductor in cm and
 L is the length of the portion of the conductor where the sample was taken, in cm.

- For the insulators, the sample shall be taken from one of the hoods, the one with the highest visual contamination. The contamination level (NC) is determined in mg/cm², applying the formula:

$$NC = \text{Contamination weight [mg]} / \text{Outer surface of the hood [cm}^2\text{]}.$$

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- g) The NC value is compared with the values in Table No. 2 and the level of contamination in the drivers is determined.

Table No. 2: Contamination Levels

Contamination level	Weight (mg / cm ²)
Low	5 - 20
Medium	20 - 45
High	> 45

- h) The steps indicated in Letters c) to g) are repeated for the other sections of the line that require sampling.

The sampling reports shall be sent to OSINERGMIN.

At OSINERGMIN's request and by mutual agreement with the CONCESSIONAIRE, the Pollution Level values established in Tables No. 1 and No. 2 may be revised.

5.3. CONDUCTOR CLEANING

The cleaning of conductors shall be carried out in all the sections classified with Medium and High level of contamination. The cleaning work shall be carried out coinciding with the decommissioning of the transmission line, in accordance with the intervention program approved by the COES at the CONCESSIONAIRE's request.

The procedure for cleaning the conductors is as follows:

- The cleaning of conductors shall be carried out in the scheduled sections, with the transmission line out of service, in the presence of sunlight, absence of rain, low humidity and no strong wind.
- The cleaning of conductors shall be carried out by technicians specialized in transmission lines, equipped with safety implements, conductor cleaning equipment, specialized maneuvering equipment and must comply with the established safety standards.

Conductor cleaning reports shall be sent to OSINERGMIN.

5.4. CLEANING OF INSULATORS

It shall be scheduled to take place simultaneously with the cleaning of conductors.

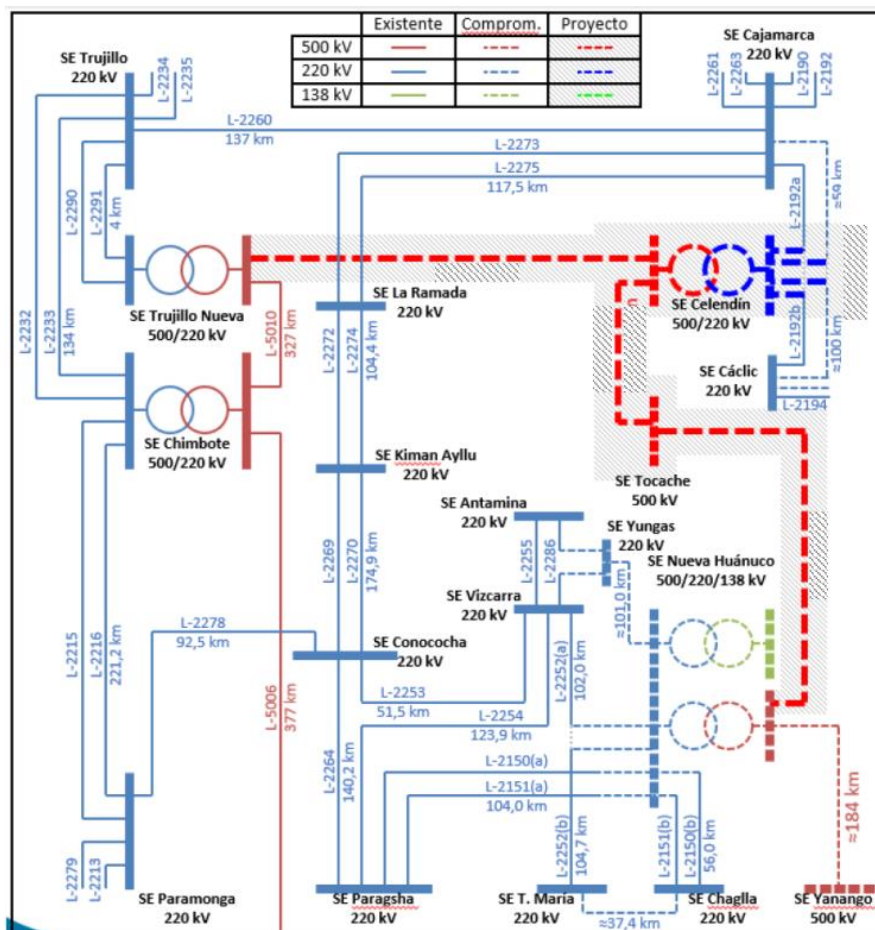
In general, the same procedure shall be followed as indicated for the cleaning of the conductors. The CONCESSIONAIRE may, if deemed convenient, carry out the hot cleaning tasks.

The CONCESSIONAIRE shall prepare the procedures and protocols for verifying the level of cleanliness of the insulators and the reference levels. The insulator cleaning reports shall be submitted to OSINERGMIN, which may verify them in the field.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

SCHEME N° 1

GENERAL CONFIGURATION OF THE PROJECT



Note: S.E. Designation 500/220/138 kV Nueva Huánuco corresponds to 500/220/138 S.S. kV Yaros according to COES registry.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No. 2

PROJECT COMMISSIONING TEST EXECUTION PROCEDURE "500 kV Huánuco-Tocache-Celendín-Trujillo Link, Extensions and Associated Substations".

1. **Purpose of the Annex.** - This annex describes the procedure to be followed by the Parties and the Inspector, to carry out before the start of the Experimental Operation, the Commissioning Tests of the Project. For this purpose, the requirements of the COES Technical Procedure PR-20, contained, among others, in the following sections, shall be complied with:
 - Subsection No. 11. Procedure for the Conformity of Integration of Facilities to the SEIN.
 - Annex No. 4. Requirements for the Integration of Facilities to the SEIN.
2. **Organization of the tests.** - The tests shall be organized according to the following rules:
 - a) The units of the international metric system shall be used.
 - b) The CONCESSIONAIRE shall communicate to the GRANTOR, the Inspector, the OSINERGMIN, and the COES, thirty (30) calendar days prior to the start of the tests, that it is ready to carry out the Commissioning Tests referred to in this Annex. Said communication shall indicate the date(s), time(s) and place(s) of the tests to be performed.
 - c) Together with the communication referred to in Letter b), the CONCESSIONAIRE shall deliver:
 - i. The general program and protocols to be followed, for consideration and approval by the inspector.
 - ii. The operability study approved by the COES for the incorporation of the Project to the SEIN, which must contain what is specified in the COES Technical Procedure PR-20.
 - iii. The COES connection authorization to carry out the tests, as specified in its Technical Procedure COES PR-20 (or the one that replaces it) indicating the dates and times of execution.
 - iv. All test-relevant designs, related data, documents, and specifications, as well as certificates and reports on operating conditions, for consideration by the inspector.
 - d) The CONCESSIONAIRE shall designate and deploy the Test Manager and the necessary support personnel, supplying all the equipment and instruments, duly calibrated for the execution of the tests. The inspector shall assign the personnel indicated in its inspection service contract. This is without prejudice that the Parties may assign their own personnel to observe the development of the tests.
 - e) Personnel from the equipment manufacturers may participate as observers or as test support personnel.
3. **Execution of the tests.** - The execution of the tests shall be subject to the following rules:
 - a) The Test Manager shall conduct and supervise the tests and report on the test conditions. He shall also be responsible for all measurements, the computation of the results and the preparation of the final report. His decision shall be decisive in the event of any question concerning the test or its execution.

The tests shall be carried out in accordance with COES procedures and instructions.

Testing of the fiber optic system shall follow the technical specifications set forth in Annex No. 5, Telecommunications, of this contract.

The Test Manager must be a registered electrical engineer or electrical mechanic. He/she should have extensive experience as Test Manager and/or Commissioning Manager for power transmission projects.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- b) The CONCESSIONAIRE shall provide all reasonable facilities to the Inspector to obtain actual, complete, and acceptable data regarding all parts of the equipment related to the transmission of electrical energy of the Project. Likewise, the Inspector shall have physical access to all components related to the electromechanical equipment of the Project.
- c) The main constituent components of the Project shall be subject to inspection, at the request of the Inspector, prior to the commencement of testing.
- d) At the end of each test and if it is found to be within the acceptance levels, the corresponding test report shall be issued, concluding it. Each record shall contain: i) the list of the personnel of the Parties, the representatives of OSINERGMIN, and the Inspector who participated in the tests, ii) the protocol of the tests carried out indicating the results obtained, iii) the list of tests not carried out with the corresponding disclaimer; and iv) other information that the CONCESSIONAIRE, OSINERGMIN and/or the Inspector consider pertinent.
- e) In the event that the Inspector and/or OSINERGMIN consider that the result is not satisfactory, as established in the test reports, the CONCESSIONAIRE (Chief Tester) shall proceed to make the corresponding correction. The new test shall only be carried out on the point or points that were not satisfactory.

The GRANTOR and/or OSINERGMIN may not request new tests or inspections nor observe or reject their results in case their representatives have not attended such tests or inspections.
- f) Once the tests have been completed, the Test Manager shall deliver to the CONCESSIONAIRE the corresponding minutes duly approved by the inspector. The CONCESSIONAIRE in turn shall send the referred minutes to OSINERGMIN, the GRANTOR and COES, adding to the latter the information indicated in the Technical Procedure COES PR-20, for the integration of the Project to the SEIN. Once the COES has approved the integration of the Project's facilities to the SEIN, the Experimental Operation may begin.
- g) Additionally, the CONCESSIONAIRE (Test Manager) shall prepare and submit a final report presenting the results obtained, with due support, to the Inspector, OSINERGMIN and the GRANTOR. The Inspector shall approve the final report in a maximum term of ten (10) calendar days after the delivery of such document. The Project Commissioning Test Execution Procedure referred to in this Annex shall be complied with when the OSINERGMIN approves said final report within a maximum term of ten (10) calendar days as of its delivery by the Inspector; otherwise it shall be deemed approved. In case the OSINERGMIN makes observations to the final report, the following procedure shall be followed:
 - i. If, according to the evaluation carried out by OSINERGMIN, the observations are of a remediable nature (minor), the CONCESSIONAIRE shall lift them within the term defined by OSINERGMIN and the Experimental Operation may continue.
 - ii. If, according to the evaluation made by OSINERGMIN, the observations are not remediable (major, i.e., they affect the safety conditions of the facilities and public safety), they must be lifted before the start of the Experimental Operation. In this situation, the term for approval of the final report shall be suspended from the communication of the observations by OSINERGMIN until they are lifted by the CONCESSIONAIRE.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No. 3

DEFINITIONS

1. Permitted Creditors:

The concept of Permitted Creditors is only applicable for the cases of Permitted Secured Indebtedness. The Permitted Creditors must have the authorization of PROINVERSIÓN to accredit such condition by previously submitting Annex No. 12-A of this Contract, in the case of credit contracts. For such purposes, Permitted Creditor may be:

- a) any multilateral lending institution of which the State of the Republic of Peru is a member, or any fund or patrimony administered by any of these;
- b) any institution, export credit agency (Export Credit Agency), or any governmental institution or agency of any country with which the State of the Republic of Peru maintains diplomatic relations or any fund or patrimony administered by any of these;
- c) any international financial institution designated as a First Category Bank in the circular issued by the Peruvian Central Reserve Bank, in effect at the date of the Permitted Creditor's rating. Any modification or substitution of such circular does not affect the rating previously granted;
- d) any other international financial institution that has a risk rating no lower than the investment grade rating assigned by an international risk rating agency that rates the Republic of Peru;
- e) any domestic financial institution with a local risk rating of no less than ("A"), evaluated by a domestic risk rating company, duly authorized by the Superintendencia del Mercado de Valores (SMV);
- f) all institutional investors so considered by the legal regulations in force (such as Pension Fund Administrators - AFP, or insurance companies), that directly or indirectly acquire any type of transferable security issued by i) the CONCESSIONAIRE, ii) the trustee or securitization company or special purpose company incorporated in Peru or abroad that acquire rights and/or assets derived from the Contract;
- g) any trust patrimony, investment fund or securitization company or special purpose company incorporated in Peru or abroad representing or acquiring, directly or indirectly, rights and/or assets derived from the Contract

It is expressly established that under no circumstances shall the shareholders or partners of the CONCESSIONAIRE be allowed to be direct or indirect Permitted Creditors.

In the cases of Letters a) to e), in order to be considered a Permitted Creditor, it must have such condition as of the date of execution of its respective financing agreement.

In the event that the Permitted Secured Indebtedness is structured through credits, mutual, or money loans of any kind, syndicated or not, the Permitted Creditors may be represented by an Administrative Agent or Collateral Agent, which must be any of the subjects indicated in Letters a) through e). For such purposes, the following is considered:

- Administrative Agent, whose function shall be to manage and monitor compliance with the obligations and commitments established in the Permitted Secured Indebtedness agreement, as well as to represent the Permitted Creditors.
- Guaranty Agent, in favor of whom the guarantees are granted for the benefit of the Permitted Creditors and whose function shall be to administer the guarantee contracts that the CONCESSIONAIRE has granted in support of the Permitted Secured Indebtedness, to execute the guarantees by order and on behalf of the Permitted Creditors and to recover the amounts of the execution to be distributed among the Permitted Creditors.

It should be noted that the qualification of the Administrative Agent or Collateral Agent is of an administrative nature to exercise the rights on behalf of the Permitted Creditors.

In the event that after the authorization of a Permitted Secured Indebtedness of syndicated or bilateral credits, a Permitted Creditor wishes to assign its credit to a third party, either totally or partially in such Permitted Secured Indebtedness, in order for such third party to be considered a Permitted Creditor, it must first be qualified as a Permitted Creditor by the Grantor, and for such purpose, it must submit the declaration contained in Annex No. 12-A of this Contract.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

In the event that the Permitted Secured Indebtedness is structured through the issuance of marketable securities, the Permitted Creditors must be represented by the bondholders' representative or its equivalent (as established in Article No. 87 of the Sole Ordered Text of the Securities Market Law approved by Supreme Decree No. 093-2002-EF and Article No. 325 of Law No. 26887, General Law of Corporations). It should be noted that the qualification of the bondholders' representatives is of an administrative nature and does not confer to the bondholders' representatives the qualification of Permitted Creditors.

Permitted Creditors shall in no case be (ineligibility regime):

- (i) any entity, fund or individual, with economic ties to the CONCESSIONAIRE, in accordance with the provisions of Resolution SMV No. 019-2015-SMV/01, or rule that replaces it.
- (ii) any entity, fund or individual, declared ineligible by the Inter-American Development Bank or on the list of parties sanctioned by the World Bank or any other multilateral organization with which the Peruvian State has entered into credit agreements.
- (iii) any individual convicted by the competent authority by means of a final and unappealable judgment, or entity that has been sanctioned with criminal or administrative liability, for the commission of corruption offenses (related to bids, public works, Public Private Partnerships and Projects in Assets), money laundering or terrorism to the detriment of the Peruvian State, committed in Peru or abroad.
- (iv) any entity or fund through its attorneys-in-fact, legal representatives, directors, officers and/or employees, or individual, who had recognized before a competent authority the commission of corruption crimes (related to bids, public works, Public Private Partnerships and Asset Projects), money laundering or terrorism to the detriment of the Peruvian State, committed in Peru or abroad, provided that such recognition had been officially informed by such authority to the Peruvian State or to the GRANTOR.

In the case of the financing operations indicated in paragraphs a) to e) above, if one or more Permitted Creditors due to information that is notorious and/or public knowledge, is included in any of the cases of ineligibility indicated in the preceding paragraph, and this affects the availability of financial resources associated to such Permitted Creditor in such a way that there is a risk that the CONCESSIONAIRE may not be able to comply with the execution of the project, the CONCESSIONAIRE shall, within one hundred and twenty (120) Days after having been notified by the GRANTOR of such situation: (aa) deliver evidence to the GRANTOR of the substitution of the Permitted Creditor for another that meets the requirements established in accordance with the provisions of the Concession Contract; (bb) evidence to the GRANTOR that it has the necessary resources for the completion of the execution of the project, in which case the CONCESSIONAIRE may submit a resolution of its General Shareholders' Meeting committing to make the corresponding capital increases to substitute the current schedule of disbursements of the creditor that has lost the status of Permitted Creditor; (cc) submit to the GRANTOR a new loan agreement entered into with a new Permitted Creditor, a third party or an entity related to the CONCESSIONAIRE; (dd) submit to the GRANTOR documents evidencing the extension of any of the financing agreements in force that allow the completion of the execution of the project, as the case may be; or in any case, (ee) accredit to the GRANTOR that it has the necessary resources through the combination of two (2) or more of the accreditations or methods previously mentioned; otherwise, after the one hundred and twenty (120) days previously mentioned, a penalty of US\$ 5,000.00 shall be applied.00 for each day of delay .

2. Relevant Governmental Authority:

It is the national, regional, departmental, provincial or district body or institution, or any of its dependencies or agencies, regulatory or administrative, or any public entity or organism of Peru that according to law exercises executive, legislative or judicial powers, or that belongs to any of the above mentioned governments, authorities or institutions, with competence over the persons or matters in question.

3. Rate Base:

It is the one indicated in Clause No. 8.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

4. Concession Assets:

These are the real and personal property comprising land, buildings, equipment, accessories, concessions (including the Definitive Electric Transmission Concession), licenses, easements to be constituted in accordance with the Applicable Laws and Provisions, and in general all works, equipment, vehicles, stock of spare parts, tools, facilities, plans, studies, software, databases, manuals and technical information, provided or acquired by the CONCESSIONAIRE for the adequate construction and operation of the Project and provision of the Service, under the terms of this Contract and for the fulfillment of the purpose of the Concession. It includes the Reinforcements, if executed by the CONCESSIONAIRE in accordance with the Applicable Laws and Provisions.

5. Assets of the CONCESSIONAIRE:

These are all the assets owned by the CONCESSIONAIRE that do not qualify as Concession Assets and are of its free disposition.

6. Financial Closing:

It is the act by which the CONCESSIONAIRE accredits to the GRANTOR that it has the financial resources for the execution of the works until obtaining the Commercial Start-up, according to the provisions of Clause No. 9.

7. COES:

It is the Economic Operation Committee of the National Interconnected Electric System.

8. GRANTOR:

It is the State of the Republic of Peru, represented by the Ministry of Energy and Mines.

9. Concession:

It is the legal relationship of Public Law that is established between the GRANTOR and the CONCESSIONAIRE as from the Closing Date, by means of which the GRANTOR grants the CONCESSIONAIRE the right to the economic exploitation of the Project, during its term, in accordance with the terms of the Contract and the Applicable Laws and Provisions.

10. CONCESSIONAIRE:

It is the pre-existing legal entity or a new one constituted by the Awardee under the Applicable Laws and Provisions that subscribes the Contract with the GRANTOR. In any of the cases, the corporate purpose of the CONCESSIONAIRE shall be to develop electricity transmission activities and in which the Qualified Operator is the holder of the Minimum Interest.

11. Contract:

It is the present document, concession contract, including the Annexes and any other document that is integrated to it, through which the obligations and rights between the GRANTOR and the CONCESSIONAIRE are governed during the term of the Concession to develop the Project.

12. Contract of Security and Guarantees:

It is the contract referred to in Article No. 25 of Legislative Decree No. 1362, whereby the guarantee of the State of the Republic of Peru is granted in support of the representations, obligations and securities of the GRANTOR stipulated in the Contract.

13. Total Service Cost:

It is the sum of the annual operation and maintenance cost plus the annuity of the investment cost of the Project calculated with the Recovery Period and the Restatement Rate defined in Clause No. 8.1, Letters d) and e).

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

14. Schedule:

It is the works execution schedule of the Project, including the milestones detailed in Annex No. 7, which shall be prepared and submitted by the CONCESSIONAIRE in accordance with the provisions of Clause No. 4.8.

15. Total Destruction:

It is that situation, not attributable to any of the Parties, produced by any fortuitous event or force majeure that causes damage to the Project, estimated in the greater of:

- a) Thirty percent (30%) of their replacement value as new, or
- b) The probable maximum loss (PMP) referred to in Clause No. 7.2 (b).

16. Days:

Business days that are not Saturdays, Sundays, or holidays, including those that are not working days for:

- a) Public Administration at the national level, and/or;
- b) Those territorial districts where, by law, it has been declared as such in the Region or Regions where the Project is being developed.

All time references should be understood to be made to Peruvian time.

17. Dollar or US\$:

It is the currency, unit, or monetary sign of legal tender in the United States of America.

18. Financial Entity:

These are the banking and insurance companies defined in accordance with Law No. 26702, General Law of the Financial System and the Insurance System and Organic Law of the Superintendency of Banking and Insurance, listed in Annex No. 5 of the Bidding Conditions.

19. Supervising Company:

This is the legal entity hired by the CONCESSIONAIRE to supervise the Project, with prior approval from OSINERGMIN, the cost of which is assumed by the CONCESSIONAIRE, specialized in the supervision of transmission lines and substations with voltages of 220 kV or higher, which must not be a company related to the CONCESSIONAIRE.

The Supervising Company shall be in charge of carrying out the supervision tasks related to the preparation of the engineering project and the execution of the Project's works.

20. Permitted Secured Indebtedness:

Consists of the indebtedness by way of financing or credit operations, issuance of securities or debt instruments and/or money loans granted by any Permitted Creditor under any modality, the funds of which shall be destined to the fulfillment of the object of the Agreement. Permitted Secured Indebtedness includes any renewal, rescheduling or refinancing of such indebtedness, as provided in Clause No. 9.

21. State or Peruvian State:

It is the State of the Republic of Peru.

22. Pre-Operational Study (EPO):

It is the study referred to in the COES Technical Procedure PR-20 or standard that modifies or replaces it.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

23. Essential Facilities:

Those Concession Assets whose use is indispensable for the rendering of the Service and allows the rendering of electric power transmission and distribution services by third parties, in accordance with the Applicable Laws and Provisions.

24. Closing Date:

This is the day on which the Contract is executed upon compliance with all the conditions and declarations set forth in the Bidding Terms and Conditions and in the Contract.

25. Guarantee of Faithful Fulfillment of the Contract:

It is the letter of guarantee issued in favor of the GRANTOR by a Financial Entity with the characteristics of being joint and several, unconditional, irrevocable, without benefit of excusion or division and of automatic execution that guarantees the fulfillment of the obligations of the CONCESSIONAIRE provided for in this Contract.

The Performance Guarantee may be constituted by more than one letter of guarantee, provided that all of them add up to the total amount required for the corresponding guarantee.

- **Construction Performance Guarantee:**

This is the Contract Performance Guarantee issued up to the amount of US\$ 40,000,000.00 (Forty million United States Dollars) in accordance with the format of Annex No. 4, which guarantees those obligations foreseen within the term established in Clause No. 12.1 (b), including the payment of penalties under the Contract and the payment of the amounts ordered by final judgment or enforceable arbitration award derived from the execution of the Contract.

- **Guarantee of Faithful Fulfillment of Operation:**

This is the Contract Performance Guarantee issued up to the amount of US\$ 3,000,000.00 (Three million United States Dollars) in accordance with the format of Annex No. 4, which guarantees those obligations foreseen in the term established in Clause No. 12.1, Paragraph d), including the payment of the Contract penalties and the payment of the amounts ordered by a final and binding judgment or enforceable arbitration award derived from the execution of the Contract.

26. Pre-operating expenses:

These are those expenses incurred by the CONCESSIONAIRE from the Closing Date until before the Commercial Start-up and that shall be recognized by the GRANTOR in case of termination of the Contract upon presentation of supporting documentation duly audited by an independent specialized company. Likewise, these expenses shall be those related to the execution of the Project, among which are: payment of reimbursement of expenses of the private investment promotion process, payment to FONCEPRI, interests during construction, costs of contracting the Faithful Fulfillment Guarantee, cost of contracting insurance, among others.

In no case shall the Pre-operating Expenses include those expenses that have already been incorporated in the Concession Assets and, therefore, shall not include those expenses that are already part of the Book Value.

In the event of termination of the contract due to breach by the CONCESSIONAIRE or in application of the anti-corruption clause, the expenses of the private investment promotion process and the payment to FONCEPRI shall not be considered. Likewise, in the event of termination of the contract due to force majeure or fortuitous event, only half of the expenses of the private investment promotion process and the payment to FONCEPRI shall be considered.

27. Inspector:

It is the legal entity that represents the GRANTOR as established in the Contract.

28. Concessions Law or LCE:

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

It is Decree Law No. 25844, Law on Electricity Concessions, and its amendments.

29. Applicable Laws and Provisions:

It is the set of legal provisions that directly or indirectly regulate the Contract, including the Political Constitution of Peru, the laws, the norms with the rank of law, the supreme decrees, the regulations, directives and resolutions, as well as any other that according to the legal system of the Republic of Peru, are applicable, which shall be mandatory for the Parties, the OSINERGMIN or the COES, or those that are issued during the course of the Concession by any Relevant Governmental Authority.

30. Service Levels:

Are those prescriptions of a regulatory or contractual nature indicated in the Contract or the Applicable Laws and Provisions, especially related, but not limited, to the maintenance and operation of the Project, including the supervision rules. In particular, but not exclusively, the Levels of Service applicable to the Project are: (i) service and product quality standards, as well as operational, systemic, and similar coordination rules of the electricity sector, including those of safety in the operation of the electricity systems; and (ii) specifications of Annex No. 1. Likewise, non-compliance in the delivery of the Service Levels shall lead to the application of sanctions to the CONCESSIONAIRE, according to the Applicable Laws and Provisions.

31. Offer:

It is the economic proposal submitted by the successful bidder through Form 4 of the Bidding Terms.

32. Qualified Operator:

It is the legal entity that meets the technical qualification requirements of the Bidding. In the shareholding structure of the CONCESSIONAIRE, the Qualified Operator must hold and maintain the ownership of the Minimum Interest.

33. Experimental Operation:

It is the period of thirty (30) calendar days that begins when the Project is connected to the SEIN and energized, in which the CONCESSIONAIRE shall not have the right to receive the payment of the Rate Base.

34. OSINERGMIN:

It is the Energy and Mining Investment Supervisory Agency, or the public law entity that succeeds it, empowered to supervise compliance with the legal, technical, and contractual provisions under the scope of its competence, as well as to supervise and sanction in accordance with the Classification and Scale of Sanctions approved for such purpose.

35. Part:

It is, as the case may be, the GRANTOR or the CONCESSIONAIRE.

36. Parts:

They are, jointly, the GRANTOR and the CONCESSIONAIRE.

37. Minimum Interest:

It is the shareholding or percentage of shares with voting rights that the Qualified Operator shall have and maintain in the capital stock of the CONCESSIONAIRE, amounting to twenty-five percent (25%) of the subscribed and paid-in capital stock of the CONCESSIONAIRE, for the term stipulated in the Contract.

38. Expert:

It is the natural or legal person in charge of determining the Book Value and the Pre-operating Expenses, if applicable, in the event of termination of the Contract, as indicated in Clause No. 13.33.



"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

39. Project:

It refers to the "500 kV Huánuco-Tocache-Celendín-Trujillo link, extensions and associated substations" project.

40. Commercial Start-up or POC:

It is the date stated in the act referred to in Clause No. 5.4 from which the CONCESSIONAIRE begins to provide the Service and is authorized to charge the Rate Base.

41. Transmission Regulations:

This is the regulation approved by Supreme Decree No. 027-2007-EM, as well as its complementary and amending regulations.

42. SBS

Superintendency of Banking, Insurance and Private Pension Fund Administrators.

43. SEIN:

It is the National Interconnected Electric System.

44. Service:

It is the public electric power transmission service to be provided by the CONCESSIONAIRE through the Project under the terms of the Contract and the Applicable Laws and Provisions.

45. Book value:

Regardless of the value established for tax purposes or for any other purpose, for the Contract "book value" is the book value of the Concession Assets or the intangible asset reflecting the Concession Assets linked to the execution of works of the Project, expressed in Dollars (according to audited Financial Statements prepared in accordance with the rules and principles generally accepted in Peru or the International Financial Reporting Standards - IFRS), net of depreciation and accumulated amortization at the time of making the calculation.

For these purposes, depreciation or amortization shall be calculated under the straight-line method, for a period of thirty (30) years. If the depreciation or amortization for tax purposes is greater than that defined in this paragraph, the difference between (1) the income tax that would have been paid under the method of depreciation or straight-line amortization described and (2) the income tax resulting from the method used by the CONCESSIONAIRE shall be discounted from the resulting book value; provided that the amount calculated in (1) is greater than that calculated in (2). For the purposes of the provisions of the Contract, the book value shall not include revaluations of any nature or tax credit.



PERÚ

Ministerio
de Economía y Finanzas

Agencia de Promoción
de la Inversión Privada

Dirección de Portafolio
de Proyectos

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No. 4

FORM OF GUARANTEE OF FAITHFUL PERFORMANCE OF THE CONTRACT

[city], _____, 202__

Messrs.

MINISTRY OF ENERGY AND MINES

Av. De las Artes Sur No. 260
San Borja.

Ref.: Letter of guarantee No. _____
Expiration: _____

Concession contract for the project "500 kV Huánuco-Tocache-Celendín-Trujillo link, extensions and associated substations".

From our consideration:

Hereby and at the request of our clients, Messrs. _____ [name of the CONCESSIONAIRE] (hereinafter, CONCESSIONAIRE), we hereby create this solidarity, irrevocable, unconditional and automatic performance bond, without benefit of excusion or division, up to the amount of US\$ _____ (_____ United States Dollars) in favor of the Ministry of Energy and Mines to guarantee the correct and timely compliance of each and every one of the obligations of the CONCESSIONAIRE in the Concession Contract for the "500 kV Huánuco-Tocache-Celendín-Trujillo Link, extensions and associated substations" project (hereinafter, Contract), including, but not limited to:

- Payment of the penalties set forth in the Contract;
- The payment of the amounts ordered by final judgment or enforceable arbitration award, derived from the execution of the Contract.

In order to honor this bond in its favor, it shall be sufficient to request the Ministry of Energy and Mines through a notary public, which must be signed by the General Director of Administration, or a person duly authorized by this entity, indicating that the CONCESSIONAIRE has not complied with any of the obligations that are guaranteed by this document.

Any delay on our part in honoring the aforementioned bond shall accrue interest at the effective legal interest rate in foreign currency published by the Superintendency of Banking, Insurance, and AFP, plus a margin (spread) of 3% per annum. The effective legal interest rate shall be the rate published by the Superintendency of Banking, Insurance and AFP corresponding to the day of demand for payment, and interest shall accrue from the date on which performance has been demanded until the effective date of payment.

Our obligations under this guarantee shall not be affected by any dispute between the Ministry of Energy and Mines or any entity of the Republic of Peru and our clients.

This bond shall be effective for a period of 12 months from _____ and shall expire on _____, inclusive.

Sincerely,

Signature _____

Name _____

Financial Entity _____

NOTES:

- 1) For Construction Performance Guarantee, the amount shall be US\$ 40,000,000.00 (Forty million dollars of the United States of America).
- 2) In the case of the Performance Guarantee, the amount shall be US\$ 3,000,000.00 (Three million United States Dollars).

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No. 5

TELECOMMUNICATIONS

Pursuant to Annex No. 1, the Project must have a main telecommunications system (fiber optic - OPGW), for which the following is agreed:

1. The fiber optic cables to be installed shall comply with the Project specifications set forth in Annex No. 1, including a minimum of thirty-six (36) wires each.
2. The State acquires the ownership of eighteen (18) dark wires in each of the fiber optic cables installed by the CONCESSIONAIRE, pursuant to the provisions of Supreme Decree No. 034-2010-MTC, and Ministerial Resolution No. 468-2011-MTC/03, and which shall be used by the National Backbone Fiber Optic Network, pursuant to Law No. 29904 and its Regulations approved by Supreme Decree No. 014-2013-MTC, which gives it the exclusive right to use said fiber without limitations.
3. The CONCESSIONAIRE shall use the remaining fiber optic strands for its own communication needs.
4. The transfer of the eighteen (18) fiber optic strands owned by the State, of each of the fiber optic cables installed by the CONCESSIONAIRE, shall be carried out according to the procedure determined by the Ministry of Transportation and Communications, which shall be in charge of handing them over in concession. The Ministry of Transport and Communications is the State entity with which the CONCESSIONAIRE shall directly deal with all aspects related to the telecommunications activity.
5. It is the CONCESSIONAIRE's obligation to install the fiber optic cable of the main telecommunications system, observing at least the following technical considerations:
 - a) The fiber optic cable shall be new and guaranteed against any manufacturing defect and shall consider the conditions of the environment where the fiber optic cable shall be installed and operated in order to ensure that the cable characteristics are adequate.
 - b) The fiber optic cable manufacturer must have ISO 9001-2008 and TL900 (Quality Management System) certification.
 - c) The type of optical fiber to be implemented shall be single-mode, whose geometric, optical, mechanical and transmission characteristics shall comply at least with ITU-T Recommendation G.652.D or G.655 of the International Telecommunication Union (hereinafter, ITU).
 - d) The optical fiber shall have a polarization mode dispersion (PMDQ) less than or equal to zero integer to one tenth (0.1).
 - e) The attenuation of all installed fiber must be less than or equal to zero whole thirty-five hundredths (0.35) dB per km at 1310 nm and zero whole twenty-five hundredths (0.25) dB per km at 1550 nm.
 - f) You must use a type of fiber optic cable with a useful life of at least twenty (20) years. To do so, you must take into consideration the recommendations provided by the manufacturer, in order to ensure its useful life.
 - g) The ITU-T recommendations of the International Telecommunication Union, as well as applicable ANSI EIA/TIA and IEC standards, shall be observed for fiber optic cable installation, splicing and testing, fiber optic cable maintenance, as well as strand identification.
6. The cost of maintaining the fiber system shall be borne by the CONCESSIONAIRE, according to the guidelines indicated in ITU-T Recommendation L.25: "Maintenance of fiber optic cable networks", in order to keep it in good condition, until the State-owned wires are effectively used for the provision of telecommunications services, after which the maintenance of the fiber optic cable shall be shared with the telecommunications concessionaires designated by the State. These concessionaires shall assume the investment costs to adapt and operate the wires owned by the State that may be necessary, as the case may be.
7. The CONCESSIONAIRE shall provide facilities for the housing of optical equipment necessary to illuminate the State-owned fiber optics, including shared use of space.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

It shall also allow access to State-owned fiber strands and the installation of accessories and/or devices that enable the provision of public telecommunications services, both for the implementation of telecommunications services and for the operation and maintenance thereof.

In this regard, the CONCESSIONAIRE shall leave a fiber optic distributor (ODF) in the telecommunications room to be built in each substation, ready for access to the eighteen (18) wires owned by the State. Likewise, it shall provide at least 220 Vac power supply and a power of no less than three (3) kilowatts; sufficient space to install and operate four (4) telecommunications racks, as well as to accommodate air conditioning and power equipment, and space to install a telecommunications antenna, taking into account the minimum safety distances.

For all of the foregoing, no consideration whatsoever shall be required to be paid to the CONCESSIONAIRE by the State or the third parties it designates. In case there are additional technical requirements for the use of the fiber optic wires owned by the State, the CONCESSIONAIRE shall agree within a term of ten (10) calendar days, the economic and technical terms with the State or the third parties it designates. This term may be extended by the State for up to forty-five (45) additional calendar days, for duly justified reasons and communicated to the CONCESSIONAIRE. In the event of any dispute, it shall be resolved in accordance with Clause No. 14.

8. The State shall guarantee that the telecommunications activities carried out do not limit or jeopardize the continuity and security of the electric transmission service, providing the necessary mechanisms in the concession processes of the State-owned optic fiber. In any event, should any effect be caused to the electric transmission services due to an act or omission in the operation of the State-owned fiber optic, beyond the CONCESSIONAIRE's control, the latter shall be exempt from administrative, civil and/or criminal liability; the telecommunications CONCESSIONAIRE in charge of operating the fiber optic shall assume the corresponding liabilities.
9. The CONCESSIONAIRE may supervise directly or through third parties, the works and/or activities executed to illuminate the State-owned optical fiber and to make the exploitation of the fiber viable in the provision of public telecommunications services. In case the electric infrastructure and/or the provision of the electric service is put at risk, the CONCESSIONAIRE may order the suspension of the aforementioned activities for duly substantiated reasons, which must be informed in writing to the Ministry of Transportation and Communications, and to the GRANTOR, within a term no longer than forty-eight (48) hours after the suspension is carried out. The activities shall be resumed within a maximum term of ten (10) calendar days, unless there is an agreement between the parties. If no agreement is reached, the dispute shall be resolved in accordance with Clause No. 14.
10. The CONCESSIONAIRE shall submit to the GRANTOR every six months the georeferenced information on the fiber optic cable laying carried out, the current and projected use, and if applicable, the telecommunication companies and the sections for which they have entered into contracts for the use of their infrastructure.
11. The fiber optic wires that are not owned by the State, as well as the complementary or related equipment and services, are part of the Concession Assets.
12. The provisions of this annex shall not affect the Rate Base. In case the concession facilities are used to develop telecommunication businesses, the users of the electric service shall be compensated according to what is established by the sectorial authority. In this case, the commercial exploitation of the CONCESSIONAIRE'S fiber optic wires shall be carried out by a telecommunications concessionaire company, which shall offer its services to all telecommunications concessionaires that request it under non-discriminatory conditions, and which shall be subject to the other telecommunications laws and regulations.



PERÚ

Ministerio
de Economía y Finanzas

Agencia de Promoción
de la Inversión Privada

Dirección de Portafolio
de Proyectos

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No.6

Forms 4, 4-A and 4-AA *(Certified Copies)*



"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No. 7

PROJECT MILESTONES **"500 kV Huánuco-Tocache-Celendín-Trujillo Link, Extensions and Associated Substations".**

The following milestones must be met within the maximum periods indicated below (all periods are counted from the Closing Date):

Milestones	Term in months
1. Conformity to the final level engineering project, in accordance with Clauses No. 4.8 and 4.9.	18
2. Environmental Management Instrument approved by the Relevant Governmental Authority.	28
3. Project Financial Closing	30
4. Arrival at the corresponding worksite of the units of the single-phase power auto-transformer bank referred to in Annex No. 1 of the Contract.	44
5. Commercial Start-up	60

The date of Commencement of Commercial Start-up shall be the date set forth in the minutes referred to in Clause No. 5.4.

The suspension of deadlines due to the effect of the provisions of Clauses No. 4.3 or 10.4 shall modify the date for meeting the milestones.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No. 8

PROJECT WORK SPECIFICATIONS

"500 kV Huánuco-Tocache-Celendín-Trujillo Link, Extensions and Associated Substations".

a. Transmission lines

1. General description of the project.

2. Description of the route of the line.

Include start and end points with altitude in meters above sea level, as well as geographical and planimetric maps at an appropriate scale. The route of the line must be described, highlighting the vertices of the line, the crossing with other lines and the passage through populated and archeological zones.

3. Design and construction standards used.

The National Electrical Code shall be used. If necessary, it shall be complemented with international standards such as ANSI/IEEE, IEC, VDE, NEMA, ASTM, NESC, NFPA.

4. Technical characteristics

- a) Length of the line (km).
- b) Insulation level at 60 Hz and BIL corrected for height.
- c) Transmission capacity. It must be supported that the transmission capacities specified in Annex No. 1 are complied with.
- d) Failure rate due to atmospheric discharges, as required in Annex No. 1.
- e) Line service exit rate, as required in Annex No. 1.
- f) Number of conductors per phase.
- g) Type, material and section of conductors. It shall be substantiated that the Joule loss limits and the surface gradient levels and non-ionizing radiation limits specified in Annex No. 1 are complied with.
- h) Type, material and characteristics of insulators. Include number of units per suspension chain and angle.
- i) Types of structures. Include typical diagrams of structures (suspension, angle and terminal).
- j) Foundations. Include type (concrete or metal).
- k) Number and characteristics of the guard cables.
- l) Type, material and cross-section of the guard cables.
- m) Grounding. Include system to be used (electrodes, counterweights or other), as well as dimensions and section of the elements to be used.
- n) Other characteristics or relevant information.
- o) Easements used.
- p) Access and infrastructure.

b. Substations

1. General description of the project.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

2. Substation Location.

Include geographical map and altitude in meters above sea level of each of the substations. The selected terrain and any nearby features should be described.

3. Design and construction standards used.

The National Electrical Code shall be used. If necessary, it shall be complemented with international standards such as ANSI/IEEE, IEC, VDE, NEMA, ASTM, NESC, NFPA.

4. Technical characteristics of the substation.

- a) General description of the key yard, indicating the floor plan layout. Include one-line diagram, plan view and elevations.
- b) Busbar configuration. Include system as prescribed in Annex No. 1.
- c) Insulation level at 60 Hz and BIL corrected for height.
- d) Description of the type of equipment proposed at each substation:

- Conventional
- Encapsulation (GIS)

The number of cubicles at 220 and 500 kV, and types as appropriate, shall be indicated:

- line
 - transformer
 - coupling
 - of reactive compensation
- e) Characteristics of the switches:
 - type: dead or live tank, in SF6 or other, drive, control: local and/or remote, etc.
 - rated and short-circuit current, breaking capacity (MVA).
 - f) Characteristics of line and bus disconnectors:
 - drive, control: local and/or remote, etc.
 - rated and short-circuit current.
 - g) Characteristics of instrument transformers.
 - h) Characteristics of lightning arrester.
 - i) Characteristics of power transformers, if applicable.
 - Transformation ratio.
 - Power (MVA) with natural (ONAN) and forced ventilation (ONAF)
 - Taps and tap changer system.
 - j) Characteristics of reactive compensation systems, if applicable:
 - Reactor, EACR, or capacitor bank power.
 - Drive type: continuous or stepwise (discrete).
 - k) Description of the protection, measurement, control, and maneuvering systems. Demonstrate compliance with COES requirements.
 - l) Description of the telecontrol, remote control, and data acquisition systems and their link with the COES system.
 - m) Description of the communications system.
 - n) Grounding. Include system to be used (electrodes, deep ground mesh or other), as well as dimensions and section of the elements to be used.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

c. Pre-Operational Study of the electrical system

The purpose of the study is to verify that the final layout of the facilities shall allow an adequate operation of the SEIN, in accordance with the requirements established by the COES.

The Pre-Operational Study shall comply with the provisions of COES Technical Procedure PR-20 and shall include, among others, the following aspects:

- a) Steady state operation studies for different load and generation conditions. Compliance with the permitted ranges of voltage variation, load on lines and transformers, operation of reactive compensation devices, operation of automatic voltage regulation systems, effect on other elements of the network, among others, shall be verified.
- b) Steady state contingency studies. The adequate operational response of the System shall be demonstrated in the event of simple contingencies occurring in the transmission system (N-1), during the emergency period and until the COES Control Center adopts corrective measures.
- c) Post-disturbance transient response studies and verification of the adequate response of control, regulation, protection and fast-acting reclosing devices.
- d) Studies on stress and insulation coordination.
- e) Study of harmonic voltages and currents, their effect on the SEIN and filter requirements.
- f) Design of protection systems and coordination of protection with the rest of the SEIN facilities, in accordance with COES standards.
- g) Calculation of power and short-circuit currents and verification of the capacity of existing and planned facilities to withstand the new short-circuit levels. Modifications and reinforcements to existing substations that shall be expanded as part of the Project shall be identified and incorporated into the Project. Likewise, modifications and reinforcements of facilities influenced by the Project, but which are not part of the Project shall be identified and proposed.

The details and scope of the Pre-Operational Study shall be coordinated with COES. COES Technical Procedure PR-20 or the one that replaces it shall be applied.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No. 9

CERTIFICATION OF THE "500 KV HUÁNUCO-TOCACHE-CELENDÍN-TRUJILLO LINK, EXTENSIONS AND ASSOCIATED SUBSTATIONS" CONSULTED TO THE NATIONAL SERVICE OF PROTECTED AREAS BY THE STATE - SERNANP

PERÚ
Ministerio
del AmbienteServicio Nacional
de Áreas Naturales
Protegidas por el EstadoDirección de Desarrollo
EstratégicoBICENTENARIO
PERÚ 2021

"Decenio de la Igualdad de Oportunidades para mujeres y hombres"
"Año del Bicentenario del Perú: 200 años de Independencia"

Lima, 06 de agosto de 2021

CERTIFICACIÓN N° 107 - 2021-SERNANP-DDE

Considerando la Solicitud, recibida el día 04 de agosto de 2021 (CUT- 020163-2021), suscrita por el Sr. Aníbal del Águila Acosta, Representante de PROINVERSIÓN identificado con N° de DNI 09144776 y con N° de RUC 20380799643 con domicilio fiscal en Av. Enrique Canaval y Moreyra, N° 150 piso 9, distrito San Isidro, provincia y departamento Lima, con correo electrónico; whuambachano@proinversion.gob.pe, mediante la cual solicita la certificación de ubicación de una línea que denomina: "Enlace 500 Kv Huánuco – Tocache – Celendín – Trujillo, ampliaciones y subestaciones asociadas", con respecto al catastro oficial de Áreas Naturales Protegidas y Zonas de Amortiguamiento.

Se certifica en base a la línea georreferenciada alcanzada por el usuario que denomina: "Enlace 500 Kv Huánuco – Tocache – Celendín – Trujillo, ampliaciones y subestaciones asociadas", que, ésta no se superpone a un Área Natural Protegida ni a Zonas de Amortiguamiento, tal como se indica en el informe N° 578 - 2021-SERNANP-DDE; adjuntado en el siguiente link:

<http://foldersgd2.sernanp.gob.pe/index.php/s/mZoYs29THEEqWeH>



DIRECTOR
DIRECCIÓN DE DESARROLLO
ESTRATÉGICO

Firmado digitalmente por:
PASTOR ROZAS Marcos Luis
FAU 20478093 178 soft
Motivo: Soy el autor del
documento
Fecha: 09.08.2021 10:44:18-0500

Mediante Resolución Presidencial N° 212-2014-SERNANP se aprueba el Tarifario de Servicios a Terceros del SERNANP, por lo que la presente Certificación constituye un servicio a los administrados que emite el SERNANP a través de la DDE, por ser la institución que administra el catastro oficial de las ANP y ZA. En tal sentido la presente certificación no implica autorización, otorgamiento de derechos o pronunciamiento alguno, únicamente certifica que los datos georreferenciados proporcionados, se encuentran o no en un Área Natural Protegida y/o Zonas de Amortiguamiento.

Dirección: Calle Diecisiete N° 355, Urb. El Palomar – San Isidro, Lima-Perú.
Teléfonos: (51 1) 717-7500 / 225-2803
Fax: (51 1) 475-1555
Email: sernanp@sernanp.gob.pe
Web: www.sernanp.gob.pe

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

**SERVICIO NACIONAL DE ÁREAS NATURALES PROTEGIDAS POR EL ESTADO
DIRECCIÓN DE DESARROLLO ESTRATÉGICO**

"Decenio de la Igualdad de Oportunidades para mujeres y hombres"
"Año del Bicentenario del Perú: 200 años de Independencia"

INFORME N° 578 - 2021-SERNANP-DDE

A : Marcos Pastor Rozas
Director de Desarrollo Estratégico

De : Marisela Huancauqui Torres
Dirección de Desarrollo Estratégico

Asunto : Certificación de ubicación de punto, línea o polígono relacionados con Áreas Naturales Protegidas y su Zona de Amortiguamiento.

Referencia : Solicitud, recibida el día 04 de agosto del 2021 (CUT-020163-2021)

Fecha : Lima, 06 de agosto del 2021

Es grato dirigirme a usted con la finalidad de informarle sobre el análisis solicitado por trámite de Certificación de ubicación de áreas o ámbitos relacionados con Áreas Naturales Protegidas y Zonas de Amortiguamiento del SINANPE.

I ANTECEDENTES

A través del Portal institucional del Ministerio de Transportes y Comunicaciones (<http://www.mtc.gob.pe/estadisticas/transportes.html>), con fecha 22 de febrero de 2021, se descargó la información digital referida a las diferentes capas temáticas de la Red Vial Departamental, Red Vial Nacional y Red Vial Vecinal, en formato shape file.

Mediante correo electrónico rodriguezrocca3@gmail.com, de fecha 18 de septiembre de 2018, la especialista Katherine Rodríguez Rocca, del Instituto Nacional Geográfico-IGN, remite a ésta Dirección, información referencial de límites políticos administrativos a nivel nacional, en formato shape file.

Mediante Oficio N° 000196-2021-INEI/JEF, de fecha 16 de marzo de 2021, el Instituto Nacional de Estadística e Informática-INEI, hace llegar a esta Dirección, información de centros poblados, en formato shape file.

Mediante Sistemas Internos del SERNANP, link <https://tramite.sernanp.gob.pe/sgd-sernanp-web-v2>, se recibió la Solicitud del Sr. Aníbal del Aguila Acosta, Representante de PROINVERSIÓN, en la cual solicita la certificación de ubicación de una línea en consulta que denomina: "Enlace 500 Kv Huánuco – Tocache – Celendín – Trujillo, ampliaciones y subestaciones asociadas", con relación a las Áreas Naturales Protegidas o Zonas de Amortiguamiento del SINANPE.

II BASE LEGAL

2.1 Ley 26834, Ley de Áreas Naturales Protegidas

Las Áreas Naturales Protegidas son los espacios continentales y/o marinos del territorio nacional, expresamente reconocidos y declarados como tales, incluyendo

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

**SERVICIO NACIONAL DE ÁREAS NATURALES PROTEGIDAS POR EL ESTADO
DIRECCIÓN DE DESARROLLO ESTRATÉGICO**

"Decenio de la Igualdad de Oportunidades para mujeres y hombres"
"Año del Bicentenario del Perú: 200 años de Independencia"

INFORME N° 578 - 2021-SERNANP-DDE

sus categorías y zonificaciones, para conservar la diversidad biológica y demás valores asociados de interés cultural, paisajístico y científico, así como por su contribución al desarrollo sostenible del país, estas pueden ser: A) Las de administración nacional, que conforman el Sistema Nacional de Áreas Naturales Protegidas - SINANPE. B) Las de administración regional, denominadas áreas de conservación regional. C) Las áreas de conservación privadas.

Las Áreas Naturales Protegidas, con excepción de las Áreas de Conservación Privada, se establecen con carácter definitivo. La reducción física o modificación legal de las áreas del Sistema Nacional de Áreas Naturales Protegidas - SINANPE, sólo podrá ser aprobada por Ley.

2.2 De las competencias del SERNANP

El Servicio Nacional de Áreas Naturales Protegidas es un organismo público técnico especializado adscrito al Ministerio del Ambiente, según lo refiere el Decreto Legislativo 1013 del 14 de mayo del 2008. Constituyéndose en el ente rector de las Áreas Naturales Protegidas contando entre sus principales funciones el gestionar las Áreas Naturales Protegidas de administración nacional y administrar el catastro oficial de las ANP.

III ANÁLISIS

3.1 De la revisión de los requisitos establecidos en la guía de servicios

La solicitud de Certificación de ubicación de punto, línea o polígono relacionados con Áreas Naturales Protegidas y su Zona de Amortiguamiento, se evaluó conforme a los requisitos especificados en el Tarifario de servicios a terceros aprobados mediante Resolución Presidencial N° 212-2014-SERNANP

A continuación el análisis del cumplimiento de los requisitos estipulado en el Tarifario de servicios:

ITEM	CUMPLIO (SI/NO)	OBSERVACION / COMENTARIO
Solicitud de Certificación llenada en formato Excel	SI	Cumplió con lo establecido en la Resolución Presidencial N° 212-2014-SERNANP
Archivo (s) shapefile del punto, línea o ámbito en consulta, en Datum WGS 84 y en la zona (s) UTM que se ubique espacialmente.	SI	
Voucher Factura/boleta de pago	SI	

3.2 De la información utilizada para el análisis

Para analizar la ubicación de la línea en consulta, en relación a las Áreas Naturales Protegidas y Zonas de Amortiguamiento, se empleó la información cartográfica

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

**SERVICIO NACIONAL DE ÁREAS NATURALES PROTEGIDAS POR EL ESTADO
DIRECCIÓN DE DESARROLLO ESTRATÉGICO**

"Decenio de la Igualdad de Oportunidades para mujeres y hombres"
"Año del Bicentenario del Perú: 200 años de Independencia"

INFORME N° 578 - 2021-SERNANP-DDE

generada y almacenada en la Base de Datos Geográfica Institucional del SERNANP referida a:

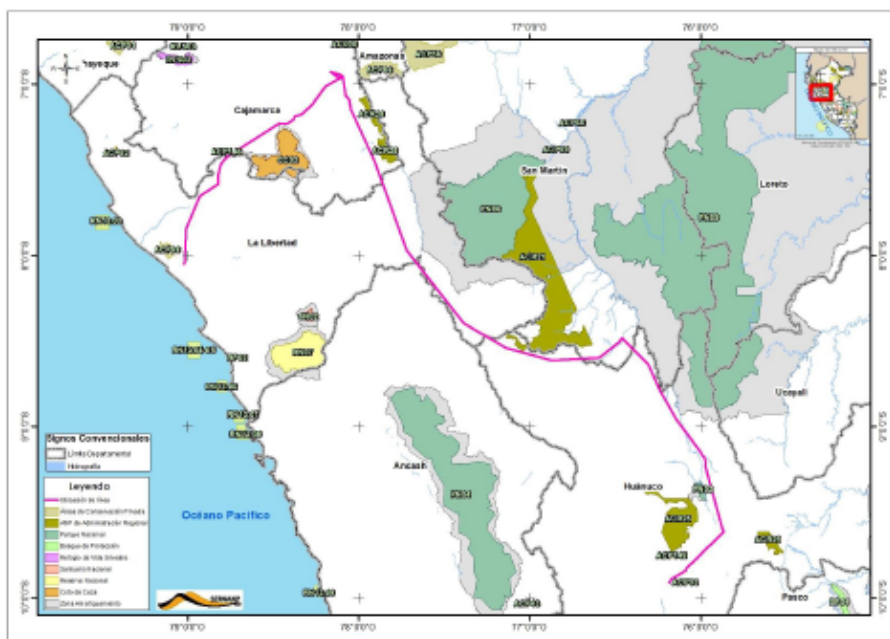
- Áreas Naturales Protegidas de Administración Nacional, Regional y Privada
- Zonas de Amortiguamiento

Así mismo para la determinación de la correspondiente ubicación, se utilizó Información referencial generada por otras instituciones:

Cartografía base (IGN).
Límites políticos (IGN).
Centros poblados (INEI).
Red Vial (MTC).

3.3 Resultados del análisis de superposición

Considerando la información alcanzada y con un análisis de superposición con la información del catastro de ANP y ZA, utilizando la herramienta SIG, se determina que la ubicación de una línea que denomina: "Enlace 500 Kv Huánuco – Tocache – Celendín – Trujillo, ampliaciones y subestaciones asociadas", no se superpone a un Área Natural Protegida ni a Zonas de Amortiguamiento, tal como se aprecia en la siguiente imagen



"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

**SERVICIO NACIONAL DE ÁREAS NATURALES PROTEGIDAS POR EL ESTADO
DIRECCIÓN DE DESARROLLO ESTRATÉGICO**

*"Decenio de la Igualdad de Oportunidades para mujeres y hombres"
"Año del Bicentenario del Perú: 200 años de Independencia"*

INFORME N° 578 - 2021-SERNANP-DDE

IV CONCLUSIÓN

El línea georreferenciada alcanzada por el usuario, la cual denomina como: "Enlace 500 Kv Huánuco – Tocache – Celendín – Trujillo, ampliaciones y subestaciones asociadas", luego del análisis de superposición con el catastro de Áreas Protegidas y Zona de Amortiguamiento, se concluye que, ésta línea no se superpone a un Área Natural Protegida ni a Zonas de Amortiguamiento

V. RECOMENDACIÓN

Emitir la certificación correspondiente, a solicitud del usuario, adjuntando el presente informe.

Es todo cuanto informo para su conocimiento y fines que estime conveniente.
Atentamente,



Firmado digitalmente por:
HUANCAQUI TORRES
Marisela Mercedes FAU 20478053178
sofi
Motivo: Soy el autor del
documento
Fecha: 06/08/2021 12:15:41-0500

Visto el informe que antecede, procedo a suscribirlo para su trámite correspondiente por encontrarlo conforme en todos sus aspectos técnicos.



Firmado digitalmente por:
VICUNA MIÑANO Edgar
Eduardo FAU 20478053178 sofi
Motivo: Soy el autor del
documento
Fecha: 06/08/2021 12:15:41-0500

Visto el informe que antecede, procedo a suscribirlo para su trámite correspondiente por encontrarlo conforme en todos sus aspectos técnicos.



Firmado digitalmente por:
PASTOR ROZAS Marcos Luis
FAU 20478053178 sofi
Motivo: Soy el autor del
documento
Fecha: 06/08/2021 00:30:06-0500

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No. 10

TERMS OF REFERENCE

Supervision of engineering, procurement and construction of the project

"500 kV Huánuco-Tocache-Celendín-Trujillo Link, Extensions and Associated Substations".

1. Purpose

Establish the conditions under which the CONCESSIONAIRE shall hire the services of a company specialized in the supervision of engineering, supply and construction of transmission lines and high voltage substations, to supervise the engineering, supply and construction of the Project.

2. From the Supervising Company

The CONCESSIONAIRE undertakes to contract and pay the expenses required for the supervision of the engineering, supply and construction of the Project, for which it shall propose a company specialized in the supervision of high voltage transmission systems, which must not be a company related to the CONCESSIONAIRE in the last five (05) years and whose selection must be approved by OSINERGMIN.

The cost of such supervision is part of the CONCESSIONAIRE's investment proposal.

3. Scope of supervision

The Supervising Company shall report monthly and in writing to the GRANTOR and OSINERGMIN on the development of the Supervision of the engineering, supply and construction of the Project. Supervision shall be provided in the execution of the Project, which includes the following:

a. Expansion of the 500/220/138 kV Nueva Huánuco Substation.

Substation with GIS technology at 500 kV and with a double busbar system with switch and a half. The 500 kV expansion shall include the following facilities:

- One (01) diameter with two (02) cells equipped with GIS technology (equivalent to 2/3 diameter), for the line to the Tocache substation.
- One (01) GIS technology cubicle for the three-phase bank of 500 kV line reactors.
- One (01) three-phase 500 kV line reactor bank of three single-phase units plus one standby unit, at voltage $500/\sqrt{3}$ kV and with a three-phase power of 100 MVAR.
- Complementary systems for protection, control, measurement, communications, gantries and bars, grounding, ancillary services, civil works, etc. The proposed equipment must maintain design compatibility with the existing facilities.

b. 500 kV Tocache Substation

Substation with AIS technology at 500 kV and with a double busbar system with switch and a half. With the possibility of future expansion to 220 kV.

500 kV level

The 500 kV construction shall include the following facilities:

- One (01) line cell to Celendín, equivalent to one diameter.
- One (01) line cell to Nueva Huánuco, equivalent to one diameter.
- One (01) 500 kV - 150 MVAR line reactor bank, consisting of 3 single-phase units of 50 MVAR each, plus a backup unit.
- One (01) 500 kV - 100 MVAR line reactor bank, consisting of 3 single-phase units of 33.3 MVAR each, plus backup unit.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- Two (02) 500 kV - 120 MVar bus reactor banks, consisting of 3 single-phase units of 40 MVar each, plus backup unit.
- One (01) 500 kV automatic series compensation equipment (EACS), with regulation in the capacitive range up to a maximum of 50% of the series reactance of the Tocache-Nueva Huánuco line, with a minimum capacity of 1400 MVA.
- One (01) 500 kV automatic series compensation equipment (EACS), with regulation in the capacitive range up to a maximum of 50% of the series reactance of the Tocache-Celendín line, with a minimum capacity of 1400 MVA.
- Complementary systems for protection, control, measurement, communications, gantries and bars, grounding, auxiliary services, civil works, etc.
- Provision of space for the future expansion of the substation:
 - Space for four (04) future 500 kV line cells.
 - Space for two (02) future 500 kV transformation cells.
 - Space for two (02) single-phase power autotransformer banks, 500 kV / 220 kV, future.

220 kV level

- Provision of space for the future expansion of the substation:
 - Space for nine (09) future 220 kV line cells.
 - Space for one (01) future 220 kV coupling cubicle.
 - Space for two (02) future 220 kV transformation cells.

c. 500/220 kV Celendín Substation

Substation with AIS technology in 500 and 220 kV. With double busbar systems with breaker and a half in 500 kV, and double busbar with transfer switch in 220 kV.

500 kV level.

The 500 kV construction shall include the following facilities:

- One (01) line cell to Trujillo Nueva, equivalent to one diameter.
- One (01) line cell to Tocache, equivalent to 2/3 of the diameter.
- One (01) 500 kV / 220 kV transformer substation.
- One (01) 500 kV - 150 MVar line reactor bank, consisting of 3 single-phase units of 50 MVar each, plus a backup unit.
- One (01) 500 kV - 87 MVar line reactor bank, consisting of 3 single-phase units of 29 MVar each, plus backup unit.
- One (01) bank of autotransformers 500 kV / 220 kV / 33 kV - 600 / 600 / 200 / 200 MVA (ONAN) - 750 / 750 / 250 MVA (ONAF), consisting of 3 single-phase units of 200/200/66.6 MVA (ONAN) - 250/250/83.3 MVA (ONAF) each, plus backup unit.
- Complementary systems for protection, control, measurement, communications, gantries and bars, grounding, auxiliary services, civil works, etc.
- Provision of space for the future expansion of the substation:
 - Space for six (06) future 500 kV line cells.
 - Space for one (01) future 500 kV transformer substation.
 - Space for one (01) bank of single-phase power autotransformers, 500 kV / 220 kV / 33 kV, future.

220 kV level.

The 220 kV construction shall include the following facilities.

- Four (04) line cells.
- One (01) bar coupling cell.
- One (01) 220 kV transformer substation for the 500 kV / 220 kV / 33 kV single-phase power autotransformer bank.
- Complementary systems: Protection, control, measurement, communications, gantries and bars, grounding, auxiliary services, civil works.
- Provision of space for the future expansion of the substation:
 - Space for five (05) future 220 kV line cells.

"Decade of Equal Opportunities for Women and Men".
 "Year of Strengthening National Sovereignty".
 "Bicentennial Year of the Congress of the Republic of Peru".

- Space for one (01) 220 kV transformation cell in the future.

d. Expansion of the 500/220kV Trujillo substation.

Substation with AIS technology in 500 and 220 kV. With double busbar systems with breaker and a half in 500 kV, and double busbar with transfer switch in 220 kV.

The 500 kV expansion shall include the following facilities:

- One (01) line cell to Celendín equivalent to 1/3 of diameter.
- One (01) three-phase bank of 500 kV - 87 MVAR line reactors, consisting of three single-phase units of 29 MVAR each, plus one standby unit.
- One (01) cubicle for the three-phase bank of 500 kV line reactors.
- Complementary systems for protection, control, measurement, communications, gantries and bars, grounding, auxiliary services, civil works, etc. The proposed equipment must maintain design compatibility with the existing facilities.

e. 500 kV Nueva Huánuco - Tocache Transmission Line

- Design power : 1400 MVA
- Approximate length : 193.32 km
- Number of circuit lines : One (01)
- Voltage : 500 kV
- Maximum system voltage : 550 kV
- Phase arrangement : horizontal or triangular type
- Type of supports : Self-supporting truss, galvanized steel
- Phase conductor : Bundle of four sub-conductors, of different sizes according to altitude:

Altitude (masl)	Driver
0 -2000	4 x 800 MCM
2000 - 3000	4 x 900 MCM
3000 - 4000	4 x 1000 MCM
4000 - 4500	4 x 1000 MCM

- Number of conductors per phase: Four (04)
- Guard cables : Two (02) cables: one of the OPGW type, minimum 36 fibers, and one of the EHS galvanized steel cable type.
- Altitude : Minimum 529 masl, maximum 3577 masl.

f. 500 kV Tocache - Celendín Transmission Line

- Design power : 1400 MVA
- Approximate length : 294.7 km
- Number of circuit lines : One (01)
- Voltage : 500 kV
- Maximum system voltage : 550 kV
- Phase arrangement : horizontal or triangular type
- Type of supports : Self-supporting truss, galvanized steel
- Phase conductor : Bundle of four sub-conductors, of different sizes according to altitude:

Altitude (masl)	Driver
0 -2000	4 x 800 MCM
2000 - 3000	4 x 900 MCM
3000 - 4000	4 x 1000 MCM
4000 - 4500	4 x 1000 MCM

“Decade of Equal Opportunities for Women and Men”.
“Year of Strengthening National Sovereignty”.
“Bicentennial Year of the Congress of the Republic of Peru”.

- Number of conductors per phase: Four (04)
- Guard cables : Two (02) cables: one of the OPGW type, minimum 36 fibers, and the other of the galvanized steel cable type.
- Altitude Minimum 626 meters above sea level: maximum 4142 meters above sea level.

g. 500 kV Celendín - Trujillo Nueva Transmission Line

- Design power : 1400 MVA
- Approximate length : 174.33 km
- Number of circuit lines : One (01)
- Voltage : 500 kV
- Maximum system voltage : 550 kV
- Phase arrangement : horizontal or triangular type
- Type of supports : Self-supporting truss, galvanized steel
- Phase conductor : Bundle of four sub-conductors, of different sizes according to altitude:

Altitude (masl)	Driver
0 -2000	4 x 800 MCM
2000 - 3000	4 x 900 MCM
3000 - 4000	4 x 1000 MCM
4000 - 4500	4 x 1000 MCM

- Number of conductors per phase: Four (04)
- Guard cables : Two (02) cables: one of the OPGW type, minimum 36 fibers, and the other of the galvanized steel cable type.
- Altitude Minimum 198 masl: maximum 3802 masl.

h. 220 kV Cajamarca Norte - Cálclis (L-2192) Line Variant

- Design power : 220 MVA per string
- Approximate length : 11.1 km for each double-terminal section.
- Number of three (3) : Two (02)
- Voltage : 220 kV
- Maximum system voltage : 245 kV
- Phase arrangement : Vertical type
- Type of supports : Self-supporting truss, galvanized steel
- Phase conductor : ACAR 750 MCM (same as existing)
- Number of conductors per phase: Two (02)
- Guard cables : Two (02) cables: one 111 mm² OPGW cable and one 70 mm² EHS steel cable (the same as the existing ones).
- Altitude Minimum 2486 masl: maximum 3190 masl.

4. Scope of Work of the Supervisory Company

The Supervising Company shall be responsible for the supervision of the Project, within the framework of the Concession Contract and applicable standards, during the design, construction, testing and commissioning stages of the Project.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

The purpose of the Supervision tasks is to ensure that the Project complies with the following:

- a) That the Definitive Engineering, as well as the Detailed Engineering and the As-Built Engineering, correspond to the scopes specified in Annex No. 1 of the Contract.
- b) That the Supply of Equipment and Materials correspond to the scopes specified in Annex No. 1 of the Contract, verifying that the specifications, minimum requirements, and standards established in the Contract, as well as in good engineering practice, are complied with.
- c) That the construction and testing of the Project correspond to the scopes established in Annex No. 1 of the Contract and Annex No. 2 of the Contract, respectively.
- d) That the construction of the facilities is carried out according to the schedules and timetables of the Contract.
- e) Prepare a final report on the construction of the Project.

The list of activities to be carried out by the Supervisory Company is not limited to the following:

4.1 Supervision of engineering studies

Review and evaluate the studies prepared by the CONCESSIONAIRE, which must be in accordance with the scope of the Contract. Such studies, among others, are the following:

- Engineering at the final level
- Detailed engineering
- As-built engineering

Regarding the Pre-Operational Study (EPO) and the Operational Study (EO), the Supervising Company shall follow up and verify compliance with the scope contained in the contract and in Annex No. 1.

4.2 Supervision of supplies

- Verification of factory test protocols (FAT).
- Verification of internal operational test protocols (SAT).
- Supervise the quality of the supplies and technical characteristics of the equipment, taking into account, among others, the provisions of Clause No. 4.2 and Annex No. 1 of the Contract.

4.3 Project construction supervision

To supervise the activities related to the construction of the Project. Indicatively and without limitation, the following shall be supervised:

- Compliance with the Activity Schedules for the Execution of the Works and the Valued Schedules.
- The quality of the material, equipment of the electrical system and the constructive quality of the Project.
- The correct construction of the civil works (mainly foundations), as well as the quality of the supplies and materials used.
- The correct execution of the assembly of the Project.
- Verify compliance with the technical specifications of the assembly in order to comply with the provisions of Annex No. 1 of the Contract.
- Proper transportation, handling and storage of supplies and equipment.
- Verify that the contractor's organization is in accordance with the size of the project, which shall guarantee compliance with construction procedures and the safety of its personnel.
- Verify the experience and technical capabilities of the companies contracted by the CONCESSIONAIRE for the construction of the Project.
- Compliance with environmental protection and safety standards at construction sites by reviewing and authorizing safety and environmental protection procedures.
- The work of the Supervising Firm must not interfere with the powers and responsibilities of the Contract Inspector.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

4.4 Supervision of tests

- Participate in internal operational tests.
- Participate in the Project verification tests set forth in Annex No. 2 of the Contract.

5. **Qualifications of the Supervisory Company's personnel**

The professionals required for the work of Supervision must be licensed and authorized to practice in Peru. The profile of each professional, without limitation, is as follows:

- **Project Supervision Chief:** Mechanical-electrical engineer or electrician, with a minimum experience of ten (10) years in the supervision of 220 kV lines and substations or higher.
- **Chief Transmission Line Supervisor:** Mechanical-electrical or electrical engineer, with a minimum experience of five (5) years in the supervision of 220 kV lines or higher.
- **Chief Substation Supervisor:** Mechanical-electrical or electrical engineer, with a minimum experience of five (5) years in substation supervision of 220 kV or higher.
- **Chief Civil Works Supervisor:** Civil Engineer, with a minimum experience of five (5) years in civil works supervision of high voltage lines and substations.
- **Electrical Protection Specialist:** Electrical Engineer, with a minimum experience of five (5) years in protection systems of 220 kV substations or higher.
- **Telecommunications Specialist:** Telecommunications engineer, with a minimum experience of five (5) years in high voltage power line telecommunications systems.
- **Geotechnical Supervisor:** Geological Engineer, with at least five (5) years of experience in the supervision of works in high voltage lines and substations.
- **Safety Chief:** Mechanical and electrical engineer or electrician with at least five (5) years of experience in safety supervision during the construction of high voltage power lines and substations.
- **Civil, electromechanical and telecommunications technicians:** with a minimum experience of two (2) years in similar works in high voltage (220 kV or higher) power lines, substations and telecommunications works.
 - ✓ The professionals of the Supervising Company assigned to the site as residents shall be licensed and qualified mechanical or electrical engineers or electricians with a minimum experience of five (5) years in the supervision of 220 kV lines and/or substations or higher. These professionals shall be hired on a full-time basis for the Project.
 - ✓ The Supervisory Company may change the originally designated personnel provided that the substitutes meet the requirements indicated in this paragraph.
 - ✓

Regarding the following professionals: Project Supervision Chief, Chief Transmission Line Supervisor, Chief Substation Supervisor, Chief Civil Works Supervisor and Safety Chief, they should not be part of the supervision team of another Concession Contract.

6. **Reports**

The Supervising Company shall submit to the GRANTOR, the CONCESSIONAIRE and OSINERGMIN, the following types of reports, during the execution of the service and in magnetic media with source files:

- Monthly reports: At the end of each month and during the Project implementation period, the Supervising Firm shall prepare a report on the status of the Project.
- Observation reports: Each time the Supervising Firm detects an observation, it shall submit the respective report, describing the corresponding details.

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

- Specific reports: These are the reports that, during the execution of the work, OSINERGMIN or the GRANTOR may request on specific technical aspects or problems, safety situations, environmental aspects, incidents and accidents or on other aspects related to the execution of the Project, within the terms determined by them.
- Report of compliance with Annex No. 1 - Project Specifications.
- Final Level Engineering Review Report.
- Detailed Engineering Review Report.
- Engineering review report in accordance with the construction site.
- Report on the follow-up and verification of the Pre-Operational and Operational Studies, in relation to compliance with the scope of the contract and in particular Annex No. 1.
- Final Report: Once the works have been completed and all tests and commissioning have been accepted, the Supervising Company shall prepare the final report of its activities. In this report the Supervising Company shall express its approval and conformity with the installations.

7. Schedule for the execution of the service

The maximum term for the execution of the service is the term indicated in the contract, counted from the day following the date of subscription of the consulting service.

The Supervising Company shall start its work from the beginning of the Project's transmission system engineering project or the Pre-Operational Study, whichever occurs first.

If an extension of time is necessary, the Parties shall agree on such extension.

8. Information and monitoring facilities

The CONCESSIONAIRE shall place at the disposal of the Supervising Firm the documentation required by the latter.

These Terms of Reference, in general, consider the obligations to be fulfilled by the CONCESSIONAIRE and which are established in the GTS Concession Contract "500 kV Huánuco-Tocache-Celendín-Trujillo Link, extensions and associated substations", which includes Annex No. 1 "Technical Specifications of the Project" and Annex No. 2 "Procedure for Execution of Project Commissioning Tests".

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No. 11

TABLE OF PENALTIES

The CONCESSIONAIRE shall pay to the GRANTOR the penalties stipulated in this annex, in the amount and times indicated below, following the procedure established in Clause No. 11. All penalties are independent and cumulative.

1. For each calendar day of delay in the commencement of the Commercial Start-Up, as set forth in Annex No. 7 and taking into consideration the suspensions of time granted in accordance with Clauses No. 4.3 and 10, the CONCESSIONAIRE shall pay a penalty to be calculated as follows:

- a) US\$ 111,111 (One hundred and eleven thousand one hundred and eleven Dollars), for each of the first thirty (30) calendar days of arrears.
- b) US\$ 222,222 (Two hundred and twenty-two thousand two hundred and twenty-two Dollars), for each of the thirty (30) calendar days of delay subsequent to the period indicated in a).
- c) US\$ 333,333 (Three hundred and thirty-three thousand three hundred and thirty-three Dollars), for each of the ninety (90) calendar days of arrears subsequent to the period indicated in b).

The computation of the penalty shall start on the calendar day following the expiration of the term foreseen for the Commercial Start-up. If the termination cause foreseen in Clause No. 13.5.1 (b) has occurred, the GRANTOR shall only charge a penalty equal to the amount of the Construction Performance Guarantee, regardless of the exercise of its right to terminate the Contract.

2. For non-compliance or partial, late or defective compliance with the provisions of the award issued as a consequence of the dispute referred to in Clause No. 11.3 or in the communication referred to in the letter b) of the same clause, as applicable, the CONCESSIONAIRE shall pay the amount equivalent to fifteen percent (15%) of the Rate Base in force, without prejudice to the duty to comply with the award in its own terms.
3. In the cases set forth in Clause No. 13.5, in addition to the authority to terminate the Contract by the GRANTOR, the GRANTOR shall execute the corresponding guarantee.
4. In the cases of Clause No. 13.5.2 the following shall apply:
 - a) The penalty applicable to the CONCESSIONAIRE for non-compliance shall be calculated from the day following the notification of the term to make the cure until the effective day on which the non-compliance has been cured. For this purpose, a daily penalty equal to US\$ 111,111 (One hundred and eleven thousand one hundred and eleven Dollars) shall be accrued during the cure period.
 - b) If the CONCESSIONAIRE fails to remedy the breach within the term granted, the GRANTOR shall be entitled to terminate the Contract and shall only charge a penalty equal to the amount of the corresponding guarantee. The GRANTOR may execute the corresponding guarantee to collect the accrued penalty.
 - c) If the GRANTOR decides to continue with the Contract despite being entitled to terminate it, it shall collect the penalty accrued in accordance with Paragraph b) above and the CONCESSIONAIRE must replace the corresponding Contract Performance Guarantee in case the GRANTOR had executed it in order to collect the accrued penalty.
5. In the event of the occurrence of any of the events that constitute the grounds for termination of the Contract indicated in Clause No. 13.10, we shall proceed in accordance with the provisions of said clause.
6. For not extinguishing and/or lifting all and each one of the guarantees, charges and encumbrances that may exist on the assets, rights and Goods of the Concession, the CONCESSIONAIRE shall pay for each calendar day of delay, a penalty equivalent to zero point five percent (0.5%) of the current Rate Base.



"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

7. Likewise, for not proving the availability of use and/or custody of the land foreseen for expansions pursuant to Clause No. 4.2, the CONCESSIONAIRE shall pay an amount of five (5) Tax Units for each month or fraction thereof of delay in the fulfillment of the obligation and for each charge made by the GRANTOR.
8. In case the service exit rate of the line exceeds the tolerance indicated in Section 3.2.6 i) of Annex No. 1, the calculation of the penalty applicable to the CONCESSIONAIRE shall be determined by multiplying the excess of the service exit rate above the tolerance by 0.5% of the corresponding Rate Base.



"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No. 12 -A**MODEL CREDITOR'S AFFIDAVIT PERMITTED
[In case of credit agreements]**

Lima, _____, 202__.

Messrs.

Private Investment Promotion Agency – PROINVERSIÓN

Enrique Canaval y Moreyra No. 150, 9th Floor
San Isidro.

Permitted Creditor:

Reference: Concession Contract for the Project "500 kV Huánuco-Tocache-Celendín-Trujillo Link, extensions and associated substations".

In accordance with the provisions of the Concession Contract for the "500 kV Huánuco-Tocache-Celendín-Trujillo Link, extensions and associated substations" project (hereinafter, Concession Contract), we declare the following:

- a) That, we are not subject to any impediments or restrictions (by contractual, judicial, arbitration, administrative, legislative or other means), to assume and comply with the commitment to finance _____ (CONCESSIONAIRE), for which reason our competent internal bodies have approved a line of credit up to the amount of _____, in favor of _____ (CONCESSIONAIRE), which is destined to comply, directly or indirectly, with the obligations derived from the Concession Contract, under the following conditions:

1	Borrower:	
2	Lender:	
3	Amount of credit:	_____ [indicate currency].
4	Applicable interest rate:	_____ %
5	List of guarantees to be granted by (CONCESSIONAIRE):	<ul style="list-style-type: none">• _____• _____
6	Grace period and repayment term of the loan:	_____ (__) years/months
7	Credit amortization schedule:	The following is attached to this declaration
8	Commitment committee:	
9	Penalties applicable for prepayment:	
10	Conditions precedent for first disbursement and drawdown period	
11	Applicable Law	

- b) That, we comply with the requirements established in the Concession Contract, as well as all those required by the Applicable Laws and Provisions, to qualify as a Permitted Creditor, in accordance with the terms assigned to this definition in the Concession Contract.
- c) That, the credit agreements (i) do not contravene the Contract and establish that, in case of discrepancy between the credit agreements, or any other agreement ancillary thereto, and the



"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Contract, the provisions of the Contract shall prevail, (ii) do not modify the risk matrix of the Contract, and (iii) establish that the obligations of (CONCESSIONAIRE) in the financing agreements and the guarantees granted by (CONCESSIONAIRE) do not exceed the guarantees that may be granted in accordance with the Contract and the legislation in force, and that any agreement to the contrary shall not be enforceable against the GRANTOR.

- d) That, we undertake to lift all guarantees, charges and encumbrances that may exist on the Concession Assets or on the Concession right, at the latest, at the end of the term of twenty-nine (29) years counted as of the Commercial Start-up. In the event of termination of the Contract for causes other than expiration of the term of the Contract and mutual dissent, the aforementioned obligation shall be fulfilled within a term no longer than one hundred and twenty (120) useful days from the communication of the decision to terminate the Contract in application of the corresponding cause.

Sincerely,

Signature:

Name:
Permitted Creditor Representative

Entity:
Permitted Creditor

**PERÚ**Ministerio
de Economía y FinanzasAgencia de Promoción
de la Inversión PrivadaDirección de Portafolio
de Proyectos

"Decade of Equal Opportunities for Women and Men".
"Year of Strengthening National Sovereignty".
"Bicentennial Year of the Congress of the Republic of Peru".

Annex No. 12-B**MODEL AFFIDAVIT OF THE BONDHOLDERS' REPRESENTATIVE
[In case of issues in the capital market].**

Lima, _____, 202__.

Messrs.

Private Investment Promotion Agency – PROINVERSIÓNEnrique Canaval y Moreyra No. 150, 9th Floor
San Isidro.

Reference: Concession Contract for the "500 kV Huánuco-Tocache-Celendín-Trujillo Link, extensions and associated substations" Project.

In accordance with the provisions of the Concession Contract for the "500 kV Huánuco-Tocache-Celendín-Trujillo Link, extensions and associated substations" project (hereinafter, Concession Contract), we declare the following:

- a) That, we are not subject to any impediments or restrictions (by contractual, judicial, arbitration, administrative, legislative or other means), to act as bondholders' representative in the issuance of securities up to the amount of _____, in favor of _____ (CONCESSIONAIRE), which is destined to comply, directly or indirectly, with the obligations derived from the Concession Contract, under the following conditions:

1	Emitter:	
2	Structuring:	
3	Amount of the issue:	_____ [indicate currency].
4	Estimated interest rate range:	_____ %
5	List of guarantees to be granted by (CONCESSIONAIRE):	<ul style="list-style-type: none">• _____• _____
6	Deadline for payment:	_____ () years/months
7	Penalties applicable for prepayment:	
8	Applicable Law	

- b) That, acting on behalf of the purchasers of the securities issued by (CONCESSIONAIRE) we comply with the requirements established in the Concession Contract, as well as all those required by the Applicable Laws and Provisions, to qualify as representative of the bondholders.
- c) That, the indenture agreement (i) does not contravene the Concession Contract and establishes that, in case of discrepancy between the indenture and the Concession Contract, the provisions of the Concession Contract, or any other agreement ancillary thereto, shall prevail, (ii) does not modify the risk matrix of the Concession Contract, and (iii) the obligations of (CONCESSIONAIRE) in the indenture and the guarantees granted by (CONCESSIONAIRE) do not exceed the guarantees that may be granted under the Contract and the legislation in force, and that any agreement to the contrary shall not be enforceable against the GRANTOR.

Sincerely,

Signature:

Name:

Representative of the Bondholders