



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".

## Republic of Peru



ProInversión

**SGT Concession Contract**

### Project "500 KV CELENDÍN-PIURA 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.**



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**SGT Project Concession Contract**  
**"500 kV Celendín-Piura Link, Extensions and Associated Substations."**

Mr. Notary:

Please extend in the Registry of Public Deeds a public deed recording the Guaranteed Transmission System Concession Contract for the design, financing, construction, operation and maintenance of the project "500 kV Celendín-Piura, link, extensions and associated substations" (hereinafter, Contract) subscribed 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. \_\_\_\_\_, domiciled 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 authorized 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 Celendín-Piura 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 projects that are part of the 2021 - 2030 Transmission Plan, which includes the Project.
- 1.3 By means of PROINVERSIÓN Agreement No. 116-1-2022-CD adopted by the Board of Directors of PROINVERSIÓN on April 5 and 6, 2022, approved the incorporation of the Project to the private investment promotion process and the Public Private Partnership modality applicable to it.
- 1.4 By Resolution of the Executive Board of PROINVERSIÓN No. 14-2022/DPP.EL.16 of March 4, 2022, ratified the Pro-Mining and Energy Committee Agreement No. 67-1-2022-Transmission Lines, through which the Project Promotion Plan was approved.
- 1.5 The Record of Submission of Envelopes No. 1 and No. 2 and Successful Bid dated \_\_\_\_/\_\_\_\_/\_\_\_\_ in which the awarding of the Successful Bid stated.
- 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 3.
  - 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.

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- c) All references made in the Contract to "Clause", "Annex", "Subsection" or "Paragraph" shall be understood to be made to Clauses, Annexes, Subsections or Paragraphs 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 form 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 Agency for the Promotion of Private Investment - 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 for the Efficient Development of Electricity Generation, the Transmission Regulation, approved by Supreme Decree No. 28832. 027-2007-EM, Decree Law No. 25844, Law of Electric Concessions, its Regulations approved by Supreme Decree No. 009-93-EM, and other applicable laws and regulations.
- 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 Competent 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 Electrical 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.
  - 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.

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- 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, submission 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 representatives 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 Operation of the Project are completed, the Qualified Operator shall be the holder of the Minimum Interest, 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 Bidding Terms. 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 for the Qualified Operator.
- 2.8 The Base Rate 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 As of the Closing Date, the CONCESSIONAIRE shall be liable, in accordance with the Applicable Laws and Provisions, for any damage or loss caused to or by the Concession Assets. 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 related 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.

### **3. LEGAL NATURE, PURPOSE, VALIDITY 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.

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- 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 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 will 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. 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. No. 13.28.
- 3.6 The Contract becomes effective on the Closing Date and terminates thirty (30) years after Commercial Operation.

#### **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 Competent 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 Competent 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 Operation. The fulfillment of this obligation must be communicated to the GRANTOR with the respective support.

Likewise, the CONCESSIONAIRE shall acquire and install in the lines and substations, new equipment and materials in accordance with this Contract, considering the homologation 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 will be communicated to the OSINERGMIN, who will carry out the due supervision, according to the procedure approved for such purpose.



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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 established in said annex, without prejudice to the suspension of terms settled in this Clause and in Clause No. 10.

When non-compliance with any of the aforementioned milestones is due to the improper action or omission of the Competent Governmental Authority, the deadlines for compliance with the milestones set forth in Annex 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 Competent Governmental Authority shall be understood as the suspension or delay in the approval of authorizations related to the Commercial Operation, 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 Competent Governmental Authority in accordance with the Applicable Laws and Provisions).

The CONCESSIONAIRE shall notify the GRANTOR of the improper action or omission of the Competent 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 may request to the GRANTOR the suspension of the corresponding term, as set forth in Annex 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 Competent 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 may 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 provided 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 derived from the facts that support such request.

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 Clause No. 4.8 and 4.9, (iii) accredit the Financial Closing and (iv) obtain the approval of the corresponding

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Environmental Management Instrument, according to the requirements and procedures of the Competent 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 Company 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 will 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 paginated and endorsed 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 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



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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 will 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, counted 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 appropriate. 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 Competent Governmental Authority for the granting of the rights, licenses and authorizations required under the Contract and to be recorded in the work 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 Clause No. 4.3 and 10 will entail, as applicable, the modification of the Schedule, considering that, in accordance with the provisions of Article No. 37-D of the Regulations of the Electricity Concessions Law, the definitive concession includes the schedule for the execution of works stipulated in the Contract.

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- 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 Operation, the CONCESSIONAIRE shall submit to the Ministry of Energy and Mines and OSINERGMIN an updated Schedule within ten (10) calendar days following the 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 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 OPERATION**

- 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 Operation, 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 Operation, 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 will 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 Operation.

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 Competent Governmental Authority with such information and inspection facilities as the latter may require to control 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 will be developed for a period of thirty (30) calendar days

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and will 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 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 Operation will 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 will include the date of the beginning of the Commercial Operation.

- 5.5 In the event that 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 will 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 will begin. In case a minor or equal time 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 Operation.
- 5.7 The CONCESSIONAIRE shall hold harmless the GRANTOR related 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.
- 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 for poor quality of supply or poor quality of service 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 of time technically possible.

The fact that the CONCESSIONAIRE does not operate the elements and/or equipment in order 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 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 as long as 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 will be discounted from the Rate Base in the corresponding liquidation process.

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- 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.
- 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 Assets of the Concession in accordance with the audited financial statements. The format for the presentation of such inventory will 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 Paragraph b) of subsection No. 22.2 of Article 22 of Law No. 28832 and Subsection 7.6 of Article No. 7 of the Regulations approved by Supreme Decree No. 027-2007-EM or regulations that replace or modify them, nor the Base Rate that OSINERGMIN would have approved for the Reinforcement. It may only exercise or not exercise the 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 resources, 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 Subsection 3.2.3 i) of Annex No. 1, in accordance with Subsection No. 8 of Annex No. 11.

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

## **6. CONTRACTS WITH THIRD PARTIES**

6.1 In all contracts, agreements 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 credits or rights arising from third party contracts with the CONCESSIONAIRE.
- b) Limit their term 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 into 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.



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In the event that 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 Superintendence 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, franchising 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, considering 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 paragraphs hall 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.
- b) Contain a statement that the insurance company has waived subrogation rights with respect to the GRANTOR.

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- c) 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 as defined in Article 1 of Law No. 28832, to be recognized for the rendering of the Service and determined in accordance with this Clause 8.
  - b) Investment Cost: the amount of \_\_\_\_\_ (US\$ \_\_\_\_\_). It constitutes the investment or investment component referred to in Articles 24 and 25 of Law No. 28832 (Forms 4, 4-B and 4-BB 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 24 and 25 of Law No. 28832 (Forms 4, 4-B and 4-BB included as Annex No. 6).
  - d) Recovery Period: corresponds to a term of thirty (30) years, counted from the date of Commercial Operation.
  - e) Restatement Rate: corresponds to the value of the restatement rate referred to in Article No. 79 of the Electricity Concessions Law, in effect on the date of the call for bids for the concession delivery of the Project.
  - 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 date of the update shall be used.  
  
The initial index will be the last data published as definitive corresponding to the month of the date of presentation of Offers.

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In the event that the WPSFD4131 index is discontinued, it will 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 will be made annually by multiplying the value resulting from the bidding process by the following factor:

$$Fa = IPPn / IPP0$$

Where

- Fa : Updating 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 Submission Date of the Offer 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 paragraph 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 submission 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 paragraph 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 27 of the Transmission Regulation. For the calculation of the monthly rate, the Restatement Rate defined in paragraph 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, paragraph c) of Law No. Subsection 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 amounts, 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 In order 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 Operation
- 9.2 The provisions of the foregoing paragraph shall not exempt the CONCESSIONAIRE from its obligation to comply with each and 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:
- 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

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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 must maintain all the obligations to which it undertakes by this Contract, without any exception.

In this case, the prior approval of the GRANTOR is required, who shall issue its decision within a term no longer than thirty (30) days, computed as from the reception of the request submitted by the CONCESSIONAIRE. The GRANTOR shall be entitled to request additional information from the CONCESSIONAIRE, in which case the previous term is suspended.

The term shall be accounted for again when the CONCESSIONAIRE submits the additional information required. If the GRANTOR does not pronounce itself 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) 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 will be understood that the application has been approved. In the event of a 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) encumbrances on the shares or participations in the CONCESSIONAIRE other than the Minimum Participation or (ii) cash flows for the provision of the Service, prior approval of the GRANTOR shall not be required.

- 9.4 In case of Permitted Secured Indebtedness through credit agreements, the CONCESSIONAIRE shall request PROINVERSIÓN to review and issue the corresponding Permitted Creditor's conformity. For such purposes, the CONCESSIONAIRE shall submit an affidavit issued by the potential Permitted Creditor pursuant to Annex 12-A stating that it meets the qualifications set forth in the definition of "Permitted Creditor" of the Contract. For purposes of the foregoing, PROINVERSIÓN will only decide whether the Permitted Creditors comply with the definition of this Contract.

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9.5 In the event 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 12-B in order for PROINVERSIÓN to consent that such issuance constitutes Permitted Secured Indebtedness. For purposes of the foregoing, PROINVERSIÓN will only rule on whether the sworn statement includes all the information indicated in Annex 12-B.

9.6 Once the request referred to in Clause 9.4 or 9.5, as the case may be, 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 from the CONCESSIONAIRE, in which case the above term shall be suspended. The term shall be accounted for again when the CONCESSIONAIRE submits the additional information required. If PROINVERSIÓN does not pronounce itself within the aforementioned term, then the documents shall be understood as rejected for all purposes.

If the request referred to in Clause 9.4 or 9.5, as the case may be, 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 will follow the same procedure indicated in the previous paragraph. If PROINVERSIÓN does not issue a decision within the established term, or if the extension of the term to issue a decision has expired, it shall be understood that the respective application has been approved.

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

The rejection of the request referred to in Clause 9.4 or 9.5, as the case may be, shall be generated in a duly reasoned manner.

9.7 The same procedure indicated in Clause 9.4 shall apply each time the CONCESSIONAIRE wishes to credit a new Permitted Creditor.

9.8 The contracts supporting the Permitted Guaranteed Indebtedness shall stipulate:

a) That the resources to be obtained:

- i. 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 credits and other debts 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 allocated to what is indicated in section i. above or in this paragraph), in accordance with the parameters of maximum indebtedness recorded in the entered financing contracts.

b) That none of such operations can have a direct or indirect effect of exempting the Concessionaire from its particular 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 must lift all guarantees, charges and encumbrances that may exist on the Concession Assets or on the right of Concession, at the latest, at the end of the term of twenty-nine (29) years counted from the Commencement of Commercial Operation. 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 not to exceed one hundred and twenty (120) days from the communication of the decision to terminate the Contract in application of the corresponding cause.

The obligations indicated in this paragraph shall be enforceable even if there is any outstanding obligation on the part of the CONCESSIONAIRE to the Permitted Creditors or third parties.



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Failure or partial, late or defective fulfillment of these obligations, will cause the obligation of the CONCESSIONAIRE to pay the GRANTOR the penalty established in Subsection No. 6 of Annex No. 11.

9.9 The contracts supporting the Guaranteed Permitted Indebtedness shall stipulate:

- a) If requested by the CONCESSIONAIRE or the Permitted Creditors, 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 for which they request a copy.
- 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.

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 entity with the technical qualifications that it meets directly or through Related Companies, the Qualification requirements that were required in the Bidding at the time, to assume the contractual position of the CONCESSIONAIRE or change to 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 period of one hundred and eighty (180) calendar days, counted from the filing of the application to start its operation. On the expiry of the period referred to above, the GRANTOR will have expedited its 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, to receive the sums of money that may arise, after the application of Clause No. 13.35.

9.10 The CONCESSIONAIRE must present the documents that support the Financial Closure before PROINVERSIÓN for its review and compliance, in accordance with 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 Operation, the CONCESSIONAIRE must submit the following: (i) copy of the duly executed financing contracts; and/or (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; (iii) in the case of financing contracts with Permitted Creditors, an affidavit 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 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.

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Neither the GRANTOR nor PROINVERSIÓN is responsible for evaluating the financing terms. PROINVERSIÓN, within a term no longer than thirty (30) days, shall communicate to the GRANTOR and CONCESSIONAIRE the result of the review. PROINVERSIÓN shall be entitled to request additional information from the CONCESSIONAIRE, in which case the deadline for communicating to the GRANTOR is suspended. The term shall be accounted for again when the CONCESSIONAIRE submits the additional information required. If PROINVERSIÓN does not issue a decision within the established term, it will be understood that the documents have been approved.

In any case, the referred contracts or agreements shall expressly contain a provision referring that in the event the financing becomes ineffective, or the CONCESSIONAIRE incurs in any because 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 following its modification. In the same way, it shall inform the GRANTOR semiannually 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 for 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 For the construction phase, which runs from the Closing Date until the Commercial Operation, the provisions of Clauses No.10.2 to 10.8 are applicable.

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 the supply, as well as any other matter relating to the NTCSE and its complementary regulations, shall be governed by the provisions of said standard, its complementary and amending rules, 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, unpredictable and irresistible nature, which prevents any of them from fulfilling the obligations under their charge or causes their partial, late or defective fulfillment.

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 fact satisfies the above definition:

- a) Any act of external, internal or civil war (declared or undeclared), state of siege, invasion, armed conflict, blockade, revolution, mutiny, 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 an employment or commercial relationship with the CONCESSIONAIRE or its suppliers, which prevents it from fulfilling 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.

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- 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 the Relevant Governmental Authority.
  - e) Any earthquake, flood, drought, fire, explosion, or any meteorological or hydrological phenomenon, provided that it directly affects all or part of the Concession Assets and/or the Work or its elements, and that in turn prevents the CONCESSIONAIRE from fulfilling its obligations within the term of the Contract.
  - f) Any epidemic, contamination, pest 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 CONCESSIONAIRE, which seriously affect the performance of the Contract, preventing the CONCESSIONAIRE from complying with the obligations for which it is responsible.
- 10.4 For cases in which the timely fulfillment of any of the milestones established in Annex No. 7 is affected, a 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 the 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 the event that the Party that is affected does not report within the established period, it will be understood that said event does not constitute an impediment to the total or partial fulfillment of the obligations under its charge, unless within that same period it justifies that it requires more time to comply with the content indicated above.
- 10.6 Either Party may request, for reasons of force majeure or fortuitous event, if circumstances so require, the suspension of the obligation concerned or of the deadlines 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 termination of the event of force majeure or fortuitous event has not occurred, ninety (90) calendar days from its beginning, the term of the previous paragraph shall begin to be computed from the day following the fulfillment of 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.

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In the event of what is indicated in the second paragraph of this Subsection, 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 to it within sixty (60) days of 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 deadline for resolving the request shall be suspended until the submission of additional information, clarification and/or correction. Failure of the Party receiving the request to make a pronouncement within the time limit shall be treated as an acceptance of the request for qualification of force majeure and suspension of the period limit.

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.

In the event that the Party that notified the event of force majeure or fortuitous event pursuant to Clause 10.5 does not request the suspension pursuant to this Clause, it shall automatically be understood that said Party declares and accepts that the event notified does not constitute an impediment for the total or partial performance of its obligations.

In the event that 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 resolved by arbitration in accordance with the provisions of Clause 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 In the event that 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 14, according to the rules of national arbitration.
- 10.9 The CONCESSIONAIRE has the obligation to minimize the scheduled stops for maintenance and similar events, in accordance with the Applicable Laws and Provisions, and failing that, to the best practices of the industry.
- 10.10 Force majeure or fortuitous event will not release the Parties from the fulfillment of obligations that are not affected by said 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 fulfillment of its obligations.

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## 11. PENALTIES AND SANCTIONS

### Penalties for non-compliance of the 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 fulfillment 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 towards third parties.
- 11.2 The cases of non-compliance referred to in the preceding clause shall entail the application of the penalty that may arise and the subsequent obligation to pay it, without prior notice being required; likewise, the payment of the penalty does not release the CONCESSIONAIRE from the fulfillment of the corresponding obligation, even in cases where the breaches are the result of contracts that it enters into with the builder, 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:
- 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 subsection 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 paragraph.  
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 applicable.
  - c) In the event that the CONCESSIONAIRE fails to pay the penalty, the GRANTOR shall have the right to request the execution of the respective Guarantee of Faithful Compliance of the Contract.

### 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 for poor quality of supply or poor quality of service 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 judgment or enforceable arbitration award



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derived from the execution of the Contract, the CONCESSIONAIRE shall deliver to the GRANTOR the Guarantee of Faithful Compliance of the Contract, in accordance with the following rules:

- a) The delivery of the Guarantee of Faithful Construction Compliance to the GRANTOR is a requirement for the Closing Date.
  - b) The Guarantee of Faithful Construction Compliance shall be in effect from the Closing Date until one month after the Commercial Operation. Said Construction Performance Guarantee shall be granted for annual periods until the term described above is fulfilled. Likewise, it will be returned upon delivery of the Guarantee of Faithful Operation Compliance described in paragraphs d) and e) of this clause.
  - c) In the event of delay in the commencement of Commercial Operation, the Guarantee of Faithful Construction Compliance 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 Guarantee of Faithful Operation Compliance must be delivered at the opportunity indicated in Paragraph b) of this Clause and remain in force until six (6) months after compliance with the term of the Contract.
  - e) The Guarantee of Faithful Operation Compliance 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, irrevocable, unconditional, without the benefit of excuses, nor division and automatic realization, issued by any of the Financial Institutions indicated in the Bidding Terms, following the format and for the amount indicated in Annex No. 4.
- 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 enforce 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 Compliance 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 Guarantee of Faithful Compliance of the Contract, 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 guarantee, 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 Guarantee of Faithful Compliance of the Contract, 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;

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- 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 with the following grounds: 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 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 ends due to serious non-compliance 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 veracity of any of the statements made in Clause No. 2.5.
  - b) The delay for more than one hundred and fifty (150) calendar days with respect to the period in which any of the milestones indicated in Annex No. 7 must be met. The verification of this term must consider the suspensions that would have occurred by the application of Clause No. 4.12.
  - c) The partial or total transfer of the Contract, by any title, of the rights of the CONCESSIONAIRE derived from the Contract or the assignment of its contractual position without the prior 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 reason is applicable as of the second year of the commercial operation.
  - e) The declaration of insolvency, dissolution, liquidation or bankruptcy of the CONCESSIONAIRE.
  - f) The commission of any act or omission that constitutes a willful breach of the CONCESSIONAIRE that results in the commission of a crime of public action to the detriment of the GRANTOR when so provided by a final or consensual judicial judgment.
  - g) The issuance of a final or consensual court order or a final administrative decision that prevents the CONCESSIONAIRE from carrying out a substantial part of its business, provided that said 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 33 of the Regulations to 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 of 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

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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 Guarantee of Faithful Compliance of the Contract, 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.
- 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. 9.6, 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 final 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) final 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 ends due to 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

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be calculated immediately after the end 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 Competent 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 Operation 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 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 Guarantee of Faithful Compliance of the Contract.

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

**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 and 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 if the reason for termination has been invoked, except when according to the Contract this is not necessary. After said term without any invocation having been made, it shall be understood that the

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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 grounds for expiration of the term, unilateral decision of the GRANTOR, Total Destruction and application of the anti-corruption Clause, an invocation of the termination of the Contract will not be necessary since it occurs automatically once such grounds are configured as provided between Clause No. 13.3 and Clause No. 13.10, as applicable.
- 13.14. In the case of the cause of mutual dissent, the invocation of termination of the contract will occur with the first communication that begins the negotiations between the Parties for these purposes. Within five (5) Days of the start 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:
- 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 it, 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. 9.9 paragraph b).
- 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 applicable.
- 13.20. In the case of the case indicated in paragraph b) of Clause 9.9, the intervenor shall be chosen by the GRANTOR from a list of three persons proposed by the Permitted Creditors, within a maximum term of thirty (30) days following the proposal of the list. If the GRANTOR does not choose the intervenor within the established term, the Permitted Creditors may choose the intervenor from the list that was



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proposed. In this case, the financial controller, by the sole merit of its appointment, shall have the powers described in Clause 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 paragraph 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 Clause leading to the effective termination of the Contract shall be applied without restrictions.

13.22. The CONCESSIONAIRE may request reconsideration of the intervenor's instructions before the General Directorate of Electricity of the Ministry of Energy and Mines. To this end, the CONCESSIONAIRE must send a formal communication supporting the reason for the review. The General Directorate of Electricity must resolve the request within a maximum period of ten (10) Days; otherwise, the aforementioned request shall be deemed accepted. During the first five (5) Days, the General Directorate of Electricity 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 intervenor.

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.

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- 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 Operation, the base amount shall not be less than the Book Value. ii) In case the termination occurs before the Commercial Operation, the base amount shall be the Book Value plus the Pre-operating Expenses.
- 13.27.5. In the event that the first tender is void or the concession contract is not signed, no more than sixty (60) Days may elapse for the publication of the second call. For this second call, the GRANTOR may reduce the base amount of the first tender by up to twenty-five percent (25%).
- 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 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 Levels of Service.
- 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 procedures and manuals of operation and maintenance of the Project.
  - 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.

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- 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 causes, 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.
- 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 Settlement Amount will be the Book Value. If the Contract ends before the Commercial Operation, the Settlement Amount will be the value indicated above plus the Pre-operational 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 Operation, or (ii) the Book Value if the event is subsequent to the Commercial Operation.
- 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:
- a) The base amount of the first or second call for bidding process of the Concession, and;
- b) The Book Value plus the Pre-operational Expenses, if the event is prior to the Commissioning of the Commercial Operation; or,
- c) The Book Value, if the event occurs after Commercial Operation.
- In case the GRANTOR decides not to carry out the Concession bidding, the Settlement Amount shall be the one indicated in the paragraphs b) or c) above, as the case may be.

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- 13.32.4. In the event of termination for reasons 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 Operation;
  - b) The greater value 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 Operation.
- 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 Assets and the Book Value for the remaining Concession Assets, plus one-half of the costs of the Concession Intervention and the Concession Bidding, if any. If the Contract terminates prior to Commercial Operation, the Liquidation Value shall be the amounts indicated above plus Pre-operating Expenses.
- 13.32.6. In case of termination due to Force Majeure or Fortuitous Event, 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 Operation, 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 amount determined in accordance with Clause 13.32.3 (termination due to CONCESSIONAIRE's breach); without prejudice to the penalty stipulated in Clause 13.10.
- 13.33. The Book Value and Preoperating Expenses, if applicable, shall be determined by the Expert. The Expert must be a natural or legal person chosen by the Parties, who must comply with at least the following characteristics: i) no economic relationship with the CONCESSIONAIRE, in accordance with the provisions of Resolution of the SMV No. 019-2015-SMV/01 or regulation that replaces it; ii) not having contracted with the CONCESSIONAIRE in the twelve (12) months prior to its election; and iii) having at least five (5) years of experience in financial valuation of infrastructure companies or projects. The fees of the Expert shall be borne by the Parties in equal proportion.
- For the determination of these values, the Expert 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 these 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 the delivery of money to the trust shall be made as indicated below and the delay in delivery will generate interests 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

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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 deadlines 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%.
- 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 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 Settlement Amount indicated in Clause No. 13.33, shall be treated as a Technical Dispute, in accordance with 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. The 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 Guarantee of Faithful Compliance with the Contract, without the CONCESSIONAIRE being entitled to its reimbursement.
- 13.37.2. The GRANTOR may demand compensation for damages that may arise, without prejudice to the application of the corresponding penalties, when the Contract ends for reasons attributable to the CONCESSIONAIRE.
- 13.37.3. The GRANTOR shall return to the CONCESSIONAIRE the Guarantee of Faithful Compliance with the Contract no later than thirty (30) Days after the occurrence of the deadline indicated in Clause No. 13.31, unless this had been executed or corresponded to be executed in accordance with the rules of the Contract.
- 13.37.4. Any cause attributable to the CONCESSIONAIRE that had the object and/or effect of delaying the termination procedure of the Contract, will 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 require in writing the CONCESSIONAIRE to correct any action or omission that was delaying the termination procedure and shall grant a maximum period of ten (10) days for that 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.



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## 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.

### 14.2 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.

### 14.3 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.

### 14.4 Interpretation Criteria

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

In case there is any divergence of interpretation of this Contract, the following order of priority shall be followed to resolve said 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 "Paragraph" are understood to refer to the Contract, unless otherwise expressly indicated or that, 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.

### 14.5 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.

### 14.6 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 deal 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 deal 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 period referred to in the preceding paragraph may be modified by a joint decision of the Parties, considering the circumstances of each dispute, and an early termination of direct deal may also be agreed. Such agreement shall be in writing.

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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.

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 applicable. Technical disputes or uncertainties shall be resolved in accordance with the procedure set forth in Clause 14.7 (a). Conflicts or uncertainties that are not of a technical nature shall be resolved in accordance with the procedure set forth in Clause 14.7 (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 paragraph b).

#### 14.7 Arbitration

- a) Conscience 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 best understanding, knowledge and belief.

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

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of Commerce. The Regulations of said institution shall be applicable in all matters not provided for in this Contract.

- b) Arbitration at Law: Non-Technical Disputes shall be resolved by arbitration at law, in accordance with Article 57, paragraphs 1 and 2 of Legislative Decree No. 1071, a procedure in which the arbitrators shall analyze and resolve in accordance with applicable Peruvian law, including Legislative Decree No. 1362 and its Regulation, approved by Supreme Decree No. 240-2018-EF, and rules that modify or replace them, the following should be considered:
- 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 will be conducted in Spanish language. The Rules of said institution shall apply in all matters not provided for in this Contract.
  - iii. The Parties agree that the provisions of the "Emergency Arbitrator", or of the "Abbreviated Procedure", "Express Arbitration", "Accelerated Arbitration", "Expedited Arbitration" or similar shall not apply, so that none of the parties of this Contract may request the application of its provisions provided for in the regulations of the Center.

#### 14.8 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 period 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) In accordance with the provisions of Subsection No. 133.2 of Article No.133 of the Regulation 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 that the causes foreseen in Article 63 of Legislative Decree No. 1071, as the case may be. The 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 course of the arbitration 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

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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, considering 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 aforementioned expenses. In the event that the transaction or conciliation does not establish it, 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 shall 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 resolution, it may consider that a non-technical dispute has occurred, which will be resolved in accordance with Clause No. 14. The terms 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 balance at the following times:

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

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- 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 Operation by an amount equivalent to ten percent (10%) or more of the Investment Cost set forth in paragraph 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.
- 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 paragraph.
- 15.8 The provisions of this Clause shall not be considered applicable for those changes produced as a result of the provisions issued by the Competent Governmental Authority, which establish infractions or sanctions, or the application of penalties that were contemplated in the Contract or that were as a result of acts, facts attributable or result of 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.
- 16.2 The CONCESSIONAIRE may sign with the GRANTOR, a legal stability agreement, which according to the applicable regulations has the status of a contract law, in accordance with the provisions of Legislative Decrees No. 662 and No. 757 and the first and second paragraphs of Article No. 19 of the Sole Ordered Text of the regulations with the status of Law that regulate the concession delivery to the private sector of public infrastructure and public services works approved by Supreme Decree No. 059-96-PCM, subject to compliance with the conditions and requirements established in said regulations.
- 16.3 Likewise, the CONCESSIONAIRE may access the tax benefits that correspond to it, provided that it complies with the procedures, requirements and substantial and formal conditions indicated in the Applicable Laws and Provisions.





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## **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.
- 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.



PERÚ

Ministerio  
de Economía y Finanzas

Agencia de Promoción  
de la Inversión Privada

Dirección de Portafolio  
de Proyectos

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By the GRANTOR:

By the CONCESSIONAIRE:

\_\_\_\_\_  
Representative's signature

Date of signature: \_\_\_\_ / \_\_\_\_ /20\_\_.

\_\_\_\_\_  
Representative's signature

Date of signature: \_\_\_\_ / \_\_\_\_ /20\_\_.

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## Annex No.1

### TECHNICAL SPECIFICATIONS OF THE PROJECT

#### "500 kV Celendín-Piura 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. It must also 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 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).
- 1.5 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.
- 1.6 The CONCESSIONAIRE, pursuant to paragraph 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. If the GRANTOR does not approve the minor modifications requested, in accordance with the procedures established in this contract, the CONCESSIONAIRE must 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 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

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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 Celendín - Piura Transmission Line

Single circuit line configuration and approximately 381.3 km long, with a design power of 1400 MVA.

### ii. 500/220 kV Celendín Substation Expansion

500 kV breaker and medium connection configuration with AIS equipment, comprising the following installations:

- a) One (01) line cell to Piura, equivalent to 2/3 of the diameter.
- b) One (01) 500 kV - 200 MVAR line reactor bank, consisting of 3 single-phase units of 66.6 MVAR each, plus a backup unit.
- c) 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 Celendín-Piura line, with a minimum capacity of 1400 MVA.

### iii. 500/220 kV Piura Nueva Substation Expansion (\*)

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

- a) One (01) line cell to Celendín equivalent to 2/3 diameter.
- b) One (01) 500 kV - 200 MVAR line reactor bank, consisting of 3 single-phase units of 66.6 MVAR each, plus a backup unit.

(\*) Designation of 00/220 kV Piura Nueva substation corresponds to 500/220 kV Miguel Grau 500/220 substation according to COES registry.

## 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.

- 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.

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- c) No modifications to the requirements and technical specifications indicated in this Annex shall be accepted. Exceptionally, the CONCESSIONAIRE, at its cost and risk, may request or propose minor modifications to the requirements and technical specifications indicated in Items 3.2.3, 3.3.3.3, 4.1 and 4.2 of Annex No.1, submitting the due technical support and the GRANTOR shall approve 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 decide within such term, it shall be understood that the request has been denied.

The modifications indicated are minor and correspond to those that may be required to improve and/or specify the technical characteristics referred to the Subsections indicated in the previous 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 CIRA (certification from the Ministry of Culture on non-affection to 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 lines shall be 64 m, and shall comply with the requirements of Rule 219.B.2 of the National Electricity Code (2011 Supply). Likewise, in areas with 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, the removal or cutting of trees.

## **3.2. TRANSMISSION LINES**

### **3.2.1. General technical characteristics**

#### **a) Thermal Boundary 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 Celendín – Piura T.L.	1400 MVA

#### **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.



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### 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 Celendín - Piura Transmission Line

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

The main features of this line are:

- Design power : 1400 MVA
- Approximate length : 381.3 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 of galvanized steel
- Phase conductor : Bundle of four sub-conductors, of different sizes depending on altitude

Altitude (masl)	Conductor
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)
- Ground wire : Two (02) cables: one OPGW type, 36 fibers at least, and another one of the steel wire rope type galvanized EHS.
- Altitude : Minimum 100 masl  
Maximum 3699 masl

### 3.2.3. 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<sub>peak</sub>
- Holding voltage at impulse type maneuvering (phase-ground) : 1175 kV

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

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The minimum leakage lengths to be considered shall be:

- In coastal areas with altitudes up to 1000 masl : 31 mm/kV<sub>phase-phase</sub>
  - In areas with altitudes higher than 1000 masl : 20 mm/kV<sub>phase-phase</sub>
- 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 in the line structures shall not exceed 25 Ohms. This value should be verified for normal soil conditions and in no case after a rain or when the soil is wet. However, this value must be verified in order to comply with NEC Rule 036.A (2011 Supply). 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 sub conductor.  
The maximum surface gradient in the conductors must not exceed the following critical gradient values:
    - 18.5 kVrms/cm, with altitudes up to 1 000 masl. This value is referred to sea level and must be corrected for altitude.
  - e.2) Non-ionizing radiation limits at the boundary of the easement strip, for population exposure according to Annex C4.2 of the CNE-2006 Use.
  - e.3) The audible noise at the boundary of the easement strip, for residential areas according to Annex C3.3 of the CNE-2006 Use.
  - e.4) Radio interference limits shall comply with Chapter 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 indicated 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 transmission lines as indicated in Chapter 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 No. 6 of Chapter No. 1, Annex No.1 of COES Technical Procedure PR-20.
- 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's out-of-service rate does not exceed "1 outage/ (100 km.year)", for the 500 kV level.

In order 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.
- 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 in excess of this limit shall be penalized, as indicated in Clauses 5.13 and 11.1 of the Contract, as well as in subsection 8 of Annex No. 11 of the Contract.

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The penalties indicated do not exclude any compensation that may be applicable in accordance with the NTCSE.

- j) A 36-fiber OPGW type ground 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 sending data to the COES in real time, remote control and telecommunications.

The OPGW ground wire as well as the galvanized steel cable 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.

- 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 charges that present the best construction and operation option, as long as a useful life time of no less than 30 years is guaranteed.
- 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 Celendín – Piura T.L.	381.3	700	0.0068

**Note: 1)** Estimated predominant Transmission Power in the operation of the line.

Compliance with these loss levels may be verified by the Grantor, through the design calculations of the conductor, 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:

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

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 for scheduled maintenance of each transmission line shall not exceed two eight-hour days.
- 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 planned according to 500 kV AIS technologies using switch and medium connection configuration. In this sense, the Concessionaire shall provide the necessary spaces and areas for this type of configuration, as well as the areas foreseen for future expansions.

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

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### 3.3.1. 500/220 kV Celendín Substation Expansion

The planned 500/220 kV Celendín substation is included in the project "500 kV Huanuco-Tocache-Celendín-Trujillo link, extensions and associated substations", is located in the district of Sucre, province of Celendín, department of Cajamarca at an altitude of approximately 2610 masl and at the following UTM coordinates (datum WGS84, Zone 17 M):

EAST COORDINATE	NORTH COORDINATE
819138	9231544

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

The Celendín substation has a switch-and-a-half connection configuration at the 500 kV level, with AIS equipment.

- One (01) line cell to Piura, equivalent to 2/3 of the diameter.
- One (01) 500 kV - 200 MVar line reactor bank, consisting of 3 single-phase units of 66.6 MVar each, plus a backup unit.
- 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 Celendín-Piura line, with a minimum capacity of 1400 MVA.
- Complementary systems for protection, control, measurement, communications, gantries and bars, grounding, auxiliary services, civil works, etc. The proposed equipment shall maintain the compatibility of the design of the facilities of the "Huánuco-Tocache-Celendín-Trujillo 500 kV link, extensions and associated substations" project.

The CONCESSIONAIRE shall be responsible for coordinating with the owner of the Celendín 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 Celendín substation must have similar or superior characteristics to the backyard equipment to be installed in said substation.

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### 3.3.2. 500/220 kV Piura Nueva Substation Expansion

The 500/220 kV Piura Nueva substation is under construction by Concesionaria Línea de Transmisión La Niña S.A.C., located in the district of Castilla, province of Piura, department of Piura, at an altitude of approximately 1000 masl and at the following UTM coordinates (datum WGS84, Zone 17 M):

EAST COORDINATE	NORTH COORDINATE
550521.33	9422157.20

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

The Piura Nueva substation has a switch and a half connection configuration at the 500 kV level, with AIS equipment, and shall be connected to the SEIN; to the La Niña substation at 500 kV, to the Piura Oeste substation at 220 kV.

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

- One (01) line cell to Celendín equivalent to 2/3 diameter.
- One (01) 500 kV - 200 MVAR line reactor bank, consisting of 3 single-phase units of 66.6 MVAR each, plus a backup unit.
- 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 facilities to be implemented in the "500 kV La Niña - Piura Link, Substations, Lines and Associated Expansions" project.

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

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

### 3.3.3. 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, the following requirements must be met:

#### a) General technical characteristics

- 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.
- 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.
- Equipment must have certified reports from recognized international institutes showing that they have successfully passed the Type Tests. All equipment shall be subjected at least to all the Routine Tests prescribed by the applicable standards.
- Equipment must comply with the following standards: IEC, ANSI/IEEE, VDE, NEMA, ASTM, NESC, NFPA, as applicable.



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**b) Location and space for substation expansions**

- b.1. The CONCESSIONAIRE shall be responsible for managing, coordinating or acquiring under any title the right to use the available spaces in the existing or planned substations, establishing the respective agreements with the substation owners.
- b.2. The CONCESSIONAIRE shall also be responsible for acquiring the ownership of the land adjacent to the existing or planned 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 kV <sub>peak</sub>
	1800 kV <sub>peak</sub> (*)
Holding tension at maneuver type impulse	1175 kV
	1300 kV <sub>peak</sub> (*)

(\*) for Celendín S.S.

**c3. Protection Levels**

Minimum leakage line Phase-Phase	
In coastal areas with altitude up to 1000 masl	31 mm/kV <sub>phase-phase</sub>
In areas with altitude over 1000 masl	20 mm/kV <sub>phase-phase</sub>
Protection against atmospheric discharges minimum	Class 5 (500 kV)

**c4. Safety distances**

The separations between phases for bare conductors and busbars to the outside shall be at least:

- 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 therefore 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:

	<b>500 kV</b>
Minimum rated current	2500 A
Three-phase short-circuit breaking capacity, 1s	40 kA
Three-phase short-circuit breaking capacity	104 kA <sub>peak</sub>

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

**e) Current transformers**

500 kV current transformers on transmission lines shall have at least four secondary cores:

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

500 kV current transformers in reactors shall have at least three secondary cores:

- Two 5P20 protection cores.

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b) A class 0.2 core for measurement.

**f) Seismic requirements**

Regarding the seismic requirements of the equipment, it shall comply with IEEE Standard 693-2018 or the version that replaces it, in seismic rating issues and others. Likewise, foundations and structures supporting high voltage equipment must be designed to operate under the seismic conditions indicated in Chapter 1, Annex 1 of COES Technical Procedure 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 Celendín - Piura transmission lines. This equipment shall be installed at the Celendín substation. However, they must be able to operate in the entire region that their capacity allows, depending on the technology to be considered.

**h) Reactors**

**h1. 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 2.3.5 Technical Requirements for Substations.

Reactors shall be supplied with current transformers incorporated in the bushing insulators, phase and neutral side, with at least 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, in accordance with what is defined, supported and approved in the Pre-operational Study.

**h3. Losses**

The levels of losses in the autotransformers must 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 nominal voltage must also be guaranteed.

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

**h4. Fire protection**

To prevent fires, each reactor shall be equipped with an explosion and fire prevention system. This system must depressurize the reactors in the minimum time necessary to avoid explosion.

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 reactors must have an oil collection and recovery system in case of failure.

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## **h6. Firewalls**

Firewalls should be installed in the reactors to isolate the units from each other. These firewalls must be built in reinforced concrete; however, 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 switch-and-a-half busbar configuration.

The cells shall consist of at least the following equipment:

- a) Line connection cubicle: lightning arrester, capacitive voltage transformer, line disconnector with grounding blade, current transformers, single-pole operation switch, busbar disconnector and line trap.
- b) Switchgear for connection to the reactor bank: lightning arrester, single-pole operation switch (with synchronization device) and busbar disconnector.

### **j) Protection and measurement**

The requirements established in Chapter 2, Annex No. 1 of the COES PR-20 Technical Procedure shall be complied with and what is prescribed in the respective pre-project.

Transmission system protection shall consist of primary, secondary and backup protection in separate physical units.

#### **j1. 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 protection unit separate from the main protection unit.
- Back-up protection: in a protection unit other than the main and secondary protection unit. It shall consist of a phase overcurrent protection relay, phase and ground directional overcurrent, synchronism check functions, bay controller function, etc.

The single-phase reclosing 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 should consider a Wide Area Monitoring Protection and Control (WAMPAC) scheme.

#### **j2. 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 protection unit separate from the main protection unit.
- Back-up protection: in a protection unit other than the main and secondary protection unit. It shall consist of a ground overcurrent protection relay, associated to the neutral reactor.

### **k) 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, in emergency

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situations, shall have at least permanent voice and data communication between the substations and with the COES.

**l) Auxiliary 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.

**m) 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 3, Annex No. 1 of COES Technical Procedure PR-20.

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

**n) Ground mesh**

The grounding system for new installations must comply with the minimum requirements established in Chapter 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.

**o) Civil works**

- o1.** In general, the scope of the civil works includes the works of the expansions to be executed in the Celendín and Piura Nueva substations (if applicable), as well as the new installations of the Celendín and Piura Nueva substations, such as: earthworks, excavations, bases and foundations for equipment, gantries, concrete gutters, power cable ducts, drainage, construction of sheds, carriageways, demolition, perimeter fence made of noble material (concrete or brick), among others.

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.

- o2.** 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.

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#### 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	Ground Wire	Supports	Conductor arrangement
500 kV Celendín – Piura T.L.	1	4	2	Lattice type	Horizontal or triangular

###### 4.1.2. Transmission line structures

The structures shall be designed for the configurations indicated in section 4.1.1, of the lattice and self-supporting type. The 500 kV structures will have four conductors per phase and two (02) ground wires, one of the OPGW type and the other of the conventional EHS type.

###### 4.1.3. Conductors phase

In the new 500 kV transmission line, the CONCESSIONAIRE shall select the type of cable that guarantees compliance with the technical requirements established in Subsection 3 and 4 of this Annex. For this purpose, the types of ACAR 800 MCM or 900 MCM or 1000 MCM cable can be evaluated, 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.

###### 4.1.4. Conventional type ground wire

The conventional type ground 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 ground 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.

###### 4.1.5. OPGW ground wire

The OPGW wire 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 humidity. The wire configuration shall be of the "loose" type and shall be sealed longitudinally against water ingress.

The wire 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 operating life of the wire.

The OPGW ground 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.



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#### 4.1.6. Conductor 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, shock absorbers, 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 are 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

- a) Reinforcing rods: they shall be made 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 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: shall be of the compression type or other repair system. Its use shall be only in cases of slight damage to the outer layer of the conductor. The mechanical characteristics shall be similar to those of the coupling 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, taking into account 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. Insulation coordination studies involving insulators shall comply with IEC 60815-1 and IEC 60815-2, particularly with regard to contamination.

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

The insulators must guarantee the required isolation level against atmospheric overvoltages, switching overvoltages and overvoltages at industrial frequency, for the same altitude conditions previously mentioned and the isolation levels defined in section 3.2.3 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 isolators

##### Scope

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

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## Standards

For the design, manufacture and transport of the accessories, the current versions of the following standards shall be used, but are 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 those appropriate for the materials indicated.

The grounding shall be designed not to exceed the maximum value of grounding resistance, established in this annex, subparagraph 3.2.3 (d), as well as to withstand the applicable short-circuit ground current.

## 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, as the case may be, shall be previously reviewed and approved by the GRANTOR.

The specifications of the backyard equipment shall comply with the voltage and current levels indicated in Paragraph **c) Voltage and Isolation Levels and d) Current Levels** of Section 3.3.3 of this Annex.

- a) They shall comply with the minimum design criteria established in Chapter 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 metal 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
Short circuit duration	1"
Total opening time	2 cycles
Sequence of operation: <ul style="list-style-type: none"><li>a) Reactor maneuvering</li><li>b) Line maneuvering</li></ul>	O-0.3"-CO-3'-CO
Type	External

### f) Disconnectors

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

Disconnectors may open and close circuits with residual currents under voltage. The main and earthing disconnector blades shall have a mechanism that prevents 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 opening or closing operation. For line disconnectors, a local control lock, both manually and electrically operated, shall be provided.

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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 will 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 manufacturer's constructive design shall be such as to prevent:

- g1) 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
Continuous service current	2500-1250-625 A
Secondary current	1 A
Short-circuit thermal current	40 kA
Characteristics of measuring cores	
a) Accuracy class	0,2 %
b) Power	5 VA (minimum)
Characteristics of protection cores	
a) Accuracy class	5P20
b) Power	15 VA (minimum)

**h) Voltage transformers**

For the 500 kV level, capacitive type transformers shall be provided according to their application.

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

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Voltage transformers shall have the following main characteristics:

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

### i) Reactors

The 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:

Description	Celendín – Piura T.L.
Primary winding voltage	500 / $\sqrt{3}$ kV
Type	Single-phase
Rated power per single-phase unit	3 units of 66.6 MVar (*) each, plus one standby unit
Nominal power of the three-phase bank	200 MVar (*)
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 in the Pre-operational Study.

### j) Automatic Serial Compensation Equipment (EACS)

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

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

#### j1. EACS Capacity

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  $\pm 1.0$  Hz
  - Sudden variations  $\pm 3.0$  Hz.
- c) Rated current
  - Normal operation 1620 A
  - Contingency (for 4 hours): +20%
- d) Short circuit current 40 kA (1 second)

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

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**j2. EACS configuration**

EACS shall 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 Celendín - Piura line. However, EACS must be able to operate in the full range of its capacity, depending on the technology to be considered.

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

**j3. Control System**

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

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

**j4. Harmonic control**

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 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 Celendín 500 kV substation, before and after the connection and commissioning of the EACS.

**j5. Subsynchronous resonance phenomena**

The design of the EACS must be neutral to the phenomenon of Subsynchronous Resonance (RSS), i.e., 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 nets.

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

**j6. Control functions**

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.



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## **k) Lightning Conductor**

### **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.

### **k.2 Standards**

For the design, manufacture and transport of lightning conductors, the current versions of the following standards shall be used, without being restrictive: NEC Supply, IEC 60099, IEC 60099-4, ANSI C.62.11.

### **k.3 Construction characteristics**

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

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

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

It shall not present corona discharges. Sharp points at terminals or ends shall be adequately shielded by the use of anti-corona rings to meet 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 equipped with discharge meters.

## **5. MAINTENANCE OF FACILITIES**

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 Operation of the Project, the CONCESSIONAIRE shall carry out the following activities:

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

Before concluding the first year of Commercial Operation, 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 isolators.

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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 a repetition, if necessary, in order to verify the level of contamination reported.

The contamination levels of conductors and isolators shall be qualified as Low, Medium and High, applying the criteria indicated in Table No. 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 and shall observe the accumulation of contamination on the surface of the conductors and the isolators of the three phases of the span. If necessary, the inspection with scaling to the structure of the line shall be carried out.
- 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 No. 1, the technician shall qualify and record in the inspection logbook the level of contamination of conductors and isolators.
- f) If the contamination level corresponds to Medium or High levels, the technician shall take a photographic record.
- g) The steps indicated in Subsection 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.
- h) The CONCESSIONAIRE shall verify the contamination level rating reports and group the tracts by contamination levels. If there are observations to the rating, the correct rating shall be reassigned by means of the photograph or, if necessary, a new field inspection shall be carried out.

**Table No. 1:** Criteria for rating Contamination Levels

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

Visual inspection reports shall be submitted to OSINERGMIN.

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## 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/cm<sup>2</sup> 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 isolators, the sample shall be taken from one of the hoods, the one with the highest visual contamination. The contamination level (NC) in mg/cm<sup>2</sup> is determined by applying the formula:

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

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

**Table No. 2: Contamination Levels**

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

- The steps indicated in Paragraphs 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 conductor cleaning shall be carried out in all sections classified with Medium and High contamination level. The cleaning works 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 conductor cleaning is as follows:



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- a) The conductor cleaning 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.
- b) The conductor cleaning 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. ISOLATOR CLEANING**

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

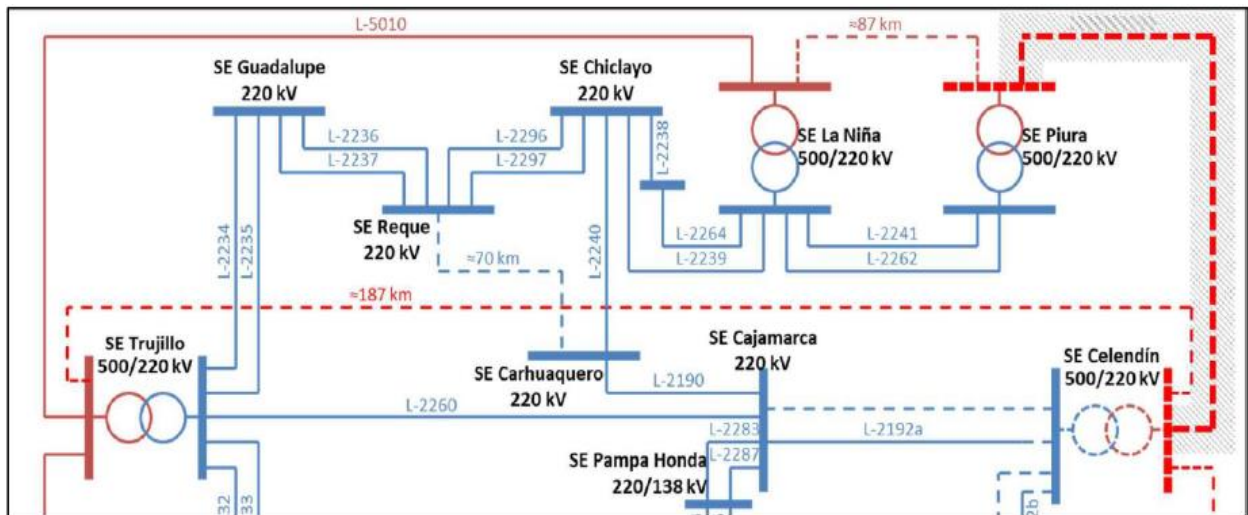
In general, the same procedure shall be followed as indicated for the conductor cleaning. The CONCESSIONAIRE may, if deemed convenient, carry out hot cleaning works.

The CONCESSIONAIRE shall develop procedures and protocols for verifying the level of cleanliness of the isolators and the reference levels. The isolator cleaning reports shall be sent to OSINERGMIN, which may verify them in the field.

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### SCHEME No. 1

### GENERAL CONFIGURATION OF THE PROJECT



(\*) Designation 500/220 kV Piura S.S. corresponds to the 500/220 kV Piura Nueva S.S. which is listed as 500/220 kV Miguel Grau S.S. according to COES registry.



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## Annex No. 2

### PROCEDURE FOR THE EXECUTION OF PROJECT COMMISSIONING TESTS "500 kV Celendín-Piura 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 the Project Commissioning Tests prior to the start of the Experimental Operation. For this purpose, the requirements of COES Technical Procedure PR-20, contained, among others, in the following sections, shall be complied with:
  - Subsection 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 notify 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. Such 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 Paragraph 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 perform 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 highlight the personnel indicated in his 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/she shall also be responsible for all measurements, the computation of the results and the preparation of the final report. His/her 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 the procedures and instructions of the COES.

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

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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.

- 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 Parties' personnel, representatives of OSINERGMIN, and the Inspector who participated in the tests; (ii) the protocol of the tests carried out in which the results obtained are indicated; (iii) the list of tests not carried out with the corresponding disclaimer; and (iv) other information that the CONCESSIONAIRE, OSINERGMIN and/or the Inspector deems relevant.
- e) In the event that the Inspector and/or OSINERGMIN considers that the result is not satisfactory, as established in the test records, the CONCESSIONAIRE (Test Manager) shall proceed to carry out the corresponding correction. The new test shall be carried out only at the point or points which were unsatisfactory.

The GRANTOR and/or OSINERGMIN may not request new tests or inspections or observe or reject their results, in the event that their representatives have not attended said 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 can 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 correct them within the term defined by OSINERGMIN and the Experimental Operation may continue.
  - ii. If, according to the evaluation carried out by OSINERGMIN, the observations do not have the character of correctable (major that is, they affect the safety conditions of the facilities and public safety), they must be resolved 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 corrected by the CONCESSIONAIRE.

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## Annex No. 3

### DEFINITIONS

#### 1. Permitted Creditors:

The concept of Permitted Creditors is only applicable in cases of Permitted Secured Indebtedness. The Permitted Creditors must have PROINVERSIÓN's authorization to accredit such condition by previously submitting Annex 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 official letter issued by the Peruvian Central Reserve Bank, in force at the date of qualification of the Permitted Creditor. Any modification or replacement of such official letter does not affect the qualification 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 Stock Market Superintendency (SMV);
- f) all institutional investors thus 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 paragraphs, a) to e), to be considered Permitted Creditor, it must have such condition as of the date of execution of its respective financing contract.

In the event that the Guaranteed Permitted 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 Guaranty Agent, which must be any of the subjects indicated in paragraphs a) through e). For these purposes, the following are considered:

- Administrative Agent, whose function shall be to administer and monitor compliance with the obligations and commitments established in the Guaranteed Permitted Indebtedness contract, as well as to exercise the representation of 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 Guaranteed Permitted Indebtedness, execute the guarantees in order and on behalf of the Permitted Creditors and 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 Guaranty 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 Guaranteed Permitted Indebtedness of syndicated or bilateral credits, a Permitted Creditor wishes to assign its credit to a third party, either totally or partially in such Guaranteed Permitted Indebtedness, in order for such third party to be considered a Permitted

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Creditor, it must first be qualified as a Permitted Creditor by the Grantor, and for such purpose, it must submit the affidavit contained in Annex No. 12-A of this Contract.

In the event that the Guaranteed Permitted Indebtedness is structured through the issuance of transferable securities, the Permitted Creditors must be represented by the representative of the bondholders or their 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 325 of Law No. 26887, General Corporations Law). It should be noted that the qualification of 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 regulation that replaces it.
- (ii) any entity, fund or individual, declared ineligible by the Inter-American Development Bank or in the list of parties sanctioned by the World Bank or other multilateral organization with which the Peruvian State has entered 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 responsibility, for the commission of corruption crimes (linked 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, officials and/or employees, or individual, that would have recognized before a competent authority the commission of corruption crimes (linked 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, provided that said recognition had been officially informed by said 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 for information that is known and/or public knowledge, is included in any of the cases of ineligibility indicated in the previous paragraph, and this will affect the availability of financial resources associated with said Permitted Creditor in such a way that there is a risk that the CONCESSIONAIRE cannot comply with the execution of the project, the CONCESSIONAIRE shall, within one hundred and twenty (120) days after having been communicated by the GRANTOR about said situation: (aa) deliver proof to the GRANTOR of the replacement of the Permitted Creditor by another that meets the requirements established in accordance with the provisions of the Concession Contract; (bb) accredit the GRANTOR that it has the resources necessary for the completion of the execution of the project, in which case the CONCESSIONAIRE may submit an agreement of its General Shareholders' Meeting committing to make the corresponding capital increases to replace the current schedule of disbursements of the creditor who has lost the status of Permitted Creditor; (cc) present to the GRANTOR a new loan contract signed with a new Creditor Permitted, a third party or an entity related to the CONCESSIONAIRE; (dd) submit to the GRANTOR documents that demonstrate the extension of any of the current financing contracts that allows the completion of the execution of the project, if applicable; or in any case, (ee) accredit the GRANTOR that has the necessary resources by combining two (2) or more of the accreditations or methods indicated above; otherwise, after the one hundred and twenty (120) Days indicated above, a penalty of US\$5,000.00 will apply for each day of delay.

**2. Competent 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.

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**4. Concession Assets:**

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

**5. CONCESSIONAIRE's Assets:**

They are all the assets owned by the CONCESSIONAIRE that do not qualify as Concession Assets and are freely available.

**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 Operation, 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 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 of validity, 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, by which the guarantee of the State of the Republic of Peru is granted in support of the declarations, obligations and assurances of the GRANTOR stipulated in the Contract.

**13. Total Service Cost:**



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

**14. Schedule:**

It is the execution program of works of the Project, which include the milestones detailed in Annex No. 7, which must be prepared and presented 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 its replacement value as new, or
- b) The probable maximum loss (PMP) referred to in Clause No. 7.2.

**16. Days:**

Business days that are not Saturdays, Sundays or holidays, including non-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 must be understood to have been made at 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 Institution:**

These are banking and insurance companies as defined by Law No. 26702, General Law of the Financial System and the Insurance System and Organic Law of the Superintendence of Banking and Insurance, listed in Annex No. 5 of the Bidding Terms.

**19. Supervising Company:**

It is the legal entity contracted by the CONCESSIONAIRE to supervise the Project, with the prior consent of OSINERGMIN, whose cost is borne by the CONCESSIONAIRE, specialized in the supervision of transmission lines and substations of 220 kV or higher voltages, which must not be a company linked 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 Contract. The Permitted Secured Indebtedness includes any renewal, rescheduling or refinancing of such indebtedness, in accordance with the provisions of Clause No. 9.

**21. Peruvian State or State:**

It is the State of the Republic of Peru.

**22. Pre-Operational Study (EPO):**

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

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**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 exclusion or division and of automatic execution that guarantees the fulfillment of the obligations of the CONCESSIONAIRE provided for in this Contract.

The Guarantee of Faithful Compliance with the Contract 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.

- **Guarantee of Faithful Construction Compliance:**

It is the Guarantee of Faithful Compliance with the Contract issued up to the amount of US\$ 22,500,000.00 (Twenty-two million five hundred thousand United States Dollars) in accordance with the format of Annex 4, which guarantees those obligations foreseen in the term established in Clause 12.1, Paragraph 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 Operation Compliance:**

It is the Guarantee of Faithful Compliance with the Contract 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 12.1, Paragraph d), including the payment of the penalties of the Contract and the payment of the amounts ordered by final 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 Operation 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 Guarantee of Faithful Compliance of the Contract, 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.

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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 representing the GRANTOR as established in the Contract.

**28. Concessions Law or LCE:**

It is Decree Law No. 25844, Law of Electric 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. Level of Service:**

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 supervision standards. 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 will not be entitled 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. Party:**

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

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**36. Parties:**

They are, jointly, the GRANTOR and the CONCESSIONAIRE.

**37. Minimum Participation:**

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 set forth in Clause 13.33.

**39. Project:**

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

**40. Commercial Operation 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:**

It 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 electricity 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 carrying value of the Concession Assets or the intangible asset that reflects the Concession Assets linked to the execution of works of the Project, expressed in Dollars (in accordance with audited Financial Statements prepared in accordance with the standards 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 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 straight-line depreciation method described and (2) the income tax resulting from the depreciation method used by the CONCESSIONAIRE will be deducted 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 will 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

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## Annex No. 4

### FORM OF GUARANTEE OF FAITHFUL COMPLIANCE OF THE CONTRACT

[city], \_\_ of \_\_\_\_\_ of 202\_\_, 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 Celendín-Piura 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 exclusion 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 borne by the CONCESSIONAIRE in the Concession Contract of the project "500 kV Celendín-Piura Link, Extensions and Associated Substations" (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 to honor the aforementioned bond will accrue interest equivalent to the effective legal interest rate in foreign currency published by the Superintendence of Insurance Banking and AFP, plus a margin (spread) of 3% per year. The effective legal interest rate shall be that published by the Superintendence of Banking, Insurance and AFP that corresponds to the day of payment request, and interest must be accrued from the date on which compliance has been demanded and 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 Guarantee of Faithful Construction Compliance, the amount shall be US\$ 22,500,000.00 (Twenty-two million five hundred thousand United States Dollars).
- 2) In the case of the Guarantee of Faithful Operation Compliance, the amount shall be US\$ 3,000,000.00 (Three million United States Dollars).

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## **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 twenty-four (24) wires each.
2. The State acquires ownership of eighteen (18) dark wires of the fiber optic cable installed by the CONCESSIONAIRE, in accordance with the provisions of Supreme Decree No. 034-2010-MTC, and Ministerial Resolution No. 468-2011-MTC/03, and that shall be used by the National Backbone Fiber Optic Network, in accordance with Law No. 29904 and its Regulations approved by Supreme Decree No. 014-2013-MTC, which gives it the exclusive right to dispose of said fiber without limitations.
3. The CONCESSIONAIRE shall use the remaining fiber optic wires, for its own communication needs.
4. The transfer of the eighteen (18) fiber optic wires owned by the State, of each of the fiber optic wires installed by the CONCESSIONAIRE, shall be carried out according to the procedure determined by the Ministry of Transport and Communications, which will be responsible for delivering them under concession. The Ministry of Transport and Communications is the State entity with which the CONCESSIONAIRE shall directly deal with all aspects related to telecommunications activity.
5. It is the obligation of the CONCESSIONAIRE to install the fiber optic cable of the main telecommunications system, observing at least the following technical considerations:
  - a) The fiber optic cable must be new and be guaranteed against any manufacturing defects, also considering the conditions of the environment where the fiber optic cable will be installed and operated so that the characteristics of the cable are adequate.
  - b) The fiber optic cable manufacturer must possess ISO 9001-2008 and TL900 (Quality Management System) certification.
  - c) The type of optical fiber to be implemented will be Single-mode, whose geometric, optical, mechanical and transmission characteristics must 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) of less than or equal to zero integers with one tenth (0.1).
  - e) The attenuation of all installed fiber must be less than or equal to zero integers with thirty-five hundredths (0.35) dB per km at 1310 nm and to zero integers with twenty-five hundredths (0.25) dB per km at 1550 nm.
  - f) A type of fiber optic cable with a service life of at least twenty (20) years must be used. To do so, it must consider the recommendations provided by the manufacturer, in order to ensure its useful life.
  - g) To carry out the installation, coupling and testing of the optical fiber, the maintenance of the optical fiber cable, as well as the identification of the wires, the ITU-T recommendations of the International Telecommunication Union must be observed, as well as the ANSI EIA/TIA and IEC standards that are applicable.
6. The cost of maintaining the fiber system shall be borne by the CONCESSIONAIRE, in accordance with the guidelines set out 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, from which the maintenance of the fiber optic cable is shared with the telecommunications concessionaires designated by the State. These concessionaires shall assume the investment costs to adapt and operate the State-owned wires that are necessary, as appropriate.
7. The CONCESSIONAIRE shall provide facilities for the housing of optical equipment necessary to illuminate the State-owned optical fiber, including the sharing of spaces.



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Likewise, it shall allow access to State-owned fiber wires and the installation of accessories and/or devices that allow the provision of public telecommunications services, both for the Start-Up of telecommunications services and for their operation and maintenance.

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 must provide at least, electrical energy with 220 Vac power supply and a power of not less than three (3) kilowatts; sufficient spaces to install and operate four (4) telecommunications racks, as well as to accommodate air conditioning and energy equipment, and space to install a telecommunications antenna, considering, in addition, the minimum safety distances.

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

8. The State shall ensure that the telecommunications activities carried out do not limit or jeopardize the continuity and security of the electric transmission service, providing for the necessary mechanisms in the processes of granting the State-owned optical 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 that are carried out 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 the Ministry of Energy and Mines, within a term no longer than forty-eight (48) hours after the suspension is carried out. Activities shall be resumed within a maximum period of ten (10) calendar days, unless otherwise agreed 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. Fiber optic wires that are not owned by the State, as well as 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 the event that the concession facilities are used to develop telecommunications businesses, users of the electricity service will be compensated as established by the sectoral 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

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## Annex No. 6

### FORMS 4, 4-B and 4-BB (Certified Copies)



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**Annex No. 7****PROJECT MILESTONES****"500 kV Celendín-Piura link, extensions and associated substations".**

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

<b>Milestones</b>	<b>Term in months</b>
1.- Conformity to the final level engineering project, in accordance with Clauses 4.8 and 4.9.	18
2.- Environmental Management Instrument approved by the Competent Governmental Authority.	28
3.- Project Financial Closing	30
4.- Arrival at the corresponding worksites of the support structures and line conductors referred to in Annex No. 1 of the Contract.	44
5.- Commercial Operation	60

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

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

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## **Annex No. 8**

### **PROJECT DESCRIPTION REPORT**

#### **"500 kV Celendín-Piura link, extensions and associated substations".**

##### **a. Transmission lines**

1. General description of the project.
2. Description of the route of the line.

It includes start and end points with altitude in masl, as well as geographical and planimetry plans 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 archaeological areas.

3. Design and construction standards used.

The National Electrical Code shall be used. If necessary, it will be complemented by 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 cross-section of conductors. Compliance with the Joule loss limits and with the surface gradient levels and non-ionizing radiation limits specified in Annex No. 1 shall be substantiated.
- h) Type, material and characteristics of isolators. Include number of units per suspension chain and angle.
- i) Types of structures. Include typical diagrams of the structures (suspension, angle and terminal).
- j) Foundations. Include type (concrete or metal).
- k) Number and characteristics of the ground wires.
- l) Type, material and cross-section of the ground wires.
- 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.
2. Substation Location.

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

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3. Design and construction standards used.

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

4. Technical characteristics of the substation.

- a) General description of the switchyard, indicating the layout of the floor. Include single-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
- 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 the line and bar disconnectors:
  - drive, control: local and/or remote, etc.
  - rated current and short circuit
- g) Characteristics of instrument transformers.
- h) Characteristics of lightning conductors.
- 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.
  - Method of operation: 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.

**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 a proper operation of the SEIN, in accordance with the requirements established by the COES.

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

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- a) Steady-state operation studies, for various load and generation conditions. Compliance with the permitted ranges of voltage variation, load by 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 corrective measures are taken by the COES Control Center.
- 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 level. The modifications and reinforcements in the existing substations that will 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 not part of it shall be identified and proposed.

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



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## Annex No. 9

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

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° 108 - 2021-SERNANP-DDE

Considerando la Solicitud, recibida el día 04 de agosto de 2021 (CUT- 020164-2021), 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 Celendín – Piura, 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 Celendín – Piura, 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° 579 - 2021-SERNANP-DDE; se adjunta en el siguiente link:

<http://foldersgd2.sernanp.gob.pe/index.php/s/Mc7Ci3nDNSyF6yT>



**DIRECTOR**  
DIRECCIÓN DE DESARROLLO  
ESTRATÉGICO

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documento  
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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](mailto:sernanp@sernanp.gob.pe)  
Web: [www.sernanp.gob.pe](http://www.sernanp.gob.pe)

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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° 579 - 2021-SERNANP-DDE

A : Marcos Pastor Rozas  
Director de Desarrollo Estratégico

De : Marisela Huancaqui 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-020164-  
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](mailto: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. Anibal del Aguila Acosta, Representante de PROINVERSIÓN, en la cual solicita la certificación de ubicación de una línea en consulta que denomina: "Enlace 500 Kv Celendín – Piura, 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

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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



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

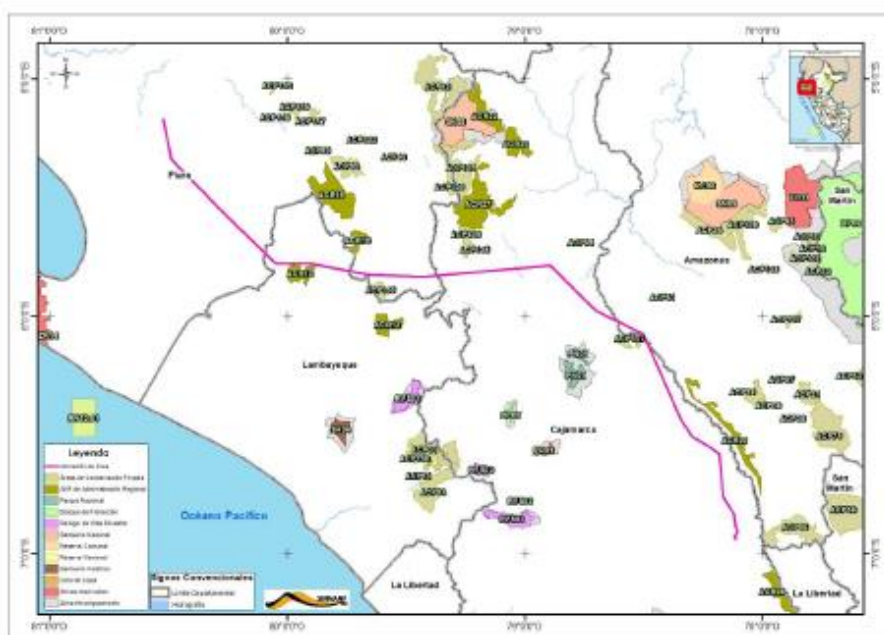
- Áreas Naturales Protegidas de Administración Nacional, Regional y Privada
- Zonas de Amortiguamiento

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 Celendín – Piura, 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



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IV CONCLUSIÓN

El línea georreferenciada alcanzada por el usuario, la cual denomina como: "Enlace 500 Kv Celendín – Piura, 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,

  
UDF GESTIÓN DE LA  
INFORMACIÓN - DDE

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

  
RESPONSABLE  
UDF GESTIÓN DE LA  
INFORMACIÓN - DDE

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## Annex No. 10

### TERMS OF REFERENCE

#### **Supervision of engineering, procurement and construction of the project "500 kV Celendín-Piura 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 Related Company 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) 500/220 kV Celendín Substation Expansion**

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

The 500 kV expansion shall include the following facilities:

- One (01) line cell to Piura, equivalent to 2/3 of the diameter.
- One (01) 500 kV - 200 MVar line reactor bank, consisting of 3 single-phase units of 66.6 MVar each, plus a backup unit.
- One (01) 500 kV automatic series compensation equipment (EACS) (FACTS-Flexible AC Transmission System), with regulation in the capacitive range up to a maximum of 50% of the series reactance of the Celendín - Piura line, with a minimum capacity of 1400 MVA.
- Complementary systems for protection, control, measurement, communications, gantries and bars, grounding, auxiliary services, civil works, etc. The proposed equipment shall maintain the compatibility of the design of the facilities of the " 500 kV Huánuco-Tocache-Celendín-Trujillo link, extensions and associated substations" project.

###### **b) 500/220 kV Piura Nueva Substation Expansion**

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

The 500 kV expansion shall include the following facilities:

- One (01) line cell to Celendín equivalent to 2/3 diameter.
- One (01) 500 kV - 200 MVar line reactor bank, consisting of 3 single-phase units of 66.6 MVar each, plus a backup unit.



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- 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 facilities to be built in the "500 kV La Niña - Piura 500 Link, Substations, Lines and Associated Expansions" project.

**c) 500 kV Celendín - Piura Transmission Line**

- Design power : 1400 MVA
- Approximate length : 381.3 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 of galvanized steel
- Phase conductor : Bundle of four sub-conductors, of different calibers according to altitude:

Altitude (masl)	Conductor
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)
- Ground wire : Two (02) wires: one of the OPGW type, of at least 36 fibers, and the other of the EHS galvanized steel cable type.
- Altitude : Minimum 100 masl, maximum 3699 masl.

**4. Scope of the 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.

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 and No. 2 of the Contract.
- 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 shall 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

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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 particular 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 4.2 and Annex No. 1 of the Contract.

#### 4.3 Supervision of Project construction

To supervise the activities related to the construction of the Project. As an indication and without being limiting, 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 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 will 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 Company must not interfere with the powers and responsibilities of the Contract Inspector.

#### 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 being limiting, is as follows:

- **Project Supervision Chief:** Mechanical-electrical engineer or electrician, with a minimum experience of ten (10) years in supervision of lines and substations of 220 kV or higher.
- **Chief Transmission Line Supervisor:** Mechanical-electrical engineer or electrician, with a minimum experience of five (5) years in supervision of 220 kV lines or higher.
- **Chief Substation Supervisor:** Mechanical-electrical engineer or electrician, with a minimum experience of five (5) years in supervision of 220 kV or higher substations.

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- **Chief Civil Works Supervisor:** Civil engineer, with a minimum experience of five (5) years in supervision of civil works of high voltage lines and substations.
- **Electrical Protection Specialist:** Electrical engineer, with a minimum experience of five (5) years in substation protection systems of 220 kV or higher.
- **Telecommunications Specialist:** Telecommunications engineer, with a minimum experience of five (5) years in telecommunications systems of high voltage power lines.
- **Geotechnical Supervisor:** Geological Engineer, with a minimum experience of five (5) years in the supervision of works in high voltage lines and substations.
- **Safety Chief:** Electrical mechanical engineer or electrician, with at least five (5) years of experience in the supervision of safety 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 on site as residents shall be licensed and qualified mechanical or electrical engineers or electricians with a minimum of five (5) years of experience in the supervision of 220 kV lines and/or substations or higher. These professionals shall be hired full-time 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 shall 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 Company shall prepare a report on the status of the Project.
- Observation reports: On each occasion when the Supervisory Company detects an observation, shall be raised the respective report, describing the corresponding details.
- Specific reports: These are the reports that, during the execution of the work, OSINERGMIN or the GRANTOR requests on specific technical aspects or problems, safety situations, environmental aspects, incident and accidents or on other aspects related to the execution of the Project, within the deadlines determined by them.
- Compliance report of Annex No. 1 – Project Specifications.
- Final Level Engineering Review Report.
- Detailed Engineering Review Report.
- Engineering review report in accordance with the Work.
- Report on the monitoring and verification of the Pre-Operational and Operational studies, in relation to compliance with the scope contained in the contract and in particular in Annex No. 1.
- Final report: Once the works have been completed and all the tests and commissioning have been accepted, the Supervising Company will 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 it.



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#### **8. Information and monitoring facilities**

The CONCESSIONAIRE shall make available to the Supervising Company the documentation required by it.

These Terms of Reference, in general, consider the obligations to be fulfilled by the CONCESSIONAIRE and that are established in the GTS Concession Contract "500 kV Celendín-Piura Link, extensions and associated substations", which includes Annex No. 1 "Technical Specifications of the Project" and Annex No. 2 "Procedure for Execution of the Project Commissioning Tests".

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## 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 11. All penalties are independent and cumulative.

1. For each calendar day of delay in the commencement of the Commercial Operation, as set forth in Annex No. 7 and taking into consideration the extensions 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\$ 62,500 (Sixty-two thousand five hundred Dollars), for each of the first thirty (30) calendar days of delay.
- b) US\$ 125,000 (One hundred and twenty-five thousand Dollars), for each one of the thirty (30) calendar days of delay subsequent to the period indicated in a).
- c) US\$ 187,500 (One hundred and eighty-seven thousand five hundred Dollars), for each of the ninety (90) calendar days of delays 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 Operation. If the termination causes foreseen in paragraph b) of the Clause No. 13.5.1 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 second paragraph 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 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 correction until the effective day on which the non-compliance has been remedied. For this purpose, a daily penalty equal to US\$ 62,500 (Sixty-two thousand five hundred Dollars) shall be accrued during the period of correction.
  - b) If the CONCESSIONAIRE fails to remedy the breach within the period 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 authorized to resolve it, it shall collect the penalty accrued in accordance with paragraph b) above and the CONCESSIONAIRE must replenish the Guarantee of Faithful Compliance of the Contract in case the GRANTOR had executed it to collect the accrued penalty.
5. In the event of the occurrence of any of the events that constitute the cause for termination of the Contract indicated in Clause No. 13.10, it shall proceed in accordance with the provisions of said Clause.
6. For not remedying and/or correcting all and each one of the guarantees, charges and encumbrances that may exist on the goods, rights and Assets 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.



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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. If the service exit rate of the line exceeds the tolerance indicated in paragraph 3.2.3 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.



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**Annex No. 12-A**

**PERMITTED CREDITOR'S AFFIDAVIT MODEL**  
**In case of credit agreements]**

Lima, \_\_\_\_\_ - 202\_\_.

Messrs.

**Private Investment Promotion Agency – PROINVERSIÓN**

Enrique Canaval y Moreyra No. 150, Piso 9

San Isidro-

Permitted Creditor: .....

Reference: Concession Contract for the Project "500 kV Celendín-Piura link, extensions and associated substations".

In accordance with the provisions of the Concession Contract for the "500 kV Celendín-Piura 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 the \_\_\_\_\_ (CONCESSIONAIRE), for which our competent internal bodies have approved a line of credit up to the amount of \_\_\_\_\_, in favor of \_\_\_\_\_ (CONCESSIONAIRE), the same which is intended to fulfill the obligations derived from the Concession Contract, under the following conditions:

1	Borrower:	
2	Lender:	
3	Amount of credit/issue:	_____ [indicate currency].
4	Applicable interest rate:	_____ %
5	List of guarantees to be granted by (ONCESSIONAIRE):	<ul style="list-style-type: none"> <li>• _____</li> <li>• _____</li> </ul>
6	Grace period and amortization period 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.



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- 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 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 Operation. 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 not to exceed one hundred and twenty (120) working days after the decision to terminate the Contract in application of the corresponding cause is communicated.

Sincerely,

Signature: .....

Name: .....

Representative of the Permitted Creditor

Entity: .....

Permitted Creditor

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**Annex No. 12-B****BONDHOLDERS' REPRESENTATIVE AFFIDAVIT MODEL [In case of issues in the capital market].**

Lima, \_\_\_\_\_ - 202\_\_.

Messrs.

**Private Investment Promotion Agency – PROINVERSIÓN**

Enrique Canaval y Moreyra No. 150, Piso 9

San Isidro-

Reference: Concession Contract for the "500 kV Celendín-Piura Link, extensions and associated substations" Project.

In accordance with the provisions of the Concession Contract for the "500 kV Celendín-Piura 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 (ONCESSIONAIRE):	<ul style="list-style-type: none"> <li>• ____</li> <li>• ____</li> </ul>
6	Deadline for payment:	____ (__) years/months
7	Penalties applicable for prepayment;	
8	Applicable Law	

- b) That, acting on behalf of the acquirers 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