

**PUBLIC CALL FOR PUBLIC CLEARANCE PROCEDURE No. 01/2018/SWR (SRH).**

**PROCEDURE FOR EXPRESSION OF INTEREST (PEI)**

The STATE OF CEARÁ, through the SECRETARY OF WATER RESOURCES - SWR (SRH), hereinafter referred to as SWR (SRH), based on State Law No. 16,174, dated December 27th, 2016, in Decree No. 30.328, dated September 27th, 2010, as amended by Decree No. 30.646, dated September 14th, 2011, in Decree No. 32.043 of September 14th, 2016, and, in the alternative, Federal Law No. 8.987 of February 13th, 1995, hereby makes public that on September 13, 2018, expression of interest will be received for the preparation of the studies related to the PROJECT FOR THE EXPLOITATION OF THE AREAS OF THE CASTANHÃO ADDUCTOR CANAL – GREATER FORTALEZA - GF (RMF) FOR THE GENERATION OF PHOTOVOLTAIC ENERGY, to be contracted under the Concession of Use of Public Property.

**1. OBJECT**

1.1 Elaboration of feasibility studies, projects and technical studies for the use of areas of the Castanhão Adductor Canal Area – GF (RMF), under concession for the use of public property, for the installation and operation of photovoltaic electric energy generation systems, with up to 45MW<sub>peak</sub> of power in the form of distributed generation, in modules up to 5MW<sub>peak</sub>, to be consumed up to 25MW<sub>peak</sub> by the Water Resources Management Company of Ceará - "COGERH" and up to 20MW peak by the Water and Sewage Company of Ceará - CAGECE.

**2. GUIDELINES FOR PARTICIPATION**

2.1. Legal entity, public or private, individually or in a group may participate in this public notice. The participants will be called "INTERESTED PARTY", for the purpose of this announcement.

2.2. A PROPOSAL must be submitted by the INTERESTED PARTY (consisting of Technical Proposal and Price Proposal), which must contain the forms (FORMS) attached, as provided in Item 15 of this public notice.

2.3. In the case of participation of INTERESTED PARTY in a group, there is no need to establish a formal bond between the participants, and it should only be included in FORM-1 — REGISTRATION TERM of all legal entities involved in the preparation of the studies.

2.4. The PROPOSALS presented by the INTERESTED PARTY in a group should indicate the participant which will be the leader during the process of PROCEDURE FOR EXPRESSION OF INTEREST (PEI)

2.5. State agents, servants and occupants of commissioned positions and public jobs of a contracting entity or entity or in charge of the bidding are prohibited from participating in this Expression of Interest.

2.6. If necessary, SWR (SRH) may request, via e-mail, clarification of the proposals submitted, being allowed the correction of formal defects.

2.7. If expressly requested by the INTERESTED parties, the confidentiality of the information and registration data shall be ensured, pursuant to §4 of art. 3 of State Decree No. 30.328, of September 27th, 2010.

2.8. The INTERESTED PARTY participating in this public notice will be responsible for all financial costs and other charges arising from their expressions of interest, not being entitled to any kind of compensation, indemnities or reimbursements for expenses incurred, or any remuneration by the Government of the State of Ceará.

### 3. PREPARATION OF PROPOSALS

3.1 The PROPOSAL, as well as all correspondence exchanged between the INTERESTED party and the SWR (SRH), should be presented in the Portuguese language of Brazil.

3.1.1 All certificates and proof of experience of companies and teams, which must be included in the PROPOSAL, must be submitted by sworn translation into Portuguese.

3.1.2 All documents of item 3.1.1 shall be consularized. To the countries that are signatories to the Convention on the Elimination of the Requirement to Legalize Foreign Public Documents, the rite established in Decree No. 8,660 of January 29, 2016 shall apply, whichever is applicable, with the obligation to translate by sworn translator.

3.2 The Technical Proposal shall provide the information indicated in paragraphs (a) to (f) below, using the standard forms (FORM) of item 16.

(a.i) A brief description of the "INTERESTED PARTY" and a synopsis of the experience of companies and teams in similar activities should be presented on form FORM-4 – EXPERIENCE AND ORGANIZATION.

(a.ii) For each activity, the synopsis shall indicate the names of the companies and members of the teams that will participate, the duration of the task, the amount of the contract and the participation of Consulting Companies. Only information on the tasks for which the INTERESTED PARTY is legally contracted should be provided. Tasks performed by professionals working individually or through other consulting firms may not be presented as an INTERESTED PARTY experience, but may be presented by professionals in their Curriculum Vitae. The individual members of the teams should be prepared to prove the experience presented if SWR (SRH) so requires.

(b.i) Comments and suggestions on Terms of Reference, including executable suggestions that can improve the quality and effectiveness of the task and the requirements of staff and facilities, including administrative support, offices, local transportation, equipment, information, etc. (FORM-5)

(b.ii) The comments and suggestions above, if any, should be incorporated in the description of the approach and methodology.

(c.i) Description of the approach, methodology and work plan to execute the services covering the following topics: technical approach and methodology, work and organization plan and staff occupation time. A guide to the contents of this section of the Technical Proposals is on forms FORM-6, FORM-7, FORM-8, FORM-9 and FORM-10. The work plan (FORM-10), in addition to containing the description of each activity (FORM-10A), should be consistent with the Staff Activity Schedule (FORM-9), which should show the proposed time in a bar chart for each activity.

(c.ii) The description of the approach, methodology and work plan should normally consist of 10 pages, including charts, diagrams, comments and suggestions, if any, on the Terms of Reference.

(d) The list of professional staff proposed by area of expertise, position that will be assigned to each team member and their tasks (FORM-8).

(e) Estimate of the personnel input (months of professional work) required to perform the services (FORM-9). The professional input/month should be indicated separately for activities at the central office and on-site activities.

(f) The curriculum of each professional, signed by themselves or their authorized representatives (FORM-8).

3.3 The Technical Proposal shall not include any Price information.

3.4 The Price Proposal includes FORM-11, FORM-12 and FORM-12A.

3.5 The Price Proposal will not be an evaluation criterion, but will be used as a parameter for the negotiation phase of the PROPOSAL.

#### **4. PRESENTATION, RECEIPT AND OPENING OF PROPOSALS**

4.1 The Declaration of Expression of Interest (FORM-2) for the preparation of studies must be signed by the interested party of the INTERESTED PARTY with powers of legal representation, through a public or private power of attorney with a recognized signature. The non-presentation of power of attorney will not imply disqualification, however, the representative can not pronounce on behalf of the INTERESTED PARTY, unless he is being represented by one of its directors, who proves such condition through legal document

4.2 The PROPOSAL should not contain anything written between the lines or the text. The letters of presentation of both the Technical Proposal and the Price Proposal shall be in FORM-3 and FORM-11, respectively.

4.3 The authorized representative of the INTERESTED PARTY must sign the technical and price proposals, FORM-3 and FORM-11, respectively, and initial all technical and price proposals. The authorization of

the representative must be supported by a written power of attorney granted in writing in the PROPOSAL or in any other way that demonstrates that the representative has been duly authorized to sign.

4.4 The PROPOSAL, with all the documents that compose it, must be consolidated in a bound document, accompanied by a copy in digital version (CD-ROM), with the editable files.

4.5 In case of divergences between the documentation, the one presented in printed form shall prevail.

4.6 The Technical Proposal, consisting of FORM-1 forms to FORM-10, should be placed in a closed WHITE envelope marked clearly as "TECHNICAL PROPOSAL". Likewise, the Price Proposal, consisting of FORM-11, FORM-12 and FORM-12A, shall be placed in a closed ORANGE envelope clearly marked "PROPOSED PRICE" with the following warning: "OPEN ONLY AFTER THE RESULT OF THE EVALUATION OF THE TECHNICAL PROPOSAL AND IF CLASSIFIED IN THE FIRST OR SECOND PLACE. "Both envelopes shall be identified with EXPRESSION OF INTEREST No. 01/2017/SWR (SRH) and indicating the services. The envelopes containing the technical proposal and the price proposal must be enclosed in an outer envelope. This outer envelope must include the address where the proposals should be submitted, reference number and title EXPRESSION OF INTEREST No 01/2017/SWR (SRH) and the indication of services. SWR (SRH) shall not be liable for any loss or premature opening of the proposal if the outer envelope is not closed and/or marked as stipulated. This may lead to rejection of the proposal. If the Price Proposal is not presented in a separate, sealed envelope duly marked as indicated above, this will constitute grounds for rejection of the proposal.

4.7 The PROPOSALS must be sent by october 30<sup>th</sup>, 2018, from 8 am to 5 pm, in the Protocol, of the SWR (SRH) located at the Administrative Center Virgílio Távora SEINFRA/SWR (SRH), Ground Floor/Cambeba and be received no later than the time specified therein. Any proposal received after the deadline for submission of proposals will be returned without opening.

4.8 The Evaluation Committee will open the Technical Proposals immediately after the deadline and date for submission. The envelopes with Price Proposals will remain closed and filed under strict security and only the envelope of INTERESTED PARTIES, whose Technical Proposal has been classified in first and second place, will be opened in a date after the november 20<sup>th</sup>, 2018, to be confirmed by the Evaluation Committee, indicating the place and time, at which time the Negotiation Meeting will take place. The remaining envelopes will remain sealed and will be available for return to interested parties 30 (thirty) days after the publication of the Term of Service Authorization.

## **5. EVALUATION OF PROPOSALS**

5.1 The PROPOSALS of interested parties that have expressed their interest will be analyzed by the Evaluation Committee designated by means of an Ordinance, issued by the SECRETARY OF WATER RESOURCES, to be composed of at least three civil servants or public employees of the State Government.

5.2 The Technical Proposals will be evaluated by the Evaluation Committee based on the following criteria and sub-criteria:

Criterion 1 - Specific experience of the INTERESTED party related to the Object of the PEI Public Notice;  
Subcriteria 1.1.- Research and/or Evaluation of Programs and / or Projects. (2 points will be awarded for each evaluation/project carried out, up to a maximum of 20 points).  
Criterion 2 - Relevance of public-private partnership or Concession;

Sub-criterion 2.1.- Size, dimension, scope, publications (Up to 15 points will be awarded, at the evaluator's discretion).

Criterion 3 - Qualification and competence of the key team for compliance with the OBJECT of this PEI Notice, evidenced in terms of Article 30, 1<sup>st</sup> paragraph, item I of Law No. 8666/93.

Sub-criterion 3.1. - General qualifications (training in areas compatible with the function to be performed) - (Up to 15 points will be awarded at the evaluator's discretion);

Sub-criterion 3.2. - Suitability for the project (experience in works of a similar nature to which it should perform in the project) - (Up to 15 points will be awarded at the evaluator's discretion).

Criterion 4 - Qualification of methodology and work plan

Sub-criterion 4.1. - Compatibility of the technical approach, methodology, work plan and organization (Up to 35 points will be awarded at the evaluator's discretion).

5.3 The members of the Evaluation Committee, in order to ensure the principle of unity in methodological procedures, shall comply with the following instructions:

a) The evaluation of the Technical Proposals will be carried out using an "Evaluation Form" (Annex 1), with the respective criteria and subcriteria, where notes will be awarded from 0 (zero) to 100 (one hundred) points by the members of the Evaluation;

b) In order to evaluate the criteria and subcriteria, only the information clearly specified in the Technical Proposals presented by the INTERESTED PARTIES shall be considered. In the absence of clarity in the specifications of the information, these will not be considered;

c) It is considered inadequate Technical Proposal that does not meet the requested aspects and is therefore rejected.

5.4 The Final Score of each "INTERESTED PARTY" shall consist of the sum of the averages of the points assigned by each member of the Evaluation Committee for each criterion. The maximum score assigned for each criterion evaluated, from the sum of its sub-criteria, will have as reference the values of the following table:

ITEM	CRITERIA	POINTS
(1)	Specific experience of service-related "INTERESTED PARTY"	[20]
(2)	Relevance of surveys or evaluations performed	[15]
(3)	Qualification and competence of key staff for the Service	[30]
(4)	Qualification of methodology and work plan	[35]
Total points		[100]

5.5 Upon completion of the analysis of the Technical Proposals, the members of the Evaluation Committee will individually complete the Evaluation Form (Annex 1), which will record the scores awarded for each criterion and the Final Score obtained by the "INTERESTED PARTY". Finally, a Consolidated Evaluation Form will be prepared with the average of each evaluator's notes and a minutes, in which all the INTERESTED parties will be listed in descending order of classification.

5.6 The following tie-breaking criteria shall be applied successively:

- the highest score in the criterion qualification of the methodology and work plan;
- the highest score in the criterion qualification and competence of the staff for the service;
- the highest score in the specific experience criterion of the "INTERESTED PARTY" related to the service;
- the highest score in the criterion relevance of the surveys or evaluations carried out;
- draw.

5.7 The Evaluation Committee will open only the envelopes of the Price Proposals of INTERESTED PARTIES whose Technical Proposal is classified in first and second place. After the publication of the Authorization Term of the Services, other sealed proposals will be available to interested parties for thirty days.

5.8 The Price Proposal will be the exclusive object of the negotiation phase of the services to be authorized.

## 6. NEGOTIATIONS OF THE SERVICES TO BE AUTHORIZED

6.1 Negotiations with "INTERESTED PARTIES", whose Technical Proposal has been ranked first and second, will cover an analysis of the Technical Proposal and any suggestions to improve the Terms of Reference in a specific meeting to be scheduled by SWR (SRH), as provided in item 4.8. SWR (SRH) and "INTERESTED PARTY" whose Technical Proposal has been ranked first and second, will finalize the Terms of Reference, the staff to be involved, the work plan, logistics and reporting. These documents

will be incorporated into the Services Authorization Term (Annex 2) as "Services Description". SWR (SRH) will prepare minutes of the negotiations signed by you and the INTERESTED parties.

6.2 The Price Proposal negotiations will take into account the modifications resulting from the negotiation of the Technical Proposal reflected in the cost of the services. THE INTERESTED PARTIES, whose Technical Proposal was ranked first and second place, will provide SWR (SRH) with information on the remuneration rates.

6.3 The negotiations will conclude with an analysis of the Term of Service Authorization (Annex 2). In order to complete the negotiations, the SWR (SRH) and the INTERESTED parties shall initiate the agreed Term of Authorization. If negotiations fail or if the scope of services offered does not fully meet the need, SWR (SRH) will invite other INTERESTED parties that have submitted a statement of interest, following the order of classification defined in item 5.5.

## **7. AUTHORIZATION FOR THE REALIZATION OF STUDIES**

7.1. In preparing the Authorization Term, the Evaluation Committee shall reproduce the conditions established in this PEI Public Notice.

7.2. The Authorization:

a) It will be conferred to up to two interested parties;

b) It will not generate preemptive rights in the bidding process of the future concession;

c) It will not oblige the public authority to carry out the bid;

d) It will not create, by itself, any right to reimbursement of the values involved in its elaboration;

e) It will not guarantee that the studies carried out will be selected and used; and

f) It will be published in the official State Gazette and in the electronic websites of the Secretariat of Water Resources (SWR) and the Secretariat of Planning and Management – SPM (SEPLAG).

7.3. The Authorization for conducting the studies does not imply, in any case, responsibility of SWR (SRH) before third parties for the acts practiced by the authorized legal entity.

7.4. In case of failure to comply with the terms of the authorization and / or this notice, legal entities or authorized groups will be notified by correspondence with notice of receipt so that, within 5 (five) days, they regularize the situation, under penalty of annulment of authorization.

7.5. In the case of annulment dealt with in item 7.4 and/or withdrawal by the AUTHORIZED PARTIES, SWR (SRH) will invite the next INTERESTED party to the negotiation phase, following the order of classification defined in item 5.5.

7.6. The legal entities or groups authorized to carry out the studies will commit to sign a confidentiality agreement guaranteeing the confidentiality of the information shared by SWR (SRH), COGERH and CAGECE for the carrying out of the studies.

## **8. STUDIES TO BE PRESENTED**

The expression of interest should include in your studies at least:

1. Project guidelines;
2. Mapping of feasible areas for the concession of use;
3. Assessment of land value;
4. Diagnosis and study of electricity demand;
5. Financial modeling of the concession;
6. Environmental studies;
7. Legal and regulatory feasibility;
8. Legal modeling with presentation of public notice and draft agreement;
9. Social Evaluation Study.

8.1. AUTHORIZED PARTIES shall have a term of 120 (one hundred and twenty) consecutive days, counted from the publication of the Authorization in the Official Gazette of the State, to present all 9 (nine) studies referred to in this item, being possible the extension of this term, of the SWR (SRH), by means of a reasoned decision for the implementation of the PROJECT FOR THE ADMINISTRATION OF AREAS OF THE CASTANHÃO ADDUCTOR CANAL – GF (RMF) FOR THE GENERATION OF PHOTOVOLTAIC ENERGY.

## **9. INTELLECTUAL PROPERTY**

9.1. The copyrights on the information, surveys, studies, projects and other documents presented in this Notice, will be assigned by the INTERESTED PARTY (Form -13), and may be used unconditionally by SWR (SRH) according to the opportunity and convenience, for the formulation of public notices, contracts and other documents related to the object of this EXPRESSION OF INTEREST.

## **10. INEXISTANCE OF CONTRACT OR COMPROMISE**

10.1. The PROCEDURE FOR EXPRESSION OF INTEREST (PEI) does not result in any guarantee of future contracting, nor can it be interpreted as an initiation of a contracting process by the State of Ceará, through the SWR (SRH), referring to the studies and projects that have been presented in the scope this Public Notice.

10.2. The State of Ceará, through the SWR (SRH), cannot be held liable for the non-performance of the bidding procedure or contract sought to subsidize the studies authorized as a consequence of this Expression of Interest, nor, in the event of disqualification or disqualification of the INTERESTED PARTY.

## 11. EVALUATION OF STUDIES

11.1. The studies submitted by the AUTHORIZED PARTIES will be individually evaluated according to the specific weights, attributes and punctuation presented below.

11.2. The weights for the studies will be adopted according to the table below.

Item	Technical Study	Weight
1	Project Guidelines	11,61%
2	Mapping feasible areas for granting use	17,69%
3	Assessment of land value	6,10%
4	Diagnosis and study of electricity demand	9,66%
5	Financial modeling of the concession	17,97%
6	Environmental studies	4,57%
7	Legal and regulatory feasibility	20,77%
8	Legal modeling with presentation of public notice and draft agreement	8,48%
9	Social Evaluation Study	3,15%
Total	100,00%	100,00%

11.3. Each study will be evaluated regarding the attendance to the characteristics and the quality of the products and deliveries foreseen in the Term of Reference, considering the following attributes:

Attributes	Definition
Completeness	Meeting the requirements of the Terms of Reference
Clarity	Provision of data and information to facilitate the understanding of the evaluator
Innovation/Creativity	Proposing solutions that go beyond what is required in the public notice and that is feasible within the context presented
Efficiency	Proposing solutions that meet the interests of the contracting public entity and, consequently, of the affected society

11.4. Each attribute will be evaluated according to the following score:

Punctuation	Evaluation
0	does not meet requirements
2,5	Unsatisfactory service
5	Regular service
7,5	Satisfactory service
10	Totally satisfactory service

11.5. The grade of each study (NE) shall consist of the simple arithmetic mean of the scores obtained in the attributes, according to the following formula:

$$NE = (A1 + A2 + A3 + A4) / 4.$$

11.6. The final grade (NF) shall consist of the sum of the grades of each study multiplied by the respective weighting weights above adopted, according to the following formulas.

$$NF = (NE1*P1) + (NE2*P2) + (NE3*P3) + \dots + (NE9*P9)$$

$$NF = \sum \text{das notas de cada estudo} \times \text{peso do respectivo estudo.}$$

$$NF = (NE_1 \times p_1) + (NE_2 \times p_2) + (NE_3 \times p_3) + \dots + (NE_9 \times p_9)$$

$$NF = \sum_{n=1}^9 (NE_n \times p_n)$$

## 12. REIMBURSEMENT VALUES

12.1 AUTHORIZED PARTIES shall be responsible for the costs arising from the preparation of their studies, and shall not be entitled to any reimbursement of such costs, and may be reimbursed by the future concessionaire, provided that the studies are effectively adopted by the Public Administration and have the value of its approved expenditure, and provided for in the respective bidding, pursuant to the provisions of art. 21 of Federal Law No. 8.987 of February 13th, 1995.

12.2 If the study is partially adopted, the homologation decision shall determine in a proportional way how much of the expenses may be reimbursed.

12.3 For the purposes of homologation and possible reimbursement in accordance with the aforementioned terms, the maximum value for studies is set at R\$ 1.446.006.53 as established in Resolution No. 04/2018 of the Public-Private Partnership Program Managing Board (CGPPP).

12.4. The reimbursement is conditional on the updating or adaptation, if necessary, of the technical studies presented until the opening of the possible bidding of the project, as a result, among other aspects, of:

- a) Alteration of regulatory assumptions and applicable normative acts;
- b) Recommendations and determinations of the control bodies;
- c) Contributions coming from consultation and public hearing.

### **13. PUBLIC ADMINISTRATION RIGHTS**

13.1. The Government of the State of Ceará, at any time and regardless of prior notice, may:

- a) amend, suspend or revoke this Public Notice;
- b) request additional information from interested parties regarding the Expression of Interest sent at any time, pursuant to Decree No. 30.328, dated September 27th, 2010;
- c) to hire alternative or complementary technical studies;
- d) to initiate the bidding process related to the concession project for the PROJECT FOR THE EXPLOITATION OF THE AREAS OF THE CASTANHÃO ADDUCTOR CANAL – GREATER FORTALEZA - GF (RMF) FOR THE GENERATION OF PHOTOVOLTAIC ENERGY, independent of the delivery of the studies.
- e) Disclose the names of the interested participants, except for an express request for confidentiality, in the expression of interest.

### **14. LIABILITY**

14.1 Those authorized to conduct studies are civilly and criminally liable for the rigidity of the studies they present, being responsible for any losses and damages, to the State of Ceará/ SWR (SRH) or to third parties, directly or indirectly caused by the insufficiency of such studies, except it is stated, in an explicit, specific and reasoned manner, the risks that may be incurred by those who adopt the recommendations or technical elements that constitute the studies.

### **15. REQUEST FOR INFORMATION AND RESOURCES**

**15.1** Pursuant to art.6 of State Decree N° 30.328/2010, any interested party may request information regarding this PMI, within 10 business days before the deadline for submission of the proposal by electronic mail: [editaipmiplacassolares@srh.ce.gov.br](mailto:editaipmiplacassolares@srh.ce.gov.br). Such information should be presented in the portuguese language of Brazil.

15.2 An appeal can be submitted to the Evaluation Committee designated by means of Ordinance N° 752/2018/SRH, published in the Official State Gazette of May 25<sup>th</sup>, 2018, composed of civil servants or public employees of SRH, COGERH, CAGECE and ARCE, for the evaluation decision of the proposal and for the choice of the study homologation decision for reimbursement, within five working days of the disclosure of the classification.

## 16. STANDARD FORMS

16.1 The comments in red in square brackets that appear on the forms in this section provide guidance to INTERESTED parties for the preparation of their PROPOSALS and should not be printed in the final version of the PROPOSAL.

16.2. The format of the PROPOSAL must follow the guidelines of this Public Notice and contain all required standard forms (FORM).

FORM - 1 - Registration Term;

FORM - 2 - Model of Declaration of Expression of Interest;

FORM - 3 - Technical Proposal Submission Form

FORM - 4 - Experience and Organization

A. Organization of the INTERESTED PARTY

B. Experience of Companies and Teams

FORM - 5 - Remarks and Suggestions About Terms of Reference

FORM - 6 - Description of the Approach, Methodology and Plan of Activities for the Execution of the Services

FORM - 7- Team Composition and Allocation of Responsibilities

FORM - 8 - Curricula of Proposed Professionals

FORM - 9 - Schedule of Staff Activities

FORM - 10 - Work Plan

FORM - 10A - Detailed Work Plan Activities

FORM - 11 - Price Proposal Submission Form

FORM - 12 - Price Summary

FORM - 12A - Pricing Details

FORM -13 - Copyright and Copyright Assignment Term Model

FORM – 1 REGISTRATION TERM

Table I – Technical Registration

Name(s) of the interested party(s)	
Address(s) of the interested party(s)	
Telephone number(s) of the interested party(s)	
Fax number(s) of the interested party(s)	
Email address(s) of the interested party(s)	
Corporate Taxpayer Registry or Individual Taxpayer Registry of the interested party(s)	
Name of the representative of the interested party (when legal entity **)	
Telephone number of the representative	
E-mail address of the interested party	

Table II - SocietiesMark:

Company Partnership ( )

Consortium ( )

Other type of association ( )

Describe \_\_\_\_\_

\*\* Representatives are representatives, for the purpose of this Public Notice, are persons empowered to express themselves in the name of the legal entities participating in the group.

FORM – 2 DECLARATION OF EXPRESSION OF INTEREST

TO

HONORABLE MR./MRS. [NAME OF ORGAN SECRETARY/ENTITY OFFICER]

[ORGAN/ENTITY]

[ADDRESS OF THE BODY/ENTITY]

Mr. [NAME OF THE SECRETARY OF THE ORGAN/INSTITUTIONAL OFFICER]:

[INDIVIDUAL(S) AND/OR LEGAL PERSONS(S) DENOMINATIONS], with its registered office at \_\_\_\_\_ STREET, no. \_\_\_\_\_, in the city of [CITY], State of [STATE], registered under the corporate taxpayer registry number \_\_. \_\_. \_\_ / \_\_\_\_-\_\_ hereby expresses its interest in participating in the EXPRESSION OF INTEREST N° 01/2017 / SWR (SRH).

The [LEGAL PERSON] declares to be aware that the authorization to present projects, studies, surveys or investigations:

does not confer exclusivity;

does not create the right of preference to grant the concession;

does not oblige the State to carry out the bid;

does not, in itself, create any right to reimbursement of the values involved in its preparation; and

is personal and non-transferable.

The [INDIVIDUAL AND/OR LEGAL NAME] declares to be aware that the authorization may be revoked or annulled due to the convenience of the State of Ceará, without generating any type of compensation.

The [LEGAL NAME] declares to be aware that the evaluation and selection of projects, studies, surveys or investigations to be used, partially or in full, in the eventual bidding, will be carried out as established in this Notice.

[If you wish, the legal entity should request the confidentiality of the data at this opportunity.]

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[LEGAL REPRESENTATIVE]

FORM – 3 TECHNICAL PROPOSAL SUBMISSION FORM

[Place, date]

TO

HONORABLE MR./MRS. [NAME OF ORGAN SECRETARY/ENTITY OFFICER]

[ORGAN/ENTITY]

[ADDRESS OF THE BODY/ENTITY]

Mr. [NAME OF THE SECRETARY OF THE ORGAN/INSTITUTIONAL OFFICER]:

The petition commit to provide the [DESCRIBE THE STUDIES/SERVICES] Services, regarding the PROJECT FOR THE EXPLOITATION OF THE AREAS OF THE CASTANHÃO ADDUCTOR CANAL – GREATER FORTALEZA - GF (RMF) FOR THE GENERATION OF PHOTOVOLTAIC ENERGY to be hired under a concession regime for the use of public property , in accordance with the NOTICE OF EXPRESSION OF INTEREST No. XXX / [YEAR]/[ORGAN / ENTITY].

We hereby submit our Proposal, which includes this Technical Proposal and a Price Proposal in a separate and closed envelope.

We are presenting our proposal in association with: [Insert a list with the full name and address of each associate member]

We declare that all information and statements contained in this Proposal are true and we accept that any false information contained herein may result in our disqualification and cancellation of the Service Authorization at any time.

If our Proposal is accepted, we commit to initiate the studies indicated in item 7 of the PEI Public Notice until the date indicated in the Authorization Term of the Services.

We are aware that any of the Proposals received is obliged to be accepted.

Regards,

Authorized Signature [full name and signature]: \_\_\_\_\_

Name and title of signatory: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

FORM – 4 EXPERIENCE AND ORGANIZATION

A - Organization of the INTERESTED PARTY

[Provide here a brief description (two pages) of the background and organization of your company or entity and each of the associates for this task.]

B - Individual Members` Experience

[In the following form, provide information on each of the services for which your company and each of the associates performed, as individuals or as legal entities, or as one of the principal companies of an association, to provide services similar to those requested in this Expression of Interest. Use about 20 pages]

Title of the Services:	Approximate value of the contract (in R\$ or current euros):
Country:	Duration of service provision (months):
Place within the country:	
Name of the contracting party:	Total number of person-months:
Address:	Approximate value of the services provided by your company in the contract (in R\$)
Start date (month/year):	Number of professionals-month provided by Associate Members:
End date (month/year):	
Name of the companies associated, if any:	Name of top level employees of your company involved and roles performed (indicate the most significant profiles such as Project Director or Coordinator, Team Leader):
Narrative description of the project	
Description of the services effectively provided by the company personnel within the project:	

Company name: \_\_\_\_\_

FORM – 5 REMARKS AND SUGGESTIONS ABOUT TERMS OF REFERENCE

A - Term of Reference

[Present and justify here any observation or improvement in the terms of reference proposed to improve the execution of the services (such as eliminating some activity that they do not consider necessary, adding another or proposing different steps of the activities). Such suggestions should be concise and timely, and be incorporated into your Proposal.]

FORM – 6 DESCRIPTION OF THE APPROACH, METHODOLOGY AND PLAN OF ACTIVITIES FOR THE EXECUTION OF THE SERVICES

[The technical approach, the methodology and the work plan are key components of the technical proposal. We suggest that you submit your technical proposal (50 pages including charts and diagrams) divided into the following three parts:

Technical Approach and Methodology

Work plan

Organization and Staffing

a) Technical Approach and Methodology. In this chapter the INTERESTED PARTY should explain his/her understanding of the objectives of the work, approach of the services, methodology to execute the activities and obtain the expected product and the degree of detail of this product. It should highlight the issues being addressed and their importance, and explain the technical approach to be taken to address them. The interested party should also explain the methodology he/she proposes to adopt and emphasize the compatibility of this methodology with the proposed approach.

b) Work Plan. In this chapter, you must propose the main activities of the services, their content and duration, phases and relationships between them, milestones (including provisional [ORGAN/ENTITY] approvals) and reporting dates. The proposed work plan should be consistent with the technical approach and methodology, demonstrating an understanding of the scope of services and the ability to translate them into a workable plan of work. This should include a list of final documents, including reports, plans and tables that should be presented as final products. The work plan should be consistent with the Work Program of Form FORM-8.

c) Organization and Staffing. In this item the structure and composition of your team should be presented. It shall detail the main disciplines of the work, the specialist responsible and the proposed technical and support staff.]

FORM – 7 TEAM COMPOSITION AND ASSIGNMENT OF RESPONSIBILITIES

1. Key Team Professionals				
Name	Company	Area of Expertise	Position	Assigned Activity

2. Support Team Professionals				
Name	Company	Area of Expertise	Position	Assigned Activity

FORM – 8 CURRICULUM OF PROPOSED PROFESSIONALS

1. Proposed position [Only one professional shall be appointed for each position.]:

2. Company name [Insert name of company proposing candidate.]:

3. Name of individual [insert full name]:

4. Date of birth: \_\_\_\_\_ Nationality: \_\_\_\_\_

5. Education [Indicate the universities and other specialized studies of the individual, giving the names of the institutions, diplomas obtained and the dates in which they were obtained]:

6. Other specialties [Indicate other significant studies after obtaining the diplomas indicated in item 5.]:

7. Service History [Beginning with the current position, list in reverse order each position you have held since you graduated, indicating for each job (see next form): date of employment, name of organization, position held.]:

From [Year]: \_\_\_\_\_ By [Year]: \_\_\_\_\_

Company: \_\_\_\_\_

Position held: \_\_\_\_\_

8. Tasks Assigned [List all tasks you will perform in this job]:

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9. Provided Services That Best Demonstrate Ability to Perform Assigned Tasks  
[Among all the services the individual has performed, indicate the following  
information for those who best demonstrate their ability to perform the tasks  
listed in item 8]:

Name of the task or project: \_\_\_\_\_

Year: \_\_\_\_\_

Place: \_\_\_\_\_

Contracting party: \_\_\_\_\_

Main Characteristics of the project: \_\_\_\_\_

Position: \_\_\_\_\_

Performed activities: \_\_\_\_\_

10. Certificate:

I certify, to the best of my knowledge and belief, that this curriculum correctly describes my person, my qualifications, and my experience. I understand that any voluntarily false statement included herein may result in disqualification or cancellation of the Service Authorization, if any.

Date: [Day/Month/Year] \_\_\_\_\_

\_\_\_\_\_

[Signature of individual or authorized representative.]

Full name of authorized representative: \_\_\_\_\_

FORM – 9 SCHEDULE OF STAFF ACTIVITIES

No.	Name	Staff Contribution Months (on a bar chart)						Total people-month
		1	2	3	4	...	n	
Total								

 Complete time  
 Partial time

Indicate all the main activities of the services to be provided, including delivery of reports (for example: initial, intermediate and final) and other milestones such as approvals by the body or entity. For tasks in steps, indicate activities, report delivery, and milestones separately for each step.



FORM – 10A DETAILED WORK PLAN ACTIVITIES

No.	Activities	Details of the Activities
1		
2		
3		
4		
5		

FORM – 11 PRICE PROPOSAL SUBMISSION FORM

[Place, date]

TO

HONORABLE MR./MRS. [NAME OF ORGAN SECRETARY/ENTITY OFFICER]

[ORGAN/ENTITY]

[ADDRESS OF THE BODY/ENTITY]

Mr. [NAME OF THE SECRETARY OF THE ORGAN/INSTITUTIONAL OFFICER]:

The petition commit to provide the [DESCRIBE THE STUDIES/SERVICES] Services, regarding the PROJECT FOR THE EXPLOITATION OF THE AREAS OF THE CASTANHÃO ADDUCTOR CANAL – GREATER FORTALEZA - GF (RMF) FOR THE GENERATION OF PHOTOVOLTAIC ENERGY to be hired under a concession regime for the use of public property, in accordance with the NOTICE OF EXPRESSION OF INTEREST No. 01/2017/SWR (SRH) along with our technical proposal. A Price Proposal can be found attached in the amount of [amount in full and currency]

We are aware that any of the Proposals received is obliged to be accpeted.

Regards,

Authorized Signature [full name and signature]: \_\_\_\_\_

Name and title of signatory: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

FORM – 12    PRICE SUMMARY

Item	Prices			
	Quantity	Unit	Unit price	Total
Remuneration of Personnel <i>[detail by professional/Company]</i>				
Reimbursable expenses <i>[detail by activity]</i>				
Total Price of the Price Proposal				

FORM – 12A PRICING DETAILS

Team [detail by professional/Company]	Quantity [hour]	Unit Price [Price man/hour]	Total

Product	Team			
	Professional/Company	Cost [man/hour]	Quantity [hour]	Total
[Product 1]	[Professional 1]			
	[Professional 2]			
	[Professional 3]			

FORM – 13 COPYRIGHT AND COPYRIGHT ASSIGNMENT TERM MODEL

[Place, date]

TO

HONORABLE MR./MRS. [NAME OF ORGAN SECRETARY/ENTITY OFFICER]

[ORGAN/ENTITY] - [ADDRESS OF THE BODY/ENTITY]

Mr. [NAME OF THE SECRETARY OF THE ORGAN/INSTITUTIONAL OFFICER]:

INDIVIDUAL(S) AND/OR LEGAL PERSONS(S) DENOMINATIONS, with its registered office at \_\_\_\_\_ (STREET), no. \_\_\_\_\_, in the city of [CITY], State of [STATE], registered under the corporate taxpayer registry number \_\_.\_\_\_\_.\_\_\_\_ / \_\_\_\_-\_\_ hereinafter referred to as the ASSIGNOR, assigns and transfers to SWR (SRH), simply named ASSIGNEE, the ownership of the copyrights relating to the PROPERTY OF THE CASTANHÃO ADDUCTOR CANAL – GREATER FORTALEZA - GF (RMF) FOR GENERATION OF PHOTOVOLTAIC ENERGY under the concession regime for the use of public property, in accordance with the following conditions:

The ASSIGNOR hereby declares that he/she is the author and holder of the copyright property of the PROJECT presented;

THE ASSIGNOR declares that the PROJECT does not infringe the copyrights and/or other property rights of third parties, assuming full responsibility for its content;

THE ASSIGNOR assigns and transfers all copyrights relating to the PROJECT to the ASSIGNEE, especially the rights of editing, publication, translation into another language and reproduction by any process or technique;

The ASSIGNEE becomes the exclusive owner of the rights related to the PROJECT, being prohibited any reproduction, total or partial, in any other means of dissemination, printed or electronic, without prior written authorization by the ASSIGNEE

The assignment is free and therefore, there will be no remuneration for the use of the PROJECT by the ASSIGNEE, except for the possibility of reimbursement for the projects, studies, surveys or investigations effectively used in the format of the concession for [PROJECT OBJECT].

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LEGAL

REPRESENTATIVE

## ANNEXES

ANNEX 1 - Evaluation Form

ANNEX 2 - Term of Authorization of Services

ANNEX 3 - Terms of Reference

**ANEXO 1 - ANNEX 1 - MODEL OF THE EVALUATION FORM**

**INTERESTED PARTY: [NAME OF THE INTERESTED PARTY]**

Criterion (1) - Specific experience of the INTERESTED PARTY related to the Object of the PEI Public Notice		
ITEM	SUBCRITERIA	POINTS
1.1	Research and/or Evaluation of Programs and/or Projects. (2 points will be awarded for each evaluation, up to a maximum of 20 points)	
	Subtotal	
Criterion (2) – Relevance of the studies performed by Public-Private Partnership or Concession		
ITEM	SUBCRITERIA	POINTS
2.1	Size, dimension, scope, publications (Up to 15 points will be awarded, at the evaluator's discretion)	
	Subtotal	
Criterion (3) – Qualification and competence of the key team for the accomplishment of the object of the PEI Public Notice		
ITEM	SUBCRITERIA	POINTS
3.1	General qualifications (training in areas compatible with the function to be performed) - (up to 15 points will be awarded, at the evaluator's discretion).	
3.2	Suitability for the project (experience in works of a similar nature to which it will have to perform in the project) - (up to 15 points will be awarded, at the evaluator's discretion).	
	Subtotal	
Criterion (4) – Qualification of the methodology and work plan		
ITEM	SUBCRITERIA	POINTS
4.1	Compatibility of technical approach, methodology, work plan and organization (Up to 35 points will be awarded at the evaluator's discretion).	
	Subtotal	
	Final Score	

Fortaleza, [DAY]/ of [MONTH ] of [YEAR].

## ANNEX 2 - TERM OF AUTHORIZATION OF SERVICES

AUTHORIZATION FOR THE DEVELOPMENT OF FEASIBILITY STUDIES, PROJECTS AND TECHNICAL STUDIES INTENDED FOR THE PROJECT FOR THE USE OF AREAS OF THE CASTANHÃO ADDUCTOR CANAL – GREATER FORTALEZA - GF (RMF) IN THE REGIME OF CONCESSION OF USE OF PUBLIC GOOD FOR THE GENERATION OF PHOTOVOLTAIC ENERGY, IN THE FORM DISTRIBUTED GENERATION, TO BE CONSUMED BY THE WATER RESOURCES MANAGEMENT COMPANY OF CEARÁ - COGERH AND THE WATER AND SEWAGE COMPANY OF CEARÁ - CAGECE

DISPATCH BY THE HONORABLE [NAME OF THE SECRETARY OF THE ORGAN/INSTITUTIONAL OFFICER]:

1. I approve the report of the Committee designated by means of Ordinance No. [NUM]/[ORGAN]/[YEAR] to analyze the Proposal of Expression of Interest regarding the preparation of feasibility studies and modeling of [PROJECT] , AUTHORIZING [NAME OF THE WINNING INTEREST PARTY] to begin the preparation of the studies required under the said Report.

2. I emphasize that, in case any of the studies presented is adopted by the State of Ceará, it will be accepted to transfer the onus of payment of the amounts resulting from these studies to the winner of the bid, pursuant to §2 of art. 21 of Decree No. 30.328, dated September 27th, 2010, and should be limited to the values estimated by the INTERESTED PARTY, when the presentation of the Expression of Interest, and duly validated by SWR (SRH) and the Public-Private Partnerships Management Council of the State of Ceará - CGPPP, established by Decree No. 29801 of July 10th, 2009.

3. The term of execution of the services is [DAYS] counted from the date of publication of this Authorization.

4. The PUBLIC NOTICE FOR REQUEST OF EXPRESSION OF INTEREST No. 01/2017/SWR (SRH), The terms of Reference and the spreadsheet detailing the consolidated prices during the negotiation phase are integral parts of this Service Authorization Term.

Fortaleza, [DAY] of [MONTH] of [YEAR].

[SIGNATURE OF THE OFFICER]

[ORGAN/ENTITY],

## **ANNEX 3 - TERM OF REFERENCE**

### **PRESENTATION**

**THIS DOCUMENT DETAILS THE OBJECT OF THE PUBLIC NOTICE CALL FOR EXPRESSION OF INTEREST NUMBER 01/2017/SWR (SRH) FOR THE PREPARATION OF FEASIBILITY STUDIES, PROJECTS AND TECHNICAL STUDIES INTENDED FOR THE PROJECT OF EXPLOITATION OF AREAS OF THE CASTANHÃO ADDUCTOR CANAL – GREATER FORTALEZA - GF (RMF) IN CONCESSION REGIME OF PUBLIC GOOD USE FOR THE GENERATION OF PHOTOVOLTAIC ENERGY, IN THE FORM OF DISTRIBUTED GENERATION, TO BE CONSUMED BY COGERH AND CAGECE.**

Included in the scope of this concession of use of the areas of the Castanhão Adductor Canal will be the realization of the investments necessary for the economic exploitation by means of the installation and operation of a photovoltaic electric energy generation system with up to 45MWpeak of power, in the modality of distributed generation in modules of up to 5MWpeak, to be consumed by the WATER RESOURCES MANAGEMENT COMPANY OF CEARÁ - COGERH (up to 25MWpeak) and the WATER AND SEWAGE COMPANY OF CEARÁ - CAGECE (up to 20MWpeak), increasing the supply of electricity from a clean renewable source.

### **OBJECTIVE**

The purpose of this reference term is to detail the specifications of the projects and technical studies required in the Call for Public Call for Expression of Interest No. 01/2017/ SWR (SRH).

The Government of the State of Ceará, through the Secretariat of Water Resources – SWR (SRH), plans the concession of land expropriated and inserted in the Castanhão Adductor System - Greater Fortaleza - GF (RMF), in order to optimize the utilization of the adduction infrastructure for photovoltaic energy generation and, consequently, to foment the productive chain of the sector, to promote the environmental sustainability, as well as to allow the cheaper energy consumption by the State and its state entities, mainly COGERH and CAGECE.

Over the last few years, as can be seen in Figure 1, COGERH has increasingly demanded electric energy, to be used mainly in its pumping stations, in order to guarantee the uninterrupted supply of water to the Metropolitan Region of Fortaleza - (RMF), to the industrial districts located in the municipalities of Pacajus, Horizonte, Maracanaú and the Industrial Complex and Port of Pecém - CIPP and to the agricultural activities of the adduction system denominated Water Belt (Eixão das Águas).

The image shows the TOTAL ACTIVE CONSUMPTION (CONSUMO TOTAL ATIVO)



Image 1 - History of the electricity consumption of COGERH over the last 10 years. Source: COGERH, 2017.

As verified in the studies of the historical data of electricity consumption, it was observed that COGERH currently consumes, on average, 5.5MW of ENEL's (Energy Concessionaire) electricity grid.

Cagece's energy consumption is characterized by a 764MWh growth over the last 10 years, as can be observed in Figure 2. Considering the year 2016 of these data, an average consumption of 2.705MWh/month is identified. It is worth noting that the units of CAGECE in the Low Voltage modality are highlighted for this study, since currently they are the units that have the highest average price per MWh.

There is a constant concern in CAGECE to optimize its operating costs, thus, the best contracting for the Low Voltage units is sought, that is, that guarantees the supply of commercial and operational units of water and sewage distributed throughout the State of Ceará, at the lowest possible cost.

The image shows the LOW VOLTAGE CONSUMPTION (CONSUMO BAIXA TENSÃO)

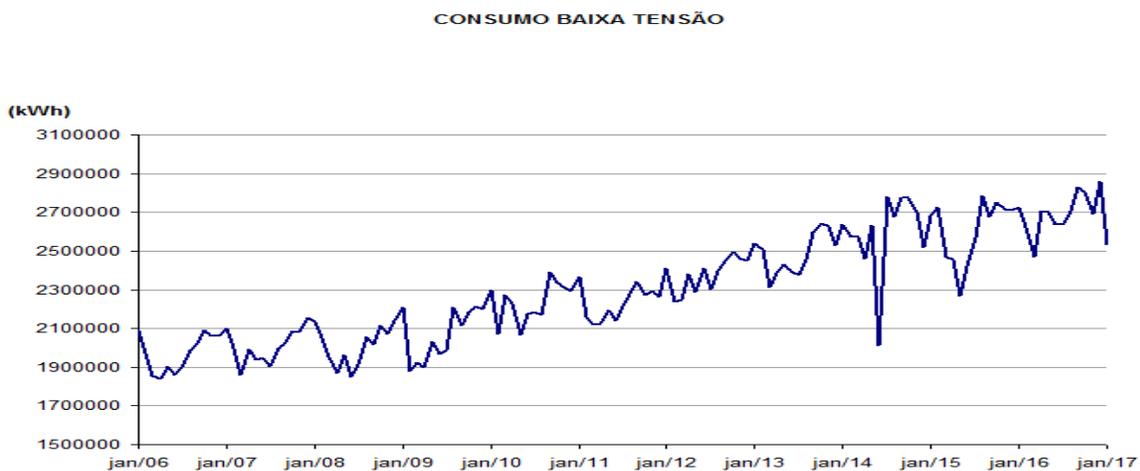


Image 2: History of electricity consumption in the Low Voltage units of CAGECE over the last 10 years. Source: CAGECE, 2017

Considering the prospect of an increase in energy consumption over the next few years, it is based on feasibility studies for the installation and operation of photovoltaic electric energy generation systems, with up to 45MWpeak, in the form of distributed generation in modules of up to 5MWpeak, for COGERH and CAGECE consumption, in the free areas of the Water Belt (Eixão das Águas) in the state of Ceará.

Regarding the use of the free areas of the Water Belt (Eixão das Águas) in the State of Ceará to implement the project, when planning the canal, the State Government had to meet, among others, environmental legislation which established that for adduction canals, side strips of 100 (one hundred) meters should be expropriated from the canal's axis. Therefore, following the established, the Castanhão - GF Adductor System has, in addition to these strips, the relevant infrastructures.

Therefore, the use of 70 (seventy) meters of each margin for the generation of photovoltaic energy, considering the availability of the expropriated strips of 100 (one hundred) meters of each channel margin, is used as a means of productive exploitation, observing principles of socio-environmental sustainability. Considering also that the expropriated areas suffer frequent invasive actions, the use of these areas would allow, as an additional benefit, the territorial security of the canal in the stretches in which the project is implemented.

The Castanhão - GF Adductor System consists of a complex set of pumping stations, canals, siphons, and tunnels, generally referred to as Water Belt (Eixão das Águas), whose main objective is to allow the transposition of water from the Castanhão Stream to the Metropolitan Region of Fortaleza (RMF), as well as ensuring the supply of water for the populations and promote socio-environmental development along its route.

The Castanhão Belt - GF starts immediately downstream of the Castanhão dam, deriving its flow directly from the water supply pipe of the respective reservoir. Its objective is to meet the water needs of the Fortaleza Metropolitan Region (Greater Fortaleza- GR), as well as the communities and diverse activities, as recommended by the fundamentals of water resources management policy and multiple uses of water.

In face of the water crisis in the last five years, currently this Adductor System extends to the amount of the Castanhão weir, since the capture is being done in the Orós weir, greatly increasing the costs with electric energy by COGERH.

The Castanhão-RMF Adductor System has the following extension: 256 km, being 201 km (Stretches 1, 2, 3 and 4), from the Castanhão weir to the Gavião weir, plus 55 km (Ext. 5) to the vicinity of the Port of Pecém.

Engineering Structures: Pumping Stations, Canals, Adductors, Inverted Siphons, Tunnel, Control and Safety Works, Bridges and Roads of Operation and Maintenance.

Geometric Characteristics of Channels:

Bottom Width: 5.00 m;

Height (bottom to edge): 2.70 m;

Top Width: 13,10 m;

Slope: 1,5 (H)/1(V);

Bottom Declivity: 0,15 m/km;

Platforms Width on the Edges: 6,00 m;

Internal Coating: Waterproof Blanket under single concrete slab with a thickness of 8 cm;

External Coating: Gravel and Stones.

The "Castanhão-Fortaleza Adductor System" is divided into 5 (five) stretches:

Stretch 1	has its beginning in the Capture of the Castanhão Weir and goes until the Aracude Curral Velho Weir, extension of 54.7km;
Stretch 2	From Curral Velho Weir until Serra do Felix, extension de 45,9km;
Stretch 3	From Serra do Felix until the right shoulder of the Pacajus Weir, including diversion to the same weir, and extension of 66,3km;
Stretch 4	begins at the right shoulder of the Pacajus Weir (54.8m to the Gavião Dam, extension of 33.89km;
Stretch 5	From the Gavião waterbasin, through mixed adduction (repression and gravity) to the Pecém Industrial Complex, previously feeding the Water Treatment Station (ETA WEST), thus meeting the water demands of the population of Caucaia and of beaches located in the western region of the GF.

It is important to note that Stretch 5 does not have available areas that allow the use for the installation of photovoltaic panels. Thus, for this project only Stretches 1, 2, 3 and 4 should be considered.

In addition to the projects and technical studies required in this instrument, the interested party is able to present complements that indicate innovations, improvements and alternatives to achieve greater economics, better technological efficiency, gains in scale, reduction of deadlines, and other benefits in project execution, including options for capturing and rationalizing demand and promoting modal integration.

### **SCOPE OF THE PROJECTS AND TECHNICAL STUDIES TO BE PRESENTE**

In each reference term for the Technical Studies, there is an introductory text that proposes to explain what is the study to be elaborated and its relevance and, later, the sections must be presented, for each of them, (1) justifications and objectives, (2) study characteristics, (3) study limits and (4) products and deliveries.

The technical studies which are to be elaborated, according to this Term of Reference, are the following, in this sequence:

1. Project guidelines;

2. Mapping of feasible areas for granting use;
3. Assessment of land value;
4. Diagnosis and study of electric energy demand;
5. Financial modeling of the concession;
6. Environmental studies;
7. Legal and regulatory feasibility;
8. Legal modeling with presentation of public notice and draft agreement;
9. Social assessment study.

## **1. PROJECT GUIDELINES**

The guideline document recommends the necessary elements for the definition of the scope, objectives and guidelines of the PROJECT FOR THE EXPLOITATION OF THE AREAS OF THE CASTANHÃO ADDUCTOR CANAL – GREATER FORTALEZA - GF (RMF) FOR THE GENERATION OF PHOTOVOLTAIC ENERGY, to be contracted under the Concession of Use of Public Property. The clear definition of the project scope is necessary to ensure that the project objective is met within the predefined specifications, as well as good project management practices are adopted, in order to meet all the expectations of the State of Ceará to foster generation of clean energy, through the use of the free bands of the Water Belt (Eixão das Águas), and to allow economics due to the consumption of photovoltaic energy.

### **1.1 Justification and Objectives**

Project justification and objectives, indicating the reasons why the project was started. The justification must identify the preliminary needs and / or opportunities of the project. While the project objectives include the measurable criteria of success of this. Projects can have a wide variety of technical, business, cost, performance, schedule and quality objectives. Also, cost, schedule and quality goals may be included.

### **1.2 Characteristics of the studies**

The scope should be defined by showing all the requirements of the study products, the services needed to carry them out and the expected final results. It should also describe how the studies will be carried out, so that it reaches its objectives with the specified resources and functions. It is important to describe the scope of the product, with the characteristics of the final product, and scope of the project, which describes the work required to deliver it with the specified characteristics. Once this is defined, it is essential that a statement of the scope of the Usage Grant project be drawn up to guide the conduct of the studies, based on the main deliverables, premises and restrictions that must be identified and documented.

The project scope statement describes, in detail, project deliverables and the work required to create those deliverables. The project scope statement also provides a common understanding of the project scope to all interested parties and outlines the main objectives of the project. In addition, it allows the team

involved to carry out more detailed planning, it guides the team's work during execution, and provides the baseline to evaluate change requests or additional work when within the study boundaries.

This study should also present a risk matrix with a focus on the process of implementation and operation of the enterprise; for example, the Joint Normative Instruction (Instrução Normativa Conjunta) MP-CGU 01/2016 and the Normative Instruction of the Ministry of Planning (Instrução Normativa do Ministério do Planejamento ) 05/2017 can be considered as the basis.

In order to meet the project objectives, the interested party must indicate the measurable performance and monitoring criteria that should be adopted for the implementation and operation of the project, based on the engineering strategy approached for the project.

### 1.3 Limits of the Study

It determines what should be done and what is excluded from the project scope (negative scope). In principle, what is not explicitly stated is implicitly excluded from the project, but to prevent the interested parties from assuming that a particular product, service or result is a component of the project, it is made explicit what is excluded.

### 1.4 Products and Deliveries

This study should be delivered in a single volume, both printed and in an editable digital medium, including: i) Project Guidelines Report, which should contain the needs, premises, objectives and scope of the project; and ii) Risk Matrix with focus on the process of implementation and operation of the enterprise. The documents must be delivered both in print and in an editable digital medium.

The product must present the list of professionals involved in its elaboration and participating organizations of the public administration and the private initiative with their respective representatives nominated. The study nomenclature will be: P1 - Project Guidelines.

## **2. MAPPING OF FEASIBLE AREAS FOR GRANTING USE**

### 2.1 Justification and Objectives

Since the design of the project under the concession of a public good use concession, it is necessary to identify the domain areas and possession along the Castanhão Adductor System - GF, belonging to the State of Ceará, would be more feasible to install a photovoltaic electricity generation system of the project.

### 2.2 Characteristics of the studies

The report of the realization of the mapping of viable areas for the concession of use should consider: a) the power of transmission lines; b) the connection points for power transmission; c) the structures to be assembled for connection points from the granted areas; d) the solar incidence with estimated energy production; e) the regularization of the land; f) a topographic study; g) the adequacy to the current environmental legislation; and h) whether there is a need for investment in infrastructure.

### 2.3 Limits of the Study

The mapping of viable areas should be limited to the free edges of the Water Belt (Eixão das Águas) in the stretches indicated in the introductory topic of this Term of Reference (TR) (stretches 1, 2, 3 and 4 of the Castanhão-Fortaleza Adductor System).

### 2.4 Products and delivery

This study should be delivered in a single volume, both printed and in an editable digital medium, including: i) Mapping feasible areas for the granting of use, with the respective justifications for such choices by Consumer (CAGECE and COGERH), based on the above considerations (2.2) and others that are relevant; ii) a report with the respective Technical Attestation Certificates – TAC (AVT) issued to the Energy Concessionaire, indicating whether or not the need for investment in infrastructure and its cost estimate, such as reinforcement of the distribution network, expansion of substations , among others The product should present the list of professionals involved in its elaboration and organizations participating in the public administration and private initiative with their respective representatives nominated. . The study's nomenclature will be: P2 - Mapping Plan of viable areas for granting use.

## **3. ASSESSMENT OF LAND VALUE**

### 3.1 Justification and Objectives

Since the design of the project under a concession for the use of public property for consideration requires the identification of the value of the areas of ownership and possession along the Castanhão-GF Adductor System, belonging to the State of Ceará, through the SRH, to be granted to estimate the potential value of grant to be paid to the Government by the photovoltaic power generator, now the Concessionaire.

### 3.2 Characteristics of Studies

The valuation report of the viable land for the concession of use must consider the real venal value of the property.

### 3.3 Limits of the Study

Only feasible areas for such project should be evaluated, according to the results of study 2 - Mapping of Viable Areas for the Concession of Use. The venal value considered will serve as a parameter to estimate the grant to be paid to the State for the Concession of Use of the public lands.

### 3.4 Products and Delivery

This study should be delivered in a single volume in a report format containing a land evaluation report, both printed and in an editable digital medium.

The product must present the list of professionals involved in its elaboration and participating organizations of the public administration and the private initiative with their respective representatives nominated. The study's nomenclature will be: P3 - Land value assessment.

#### **4. DIAGNOSIS AND STUDY OF ELECTRIC ENERGY DEMAND**

In this stage of the studies, two types of work must be presented: (1) a detailed diagnosis of the sector in which the Concessionaire will operate, and (2) studies of "supply" and "demand" in relation to the sector and the object of the approach of institutional aspects pertinent to the project to be developed by means of concession of use of public good.

##### **4.1 Justification and Objectives**

It is essential to know the real demand for the project that will be developed, considering the estimated capacity of the supply and the beneficiaries of the project.

##### **4.2 Characteristics of Studies**

The reports of the realization of diagnosis and study of the demand must present data of consumption of electric energy by COGERH and CAGECE, capacity of generation of photovoltaic energy and financial and economic feasibility for COGERH and CAGECE, considering the area of influence of development of the project.

Each project will have a need to deepen demand studies, and in some cases it is recommended to carry out primary data searches and the application of econometric models to forecast the behavior of this demand.

The methodology to be applied should be negotiated between the companies or groups authorized to prepare the study, COGERH, CAGECE and SRH.

The diagnosis (1), without prejudice to other items deemed relevant, should contemplate the following aspects:

- a. detailed identification of the object of the Concession of Use of Public Property;
- b. if applicable, a description of the ways in which ventures with a similar object or related area are being carried out in the State of Ceará or in other Federative Bodies or countries, with an estimate of the corresponding costs;
- c. identification of the limitations found in the presented models, which could be overcome by the adoption of the public good use concession mechanism;
- d. identification of potential service providers in the domestic market and, if applicable, in the foreign market.

On the other hand, the demand studies (2) will identify the characteristics and needs as well as estimate the universe of beneficiaries served by the concessionaire, in order to subsidize the development of products and services and to size the volume to be offered during the period of validity of the concession contract for the use of public property.

These studies should be based on surveys on:

- a. historical consumption of the service;

- b. consumer preferences;
- c. the unmet demand;
- d. the class of the service;
- e. a área geográfica atendida pelo serviço; e
- f. others if needed.

For the projection of demand, at least three scenarios should be considered: base scenario, optimistic scenario and pessimistic scenario, with the respective assumptions and probabilities attributed.

At this stage of the modeling, it is possible that it is necessary to carry out the collection of information, data and documents available in the body or entity interested in the Concession of Use of the Public Property, which should make available personnel to meet, as appropriate, the requests of the company.

#### 4.3 Limits of the Study

This study should be limited to the current and future demand of the COGERH and CAGECE consumer units, without considering other state agencies, and should be compatible with the areas selected in the Mapping Study of Viable Areas for the Use Concession

#### 4.4 Products and Deliverie

The final product of this phase will consist of a systematic review of the data collected and the preliminary analysis of the demand dimension for the enterprise, based on the model originally idealised by the proposing organ or entity.

Report containing the diagnosis and the study of the demand with aspects of the local demand and information so that it can be projected in at least three scenarios - base, optimistic and pessimistic - indicating the respective assumptions and assigned probabilities. The report must be delivered both in print and in an editable digital medium.

The product must present the list of professionals involved in its elaboration and participating organizations of the public administration and the private initiative with their respective representatives nominated. The study's nomenclature will be: P4 - Diagnosis and study of electric energy demand.

## **5. FINANCIAL MODELING OF THE CONCESSION**

The financial modeling will determine the indexes to be calculated, as well as the criteria that should be adopted to assist in structuring the project.

As a way to ensure that a financial modeling is developed that demonstrates the efficient structuring of the Project for Concession of Use of Public Property for photovoltaic energy generation, criteria, procedures and conditions will be determined to be followed for:

- a) demonstrate that the project is viable, considering possible financing alternatives;
- b) ensure that sufficient financial resources are available to the project completion;
- c) ensure the necessary resources at the lowest possible cost;
- d) achieve the most beneficial tax plan for the project;
- e) to guarantee COGERH and CAGECE a lower cost of electricity consumption; and
- f) assigning onerous value to the concession of use of public lands.

Since the elaboration of the financial modeling of a Project for Concession of Use of Public Property requires a careful analysis of the sources of potential resources, the following should be observed:

- a) the evaluation of the sources of available resources in relation to the year-to-year resource requirements of the project;
- b) the cash flow of the project; and
- c) demonstration the availability of credit support mechanisms for the project debt.

The aspects related to the structuring of the financial modeling should be treated as follows:

- I). Estimate of the total external resource requirements for the project. The required amount of external resources should be determined on the basis of:
  - a) total cost of the project;
  - b) interest that must be paid on project debt, fees and other general expenses incurred during the preparation of project finance;
  - c) the initial investment in floating capital; and
  - d) the amount necessary to cover payroll and other operating expenses before project completion.

It should be demonstrated that sufficient resources have been raised to provide a safety margin above this estimated total. The margin of safety is necessary to finance any surplus costs. The magnitude of this safety margin required will depend on the contingency factors included in the project cost estimates.

## II). Project Indebtedness Capacity

Once the procedures for estimating the need for external resources have been made explicit, the manner in which the amount of indebtedness that can be supported by the project will be demonstrated. This amount depends on the volume of cash flow available to make debt service payments, the extension of complementary credit support mechanisms, and the parameters of loans - interest rate, redemption date, debt repayment requirements and of the creditor coverage requirements.

### III. Sources of funding for the project

The study should demonstrate that the necessary funding commitments can be secured, which involves, in respect of capital resources, obtaining contractual commitments from financially capable investors, in order to provide the necessary capital.

### IV. Profile of expected project cash flow

The study will establish the most appropriate cash flow profiles, considering that the financial modeling cash flow of a project, in general, should seek to equate the maturities of the resources raised to the project's ability to generate cash to repay those resources. This equation must be demonstrated, as it tends to minimize the exposure of the project to refinancing risk. Likewise, the study will demonstrate the coordination of the debt repayment schedule of the project with projected revenues, allowing control of project exposure to financial risks. The expected cash flow should consider at least three scenarios - base, optimistic and pessimistic - indicating their respective assumptions and assigned probabilities. The scenarios considered should be compatible with those used in the study of Electric Energy Demand.

### V. Determination of the minimum rate of attractiveness

The Study should also determine the minimum attractiveness rate to be used in financial modeling to indicate the level of the rate of return required by investors and specific to each project in order to compensate for a certain degree of risk. It is important to consider that in the establishment of these guidelines, the concept of opportunity cost will be taken into account, in which investors will demand a rate of return at least equal to the percentage of return they would get on the investment opportunity that most closely resembles the project. The minimum rate of attractiveness should be given by the value of the real rate of remuneration of public securities (SELIC discounted to IPCA inflation), which is the minimum level of risk, plus a spread that represents the level of risk associated with the project. This minimum attractiveness rate applies as the discount rate for the project cash flow, therefore without considering financial leverage scenarios.

### VI. Considerations on Taxes

The considerations on taxes to be included in the financial modeling should be emphasized, as well as the tax rates and the periodicity of collection. The study report will also explain the method of calculating taxes as a way of aligning this methodology in the Public Use of Concession contracts.

In this study, the feasibility of the project should also be approached due to the collection of the ICMS (state tax – VAT) for the distributed generation, according to Confaz-16/2015 Agreement and its respective updates, considering the Normative Resolution - REN 687/2015 of Aneel (National Energy Agency).

### VII. Debt repayment parameters

Given that the ability to obtain resources is defined as the amount of debt that a project can effectively serve during the period of amortization of its debt, it is important that the amortization capacity

of that debt is demonstrated. The amortization system applied will be CAS (SAC) - Constant Amortization System.

#### VIII. Calculation of Debt / Equity Index (Indebtedness Index/Maximum Viable Capital)

This index demonstrates the ability to acquire direct or indirect credit support based on long-term commitments. The weaker these commitments, the lower the degree of credit support to be acquired, and the lower the viable maximum debt/equity ratio. This index shows the relationship between the portion of risk capital and the portion financed, identifying the quality of the structuring of financial modeling. Depending on the index and the ability of the sponsors to contribute capital to the project, it may be necessary to seek external capital investors. Thus, based on the index result, the financial modeling should indicate the minimum debt/equity scenario of 2.33, to 70% in the minimum debt and 30% in the maximum equity. Any exceptions should be justified.

#### IX. Estimating the concession period

Estimating the minimum period, in required years, for the concession in question to present feasibility in the different projected scenarios, considering additionally the period necessary for the implementation of the project/investment.

#### X. Estimating the value of the Grant

Estimating the potential value of the grant of the concession for the use of public lands, taking as input the Land Value Evaluation Study. The payment of the grant must be included in the cash flow projection of the project, considering at least three possible scenarios for the payment by the concessionaire to the Granting Authority: a) payment of 100% of the grant in the execution of the contract; b) payment of the grant in monthly installments over the concession period; and c) payment of part of the grant at the signing of the agreement and the remainder diluted over the concession period.

#### XI. Estimating the potential value of savings for COGERH and CAGECE

Estimating the potential value of generation of savings for COGERH and CAGECE over the concession period, with the reduction of expenses with electric energy derived from the energy consumption generated by photovoltaic source in relation to that consumed by the electric energy distributor (ENEL) .

### 5.1 Justification and Objectives

The Elaboration of Financial Modeling aims to determine the financial impact of the Concession on COGERH and CAGECE. With this, indicators and criteria must be defined to assist in structuring an efficient financial model of the Concession.

The elaboration of the financial modeling will demonstrate the financial feasibility of the Concession of Use and will estimate the potential of generation of Concession for the State and the potential of economicity for COGERH and CAGECE with the reduction of electric energy expenses.

### 5.2 Characteristics of Studies

Financial modeling should result in a minimum attractiveness rate to indicate the project's rate of return, ie Internal Return Fee – IRF (TIR), excluding leverage<sup>1</sup> and the net present value of the project for the purpose of comparison between competing projects or the like.

For the purpose of calculating the net present value of the projects and adopting a uniform criterion for comparison between projects, the use of the SELIC<sup>2</sup> rate plus the risk spread <sup>3</sup> as the discount rate of the project cash flow, according to the provisions of item 5 of the introduction of this term of reference.

For this it will be necessary to make a projection of cash flow of the project with the investments, costs and operational expenses and revenues. It is important to emphasize that depreciation, taxes, expenses with property security, and payment of the estimated value of grant to the Granting Authority should be considered. For the projection of the cash flow and the estimation of the grantt, at least three scenarios should be considered - base, optimistic and pessimistic - indicating their respective assumptions and assigned probabilities. The scenarios should be compatible with those considered in the study of Electric Energy Demand.

In addition, if the need for investments in infrastructure in the Mapping Study of Viable Areas for the Concession of Use is identified, such investments should be estimated and incorporated in this Concession Financial Modeling study. It is worth clarifying that eventual needs for investments in infrastructure should be borne by the future concessionaire.

Finally, it will be necessary to estimate the potential cost savings for COGERH and CAGECE as a result of the consumption of the photovoltaic electric energy generated over the concession period in relation to that consumed by the electric energy distributor (ENEL).

### 5.3 Limits of the Study

In this report it is necessary to identify numbers that are accurate enough on the basis of studies and surveys that generate a reliable and realistic forecast.

### 5.3 Limits of the Study

In this report it is necessary to identify numbers that are accurate enough on the basis of studies and surveys that generate a reliable and realistic prediction.

### 5.4 Products and Deliveries

Financial report with assumptions, cash flow projections, estimation of potential granting to the State, and estimation of potential cost savings for COGERH and CAGECE with reduction of electric energy expenses. The report must be delivered in single volume, both in print and in an editable digital medium.

The products must present the list of professionals involved in its elaboration and participating organizations of the public administration and the private initiative with their respective representatives nominated. The study's nomenclature will be: P5 - Financial modeling of the concession.

## **6. ENVIRONMENTAL STUDIES**

This item should contemplate evaluations and propositions within the environmental context referring to environmental parameters, criteria and procedures for the project's feasibility in the design, implementation and operation phases.

The implantation of any activity or work that is effective or potentially polluting and modifying the environment must undergo a previous analysis and control. This analysis is necessary to anticipate the risks and possible environmental impacts to be prevented, corrected, mitigated and/or compensated when they are installed, their operation and in case of specific closure of activities.

Environmental planning should be in line with the framework outlined in the projects and the phases/stages of the enterprise. Such evaluations should be in accordance with the current environmental legislation, under the pure and exclusive analysis of the activity in consultation, providing for control devices to effectively operationalize the project from an environmental point of view.

The knowledge of the environmental management of the Expression of Interest projects makes it possible to guarantee the capacity of the public agents responsible for evaluating in a fair way the possible impacts generated and the necessary costs for the implementation and maintenance of the environmental and operational quality of the enterprise.

#### 6.1 Justification and Objectives

To the detriment of the singularity of the enterprise to be evaluated by the interested parties, it will be necessary an Environmental Diagnosis contemplating a forecast of the environmental impacts of the physical, biological, cultural, social, economic, aesthetic and sanitary aspects. The knowledge of the possible environmental impacts generated in the design phase of the project until its effective operation allows the rationalization of effective actions in a previous character to dimension possible nonconformities and minimization of certain negative environmental impact, seeking its neutrality until the environmental sustainability of the activity. Among the main objectives of this item are:

- To present the necessary procedures and criteria for environmental impact assessment and environmental licensing;
- To raise the environmental legislations inherent to the undertaking in question;
- To perform a diagnosis of the area and estimate by means of technical knowledge enabled the environmental impacts generated and the propositions of mitigating measures;
- To estimate the technical and operational costs of all legal documents (environmental studies, projects and programs) for public-private evaluation;
- To relate the governmental bodies involved in the process and estimate the timing to obtain legal documents until the actual operation of the enterprise.

#### 6.2 Characteristics of the Studies

In order to gather the information and elements necessary to carry out the environmental diagnosis of the area, the INTERESTED PARTY shall associate the design data of the project with the environmentally appropriate area to assess the environmental impacts, propose all the necessary actions to minimize the

impacts generated, legislation and procedures necessary to obtain permits and environmental authorizations.

Among the necessary aspects to assess the knowledge of the INTERESTED PARTY is:

- a) General environmental licensing considerations
- b) Survey of the necessary procedures to obtain the environmental licenses;
- c) To identify and comment on the environmental legislation associated with the enterprise, at Federal, State and Municipal levels;
- d) To typify the licenses and authorizations involved in the process of the enterprise;
- e) To carry out the diagnosis contemplating the physical, biotic and anthropic means of the area of the enterprise taking into consideration the recommendations of the current environmental legislation;
- f) To identify, describe and evaluate the environmental impacts generated in the activity in each phase of the project, making use of the most appropriate tools, including computational simulations;
- g) To inform which studies will be necessary for the licensing in accordance with the environmental legislation, including identifying and typifying authorizations of the water resource management bodies correlated with the enterprise, evaluating the interventions of use and disposal of liquid and solid effluents in receiving bodies and abstraction of water;
- h) To inform and justify the methodology used to identify the main environmental impacts generated;
- i) To identify the institutions that will intervene directly and indirectly in environmental licensing;
- j) THE INTERESTED PARTY should inform the main instrument used by the environmental agencies to prepare the EA and describe the studies requested in this instrument;
- k) To typify environmental plans and programs for the enterprise;
- l) To estimate the operational costs in the phases of obtaining and maintaining each stage of the environmental licensing/licensing process, including studies, environmental projects, various authorizations and other compensatory measures and/or compensation involved;
- m) Elaborate physical-financial schedule of the environmental costs of the enterprise.

### 6.3 Limits of the Study

This study will not include the delivery of the Environmental Impact Study and Environmental Impact Report - EIS/EIR, since the said specific study, according to the legislation, may or may not be required by the environmental agency, since other studies or information environmental requirements may be required.

### 6.4 Products and Deliveries

The following studies should be submitted:

- a) Complete technical report of all items a - m, separated by chapters;

- b) List of professionals legally qualified to perform environmental processes and studies, accompanied by the Federal Technical Registry - CTR;
- c) Detailed graphical presentation of the identified environmental impacts;
- d) General Plan contemplating all environmental interventions in the area on a compatible scale;
- e) Plant in the A1 format of the Environmental Zoning of the locational alternatives studied in scale up to 1:10,000.

This study should be delivered in single volume, both printed and in digital editable medium. The product must present the list of professionals involved in its elaboration and participating organizations of the public administration and the private initiative, with their respective representatives. The study nomenclature will be: P6 - Environmental studies.

## **7. LEGAL AND REGULATORY FEASIBILITY**

This document details the object of the Call for Public Notice for Expression of Interest nº 01/2017/SWR (SRH) for the elaboration of feasibility studies, projects and technical studies for the project of utilization of areas of the Castanhão – GR under concession regime for the use of public property for the generation of photovoltaic energy, in the form of distributed generation, to be consumed by COGERH and CAGECE.

Included in the scope of this concession of use of the areas of the Castanhão pipeline will be the realization of the investments required for economic exploitation through the installation and operation of a photovoltaic electric power generation system with up to 45MWpeak of power, in the modality of distributed generation in modules of up to 5 MWpeak, for consumption of COGERH (up to 25MWpeak) and CAGECE (up to 20MWpeak), increasing the supply of electricity from clean renewable source.

The National Electric Energy Agency is the federal authority responsible for defining the regulatory framework for the generation of energy distributed by renewable source and established the limits that each consumer unit can generate either in the microgeneration condition or as a minigeration.

Distributed microgeneration comprises an electricity generating plant with an installed power less than or equal to 75 kW and using qualified cogeneration, according to ANEEL regulations, or renewable sources of electric energy, connected in the distribution network through facilities of consumer units .

On the other hand, the distributed minigeration: an electric power generating plant with an installed capacity of over 75 kW and less than or equal to 3 MW for water sources or less than or equal to 5 MW for qualified cogeneration, according to ANEEL regulations, or for other renewable sources of electricity, connected in the distribution network through facilities of consumer units.

### **7.1 Justification and Objectives**

In the present case, it is important to frame COGERH (up to 25MWpeak) and CAGECE (up to 20MWpeak) with their respective consumer units with the potential to consume photovoltaic energy totaling

up to 45 MW<sub>peak</sub> of power, distributed in the minigeration with the implantation of modules up to 5MW<sub>pico</sub>.

On the other hand, the minigenerators installed would supply the photovoltaic energy to COGERH and to CAGECE, that would remunerate in smaller amount to the current one paid for the current electric energy distributor. At the same time, the existing transmission lines along the Castanhão - GF adductor system would be used.

## 7.2 Characteristics of the Studies

Considering that ANEEL is the entity responsible for defining the regulatory framework for the generation of distributed energy from renewable sources, there is a need to formulate consultation on the feasibility of issuing a standard, in the form of a resolution, which allows state entities to grant their lands to the minigenerators of energy distributed for own consumption, the energy consumed being remunerated, as well as such generators would be guaranteed to lay its energy in the transmission lines existing throughout the Castanhão Adductor System - GF.

It is necessary to add to the formal consultation with ANEEL the following points:

a) Is it possible to construct more than one photovoltaic system in the form of distributed minimization (in this case, 5 systems), each with the maximum allowed power of 5 MW<sub>peak</sub>, all of them being registered for the same holder (in this case, Corporate Taxpayer Registry – CTR of COGERH and CAGECE)? It should be explained that COGERH and CAGECE have several consumer units distributed throughout the State of Ceará, but all are registered in the same CTR. That is, it is not a single consumer unit with a total power of 45MW<sub>peak</sub>, but several small units that will be served by these five systems of minigeration;

b) If the model mentioned in question "a" above is regulatorily possible, is there any impediment from ANEEL for consumers (COGERH and CAGECE) to contract another company to implement these systems and to pay them for the energy generated (and compensated by the local concessionaire ) in each of them?

c) To request ANEEL's position on the mechanisms to be proposed as a result of this study, pricing and remuneration of the electricity from photovoltaic source consumed and paid by COGERH and CAGECE to the future concessionaire.

d) Is there a specific model adopted by governments (at any level) that uses the distributed minigeration that is known to ANEEL? For this type of consumer (Public Authorities), is there any specific regulation that deals with the possibility of adopting the distributed generation for the consuming units of said entity?

e) If there has not been any similar demands from other federative entities and this issue has not been addressed by ANEEL, we requested analysis and proposal of a model to be adopted by the state of Ceará, by COGERH and CAGECE to make feasible the implantation of a photovoltaic system, in the distributed minimization model, as described above.

## 7.3 Limits of the Study

The current ENNEL's Normative Resolution (REN) No.687/2015, establishes the general conditions for the access of microgeneration and minigeration distributed with maximum power generated of up to 5MW to the systems of distribution of electricity and the system of compensation of electric energy.

The compensation system only allows the active energy injected by the consuming unit with microgeneration or distributed minigeration is transferred, through a free loan, to the local distributor and later compensated by the active electric energy consumption.

In the present case, SWR (SRH) aims to enable photovoltaic energy producers to deliver their product to COGERH and CAGECE, under a fee, provided that there is an economic advantage over what is currently paid to the local electricity distributor.

In addition, considering the power demand of COGERH and CAGECE in the order of 45 MWpeak, it would be necessary to deploy up to five photovoltaic power plants with power generation of up to 5MWpeak each for the benefit of COGERH and CAGECE consuming units.

#### 7.4 Products and Deliveries

The legal and regulatory feasibility should necessarily contemplate the questions listed in the characteristics of the studies and in the limits of the project, and should obtain answers directly from ANEEL, as a federal regulatory agency for the generation, transmission and distribution of electric energy. This study should contain proposals for mechanisms for pricing and remuneration of the photovoltaic power source consumed by COGERH and CAGECE, and such proposals must comply with ANEEL regulations.

This study should be delivered in single volume, both printed and in digital editable medium. The product must present the list of professionals involved in its elaboration and participating organizations of the public administration and the private initiative with their respective representatives nominated. The study's nomenclature will be: P7 - Legal and regulatory feasibility.

### **8. LEGAL MODELING WITH PRESENTATION OF PUBLIC NOTICE AND DRAFT AGREEMENT**

Brazil's electricity sector was structured to provide electricity through so-called centralized generation, and electric power generation plants were built with a vast and complex network of transmission lines with high voltages. This network has incorporated numerous electricity transformation stations (substations), involving a series of equipment and materials. In addition, for electricity to reach the final consumer, lower voltage networks distribute electricity to consumers.

With the technological advancement, the viability of distributed power generation was characterized by the installation of small generators, usually from renewable sources or even using fossil fuels, located near the centers of consumption of electric energy.

Since April 17th, 2012, when ANEEL created the Electric Energy Compensation System through the Normative Resolution (REN) No. 482/2012, the Brazilian consumers can generate its own electricity from renewable sources or qualified cogeneration and even supply the surplus to the distribution network of their locality.

Therefore, in order to reduce the costs and time for the connection of the micro and mini-generators, to make the Electric Energy Compensation System compatible with the General Conditions of Supply (Normative Resolution No. 414/2010), to increase the target audience and improve the information in the invoice, ANEEL held the Public Hearing No. 26/2015 (from May 5th, 2015 to June 22nd, 2015), which culminated in the publication of Normative Resolution (REN) No. 687/2015, which revised the Normative Resolution (REN) No. 482/2012.

It is in this context that the SWR (SRH) seeks a legal modeling in which it grants public areas of the Water Belt (Eixão das Águas) domain strip for photovoltaic power generation, COGERH and CAGECE being the main consumers of this energy, in order to reduce their respective costs.

### 8.1 Justification and Objectives

The legal modeling of the Project is essential to demonstrate the feasibility of a Concession for the Use of Public Property for photovoltaic energy generation and consumption by COGERH and CAGECE, in the form of distributed generation, considering that it involves the elaboration of documents that will instruct the entire bidding process until the contracting of the project of interest to the Public Administration, highlighting, among these documents, the draft of the Public Noticel and its Annexes, with special focus on the Administrative Contract.

This report shall be based, in particular, on State Law No. 16,174, of December 27th, 2016, on State Decree No. 32.043 of September 14, 2016, which deals with the Concession of Public Federal Law No. 8.987, dated February 13th, 1995, Federal Law No. 8.666, dated June 21st, 1993, Federal Law No. 9.074, July 7th, 1995, and laws that are related to it.

### 8.2 Characteristics of the studies

The elaboration of the documents related to the legal modeling of the Project for Concession of Use of Public Property for the generation of photovoltaic energy and consumption by COGERH and CAGECE, should always be in accordance with the current legislation, under penalty of invalidation of the bidding process.

SWR (SRH) will be bound, throughout the term of the Concession, to the precepts of the Administrative Contract, which is why its elaboration must be made in order to make explicit, among others, the obligations, rights and guarantees to which the contracting parties will submit.

In the course of the bidding procedure, doubts and questions may arise regarding the available norms about the Public Notice and its Annexes, being responsibility of the Bidding Committee, with the support of the legal counsel who drafted the documents, to analyze them, and respond to them so that, at the end, the questions are answered in search of the best for the public interest.

### 8.3 Limits of the Study

The Public Notice shall comply with the norms of the applicable legislation and shall contain, in particular, the following clauses:

a) The bidder's guarantee requirement, subject to the limit of 1% (one percent) of the estimated value of the object of the contract, if it so wishes;

- b) The use of private dispute resolution mechanisms, including arbitration, to be conducted in Brazil and in Portuguese, to resolve disputes arising out of or related to the contract, if so desired;
- c) The procedure and objective criteria for analysis and judgment of the proposals, with the possibility of reversing the habilitation and judgment phases;
- d) The possibility to correct failures, complementing shortcomings or even corrections of a formal nature in the course of the procedure, provided that the bidder can meet the requirements within the deadline set in the Public Notice;
- e) To provide a mechanism, compatible with ANEEL regulations, for pricing and remuneration of the photovoltaic electric energy generated, to be consumed by COGERH and CAGECE, to ensure that the cost of the same does not exceed that practiced by the distributor - ENEL throughout the period of the concession. Such pricing and remuneration mechanism should be compatible with the proposals arising from the study of "Legal and Regulatory Viability", based on a formal consultation with ANEEL.
- f) The Administrative Contract shall comply with the provisions of the legislation and shall contain, in particular, the following clauses:
  - g) The term of validity of the contract is not less than five (5);
  - h) The description of the object of the Concession for Use of Public Property;
  - i) A description of the rights, guarantees and obligations of the Government of the State of Ceará and the private partner;
  - j) The penalties applicable in case of breach of contract, always fixed in proportion to the seriousness of the offense committed, and to the obligations assumed;
  - k) Mode, form and conditions of service rendering;
  - l) The forms of remuneration and update of contractual values;
  - m) Mechanisms for the preservation of the current provision of services;
  - n) The facts that characterize the pecuniary default of the public partner, the forms and the term of regularization and, when it exists, the form of activation of the guarantee;
  - o) The provision by the private partner of sufficient execution guarantees compatible with the onus and risks involved;
  - p) The automatic updating of values based on indexes and mathematical formulas, without the need for homologation by SWR (SRH);
  - q) The cases of extinction of the Concession.

To provide a mechanism, compatible with ANEEL regulations, pricing and remuneration of the photovoltaic electric energy generated, to be consumed by COGERH and CAGECE, to ensure that the cost of the same does not exceed that price practiced by the distributor - ENEL throughout the concession period . Such pricing and remuneration mechanism should be compatible with the proposals arising from the study of "Legal and Regulatory Viability", based on a formal consultation with ANEEL.

#### 8.4 - Products and Deliveries

The legal modeling should necessarily include the preparation of the following documents:

- a) Public Bidding Notice;
- b) Administrative Agreement;
- c) Other Attachments to the Public Notice that are in accordance with legal modeling;
- d) Clarifications that may be necessary, regarding legal documents.

This study should be delivered in single volume, both printed and in digital editable medium. The product must present the list of professionals involved in its elaboration and participating organizations of the public administration and the private initiative with their respective representatives nominated. The nomenclature of the study will be: P8 - Legal modeling with presentation of edict and contract draft.

## **9. SOCIAL ASSESSMENT STUDY**

In this study the impact on the labor market arising from the subject of the concession contract should be presented.

### **9.1 Justification and objectives**

The social assessment study is a requirement of State Law No. 16.174 of December 27th, 2016, which provides in its Article 1 the following:

"Art. 1 The state public assets may be granted by the State Executive Branch to a private individual, by means of a concession agreement, prior evaluation and legislative authorization, in return for payment, in favor of the State of Ceará.

Paragraph 3. Any and all large public property that may be the object of a concession contract shall be subject to economic, financial and social evaluation. The evaluation resulting from the social aspect will take into account the impacts on the labor market, the quality of the environment related to the project that is the subject of the concession agreement. "

### **9.2 Characteristics of Studies**

The study should estimate the labor market impact of the project in question during the entire concession period - considering the minimum period required for concession estimated in the Financial Modeling study of the Concession - considering: a) direct impact on the generation of temporary and permanent jobs; b) indirect impact on the generation of jobs in the production chain of the solar energy sector. Additionally, the impact on the tax revenue of the State of Ceará resulting from the project in question should be estimated.

### **9.3 Limits of the Study**

In this report, it is necessary to estimate the impacts only circumscribed in the State of Ceará.

### **9.4 Products and Deliveries**

The final product of this phase will consist of a report with the presentation of the estimates of employment generation with the detailing and basis of the methodology used. In addition, an estimate of the

impact on the tax collection of the State of Ceará arising from the project in question should be presented, also with due detail and methodological basis.

This study should be delivered in single volume, both printed and in digital editable medium. The product must present the list of professionals involved in its elaboration and participating organizations of the public administration and the private initiative with their respective representatives nominated. The study nomenclature will be: P9 – Social assessment study.

Fortaleza, 03 de setembro de 2018

**Ricardo Veras Paz - SRH**

Member

**Adahil Pereira de Sena - SRH**

Member

**Carlos Alberto Teixeira Júnior - COGERH**

Member

**Fabiana Melo Feijão - CAGECE**

Member

**Michele Arlinda Aguiar - CAGECE**

Member

**Wellington Assunção da Silva - CAGECE**

Member

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