

CALL OPEN FOR THE RECRUITMENT OF A DOCTORATE FOR CONTRACTING PURPOSES UNDER DECREE-LAW No. 57/2016, OF 29th OF AUGUST

By deliberation, on the 13th of June 2022, of the Executive Board of National Laboratory of Energy and Geology (LNEG), an international call is open for a period of 10 working days as from the present date, for the recruitment of one (1) doctorate, under a work contract in public functions at term, for the period of thirty six months, possibly renewable for periods of 1 year up to a limit of 6 years, with the purpose to developing research activities within the scientific area of Environmental Sciences and Technologies in the scope of the R&D project entitled " **CO₂nstruct – “Modelling the role of circular economy construction value chains for a carbon-neutral Europe”** with reference Horizon Europe Project number 101056862, financed exclusively by the Horizon Europe Programme of the European Commission, whose goal is to integrate circular economy practices into the TIMES energy system GHG mitigation model for the whole of Europe. It is focused on six carbon-intensive and pervasive construction materials (cement, steel, wood, brick and insulation materials), with a particular focus on 2 clusters: offshore wind and buildings. It will model the use of natural resources for decarbonization using a circular economy approach.

1. Applicable Legislation

- a) Decree Law nº 57/2016 of August 29, which approved the regime of PhD contracting with the purpose of stimulating scientific and technological employment in all areas of knowledge (RJEC);
- b) Decree-Regulatory nº. 11-A / 2017, of December 29, which regulates the remuneration levels of contracts entered into under Decree-Law No. 57/2016 of August 29;
- c) General Labor Law in Public Functions (LTFP), approved in annex to Law no. 35/2014 of June 20, in its current version;
- d) Decree-Law Nº 124/99, of April 20, which approved the Statute of the Scientific Research Career.

2. Under the terms of Article 16 of Decree-Law no. 57/2016, of August 29, the present procedure is exempt of the authorization of two members of Government responsible for the areas of finances and Public Administration, namely the procedure of recruitment of workers in situation of requalification, referred to in article 265 of LTFP.

3. Functions to be performed

a) Development of scientific research in the context of the "Activities" defined in the Project:

- **Task 2.1 Citizen behaviour:** analyse citizen awareness and behaviour on circular economy (CE) and climate change aspects and their effect on the development of climate change mitigation models;
- **Task 2.4 Policy Assessment:** review policy goals, measures and instruments across the following policy areas: climate, energy, environment (including CE- Circular Economy) and industry, to (1) assess and characterise synergies and antagonisms among policy domains regarding CE and climate mitigation, and (2) identify innovative and effective policy approaches for integrating CE into climate action;
- **Task 3.1 Identification and analysis of CE practices** along with the six carbon-intensive construction materials;
- **Task 3.4. Mapping of the six carbon-intensive construction materials Value Chain** using formal modeling methods, e.g., Value Stream Mapping, and tools retrieved from the literature.
- **Task 4.1. Secondary data analysis** – CE rebound effects: perform secondary analysis to quantify the CE rebound effect for critical materials in the construction supply chain;
- **Task 4.2 Case studies** – CE rebound effects in the six carbon-intensive construction materials lifecycles: analysing strategies (at micro, meso and macro levels) to improve the outcomes of CE measures;
- **Task 5.2 Harmonization of data, material value chains, behaviour, externalities, and CE tools** for integration in mitigation models: identifying gaps and missing links between TIMES energy system models and CE analytical tools;
- **Task 5.3 Circular climate mitigation framework:** the JRC-EU-TIMES model structure and input files will be assessed to select which of the “wish list” features can be implemented, considering computational and data limitations for all countries in the model;
- **Task 6.1. Define circular climate mitigation scenarios** defining which CE measures will be modelled in JRC-EU-TIMES to address modelling EU circular climate mitigation pathways towards carbon neutrality;
- **Task 6.2. Integrate CE in TIMES energy-climate mitigation model:** implement complementary approaches to integrate CE into TIMES;
- **Task 6.3. Analysis of circular mitigation pathways for a carbon-neutral Europe:** a comparative

analysis will be made between achieving carbon neutrality with and without considering CE strategies in climate mitigation modelling.

- b) Preparation of scientific publications;
- c) Organization and/or participation in the dissemination and debate of partial and final results to different types of audiences;
- d) Contribution to the development of applications for European and national R, D & D projects;
- e) Contribution to the establishment and/or participation in international research collaborations

4. In conformity with Article 13 of the RJEC, the jury of the call procedure has the following composition:

President of the Jury: Teresa Ponce de Leão, President of LNEG Executive Board;

1st Member: Sofia Gago da Câmara Simões, Researcher at LNEG;

2nd Member: Justina Catarino, Researcher at LNEG;

3rd Member: Cristina Sousa Rocha, Researcher at LNEG;

4th Member: Paula Cristina Cayolla Morais Trindade, Researcher at LNEG;

Substitute Member: Ana Isabel Lopes Estanqueiro, Researcher at LNEG.

5. The workplace shall be at LNEG – Estrada da Portela, Bairro do Zambujal, 2720-999 Amadora, Portugal.

6. The remuneration is annexed to the category of Assistant Researcher, according to the provisions of Article 15 of RJEC and Decree N^o. 11-A / C 2017 correspondent the intermediary remuneration level between 53 and 54 of the remuneration table, approved by Portaria n^o 1553-C/2008, 31st of December, which corresponds to the value of 3.230,21 Euros;

7. Candidates can be national, foreigners and stateless holding a PhD degree in Engineering, Economics, Environment, System Analysis, Management, or related disciplines relevant for the project, and holding a scientific and professional curriculum which reveals a profile suited to the activities to be developed.

In case the PhD has been conferred by a foreign higher education institution, the same has to obey to the established in the Decree Law no. 66/2018, of the 16th of August, and related legislation, and any formalities there established need to be completed until the date of term for the application.

8. General requirements for the admission are defined in Article 17^o of LTFP and the specific requirements defined

in the previous point.

Will be considered as preferential factors:

- (i) previous knowledge/experience in the area of energy transition in the context of decarbonization, including publications in this area; or previous knowledge/experience in the field of energy from a techno-economic, social and environmental perspective, including publications in this area;
- (ii) previous knowledge/experience with energy system modeling tools, being valued the familiarity with the TIMES model family;
- (iii) previous knowledge/experience in the application of quantitative and qualitative skills to analyze energy systems and technological transition;
- (iv) experience in the development or application of quantitative modeling techniques, together with familiarity or strong interest in applying the capabilities mentioned in the context of climate mitigation. High-level analytical skills and ability to develop and apply new concepts are required;
- (v) excellent written and verbal communication skills in English;
- (vi) ability to deal with a wide range of people from different educational and cultural backgrounds and to work autonomously and as a team.

9. Evaluation of the Applications

9.1 Under the terms of article 5th of RJEC the selection is performed by the evaluation of the scientific experience and Curriculum Vitae path of the candidates. The evaluation of the scientific experience and Curriculum Vitae takes into consideration the relevance, quality and actuality:

- a) Of the scientific production over considered most relevant by the candidate and related to the subject area of the call;
- b) Research activities considered to be of greatest impact by the candidate and related to the subject area of the call;
- c) Extension and knowledge dissemination activities considered of greatest relevance by the candidate and related to the subject area of the call;
- d) Of the activities of management of science programs, technology and innovation, or experience in the observation and monitoring of the scientific and technological system or in teaching in higher education, in Portugal or abroad.

9.2. The evaluation criteria, in descending order of importance, are:

- a. Adequacy and merit of the academic curriculum of the candidate taking into account the area of the

call;

- b. Previous relevant experience (including works published in the areas of research listed above);
- c. Interview [only to candidates selected based on criteria a) and b)].

9.3 The final classification system of the candidates is expressed by the following formula:

$$\text{Total: } 0.5 \times A + 0.40 \times B + 0.10 \times C$$

In which:

A is the rank between 0 and 5 obtained in point 10.a;

B is the rank between 0 and 5 obtained in point 10.b;

C is the rank between 0 and 5 obtained in point 10.c.

10. In the case of the "selection value" being less than 3.3 points, the jury may give the contest by closed and start new tender procedure.

11. The jury deliberates through nominal voting based in the selection criteria adopted and published, no abstentions being allowed.

12. The meetings of the jury are registered in minutes, which contain a resume of the meeting, as well as the votes issued per each one of the members and respective reasons, being supply to the candidates whenever requested.

13. Upon conclusion of the application of the selection criteria, the jury proceeds with the elaboration of the list ranking the approved candidates with the respective classification.

14. The final deliberation of the jury is homologated by the President of the institution, who also has the powers to contract the selected candidate.

15. Formalization of applications:

15.1 The applications are formalized upon request, addressed to the President of the National Laboratory of

Energy and Geology, which includes the identification of this notice, full name, names of parents, number and date of identification document card, Citizen's Card, or civil identification number, tax identification number, date and place of birth, marital status, profession, residence and contact address, including e-mail address and telephone contact;

15.2 The application is accompanied by documents supporting the conditions established in point 8 and 9 for admission to the present competition, in particular:

- a) Copy of PhD certificate or diploma;
- b) Curriculum Vitae detailed and structured according to the items in points 10 and 12;
- c) A motivation letter (with a maximum extension of 750 words) describing the suitability of the candidate and the relevance of his/her scientific trajectory to the this position, drafted in the English language;
- d) Other documents relevant for the evaluation of the competence in similar scientific areas;

15.3. The candidates are requested to send their applications and supporting documents, -preferably in PDF format, to the e-mail recrutamentoinvestigacao@lneg.pt or in person at the LNEG campus of Alfragide, located at Estrada da Portela, Bairro do Zambujal, Alfragide, during the opening hours, or by post to the same address. When sent by mail, it must be registered, with notice of reception, and posted until the last day of the deadline for the application, which is fixed in 10 working days after publication of this Notice.

16. The candidates whose application is not correctly formalized or who do not prove the requirements referred in the present competition are excluded from admission to the competition. The jury has the right to demand from any candidate, in case of doubt, the presentation of documents supporting their declarations.

17. False declarations provided by the candidates are punished by law.

18. The list of candidates admitted and excluded, as well as the final classification list are affixed in the installations of LNEG at Alfragide campus, lobby, located at Estrada da Portela - Zambujal - Alfragide, and published in the electronic page of LNEG, www.lneg.pt, being the candidates notified by email with receipt in delivery of notification.

19. Previous Hearing and Final Decision: under the terms of article 121 of the Administrative Procedure Code the candidates have, upon notification, 10 working days to comment. After the deadline of 10 days counted

from the deadline for the submission of applications, the final decisions of the jury are issued.

20. The present competition is aimed, exclusively, to fulfill the vacancy indicated, and can be terminated until the homologation list with the final order of the, candidates, and expires with the respective occupation of the job on offer.

21. **Policy in no discrimination and in equality in access:** The National Laboratory of Energy and Geology promotes actively a policy of no discrimination and in equality in access, hence no candidate can be privileged, benefited, or damage in any right for exempt of any duty in reason of, namely, ancestry, age, sex, sexual guidance, marital state, family situation, economic situation, instruction, social origin or condition, genetic inheritance, reduced capacity, deficiency, chronic disease , nationality, ethnicity or breed, territory of origin, language, religion, politics or ideological convictions and union membership.

22. Under the terms of Decree-Law no. 29/2001, of the 3rd of February, in case of equal classification, the candidate with deficiency has preference, which prevails to any other preference right. The candidates must declare in the application form, under commitment of honor, the respective degree of inability, the type of deficiency, and the means of communication/expression to use during the selection procedure, according to the terms of the above-mentioned Decree-Law.