

SHORT TERM SCIENTIFIC MISSION (STSM) – SCIENTIFIC REPORT

The STSM applicant submits this report for approval to the STSM coordinator

Action number: CA16232

STSM title: Multidimensional indicators of European energy poverty: Unpacking a national case

STSM start and end date: 04/04/2018 to 11/04/2018

Grantee name: Dr. João Pedro Gouveia

PURPOSE OF THE STSM

The primary aim of the proposed STSM was to present, discuss and tentatively improve the methodology for designing an index to map energy poverty at high spatial scale resolution, to be used under the new EU mandate for biennial reporting on energy poverty by member states. This presents an opportunity for institutionalising new sets of national indicators, such as the ones being developed by the grantee, through preliminary means such as the next COST WG2 activities on indicators.

Additionally, part of the purpose of this visit was to start a discussion on the possibilities of building a strategic collaboration towards an application on energy poverty under the EEA grant agreement between Norway and Portugal on the topics of Environment, Climate Change and Low Carbon Economy, for which a total budget of €24 million is expected to be allocated via an upcoming open call in 2018.

The STSM visit results directly contribute to the scientific objectives of this COST Action, improving on methodologies to characterise regions/consumers potentially under energy poverty conditions while evaluating possibilities to replicate the index to other European countries in the coming months. The work also set the scene and brainstorming for the development of a collaborative research paper developed by the grantee Dr João Pedro Gouveia, the host partner Dr. Siddharth Sareen, and at least one other COST action partner with a different country perspective.

DESCRIPTION OF WORK CARRIED OUT DURING THE STSM

The STSM lasted for a week, and the grantee participated in several meetings and activities with the host institution members, especially with researchers of the Center for Climate and Energy Transformation (CET) at the University of Bergen.

The grantee held two meetings (on the 5th and 6th of April) with the host researcher Dr. Siddharth Sareen, for thinking of possible ideas and distribution of work to be performed towards a joint paper under the

COST framework with additional partners of the action (ENGAGER) and for discussion on how it can be structured.

Additionally, the grantee held a meeting on the 5th of April, with Dr. Sareen and Professor Håvard Haarstad (Director of CET) for a first discussion on the possible contributions of each research center (from the grantee and host) and the institutional setting and possible timelines for a joint EEA grant application.

The grantee also attended a class on the "Search for Socioecological Coherence" on the course GEO 231 by Dr. Sareen and Prof. Steven Wolf (invited scholar from Cornell University). Important and meaningful discussions were held during the STSM period with this professor, bringing out a USA and sociological perspective on the topic of Energy Poverty.

Furthermore, the grantee took part in a research center (CET) group meeting (9th of April) where he was able to briefly present his work framed under the ENGAGER COST action activities.

On the 10th of April, the grantee Dr. João Pedro Gouveia was an invited speaker at the Bergen Energy Lab seminar entitled "Energy, Measurement and Society" (<http://www.uib.no/en/energy/116210/energy-measurement-and-society>). The seminar brought together participants from public and private institutions, different countries and backgrounds. The presentation focussed on the work being developed by the grantee, on a composite index for district-level energy poverty for Portugal under the new EU mandate. This work is directly linked to the ENGAGER Action objectives.

DESCRIPTION OF THE MAIN RESULTS OBTAINED

Due to the short period of the STSM it was only possible to set the scene for future work and to present and discuss the work already developed on the composite index and smart meters data analysis by the grantee. All the meetings and activities that the grantee took part in strengthened collaboration between two European countries and research environments with complementary sets of expertise on energy transitions, with the intent of positioning us well for an upcoming joint application for an EEA grant that could drive further research on European energy poverty. Additionally, a first abstract was written and data needs were identified for the paper to be developed in the coming months, and tentatively to be submitted under an open call for a special issue on the journal *Energy and Buildings* (<https://www.journals.elsevier.com/energy-and-buildings/call-for-papers/virtual-special-issue-on-the-varieties-of-energy-poverty-a-g>).