

**Tenth meeting of the Technology Executive Committee
United Nations Campus (AHH building), Bonn, Germany**

Thematic dialogue

**Development and transfer of technology in
distributed renewable energy generation and integration**

10 March 2015

Agenda

A. Background

1. The development and transfer of technology for mitigation is central to addressing climate change, both in the short- and long-term. As the policy component of the Technology Mechanism, the Technology Executive Committee (TEC) is in a unique position to play a role in this respect, by providing Parties with policy recommendations to help facilitate enhanced action on technology development and transfer.
2. As part of its rolling workplan for 2014-2015,¹ the TEC agreed to conduct work on mitigation technologies, including the organization of a thematic dialogue and the preparation of TEC Brief(s) in 2015. Given the very wide range of mitigation technologies and the multiple on-going initiatives and organizations active in the field, the TEC agreed to address a specific area: ***Distributed renewable energy generation and integration***.
3. In addition to presenting high potential to scale up action on mitigation, this area of work is consistent with Parties' needs, as expressed in TNA reports and in the technical expert meetings under the Ad Hoc Working Group on the Durban Platform for Enhanced Action. The scope of the work area covers mini-grids, smart grids and, where relevant, storage, addressing urban and rural contexts in both developing and developed countries, and identifying related challenges and opportunities, including the related enabling environments and barriers, with a view to enhancing technology development and transfer in this mitigation sector.
4. The overarching goal of addressing this area of work is to inform and improve awareness among policy and decision-makers who address mitigation and climate resilience, and to increase the generation of renewable energy (RE) off-grid and in mini-/smart-grids, enhance related energy efficiency, and identify and support development and transfer of innovative technologies with the potential to maximize the share of distributed RE.
5. To assist the TEC in its work, a background paper has been commissioned to provide the context and current state of play of the development and transfer of technology in distributed RE generation and integration. It aims at providing an accurate, objective, and up-to-date picture and assessment of the current situation. The paper will help the TEC build on past activities and address the gaps in order to provide added-value to the issue.
6. To continue and deepen the consideration of the issue, and bring practical and implementation dimensions and perspectives, the TEC organizes a thematic dialogue.

¹ Available at:

<http://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/TEC_column_L/f5b01e7fa30a4db1b8f37c61a27b160e/54edd2ebf3a44740865a263bffc9e09b.pdf>.



B. Objective

7. The overall objective of the thematic dialogue is to support the TEC in identifying and generating policy perspectives, options, mechanisms and measures to enhance the development and transfer of technology for distributed RE generation and integration. The thematic dialogue will thus help the TEC prepare TEC Brief(s) and policy key messages and/or recommendations to Parties on this matter with a view to increasing the share of distributed RE and enhancing pre- and post-2020 mitigation action.

C. Agenda

Introduction

14:00 – 14:15 Welcome and introduction of objectives and expected outcomes of the thematic dialogue

Chair of the Technology Executive Committee (TEC)

Session I

Moderator: **Chair of the TEC**

14:15 – 14:25 Presentation of a background paper on distributed renewable energy generation and integration

***Dr. Paul Komor**, Lecturer, Environmental Studies, University of Colorado-Boulder, United States*

14:25 – 14:30 Expert intervention on the Future of distributed renewable energy generation and integration

***Dr. Yacob Mulugetta**, Professor of Energy and Development Policy, University College London, and contributor to the IPCC AR5 WGIII*

14:30 – 14:40 Questions and answers on the two previous interventions

14:40 – 15:00 Presentation of a case study: Implementation of the initiative Energising Development (EnDev) in Indonesia with mini-hydro and solar PV power in mini-grid communities, including highlights of innovative solutions, key barriers, enabling environments and lessons learnt for further replication and implementation of those technologies, including questions and answers

*Through WebEx: **Ms. Amalia Suryani**, Advisor for the Renewable Energy Programme Indonesia/ASEAN and Energising Development (EnDev) Indonesia, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)*

*In person: **Mr. Andreas Michel**, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Germany*

15:00 – 15:20 Presentation of a case study: Ireland, as an island operating distributed renewable energy generation and integration technologies, bringing the national operator perspective, highlighting key barriers, innovative solutions, opportunities and lessons learnt for further replication and implementation of those technologies, including questions and answers

***Dr. Andrew Keane**, Senior Lecturer, School of Electrical, Electronic and Communications Engineering, University College Dublin; Previously worked with Electricity Supply Board (ESB) Networks in the area of renewable generation planning and smart grid solutions*

- 15:20 – 15:30 Expert interventions on Technological challenges and policy options to overcome these
Mr. Francisco Boshell, Lead Officer of minigrid system innovation work, International Renewable Energy Agency (IRENA)
Dr. Luis Munuera, Smart Grids Technology Lead, International Energy Agency (IEA)
- 15:30 – 15:35 Expert intervention on Financial perspective and challenges
Dr. Alberto Levy, Lead Regional Energy Specialist, Energy Division, Argentina, Inter-American Development Bank
- 15:35 – 15:40 Expert intervention on Capacity-building
Mr. Benon Bena, Head of Off-Grid Renewable Energy Development, Rural Electrification Agency, Uganda
- 15:40 – 15:50 Questions and answers on the four previous interventions

Break

15:50 – 16:05

Session II

Moderator: **Vice-Chair of the TEC**

- 16:05 – 17:15 Work in four parallel break-out groups, addressing guiding questions
See on the next page the organization of the groups and the guiding questions
- 17:15 – 18:15 Plenary discussion where each group will report on its deliberation, which will be followed for each by a short question and answer session

Session III

- 18:15 – 18:30 General concluding remarks and wrap-up
Chair of the TEC
-

Organization of the break-out groups and guiding questions

Group A <u>Future of DREGI</u> <i>Specific guiding question:</i> What is the future of DREGI? What are the barriers and challenges ahead to be overcome, and the opportunities to tap in in order to maximize the share of distributed RE?	Group B <u>Technological challenges and policy options to overcome these</u> <i>Specific guiding question:</i> What are the main technological challenges in enhancing the development and transfer of DREGI (e.g. generation mix of technologies and synergy between, intermittency and reliability, resilience, security, storage, smart grids), and what can be effective policy options to help overcome these challenges?	Group C <u>Financial perspective and challenges</u> <i>Specific guiding question:</i> What are the key financial challenges in deploying DREGI technologies? What are the roles and perspective of investors in this field? What can be done to make DREGI more sustainable and replicable?	Group D <u>Capacity-building</u> <i>Specific guiding question:</i> What are the needed national/local capacity in countries, including institutional, to develop, absorb, deploy and implement DREGI technologies? What existing or future policies, mechanisms and/or programmes can be used, implemented or developed to support the building and enhancement of such capacity?
<i>Common guiding question to all:</i> What specific role the TEC can play to enhance the development and transfer of DREGI technologies? What can be relevant policy work and recommendation areas for the TEC, in accordance with its functions, to bring added-value to the sector?			