Fourteenth meeting of the Council – Pre-Council Day

27 November 2017, 09.00 am – 11.30 am
IRENA Headquarters, Masdar City, Abu Dhabi, UAE
Sun/Energy meeting room

REmap – IRENA's Roadmap for a Renewable Energy Future
National Experts Annual Workshop

IRENA's renewable energy roadmap, REmap, is focused on assessing renewable energy technology options for countries, regions and the world to the year 2030 and 2050. Over the past five years, IRENA has provided a range of insights on possible paths for the transformation of the energy system, spanning multiple geographic areas, sectors and topics. Through an extensive network of country experts, REmap consolidates national energy and climate outlooks and detailed technology information in a single, comprehensive body of knowledge (see Annex I). With 70 participating countries covering around 90% of global energy use, REmap informs global and regional energy outlooks, roadmaps, and energy investment master plans (see Annex II).

At this workshop, country experts and focal points will have the opportunity to discuss the status of REmap and to explore its future direction.

The main objectives of the workshop are to:
- Provide updates on the progress of deliverables and a platform for an exchange of experiences and lessons learned;
- Present an overview of the proposed forthcoming REmap work in the context of the Work Programme and Budget for 2018-2019;
- Examine outcomes from the ongoing external assessment of REmap and discuss how to best shape and focus it in the medium- to long terms.

The meeting has two segments. First, progress to date and activities planned in the context of the next Work Programme and Budget for 2018-2019 will be presented. This includes REmap's support to accelerate renewable energy development in all energy sectors (i.e. heating/cooling, transport, power), the role of renewables to 2050, and regional engagements.

The second part of the workshop will start with a presentation of key findings from the evaluation of REmap by an external expert. The assessment will examine REmap's development over the last five years, its impact to date, areas for improvement, and proposals for future direction. Following this presentation, participants will be invited to discuss the conclusions of the assessment.

For more information, please contact:
Laura Gutiérrez - Associate Programme Officer, REmap (lgutierrez@irena.org)

Draft agenda

Opening session	
09.00 – 09.30	**Welcome remarks and progress to date** • *Dolf Gielen, Director, IRENA Innovation and Technology Centre (IITC)* Key points: - Achievements of REmap to date - Forthcoming work in the context of the Work Programme and Budget for 2018-2019 - Strengthening of the REmap analysis
Presentation and discussion	
09.30 – 09.50	**Presentation of preliminary findings of the REmap evaluation** • *Andreas Kraemer, Founder, Ecologic Institute* Key points: - Development of REmap over the past five years - Impact and relevance of REmap projects and areas of improvement - Recommendations for the future
09.50 – 11.10	**Group discussion with workshop participants** How to effectively and efficiently shape the way forward for REmap in the context of the energy transition, drawing on its strengths and addressing areas for improvement?
Conclusions	
11.10 – 11.30	**Concluding remarks and summary of discussion** • *Dolf Gielen, Director, IRENA Innovation and Technology Centre (IITC)* • *Adnan Z. Amin, Director-General*

Annex 1 – REmap, overview of activities for 2012-2017

As of June 2017, the REmap analysis covers 70 countries that account for more than 90% of the global final energy demand. Two global reports have been issued in 2014 and 2016. For 14 countries, a comprehensive REmap country roadmap has been prepared, or is in preparation. These reports are complemented by regional reports for Africa, ASEAN, the EU and G20. To date, around 40 publications or papers have been produced (downloadable at www.irena.org/remap). REmap data is available through a variety of online tables and tools, notably on IRENA's REsource portal (http://resourceirena.irena.org/gateway/dashboard).

Deep-dive reports for individual sectors provide further information on the role of renewables, in particular for the manufacturing industry, transport, district heating and cooling, and cities. Studies for specific technologies or cross-cutting issues such as bioenergy, renewable energy and energy efficiency synergy, and decarbonisation pathways have been prepared.

The timeline below outlines the approximate release of Remap-related reports and efforts:
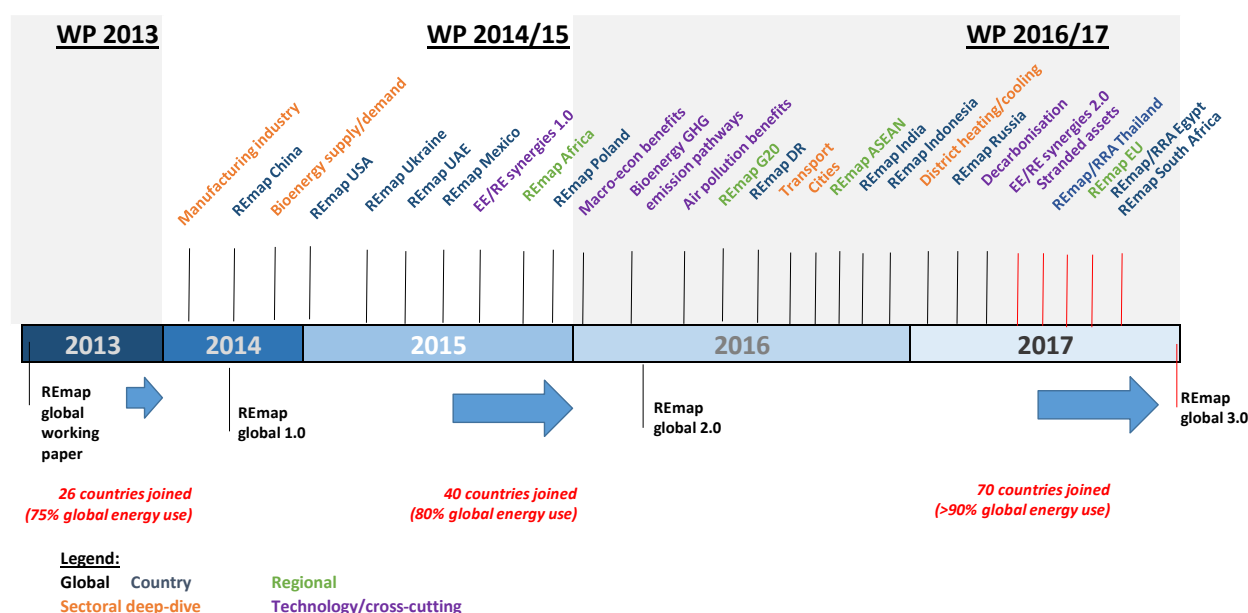
REmap builds on the engagement of numerous experts for its analysis and the preparation of its various reports and papers. To this end, countries participating in the programme have nominated experts to liaise with IRENA on data sharing, analysis support and verification. Over the years, REmap has organised over 50 stakeholder meetings and events (http://www.irena.org/remap/REmap_Stakeholder_Management.aspx).

REmap also informs about other IRENA activities, such as work on climate, jobs and macro-economic effects, the Agency's flagship publication REthinking Energy, and external efforts such as the Global Tracking Framework of SE4ALL, among others.

Annex 2 – Compendium of reports by type and data/tools of the REmap

REmap coverage
• 2014 → 26 countries, 75% of global energy use • 2016 → 40 countries, 80% of global energy use • Current → 70 countries (40 REmap country members + 30 additional countries on regional engagements), 92% of global energy use
Global reports
• Global REmap report 2014 (June 2014) • Global REmap report 2016 (March 2016) • Global decarbonisation study *Perspectives for the Energy Transition* (March 2017) • Global REmap report 2018 *Investment and Innovation Powering the Energy Transition* (forthcoming)
Country reports
• Renewable Energy Prospects: China, REmap 2030 (November 2014) • Renewable Energy Prospects: Germany, REmap 2030 (November 2015) • Renewable Energy Prospects: Mexico, REmap 2030 (May 2015) • REmap 2030 Renewable Energy Prospects for Poland, Background paper (October 2015) • REmap 2030 Renewable Energy Prospects for Ukraine, Background paper (April 2015) • Renewable Energy Prospects: United Arab Emirates, REmap 2030 (April 2015) • Renewable Energy Prospects: Dominican Republic, REmap 2030 (November 2016) • Renewable Energy Prospects for India, a working paper based on REmap (May 2017) • Renewable Energy Prospects: Indonesia, REmap 2030 (March 2017) • REmap 2030 Renewable Energy Prospects for Russian Federation, Working Paper (April 2017) • Renewable Readiness Assessment and REmap analysis for Thailand (October 2017) • Renewable Readiness Assessment and REmap analysis for Egypt (forthcoming) • Renewable Energy Prospects: Kazakhstan, REmap 2030 (forthcoming) • Renewable Energy Prospects: South Africa, REmap 2030 (forthcoming)
Regional reports
• Africa 2030: Roadmap for a Renewable Energy Future (2015) • G20 Toolkit for Renewable Energy Deployment: Country options for sustainable growth based on REmap (June 2016) • Renewable Energy Outlook for ASEAN: a REmap Analysis (2016) • Renewable Energy Prospects: European Union, REmap 2030 (forthcoming)

Sectoral reports
• Renewable energy in Manufacturing (2014)
• Synergies between Renewable Energy and Energy Efficiency (2015)
• Renewable energy in cities (2016)
• The Renewable Route to Sustainable Transport (2016)
• Renewable energy in district heating and cooling (2017)
• Synergies between Renewable Energy and Energy Efficiency (2017)
• Stranded Assets and Renewables (2017)
• Power system flexibility with high shares of variable renewable energy (report and tool) (forthcoming)
Technology / cross cutting reports and background analysis/methodology
• Air pollution and CO_2 externalities
• Greenhouse Gas Impact of Bioenergy Pathways
• Global Bioenergy Working Paper: Supply and Demand Projections
• Implications for Renewable Energy Innovation of Doubling the Share of Renewables in the Global Energy Mix
• Cost methodology
• Decarbonisation pathways methodology
• External cost methodology
Output data publicly available
• REmap results for 40 REmap countries to year 2030 on REsource platform
• Commodity price data
• Technology cost data
• Renewable energy targets and sources