TERMS of REFERENCE

Authoring of UNECE Renewable Energy Status Report

Background and Status

The United Nations Economic Commission for Europe (UNECE) member States mandated the newly established Group of Experts on Renewable Energy (GERE) to carry out action-oriented, practical activities to significantly increase the uptake of renewable energy (RE), in line with the United Nations Secretary General's Sustainable Energy for All (SE4ALL) initiative. The region's 56 member countries of western, central and eastern Europe, central Asia, Israel, Turkey, and North America have significant economic, cultural, and energy diversity, and play a large role in the current and future global energy architecture.

Renewable Energy data for many of the UNECE member countries exist and is being collected by renowned international organisations like IEA, IRENA, and REN21. However, data for a large part of UNECE countries in central and Eastern Europe, central Asia and the Caucasus are not readily available, up-to-date, accessible or reliable. This is an obstacle for strategic energy planning in many of these countries and represents real value added for the UNECE Group of Experts on Renewable Energy (GERE) within the approved work plan of activities. UNECE could assist to fill data gaps with the desired key characteristics.

The UNECE region shall be regarded as a highly promising region on the Earth to deploy nearly any kind of Renewable Energy technologies. However, further research and field surveys (biomass), measurements (hydro, wind) and exploratory drilling (geothermal) is required to permanently improve the renewable energy resource assessment. In addition, feasibility studies are required, based on the application of state-of-art RE technologies and updated data on costs in order to refresh the assessment of technical and economic potentials in all RE countries and applications (power generation, heating/cooling, transport, provision of electricity and heat to areas with no access to modern energies etc.).

The UNECE region is fairly well developed in terms of development and adoption of strategic planning documents in the area of renewable energy although considerable improvements of the legal and regulatory framework are still awaited in member States that are least developed in terms of renewable energy uptake. Long-term energy sector development strategies have been prepared recently in many member States and national renewable energy action plans (NREAPs) exist in 75% of member States.

REN21 Secretariat
c/o UNEP
15 rue de Milan • F-75441 Paris Cedex 09 • France
Tel: +33 1 44 37 50 90 • Fax: +33 1 44 37 50 95
secretariat@ren21.net • www.ren21.net

The main challenge in assessing the baseline situation for renewable energy in the ECE region is the availability of the right information. Inadequate state of legal and regulatory framework in a country is typically ranked highest on the list of possible challenges for Renewable Energy investment, before e.g. availability of financing schemes, political risk and similar. In a report prepared for the first session of GERE on 18-19 November 2014, while cross-referencing data sources in preparation for this report, inconsistencies between databases were found, suggesting datasets are incomplete or partially wrong. Data gaps were also identified, in which key RE indicators for several ECE member States are missing

In order to provide an overview regarding where the ECE region stands in RE uptake and therefore support the increased uptake of renewables in the region, UNECE is partnering with REN21 to document the current status of renewable energy in the region. The UNECE Renewable Energy Status Report will provide an overview on renewable energy market and industry. It will also consider distributed renewable energy for energy access, policy and target landscape and investment flows and patterns.

Objective

REN21 and its partners are developing an UNECE Renewable Energy Status Report to establish a baseline of renewable energy in the region. The report will also be used by the UNECE Group of Experts on Renewable Energy (GERE) to identify major data gaps and develop appropriate responses.

The UNECE Renewable Energy Status Report aims to:

- Capture the current status of the renewable energy markets, investments in distributed and on-grids solutions as well as examine the policy trends and regulatory frameworks in the region.
- Explore the latest market developments and activities undertaken in the UNECE region to accelerate the diffusion of renewables locally and regionally and promote foreign investments.
- Discuss regional, national and local opportunities in manufacturing, infrastructure, guidance of knowledge and resource mobilisation.
- Understand the current status of energy efficiency approaches in the region

To achieve UNECE's regional potential and scale-up of renewables, it is necessary to provide a comprehensive overview of the region's renewable energy infrastructure, industry, policy, regulations, market development, growth rate and the existing bankable projects in the near and future term.

Project Outline

The UNECE Renewable Energy Status Report will mainly explore existing data on renewable energy and examine country case studies. Expert interviews will also be conducted in order to present a comprehensive overview of renewable energy trends of the following countries:

Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Montenegro, Russian Federation, Serbia, Tajikistan, The former Yugoslav Republic of Macedonia, Turkmenistan, Ukraine, Uzbekistan

These countries cover the following three regions that show significant data gaps: South East Europe, the Caucasus and Central Asia. The report will address the status of renewable energy through the following sections:

- Executive Summary
- Regional Introduction
- Renewable Energy Market and Industry Overview
- Distributed Renewable Energy (for energy access)
- Energy Efficiency
- Policy and Target Landscape
- Investment Flows and Patterns

Based on experience with similar reports—status reports for China and India, MENA and ECOWAS regional reports as well as its Global Status Reports 2005–2014—the REN21 Secretariat will coordinate the report production. The report author will be contracted by REN21 to write the report. The report draft will be reviewed by an Expert Group consisting of a selected group of experts.

The launch of the UNECE Renewable Energy Status Report will be followed by outreach events as well as web-based activities, e.g. in cooperation with UNECE.

The data collection and review process: The report will be based on information provided by contributors and reviewers from governments, international/regional organisations, private sector, NGOs, research and academia complemented by desk research. If possible, data from regional contributors is gathered online. Peer review comments are gathered online on **REN21+**.

Description of Required Tasks

REN21 seeks the services of an authoring team to carry out the following tasks:

1. **Strengthen the network of renewable energy and energy efficiency data contributor in UNECE**

   - Identify key contributors in each of the identified 17 UNECE countries to provide formal and informal data on
     - Renewable energy
     - Energy efficiency
     - Distributed renewable energy (for energy access)
   - Share the contract information with REN21 Secretariat.

2. **Undertake research / collect data necessary to author an UNECE Renewable Energy Status Report according to the chapter outline**

In this context, the contractor - in cooperation with the REN21 Secretariat - will:

- Review the outline to reflect regional specificities (if necessary)
- Review the questionnaires for renewable energy, energy efficiency and distributed renewable energy and adapt them to the regional context (if necessary)
- In collaboration with REN21 Secretariat, reach out to contributors and mobilise them to participate in the data collection and peer review.
- Draw on relevant information collected by the REN21 Secretariat from institutional partners and contributors
- Follow-up with contributors to close data gaps
- Research additional information to close data gaps. In addition to desk research, the contractor is expected to use his/her network of experts to contribute to the UNECE Renewable Energy Status Report

3. Author the UNECE Renewable Energy Status Report

The contractor is expected to:

- Produce a draft of the UNECE report based on in-depth research and analysis
- Consult and collaborate closely with the REN21 Secretariat
- Incorporate review comments received from the Expert Group and from during the open review processes

The contractor will work in close consultation with REN21 to ensure that national and regional issues are well addressed. In addition the contractor will:

- Prepare the report in British English
- Ensure that:
  - Data for relevant figures and tables generated are provided
  - References/citations as well as and all assumptions for text, figures and tables are provided for all statistics and other information/data, and noted in full as endnotes; formatting of endnotes should follow GSR referencing guidelines, which will be provided by REN21. All references will be included in the final draft report.
  - Recognise in the Acknowledgement section all contributors who provided data for the UNECE report
- Consult and collaborate closely with the REN21 Secretariat on report preparation and incorporation of comments received from the REN21 network and the Expert Group
- Make available all relevant background information and data to REN21 for inclusion in the Renewables Interactive Map system (www.map.ren21.net). Such information should be sent to data@ren21.net so that REN21 Secretariat can further process it.

Referencing for data will be done in accordance to REN21's authoring guidelines. All information submitted should be completed in line with the criteria defined.

3. Qualification requirements of contractor

- Proven track record of knowledge about renewable energy and associated sectors
- Proven track record about the relevant renewable energy, energy efficiency, distributed renewable energy players in UNECE

Proposal Requirements

The contractor should demonstrate:

- A proven knowledge about the renewable energy and energy efficiency sectors and related working experience with the UNECE region
- Proficiency in English (the report will be drafted in English)

The submission should also include:

- A detailed résumé of lead author, highlighting related work experience in the UNECE region
- An overview of written reports covering similar scope and focus
- A writing sample that illustrates the contractor's knowledge of the renewable energy field
- A detailed breakdown of the number of work days and daily rates (it is estimated that the assignment will take approximately 60 work days).
- A summarised résumé for each additional contributor included in the proposal

Proposals should be addressed to:

REN21 Secretariat
c/o UNEP United Nations Environment Programme
15, Rue de Milan
F-75441 Paris CEDEX 09
France

For submission by email please email: martin.hullin@ren21.net

The **deadline date** for receipt of proposals is: **Friday, 3 April 2015, 17:00 (CET)**

UNECE Report Timeline

By when	What	By whom
April 2015	Contracting of consultant to author the report	REN21
May –June 2015	Regional data collection	Consultant in cooperation with REN21 and regional contributors
July 2015	Draft, review and feedback of UNECE Status Report	Consultant in consultation with REN21
10 July 2015	Preparation of a findings summary to be circulated as a preliminary flyer to the UNECE constituency	Consultant in consultation with REN21
August 2015	Distribution of report draft to Executive Review Board	Review by Bureau
September 2015	Revise report by incorporating and addressing comments received from Executive Review Board	Consultant in consultation with REN21
September 2015	Open, online peer review of report via REN21+	
September - October 2015	Finalisation of report	Consultant in consultation with REN21 & UNECE
November 2015	Design and printing of report	REN21
December, 2015	Launch of UNECE Renewable Energy Status Report during COP21	REN21 & UNECE
December 2015	Outreach in cooperation with institutional partners	

Annex 1

UNECE Renewable Energy Status Report Chapter Outline (approx. 40 pages)

EXECUTIVE SUMMARY	**2 PAGES**
CHAPTER 1: REGIONAL INTRODUCTION	**5 PAGES**
i. Objective of the Report: Data collection for the UNECE Renewable Energy Status Report	
ii. Regional Overview (Sub regions South Eastern Europe, Caucasus, Central Asia)	
iii. Regional Energy Challenges: Energy access, Energy security, health and environment	
iv. Platforms for Regional Energy Cooperation: cross- border collaboration	
CHAPTER 2: RENEWABLE MARKET AND INDUSTRY OVERVIEW	**10 PAGES**
I. Trends in Final Consumption: Current shares of renewable energy in the primary energy mix (final consumption) of the country including the trends over the past years	
ii. ii. Renewable Energy in the Power Sector: Current status of renewable energy in the electricity generation mix (hydro, wind, solar and biomass) at regional, national and municipal level with focus on emerging trends in rural electrification	
CHAPTER 3: DISTRIBUTED RENEWABLE ENERGY	**4 PAGES**
i. Trends and current situation of rural electrification and the role of renewable energy for energy access	
ii. Distributed Renewable Energy Technologies	
iii. Actors in the Field of Distributed Energy	
iv. Industry Trends and Financial Models	
CHAPTER 4: ENERGY EFFICIENCY	**3 PAGES**
i. Trends and Current Trajectory of Energy Efficiency in the Region	
ii. Energy Efficiency in Electricity Distribution and Consumption	
iii. Energy Efficiency Standards and Labelling	
iv. Promotion of Energy Efficient Lighting, Cooking Sector and Building	
CHAPTER 5: POLICY AND TARGET LANDSCAPE	**10 PAGES**
i. Sustainable Energy Targets: SE4ALL, Regional targets	
ii. Renewable Energy Targets and Policies: Sector specific	
iii. Energy Efficiency Targets and Policies	

CHAPTER 6: INVESTMENT FLOWS	**3 PAGES**
i. **Global Overview:** Status and evolution of investments in renewable energy project size and investment size – those that are online or in the pipeline (Focus on foreign investors)	
ii. **Regional Financing Sources:** Breakdown between private and public investments to showcase the area's where government is investing and the niche area where private developers are investing. (Focus on public private partnerships on renewable energy investment and local or cooperative societies' investment)	
iii. The Potential of Climate Finance	
CONCLUSION	**2 PAGES**
Discussion on potential trajectory of renewables in the near future within the region and factors that can accelerate this envisaged uptake of renewables.	