

UNECE RENEWABLE ENERGY STATUS REPORT



PARTNER ORGANISATIONS



REN21 is the only global renewable energy community of actors from science, governments, non-governmental organisations and industry. It provides up-to-date and peer-reviewed facts, figures and analysis of global developments in technology, policies and markets. The goal: to enable decision makers to make the shift to renewable energy happen – now.

REN21 creates an enabling environment to support renewables. It offers a platform for a variety of stakeholders to engage and collaborate. Armed with knowledge and tools, supported by a culture of dialogue and debate, and augmented by new ecosystems, this community of change strategically drives the deep transformations needed to make renewables the norm.



The United Nations Economic Commission for Europe (UNECE) was set up in 1947 by the United Nations Economic and Social Council (ECOSOC) and is one of five regional commissions of the United Nations. UNECE's major aim is to promote pan-European economic integration. To do so, it brings together 56 countries of Europe, but also countries of North America, Central Asia and Western Asia. Over 70 international professional organisations and other non-governmental organisations take part in UNECE activities.



Dena, the German Energy Agency, is Germany's centre of expertise for energy efficiency, renewable energy sources and intelligent energy systems. As the "Agency for the Applied Energy Transition" it contributes to the attainment of energy and climate policy objectives. dena develops solutions and put them into practice, both nationally and internationally.

SUPPORTED BY

This report was commissioned by REN21 as part of the UNECE Renewable Energy Uptake Project. The Project is a joint undertaking by REN21, UNECE and dena with financing provided by the German Federal Ministry for Economic Affairs and Climate Action (BMWK). A major share of the research for this report was conducted on a voluntary basis.



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Note: All references to Kosovo in the report are made in the context of United Nations Security Council Resolution 1244 (1999).

REN21 CROWD-SOURCED KNOWLEDGE AND DATA

The REN21 community is at the heart of REN21's data and reporting culture. Collectively, hundreds of experts make REN21 reports among the world's most comprehensive crowd-sourced and peer-reviewed publications on renewables. This unique reporting and verification process makes REN21 a globally recognised data and knowledge broker.

REN21 reports that carry the *REN21 Crowd-Sourced Knowledge and Data* stamp verify that the following collaborative process was applied:



Developing **data collection** methods that build on a global multi-stakeholder community of experts from diverse sectors, enabling access to dispersed data and information that frequently are not consolidated and are difficult to collect.

Consolidating **formal** (official) and **informal** (unofficial/unconventional) data gathered from a wide range of sources in a collaborative and transparent way, for example, by using extensive referencing.

Complementing and validating data and information in an open **peer-review** process.

Obtaining expert input on renewable energy trends through **interviews** and personal communication between the REN21 team and authors.

Using validated data and information to provide fact-based evidence and to develop a supportive narrative to **shape the sectoral, regional or global debate** on the energy transition, monitor advancements and inform decision processes.

Making data and information **openly available** and clearly documenting our sources so they can be used by people in their work to advocate for renewable energy.

Using crowd-sourced data to develop a **shared language** and create an understanding as the foundation for collaboration.



Over **260 experts** contributed to the REN21 UNECE report 2022, working alongside an international authoring team and the REN21 Secretariat.



A **variety of sources** were used to compile this report, including interviews with experts in the region.

For more information, see the Methodological Notes section.

TABLE OF CONTENTS

- 8 Forewords
- 10 Acknowledgments
- 14 Executive Summary



01 REGIONAL INTRODUCTION

- 19 Objective of the Report
- 20 Regional Overview
- 24 Regional Energy Challenges
- 26 Platforms for Regional Energy Co-Operation



02 POLICY LANDSCAPE

- 31 National and Sectoral Renewable Energy Targets
- 36 Renewable Energy Policies
- 48 Energy Efficiency Policies
- 60 International, National and Local Climate Policies and Commitments



03 RENEWABLE ENERGY MARKET AND INDUSTRY OVERVIEW

- 67 Current Trends
- 67 Total Final Energy Consumption
- 68 Power Sector
- 78 Heating and Cooling
- 81 Transport
- 83 Renewable Energy Supply Chain



04 DISTRIBUTED RENEWABLES FOR ENERGY ACCESS

- 85 Energy Access
- 87 Availability of Clean Fuels
- 89 Energy Poverty
- 91 Distributed Renewable Solutions for Energy Access

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05 ENERGY EFFICIENCY

- 93 Regional Overview
- 98 Electricity Supply
- 101 District Heating and Cooling
- 103 Buildings
- 106 Lighting, Appliances and Equipment
- 106 Industry
- 108 Transport



06 INVESTMENT FLOWS

- 111 Global Overview
- 112 Deploying Renewable Energy Through Climate and Development Finance
- 120 Emerging Opportunities for Renewable Energy Investment



07 CURRENT THINKING ABOUT THE FUTURE OF RENEWABLES

- 123 Drivers
- 124 Multiple Associated Benefits
- 125 Barriers
- 126 Opportunities and Needs

- 130 Data Collection and Validation
- 131 Methodological Notes
- 132 List of Abbreviations
- 133 Glossary
- 139 Endnotes
- 166 Photo Credits

FIGURES, TABLES AND SIDEBARS

FIGURES

- 20 **FIGURE 1.** Populations of the Focus Countries, 2020
- 21 **FIGURE 2.** Human Development Index versus Per Capita Final Electricity Consumption (Top) and GDP Per Capita versus Final Energy Consumption per capita (Bottom), 2019
- 22 **FIGURE 3.** Energy Self-Sufficiency and Final Consumption of Renewable and Non-Renewable Energy in the Focus Countries, 2019
- 23 **FIGURE 4.** Population Densities of the Focus Countries, 2020
- 24 **FIGURE 5.** RISE Renewable Energy and Energy Efficiency Multi-Dimensional Indicators in the Focus Countries, 2019
- 68 **FIGURE 6.** Share of Renewables in Total Final Energy Consumption in the Focus Countries and World, 1990, 2000, 2010, 2014 and 2019
- 69 **FIGURE 7.** Renewable Power Capacity by Technology in the Focus Region, 2016-2021
- 69 **FIGURE 8.** Renewable Power Capacity in 2016 and Additions During 2017-2021 in the Focus Countries
- 70 **FIGURE 9.** Renewable Hydropower Installed Capacity in 2016 and Additions During 2017-2021 in the Focus Countries
- 72 **FIGURE 10.** Solar PV Installed Capacity and Annual Additions in the Focus Countries, 2016 and 2021
- 74 **FIGURE 11.** Wind Power Installed Capacity in 2016 and Annual Additions During 2017-2021 in the Focus Countries
- 76 **FIGURE 12.** Biopower Installed Capacity in 2016 and Annual Additions During 2017-2021 in the Focus Countries
- 78 **FIGURE 13.** Share of Renewable Energy in Heating and Cooling in the Focus Countries and in the EU-27, 2010-2020
- 81 **FIGURE 14.** Share of Renewable Energy in the Transport Sector in the Focus Countries and in the EU-27, 2010-2020
- 88 **FIGURE 15.** Share of Energy Sources Used for Space Heating in Georgia, 2019
- 93 **FIGURE 16.** Primary Energy Intensity in the Focus Countries, 2019
- 95 **FIGURE 17.** Changes in Final Energy Consumption in the Focus Countries and in the EU-27, 2000-2019
- 96 **FIGURE 18.** Sectoral Shares in Final Energy Consumption in the Focus Countries, 2000 and 2019
- 99 **FIGURE 19.** Transmission and Distribution Losses as a Share of Electricity Output in the Focus Countries and in the EU-27 and OECD, 2010, 2015 and 2019
- 104 **FIGURE 20.** Change in Final Energy Consumption of Buildings in the Focus Countries and in the EU-27, by Decade, 2000-2019
- 104 **FIGURE 21.** Residential Final Energy Consumption by End-Use in Selected Focus Countries, 2018
- 107 **FIGURE 22.** Change in Final Energy Consumption of Industry in the Focus Countries and in the EU-27, by Decade, 2000-2019
- 107 **FIGURE 23.** Final Energy Consumption of the Industrial Sector by Sub-sector in the Focus Countries and in the EU-27, 2019
- 109 **FIGURE 24.** Change in Final Energy Consumption of Transport in the Focus Countries and in the EU-27, by Decade, 2000-2019
- 111 **FIGURE 25.** Renewable Energy Investment in the Focus Countries and in Four Countries of Central and Eastern Europe, 2013-2018
- 113 **FIGURE 26.** Foreign Aid Committed for Renewable Energy Projects in the Focus Countries, 2000-2019
- 114 **FIGURE 27.** Foreign Aid Committed for Renewable Energy Projects in the Focus Countries, 2016-2019 versus 2000-2015
- 114 **FIGURE 28.** Foreign Aid Committed to Renewable Energy Projects by Technology in the Focus Region, 2009-2019
- 116 **FIGURE 29.** Foreign Aid for Renewable Energy Committed by Multilateral Development Banks, Climate Funds and Other Multilateral Institutions to the Focus Countries, by Financial Instrument, 2016-2019
- 117 **FIGURE 30.** EBRD, World Bank and ADB Finance for Renewable Energy Projects in the Focus Countries, 2017-2021
- 119 **FIGURE 31.** GCF Finance for Renewable Energy Projects in the Focus Countries, 2016-2020
- 120 **FIGURE 32.** CIF Finance for Renewable Energy Projects in the Focus Countries, 2017-2020
- 121 **FIGURE 33.** Sustainable Finance Taxonomies Worldwide, in Place, Under Development and in Discussion, Early 2022

TABLES

- 28 **TABLE 1.** Overview of Regional Collaboration on Energy Issues, as of October 2021
- 33 **TABLE 2.** Overview of Renewable Energy Targets in the Focus Countries, as of October 2021
- 39 **TABLE 3.** Overview of Renewable Energy Policies in the Focus Countries, as of September 2021
- 46 **TABLE 4.** Overview of Feed-In Tariffs in the Focus Countries, as of September 2021
- 49 **TABLE 5.** Overview of Energy Efficiency Policies in the Focus Countries, as of October 2021
- 49 **TABLE 6.** Overview of Energy Performance and Labelling Policies in the Focus Countries, as of October 2021
- 53 **TABLE 7.** Overview of Energy Efficiency Policies in the Focus Countries That Are Contracting Parties of the Energy Community Treaty, as of October 2021
- 56 **TABLE 8.** Overview of Energy Efficiency Policies in the Eurasian Economic Union and Other Countries, as of October 2021
- 61 **TABLE 9.** Overview of Focus Countries with a Net Zero Target, as of October 2021
- 61 **TABLE 10.** Overview of Submitted Nationally Determined Contributions and Renewable Energy in the Focus Countries, as of October 2021
- 79 **TABLE 11.** Use of Geothermal Heat in the Focus Region, as of 2020
- 87 **TABLE 12.** Overview of the Quality of Energy Access in the Focus Countries, 2019
- 93 **TABLE 13.** Compound Annual Growth in Primary Energy Intensity in the Focus Countries, by Decade, 1990-2019
- 94 **TABLE 14.** Compound Annual Growth in GDP versus Primary Energy Supply in the Focus Countries, by Decade, 1990-2019
- 102 **TABLE 15.** Status Quo of Solar District Heating Plants Planned or Developed in South-East Europe, as of June 2022
- 111 **TABLE 16.** Investment in Renewable Energy Capacity, Top 30 Countries, 2018 and 2019
- 115 **TABLE 17.** Bilateral and Multilateral Foreign Aid Commitments by Provider for Renewable Energy Projects in the Focus Countries, 2016-2019

SIDEBARS

- 19 **SIDEBAR 1.** Data Collection, Analysis and Validation for the UNECE Renewable Energy Status Report
- 51 **SIDEBAR 2.** Transition to the nZEB Standard for New and Existing Buildings in Ukraine
- 52 **SIDEBAR 3.** Testing the Concept of a Public ESCO in Serbia
- 64 **SIDEBAR 4.** Renewable Energy in Cities
- 65 **SIDEBAR 5.** Carbon Neutrality Targets of the Russian Businesses
- 71 **SIDEBAR 6.** Rehabilitation of the Golovnaya and Toktogul Hydropower Plants
- 73 **SIDEBAR 7.** Uzbekistan Inaugurates Its First Utility-scale Solar PV Plant
- 77 **SIDEBAR 8.** Development of the Biomass Market in Serbia
- 82 **SIDEBAR 9.** Electric Mobility in Armenia
- 85 **SIDEBAR 10.** Climate Change and the Reliability of Energy Access in Moldova
- 86 **SIDEBAR 11.** Water, Food and Energy Nexus
- 101 **SIDEBAR 12.** Co-ordinating District Heat Systems with Energy Efficiency Retrofits



FOREWORD

UNECE

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Since 2018, the UNECE region has observed a noticeable scale-up in the uptake of renewable energy technologies. Renewables are becoming a mainstream solution to provide sustainable, affordable and reliable power supply to the region's 310 million people. The accelerated transition to low-carbon energy in the region reflects an increasing recognition of the multiple benefits that renewable energy provides for national energy security, greenhouse gas emission reduction, and enhanced access to and resilience of the energy supply, along with the improvement in environmental quality and people's health.

The *2022 UNECE Renewable Energy Status Report* examines in detail the progress made by 17 UNECE countries in harnessing their abundant renewable energy resources to decarbonise power, heat and mobility. It also offers a comprehensive overview of the region's journey towards achieving the United Nations Sustainable Development Goal 7 on "Affordable and Clean Energy" by looking at renewable energy alongside improvements in energy efficiency and energy access.

By delivering detailed analysis of the national policy frameworks and investment flows for a low-carbon energy transition, the report provides valuable insights on

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