

RENEWABLES IN CITIES

2019 GLOBAL STATUS REPORT



2019

REN21 MEMBERS

INDUSTRY ASSOCIATIONS

Africa Minigrid Developers Association (AMDA)
 Alliance for Rural Electrification (ARE)
 American Council on Renewable Energy (ACORE)
 Associação Portuguesa de Energias Renováveis (APREN)
 Association for Renewable Energy of Lusophone Countries (ALER)
 Chinese Renewable Energy Industries Association (CREIA)
 Clean Energy Council (CEC)
 European Renewable Energies Federation (EREF)
 Global Off-Grid Lighting Association (GOGLA)
 Global Solar Council (GSC)
 Global Wind Energy Council (GWEC)
 Indian Renewable Energy Federation (IREF)
 International Geothermal Association (IGA)
 International Hydropower Association (IHA)
 Renewable Energy Solutions for Africa (RES4Africa)
 World Bioenergy Association (WBA)
 World Wind Energy Association (WWEA)

INTERGOVERNMENTAL ORGANISATIONS

Asia Pacific Energy Research Centre (APEREC)
 Asian Development Bank (ADB)
 ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE)
 European Commission (EC)
 Global Environment Facility (GEF)
 International Energy Agency (IEA)
 International Renewable Energy Agency (IRENA)
 Islamic Development Bank (IsDB)
 Regional Center for Renewable Energy and Energy Efficiency (RCREEE)
 United Nations Development Programme (UNDP)
 United Nations Environment Programme (UNEP)
 United Nations Industrial Development Organization (UNIDO)
 World Bank (WB)

NGOS

Association Africaine pour l'Electrification Rurale (Club-ER)
 Center for Law and Social Policy (CLASP)
 Clean Cooking Alliance (CCA)
 Climate Action Network International (CAN-I)
 Energy Cities
 Fundación Energías Renovables (FER)
 Global 100% Renewable Energy Platform
 Global Forum on Sustainable Energy (GFSE)
 Global Women's Network for the Energy Transition (GWNET)
 Greenpeace International
 ICLEI – Local Governments for Sustainability
 Institute for Sustainable Energy Policies (ISEP)
 International Electrotechnical Commission (IEC)
 Jeunes Volontaires pour l'Environnement (JVE)
 Mali Folkecenter (MFC)
 Partnership for Sustainable Low Carbon Transport (SLoCaT)
 Power for All
 Renewable Energy and Energy Efficiency Partnership (REEEP)
 Renewable Energy Institute (REI)
 Solar Cookers International (SCI)
 World Council for Renewable Energy (WCRE)
 World Future Council (WFC)
 World Resources Institute (WRI)
 World Wildlife Fund (WWF)

MEMBERS AT LARGE

Michael Eckhart
 Mohamed El-Ashry
 David Hales
 Kirsty Hamilton
 Peter Rae
 Arthouros Zervos

GOVERNMENTS

Afghanistan
 Brazil
 Denmark
 Dominican Republic
 Germany
 India
 Mexico
 Norway
 Republic of Korea
 South Africa
 Spain
 United Arab Emirates
 United States of America

SCIENCE AND ACADEMIA

AEE – Institute for Sustainable Technologies (AEE INTEC)
 Council on Energy, Environment and Water (CEEW)
 Fundación Bariloche (FB)
 International Institute for Applied Systems Analysis (IIASA)
 International Solar Energy Society (ISES)
 National Renewable Energy Laboratory (NREL)
 National Research University Higher School of Economics (HSE)
 South African National Energy Development Institute (SANEDI)
 The Energy and Resources Institute (TERI)

CHAIR

Arthouros Zervos
 National Technical University of Athens (NTUA)

EXECUTIVE SECRETARY

Rana Adib
 REN21



REN21

COMMUNITY

REN21 is an international policy network of experts from governments, inter-governmental organisations, industry associations, non-governmental organisations, science and academia. It grows from year to year and represents an increasing diversity of sectors. REN21 provides a platform for this wide-ranging community to exchange information and ideas, to learn from each other and to collectively build the renewable energy future.

This network enables the REN21 Secretariat to, among other activities, produce this first edition of the *Renewables in Cities 2019 Global Status Report (REC-GSR)*, making the report a truly collaborative effort.



REN21 COMMUNITY INVOLVEMENT IN THE REC-GSR:



380

experts contributed to the REC-GSR, working alongside an international authoring team and the REN21 Secretariat



61%

of contributors are new members of the REN21 Community, indicating the attractiveness of this focus on cities in the energy transition



More than

50

interviews were conducted with city or sector-specific experts from around the world

RENEWABLE ENERGY POLICY NETWORK FOR THE 21st CENTURY

REN21: RENEWABLES NOW!

REN21 is the only global renewable energy community of actors from science, governments, NGOs and industry. We provide up-to-date and peer-reviewed facts, figures and analysis of global developments in technology, policies and markets.

Our goal: enable decision-makers to make the transition to renewable energy happen – now!

**Making
the invisible
visible.**

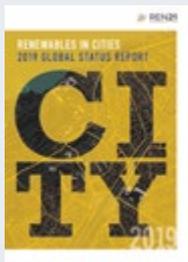
REN21 changes the way we think about renewable energy.

SHAPE THE FUTURE



KNOWLEDGE

DEBATES



RENEWABLES IN CITIES - GLOBAL STATUS REPORT (REC-GSR)

The cities report is the first comprehensive resource to map out the current trends and renewable energy developments in cities. It uses the same rigorous standards found in the *Renewables Global Status Report* series.



RENEWABLES GLOBAL STATUS REPORT (GSR)

First released in 2005, this report is the industry standard for the status of renewables for a given year. The GSR's robust process for collecting data and information makes it the most frequently referenced report on renewable energy market, industry and policy trends.



REN21 RENEWABLES ACADEMY

A biennial event developed by, and for, the REN21 community, where members meet and discuss how to spur the renewable energy transition. The REN21 Academy's structure reflects REN21's collaborative and transparent culture.



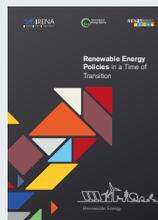
REGIONAL REPORTS

These reports detail renewable energy developments in a region, improving data and knowledge and, in turn, informing decision making and changing perceptions.



GLOBAL FUTURES REPORT (GFR)

This series captures the current thinking about a sustainable energy future. Each report presents the collective and contemporary thinking of many experts.



THEMATIC REPORTS

Each report covers, in detail, a specific topic where a knowledge gap exists.

INTERNATIONAL RENEWABLE ENERGY CONFERENCE (IREC)

A high-level political event where government, private sector and civil society meet to build collective know-how to advance renewables at the international, national and sub-national levels. The IREC is hosted by a national government and is held biennially.

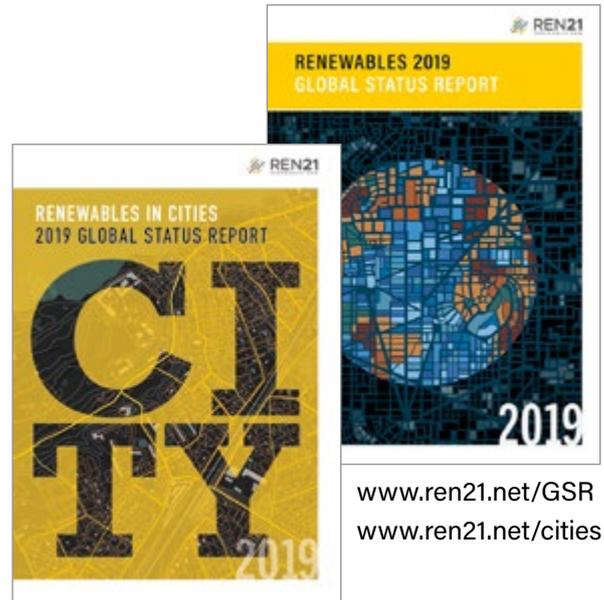


MAKING THE CONNECTIONS

Good decisions require good information. REN21's *Renewables Global Status Report (GSR)* tracks the annual development of renewables using the most up-to-date information and data available. Its neutral, fact-based approach documents in detail the annual developments in market, industry and policy. The report is a collaborative effort, drawing on an international network of more than 1,500 authors, contributors and reviewers from over 155 countries. Now in its 15th year, the GSR is the most frequently referenced report on renewable energy market, industry and policy trends.

Since the first edition of the GSR in 2005, REN21 has continuously expanded its reporting. To highlight regional trends, REN21 has developed a *Regional Renewable Energy and Energy Efficiency Status Report* series and is now including reporting on renewable energy development in cities, considering the crucial involvement of cities in the energy transition and the existing data gap.

The new report series, *Renewables in Cities 2019 Global Status Report*, builds on the success of the *Renewables Global Status Report* and focuses specifically on the state of renewables in cities around the world and on the role of local action in the renewable energy transition. It looks at trends and developments of renewable energy in cities and its associated benefits, including impacts on air pollution, energy security and access, and socio-economic issues. This publication will help improve understanding of cities' role in the energy transition, increase visibility for local action and showcase effective policies, finance and business models to inform decisions.



www.ren21.net/GSR
www.ren21.net/cities

Bridging and building the energy future.

www.ren21.net



REN21 DATA AND REPORTING CULTURE

REN21 has developed a unique renewable energy reporting culture, allowing it to become recognised as a neutral data and knowledge broker that provides credible and widely accepted information. Transparency is at the heart of the REN21 data and reporting culture.

The REN21 reporting culture comprises the following elements:



Building on this process, REN21 has contributed significantly to making renewable energy visible in the global debate, drawing decision makers' attention to it and changing the norm in reporting and tracking. REN21 has been successful in "making the invisible visible" – beginning with its first status report on renewable energy in 2005 – and aims to continue in this mission by highlighting the critical role of cities in the renewable energy transition.

ACKNOWLEDGEMENTS

Note: Some individuals have contributed in more than one way to this report. To avoid listing contributors multiple times, they have been added to the group where they provided the most information. In most cases, the lead topical contributors, lead city contributors, regional contributors, sidebar authors and advisory committee members also participated in the *Renewables in Cities 2019 Global Status Report* data contribution, review and validation processes.

The *Renewables in Cities 2019 Global Status Report* was co-developed with an Advisory Committee whose joint expertise and work were fundamental in guiding the creation of the report, including defining the outline, supporting data collection and reviewing drafts.

LEAD AUTHORSHIP

Toby Couture (E3 Analytics)

CHAPTER AUTHORS

Henner Busch (Lund University)

Flávia Guerra (REN21)

Teis Hansen (Lund University)

Anna Leidreiter (World Future Council)

Hannah E. Murdock (REN21)

Lea Ranalder (REN21)

Janet L. Sawin (Sunna Research)

Kristin Seyboth (KMS Research and Consulting)

PROJECT MANAGEMENT AND RESEARCH DIRECTION (REN21 SECRETARIAT)

Lea Ranalder

SPECIAL ADVISORS

Rana Adib (REN21)

Peter Droege (Liechtenstein Institute for Strategic Development – LISD)

Janet L. Sawin (Sunna Research)

RESEARCH AND PROJECT SUPPORT (REN21 SECRETARIAT)

Thomas André, Fiona Corcoran, Jack Corscadden, Chloé de Bethmann, Alyssa Fischer, Duncan Gibb, Vibhushree Hamirwasia, Hwajin Kim, Eleonora Moro, Katharina Setzinger

On behalf of:

 Federal Ministry

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_14042

