REN21
RENEWABLES NOW

2019
2018

RENEWABLES NOW!

REN21 is the only global community of renewable energy actors from science, academia, governments, NGOs and industry.

We provide up-to-date facts, figures and peer-reviewed analysis of global developments in technology, policies and markets to decision-makers.

Our goal: encourage and enable them to make the transition to renewable energy happen – now.

THE GREAT TRANSFORMATION

Who knows, maybe in the future we will look back on the 2020s as the beginning of The Great Transformation; the years when the world economy changed from fossil fuels to renewable energy. Nobody knows.

But we know that the future is written by us. We also know that renewables mean change. It is clear that we will see more and more players involved in energy decisions. Such a massive transformation presents an opportunity to create a more inclusive society – a society which respects new voices and forces.

There is an unprecedented momentum for leaving the fossil fuel age behind us. And we must do it now. Every Friday millions of young people take to the streets to force decision-makers to understand the climate crisis we are facing. At the same time, we are seeing unparalleled levels of citizen mobilisation against growing social and economic inequalities. Patience and faith in politicians who hesitate and waver are fading away.

We at REN21 know that with a rapid transition to renewable energy and energy efficiency we can turn the tide. With our worldwide community of experts, we can prove that a transition to renewable energy is possible and desirable – not just for climate reasons.

To make it happen, we must broaden the perspective. We must look beyond electricity and also tackle the heating, cooling and transport sectors. We must leave our comfort zones and involve non-energy players in the energy debate.

It also means looking beyond national governments. A new global pattern that we are seeing is cities rising to the frontline of renewables action. Therefore, REN21 has created the *Renewables in Cities 2019 Global Status Report*. It is the first in what is to become an annual global stocktaking of cities' transition to renewable energy.

Join us and take a look at what our members and our supporters have been working to achieve and what we can do together in the future to make **The Great Transformation** happen.

Rana Adib
Executive Secretary

Arthouros Zervos
Chair

WE KNOW

250 PAGES IS REALLY LONG...

The last two years have seen new records for renewables, now representing a quarter of global electricity production. This is what our 2018 and 2019 *Renewables Global Status Reports* show. Becoming mainstream, global renewable electricity uptake no longer depends on a small number of countries.

This is an important success. Yet, we are still moving in the wrong direction. Over the past two years, the world's emissions edged up further. With investments in renewables slowing down, coal remains a major fuel in global energy systems and responsible for more than 40 percent of energy-related carbon dioxide emissions.

In 2017, 115 countries continued to subsidise fossil fuel consumption with a staggering USD 300 billion. Only 40 countries had initiated subsidy reform. Even worse: these fossil fuel subsidies increased by 30 percent from 2017 to 2018.

The reports warn that outside of electricity, good news is still hard to come by. Electricity only represents 17 percent of the world's energy needs. About half of the energy is used for heating and cooling, one-third goes to the transport sector. With less than ten percent renewables, these two sectors are both lagging far behind in decarbonisation.

Yet, power production continues to receive most of the policy attention. Out of 169 countries which have renewable energy targets, 135 countries have regulatory policies for electricity. But only 70 countries have policies for transport and a mere 20 countries have renewable heating and cooling policies in place. Less than a third of all countries globally have mandatory building codes, leaving 40 percent of total energy use in buildings unregulated.

This means: Policymakers must change their focus. And to make a long story short, the many pages of REN21's comprehensive *Renewables Global Status Report* are an excellent read for all those who want to better understand how to make the change. **Now.**

SWARM INTELLIGENCE

FOR THE ENERGY TRANSITION

When 163 experts representing 140 organisations from 80 countries come together to share their knowledge and experience to innovate together, you are at the REN21 Academy.

Taking place from 19 to 21 November in Berlin, the 2018 Academy provided a platform for this diverse community to exchange information and ideas, to learn from each other and to collectively build the renewable energy future.
The Renewable Energy and Energy Efficiency Week, convened by the German Ministry for Economic Cooperation and Development, co-hosted the high-level opening.

Combining high-level panels with expert key notes, participatory formats and partner workshops, discussions focused on today's disconnect between the power, heating, cooling, and transport sectors. Delegates not only shared their contrasting visions of the energy future, but also their expectations on communication, collaboration and financing as indispensable tools. A panel on the role of natural gas sparked a passionate debate as it forced participants to leave their comfort zones.

"It would be a beautiful idea to have the embassies in Africa powered by renewable energy. I believe that together we can help by demonstrating the practicality and the importance of renewable energy in Africa's development."

Wisdom Ahiataku Tobogo
Ministry of Energy, Republic of Ghana

"We need to double investments in mini-grids as part of the effort to have an integrated approach towards meeting energy needs."

Ron Benioff
National Renewable Energy Laboratory

The European Commission, UNIDO and UNECE offered additional workshops, inviting participants to discuss the European political roadmap towards 2030 and regional perspectives in more detail, while a further REN21 workshop was dedicated to the role of cities.

The REN21 Academy takes place biennially and proves that our collective human energy drives the transition. Sharing makes each and every one of us more powerful. Take a look at the full results on our website and you'll see. Or even better: Join us in autumn 2020 and experience it. 99 percent of 2018 participants already said they will be back...

NEW ANNUAL
CITIES
Uppsala Municipality
City of Calgary
City of Austin, TX
CITIES
RENEW
ENERG
TRANS
GLOBAL STATUS OF

STOCKTAKING FOR CITIES' RENEWABLES AMBITIONS

Many countries still expect that the implementation of 100 percent renewable energy systems will take several decades. Yet, there are plenty of cities in the world that already source 100 percent of their electricity from renewables. Now, they are taking steps to expand their ambitions to get rid of fossil fuels in heating, cooling, transport and industry.

Our *Renewables in Cities 2019 Global Status Report* is the first in what is to become an annual stocktaking of how city action can directly support the transition to renewable energy. It aims to make data available, more standardised, easier to evaluate and to compare.

The first edition shows that increased prosperity and living standards in cities cause an insatiable hunger for energy. Yet, 70 percent of all cities are already affected by the impact of climate change today.
If they don't do something about the way they produce and use energy, they are going to wreak their own destruction.

"Cities can actively drive the fight against climate change at the national and global level. They are able to tap into opportunities that other levels of government do not have, including a more direct relationship with local citizens and businesses. Citizen engagement and public pressure have raised cities' level of ambition on renewables in many places around the world."

Svenja Schulze
Minister for Environment, Nature Conservation and Nuclear Safety, Germany.

Particles and other air pollutants from fossil fuels literally asphyxiate cities. Their presence above urban skies is responsible for millions of premature deaths and costs billions. While cities may not be waving the renewable flag, they realise that the very nature of renewables helps them address pressing concerns such as air quality, costs, employment and energy security.

But while many benefits from renewables are the same all over the world, the report also documents differences. While cities in Europe highlight their ability to provide renewable energy as they seek to attract new industries, cities in the developing world particularly value the possibility of using renewables to expand energy access to those living in urban slums and informal settlements.

THE WORLD'S LARGEST

RENEWABLE ENERGY CONFERENCE GOES EAST

Asia is the world's largest region, both in land mass and in people. Continuing to grow quickly, the region is also fundamental to the energy transition.

Reason enough for REN21 to go East with the world's largest gathering of renewable energy players. From 22 to 25 October 2019, the 8th International Renewable Energy Conference took place in Seoul, Republic of Korea. For the first time, the conference was co-organised by a national and municipal government, underlining the role of cities in driving the transformation. The conference covered all technologies and a vast array of aspects, while putting emphasis on end-use sectors and energy services. It also featured a special track on cities and three stand-alone sessions on heating and cooling as well as transport.

More than 2,000 of the world's leading energy players followed the call to share experiences, successes, barriers and lessons learnt.

"Unsustainable and reckless consumption of energy has led to concerning levels of air pollution, making it the fourth-largest threat to human health and the single biggest environmental health risk that we face today. Transitioning to a cleaner and more sustainable energy model is no longer a choice but a must. Cities can spearhead progress in combating air pollution, by implementing creative policies and incubating innovative ideas, like what the Seoul Metropolitan Government is doing. We have the necessary means to pursue the energy transition. All we need is the political and institutional will to make the transition a reality."

Ban Ki-Moon
Former UN Secretary General and Chair of Korea's National Council on Climate and Air Quality

In a country where energy imports exceed 20 percent of its GDP, renewables offer a prime opportunity to improve energy security. South Korea's Energy Minister Sung Yun-mo kicked off the three-day programme with a passionate speech about the country's efforts toward an energy transition, highlighting its intent to not only phase out fossil fuels but also nuclear. Seoul Metropolitan Mayor Park Won-soon shared the city's vision to become a "solar city" by 2022.

The Conference also provided the occasion to launch REN21's first "*Asia and the Pacific Renewable Energy Status Report*". The report covers 18 countries in the region, which has 52 percent of the world's population and 39 percent of the global primary energy supply. It provided ample input to the five conference tracks which tapped into issues as diverse as policy and market design, local value chains, the role of cities, innovative solutions and ways to make the energy transition more gender-inclusive.

THERE IS MORE TO IT THAN NUMBERS

REN21 STRIVES FOR AN ENERGY SYSTEM BASED ON RENEWABLES. THESE ARE THE VALUES WE SHARE TO GET THERE.

COOPERATION We know none of us is powerful enough to reach this goal alone. Therefore, we place collaboration and participation at the heart of our work. Everyone is welcome to contribute or review data for our reports, co-develop a workshop with us, or use the REN21 reports to develop and support their own work.

With close to 2,000 people from different countries, the REN21 community reflects the vast array of backgrounds and perspectives in society. It guides REN21 in addressing emerging trends or shining a spotlight on important gaps.

DISRUPTION We support collective learning and catalyse actions that can transform big parts of the system by connecting the dots between the private and public sector.

The fossil-fuel based society is based on an outdated notion of how energy should be provided. REN21 aims at breaking up these old patterns of how we produce and consume energy – be it as electricity, for heating, for cooling or in transport. We need a new deal that is not only climate-friendly, but also inclusive and just.

AUTHORITY We want our publications and communication to have impact. But in the era of "fake news", trustworthiness has become rare and precious. That is why transparency and peer-reviews are at the heart of REN21's data and reporting culture.

It is this unique culture which gives us authority as an honest data and knowledge broker that provides credible and widely accepted information.

LEADERSHIP We are unwavering optimists in our efforts to help people look at the energy system and renewables in new ways. Even if these ways are not yet considered "normal" by many. To drive the transition to renewable energy, we need to involve different players around the table, including our opponents, without being afraid.

With our light and democratic governance structure, the REN21 community prides itself on being flexible and able to respond quickly to emerging trends. To be effective we also must explore new ways to meet and create new spaces to design the future.

RECONNECTING REALITY TO ACTION

The United Nations climate conference in Madrid revealed a profound disconnect between what the reality of climate science demands, what strikers of all ages around the world are calling for and what elected governments achieved in the negotiations.

There is also a colossal gap between the tremendous progress of renewable energy technologies in terms of costs and reliability and the low level of willingness of a number of countries to phase out fossil fuels.

But the REN21 community works tirelessly to build bridges. At the Madrid climate conference alone, we presented the *Renewables in Cities Report* a dozen times, spreading data on local action and on the progress that cities can contribute to regional and national efforts in the energy transition.

In 2019, we also attended the United Nations Environment Assembly, the European Sustainable Energy Week, the African and Asia-Pacific Climate Weeks, the C40 Summit, the International Conference on Climate Action, the Asia Clean Energy

Forum, the World Urban Forum, the German Energy Transition Week, the UN Climate Action Summit 2019 and many more. We have organised side - events, made presentations and participated in panels, reaching out to tens of thousands of people.

The message: Shifting to renewables and decarbonising is not difficult, and it does not hurt the economy. On the contrary, it brings economic benefits and other payoffs in terms of air quality and social justice. By using all channels of communication, from social media to physical meetings, we make sure existing solutions that just need to be implemented are known.

Reconnecting all actors and parts of society, people and politicians, accepting climate reality and driving climate action ahead of next year's climate summit in Glasgow remains a big task. But the REN21 community supports it every step of the way.

ACCOUNTS 2018

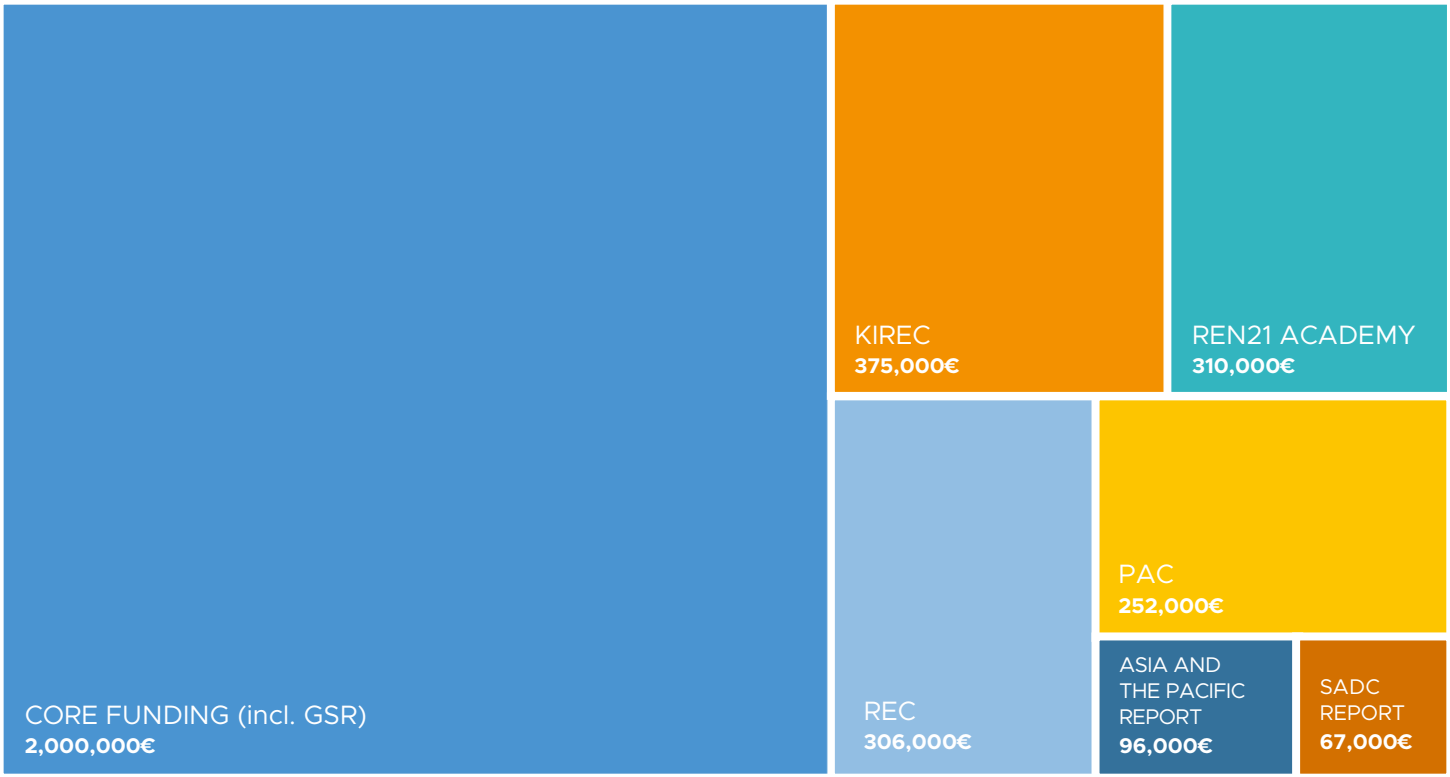
NON-PROFIT BUSINESS	2018 €	Total €
Non-taxable income		
Membership fees	0.00	
Grants	1,424,519.73	
Income from currency conversion	9,930.13	1,434,449.86
Non-taxable expenses		
In-house consultants (REN21 Secretariat, external researchers)	731,509.14	
Wages and salaries	342,041.73	
Travel expenses	155,983.10	
Miscellaneous other expenses		
Consulting fees	78,641.00	
Advertising and print costs	98,167.98	
Legal and tax consulting fees	8,557.50	
Office supplies and telephone	4,717.33	
Contributions and insurance	5,242.12	
Incidental monetary transaction costs	1,949.54	
Other expenses	27,075.42	1,453,884.86
Profit/loss		-19,435.00
Fund management		
Income		
Tax free income	0.00	
Organisational profit		
Allocation to reserves		1,801.51
Profit/loss carried forward		**-17,633.49**

FUNDING

REN21 is entirely financed by donations; membership is free. Total funding for 2018 and 2019 together amounted to EUR 3,406,000.

Core funding for REN21 has been provided by Germany (Ministry for Economic Affairs and Energy, Ministry for Economic Cooperation and Development); specific publications and events have been (co-)funded by other partners.

TOTAL 3,406,000€



GSR = Renewables Global Status Report **KIREC** = Korea International Renewable Energy Conference
REC = Renewables in Cities Global Status Report **PAC** = Paris Agreement Compatible Scenarios for Energy Infrastructure
Asia and The Pacific Report = 2019 Asia and the Pacific Renewable Energy Status Report
SADC Report = 2018 SADC Renewable Energy and Energy Efficiency Status Report

MOMENTUM FOR
RENEWABLES
IS GROWING

AND SO IS REN21

REN21 is the only global renewable energy community of actors from science, academia, governments, NGOs and industry.

The community brings together an impressive collection of organisations and people from different countries and backgrounds. They are energy and non-energy players. They focus on different renewable sources or technologies, political aspects or themes, but they all share the goal of creating a renewable energy system.

During 2018 and 2019 alone, hundreds of new experts and 15 new member organisations have joined REN21 with the goal to push even harder for the transition, to support and to use the common work. The new member organisations are:

AEE - Institute for Renewable Energies (AEE INTEC)

Africa Minigrid Developers Association (AMDA)

Association Africaine pour l'Electrification Rurale (Club-ER)

Center for Law and Social Policy (CLASP)

Dominican Republic, National Energy Commission (CNE)

Energy Cities

Global Women's Network for the Energy Transition (GWNET)

Islamic Development Bank (IsDB)

"REN21 is a very valuable network and is useful in helping the Bank draft its strategy with its member countries in the energy sector. REN21 has extensive knowledge and acts as a global coordinator for the entire sector, bringing stakeholders together, reducing weaknesses and amplifying strengths."

Hussain Mogaibel
Islamic Development Bank

"We do not just want to make cities greener, we want them to be more inclusive, to provide better living conditions for all. Not just an energy transition, but a *just* energy transition."

Claire Roumet
Energy Cities

Jeunes Volontaires pour l'Environnement (JVE)

National Research University Higher School of Economics (HSE)

Power for All

Renewable Energy and Efficiency Partnership (REEEP)

Global 100% Renewable Energy Platform

Republic of Korea

Solar Cookers International (SCI)

SNEAK PREVIEW TO

2020 will be a pivotal year. Forecasts by the Metropolitan Weather Office suggest that it will once again extend the series of the earth's hottest years, since records began in 1850 with an average temperature rise of 1.1 degree Celsius.

But it's also the year when countries are expected to submit revised, and more ambitious, national climate plans in an effort to close the gap between the planet's current warming trajectory and the goal to limit warming to 1.5 degree Celsius. COP26 in Glasgow might become a make-or-break summit.

What gives hope is the growing engagement of people around the world. People are driving the change. And people must be put at the center of renewable and climate policies.

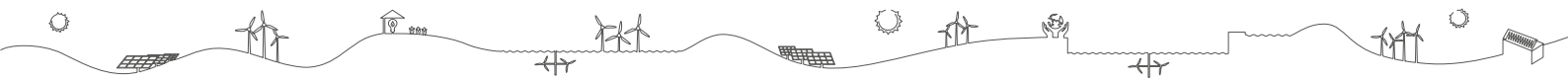
Therefore, REN21 activities in 2020 will pay particular tribute to the strength of collective action, starting with a feature chapter on citizen support for renewables in its *Renewables 2020 Global Status Report*.

While engagement with our REN21 Community has mainly evolved around our reports, we want to strengthen its impact by implementing our Communication Strategy and developing a new REN21 Community Strategy to support and deepen this engagement.

Yet, we also know that sometimes, better cooperation can begin with controversy. With "Great Debates", we will launch a new dialogue format, aimed at sharpening awareness of different sectoral viewpoints and bridging them to advance cross-sectoral solutions.

In 2020 we will also publish a joint report with IRENA and the IEA: *Renewable Energy Policies in a time of Transition: Heating and Cooling*. It will lay out policy mechanisms and recommendations in an area which so far has received too little attention.

There will also be another REN21 Academy and much more. So, do not forget to stay in touch in person or via social media to make sure you don't miss any of our publications and events – and to let us know what you think or what else we could do.



2020

REN21 MEMBERS

SCIENCE AND ACADEMIA

AEE – Institute for Sustainable Technologies (AEE INTEC)

Council on Energy, l'Environnement and Water (CEEW)

Fundación Bariloche (FB)

International Institute for Applied Systems Analysis (IIASA)

International Solar Energy Society (ISES)

South Africa National Renewable Development Institute (SANEDI)

National Renewable Energy Laboratory (NREL)

The Energy and Resources Institute (TERI)

GOVERNMENTS

Afghanistan

Brazil

Denmark

Dominican Republic

Germany

India

Mexico

Norway

Republic of Korea

South Africa

Spain

United Arab Emirates

United States of America

INTER-GOVERNMENTAL ORGANISATIONS

Asia Pacific Energy Research Centre (APERC)

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

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)

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 Foundation
(RES4Africa)

World Bioenergy Association
(WBA)

World Wind Energy Association
(WWEA)

MEMBERS AT LARGE

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Mohamed El-Ashry

David Hales

Kirsty Hamilton

Peter Rae

Arthouros Zervos

REN21 SECRETARIAT

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