
REN21 launches “Renewables Global Futures Report: Great debates towards 100% renewable energy”

114 renewable energy experts from around the world share their views on achieving 100% renewable energy by 2050.

New York, 3 April 2017

As sustainable energy experts from around the world gathered at the Sustainable Energy for All Forum in New York this week, the REN21 multi-stakeholder network released its latest report on the feasibility and challenges of achieving a 100% renewable energy future. The report analyses the views of 114 renowned energy experts from every region of the world, interviewed over the course of 2016. The results are clustered under topics defined as “12 Great Debates.”¹

Of direct relevance to the Forum, more than 90% of the experts interviewed agree that renewable energy technologies serve to lower the barrier for communities to gain access to energy services. An estimated 100 million people now receive electricity via distributed renewable energy systems, and markets for such systems are growing rapidly.

Other key findings include:

- More than 70% of the experts interviewed consider a global transition to 100% renewable energy to be both feasible and realistic, with European and Australian experts most strongly supporting this view.
- There is an overwhelming consensus that renewable power will dominate in the future, with many noting that even large international corporations are increasingly choosing renewable energy products either from utilities or through direct investment in their own generating capacity.
- Numerous companies, regions, islands and cities have set 100% renewable energy targets.²
- Nearly 70% of those interviewed expect the cost of renewables to continue to fall, beating all fossil fuels within 10 years’ time. Wind and solar photovoltaic are in fact already cost-competitive with new conventional generation in most OECD countries.
- Countries as diverse as China and Denmark are demonstrating that GDP growth can be decoupled from increasing energy consumption.

The report also identified a number of challenges, however:

¹ See NOTES for list of Great Debates

² See NOTES for list for 100% examples

- In some regions, most notably Africa, the US and Japan, experts were skeptical about reaching 100% renewable energy supply in their own countries or regions by 2050, largely due to the vested interests of the conventional energy industry.
- Drop-in solutions will not be sufficient to transform the transport sector such as the replacement of combustion engines with electric drives. A modal shift will be required, for example from road to rail.
- The lack of long-term policy certainty and the absence of a stable climate for investment in energy efficiency and renewables hinder development in most countries.

Arthouros Zervos, Chair of REN21, said: “When REN21 was founded in 2004, the future of renewable energy looked very different than it does today. Back then, no one could have imagined that in 2016: renewable energy would account for 86% of all new EU power installations; China would become the renewable energy powerhouse of the world; and more than half of global renewable energy investment would take place in emerging economies and developing countries. Calls then for 100 % renewable energy were not taken seriously; today the world’s leading energy experts are engaged in rational discussions about its feasibility, and in what time frame.”

Christine Lins, Executive Secretary of REN21, added: “This report presents a wide range of expert opinions, and is meant to spur discussion and debate about both the opportunities and challenges of achieving a 100% renewable energy future by mid-century. Wishful thinking won’t get us there; only by fully understanding the challenges and engaging in informed debate about how to overcome them, can governments adopt the right policies and financial incentives to accelerate the pace of deployment.”

Advance interviews are available: press@ren21.net

Available for media preview at <https://ren21.rotcloud.com/index.php/s/kpffv9xRl6uNSLI>

- Full Report
- Infographics

To attend an online webinar: Wednesday, 4 April, 07:00 EST/ 13:00 CEST
<https://attendee.gotowebinar.com/register/3207463816094873090>

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About REN21

REN21 is the global renewable energy policy multi-stakeholder network that connects public and private sectors. REN21's goal is to facilitate knowledge exchange, policy development and joint action towards a rapid global transition to renewable energy.

REN21 brings together governments, non-governmental organisations, research and academic institutions, international organisations and industry to learn from one another and build on successes that advance renewable energy. To assist decision-making process, REN21 provides high-quality information, catalyses discussion and debate, and supports the development of thematic networks.

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Press Notes

- Examples of **100% renewable energy targets** include
 - Companies: Alstria (real estate), Swiss Re (insurance), IKEA (retail), Adobe and Google (IT)
 - Regions: Lower Austria and Byron Shire (Australia)
 - Cities: Rochester (Minnesota), San Diego (California)
 - Islands: Cook Islands
 - Countries: Costa Rica.

- **12 Great Debates** outlined in the report are:
 1. 100% Renewables: A logical consequence of the Paris Agreement?
 2. Global Energy Demand Development: Efficiency on a global level?
 3. Renewable Power Generation: The winner takes all?
 4. The Future of Heating: Thermal or electrical applications?
 5. Renewables for Transport: Electrification versus biofuels?
 6. Interconnection of Sectors: System thinking required
 7. Storage: Supporter or competitor of the power grid?
 8. Technology versus Costs: Which should come first?
 9. Scaling-up Investments and Work Force: 100% renewables for socio-economic change
 10. Utilities of the Future: What will they look like?
 11. Mega Cities: Mega possibilities
 12. Energy Access Enabled Through Renewables: How to speed up connections?