Renewables in Cities 2019 Global Status Report

Webinar

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REN21: the only global renewable energy multi-stakeholder community

INTERGOVERNMENTAL ORGANISATIONS
ADB, APERC, ECREEE, EC, GEF, IEA, IRENA, IsDB, RCREEE, UNDP, UN Environment, UNIDO, World Bank

GOVERNMENTS
Afghanistan, Brazil, Denmark, Dominican Republic, Germany, India, Mexico, Norway, Republic of Korea, South Africa, Spain, UAE, USA

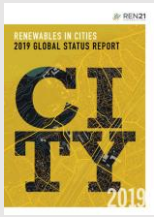
NGOs
Club-ER, CLASP, CCA, CAN-I, CEEW, Energy Cities, FER, Global 100% RE, GFSE, GWNET, Greenpeace Intl, ICLEI, ISEP, IEC, JVE, MFC, SLoCaT, Power for All, REEEP, REI, SCI, WCRE, WFC, WRI, WWF

INDUSTRY ASSOCIATIONS
AMDA, ARE, ACORE, APREN, ALER, CREIA, CEC, EREF, GOGLA, GSC, GWEC, IREF, IGA, IHA, RES4Africa, WBA, WWEA

SCIENCE & ACADEMIA
AEE INTEC, Fundacion Bariloche, Higher School of Economics (Russia), IIASA, ISES, NREL, SANEDI, TERI

REN21: WHAT WE DO

Global Status Report: yearly publication since 2005



Renewables in Cities Global Status Report

Knowledge

Regional Reports

Global Futures Reports

Thematic Reports

REN21

Network and Community

REN21 ACADEMY

Debates

KIREC SEOUL 2019

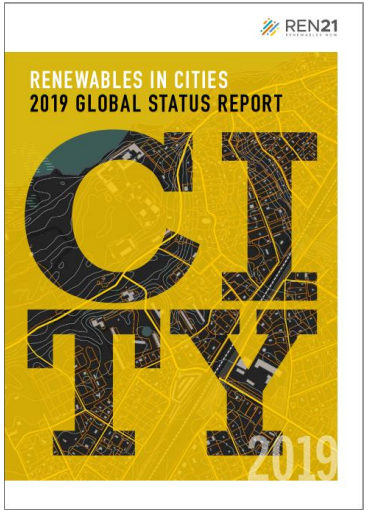
23-25 October 2019

Renewables in Cities 2019 Global Status Report

First annual stocktake of renewable energy in cities

The report features:

1. Cities in the Renewable Energy Transition
2. Drivers for Renewable Energy in Cities
3. Urban Policy Landscape: Targets and Policies
4. Urban Renewable Energy Markets
5. Mobilising Finance and Enabling Business Models
6. Citizen Participation



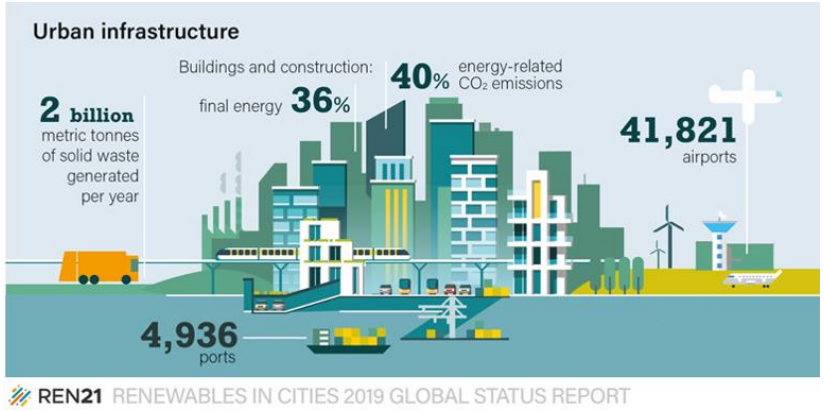
380
experts contributed to the REC-GSR, working alongside an international authoring team and the REN21 Secretariat

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

Cities in the world

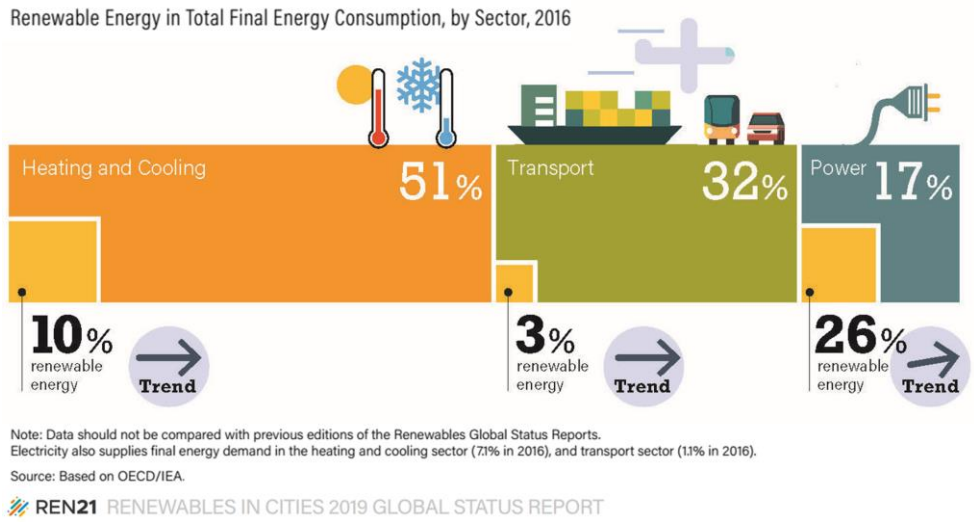
Bring cities to the energy debate, the energy debate to cities



Beyond power

Over 80% of demand for heating, cooling and transport

- Globally, around 26% of electricity is renewable
- Renewables lagging behind in heating, cooling and transport
- **Heating and cooling**
  - approx. 50% buildings / 50% industry
  - local markets
- **Urban transport**: 40% of final energy in transport sector

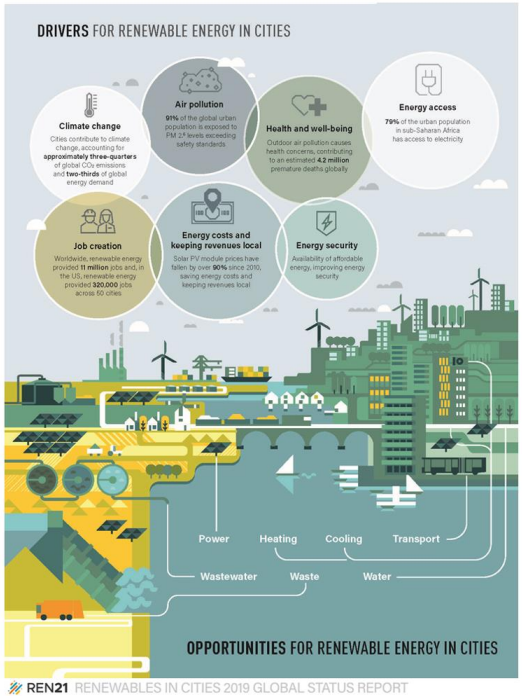


Drivers for renewable energy

Cities pursue renewables to meet a range of objectives

- Climate change
- Ensuring healthy living environment - addressing air pollution
- Reducing municipal costs
- Economic development
- Local jobs
- Energy security
- Access to energy

Drivers and Opportunities for Urban Renewable Energy



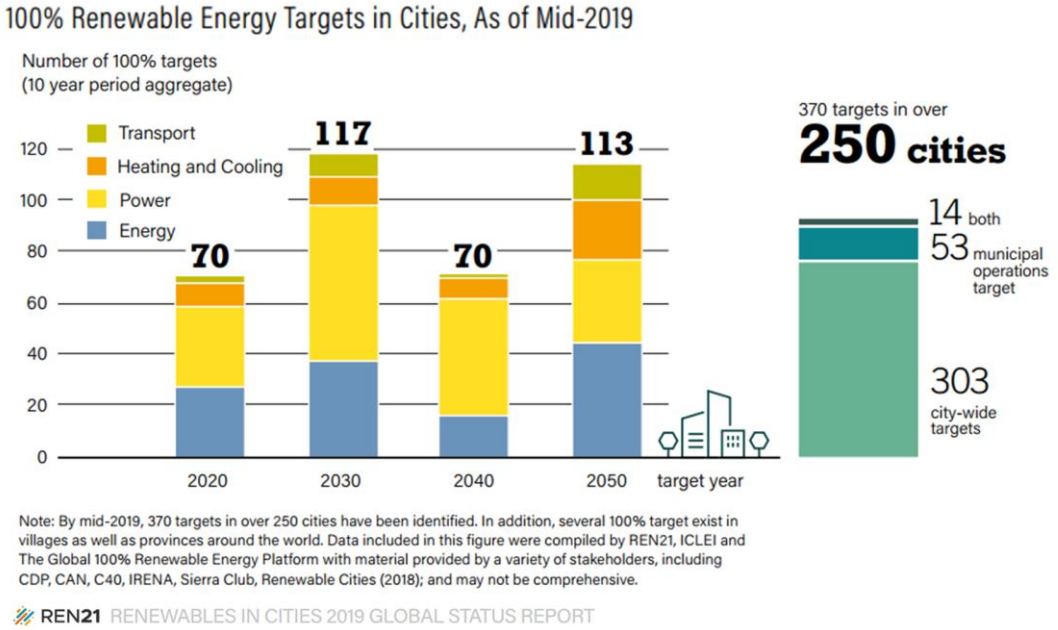
Cities have a direct responsibility for their residents

Cities have ambitious targets, not only in the power sector

Target and vision setting for municipal operations and city-wide energy

Ambition tends to be:

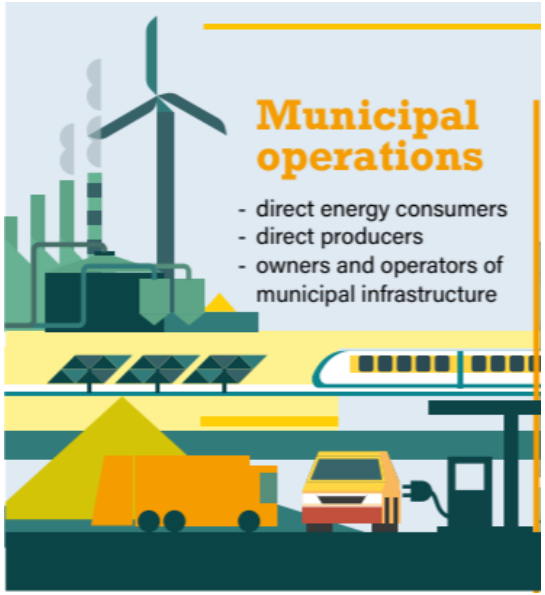
- **Higher:** cities target larger shares of renewables than national counterparts
- **Broader:** cities also set targets in heating, cooling and transport sectors
- **250 cities** worldwide have adopted some form of **100%** renewables target



Policies and actions in municipal operations

Advancing renewable energy in municipal operations

- Procuring renewable energy for consumption of municipal operations
- Scaling-up renewable generation on public buildings (e.g. Solar PV, solar thermal)
- Integrating renewable energy in district energy networks and and switching municipal fleets to biofuels and EVs
- Using municipal waste and wastewater to generate biogas, biomethane



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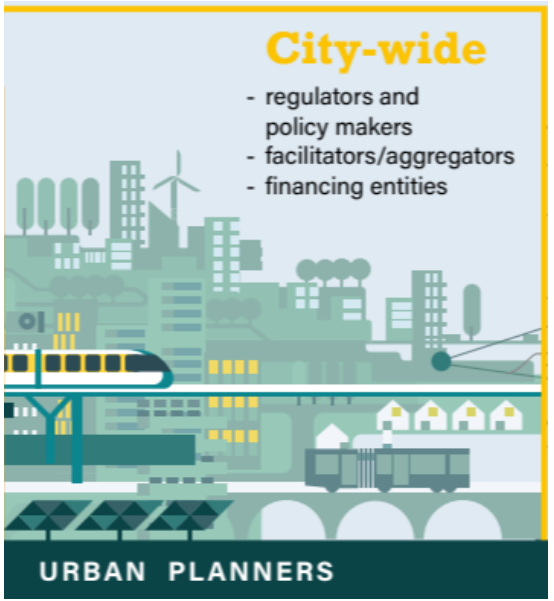
Cities leading by example, shifting to renewables in municipal operations

Beyond municipal operations

Cities are using regulatory policies to advance renewable energy city-wide

- Regulators and policy-makers: creating environment for **city-wide r**enewable in power, heating and cooling
  - Building codes requiring zero-emissions
  - Solar power mandates
- Facilitating renewable deployment for other actors in urban environment (businesses, citizens, communities, places of worships, urban delivery companies)
  - Raising awareness about RE benefits
  - Contribute to knowledge sharing and dialogue



Beyond the city

Cities are champions for renewable energy at the global scale

- Champions, trend setters and advocates at the national level
  - Pushing for higher ambition
  - Proving the viability of renewables
- Inspiring and learning from other cities worldwide, organisation city networks

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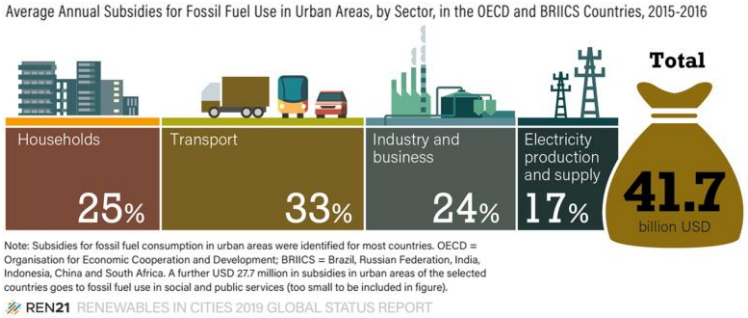
Cities cannot advance the transition to renewable energy transition alone

Multi-level governance

Cities need the support from national governments to realise renewable energy

- City power and authority over energy issues
  - is often limited, in particular in Asia, Latin America and Middle East
  - cities cannot achieve sustainability alone
- Conflicting/unsupportive national policies
  - building codes, vehicle regulation
  - national fossil-fuel subsidies



Cities cannot advance renewable energy transition in isolation

Citizen engagement key for the energy transition

Citizens can actively shape the renewable energy infrastructure of their cities

- **Consumer choice**
  - Choosing among suppliers and switching to green
  - Opting for RE tariffs (electricity/heating)
- **Prosumers**
  - Households/businesses generating RE
  - Facilitated by policies and business models such as solar leasing
- **Community renewable energy projects**: not only a rural but have also emerged in cities

Municipal support and cooperation with residents

Municipal governments can gain public trust for renewables and drive ambition

- **Supporting community initiatives**
  - Providing incentives (Fiscal, financial, RE projects quotas)
  - Using the potential of ICT progress (apps, interactive databases)
- **Re-municipalisation/public ownership**: citizens initiatives are often the starting point
- **Participatory governance** is important to gain public trust
  - Opposition to RE projects can be a barrier (“Not In My Backyard”)
  - Participatory planning and governance are tools to include citizens in decision-making

Public support in cities is important to drive the energy transition outside city boundaries

In conclusion

Cities and renewable energy – taking advantage of each other

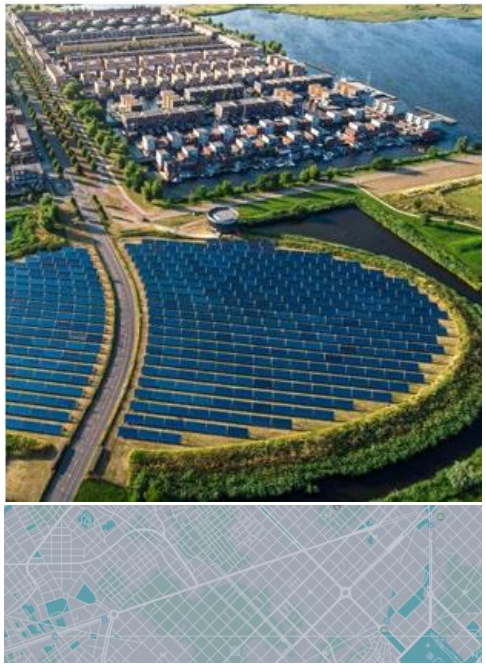
- Renewable energy in cities
  - Nature of renewable energy empowers cities to become key players in the energy transition
  - Renewables offer cities the opportunity to achieve a wide range of objectives: air pollution, economic growth, etc
- Cities in renewable energy
  - Various roles: target setters, energy consumers & producers, policy makers and regulators, facilitator, etc.
  - Advancing renewable energy in all end-use sectors

From an energy consumer to a change agent of the energy transition

In conclusion

How to take advantage of the opportunities

- Strengthen data on renewable energy in cities
  - Inform decision makers
  - Change historic perception
  - Bridge cities and energy debates
  - Track advancement
- Align policies across the national, sub-national and local level
- Empowering cities: increase the awareness of their role in the energy transition



Better data to inform decision makers in all relevant sectors

Contribute to the *Renewables in Cities 2020 Global Status Report*

Become part of a community to advance renewable energy in cities

Contact us to get involved!

re_cities@ren21.net

www.ren21.net/cities

Do you want to be involved?

In early 2020, REN21 will conduct a survey in preparation for the 2020 edition. This survey will collect input to further develop this new report series. If you would like to contribute to the process, please sign up here or e-mail us at re_cities@ren21.net.

First Name...

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SUBMIT

QUESTIONS?

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