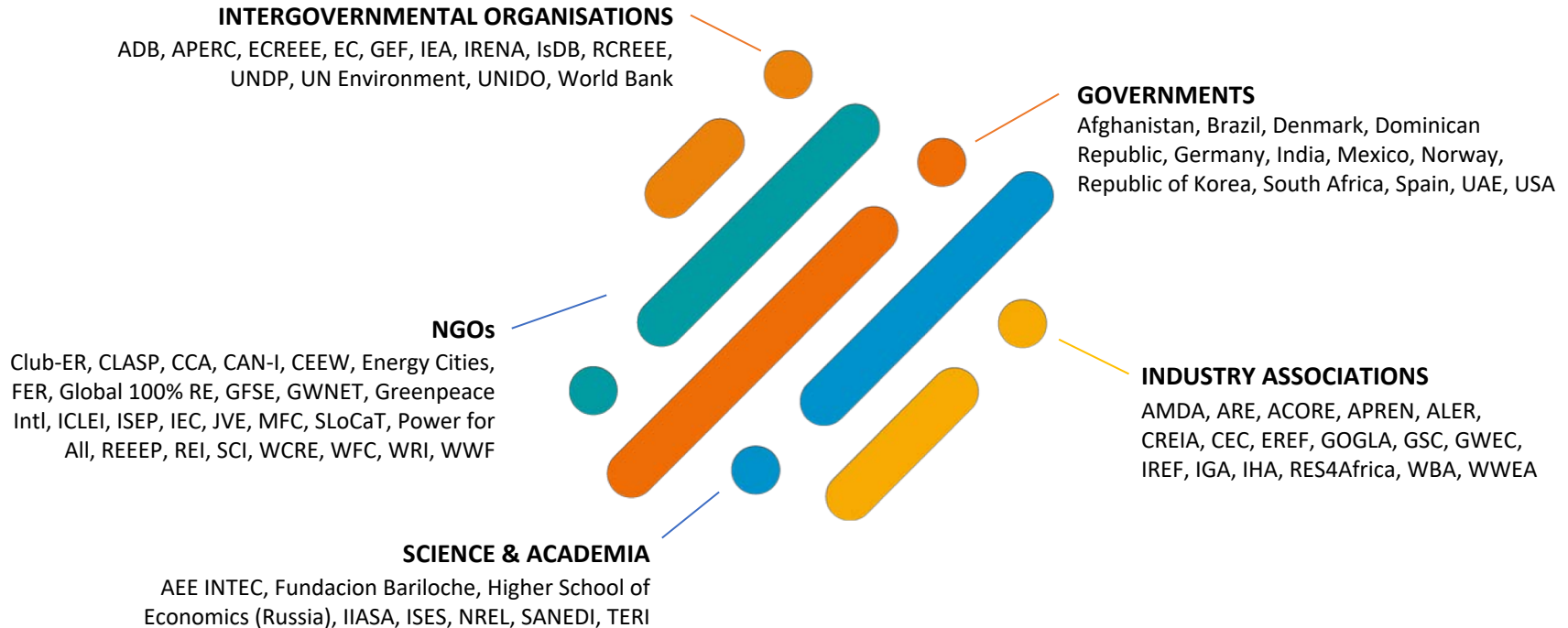


Renewables in Cities 2019 Global Status Report

Webinar

Lea Ranalder
25 March 2020

REN21: the only global renewable energy multi-stakeholder community



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



Network and
Community



Debates



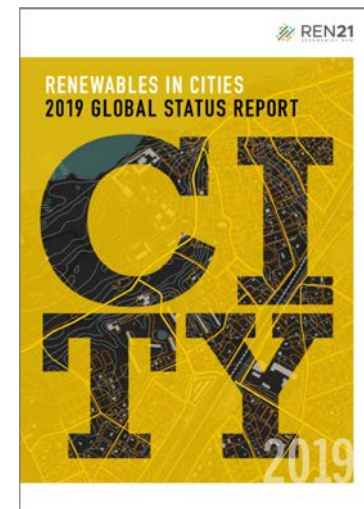
23-25 October 2019

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



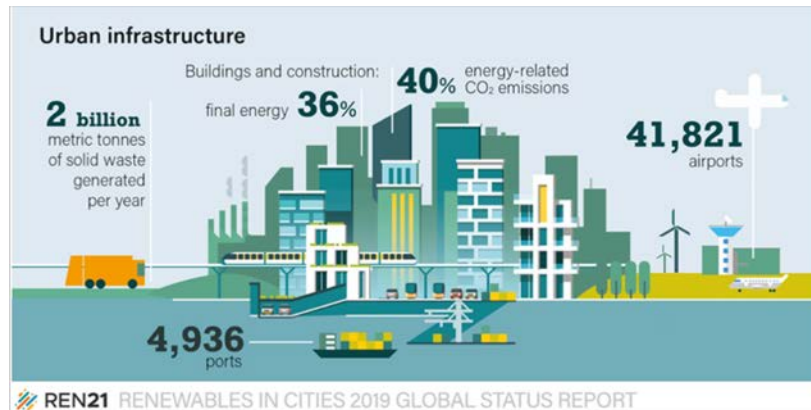
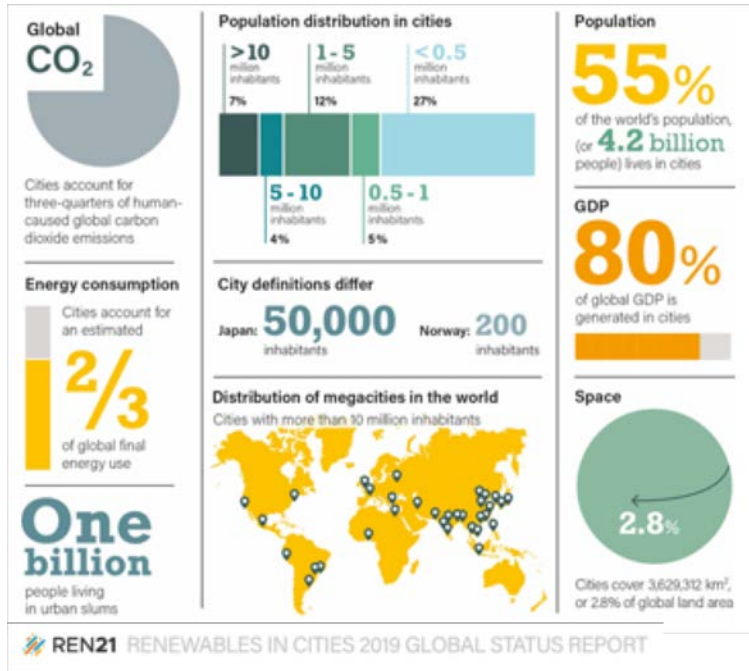
More than

50

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

Cities in the world

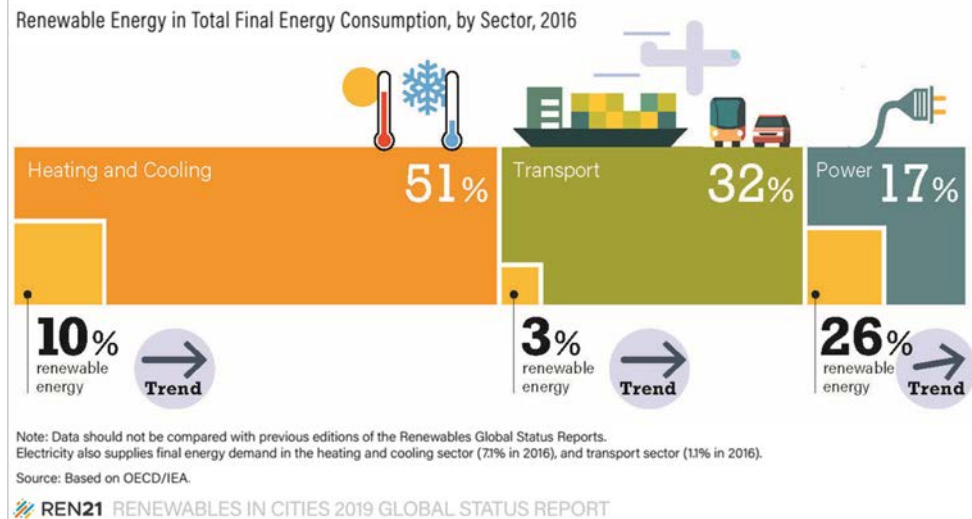
Bring cities to the energy debate, the energy debate to cities



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











Renewable energy continues to grow

Global reach of renewable power

- Total global capacity rose 8% in 2018: 2,378 GW capacity including hydropower
- 181 GW of renewable power additions led by Solar PV with 100 GW (55% of new additions)

TOP FIVE COUNTRIES

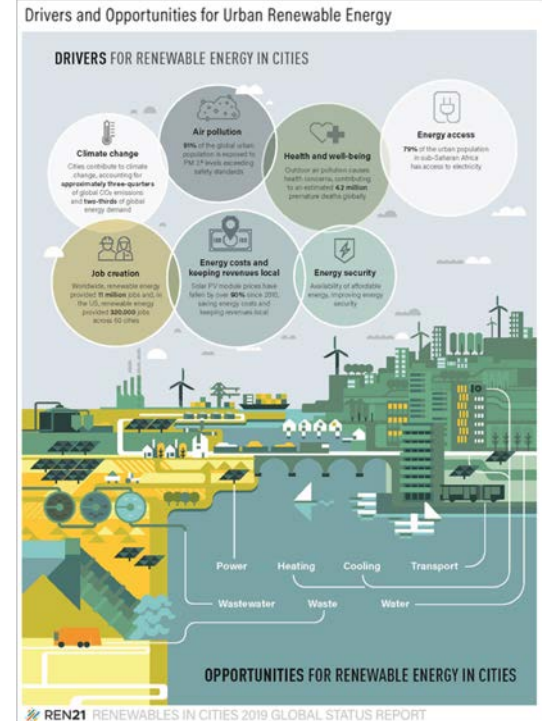
Annual Investment / Net Capacity Additions / Production in 2018

	1	2	3	4	5
Investment in renewable power and fuels (not including hydropower over 50 MW)	China	United States	Japan	India	Australia
Investment in renewable power and fuels per unit GDP ¹	Palau	Djibouti	Morocco	Iceland/Serbia	
 Geothermal power capacity	Turkey	Indonesia	United States	Iceland	New Zealand
 Hydropower capacity	China	Brazil	Pakistan	Turkey	Angola
 Solar PV capacity	China	India ² /United States		Japan	Australia
 Concentrating solar thermal power (CSP) capacity	China/Morocco		South Africa	Saudi Arabia	-
 Wind power capacity	China	United States	Germany	India	Brazil
 Solar water heating capacity	China	Turkey	India	Brazil	United States
 Biodiesel production	United States	Brazil	Indonesia	Germany	Argentina
 Ethanol production	United States	Brazil	China	Canada	Thailand

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



Cities have a direct responsibility for their residents

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 switching municipal fleets to biofuels and EVs
- Using municipal waste and wastewater to generate biogas, biomethane

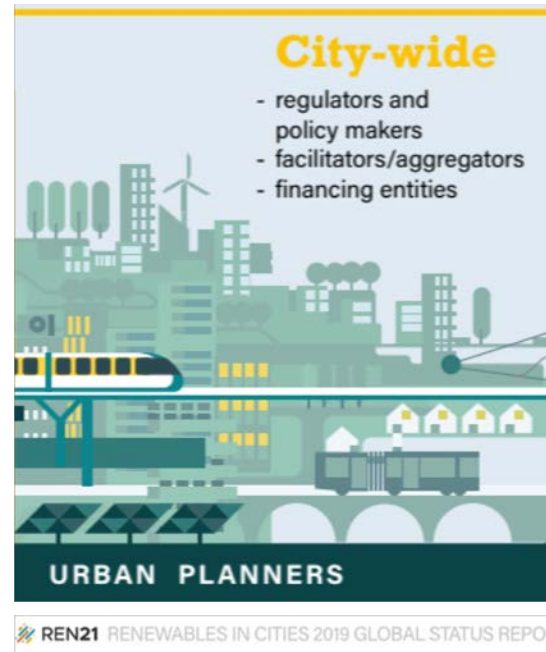


Cities leading by example, shifting to renewables in municipal operations

Beyond municipal operations

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

- Regulators and policy-makers: creating environment for **city-wide** renewable 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

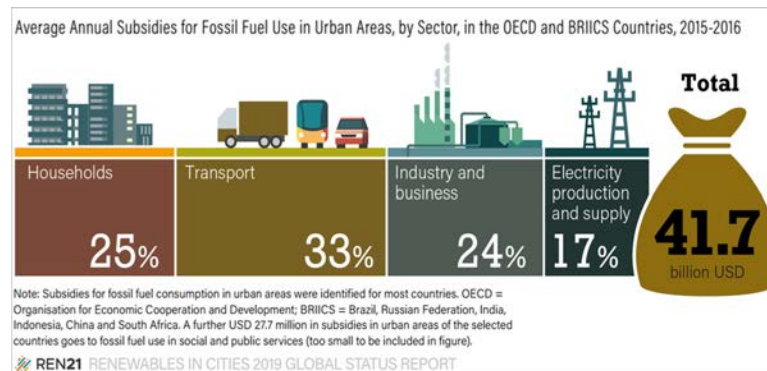


Cities cannot advance the transition to renewable energy transition alone

Multi-level governance

Many cities need the support from national governments to realise renewable energy

- City power and authority over energy issues
- Cities in sub-Saharan Africa typically have little authority to adopt renewable energy
- 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

Current status of renewables in SSA cities

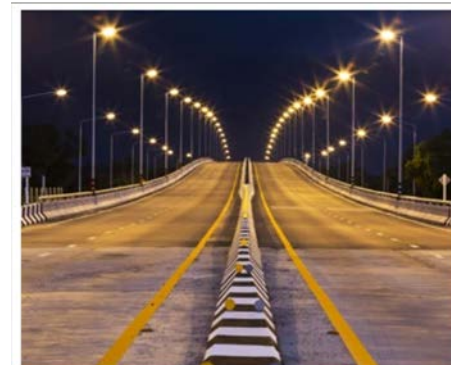
- Urban RE Markets:
 - Renewables power in SSA cities
 - Solar street lighting
 - Electric buses
- Investment in renewables
 - Africa accounted for 5% of total global financing of renewable energy (excluding large hydropower)
 - Many cities depend on the national government for funding and access to financial markets
 - Rising role of crowdfunding and PAYGO models



In conclusion

Cities and renewable energy – taking advantage of each other

- 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
- Strengthen data on renewable energy in cities
- Align policies across the national, sub-national and local level
- Empowering cities: increase the awareness of their role in the energy transition



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

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!

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www.ren21.net/cities

Bridging and
building the
energy future.

www.ren21.net

QUESTIONS?

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