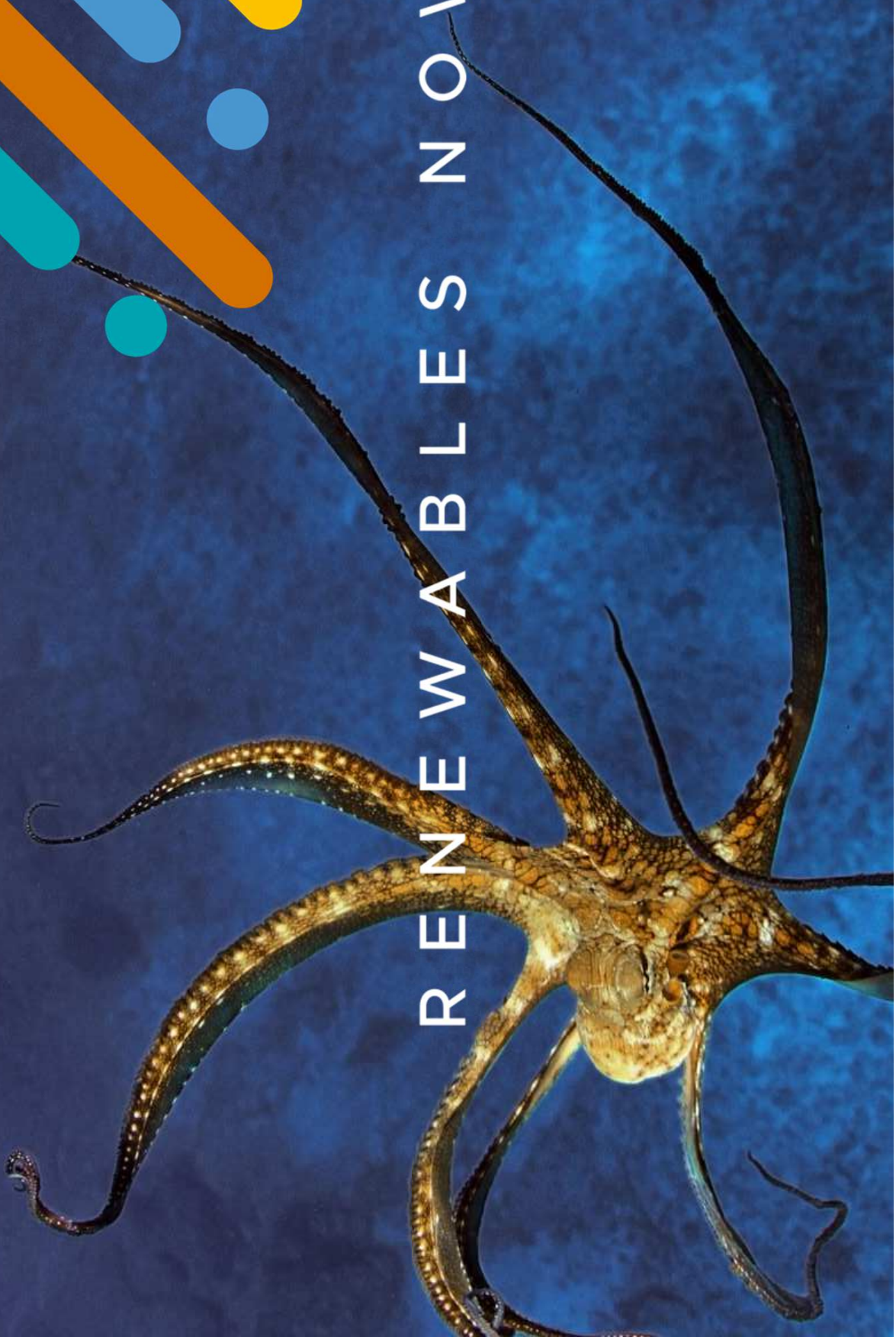




RENEWABLES NOW



Transforming cities in with renewable energy

Lea Ranalder
Lea.ranalder@ren21.net



REN21: MAKING THE SHIFT TO RENEWABLE ENERGY HAPPEN – NOW!

The only **global community** of renewable energy actors from science, academia, NGOs, governments, and industry.


Our more than **2,000 community members** co-operate collecting information, changing norms and debating.

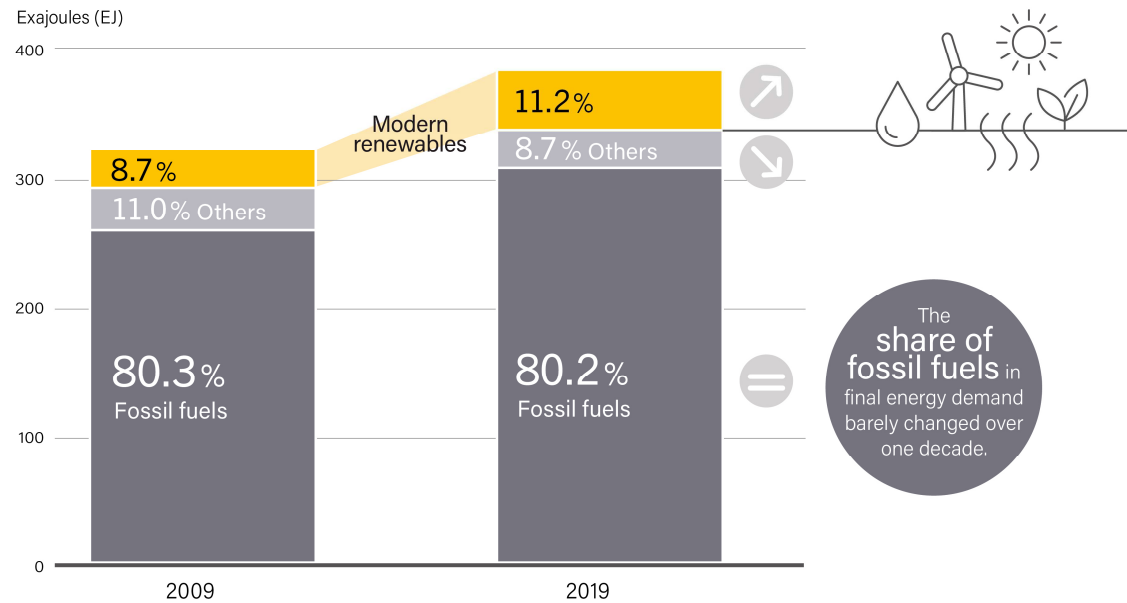


We build upon a **decentralised intelligence**, ensuring high responsiveness to an ever changing environment.

Our **annual publications** are probably the world's most comprehensive, crowdsourced reports on renewables.

INCREASING ENERGY DEMAND AND FOSSIL FUEL USE

 **Estimated Renewable Share of Total Final Energy Consumption**
2009 and 2019



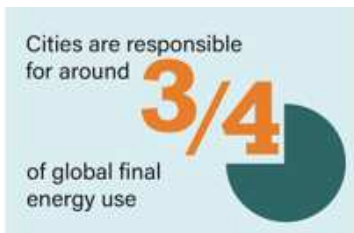
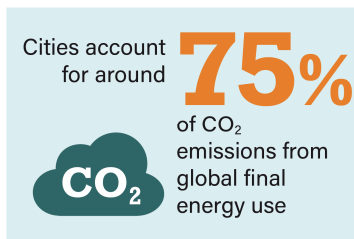
Note: Totals may not add up due to rounding. This figure shows a comparison between two years across a 10-year span. The result of the economic recession in 2008 may have temporarily lowered the share of fossil fuels in total final energy consumption in 2009. The share in 2008 was 80.7%.

Source: Based on IEA data.

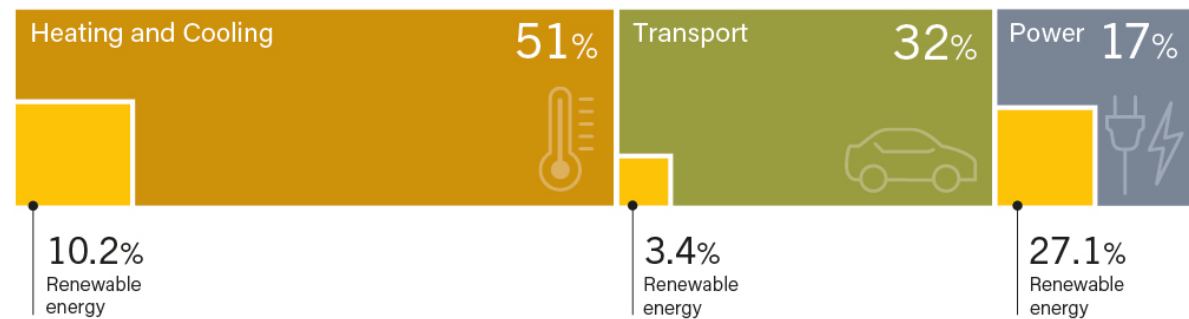
The world is **burning more fossil fuels** than ever.

CITIES ARE HIGH IMPACT AREAS

CITIES ARE KEY TO ADVANCE DECARBONIZATION IN ALL SECTORS



 Renewable Energy in Total Final Energy Consumption by Final Energy Use, 2018



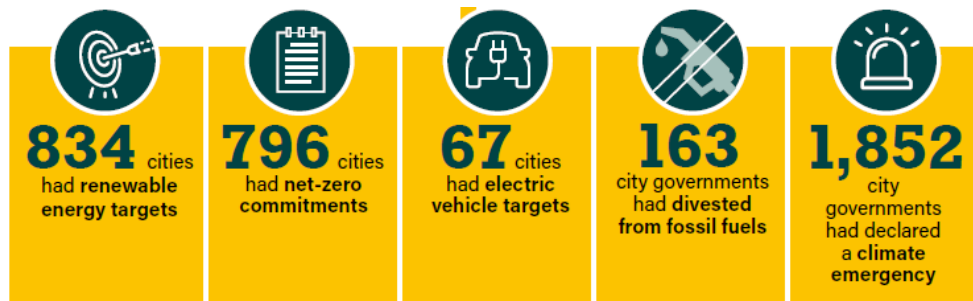
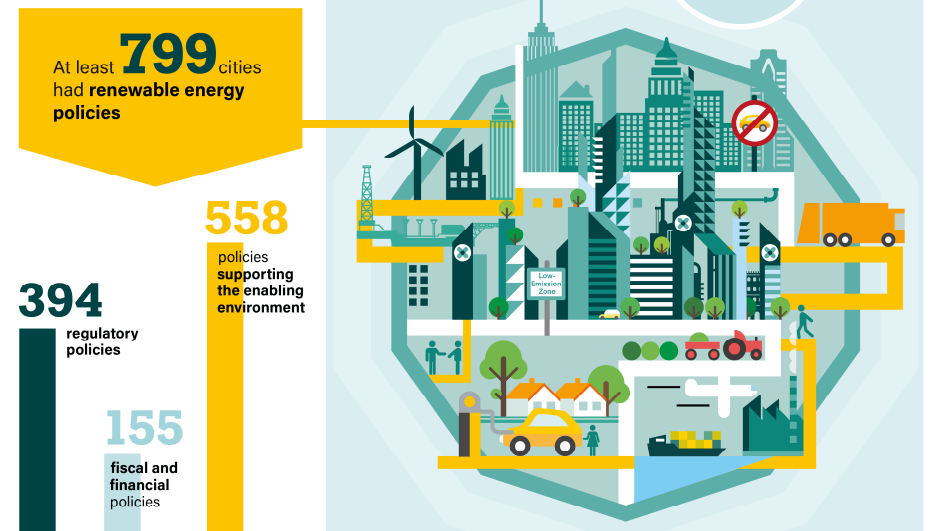
Note: Data should not be compared with previous years because of revisions due to improved or adjusted methodology.
Source: Based on IEA data.

CITIES RECOGNISE RENEWABLES AS AN OPPORTUNITY

OVER 1,300 CITIES HAVE A RENEWABLE ENERGY TARGET AND/OR POLICY

One billion people live in a city with a renewable energy target and/or policy = 25% of urban population

Policies as of the end of 2020:



DRIVERS FOR RENEWABLES IN CITIES

Clean air
and a healthy
environment

Climate change
mitigation and
adaptation

Local economic
development



Energy justice and
democracy

Stable and secure
energy supply



Poverty alleviation
and improved
energy access

Reducing expenses
and managing costs

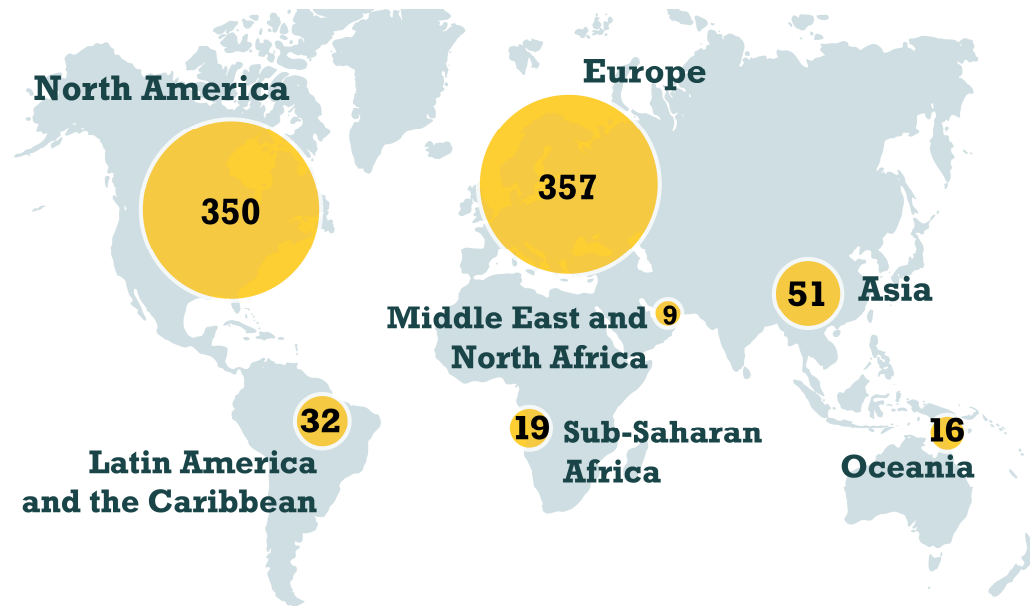


CITIES COMMIT TO RENEWABLES AND NET-ZERO

CITY GOVERNMENTS COMMIT TO RENEWABLES

MORE THAN 830 CITIES IN 72 COUNTRIES HAD RENEWABLE ENERGY TARGETS

Renewable Energy Targets in Cities, 2020

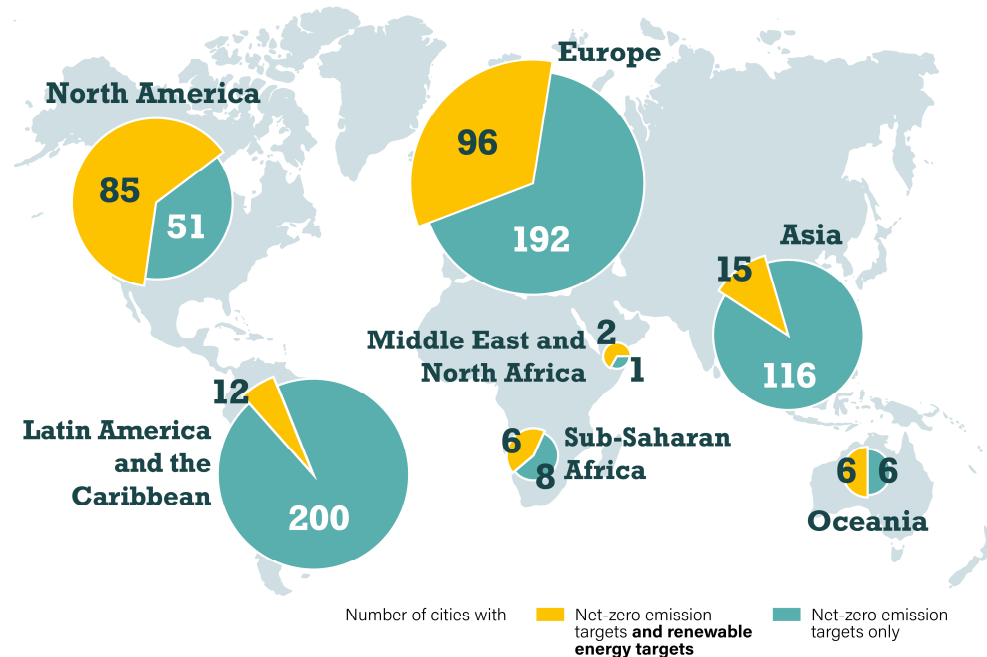


Some cities are **more ambitious than those set by higher levels of government**. Most targets focus on the power sector.

CITY-LEVEL NET-ZERO TARGETS INCREASED EIGHT-FOLD

AROUND 800 CITY GOVERNMENTS IN 63 COUNTRIES HAD NET-ZERO TARGETS

Net-Zero Emission Targets and Renewable Energy Targets in Cities, by Region, 2020



222 city governments have not only **net-zero targets but also renewable energy commitments**



TARGETS NEED POLICIES AND IMPLEMENTATION

CITY GOVERNMENTS LEAD BY EXAMPLE TO DECARBONISE HEAT

Scaling up stand-alone systems



Leading by example to raise awareness



Strategic partnerships with third-party providers



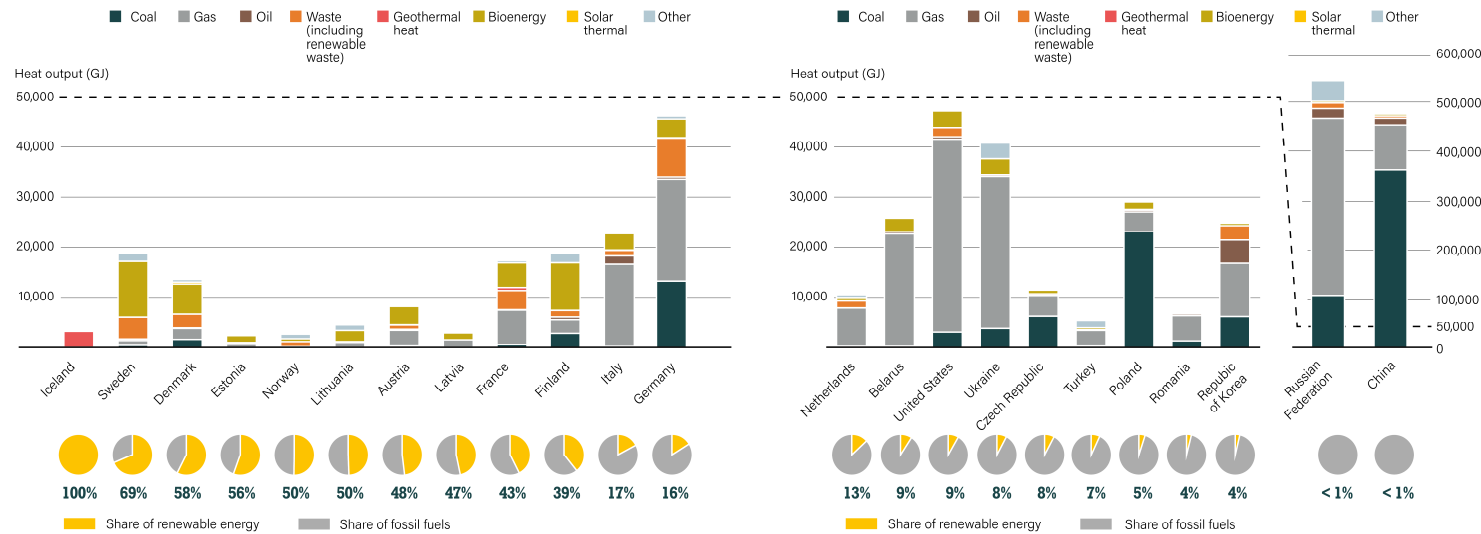
Expanding infrastructure



DISTRICT HEATING RELIES MOSTLY ON FOSSIL FUELS

BUT SOME CITIES ARE TAKING EFFORTS TO SCALE UP RENEWABLES

Renewable Share of District Heating, by Fuel Source, Top Countries, 2018



Iceland, Sweden and Denmark have the highest share of renewables in district heating. Bioenergy remains the most widely used renewable source of district heating.

Note: "Other" includes waste heat recovery, non-renewable electricity, nuclear and any source not otherwise accounted for. Source: Based on IEA data.

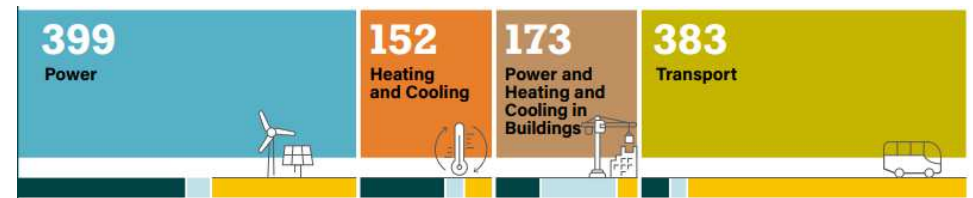
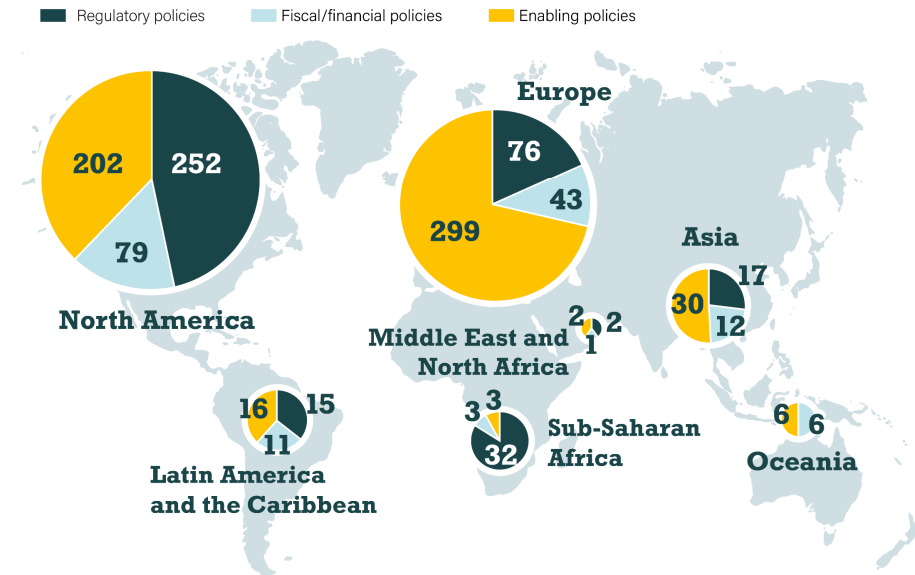
EXPANDING GEOTHERMAL FOR DISTRICT HEATING



CITY-LEVEL POLICY PORTFOLIOS HAVE EXPANDED BEYOND POWER

ALMOST 800 CITIES HAD POLICIES SUPPORTING RENEWABLE ENERGY

Renewable Energy Policies in Cities, by Type and Region, 2020



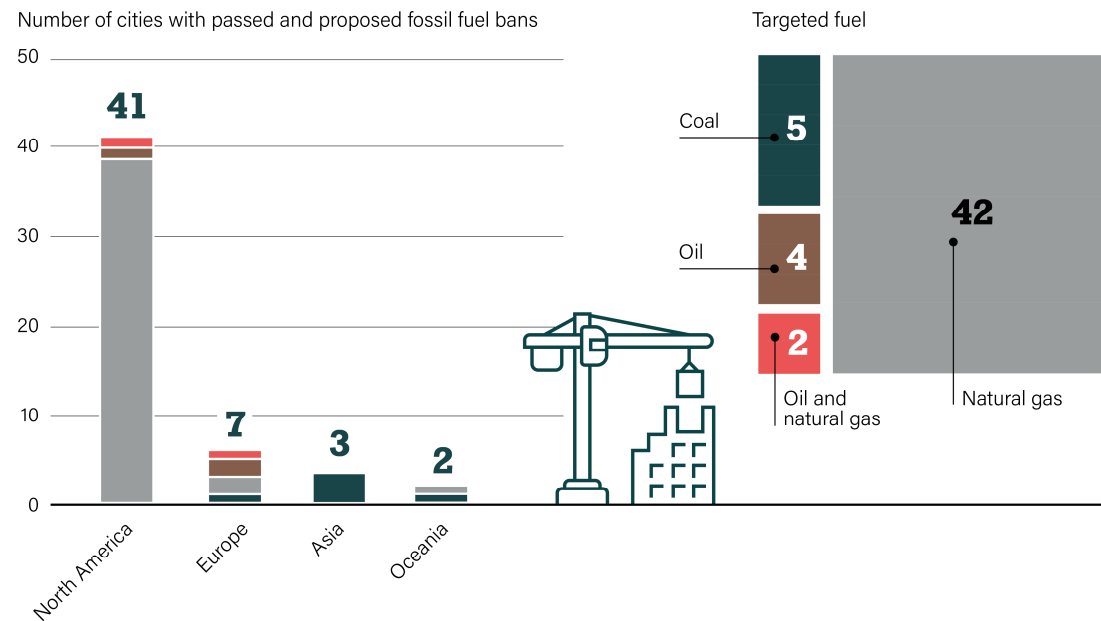
Note: Some city governments have more than one renewable energy policy. Policies in buildings apply in the buildings sector and can include power, heating and cooling and/or transport elements.

Regulatory policies Fiscal/financial policies Enabling policies

FOSSIL FUEL BANS ENCOURAGE RENEWABLES-BASED HEATING

CALIFORNIAN CITIES ARE PIONEERING THE ADOPTION OF BANS ON THE USE OF FF IN BUILDINGS

Fossil Fuel Bans and Restrictions in Buildings in Cities, 2020



At least **53 cities** spanning 10 countries had either proposed or passed a **ban/restriction on the use of fossil fuels in buildings.**

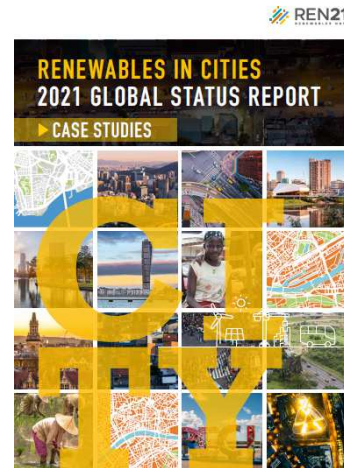
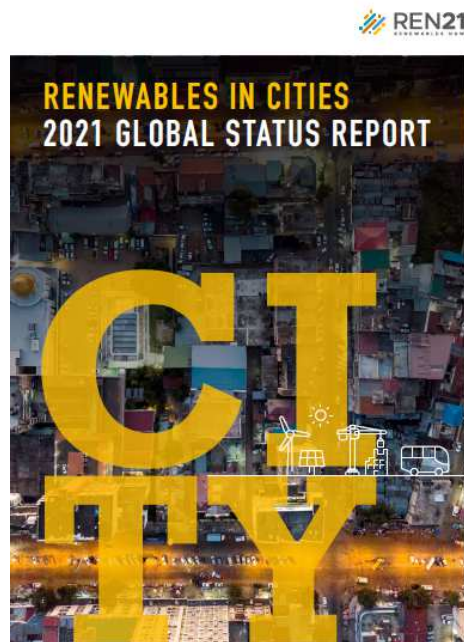
BARRIERS TO CITY ACTION

- **Lacking awareness**
 - Renewables as an urban opportunity
 - Cities may not recognise role they (have to) play
 - National governments may not consider role of cities
- **Lacking legislative power**
- **Access to resources**
 - Capacity constraints in city governments
 - Lacking financial resources, and access to financial markets
- **Conflicting policies and priorities**
 - Market rules and energy regulations set at the national and state/provincial levels
 - National-level subsidies for fossil fuels undermine city actions
- **Lack of skilled labour**
- **Lacking data** to inform decisions
 - Targets need policies and master plans for implementation
 - Tracking to report on progress

Empowering cities to build on their strengths

RENEWABLES IN CITIES 2021 GLOBAL STATUS REPORT

THE ONLY STOCK-TAKING OF CITIES' ENERGY TRANSITION EFFORTS WORLDWIDE





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