

RENEWABLES 2019

GLOBAL STATUS REPORT



Energy Transition and the Role of Women: Where do we Stand Today?

GWNET Webinar
15 October 2019

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2019

REN21 – A policy network to build a sustainable energy future with renewables

Who we are...



What we do...



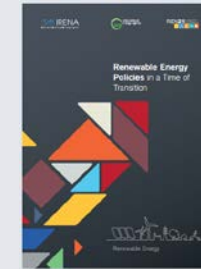
*Global Status Report:
yearly publication since 2005*



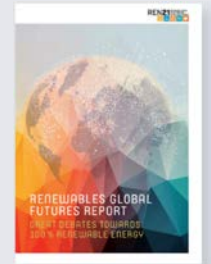
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23-25 October, 2019

Another strong year for renewable energy

→ Total global capacity rose 8% in 2018

→ Non-hydro capacity grew 15%

- 1,246 GW by the end of 2018

→ 181 GW of renewable power added

- Leaders:

Solar PV = 100 GW (55% of new additions)

Wind power = 51 GW (28%)

RENEWABLE ENERGY INDICATORS 2018

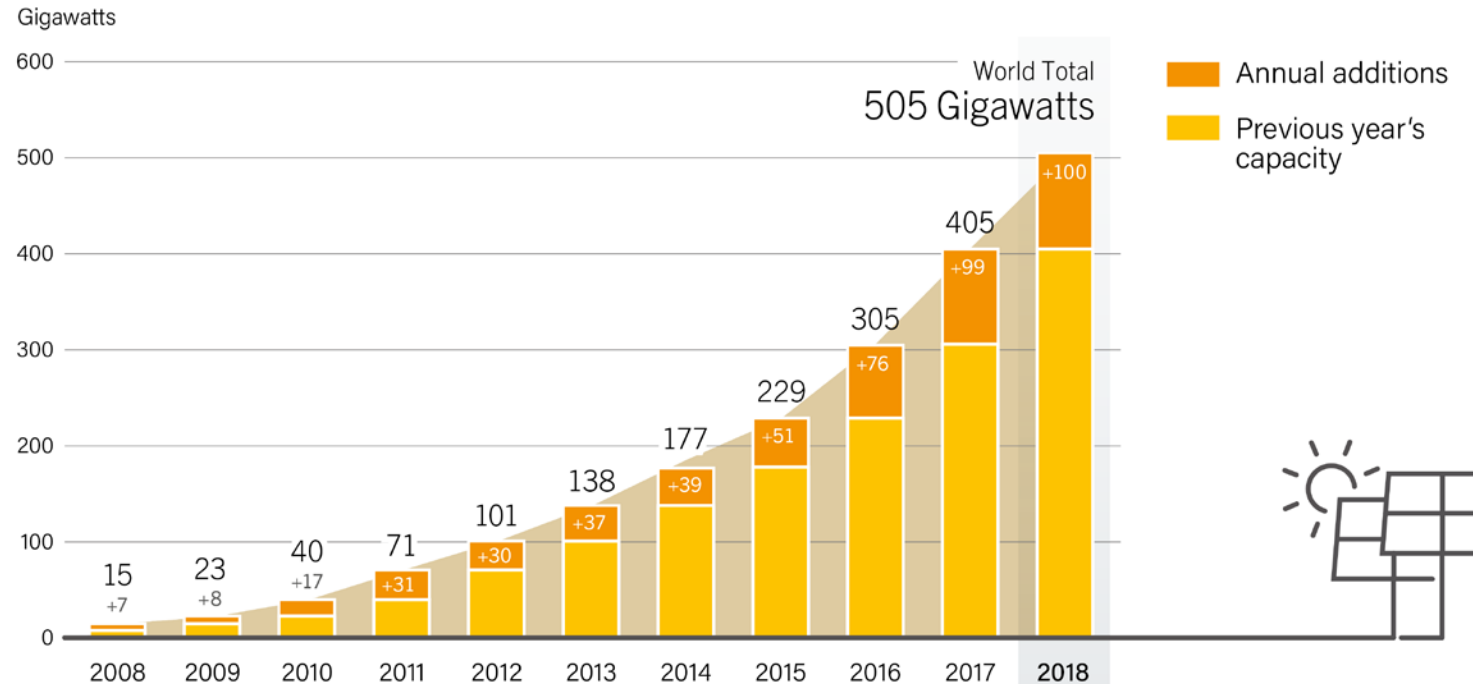
		2017	2018
INVESTMENT			
New investment (annual) in renewable power and fuels ¹	billion USD	326	289
POWER			
Renewable power capacity (including hydropower)	GW	2,197	2,378
Renewable power capacity (not including hydropower)	GW	1,081	1,246
Hydropower capacity ²	GW	1,112	1,132
Wind power capacity	GW	540	591
Solar PV capacity ³	GW	405	505
Bio-power capacity	GW	121	130
Geothermal power capacity	GW	12.8	13.3
Concentrating solar thermal power (CSP) capacity	GW	4.9	5.5
Ocean power capacity	GW	0.5	0.5
Bioelectricity generation (annual)	TWh	532	581
HEAT			
Solar hot water capacity ⁴	GW _{th}	472	480
TRANSPORT			
Ethanol production (annual)	billion litres	104	112
FAME biodiesel production (annual)	billion litres	33	34
HVO biodiesel production (annual)	billion litres	6.2	7.0

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Solar PV capacity additions pass 100 GW mark in 2018

- Solar PV capacity additions were **more than 100 GW** for the first time
- Cumulative capacity reached **505 GW**, an increase of **25%** from 2017
- India: **33 GW**, 5th in the global rankings

Solar PV Global Capacity and Annual Additions, 2008-2018



Note: Data are provided in direct current (DC). Totals may not add up due to rounding.

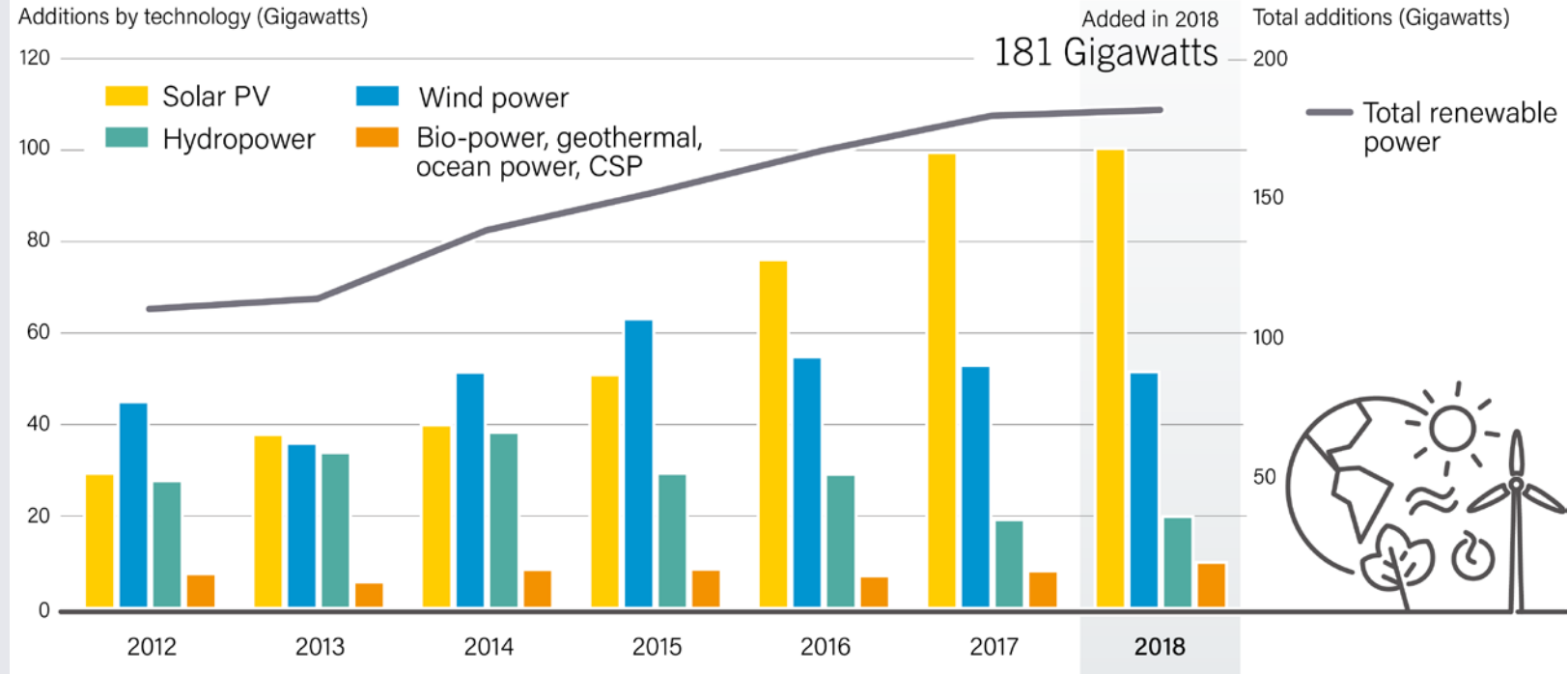
Source: Becquerel Institute and IEA PVPS.

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181 gigawatts of renewable power added in 2018

- Around **55%** of these new additions were solar PV
- Added in 2018:
 - 100 GW of solar PV
 - 51 GW of wind power
 - 20 GW of hydropower
 - 10 GW of bio-power, CSP and geothermal power
- 2018 was the **4th** consecutive year that **more than 50 GW of wind power** was added

Annual Additions of Renewable Power Capacity, by Technology and Total, 2012-2018



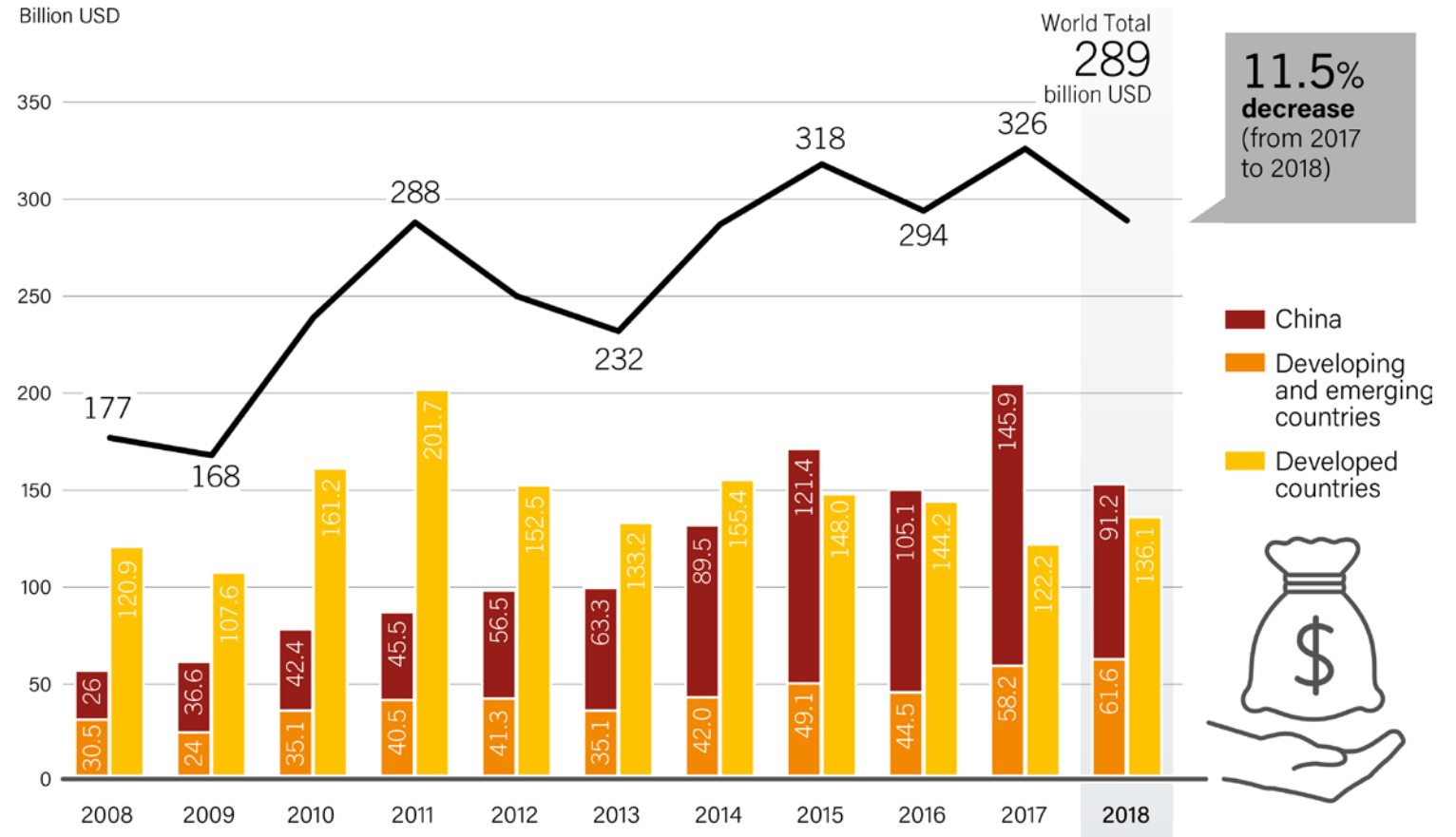
Note: Solar PV capacity data are provided in direct current (DC).

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Investment in renewable energy fell in China, rose elsewhere

- Global investment in renewable power and fuels totalled **USD 288.9 billion**, a decrease of **11.5%**
- **Fifth consecutive year** in which investment topped USD 280 billion
- India: USD 15.4 billion, 4th globally, a decrease of **16%**

Global New Investment in Renewable Power and Fuels in Developed, Emerging and Developing Countries, 2008-2018

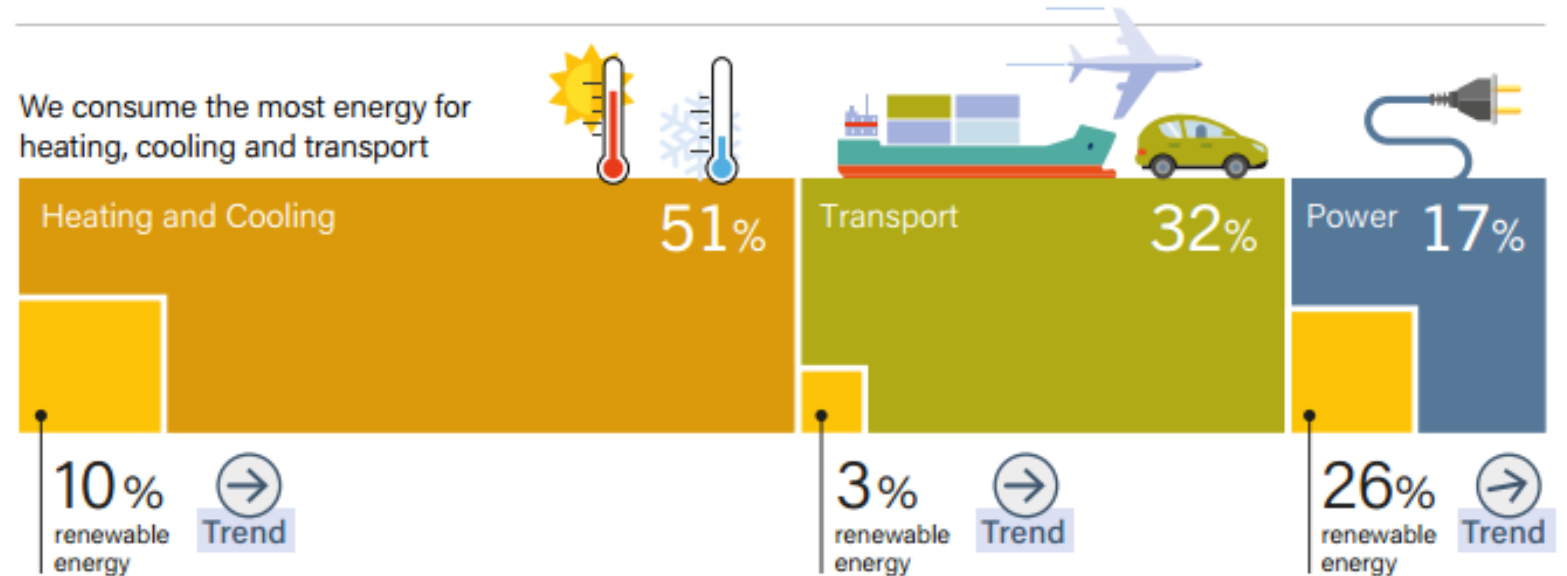


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Source: BNEF.

Beyond power: over 80% of demand for heating, cooling, and transport

- **Over half** of final energy demand is from the heating and cooling sector
 - < 10% of this demand is supplied by renewable energy
- **32%** of final energy demand is for transport end-uses
 - Just over 3% is renewable and primarily met by biofuels
- Around **26%** of electricity was renewable in 2016



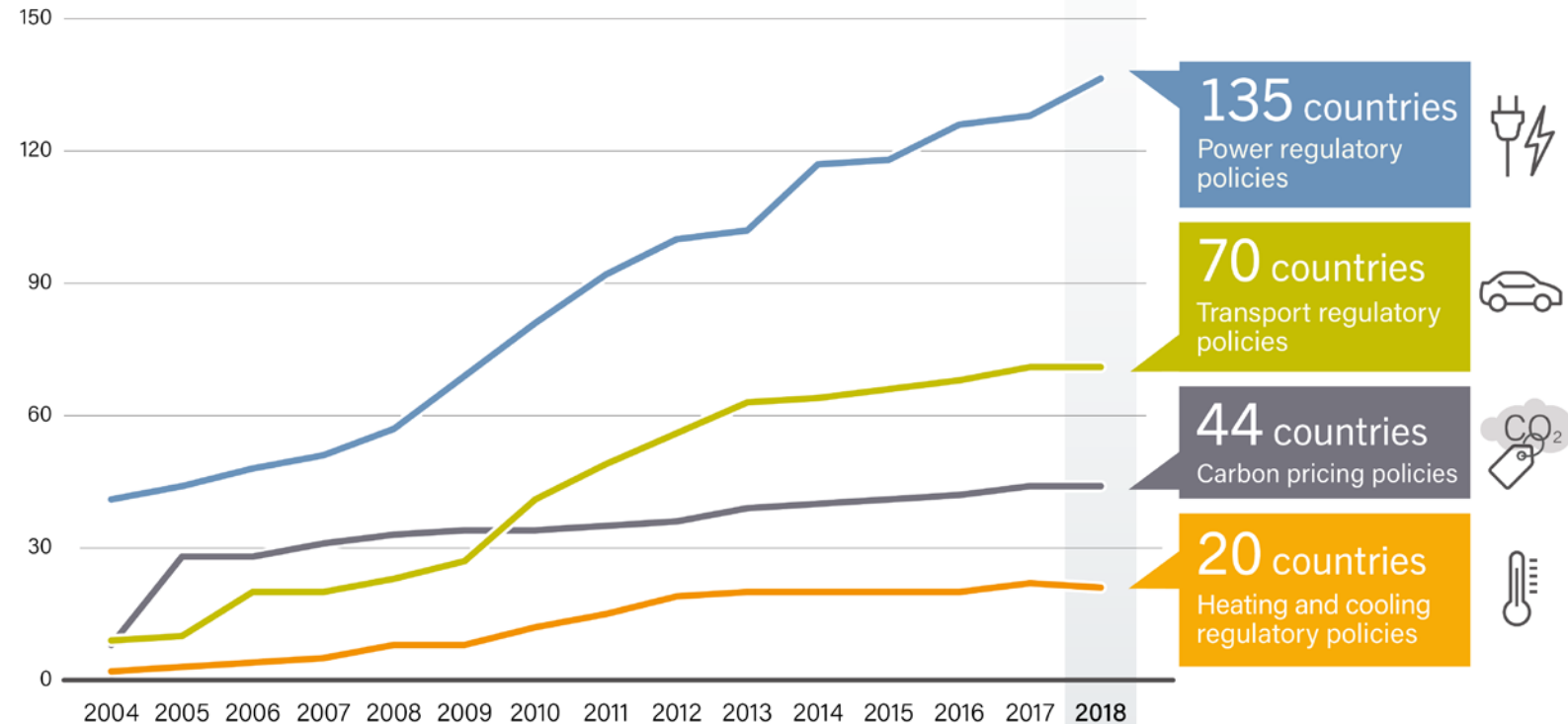
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Source: OECD/IEA

Advances in power made possible by policy support, other sectors lag

- Renewable power **auctions** were held in at least **48** countries
- **FITs** in place in **111** countries
- **No new countries** adopted biofuels mandates
- The number of countries with H&C regulatory policies **fell by 1**

Number of Countries with Renewable Energy Regulatory Policies and Carbon Pricing Policies, 2004-2018

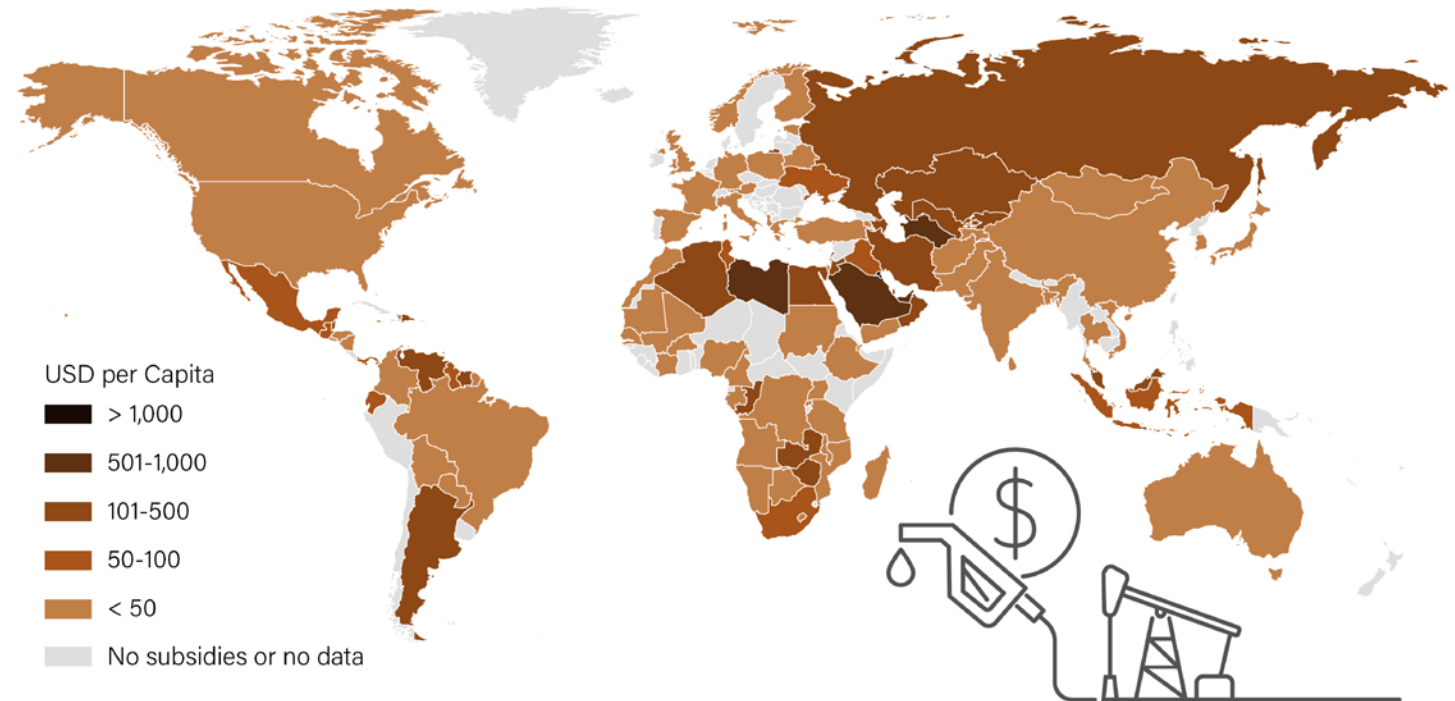


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Not a level playing field: fossil fuel subsidies are still widespread

- Global subsidies for fossil fuel consumption reached an estimated **USD 300 billion** in 2017
 - an 11% increase from the year before
 - about double the estimated support for renewable power generation
- Fossil fuel subsidies remained in place in at least **115 countries** in 2017
- 73 countries provide subsidies of **more than USD 100 million** each

Fossil Fuel Subsidies, per Person, by Country, 2017

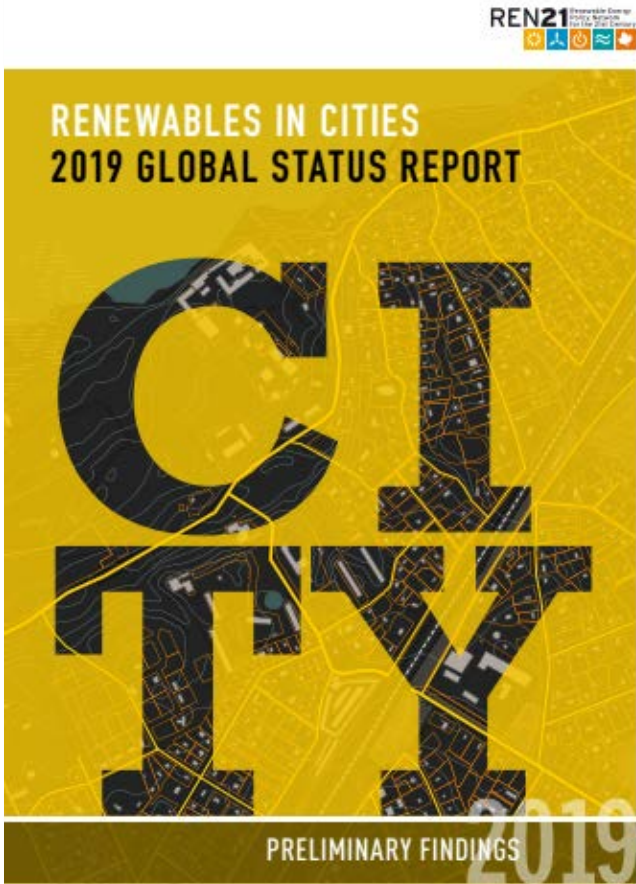


Note: Shading depicts pre-tax consumption subsidies only.

Source: IMF

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Renewables in Cities



London, United Kingdom

Drivers for renewable energy in cities

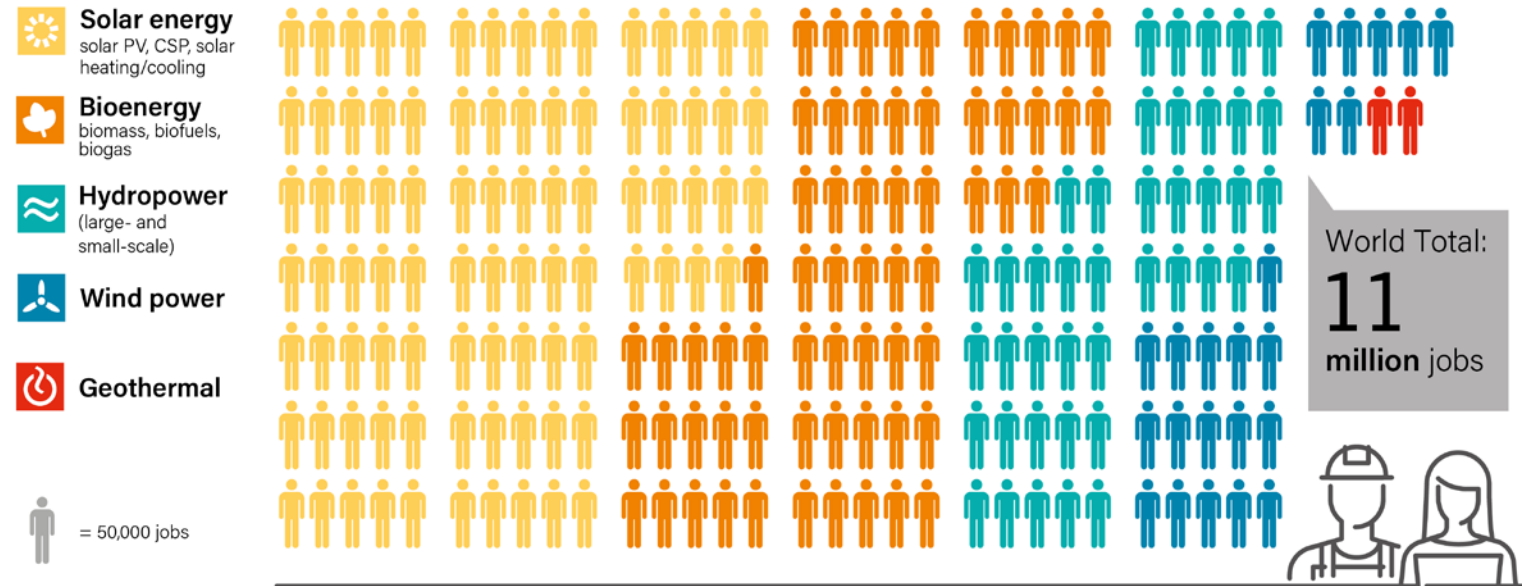


Source:
REN21 Renewable in Cities
2019 Global Status Report
- Preliminary Findings -

Jobs in renewable energy increase again in 2018

- Renewable energy sector employed around **11 million** people worldwide in 2018
- **Solar PV** was again the largest employer of all renewable energy industries
- The largest employer remained **China**, followed by the EU, Brazil, US, and India

Jobs in Renewable Energy



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Source: IRENA.

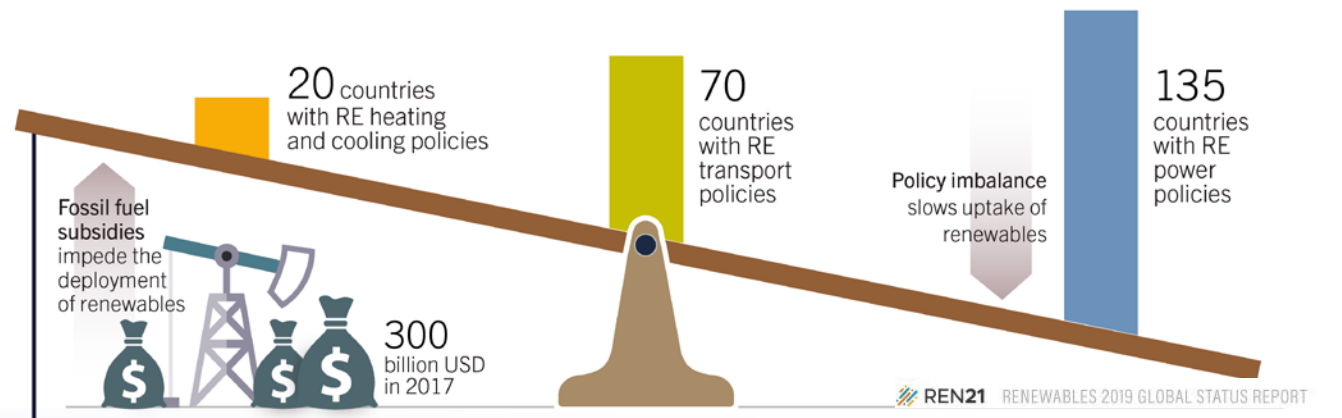
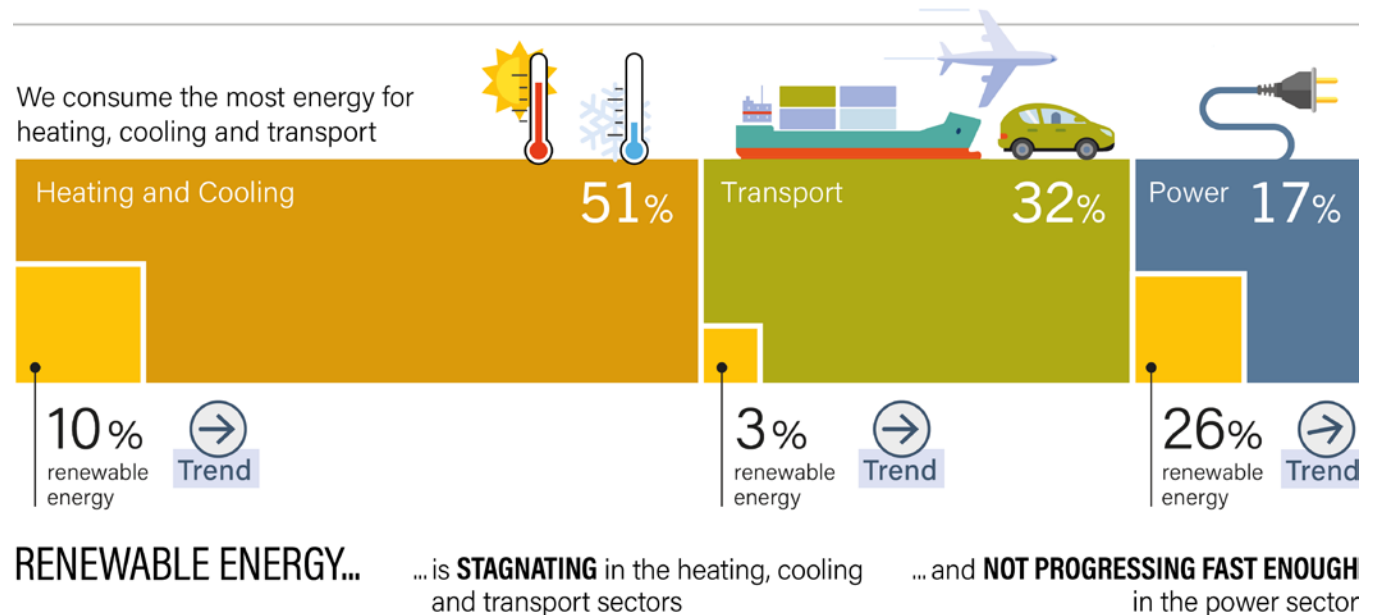
The transition is possible – positive examples are showing the way!

- **Leadership from national governments** is paving the way towards 100% renewables in countries.
- **Cities and sub-national governments** are setting more ambitious policies than their national governments.
- **1000+ organisations**, totalling USD 8 trillion of managed assets, have committed to divesting from fossil fuels.
- The **private sector** has doubled its investment in sourcing renewable power.



From an electricity transition to an energy transition

- Create a level playing field by removing fossil fuel subsidies and adopting carbon pricing
- Create sustainable **market conditions**
- **Encourage sector integration** among power, heating and cooling, and transport and build on energy consuming sectors
- **Align policies** across the national, sub-national and local levels
- **Link to energy efficiency** in renewable energy policy initiatives
- Use policies and regulation to **change perception**



Renewable Energy Policy Network for the 21st Century



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