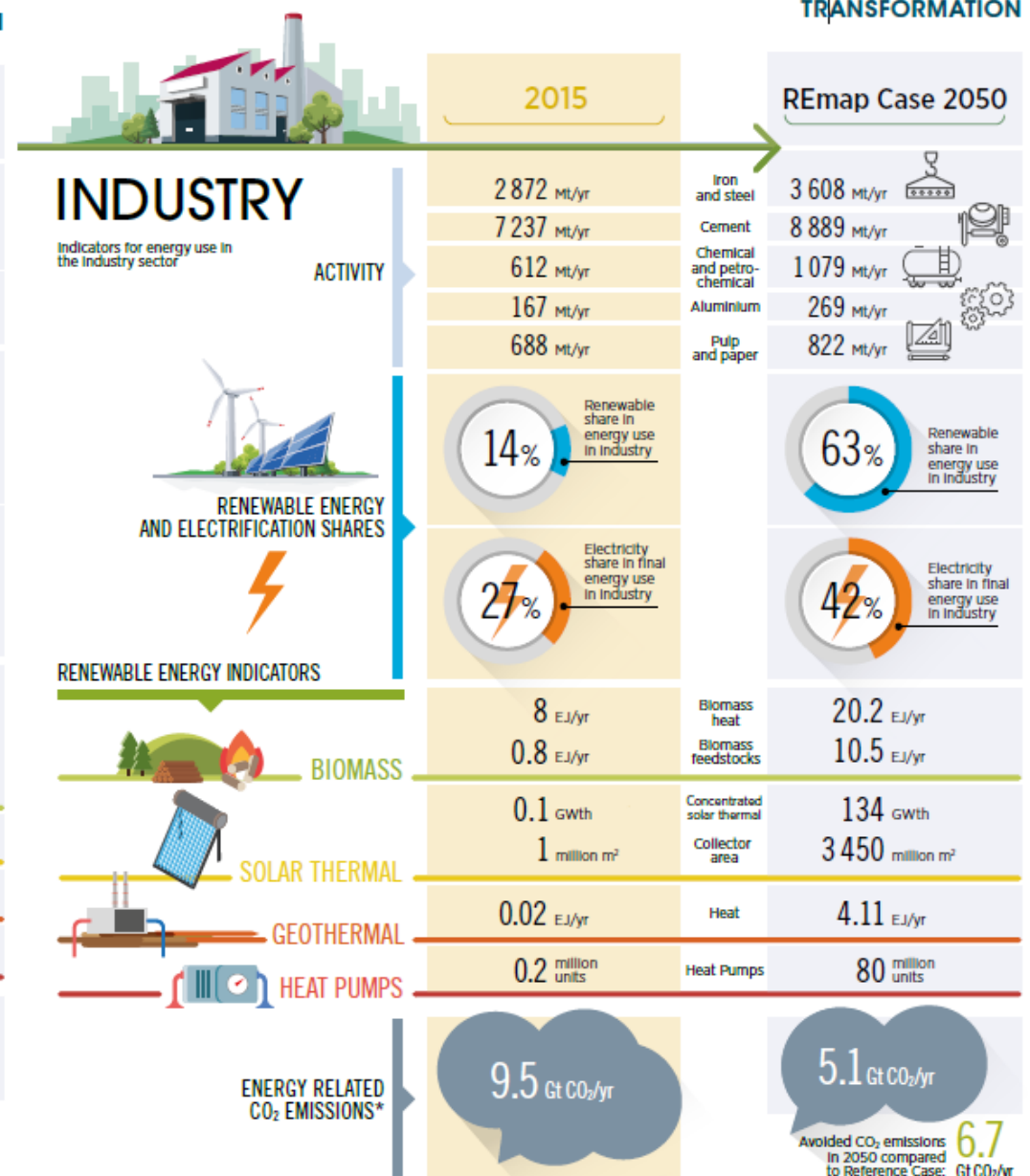
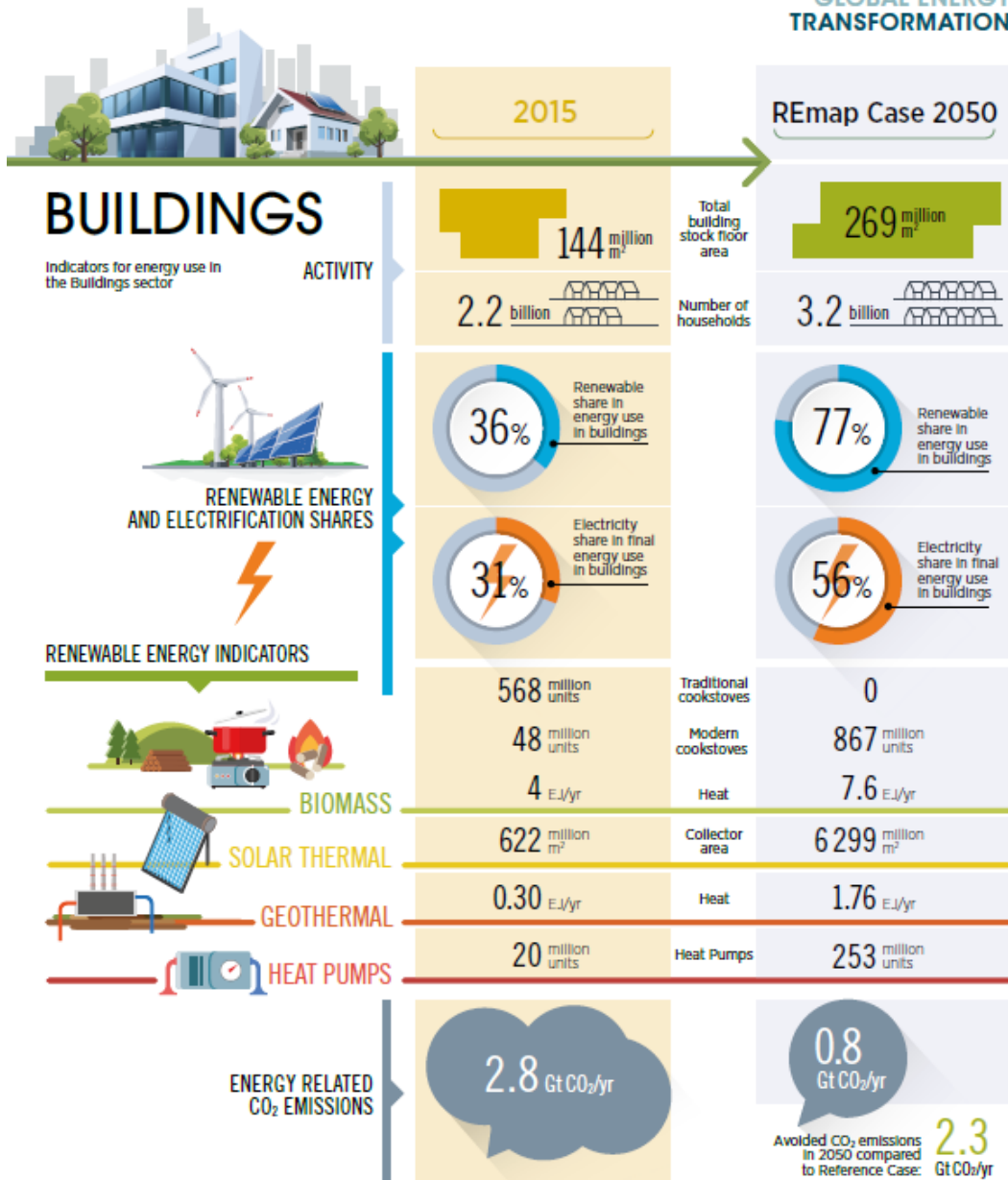


21. Les perspectives énergétiques

21.4.3 – IRENA Global Energy Transition ROAD MAPS

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INVESTMENT

Total investments for decarbonisation for the period 2015-2050

39.6 USD trillion



STRANDED ASSETS

for the period 2015-2050

Delayed Policy Action
10.8 USD trillion

REMap Case 2050
6.6 USD trillion

INVESTMENT

Total investments for decarbonisation for the period 2015-2050

5.0 USD trillion



STRANDED ASSETS

for the period 2015-2050

Delayed Policy Action
0.75 USD trillion

REMap Case 2050
0.23 USD trillion

POWER

Indicators for energy use in the Power sector

RENEWABLE ENERGY SHARE IN TOTAL ELECTRICITY GENERATION

RENEWABLE ENERGY INDICATORS

HYDROPOWER

WIND

SOLAR PV

CSP

BIOENERGY

GEOTHERMAL

OTHERS (incl. marine, hybrid)

ENERGY RELATED CO₂ EMISSIONS

INVESTMENT

Total investments for decarbonisation for the period 2015-2050

POWER GENERATION
24.6 USD trillion

POWER SYSTEM FLEXIBILITY AND GRID*

18 USD trillion

STRANDED ASSETS

for the period 2015-2050

2015

REMap Case 2050

20 204 TWh/yr

41 508 TWh/yr

24%

85%

1 248 GW
155 GW of which pumped hydro

1 828 GW
325 GW

411 GW
399 GW Onshore
12 GW Offshore

5 445 GW
4 923 GW
521 GW

223 GW

7 122 GW

5 GW

633 GW

119 GW

384 GW

10 GW

227 GW

0.3 GW

881 GW

12.4 Gt CO₂/yr

1.9 Gt CO₂/yr

Avoided CO₂ emissions in 2050 compared to Reference Case: 8.8 Gt CO₂/yr

Delayed Policy Action 1.4

REMap Case 2050 1

TRANSPORT

Indicators for energy use in the Transport sector



RENEWABLE ENERGY AND ELECTRIFICATION SHARES

ENERGY INDICATORS

ELECTRIC MOBILITY

BATTERY STORAGE

BIOFUELS

ENERGY RELATED CO₂ EMISSIONS

INVESTMENT

2015

REMap Case 2050

22 921 billion passenger-km/yr

16 945 billion passenger-km/yr

6 643 billion passenger-km/yr

92 481 billion tonne-km/yr

Passenger cars

Buses, 2/3 wheelers, rail

Aviation

Freight

43 076 billion passenger-km/yr

27 493 billion passenger-km/yr

21 666 billion passenger-km/yr

216 500 billion tonne-km/yr

4%

Renewable share in energy use in transport

1%

Electricity share in final energy use in transport

1.24 million vehicles

0.02 million vehicles

200 million vehicles

Passenger vehicles

Buses and light duty vehicles

2/3 wheelers

965 million vehicles

57 million vehicles

2160 million vehicles

0.5 GWh

Storage

12 380 GWh

129 billion liters

0.4 billion m³

Liquid biofuels

Other biofuels Biomethane

902 billion liters

23 billion m³

7.7 Gt CO₂/yr

3.1 Gt CO₂/yr

Avoided CO₂ emissions in 2050 compared to Reference Case: 7.6 Gt CO₂/yr

Total investments for decarbonisation between 2015 and 2050

14.2 USD trillion