

COPPER'S ROLE IN RENEWABLE ENERGY

Copper is critical for renewable energy technologies with applications in cabling, wiring, heat-exchange, and more.



GOVERNMENTS around the world are taking action to accelerate the energy transition.

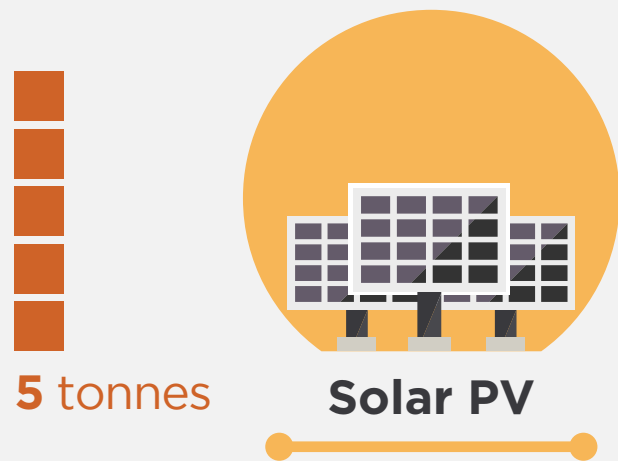
As of 2020, there were:

- **617** Cities with **100% renewable energy targets**
Source: REN21
- **1,852** Cities with **climate emergency declarations**
- **>10,500** Cities with **emission reduction targets**

The Copper Intensity of Renewable Energy

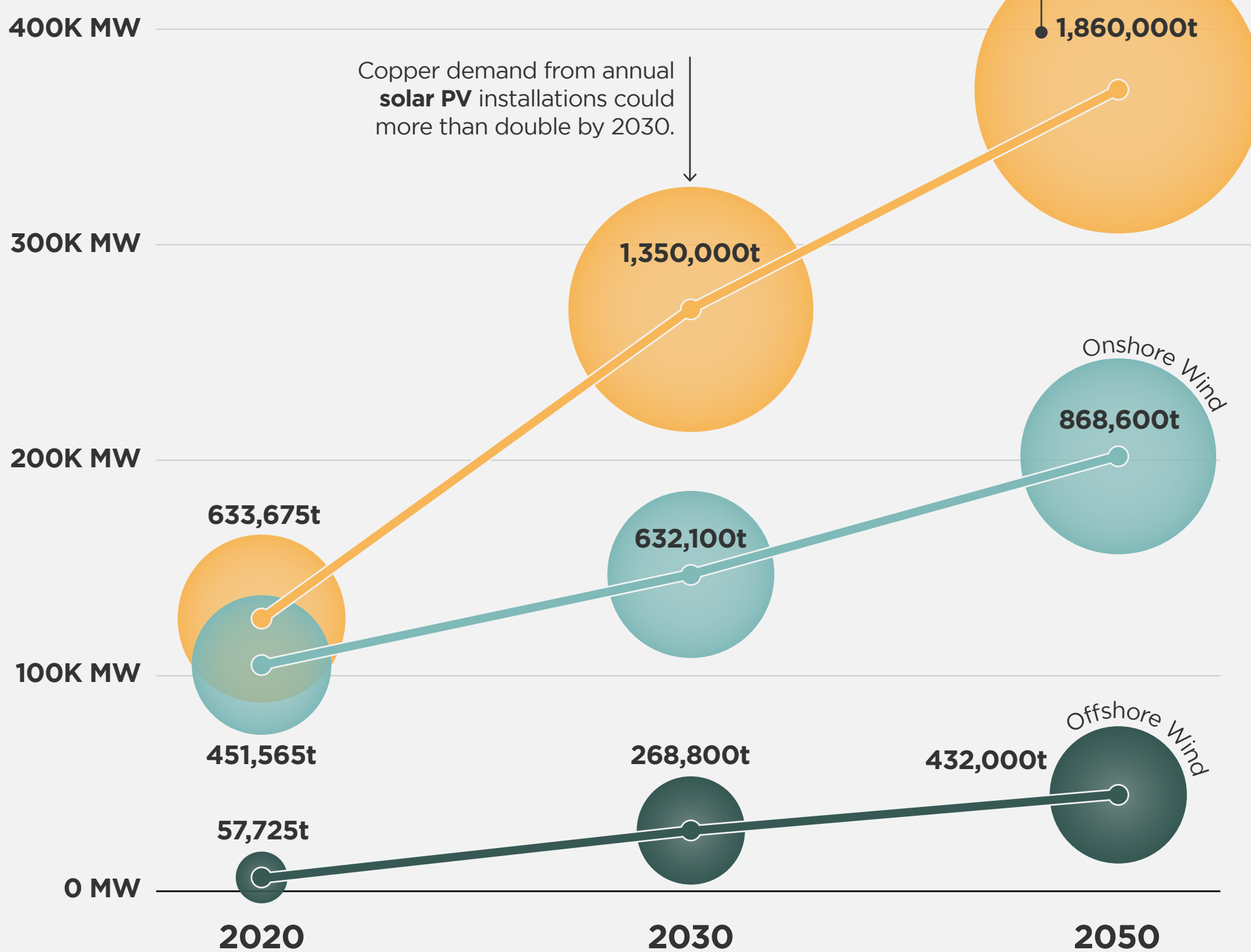
As the adoption of solar and wind technologies grows, so will the need for copper.

Copper content per megawatt (MW):



Cabling accounts for the bulk of copper usage in offshore wind farms.

Annual Installed Capacity (megawatts)



Copper demand from annual solar PV installations could more than double by 2030.

*2030 and 2050 projected annual installations are based on IRENA's REmap scenario
Sources: IRENA, Navigant Research, Copper Alliance

By 2050, renewable energy technologies could require **>3M tonnes** of copper annually—15% of global mine production in 2020.

This demand represents just three technologies, and the overall copper market is expected to be in a >500,000-tonne deficit in 2021.

New copper mines and additional mining capacity will play a key role in meeting copper's rising demand.