

# ***Renewables 2023 Global Status Report collection***

## **Renewables in Energy Supply**

### **North America Factsheet**

#### **Key Headlines in 2022**

- There is a growing focus on electrification and the use of renewable energy sources such as heat pumps for space heating and water heating.
- **The United States** attracted most renewable energy investment among developed economies. However, investments continued to decline in recent years, falling 10% to USD 49.5 billion due to difficulties with supply chains, roadblocks in permitting and grid connection, the fall-off in available federal tax credits (which was reversed during the year), and continued uncertainty about tariffs and other trade measures
- The **United States** is the world's second biggest producer and consumer of hydrogen after China, accounting for 13% of global demand.
- The share of renewables in the electricity mix rose from 19% to 29% over the past decade. Wind power's share increased from 3.3% to 9.6%, and solar power's share rose from 0.11% to 4.3%.

#### **Key drivers**

- Political leaders are driven by the need to mitigate the impacts of climate change, protect the environment, and preserve natural resources for future generations.
- The potential for economic growth and prosperity that comes with the renewable energy transition.

#### **Key challenges**

- Well-established fossil fuel industries, which can create resistance and conflicts of interest during the energy transition.
- Policy uncertainty, grid integration, and managing the transition away from fossil fuels.

#### **Technologies**

##### **Bioenergy:**

- The **United States** had the third largest installed biopower capacity in 2022 with a total of 11 GW.
- In 2022, the **United States** was the largest producer of wood pellets globally.

##### **Geothermal:**

- **The United States** remains the global leader in installed geothermal capacity, with more than 2500 MW.

##### **Heat pumps:**

- For the first time, US annual heat pump sales eclipsed annual sales of gas boilers driven by state and local policies.
- In 2022, the US heat pump market grew 11% to reach a record of 4.3 million units sold.

- In **Canada**, the levelised cost of heating with heat pumps was competitive with a fossil gas boiler alternative during 2022.

#### **Hydrogen:**

- The United States is investing USD 9.5 billion to boost clean hydrogen development as part of the Infrastructure Investment and Jobs Act of 2021.

#### **Hydropower:**

- **Canada** ranked third in both total hydropower installed capacity and generation, representing 7% of global capacity. An additional 1 GW came online in 2022.
- In **the United States**, the world's fourth largest producer of hydropower, generation increased 4% in 2022 to reach 262 gigawatt-hours (GWh), representing 6.2% of the country's energy mix.

#### **Solar PV:**

- **The United States** added only 18.6 GW of solar PV capacity during the year, down 16% from 2021 levels, to reach a cumulative capacity of 141.6 GW. The slowdown was partly due to an anti-dumping investigation that led to a halt in shipments from module manufacturers.

#### **Concentrating Solar Thermal Power:**

- **The United States** has not developed or planned any CSP projects since 2015. Around 1.3 GW of CSP capacity remained in operation in 2022.

#### **Solar Thermal Heating:**

- **The United States** ranked fifth in solar thermal heaters sales in 2022. The country added 617 MW<sub>th</sub>, bringing its total solar thermal capacity to 18.2 GW<sub>th</sub>.

#### **Wind:**

- 12% of global new grid-connected wind power capacity in 2022 was added in North America.
- The **United States** continued to rank second for new capacity additions (8.6 GW). However, there was a 37% decline in installations, recording the country's lowest annual additions since 2018, due to supply chain constraints, grid interconnection issues and policy uncertainty.
- No new offshore wind capacity came online in 2022 in the United States. However, investment nearly tripled to reach USD 9.8 billion and there is nearly 16.7 GW of capacity in advanced development stage.