Trends in Australia
Facts from the *Renewables in Cities 2021 Global Status Report*

Key Takeaways on Renewable Energy in 2020 in Australia

- Most of the renewable energy targets are aimed at increasing the share of renewables in the electricity mix with a significant number of cities setting 100% renewables targets.
- Renewable PPAs gained momentum in Australia, with several major cities negotiating PPAs in 2019 and 2020 to help achieve their ambitious renewable electricity goals.
- Increasing efforts made by municipal governments and private actors in cities in Australia to link EV charging to renewables.

Brand new data shows

- 13 cities had renewable energy targets and/or policies (from a global total of over 1,300 cities). This covers 14.8 million people, 68% of the urban population in Australia:
  - 11 of these cities had 100% renewable target, 3 of them have achieved the targets – all for municipal operations – as of 2020 (**Adelaide**, **Sydney** and **Newcastle**).
- Australian cities are lagging behind: 9 cities had net-zero[1] targets in 2020(up from 3 in 2019).
- Australian cities are frontrunners in declaring climate emergencies: 98 cities in Australia had declared climate emergency by 2020 (up from only 85 in 2019); worldwide 1,852 cities have such a declaration.

2020 Renewable Energy Developments in Australian Cities

City renewable energy commitments and policies
- Several cities with 100% renewables target have recently achieved their goal:
  - **Melbourne** became the first Australian city to use 100% renewables to power its streetlights and municipal buildings in 2019.
  - The city of **Adelaide's** municipal operations has been po wered by 100% renewables since July 2020.
  - **Sydney** achieved its goal of meeting 100% of municipal electricity demand (buildings, facilities and streetlights) in 2020.
  - **Newcastle** achieved 100% renewable electricity consumption of all Council assets as of 1 January 2020.

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[1] Net-zero" emissions can be achieved, for example, by using natural sinks, such as reforesting land or adopting agricultural best practices, or through a technological solution, such as carbon capture and storage. Net-zero targets also are referred to commonly as "climate-neutral", "carbon-neutral" or "zero-emission" targets, although technically these are not the same. Carbon neutrality refers to net-zero emissions of only CO_2, whereas climate neutrality indicates a broader focus on net-zero emissions of all greenhouse gases. There is no agreed-upon definition, and implementation of these targets also varies broadly.

- **Newstead** is the only city in Australia that set 100% renewables generation target in 2020.
- On a global scale, Australian cities are lagging behind on setting net-zero targets: only 9 cities have net-zero targets (from a global total of around 800 cities with net-zero targets). Notable exception: While most cities have targeted 2050, **Adelaide** aims to become net zero by 2025.
- In 2018, Australian Capital Territory (**Canberra**) committed to procure only zero emission buses by 2021.
- In 2020, **Adelaide** implemented new financial incentives for the installation of renewable energy and energy efficiency technologies such as solar systems and EV charging in apartments, houses and commercial buildings.

Scaling up renewables in buildings and transport
- **Accelerating on-site generation of renewables:**
    - Households in cities in Australia have driven small-scale investment in renewables, with more than 25% of Australian homes now being fitted with rooftop solar PV.
    - The University of Monash (**Melbourne**), Australia's largest university, in 2019 it launched in 2019 a Net Zero Initiative to achieve 100% renewable energy by 2030.
    - **Adelaide** completed a 12 MW ground mounted solar PV project at its main drinking water pumping station in 2020 to meet its electricity needs with 100% renewables.
    - The town of **Mosman, Greater Shepparton** and **Shoalhaven**, have installed rooftop solar PV on local sports facilities.
    - In 2020, **Mareba Shire** Council (Queensland) installed 10 solar-powered off-grid public lights, which helped the council save more than 30% on lighting costs.
- **First gas-free suburb:** The district of Ginninderry (**Canberra**) succeeded in overturning state-level laws that would have made natural gas supply mandatory for new construction, enabling the community to establish one of Australia's first "gas-free" suburbs. In 2020 the suburb started a trial to provide subsidised residential battery storage.
- **Several cities initiated or strengthened efforts to increase penetration of renewables in transport through vehicle electrification and EV charging infrastructure.**
    - As of 2019, **Adelaide** had installed 49 EV fast-charging points, which the city planned to run on 100% renewable electricity.
    - Electric waste collection trucks went into service in **Adelaide**, **Casey**, and **Yarra** during 2020, with the electricity used for recharging **Adelaide's** truck being offset by a 36-kW solar PV system.
    - **Brisbane** local companies began building fuel cell passenger ferries in 2020 that are expected to be fueled with renewable hydrogen.
    - In 2020, the e-commerce delivery company Sendle rolled out electric delivery vans powered by rooftop solar PV in western **Sydney**.
    - In the city of **Keith**, Chargefox, Australia's largest EV charging network, opened the country's first ultra-rapid charging station, delivering 100% renewable electricity.

Financing renewables in cities

- **Sydney** signed an AUD 60 million (USD 46 million) PPA for electricity supplied mainly from a 270 MW wind farm and a 120 MW solar PV farm (plus a 3 MW community solar project) in New South Wales.
- In 2017, **Melbourne**, 14 public and private institutions including the city, banks, universities and local councils signed a collective PPA to enable the construction of an 80 MW wind farm:
  - In 2020, the city has facilitated a power purchase agreement for businesses across the city, as part of the second wave of the **Melbourne** Renewable Energy Project.

Citizen engagement to achieve energy and climate goals
Community energy projects have emerged across Australia:
- Australia's biggest solar garden (1 MW) started construction in the town of **Grong Grong** in 2020 with the aim of allowing citizens to become involved in renewable energy production but are unable to for various reasons (including living in an apartment, renting their property, heritage challenges or a lack of knowledge about solar panels).
- In the Meadow Springs suburb of **Mandurah** (Australia), the PowerBank Community Storage System enables 52 individual prosumers to store excess energy from their solar panels in a shared battery facility.
- The town of **Yackandandah** in Victoria state hosts 3 microgrids and a power storage project, all of which stem from a 100% volunteer run initiative that aims to achieve energy sovereignty by 2022.
- In 2020, the Local Power Plan – consisting of USD 483 million of grant funding – was launched the by Independent Federal Member for Indi to scale up community ownership of renewable energy projects in Australia. The renewable energy hub in **Narrabri** (New South Wales), established in September 2020, is one of 50 planned hubs under the programme.
- In **Newstead,** the local government is developing a 5 MW community solar project on a public plot and offering residents the option to sign up for 100% renewable electricity via a local retailer that will own and operate the project.

Australia's Energy Profile
https://www.iea.org/countries/australia

Regional Trends
- Many Pacific island nations have turned to renewables to decrease their dependence on fossil fuel imports, reduce energy costs, and increase energy security and resilience, with most of these efforts being dominated by national and/or sub-national governments.
- In Australia and New Zealand, momentum is growing for renewable energy in cities, also facilitated by rising concerns about climate change and energy insecurity.
- By the end of 2020, 114 municipal governments in Australia and New Zealand had declared a climate emergency, and 15 cities had a renewable energy target in place, including several cities that have committed to (or already achieved) 100% renewable energy targets.

Questions? Please contact press@ren21.net or +33 1 44 37 50 99.
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