

## Australia's Green Energy Transition: Vast Opportunities for Danish Exporters

*Australia is accelerating investments in renewable energy and green buildings, creating a strong basis for deeper partnerships and growing exports in fields where Danish experience and solutions can support Australia's green energy and building transition.*

### Australia's energy sources: Coal, oil and gas dominate

Australia is a major energy producer and exporter. Over the past two decades, Australia's total energy supply has increased. The overall picture remains one of strong reliance on fossil fuels. Coal, oil and gas products dominate Australia's energy mix, and accounted for 90% of energy supply (2024). This means that the country's energy security is closely linked to domestic coal and gas production and to international commodity markets. While the share of coal has decreased, natural gas and oil products have both increased over the past two decades.

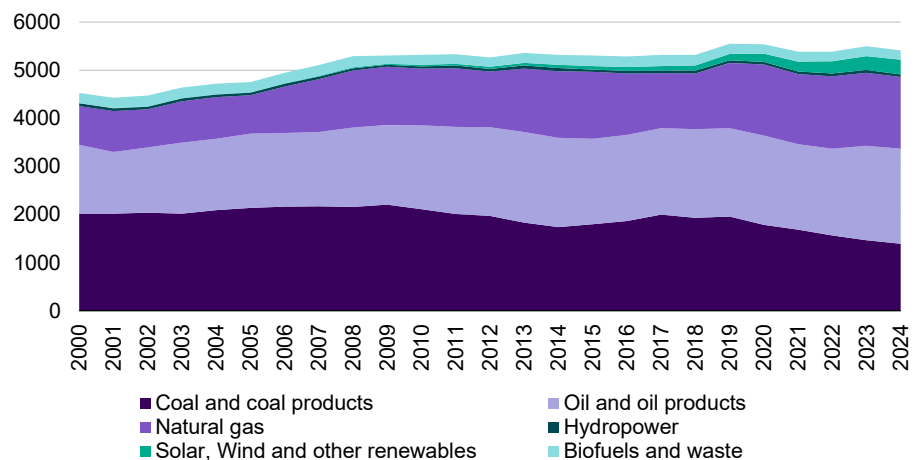
Renewable energy sources such as hydropower, solar, wind as well as biofuels and waste have seen solid growth in recent years but still represent a relatively modest share of total supply of around 10% (2024).

**Total energy supply in Australia has increased over the past 25 years**

**Strong supply dominated by coal, oil and gas**

**Rise in renewable sources the latest years**

**Total energy supply in Australia (TJ)**



Source: IEA Australia Energy Mix

**Goals for emission reductions of 43% by 2030 and 62-70% by 2035 and net zero emissions by 2050**

**Target of 82% renewables in electricity by 2030**

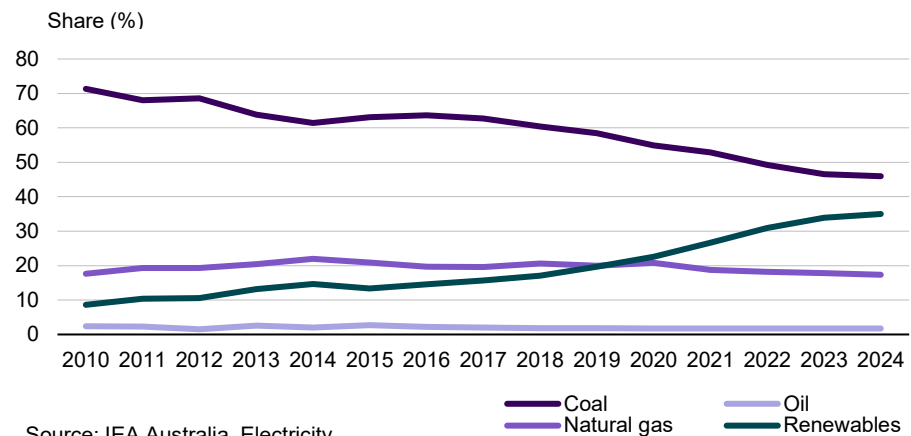
**Electricity mix rapidly evolving, with a strong increase in renewable sources**

Australia has a significantly higher carbon intensity than many other advanced economies. Australia has embarked on the green transition from a strong position as an energy producer and exporter. The federal government has committed to reducing greenhouse gas emissions by 43% below 2005 levels by 2030 and to achieving 82% renewable electricity generation by 2030. It has subsequently announced a 2035 target of 62–70% emissions reductions – a stepping stone towards net zero emissions by 2050.

### **Rapid growth in renewables: A greener power sector**

Australia’s power sector is undergoing a remarkable shift and the country has seen a strong build-out of wind and solar power. As a result, Australia’s renewable electricity generation has quadrupled, and the share of green power in the electricity mix is now significantly higher than it was just a few years ago. This development is clearly visible in the figure below. Coal as a power source has diminished. At the same time, generation from renewables has increased significantly and continues to rise year on year. According to IEA, renewable sources thus accounted for 35% of electricity production in 2024. According to Australia’s Clean Energy Council, the share has already reached 40%. In spite of variations in statistical method/definitions, both sources document the fast green transition in electricity.

### **Share of electricity generation sources**



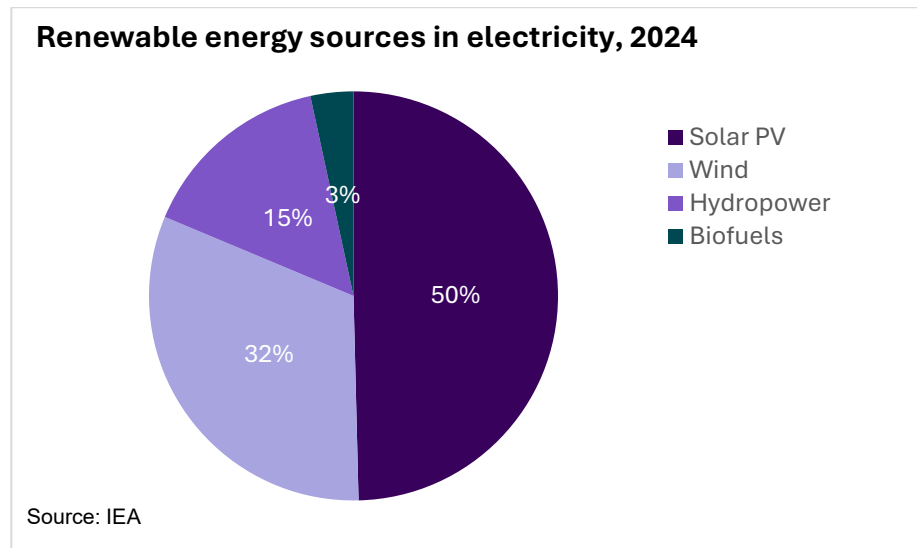
Source: IEA Australia, Electricity

**Australia’s rapid green electrification creates a clear pathway for modern energy solutions**

For Australia, this offers a pathway to reduce emissions while improving energy security and modernising infrastructure. For international partners such as Denmark, it creates a growing demand for solutions that can integrate large shares of wind and solar, balance fluctuating generation and enable efficient electrification in buildings.

Among the renewable energy sources for electricity, solar PV is the largest contributing 50% of total RE based electricity in 2024. Wind comes second at 32% with an installed capacity over 15 GW and firm growth rates of 14% annually on average for the past 10 years. Thus, wind is set to play a large

role in achieving the national target of up to 82% renewable energy sources in the electricity generation by 2030, more than a doubling from today.



**Around 23% of Australia’s final energy consumption is linked to buildings**

### **Green buildings on the rise**

The strong expansion of renewables means that a substantial and growing share of Australia’s electricity is now produced without direct CO<sub>2</sub> emissions. This creates new options for decarbonising other parts of the energy system. As the power mix becomes greener, electrification becomes a key lever for reducing emissions in buildings, transport and industry. In other words, the rapid growth in renewable electricity does not only change how power is produced – it also opens the door for a broader, system-wide transition.

A significant share of final energy consumption takes place in residential buildings and the services sector, with this share of Australia’s final consumption of energy reaching 23% in 2023. This makes the buildings sector an important instrument for reducing Australia’s fossil fuel dependence and overall energy demand.

**Need for 250,000 new homes to be built annually unlocking large investments in greener buildings**

Construction will be particularly brisk in the next several years. With high population growth and a downward trend in household sizes, there will be a need to build 250,000 new homes per year, significantly more than the current level of 180,000.

Australia’s National Construction Code has gradually been revised to reflect stronger carbon emission targets – particularly in the field of insulation and energy efficient systems and controls (for commercial buildings). The Green Building Council of Australia promotes New Zero Carbon Buildings got new buildings by 2030 and for all buildings by 2050.

Australia is taking decisive steps toward net zero by investing heavily in sustainable construction, urban retrofitting, and smart housing. According to

Arup (2023), Australia needs to invest 131 billion DKK (18 bill. Euro) annually to achieve its green ambitions for buildings.

**Stable export level with project-driven historic peaks**

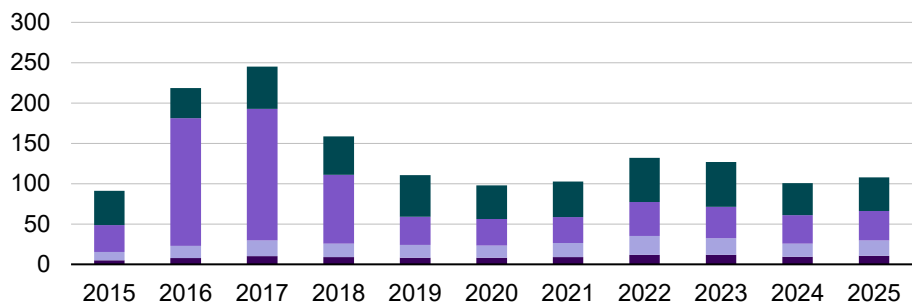
**Danish energy technology exports around 100 mill. Euro per year**

### Danish exports of energy solutions to Australia

From 2015 onwards, total annual exports of Danish energy technology to Australia has been around 100 mill. Euro, with several years above this level. This variation has mainly been driven by wind energy exports, closely linked to the timing of large individual projects. In years with major wind projects, total exports have spiked; in years with fewer project deliveries, the export value has typically been around 100 mill. Euro. Preliminary data show that 2025 witnessed an increased export value of 7% - bringing the total value up to 108 mill. Euro / 800 mill. DKK.

#### Danish exports of energy technology to Australia

Mill. Euro



■ Heating & cooling ■ Bioenergy ■ Windenergy ■ Other energy technologies

Source: Eurostat and calculations by DI Danish Energy Industries Federations

Note: The figures measure only goods crossing the Danish border

**Wind energy is a large factor in Danish exports of energy technology – but other energy technologies play significant roles too**

Heating and cooling technologies, bioenergy solutions and other energy technologies contribute more steadily to the export figures, but wind explains most of the visible peaks throughout the period. Overall, the data underline that Denmark has established itself as a significant and reliable supplier of energy technology to Australia in recent years – and that the commercial relationship is already operating at a substantial scale, which can be further expanded as Australia accelerates its green transition.

Australia's national targets – 82% renewable electricity by 2030 and 43% CO<sub>2</sub> reduction from 2005 levels – combined with today's share of renewables at around one third of electricity generation and persistent grid constraints, underline the need for large-scale investment and system solutions

**Danish involvement and partnership in many aspects of the green energy transition**

### Government co-operation – committing for the future

Denmark and Australia have significantly upgraded their green co-operation in recent years. The Denmark–Australia Strategic Partnership Agreement (July 2023) sets the overall federal framework for collaboration on climate, energy and the green transition. It is complemented by state-level agreements, notably the Denmark–New South Wales Net Zero Emissions

MoU from 2022, which focuses on decarbonisation, energy systems and knowledge sharing, including staff secondments between authorities.

Under the Danish Energy Agency's global energy co-operation programme (EGP), a task force on Australia was launched in 2025 to deepen regulatory co-operation on offshore wind with the federal government and the states of Victoria and New South Wales. At federal level, the dialogue covers offshore wind legislation, spatial planning, environmental assessments and auction design; at state level, it concentrates on grid connection, ports and local implementation.

The government-to-government framework positions Danish authorities and companies as natural partners in addressing these challenges and supports a deeper, long-term green trade partnership between the two countries.

### **Danish Industry in Australia**

DI is present in Australia through an associate partner which provides assistance for Danish companies in market analysis, sparring on the optimal go-to-market strategy, recruitment, company establishment, and more.

Further, DI undertakes frequent business delegations and exchanges with Australian partners in the sphere of energy and green transition, enabling member companies to build and strengthen their business relations to the Australian market.

**DI has a commercial focus and local presence in Australia – supporting trade and partnerships in green energy and buildings**