



## Energy Affordability: Sharing Lessons from the EU and Australia's Low Carbon Transitions

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### EXTENDED ABSTRACT

What can we learn about different approaches to the challenges of keeping energy bills in check and mitigating hardship for vulnerable consumers by employing a comparative analysis between the EU and Australia? This question is at the heart of a joint **EU-Australia** project that combines analysis of energy prices and analysis into impacts for vulnerable groups<sup>1</sup>. We discuss how shared features shape the efforts and performance on **energy efficiency, affordability, and energy poverty**. Our comparative perspective enables us to draw insights on best practice approaches to address energy affordability including energy efficiency and sufficiency, financial support, regulatory instruments, and governance and regulatory architecture.

### Introduction

The affordability of energy is a key concern for households in the European Union and Australia. Many fear that the decarbonisation of the electricity sector will mean higher prices, but does a cleaner, greener electricity system necessarily mean rising costs for consumers? Or can electricity decarbonisation lead to improvements in affordability? The EU and Australia govern through supranational (EU) and supra-regional (Australian Federation) arrangements, both electricity markets cross vast physical space and jurisdictional boundaries and there is variegation of experiences across member states (EU) and subnational states (Australia) in terms of market liberalisation and progress of the energy transition. Different jurisdictions across the EU and Australia are grappling with similar issues, but there are some significant differences in the approaches and experiences that both can learn from. We analyse how these diverging factors have shaped governance and outcomes for energy affordability. We further compare energy prices and developments between a range of EU member states and Australia and assess impact factors over time. Finally, we assess how, by whom and if at all vulnerability and energy poverty are defined, measured, and reported.

### Price and cost structure comparison

The decline in the share of electricity produced using fossil fuels and the increase in renewable generation over the last decade has been more policy-driven in the EU than in Australia. Renewables have reduced wholesale electricity prices and we observe a decoupling of household electricity prices and the CO<sub>2</sub> intensity of electricity supply. In the medium term, the situation is, however, more complex, and lower wholesale prices (along with higher CO<sub>2</sub> prices) will encourage the early exit of fossil fuels. As can be seen in Australia, the interaction of uncoordinated coal closures in small and weakly interconnected markets may cause volatile price dynamics. In a larger market and with a higher level of interconnectivity such as in the EU it is easier to absorb

<sup>1</sup> Chandrashekeran, S. et al. 2022. [Energy Affordability: Sharing Lessons from the EU and Australia's Low Carbon Transitions](#).

shocks such as a loss in capacity. Expanding the network to accommodate the increasing supply of renewable energy is likely to add costs to other parts of the retail bill, and result in a shift towards more fixed costs in both the EU and Australia. The exact size of network costs borne by consumers depends on a range of factors including geography, the way in which networks are regulated, the (expected) rates of return by the operators and other market factors, such as interest rates. Therefore, while renewable energy may lower wholesale costs in the long term, the overall impact on retail electricity prices is more complex. A key difference between the EU and Australia is the contribution of environmental levies to the total cost of electricity. Across the EU, environmental levies and taxes represent a quarter of retail electricity prices compared with less than 10% in Australia. EU Member States are, however, successively phasing out these levies and replacing them by other financing mechanisms.

## The uneven impacts of energy prices

While the average EU household pays more for electricity and heat than their Australian counterpart, the distribution of electricity and heating costs is much more unequal in Australia. Lower income groups pay significantly more for electricity than higher income groups, in relation to their household income, when compared with the EU. To address these uneven impacts Australia takes an agency-focused approach to affordability that emphasises capabilities of households, irrespective of income and wealth, and seeks to promote market participation and the exercise of choice for all households. This is now translating into the debates on consumer agency and protection in the roll out of new energy technologies. However, we argue that a combination of both top down and bottom up (voluntary and regulatory) approaches are required. The approach in Australia can drive bottom-up cultural changes and engage industry, which can be effective and long lasting, but only when implemented rigorously and when flanked by other measures. The EU's regulatory approach focuses instead on ensuring a just and fair transition that leaves no one behind. This includes a bold framework for alleviating energy poverty<sup>2</sup>, which includes developing a coherent definition of energy poverty, criteria for measurement, and tools to collect data and undertake measurement, evaluation, and monitoring. The EU discourse emphasises alleviating energy poverty and energy efficiency measures are a major cornerstone of EU and Member State efforts in relation to energy poverty. The implementation of policies to tackle energy poverty is however left to the individual countries and the extent to which energy poor households are actually supported through instruments and measures varies greatly<sup>3</sup>.

## Conclusion

The research, discussions, and action around energy poverty in the EU demonstrate the need for socially and spatially specific understanding of affordability and hardship because there is no one-size-fits-all solution. To alleviate hardship associated with energy poverty and energy vulnerability, the EU takes a more co-ordinated and top-down approach than Australia, where consumer choice and voluntary regulation for companies are favoured. We argue that Australia can learn from the EU experience of developing a coherent definition, criteria for measurement, and tools to collect data and undertake measurement, evaluation and monitoring. It is difficult to address the problem of energy hardship or poverty if the nature of the problem, its causes and drivers, and various manifestations are not well understood. The creation of institutions that monitor and report on energy poverty, elevates the profile of the phenomenon and marshals resources to research and develop strategies and interventions. The cross-sectoral nature of the phenomenon of energy poverty requires coordination across social, economic, environmental policies and Australia must therefore approach affordability within their specific context.

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<sup>2</sup> European Commission. 2021. [Commission Recommendation of 14.10.2020 on energy poverty](#). Brussels.

<sup>3</sup> Noka, V. and Cludius, J. 2021. [Vulnerability, Energy Poverty and Affordability for EU Households](#). Oeko-Institute. Working Paper 9/2021.