



How should Western Sydney embrace renewable and resilient energy to help achieve net zero emissions by 2050?

Western Sydney is a place of great opportunity and potential. There is significant economic growth and investment in public infrastructure, delivering a Gross Regional Product of \$54Bn. With a rapidly rising population, current estimates are that half of Sydney's population will live west of Parramatta by 2036¹. But these opportunities are faced with significant challenges, including rising inequality, social divisions, and the impacts of climate change.

In their "Vision of A Metropolis of Three Cities", The Greater Sydney Commission set out a series of economic, social and environmental Objectives. 'Objective 33' aims towards net-zero emissions by 2050. Yet Western Sydney's economic, infrastructure and population growth means that the three sectors that contribute most to greenhouse gas emissions – energy used in buildings (electricity and gas), transport and waste – are growing rapidly too.

As well as this, the gap between Western Sydney and coastal Sydney temperatures is widening. From 1965 there has been a 250% increase in the number of very hot (above 35C) days per year in Western Sydney, compared to a 22% increase for coastal Sydney². The Greater Sydney Commission further highlights how heatwaves are estimated to cause more deaths in Australia than any other hazard. This extreme heat also places strain on the electricity networks as the large demand for AC causes damaging spikes in electricity usage.

Resilient Sydney in 'A strategy for city resilience 2018' argue for the need to enable access to renewable and resilient energy, highlighted as 'Action 11' of 'Direction 2 – Live with our climate'. Especially with extreme weather being the biggest cause of electricity network failure in Sydney, alongside flooding³.

While the need to embed renewable and resilient energy in Western Sydney is clear, the challenge is how to get the diverse range of stakeholders to collaborate effectively to deliver on this. With multiple layers of government, different agencies and departments, businesses, NGOs, communities and residents looking to address this, there is a very real risk that a lack of communication, co-ordination and collaboration means the opportunity to embed renewable and resilient energy is missed.

So how should we all ensure that Western Sydney is able to embrace the renewable and resilient energy needed to achieve net-zero emissions by 2050?

This is the challenge set to 500 students from Western Sydney University as part of the Western Sydney City Challenge program 2020.

1. <https://invest.nsw.gov.au/invest/locate/western-sydney/third-city>

2. <https://www.parliament.nsw.gov.au/committees/DBAssets/InquirySubmission/Summary/39702/08%20-%20Greening%20Australia.pdf>

3. https://www.cityofsydney.nsw.gov.au/__data/assets/pdf_file/0013/303700/Resilient-Sydney-A-strategy-for-city-resilience-2018.pdf