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Monash University and ENGIE commit to long-term alliance to support decarbonisation of cities and the grid

Monash University and global energy company [ENGIE](#) have committed to a long-term alliance until 2030, following two years of collaboration to advance Monash's UN award-winning [Net Zero Initiative](#).

The Monash ENGIE Alliance follows the [signing of a Memorandum of Understanding](#) announced in June 2021 to explore opportunities to co-develop scalable zero-carbon solutions.

Monash University's Chief Operating Officer and Senior Vice-President, [Mr Peter Marshall AM](#), said the University is fully committed to transitioning towards net zero campuses.

"Together with ENGIE, we have completed a detailed [Net Zero Transformation Roadmap](#) for the Clayton campus focusing on four key elements that will collectively allow the University to reach its target," Mr Marshall said.

"We will be optimising our on and off-site supply of renewable energy generation, upgrading existing buildings for energy efficiency and developing all-electric District Heating and Cooling (DHC) Systems."

ENGIE Australia & New Zealand Chief Executive Officer, Mr Augustin Honorat, said the Alliance offers ENGIE the opportunity to demonstrate what an integrated net zero precinct looks like in Australia and the chance to co-develop solutions of the future with Monash, a leading organisation both in the research and education of the net zero ambition.

"We are both passionate about sustainability and committed to delivering concrete outcomes. So this is a great opportunity to utilise ENGIE's global network of expertise and delivery to enable Monash and its students to achieve net zero and to take those learnings to other cities and precincts," Mr Honorat said.

A core element of the Alliance is the Net Zero Solutions Fund to which Monash and ENGIE will contribute in order to develop new solutions to help precincts and cities achieve net zero.

The intent of the Solutions Fund is to tackle the range of technological, economic, policy and social barriers to achieving net zero emissions at the city scale and by doing so, accelerate the global energy transition.

An example of how the Alliance will advance Net Zero Solutions is the [Net Zero Precinct ARC Linkage project](#) led by the Monash Sustainable Development Institute (MSDI) in collaboration with Monash Art, Design and Architecture, the Faculty of Information Technology, the Faculty of Arts and ENGIE Research. The project will help cities and urban regions reach net zero emissions by using design anthropology to engage with the precinct community. This new approach to transition management will be tested over the next four years through three 'Living Lab' experiments across energy, mobility and buildings in the [Monash Technology Precinct](#).

Deputy Director (Research) at MSDI, Professor Rob Raven, said net zero emissions in cities cannot be achieved without the support of, and collaboration between, communities, government, industry and universities.

“Combining and extending insights from sustainability transitions and design anthropology, we hope to discover new ways of accelerating net zero urban transformations at the precinct scale that are socially desirable and achievable,” Professor Raven said.

Mr Honorat said ENGIE Research would play a key role in the partnership: “As part of our commitment to accelerate the transition to a carbon neutral economy, ENGIE invests EUR190 million annually into research and development, supporting 900 researchers worldwide. ENGIE Research is actively working on the energy solutions of tomorrow and collaborating with a university like Monash serves to accelerate the development and commercialisation of these solutions.

“It is also critical that we translate the practical lessons we have already learnt into education and professional development so that others can benefit from and participate in the transition,” Mr Honorat said.

In line with Monash’s new Strategic Plan, [Impact 2030](#), the Alliance will also see the development of a new ‘real-time’ net zero approach to support the decarbonisation of cities and the energy grid.

The adoption of a real-time net zero approach that looks at aligning renewable energy generation and consumption will help eliminate carbon from the grid and take advantage of the near-zero generating variable cost of wind and solar.

This will be achieved through the replacement of natural gas equipment with high efficiency heat pumps and the development of large-scale thermal storage. Along with AI-driven optimisation, this will dramatically improve energy efficiency and flexibility. This real-time net zero approach, to be adopted across all Australian campuses, will also substantially reduce Monash’s exposure to energy and carbon pricing, and showcase a scalable model that can enable the transition of Australia’s electricity sector at lowest cost.

ENGIE Net Zero Energy Solutions Chief Development Officer, Anna Quillinan, said the proposed ENGIE-developed DHC System would lead to reduced energy consumption, lower carbon emissions as well as provide valuable lessons for future zero carbon activities.

“Reducing energy consumption for essential services, such as heating and cooling, should be a priority on any organisation’s zero-carbon journey,” Ms Quillinan said.

“Our proposed solution for Monash’s Clayton campus removes the need to use natural gas for heating and when complemented with thermal energy storage facilities, heating and cooling can be provided to multiple buildings with much greater efficiency and flexibility.”

Monash University’s Interim Deputy Vice-Chancellor (Enterprise and Engagement) and Senior Vice-President, Mr Damien Farrell, said: “Monash is delighted to continue its deep and enduring partnership with ENGIE to help achieve our net zero emissions by the 2030 target, develop new solutions, build capacity and address barriers to help others on their net zero journey.

“The Alliance reaffirms Monash’s continuing commitment to engage strategically with industry partners to support mutual growth. We are looking forward to the advancement towards net zero targets that this partnership will enable – not just for the University, but for the communities in which we work, live and engage,” Mr Farrell said.



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To read more about the Monash's Net Zero Initiative, please visit: monash.edu/net-zero-initiative

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