

6 October 2023



To the Victorian Department of Energy, Environment and Climate Action,

Thank you for the opportunity to make a submission in response to [Victoria's Renewable Gas Consultation Paper](#). [Beyond Zero Emissions](#) (BZE) is an independent, solution-focused think tank focused on a prosperous zero-emission future and we welcome this consultation (and as a side note, commend its use of the term 'fossil gas').

We are in favour of electrification and energy efficiency as an approach to achieving emissions reductions this decade. BZE is supportive of the Victorian government's recent ban on gas connections to new homes and the focus on electrification and energy efficiency across households and commercial buildings. We note the importance of this approach in *existing* residential and commercial buildings too, our [Deploy](#) and [Million Job Plan](#) reports both discuss pathways for this.

In Table 1 of the consultation paper we were pleased to see exclusion of fossil gas for residential and commercial buildings, this is an important enabler - providing multiple industries with certainty over future product development and deployment.

In this table we also note that for the industrial high heat categories there are already high-temperature heat pumps that can perform beyond 95°C, to at least 160°C, with the potential for 200°C. Our [Electrifying Industry](#) report talks about technologies such as mechanical vapour recompression heat pumps that can perform up to 200°C (p51) and newer electromagnetic heating technologies that can operate at temperatures up to 3000°C (p61).

As noted in the paper, gas combustion is currently the predominant source of heat for industrial processes, followed closely by coal. These fossil fuels are used for the manufacturing of alumina, certain other nonferrous metals, bricks and ceramics, and glass and glass products. However, a comprehensive suite of renewable energy alternatives can fulfil all industrial heat requirements, offering diverse energy options. These options include geothermal energy, renewable electricity, renewable hydrogen, and solar thermal energy. Our [Electrifying Industry](#) report discusses how and where green hydrogen can be used to decarbonize existing industries.

BZE advocates for the establishment of [Renewable Energy Industrial Precincts](#) (REIPs) as the most efficient way to decarbonize existing industrial centres. REIPs are clusters of energy-intensive manufacturing facilities powered by 100% renewable energy. They are located in existing regional manufacturing areas and take advantage of the highly skilled workforce and existing infrastructures. BZE has identified three REIP locations in Victoria: the Latrobe Valley, Geelong, and Portland.

These place-based clean industrial hubs decarbonise our existing industries, while also paving the way for the emergence of new cleantech industries and businesses. BZE's

recent report, [Safeguarding our Future](#), demonstrates the additional benefits and emissions reduction that can be achieved by coordinating investment into these precincts, notably the delivery of economies of scale for common-use infrastructure such as green hydrogen pipelines to power these precincts.

We hope you find our comments valuable and would welcome the opportunity to discuss this further.

Yours Sincerely,

Dr Jane Sewell

Head of Research, Beyond Zero Emissions