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Infrastructure SA
GPO Box 2343
Adelaide SA 5001

submitted via webform: <https://submissions.infrastructure.sa.gov.au/>

To whom it may concern,

RE: Submission to the 20-Year State Infrastructure Strategy Discussion Paper

ClimateWorks Australia welcomes the opportunity to provide feedback on South Australia's 20-Year State Infrastructure Strategy. Decisions made about infrastructure today - what infrastructure is needed; which projects to prioritise; and how to build and operate these projects - are decisions which will shape South Australia's economic future. Infrastructure also plays a central role in enabling South Australia's transition to net zero emissions by 2050, in line with the state's *Climate Change Strategy 2015-2050*¹.

ClimateWorks Australia develops expert, independent solutions to assist the transition to net zero emissions for Australia, South-east Asia and the Pacific. A non-profit organisation, it was co-founded in 2009 by The Myer Foundation and Monash University and works within Monash Sustainable Development Institute.

Infrastructure assets are long term investments, lasting decades into the future. Infrastructure decisions at all stages of an asset's life cycle can reduce emissions and lay the foundations for a net zero emissions future. For example, the Australian Energy Market Operator is thinking today about how to set up South Australia's electricity network infrastructure to support future increased renewable energy².

¹ Available at:

<https://s3-ap-southeast-2.amazonaws.com/cna-public-assets/general-downloads/SA-Climate-Change-Strategy-2015-2050.pdf>

² AEMO (2018). *South Australian Electricity Report*



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Net zero emissions principles can be embedded in key phases and decision making points that are common across the diverse types of infrastructure projects. These include planning, investment, construction and operations decisions.

There are three types of emissions relevant to infrastructure:

- **Embodied emissions** result from the production of materials used in the construction of infrastructure, as well as from the construction process itself. Infrastructure decision-makers have control over these emissions through choices made in the procurement stages of a project (for example, sourcing less carbon-intensive steel for the construction of a bridge)
- **Operating emissions** result from the ongoing operations of infrastructure assets. Infrastructure decision-makers have direct control over these emissions through choices made in the planning, design and operating stages of the project (for example, installing LED lights rather than high pressure sodium bulbs in road street lights)
- **Enabled emissions** result from the activities of infrastructure's end-users. Infrastructure decision-makers have influence, but not control, over these emissions. Decision-makers can influence these emissions through the degree to which the infrastructure enables low-emissions behaviour and assets. For example, by building transmission infrastructure that connect renewable generation to the grid, infrastructure decision-makers can influence electricity sector emissions

ClimateWorks Australia is supporting the Infrastructure Sustainability Council of Australia (ISCA) in partnership with the Australian Sustainable Built Environment Council (ASBEC) to explore and define the role infrastructure can play in a net zero emissions future. This initiative seeks to provide guidance on how to consider net zero emissions in planning, designing, building and operating infrastructure decisions. We will be releasing a discussion paper in October that sets the scene for this project, and we would welcome the opportunity to align our work with South Australia's 20-Year State Infrastructure Strategy.

On behalf of ClimateWorks, I thank you for the opportunity to provide input into the 20-Year State Infrastructure Strategy Discussion Paper. Please do not hesitate to contact me if you have any further questions.

Yours sincerely,

Petra Stock
Program Manager
ClimateWorks Australia