Climate Action Assessment Guidelines

These Guidelines provide additional information to assist departments in completing the Climate Action Screening and Assessment Template (the Template).

[deeca.vic.gov.au](https://delwpvicgovau.sharepoint.com/Users/fionadurante/Downloads/deeca.vic.gov.au)

#  Climate Action Screening

The Climate Action Screening is designed to capture budget proposals that are likely to have a material impact on Victoria’s climate action goals, including proposals that:

* **support the achievement of Victoria’s climate action goals**, including the 2045 net zero emissions goal, the interim emissions reduction target and building Victoria’s climate resilience;
* **may have** **potential adverse climate action impacts** by materially increasing Victoria’s emissions[[1]](#footnote-2) or investing in infrastructure proposals without consideration of potential future climate impact risks.

## Proposals that support Victoria’s climate action

### **Question A**

This question aims to capture proposals that are designed to support Victoria’s climate action goals, including emissions reduction targets, reducing government operational emissions, improving Victoria’s climate resilience or supporting a climate action policy. Further information on each of these goals is below.

#### Victoria’s emissions reduction targets

The Victorian Government has committed to the following economy-wide emissions reduction targets:

* 28–33% below 2005 levels by 2025
* 45–50% below 2005 levels by 2030
* 75–80% below 2005 levels by 2035
* Net zero emissions by 2045.

#### Reducing the Government’s operational emissions

Victorian Government operations result in around 3.7 Mt emissions per year, which is approximately four per cent of Victoria’s annual emissions. Actions to reduce government operational emissions contribute directly towards meeting economy-wide targets and demonstrate significant leadership in Victoria’s transition to a net zero emissions and climate resilient economy by 2045. Existing commitments will substantially reduce operational emissions, including:

* the commitment for 100 per cent renewable electricity in government operations,
* all new government buildings to be built as all-electric,
* all new public buses to be zero emissions from 2025 building on the trial of 52 buses already on the roads,
* the uptake of battery electric passenger vehicles into government fleets, and
* water sector commitments to reduce collective emissions by 92 per cent by 2030 and achieve net zero emissions by 2035.

With these commitments underway, the main sources of government emissions will be fossil gas used in existing building stock and transport fuels. Early and strategic efforts are needed to manage the phase out of fossil fuels to avoid inefficient investment in stranded assets, reduce exposure to volatile fuel prices, ensure direct government spending towards clean energy solutions and support business continuity through the state’s transition to net zero emissions.Further information on emissions reduction policies and targets can be found at [climatechange.vic.gov.au](https://www.climatechange.vic.gov.au/climate-action-targets) .

#### Victoria’s resilience to climate change

Our 2050 vision is for Victoria to be climate resilient, prosperous, and liveable. Our 2050 objectives are:

* Climate-resilient built and natural environments.
* Prosperous, liveable, and healthy communities.
* An orderly and just adaptation process.

The Victorian Government has prepared Adaptation Action Plans across seven systems to ensure Victoria’s climate resilience, now and in the future. The Adaptation Action Plans are guiding government action and helping institutions, businesses and individuals take informed action to respond to the risks and opportunities of our changing climate. The seven Adaptation Action Plans are:

* [Built Environment AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/built-environment-adaptation-action-plan)
* [Education and Training AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/education-and-training-adaptation-action-plan)
* [Health and Human Services AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/health-and-human-services-adaptation-action-plan)
* [Natural Environment AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/natural-environment-adaptation-action-plan)
* [Primary Production AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/primary-production-adaptation-action-plan)
* [Transport AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/transport-adaptation-action-plan)
* [Water Cycle Systems AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/water-cycle-adaptation-action-plan)

#### Climate Action Policy

Victoria has a range of policies that support climate action (see Appendix i). Departments can use this assessment to highlight budget proposals that are designed to support the implementation of a policy.

## Proposals with potential adverse climate action impacts

### **Question B**

This question aims to identify initiative elements or outcomes that may adversely impact on Victoria’s climate action goals. Please find additional information below on each initiative element.

#### Involve new fossil gas connections

The gas sector contributes about 17 per cent of the State’s emissions. Transitioning residential and commercial buildings from gas to electricity will be essential to meeting Victoria’s emissions reduction targets. Even one new gas connection can have an enormous level of gas use and may present a risk for our climate action goals.

Victoria is pursuing a [Gas Substitution Roadmap](https://www.energy.vic.gov.au/renewable-energy/victorias-gas-substitution-roadmap) to drive energy efficiency and electrification, support take-up of renewable gases such as hydrogen and biomethane and maintain reliability through transition.

As part of the Roadmap, on 28 July 2023, **Victoria banned new fossil gas connections to new homes, residential subdivisions, and government buildings**. Read more about that announcement [here](https://www.premier.vic.gov.au/new-victorian-homes-go-all-electric-2024).

New fossil gas connections to commercial/industry are still permitted; however, if viable, electrification should be considered.

#### Off-grid fossil fuel energy generation

Off-grid fossil fuel energy use involves the burning of fossil fuels onsite to produce energy or heat – for example running a diesel generator to produce electricity or run equipment, or burning petrol or gas not supplied through the Victorian gas network.

*Substantial* off-grid energy use is defined as something likely to generate greater than 25,000 tCO2-e per annum – equivalent to approximately:

* 8.6 million litres of petrol;
* 7.3 million litres of diesel; or
* 450,000 gigajoules (GJ) of gas not supplied through the Victorian gas network.

#### Purchase of new Internal Combustion Engine (ICE) light vehicles (cars/vans)

Achieving net zero emissions will require ICE light vehicles to be phased out over time. Light vehicles have a standard lifespan of 15-20 years and new light vehicle sales with ICEs will need to be substantially reduced in the next several years to achieve net zero emissions by 2045.

The Victorian Government has committed to a target where 50 per cent of light vehicle purchases by 2030 are zero emissions vehicles – see the [Zero Emissions Vehicle Roadmap](https://www.energy.vic.gov.au/__data/assets/pdf_file/0036/575676/Zero-Emission-Vehicle-ZEV-Roadmap.pdf).

This question is focused on obtaining information about:

* ICE light vehicle procurement by the Victorian Government and policies that directly encourage the purchase of ICE light vehicles in preference to electric vehicles (EVs) – for example:
	+ fleet purchases which do not specify EV procurements targets;
	+ fleet purchases which do not specify vehicle emissions or vehicle efficiency targets;
	+ fleet procurement guidelines or other policies that create barriers for EV uptake; or
	+ tax incentives for ICEs or preferential licensing fee arrangements.

#### Land clearing

High quality vegetation provides an important carbon “sink” for Victoria. Clearing land causes emissions to be released.

Victoria is currently implementing forestry and land-based policies which are working to achieve the state’s climate action goals, including:

* The *Bushbank* program is restoring and revegetating native habitat across public and private land, helping landowners tap into financial incentives available through land restoration and carbon markets. Read more about Bushbank [here](https://www.environment.vic.gov.au/bushbank).
* The *Victorian Carbon Farming Program* is encouraging landholders to plant woodlots, agroforestry, and shelterbelt trees, leveraging opportunities available from timber, carbon and environmental markets with the help of registered project advisors. Read more about it [here](https://agriculture.vic.gov.au/climate-and-weather/policy-programs-action/victorian-carbon-farming-program).
* *Protecting Victoria’s Environment – Biodiversity 2037* is Victoria’s plan to improve biodiversity over the next 20 years, including the conservation of threatened species and improvements to natural habitats. Read more about the plan [here](https://www.environment.vic.gov.au/biodiversity/biodiversity-plan).
* Native timber harvesting in Victoria’s state forests will end by 1 January 2024, and 96,000 hectares of Immediate Protection Areas were created in 2019. Read about these policies [here](https://www.deeca.vic.gov.au/futureforests/immediate-protection-areas/victorian-forestry-plan).
* Native vegetation removal is regulated under Victorian planning schemes administered by Local Council or the Planning Minister. A permit is required to remove native vegetation. These permits include conditions to offset biodiversity impacts, usually met by purchasing native vegetation credits. Read more about these regulations [here](https://www.environment.vic.gov.au/native-vegetation/native-vegetation-removal-regulations).

#### Seeking >$100 million for infrastructure funding

Inadequate consideration of current and future climate-related hazards and their impacts over the lifespan of an infrastructure asset and to the people who use the asset, can create a risk that decisions may result in stranded assets, costly remedial action to address climate resilience, and adverse social impacts.

This guidance is seeking that budget and funding decisions consider select climate-related hazards that may impact infrastructure proposals that are greater than $100 million. This value reflects the Department of Treasury and Finance’s Investment Lifecycle and High Value High Risk Guidelines, which defines medium risk asset projects as being between $100 million to $250 million, with greater risk assigned to projects over $250 million.

For the purposes of these guidelines, the threshold applies to submissions addressing:

* A single infrastructure project greater than $100 million; or
* A number of small infrastructure projects that collectively exceed $100 million; and
* Assets already under construction or the operationalising infrastructure, where the request for funding is greater than $100 million.

### **Question C**

Please provide further information regarding why you could not answer Question B. This could include that the budget proposal is not currently at a stage of development where the information can be determined.

#  Climate Action Assessment

## Proposals that support Victoria’s climate action

### **Question D**

Question D is designed to highlight any budget proposals that support:

* The achievement of Victoria’s emissions reduction targets – including the 2030 target and net zero emissions by 2045;
* Victoria’s resilience to climate change, including the implementation of one or more actions within the seven Adaptation Action Plans (built environment; education and training; health and human services; natural environment; primary production; transport; and water cycle systems).

### **Question E**

**Emissions reduction estimates are not required for the climate action assessment if not already available. The information should be provided, if possible, but new or additional analysis is not required.**

Estimating emissions and changes in emissions is a technical matter that requires specific information for different sources of emissions (e.g., energy, transport, agriculture etc.) It involves:

* Estimating changes in activity levels that arise from the budget proposal (e.g. reduction in gas use due to retirement/replacement of gas appliances; reduction in km travelled by internal combustion engines; hectares of land revegetated);
* Applying a specific emissions factor to each physical activity change to estimate annual emissions reductions for each year that the policy is in place.

### **Question F**

#### Sector and action

***Sectors*** are defined in line with Victoria’s emissions reduction pledges as:

* Energy
* Transport
* Agriculture
* Land
* Waste

Please contact climate.change@delwp.vic.gov.au if you are unsure as to the sector associated with your initiative.

***Action*** refers to the action that will reduce emissions – for example, “reducing fossil gas consumption in Victoria”; “increasing tree plantings”; “increasing energy efficiency”.

#### Emissions reduction estimates

Emissions reduction estimates should be:

* For emissions reductions that occur in Victoria only - please do not include estimates for emissions reductions that occur outside of Victoria (although these can be noted in Question G).
* Emissions estimates are requested for the total emissions reductions of the initiative for two timeframes:
	+ total emissions reductions from the initiative at 30 June 2030
	+ total emissions reductions over the life of the initiative – this should be provided in tCO2-e at the end date of the initiative/effect of the initiative (e.g. 10 tCO2-e in 2045).

Please contact climatechange@delwp.vic.gov.au if you require further guidance about estimating emissions reductions or aligning your emissions reduction information to the request in the Template.

### **Question G**

Please provide information regarding how the proposed initiative will support the achievement of Victoria’s emissions reduction goals, including:

* A description of initiatives that may reduce emissions but where emissions reduction estimates are not available;
* Initiatives that support Victoria’s transition to a net zero economy – for example initiatives to enhance emissions measurement or build community support for emissions reductions;
* Skills and training initiatives directly connected to building a clean economy workforce;
* Energy efficiency measures;
* Funding to continue or enhance VPS policy capability directly related to climate action priorities.

### **Question H**

Pleaseoutline if the proposal contributes to Victoria’s climate resilience by supporting the implementation of one or more Adaptation Action Plans (AAP), by recording which AAPs and the specific actions from those AAPs that are being addressed in the bid.

The seven AAPs are:

* [Built Environment AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/built-environment-adaptation-action-plan)
* [Education and Training AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/education-and-training-adaptation-action-plan)
* [Health and Human Services AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/health-and-human-services-adaptation-action-plan)
* [Natural Environment AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/natural-environment-adaptation-action-plan)
* [Primary Production AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/primary-production-adaptation-action-plan)
* [Transport AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/transport-adaptation-action-plan)
* [Water Cycle Systems AAP](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/water-cycle-adaptation-action-plan)

### **Question I**

Please outline if the proposal contributes to Victoria’s climate resilience more generally (i.e. other than by supporting the implementation of an AAP).

**For example:** The proposal will contribute to Victoria’s climate resilience through:

* Targeted research and development investment to better understand and prepare for climate-related hazards;
* Developing the capability of communities to prepare for and respond to climate-related hazards;
* Preparing households for extreme events; or
* Enhancing early warnings for climate-related hazards.

### **Question J**

Please outline the cost-benefit of climate resilience actions in your proposal by providing the amount of the bid that will be attributed specifically to addressing climate resilience, including disaster risk mitigation and preparedness.

### **Question K**

Please provide any information you may have on the potential avoided damages or similar (e.g., return-on-investment or benefit-cost-ratio etc.) to your proposal by implementing climate resilience measures. To support you in considering this question, use the following helpful guidance.

* [Reaping the Rewards of Resilience Report (insurancecouncil.com.au](https://insurancecouncil.com.au/wp-content/uploads/2022/02/R_ICA_Resilience_Final_220218.pdf?trk=public_post_comment-text#:~:text=In%20order%20to%20reap%20these%20rewards%2C%20we%20have,Government%20and%20matching%20contributions%20from%20states%20and%20territories.))
* [The economic impacts of the 2019-20 bushfires on Victoria | Department of Treasury and Finance Victoria (dtf.vic.gov.au)](https://www.dtf.vic.gov.au/victorias-economic-bulletin-volume-5/economic-impacts-2019-20-bushfires-victoria)
* [The-economic-impact-of-heatwaves-on-Victoria.pdf (climatechange.vic.gov.au)](https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0011/413030/The-economic-impact-of-heatwaves-on-Victoria.pdf)
* [Victorias-Resilient-Coast-Guidelines-.pdf (marineandcoasts.vic.gov.au)](https://www.marineandcoasts.vic.gov.au/__data/assets/pdf_file/0022/662503/Victorias-Resilient-Coast-Guidelines-.pdf) pages 87-88
* [General-Summary-of-the-Kompas-Report-Economic-Impacts-from-SLR-and-SS-19072023.pdf (marineandcoastalcouncil.vic.gov.au)](https://www.marineandcoastalcouncil.vic.gov.au/__data/assets/pdf_file/0036/665649/General-Summary-of-the-Kompas-Report-Economic-Impacts-from-SLR-and-SS-19072023.pdf)

## Proposals with potential adverse climate action impacts

### **Question L**

**An estimate of the increase in emissions as the result of an initiative is not required for the climate impact assessment if not already available. The information should be provided if possible, but new or additional analysis is not required.**

Estimating emissions and changes in emissions is a technical matter that requires specific information for different sources of emissions (e.g., energy, transport, agriculture etc.) It involves:

* Estimating changes in activity levels that arise from the budget proposal (e.g. reduction in gas use due to retirement/replacement of gas appliances; reduction in km travelled by internal combustion engines; hectares of land revegetated);
* Applying a specific emissions factor to each physical activity change to estimate annual emissions reductions for each year that the policy is in place.

### **Question M**

#### Sector and action

***Sectors*** are defined in line with Victoria’s emissions reduction pledges as:

* Energy
* Transport
* Agriculture
* Land
* Waste

Please contact climate.change@delwp.vic.gov.au if you are unsure as to the sector associated with your initiative.

***Action*** refers to the action that will increase emissions – for example “new fossil gas connections in Victoria”; “land clearing”, “purchase of new light ICE vehicle”.

#### Estimating emissions increases

Emissions estimates should be:

* For emissions increases that occur in Victoria only (not actions that could increase emissions in other states or overseas)
* Emissions estimates are requested for the total emissions impacts of the initiative for two timeframes:
	+ total emissions increase from the initiative at 30 June 2030
	+ total emissions increase over the life of the initiative – this should be provided in tCO2-e at the end date of the initiative or the effects of the initiative (e.g. x 10 CO2-e at 2045).

Please contact climatechange@delwp.vic.gov.au if you require further guidance about estimating emissions or aligning your emissions information to the request in the Template.

### **Question N**

If information on emissions impacts is not available, please provide answers (if available) to the following prompts in the table below for the relevant action in your initiative.

|  |  |
| --- | --- |
| Action | Emission impacts |
| New gas connections | * Likely number and type (i.e., residential, small commercial, large commercial or industrial) of new gas connections
* Gigajoules of gas likely to be consumed
 |
| Off-grid fossil fuel energy generation | * Likely quantity of fossil fuels (i.e., litres of petrol or diesel) consumed per annum.
 |
| Purchase of new ICE vehicles | * Number of additional ICE vehicles likely to be purchased due to this initiative.
* Additional litres of petrol or diesel likely to be consumed, or
* additional distances travelled per annum.
 |
| Land clearing | * Number of hectares of vegetation likely to be cleared
* Type of vegetation
 |

### **Question O**

Please provide information about the options you have considered to mitigate the emissions impact. The table below provides examples of possible mitigation options.

If mitigation options are not appropriate – for example ICE vehicles are required for operational purposes – please answer **no** and state the reason – for example “EV ambulances are not yet available”.

| Action  | Mitigation options could include: |
| --- | --- |
| New gas connections | * Avoiding or limiting new gas connections through using electricity rather than gas
* Increasing energy efficiency, including through the [Victorian Energy Upgrades Program](https://www.energy.vic.gov.au/for-households/victorian-energy-upgrades-for-households/about-the-veu-program)
* Options under the Victorian Energy Upgrades program include incentives for:
	+ Replacing existing gas appliances with electric appliances in both residential and commercial buildings, and
	+ Installing efficient gas equipment in commercial and industrial buildings.
 |
| Off-grid fossil fuel energy generation | * Avoiding or limiting off-grid fossil fuel energy generation through:
	+ Using electricity (grid connection)
	+ Using renewable energy generation (e.g., solar panels) rather than burning fossil fuels
* Increasing energy efficiency, including through the [Victorian Energy Upgrades Program](https://www.energy.vic.gov.au/for-households/victorian-energy-upgrades-for-households/about-the-veu-program).
	+ Under the Victorian Energy Upgrades program, incentives are available for replacing off-grid gas (also known as liquid petroleum gas or LPG) with efficient electric alternatives.
	+ Completing an energy management plan under the [[ISO5001 Energy Management Systems standard](https://www.iso.org/iso-50001-energy-management.html#:~:text=ISO%2050001%20provides%20a%20framework,make%20decisions%20about%20energy%20use)]
 |
| Purchase of new ICE vehicles | * Removing or avoiding the purchase of new light ICEs where possible or adding new incentives for the use of ICE light vehicles by:
	+ Ensuring treatment of EVs is the same (or better) than ICE vehicles
	+ Requiring EVs (or a proportion of EVs) to be purchased rather than ICEs
	+ Adopting fleet management policies that are consistent with overarching [VicFleet policy](https://www.buyingfor.vic.gov.au/VicFleet).
	+ Adopting an EV-first policy - reverse obligation to justify ICE purchase.
	+ Removing or avoid adding new barriers to EV uptake by implementing:
	+ Fleet purchasing policies
	+ Building management policies (e.g., for access to EV charging)
	+ Working from home policies
* Enabling Executive fleet and staff novated lease options for EVs
 |
| Land clearing | * Avoiding or limiting the amount of high-quality vegetation cleared
	+ Undertaking alternative planting activity to offset the land cleared
 |

### **Question P**

A climate-related hazard is the potential occurrence of a climate-related physical event or trend or physical impact that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources. Examples of climate-related hazards are extensive, however this analysis considers the hazards which are most likely to impact Victorian infrastructure projects, including:

* Bushfire
* Riverine flooding
* Coastal flooding (e.g., from sea-level rise and storm surges)
* Extreme heat

In considering whether your asset initiative could be exposed to one or more of these climate-related hazards, you should consider the location(s) and setting of the asset(s). This includes considering geographical variability, environmental processes and socio-economic factors as they relate to each climate-related hazard.

Examples of exposure include:

* Coastal assets and infrastructure within storm surge zones.
* Housing in low-lying riverine flood zones.
* Assets within high-risk bushfire areas.
* People living in, working in, or using (e.g., recreation/transport) the asset on extreme heat days.

Appendix ii includes helpful resources to support your consideration.

For example: *A new development proposal for new public housing in South Melbourne (with two sites being considered)*

* Coastal flooding and extreme heat may be the two climate-related hazards selected.

### **Question Q**

In addressing Question P, if you answer “don’t know” you’ll be asked to provide a short explanation.

For example: *A new development proposal for new public housing.*

* The explanation may be that the sites have not yet been selected.

### **Question R**

Please provide further information regarding the potential impacts of climate hazards on the proposed infrastructure initiative or the people using it out to 2050. Appendix ii includes helpful resources to support your consideration of this question.

For example: *A new development proposal for new public housing in South Melbourne (with two sites being considered)*

* For a **coastal flooding hazard** – this could be that the site is projected to be exposed to coastal flooding and this will potentially impact the integrity of the housing through inundation events and associated erosion.
* For an **extreme heat hazard** – this could be that by the 2050s, under the high emissions (RCP8.5) scenario, days over 35 degrees are expected to increase between 13 and 21 days on average per year. These extreme heat events will have a potential impact on the health of future occupants of a new public housing development.

### **Question S**

Please outline any ways to reduce the potential impacts (out to 2050) of the climate-related hazard. Appendix ii includes helpful resources to support your consideration of this question.

For example: *A new development proposal for new public housing in South Melbourne (with two sites being considered)*

* For a **coastal flooding hazard** - seeking to choose a site that is not exposed to potential future coastal flooding. If relocation is not possible, then applying the guidance in *Victoria’s Resilient Coast – Adapting for 2100+* to address coast hazard risk management and adaptation.
* For **extreme heat**, - designing infrastructure to meet or exceed the 7-star energy efficiency buildings rating.

## Appendix i: Policies supporting Victoria’s Climate Action

|  |  |
| --- | --- |
| Policy | Description |
| Victoria’s Climate Change Strategy and emissions reduction pledges | Released in 2021, [*Victoria’s Climate Change Strategy*](https://www.climatechange.vic.gov.au/victorias-climate-change-strategy) provides a roadmap to net zero emissions and a climate resilient Victoria. It includes interim emission reduction targets and adaptation priorities. The initiatives in the Strategy will support communities and businesses to make the changes needed to reduce the impacts of climate change and continue to support Victoria’s economy to grow.  |
| Emissions reduction pledges | The [emissions reduction sector pledges](https://www.climatechange.vic.gov.au/victorian-government-action-on-climate-change#pledges) for 2021-25 set out actions to cut emissions across the economy. The pledges include cost-effective solutions available at scale now, and actions that will build capacity to reduce emissions in the future. |
| 2022-2026 Adaptation Action Plans  | Released in 2022, Victoria’s five-year [*Adaptation Action Plans*](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/adaptation-action-plans-a-major-step-forward-for-climate-resilience-in-victoria) for seven essential statewide systems help ensure that the State is ready to respond to the risks and opportunities of a changing climate. Each Adaptation Action Plan sets out the challenges of climate change for each system, the extensive work already underway and the key priorities for 2022-26.  The actions set out in each plan will help address the impacts of climate change, reduce the barriers to adaptation, and lay the foundation for transformational adaptation so Victoria is prepared for our future climate.    |
| Victorian Government Climate-related Risk Disclosure Statement | Published in 2022, *the* [*Victorian Government Climate-related Risk Disclosure Statement*](https://www.dtf.vic.gov.au/funds-programs-and-policies/victorian-government-climate-related-risk-disclosure-statement) marks the first time in Australia that a government has made a climate-related disclosure in line with the recommendations of the Taskforce on Climate-related Financial Disclosures and paves the way forward in public sector disclosure of climate-related risk management. This statement outlines how the Government is managing climate-related risks to Victoria, and to the Government’s delivery of services to the community. It also outlines how the Government is seizing the opportunities associated with the transition to a net zero, climate-resilient economy.   |
| Victoria’s Gas Substitution Roadmap | Released in July 2022, [*Victoria’s Gas Substitution Roadmap*](https://www.energy.vic.gov.au/renewable-energy/victorias-gas-substitution-roadmap) is helping guide the gas sector through a transition to net-zero emissions while maintaining reliability and affordability. The Roadmap outlines actions to lower energy bills, reduce emissions, support jobs and support gas reliability. The Victorian Government will continue to engage and collaborate with the community and industry during the gas sector’s transition to net zero emissions, including on a Roadmap update report in 2023. |
| Offshore Wind Policy Directions Paper and Implementation Statements | Released in March 2022, the [*Offshore Wind Policy Directions*](https://www.energy.vic.gov.au/__data/assets/pdf_file/0029/580619/Offshore-Wind-Policy-Directions-Paper.pdf) *Paper* contains energy targets for offshore wind in Victoria of 2 gigawatts by 2032, 4 gigawatts by 2035 and 9 gigawatts by 2040. These statements provide detail about Victoria’s approach to delivering offshore wind developments, including information about regulation and legislative reforms, supply chain supports, procurement design and financial support mechanisms, transmission information and port infrastructure.  |
| Zero Emissions Vehicle Roadmap | Released in 2021, [*Victoria’s ZEV Roadmap*](https://www.energy.vic.gov.au/renewable-energy/zero-emission-vehicles) sets an ambitious target of 50 per cent of new light vehicle sales to be zero emissions vehicles by 2030.  The ZEV Roadmap and its targets are supported by a $100 million package of policies and programs, including $15 million to transition 400 existing passenger vehicles within the government fleet to ZEVs (including associated infrastructure upgrades) and $20 million for a statewide trial of zero emissions buses.    |
| Victorian Renewable Energy Target (VRET) | The [Victorian Renewable Energy Target](https://www.energy.vic.gov.au/renewable-energy/victorian-renewable-energy-and-storage-targets) auctions - VRET1 and VRET2 - help us meet our renewable energy targets by providing long-term contracts that create investment certainty to build new energy generation projects.Six projects have been successful under VRET2 - bringing forward 623 MW of new renewable generation capacity and delivering up to 365 MW and 600 megawatt-hours (MWh) of new battery energy storage. |
| Victorian Energy Upgrade (VEU) | [Victorian Energy Upgrades](https://www.energy.vic.gov.au/for-households/victorian-energy-upgrades-for-households/about-the-veu-program) is a government energy efficiency program. Households and businesses can receive rebates or discounts on energy-saving products. This helps cut power bills and reduce greenhouse gas emissions.Every upgrade allows businesses under the Accredited Providers program to generate Victorian Energy Efficiency Certificates (VEECs). Each certificate represents one tonne of greenhouse gas prevented from entering our atmosphere. Accredited providers then sell these certificates to energy retailers.Energy retailers use the certificates to meet annual emissions targets set by the Victorian Government. |

## Appendix ii: Helpful resources for Questions P, Q, R and S

|  |  |  |
| --- | --- | --- |
| Climate- related hazards to consider | Helpful resources when considering potential impacts (out to 2050) of the climate-related hazard on your proposed infrastructure initiative (Questions P & R) | Helpful resources when considering potential ways to reduce this impact (out to 2050) of the climate-related hazard on your proposed infrastructure initiative (Question S) |
| **All four climate-related hazards** (below) | [Climate Science Report](https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0029/442964/Victorias-Climate-Science-Report-2019.pdf) Provides climate information and implications for Victoria. [[Victoria’s Adaptation Action Plan](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/adaptation-action-plans-a-major-step-forward-for-climate-resilience-in-victoria)s](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/adaptation-action-plans-a-major-step-forward-for-climate-resilience-in-victoria) Seven Adaptation Action Plans being - [the built environment](https://www.planning.vic.gov.au/guides-and-resources/strategies-and-initiatives/built-environment-climate-change-adaptation-action-plan?_ga=2.266623886.169685170.1693275583-2094107259.1692082067), [education and training](https://www.vic.gov.au/education-training-climate-change-adaptation-action-plan), [health and human services](https://www.health.vic.gov.au/environmental-health/climate-change-strategy), [the natural environment](https://www.environment.vic.gov.au/natural-environment-adaptation-action-plan?_gl=1*19qdgxh*_ga*MjA5NDEwNzI1OS4xNjkyMDgyMDY3*_ga_LM2C7KTW90*MTY5MzM2MTQ2OS4xNC4xLjE2OTMzNjE2ODAuNjAuMC4w&_ga=2.200766254.169685170.1693275583-2094107259.1692082067), [primary production](https://agriculture.vic.gov.au/__data/assets/pdf_file/0004/838246/Primary-Production-Climate-Change-Adaptation-Action-Plan-2022-2026.pdf), [transport](https://dtp.vic.gov.au/our-transport-future/climate-change/adaptation-action-plan), and [the water cycle](https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0025/558421/WaterCycleAdaptationActionPlan.pdf).[**Regional Climate Change Adaptation Strategies**](https://www.climatechange.vic.gov.au/supporting-local-action-on-climate-change#toc__id_3_regional) Six Regional Adaptation Strategies being – [Barwon Southwest](https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0033/549717/Barwon_South_West_Regional_Climate_Adaptation_Strategy.pdf), [Gippsland](https://www.climatechange.vic.gov.au/__data/assets/word_doc/0032/549824/Gippsland-Regional-Adaptation-Strategy-Accessible.docx), [Grampians](https://www.climatechange.vic.gov.au/__data/assets/file/0032/549815/Grampians-Regional-Adaptation-Strategy-Accessible.pdf), [Greater Melbourne](https://www.climatechange.vic.gov.au/__data/assets/file/0031/549814/GreaterMelbourneClimateChangeAdaptationStrategyAccessible.pdf), [Hume](https://www.climatechange.vic.gov.au/__data/assets/word_doc/0035/549818/Hume-Regional-Adaptation-Strategy-Accessible.docx), and [Loddon Mallee](https://www.climatechange.vic.gov.au/__data/assets/file/0030/549813/Loddon-Mallee-Climate-Ready-Plan-accessible-version.pdf).  | [[Victoria’s Adaptation Action Plan](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/adaptation-action-plans-a-major-step-forward-for-climate-resilience-in-victoria)s](https://www.climatechange.vic.gov.au/building-victorias-climate-resilience/our-commitment-to-adapt-to-climate-change/adaptation-action-plans-a-major-step-forward-for-climate-resilience-in-victoria)See links to the left.[Regional Climate Change Adaptation Strategies](https://www.climatechange.vic.gov.au/supporting-local-action-on-climate-change#toc__id_3_regional)See links to the left. |
| **Bushfire** | **Statewide resources**[Vicplan (mapshare.vic.gov.au)](https://mapshare.vic.gov.au/vicplan/) Enter the site address and select a layer to identify bushfire prone areas. **School Infrastructure**[Bushfire and grassfire preparedness](https://www2.education.vic.gov.au/pal/bushfire-and-grassfire-preparedness/policy)Guidance and resources for schools. **Regional resources**[Regional bushfire fuel management resources](https://www.safertogether.vic.gov.au/regions)  | **Statewide resources**[Bushfire Planning and building system responses](https://www.planning.vic.gov.au/browse-by-topic/bushfire) Multiple resources for bushfire planning, controls and preparedness. [Understanding risk (safertogether.vic.gov.au)](https://www.safertogether.vic.gov.au/understanding-risk) Information on managing fuel and bushfire risk.**School Infrastructure**[Bushfire and grassfire preparedness](https://www2.education.vic.gov.au/pal/bushfire-and-grassfire-preparedness/policy)**Regional resources**[Regional bushfire fuel management resources](https://www.safertogether.vic.gov.au/regions) |
| **Riverine flooding** | **Statewide resources**[Guidelines for Development in Flood Prone Areas](https://www.water.vic.gov.au/__data/assets/pdf_file/0024/662325/guidelines-for-development-in-flood-affected-areas.pdf) Pages 8-12 provide information on flooding impacts.**Regional resources**[Local flood guides (ses.vic.gov.au)](https://www.ses.vic.gov.au/plan-and-stay-safe/flood-guides) Use the lookup box to find local flood guides. Search by suburb, postcode or municipality. | **Statewide resources**[Guidelines for Development in Flood Prone Areas](https://www.water.vic.gov.au/__data/assets/pdf_file/0024/662325/guidelines-for-development-in-flood-affected-areas.pdf) Pages 29 – 47 provide an assessment framework, including mitigating actions. **Regional resources**[Climate change overview and mitigation planning for all 10 Victorian Catchment Management Authorities.](https://www.nrmclimate.vic.gov.au/regional-cma-information/) |
| **Coastal flooding** (e.g., incremental sea-level rise and intermittent storm surges) | **Statewide resources**[Coast Kit](https://mapshare.vic.gov.au/coastkit/) Has layers for sea-level rise and storm surge under the ‘Coastal Hazard Assessment’ category, within the ‘Statewide Scaled Datasets’ subcategory. [Victorian Coastal Hazard Assessment 2017](https://www.marineandcoasts.vic.gov.au/__data/assets/pdf_file/0021/122709/VCHA2017_R1_Victorian_Coastal_Hazard_Assessment_2017_Final_R1.compressed.pdf) Pages 51-54 provide coastal erosion vulnerability ratings and risk of sea level rise, storm surge and flooding across 23 sub-sections of coastal areas.[Victoria’s Resilient Coast guidelines](https://www.marineandcoasts.vic.gov.au/__data/assets/pdf_file/0022/662503/Victorias-Resilient-Coast-Guidelines-.pdf) Page 66 outlines coastal hazards for consideration. Pages 76-89 addresses risk and vulnerability of assets and systems. | **Statewide resources**[Victoria's Resilient Coast - Adaptation Actions Compendium](https://www.marineandcoasts.vic.gov.au/__data/assets/pdf_file/0025/662506/Adaptation-actions-compendium.pdf) Pages 21-29 provide examples of adaptation actions for building and infrastructure design.[Victoria’s Resilient Coast guidelines](https://www.marineandcoasts.vic.gov.au/__data/assets/pdf_file/0022/662503/Victorias-Resilient-Coast-Guidelines-.pdf) Pages 90-108 outline adaptation pathways for coastal areas vulnerable to climate-related hazards. |
| **Extreme heat** | **Statewide resources** [State Emergency Management Plan – Extreme Heat Sub-Plan](https://files.emv.vic.gov.au/2022-11/SEMP%20Extreme%20Heat%20Sub-Plan.pdf) Pages 12–13 – outline impacts to critical assets (essential services and power disruptions; transport; agriculture). [Heatwaves in Victoria – A Vulnerability assessment](https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0029/399440/Heatwaves_VulnerabilityAssessment_2018.pdf) Addresses sector impacts.**Regional resources**[Regional climate projection summaries](https://www.climatechange.vic.gov.au/victorias-changing-climate) (Under ‘regional climate projections’).[Cooling and greening Melbourne map](https://www.planning.vic.gov.au/guides-and-resources/data-and-insights/cooling-and-greening-melbourne-map) including the [Heat Vulnerability Index - Melbourne](https://www.arcgis.com/apps/dashboards/85fadbb1b2994dc7b6956f57ddacc001) The heat vulnerability index (HVI) maps the vulnerability of specific locations.Enter the Melbourne address and to identify the site’s HVI. A HVI rating: 1 = low vulnerability, 5 = high vulnerability. | **Statewide resources**[State Emergency Management Plan – Extreme Heat Sub-Plan](https://files.emv.vic.gov.au/2022-11/SEMP%20Extreme%20Heat%20Sub-Plan.pdf) Pages 13–15 information on mitigating extreme heat. [Guide to Urban Cooling Strategies](https://www.lowcarbonlivingcrc.unsw.edu.au/sites/all/files/publications_file_attachments/rp2024_guide_to_urban_cooling_strategies_2017_web.pdf) Pages 9-33 provide an urban cooling toolkit. Pages 48–49 provides options for Melbourne. |

1. The screening is intended to only capture “material” emissions impacts. This is defined as (a) increasing emissions by more than 25,000 tonne CO2-e (in line with facility reporting obligations under the *National Greenhouse and Energy Reporting Act 2007*; locking in high emissions assets (such as new gas connections or ICEs); or clearing more than 100ha of land. [↑](#footnote-ref-2)