



public interest
ADVOCACY CENTRE

NSW Independent Bushfire Inquiry

17 April 2020

About the Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit legal centre based in Sydney.

Established in 1982, PIAC tackles barriers to justice and fairness experienced by people who are vulnerable or facing disadvantage. We ensure basic rights are enjoyed across the community through legal assistance and strategic litigation, public policy development, communication and training.

Energy and Water Consumers' Advocacy Program

The Energy and Water Consumers' Advocacy Program (EWCAP) represents the interests of low-income and other residential consumers of electricity, gas and water in New South Wales. The program develops policy and advocates in the interests of low-income and other residential consumers in the NSW energy and water markets. PIAC receives input from a community-based reference group whose members include:

- NSW Council of Social Service;
- Combined Pensioners and Superannuants Association of NSW;
- Ethnic Communities Council NSW;
- Salvation Army;
- Physical Disability Council NSW;
- Anglicare;
- Good Shepherd Microfinance;
- Financial Rights Legal Centre;
- Affiliated Residential Park Residents Association NSW;
- Tenants Union;
- The Sydney Alliance; and
- Mission Australia.

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Public Interest Advocacy Centre



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The Public Interest Advocacy Centre office is located on the land of the Gadigal of the Eora Nation.

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Attachment 1

PIAC submission to AEMC's Review of the Regulatory Frameworks for Stand-Alone Power Systems Priority 1

Attachment 2

PIAC submission to AEMC's Review of the Regulatory Frameworks for Stand-Alone Power Systems Priority 2

Recommendation 1

That the NSW Government regard climate change mitigation policies as a high priority in addressing the future risk of catastrophic bushfires to the NSW community.

Recommendation 2

The NSW Government implement additional actions for climate change mitigation that also alleviate disadvantage for households and help build resilience in bushfire vulnerable areas.

Recommendation 3

The Bushfire Inquiry should integrate the findings from the Independent Pricing and Regulatory Tribunal's Electricity Distribution Reliability (IPART) Standards Review and the AEMC's Review of the Regulatory Frameworks for Stand-Alone Power Systems (SAPS) into its recommendations to improve the resilience of communities and their energy supply in remote, edge of grid, bushfire vulnerable areas. Particular consideration should be given to the value of SAPS in supporting resilience of the water, communications, emergency response and transport systems.

Recommendation 4

As well as a suspension of billing and awareness raising about hardship programs and payment options, during a bushfire crisis an appropriate, coordinated response from energy and water providers should include:

- *public messaging to affected communities so people are aware support is available;*
- *a moratorium on disconnections in affected areas;*
- *a moratorium on debt collection and recovery actions in affected areas;*
- *a mechanism to ensure the automatic, proactive referral of people in affected areas to a retailer/provider's hardship team and an offer of universal access to assistance measures such as bill smoothing and payment plans;*
- *proactively promoting the availability of rebates, as people who were previously ineligible might now be eligible;*
- *ensuring people are on their retailer's best offer, as applicable; and*
- *a mechanism to ensure that, for people who had their homes made uninhabitable by bushfire, any debt and reconnection fees are automatically waived.*

Recommendation 5

As part of a response to a bushfire crisis, the NSW Government make temporary additional resources available for Energy Account Payment Assistance (EAPA) to address increased demand.

1. The causes of, and factors contributing to, the frequency, intensity, timing and location of, bushfires in NSW in the 2019-20 bushfire season, including consideration of any role of weather, drought, climate change, fuel loads and human activity

1.1 The changing climate and bushfires

Evidence has consistently demonstrated the link between the likely impacts of climate change and an increase in the frequency, spread and intensity of bushfires.

A 2007 CSIRO report¹ undertook extensive modelling to project a range of potential climate change scenarios and the resulting impact on the frequency, spread and intensity of bushfires in south eastern Australia. This research modelled changes of 0.4-1.0°C by 2020 and projected that under both warming scenarios by 2020 there would be significant increases in the number of 'very high' and 'extreme' fire danger days as well as increases to the number of 'very extreme' and 'catastrophic' fire danger days.² High scenarios for 2020 indicated that the number of 'very extreme' days may double at many places.³ The length of fire seasons was also projected to increase, with the fire season starting earlier and ending slightly later.⁴ The fire season was also projected to be more intense.⁵

New South Wales' (NSW) climate is already changing due to climate change.⁶ According to the Bureau of Meteorology, in 2019 NSW experienced both mean maximum and minimum temperatures above average and the drought was especially severe in the state.⁷ In addition, Australia's mean temperature for the 10 years from 2010 to 2019 was the highest on record, and 2019 was Australia's warmest year on record with an area-averaged mean temperature of 1.52°C above the 1961–1990 average. 2019 was also Australia's driest year on record, with below average rainfall for most of the country.⁸

This indicates a long-term climate trend consistent with the higher impact models of climate change.

Crucially, this change is dynamic. According to the *New South Wales Climate Change Snapshot 2014*, temperatures across NSW are projected to continue to rise. They are expected to rise by 0.7°C between 2020-2039 and 2.1°C between 2060-2079. In many parts of NSW, the number of hot days is also projected to rise and rainfall patterns are projected to change.⁹

1 <http://www.climateinstitute.org.au/verve/resources/fullreportbushfire.pdf>

2 Ibid pp 2-3

3 Ibid p 3

4 Ibid p 36

5 Ibid p 36

6 <https://climatechange.environment.nsw.gov.au/About-climate-change-in-NSW>

7 <http://www.bom.gov.au/climate/current/annual/aus/>

8 ibid

9 NSW Office of Environment and Heritage, *The New South Wales Climate change snapshot*, 2014, 2

These projections come with an ongoing increase in the intensity of bushfire impacts which are already in evidence. In addition, projected increased fire weather conditions suggest fires will become increasingly hard to control.¹⁰

The prospect of yet further climate driven impacts necessitates that any harm-reduction focused response to bushfires must involve placing the highest priority on mitigating further climate change.

Recommendation 1

That the NSW Government regard climate change mitigation policies as a high priority in addressing the future risk of catastrophic bushfires to the NSW community.

1.2 NSW towards net zero emissions

The NSW Government is already committed to achieving 35% emissions reductions by 2030 (based on 2005 levels), aiming for net zero emissions by 2050.¹¹ PIAC welcomes this progress in contributing to the mitigation of the worst impacts of climate change. *The Net Zero Plan: Stage 1: 2020- 2030* begins to plan the practical steps required to reduce emissions towards this target.

Nonetheless, as a community with direct, recent and worsening experience of the catastrophic impact of climate change and unique opportunities to enhance community and economic outcomes while mitigating the increasing risk of bushfires and extreme weather events, NSW has a strong incentive to accelerated the emissions reduction on the trajectory to zero emissions.

1.3 Additional options for further reducing emissions

Short-term, interim and long-term goals are required to reach net zero emissions. Each stage should build on and improve the previous stage, as new technology, innovation and information become available.

There are a range of measures the NSW Government could take to accelerate emissions reduction, which also benefit community resilience and their ability to respond to the impacts of climate change. These include:

- stronger residential building energy performance standards, which also improve the health and comfort of occupants;
- minimum energy efficiency standards for rental properties, which also improve the health and comfort of occupants who would likely otherwise have little or no recourse to make energy efficiency improvements to their home themselves;
- support and advice for all homeowners to make their homes more energy efficient;

¹⁰ <https://climatechange.environment.nsw.gov.au/impacts-of-climate-change/bushfires>

¹¹ NSW Department of Planning, Industry and Environment, *Net Zero Plan Stage 1: 2020-2030*, 2020, 2

- support for households to exchange old appliances for new, energy efficient ones, including fuel switching from gas space and water heaters to more cost effective and clean electric appliances;
- more ambitious targets for renewable energy, including frameworks to facilitate onsite or localised power generation and storage; and
- increase opportunities for low income households to take up solar, including in privately owned, privately rented and social housing.

Targeting households for these types of initiatives, especially those in vulnerable situations and those in regional areas hit by bushfires, would help mitigate climate change and assist individual households while contributing to the recovery of local economies.

Recommendation 2

The NSW Government implement additional actions for climate change mitigation that also alleviate disadvantage for households and help build resilience in bushfire vulnerable areas.

1.4 Stand-Alone Power Systems

Although there was no evidence that powerlines played a role in the 2019-20 NSW bushfires, it is worth noting that Stand-Alone Power Systems (SAPS), which we refer to in more detail in 2.3, can reduce the likelihood of future fires starting this way.

As well as providing protection to community services during bushfires, SAPS can be a cheaper solution than maintaining a reliable connection to the grid, particularly in remote areas.

SAPS can either replace or support a network connection but are more effective at reducing cost and fire-start risk as a network replacement option. By helping to ensure a more resilient energy service, SAPS help to support community response to bushfires by ensuring continuous access to communications and water infrastructure. This also helps ensure vital health, emergency response, and transport connections are maintained.

2. The preparation and planning by agencies, government, other entities and the community for bushfires in NSW, including current laws, practices and strategies, and building standards and their application and effect.

2.1 The essential nature of energy and water

During times of emergency, reducing any disruption to the essential services of energy and water must be a priority.

Pumping and water system pressure is vital for effective firefighting, and water treatment and distributions systems that support community health require continuity of energy supply. Energy enables communications via the internet and mobile phones, and the network is vital to the effective operation of emergency services during bushfires. The community at large, and individual households, are increasingly dependent upon mobile communications that require regular charging. Where these devices become the primary means of community information and contact during a rapidly changing emergency, a resilient electricity supply is vital.

A resilient energy supply also assumes greater importance in an emergency where health services and evacuation centres are required, particularly for the most vulnerable members of the community. Community safety may also depend upon access to services such as grocery stores and petrol stations, which also rely on a resilient power supply.

2.2 Electricity system under pressure

Electricity systems can be under great strain during bushfires. Bushfires can directly threaten or damage distribution networks, generation infrastructure, transmission lines and substations.

In addition, bushfires often occur as part of hot weather events which can lead to thermal generation (coal fired power stations) failure and transmission line constraint when that coincides with increase in electricity demand as people use more air conditioning.

2.3 Stand-Alone Power Systems

Small communities and individual properties, particularly those which are remote, on the edge of the grid or are surrounded by difficult terrain, are particularly vulnerable to prolonged power outages as a result of bushfires and other natural disasters such as flooding and severe storms. The future resilience of the energy supply for many of these communities and properties could be improved through the use of Stand-Alone Power Systems (SAPS).

A modern SAPS will typically comprise of a solar system to generate the majority of the electricity required, a battery system to store the electricity, a backup generator (typically diesel-powered), and power electronics to convert energy and manage the system.

As well as providing protection to community services during bushfires, SAPS can be a cheaper solution than maintaining a reliable connection to the grid, particularly in remote areas.

SAPS can either replace or support a network connection but are more effective at reducing cost and fire-start risk as a network replacement option. By helping to ensure a more resilient energy service, SAPS help to support community response to bushfires by ensuring continuous access to communications and water infrastructure. This also helps ensure vital health, emergency response, and transport connections are maintained.

A number of recently completed and current processes, in NSW and nationally, support changes to regulatory and other arrangements to facilitate SAPS being deployed in place of energy networks.

The Electricity Distribution Reliability Standards Review being undertaken by the Independent Pricing and Regulatory Tribunal (IPART) will help guide where SAPS will be suitable in NSW. The Review is looking for solutions for unplanned outages on distribution networks. PIAC is preparing a submission to this Review and would be pleased to share a copy of the submission to the Bushfire Inquiry. A draft report (due in September) is expected to define the types of events distribution networks must plan for and how they can meet reliability standards.

In addition, the Australian Energy Market Commission (AEMC) recently completed the Review of the Regulatory Frameworks for Stand-Alone Power Systems and is developing the detailed rule and regulations necessary to incorporate it into the national electricity frameworks.

PIAC supports distribution network service providers being able to transfer existing customers onto SAPS supply where it is a more efficient and preferable option to retaining traditional grid-connected supply. PIAC generally supports the new regulatory frameworks, but recommends the AEMC adopt a framework for consumer protections informed by a harm-based approach.

It would be valuable for the Bushfire Inquiry to gain further insights into SAPS by referring to PIAC's responses to the Review, which are included as attachments to this submission and are available online.

- PIAC's response to Priority 1 which considered how existing grid-connected customers may be transitioned to SAPS-supply by their DNSP: <https://piac.asn.au/2018/10/12/submission-to-review-of-the-regulatory-frameworks-for-stand-alone-power-systems-issues-paper/>
- PIAC's response to Priority 2 which considered customers choosing to transition to SAPS-supply themselves or with a third party: <https://piac.asn.au/2019/08/28/review-of-the-regulatory-frameworks-for-stand-alone-power-systems-priority-2-draft-determination/>

Recommendation 3

The Bushfire Inquiry should integrate the findings from IPART's Electricity Distribution Reliability Standards Review and the AEMC's Review of the Regulatory Frameworks for Stand-Alone Power Systems into its recommendations to improve the resilience of communities and their energy supply in remote, edge of grid, bushfire vulnerable areas. Particular consideration should be given to the value of SAPS in supporting resilience of the water, communications, emergency response and transport systems.

2.4 Energy efficiency and demand response

Whilst SAPS are most economically suitable for remote, edge of grid locations, there are other ways to reduce the chances of electricity networks failing during bushfires.

As noted above, bushfires often occur as part of hot weather events. At these times, electricity networks are under pressure with usage 'peaking' due to increased use of air conditioners, usually around 4-7pm when people return home from work. If the electricity system cannot meet demand at these times, then load shedding can be required, which means that certain areas lose power to avoid more widespread power outages.

Using energy more efficiently can reduce overall load on the energy network and reduce the chances of systems reaching their capacity.

Controlling energy usage at peak times is called demand response. Putting in systems to incentivise people and businesses to reduce or defer usage at peak times can be very effective in reducing the chances of load shedding being required or energy systems going down. This can include not putting on pool pumps or appliances such as washing machines or dishwashers during peak times, controlling air conditioners externally, and shifting some loads for energy intensive industries.

The NSW Government's response to climate change does include some energy efficiency and demand response solutions. These programs, along with other energy efficiency and demand response options listed at 1.3 are ways to reduce greenhouse gas emissions and hence climate change, and reduce the chances of energy system failures, making the system more resilient in times of bushfires.

In addition, energy efficiency and demand response can also reduce electricity bills for individual users and the overall cost of the energy system for all consumers.

2.5 Energy and water bill support

During the recent bushfire emergency, as well as in future bushfire events, people need support to rebuild their lives when they are directly impacted by the fires, including through job loss or interruption. These include volunteer firefighters who often sacrifice paid work to protect people, property and bushland. This support should be coordinated to make a straight forward process for people to get the help and assistance they need.

Following the 2019-20 bushfires, PIAC was pleased that many energy retailers recognised energy bills should not be a source of stress for people at times of crisis, freezing billing in areas impacted by fires and ensuring people were aware of hardship programs and payment extension options. A mechanism should be developed so in future this response is coordinated and not dependent on individual retailers.

Recommendation 4

As well as a suspension of billing and awareness raising about hardship programs and payment options, during a bushfire crisis an appropriate, coordinated response from energy and water providers should include:

- *public messaging to affected communities so people are aware support is available;*
- *a moratorium on disconnections in affected areas;*
- *a moratorium on debt collection and recovery actions in affected areas;*
- *a mechanism to ensure the automatic, proactive referral of people in affected areas to a retailer/provider's hardship team and an offer of universal access to assistance measures such as bill smoothing and payment plans;*
- *proactively promoting the availability of rebates, as people who were previously ineligible might now be eligible;*
- *ensuring people are on their retailer's best offer, as applicable; and*
- *a mechanism to ensure that, for people who had their homes made uninhabitable by bushfire, any debt and reconnection fees are automatically waived.*

The NSW Government also has a role in supporting people experiencing utility hardship. Energy Accounts Payment Assistance (EAPA) vouchers are designed to be put towards energy bills in times of emergency and crisis. Given the increased demand in an emergency, the NSW Government should ensure appropriate resourcing for the vouchers themselves and to support community service workers who provide access to these vouchers. As has been done with the COVID-19 crisis, temporary additional resources should be made available.

Recommendation 5

As part of a response to a bushfire crisis, the NSW Government make temporary additional resources available for Energy Account Payment Assistance (EAPA) to address increased demand.

3. Continued engagement

PIAC looks forward to continued engagement with the Inquiry to further explore the resilience of energy and water services in NSW. We view this as a valuable opportunity to ensure that all NSW communities benefit from decarbonisation and are provided with safe, affordable and reliable energy and water systems.