



15 December 2016

Climate Change and Resource Efficiency Policy Branch  
NSW Office of Environment and Heritage  
PO Box A290  
Sydney South, NSW 1232

Online submission at: [https://engage.environment.nsw.gov.au/Environmental-Future-Consultation-Make-Submission/survey\\_tools/submission](https://engage.environment.nsw.gov.au/Environmental-Future-Consultation-Make-Submission/survey_tools/submission)

Dear Sir or Madam,

**Re: Draft Climate Change Strategic Plan and A Draft Plan to Save NSW Energy and Money**

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The Southern Sydney Regional Organisation of Councils (SSROC) is an association of sixteen Councils in the area south of Sydney harbour. SSROC provides a forum for the exchange of ideas between our member Councils, and an interface between governments, other Councils and key bodies on issues of common interest. We facilitate collaboration between councils on joint ventures, procurement, and projects including advocacy. Together, our member Councils cover a population of over 1.6 million, or one third of the population of Sydney.

SSROC welcomes the NSW Governments' new draft Climate Policy Framework, and is generally very supportive. Our detailed submission sets out our view of the issues and perspective on the opportunities that the framework offers.

Please note, however, that due to the timing of the submission, it has not been possible for it do be reviewed and approved by a formal meeting of SSROC Delegates. I will be in contact if any issues arise as a result.

For any enquiries regarding this submission, please contact Helen Sloan, Program Manager SSROC on 02 8396 3800

Yours faithfully,

A handwritten signature in black ink that reads 'Namoi Dougall'. The signature is written in a cursive style with a large initial 'N'.

Namoi Dougall  
General Manager  
Southern Sydney Regional Organisation of Councils

# DRAFT CLIMATE CHANGE STRATEGIC PLAN AND A DRAFT PLAN TO SAVE NSW ENERGY AND MONEY – SUBMISSION FORM

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| First name   | Helen  |
| Surname  | Sloan  |
| Organisation   | Southern Sydney Regional Organisation of Councils Inc (SSROC)  |
| Type of organisation   | Other (please specify below)   |
| Type of organisation (if other, please specify)                            | Regional Organisation of Councils  |
| Email  | ssroc@ssroc.nsw.gov.au   |
| Is this a confidential submission?   | No [Note: All submissions will be published on our website unless confidentiality is specifically requested] |
| Would you like to be kept up to date with the development of action plans? | Yes, please keep me updated.   |

## Instructions

Thanks for taking the time to provide feedback on the [Draft Climate Change Fund Strategic Plan](#) and [A Draft Plan to Save NSW Energy and Money](#).

Please use this submission form template to comment on any of the specific potential actions in the draft two plans. There is a section at the end of the form where you can provide comment on the overall strategic approach we have taken.

We invite you to provide comment on each of the three priority investment areas in the *Draft Climate Change Fund Strategic Plan*. For each priority area, we are interested in:

- whether and how we should refine and deliver the potential actions identified
- whether there are other actions that should be considered to deliver the government's priority investment areas.

We have also asked more specific questions on the potential actions in *A Draft Plan to Save NSW Energy and Money*.

**Note: You do not need to complete all the fields in the form:** Feel free to comment on all of the potential actions, or only the ones you are most interested in.

The submission template is divided into four sections for targeted submissions:

1. Accelerating advanced energy
2. National leadership in energy efficiency (including *A Draft Plan to Save NSW Energy and Money*)
3. Preparing for a changing climate
4. General comments

Please upload your completed form online in Microsoft Word format [here](#). Submissions close at **5pm on 16 December 2016**.

# 1. Accelerating Advanced Energy

Please provide any comments on specific potential actions below:

| Sections and potential actions  | Questions  | Responses   |
|---|--|---|
| <p><b>2.1 Maximise investment under the national Renewable Energy Target</b></p> <ul style="list-style-type: none"> <li>investigate a competitive 'contracts for difference' funding model to guarantee a minimum price for output from up to 250 MW of new large scale renewable energy, providing benefits to local communities</li> <li>build on the New South Wales 50 MW solar power purchase agreement (PPA) to expand PPAs to cover all of the renewable energy procurement commitment under the Government Resource Efficiency Policy</li> <li>support initiatives to make it easier for businesses, institutions and local government to buy electricity from renewable energy projects in New South Wales, such as WWF's 'Renewable Energy Buyers Forum'</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to support our advanced energy transition?</p> | <p>SSROC strongly supports the proposed actions, especially since the overarching aim is to maximise the economic, social and environmental wellbeing of NSW. It is particularly important that "environmental" is taken literally, and includes the urban environment as well as natural one.</p> <p>SSROC supports the action for energy market reforms, but would recommend that the reform should be broader than just improving network connection processes.</p> <p>However, if the \$240 million confirmed funding for landholders to preserve natural ecosystems is in fact a cut to the Climate Change Fund in order to establish the \$240 million Biodiversity Conservation Fund, then this is of serious concern. The issues are related but separate, and each needs funding. SSROC would not support any such redirection of funding away from the Climate Change Fund.</p> |

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| <ul style="list-style-type: none"> <li>• work with the COAG Energy Council to investigate minimum emissions performance standards for new power stations and the role of government in securing an orderly exit of the existing power station fleet</li> <li>• advocate for stability and certainty in Commonwealth Government renewable energy policy</li> <li>• sponsor energy market reforms to improve network connection processes.</li> </ul> | <p>Are there particular issues we need to consider to ensure these actions are effective?</p> | <p>While SSROC is supportive of stability and certainty of policy at the Commonwealth level, it is equally important that that policy is aimed at achieving growth in renewable energy and reduction in fossil-fuel energy, in accordance with a reasonable target such as the zero-emissions by 2050 proposed by NSW.</p> <p>NSW Government could consider increasing its renewable energy target from 20% to a significantly higher level that would support the net-zero emissions target.</p> <p>Energy market reforms are essential to the reduction in fossil-fuel energy. The current AEMC fails to take climate change into account at all in its interpretation of the National Energy Objective. The process whereby a proponent must put forward a proposed rule change which is then assessed by the AEMC against its own narrow interpretation of the Objective is deeply flawed. For example, the recent proposal by the City of Sydney, Total Environment Commission and Property Council of Australia was rejected on the basis that it would not contribute to the achievement of the Objective. SSROC rejects that conclusion, since the proposal was clearly in the long-term interests for consumers of electricity, as required by the Objective. The rule change proposed was to introduce local generation network credits, whereby small- and medium-sized generators would have been credited for the benefit they provide to the network. A response that did support the Objective would have been to work with the proponents to give effect to the rule change.</p> |
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|  | <p>Are there other opportunities for advanced energy we should be encouraging?</p> | <p>SSROC strongly supports the initiative to make it easier for local government to buy electricity from renewable energy projects in NSW. Member councils are keen to enter into solar power PPAs with regional solar or wind farms, and are currently working to develop a business plan to that end. We would welcome support and the opportunity to work with the NSW government to implement that plan.</p> <p>The NSW Government could consider adopting a reverse auction model, like that used by the ACT, to increase use of renewable energy.</p> <p>SSROC Councils are well advanced in the types of initiatives that would be required under the GREP and some may even already be compliant with the policy. We are concerned, however, that</p> <ul style="list-style-type: none"><li>- GREP targets may not be appropriate for councils,</li><li>- it may not be appropriate for all councils to have the same targets, since they will all have different capacity for and opportunities to reduce emissions,</li><li>- extending the GREP to local government would increase the compliance burden on councils.</li></ul> <p>SSROC therefore would prefer that the Government work with councils to develop their own targets, and for any such reporting requirement to be covered within the existing Integrated Planning and Reporting framework.</p> <p>The NSW Government could advocate for a more effective interpretation of the meaning and intent of the National Energy Objective, to ensure that consumer's interests include climate change mitigation and adaptation, as well as protection from excessive price-rises. Or advocate for the objective to be modified to include explicit reference to reducing carbon emissions and conserving our environment. Support National Electricity Rules changes that permit and actively encourage more efficient energy consumption and</p> |
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|   |  | <p>increasing renewable energy, such as Virtual Net Metering.</p> <p>The NSW Government could also advocate for change in the AEMC which seems to be increasingly out of touch with the reality of the need to address carbon emissions in the long-term interests of everyone, including its consumers.</p> |
| <p><b>2.2 Attract investment in advanced energy demonstration projects</b></p> <ul style="list-style-type: none"> <li>support research and demonstration projects for emerging advanced energy technologies that could provide flexible electricity generation</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to support our advanced energy transition?</p> | <p>SSROC strongly supports these actions to attract investment in advanced energy demonstration projects.</p>  |
|   | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>  | <p><a href="#">Click here to enter text.</a></p>   |

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| <ul style="list-style-type: none"> <li>support research and demonstration projects for renewable alternatives to natural gas and transport fuels in industrial applications, including concentrated solar thermal, biomass, electrification and hydrogen.</li> </ul>  | <p>Are there other opportunities for advanced energy we should be encouraging?</p>   | <p>SSROC urges the Government to include Energy-from-Waste facilities as a specific category of advanced energy technologies. Our modelling shows that with population increases in southern Sydney, and with extensive programs of urban renewal bringing significant population increase in particular localities, the rate at which general putrescible waste is generated will increase proportionately. Furthermore, our periodic waste audits have recently shown an increase in per capita waste generation. SSROC has negotiated a contract for the processing of over 100,000 tonnes of waste p.a. from five of our member Councils, but that particular facility (Veolia's Woodlawn MBT, currently under construction) will be operating at capacity as soon as it opens.</p> <p>We strongly urge the Government to consider energy from waste as a particular category of renewable energy, since it would have the co-benefit of addressing the major future problem of Sydney's increasing waste generation. It is already covered by the NSW EPA's Energy from Waste Policy, is an essential component in the response to increasing waste volumes and decreasing landfill for waste that cannot be managed through recycling, reuse or other process higher in the waste hierarchy.</p> |
| <p><b>2.3 Provide start-up funding to accelerate innovation in advanced energy</b></p> <ul style="list-style-type: none"> <li>work with established business incubators to provide dedicated programs for entrepreneurs and start-ups developing, demonstrating and deploying clean energy and supporting technologies and services</li> <li>sponsor energy innovation events to facilitate collaboration among universities, industry, government and investors</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to support our advanced energy transition?</p> <p>Are there particular issues we need to consider to ensure these actions are effective?</p> | <p>SSROC strongly supports this action to provide start-up funding to accelerate innovation in advanced energy.</p> <p>It is very important to have a social licence to operate a new technology, so SSROC welcomes the action to monitor. However, the NSW Government is also well positioned to bring about changes in attitude through, for example, demonstrator projects, published research, and general information provision.</p>  |

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| <ul style="list-style-type: none"> <li>• develop tools to share information, connect collaborators and promote energy innovation in New South Wales</li> <li>• monitor the development of technologies, community attitudes, price signals and share information to encourage investment and support market growth.</li> </ul>  | <p>Are there other opportunities for advanced energy we should be encouraging?</p>   | <p>SSROC has recently completed a study into community attitudes towards Energy-from-Waste, which could be used in developing a baseline for monitoring community attitudes to these particular technologies.</p> <p>Support of existing novel solutions must be maintained, providing certainty to developing initiatives such as Our Solar Future.</p> |
| <p><b>2.4 Put the New South Wales vehicle fleet on the path to doubling energy productivity</b></p> <ul style="list-style-type: none"> <li>• advocate for higher national fuel efficiency standards</li> <li>• investigate appropriate incentives to encourage the purchase of fuel efficient light vehicles and to retire inefficient vehicles, including through stamp duty and registration charges</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to support our advanced energy transition?</p> | <p>SSROC strongly supports this action to put the NSW vehicle fleet on the path to doubling energy productivity.</p>   |

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| <ul style="list-style-type: none"> <li>• provide the right 'real-world' information so that businesses and individuals can choose fuel efficient light and heavy vehicles</li> <li>• work with vehicle suppliers and clean energy providers to make zero emission and flexible fuel vehicles available to the New South Wales vehicle market</li> <li>• investigate and consider how the government could best invest in a fleet of electric vehicles, including for public transport, and charging infrastructure at government sites</li> <li>• investigate the case for public investment in electric vehicle charging infrastructure and the requirements for renewable energy power supply</li> <li>• review and extend the Green Truck Partnership approach to demonstrate new technologies for low-emissions light vehicles and freight (road, rail and other).</li> </ul> | <p>Are there particular issues we need to consider to ensure these actions are effective?</p> | <p>Recent Australian Automotive Association research highlights the difficulty of measuring, monitoring and enforcing fuel efficiency standards. This follows the Volkswagen-Audi admission in 2015 that they effectively cheated on vehicles' fuel economy and emissions figures. Refer: <a href="http://www.aaa.asn.au/reports/">http://www.aaa.asn.au/reports/</a> AAA Real Driving Emissions Testing – Preliminary Results – December 2016. While SSROC supports higher national fuel efficiency standards, clearly the implementation and enforcement of such standards is a problem that will need to be overcome. Until this problem is overcome, consumers will make decisions based on potentially flawed data, potentially spending more money in order to comply, while in reality investing in vehicle that no better than a cheaper alternative. Likewise, the Government might lose stamp duty and registration charges for no real improvement in fuel efficiency.</p> <p>The process for procuring vehicles will need to be adjusted in many industries, which judgements currently made on the basis of price, operating cost, and function. Assessment criteria will need to be adjusted to include fuel efficiency and carbon emissions, and should generally be set to a high standard, to encourage the automotive industry to deliver higher-efficiency vehicles.</p> |
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|  | <p>Are there other opportunities for advanced energy we should be encouraging?</p>   | <p>There is an additional opportunity to research ways in which existing diesel fleet or the fuel it consumes might be modified to improve its productivity e.g. garbage trucks, excavators.</p> <p>The Strategic Plan s2.4 correctly identifies greenhouse gas emissions as affecting local environment and human health. It is important to note that there are other benefits to fuel efficiency such as reduced operating cost, but also improved air quality from a reduction in particulate emissions, for example.</p> <p>There is an opportunity for further actions to increase cycling and public transport options, reducing car-dependence and fuel consumption. The opportunity is particularly strong for areas of urban renewal, where new bike and pedestrian paths can be built in.</p> |
| <p><b>2.5 Build capacity of local communities to deliver and own renewable energy</b></p> <ul style="list-style-type: none"> <li>• build capacity in councils in regional areas to provide advice to their communities on advanced energy</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to support our advanced energy transition?</p> | <p>SSROC strongly supports this action to build the capacity of local communities to deliver and own renewable energy.</p>   |

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| <ul style="list-style-type: none"><li>• sponsor energy market and financial regulation reforms through COAG to make it easier for community scale projects to connect to the grid and share their benefits</li><li>• help community energy groups to share knowledge and experience with financing and delivery models to get community energy projects off the ground</li><li>• deliver connection guides and business case guides for sustainable energy community and residential projects</li><li>• investigate the best ways to encourage developers to share the benefits of renewable energy projects with the local community.</li></ul> | <p>Are there particular issues we need to consider to ensure these actions are effective?</p> | <p>The National Electricity Market needs substantial reform to enable it to operate in the long-term interests for the consumer in the future. Having been established for a centralised generation system aimed at selling electricity, it needs to change direction to support decentralised generation and energy efficiency. This is a significant paradigm shift for the vast majority of stakeholders in the entrenched mode of operation, but one which is clearly taking place already among consumers.</p> <p>The current National Energy Rules effectively prohibit local trading of electricity by making it price-prohibitive. This is a major barrier to maximising the potential of local generation.</p> <p>Through our website <a href="http://www.oursolarfuture.nsw.gov.au">www.oursolarfuture.nsw.gov.au</a> member councils and the City of Parramatta are already empowering residents to make decisions on their own solar power, solar hot water and heat pump options. This will shortly be expanded to include other options. However, it remains a challenge to reach those residents who are not owner-occupiers of single dwellings, such as tenants, multi-unit residents, low income earners, and vulnerable people such as the frail elderly who would benefit greatly from solar power.</p> |
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|  | <p>Are there other opportunities for advanced energy we should be encouraging?</p> | <p>Under our Renewable Energy Master Plan, Our Energy Future, SSROC is working to establish a Community Energy Services Organisation. Intended to be a pilot initially, the service is being designed to be extended to council areas across southern Sydney and Parramatta, and could also be replicated throughout NSW. The OEH has been informed of the progress of this initiative. We urge the NSW Government to consider this project an opportunity to:</p> <ul style="list-style-type: none"><li>- help community energy groups to share knowledge and experience with financing and delivery models to get community energy projects off the ground, and</li><li>- deliver connection guides and business case guides for sustainable energy community and residential projects.</li></ul> <p>SSROC would also suggest that there is an opportunity to reach people who are not owner-occupiers in single dwellings. Some people, such as those most vulnerable to heat-wave, are also unable to afford the cost of solar power, are those who would most benefit from it: in a heatwave, being able to turn on air-conditioning or even a fan because it is operating on solar power rather than mains electricity could be life-saving. Similarly, energy efficiency measures can save money which can be significant proportion of the income of a low-income household. SSROC would urge the NSW Government to continue its Home Energy Action Plan, and to roll-out the initiative recently undertaken with St George Community Housing to other Community Housing Providers.</p> <p>The NSW Government could encourage the take-up of renewables by reinstating a feed-in tariff above the wholesale price of electricity.</p> <p>The Government could create a framework to enable and incentivise opportunities for community capacity-building and community investment in the delivery and ownership of suitable renewable energy projects.</p> |
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| <p><b>2.6 Identify low-emissions pathways for emissions intensive sectors</b></p> <ul style="list-style-type: none"> <li>partner with researchers and industry to identify and assess the potential for heavy industrial sites to reduce emissions</li> <li>work with industry to share knowledge of emissions reduction technologies and practices based on a 'learning by doing' approach.</li> </ul>  | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to support our advanced energy transition?</p> | <p>SSROC supports this action to identify low-emissions pathways for emissions intensive sectors.</p>   |
|  | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>  | <p><a href="#">Click here to enter text.</a></p>  |
|  | <p>Are there other opportunities for advanced energy we should be encouraging?</p>   | <p><a href="#">Click here to enter text.</a></p>  |
| <p><b>2.7 Reduce emissions in NSW to support achievement of Commonwealth objectives</b></p> <ul style="list-style-type: none"> <li>Coal Innovation NSW continuing to support research into low emissions coal technologies and encouraging the development and implementation of these technologies, including investigating ways for coal mines to reduce their fugitive emissions, including via the Commonwealth Government's Emissions Reduction Fund</li> <li>strengthen emissions-performance requirements and monitoring in land-use planning and major project-planning approvals processes</li> <li>advocate for Commonwealth, COAG and international action consistent with the Paris Agreement</li> <li>advocate for improvements to Commonwealth policy and programs to address key emissions sources in New South Wales such as agricultural production systems and transport</li> <li>support farmers and the agricultural industry to reduce emissions or enhance carbon sequestration</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to support our advanced energy transition?</p> | <p>SSROC supports the actions to reduce emissions in NSW to support support achievement of Commonwealth objectives, particularly the action to advocate for Commonwealth, COAG and international action consistent with the Paris Agreement.</p>  |
|  | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>  | <p>There is increasing evidence that the Emissions Reduction Fund is not the most cost-effective way to deliver emissions reductions, and the policy needs to change if Australia is to achieve its commitments under the Paris Agreement. (E.g. Climate Change Authority, "Towards a Climate Policy Toolkit", 2016 and www.abc.net.au "Australia won't meet Paris climate change targets, urgent policy needed on emission reduction: Finkel report" 9 December 2016). SSROC would urge the NSW Government to advocate for a better scheme or more interventions, preferably where the polluter pays, rather than the taxpayer, and which is more likely to endure into the future and bring lasting change.</p> |

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| <p>and attract funding from the Commonwealth Emission Reduction Fund.</p>  | <p>Are there other opportunities for advanced energy we should be encouraging?</p>   | <p>Since it is necessary to work within the current Commonwealth policy framework, SSROC suggests fugitive gas emissions should also be within the scope of research into low emissions technologies.</p>  |
| <p><b>2.8 Make Sydney the Asia-Pacific’s carbon market hub</b></p> <ul style="list-style-type: none"> <li>seek to make Sydney the Asia-Pacific’s carbon market hub by extending Sydney’s financial and business infrastructure, scaling-up Sydney’s carbon market workforce and encouraging international businesses to headquarter in Sydney.</li> </ul>  | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to support our advanced energy transition?</p> | <p>SSROC supports this action to make Sydney the Asia-Pacific’s carbon market hub.</p>   |
|  | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>  | <p>Given that Australia has repealed its Clean Energy Act which introduced an effective carbon pricing mechanism, to replace it with a weaker pricing mechanism in the Emissions Reduction Fund, the country may have lost some credibility in this space.</p>   |
|  | <p>Are there other opportunities for advanced energy we should be encouraging?</p>   | <p><a href="#">Click here to enter text.</a></p>   |
| <p><b>2.9 Identify cost-effective pathways to reduce greenhouse gas emissions to achieve net zero</b></p> <ul style="list-style-type: none"> <li>model emissions pathways and their economic impacts taking account of national and international carbon constraints and trends in both government policies and private sector action</li> <li>monitor and predict the impact of current and new policy initiatives on the state’s emissions performance</li> <li>develop a plan for New South Wales to achieve net zero emissions.</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to support our advanced energy transition?</p> | <p>SSROC strongly supports this action to identify cost-effective pathways to reduce greenhouse gas emissions to achieve net zero.</p>   |
|  | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>  | <p>The Strategic Plan s1.2 states that net-zero emissions by 2050 is an “aspirational objective”. SSROC suggests that this is not only achievable, but is essential if NSW is to play its part in keeping climate change to a level that might be managed by adaptation.</p> <p>Several studies have been completed on ways to achieve net-zero emissions, which could be helpful in further developing the plans. For example, Beyond Zero Emissions “Zero Carbon Australia Stationary Energy Plan” and “Buildings Plan”.</p> |

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|  | <p>Are there other opportunities for advanced energy we should be encouraging?</p> | <p>SSROC and member councils, like many councils in NSW, are working to achieve increases in the take-up of renewable energy in southern Sydney. SSROC would be willing to contribute these efforts to the NSW-wide 2050 net zero emissions target. Refer to our Renewable Energy Master Plan: Our Energy Future for the many ways in which we are already, or are seeking to in the future, achieve councils' own targets. Available: <a href="http://www.ssroc.nsw.gov.au/publications">www.ssroc.nsw.gov.au/publications</a> .</p> |
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## 2. National leadership in energy efficiency

A *Draft Plan to Save NSW Energy and Money* provides a greater level of detail on some potential actions in the *Draft Climate Change Fund Strategic Plan*. There are more detailed consultation questions in italics with numbering corresponding to *A Draft Plan to Save NSW Energy and Money*.

Please provide any comments on specific potential actions from the *Draft Climate Change Fund Strategic Plan* **AND** *A Draft Plan to Save NSW Energy and Money* below:

| Sections and potential actions  | Questions  | Responses  |
|---|--|--|
| <b>3.1 Expand investment under the Government Resource Efficiency Policy</b> <ul style="list-style-type: none"> <li>support councils to upgrade public lighting and adopt the Government Resource Efficiency Policy.</li> <li>implement government energy management and reporting systems to help agencies understand where and how to make energy savings</li> <li>develop clean energy standards for new government funded infrastructure projects and investigate the best way to implement them</li> </ul> | Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency? | SSROC supports the action to expand investment under the GREP.   |
|   | Are there particular issues we need to consider to ensure these actions are effective?                                 | Implementation for energy management systems would need to be carefully monitored to verify their accuracy and effectiveness as well as for reporting.<br><br>There may be reluctance in some councils to borrow to invest, even from the CEFC, for fear that any debt puts them at risk of being considered not fiscally prudent or financially strong enough.  |
|   | Are there particular communities or industry sectors we should be targeting to improve energy efficiency?              | In relation to street lighting in southern Sydney (and many other council areas) Ausgrid, preferably by means of regulation requiring energy-efficient lighting.<br><br>Councils in relation to any targets that they might be required to meet in future.   |
|   | Are there other opportunities for energy efficiency we should be encouraging?  | SSROC's Community Energy Services Organisation is a council-driven initiative to serve their communities in relation to energy efficiency and renewable energy. The pilot planned for 2017/18 will deliver valuable information about how to reach different sections of the community (particularly including renters, low-income households, vulnerable people) and about delivering relevant services. SSROC urges the NSW Government (OEH) to engage in this project, with a view to potentially expanding or replicating the service more widely in the future. |

*Q27: What is the best approach to develop higher sustainability and energy efficiency standards that can apply across a range of infrastructure types?*

SSROC strongly urges that major projects be required not only to take sustainability concerns “into account” but to be required to justify why they should not achieve the highest level of sustainability rating, and then that justification should be independently assessed through a fully transparent review process.

NSW Government could apply the Life Cycle Analysis methodology to all major and state-significant infrastructure projects in order to examine and identify ways to improve both the works and the long-term sustainability of the development. Although targeting better energy, emissions and waste outcomes, this approach would help to ensure that the development endures over time, performs well, and costs less in the long term.

Q28: *What are the best policy options to facilitate the installation of energy efficient public lighting?*

SSROC welcomes consideration of policy options to help facilitate the installation of energy efficient public lighting. This is an area of long-standing interest for councils in SSROC's Street Lighting Improvement Program. The SLI Program works on behalf of 31 councils encompassing about 95% of Ausgrid public lighting and 40% of NSW public lighting. It is in this context that SSROC makes the following comments:

**1) Expanding the role of Accredited Service Providers in upgrading and maintaining public lighting.**

As the road authorities in NSW, councils and RMS have exclusive powers to decide whether to light each roadway, to what level and in what manner. This creates an onus on them to discharge these powers responsibly. At present, however, road authorities in NSW are unable to meaningfully discharge their public lighting responsibilities in important respects as there is no clear basis of service governing the relationship between the utility owners of most public lighting and the road authorities.

In addition to vital reform of the NSW Public Lighting Code (see below), SSROC supports expanded contestability in the area of public lighting that gives councils the option of choosing their street lighting service provider if they so wish. This would be one clear way to address the fundamental misalignment of ownership and responsibility for public lighting that exists in NSW at present.

Widespread experience overseas suggests that resumption of council control of public lighting technology decisions would also lead to faster deployment of new energy efficient lighting technology. Notably, most of the largest LED and smart controls deployments globally have been led by councils with LED deployment by utilities notably lagging across multiple markets where utilities own public lighting.

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|  |  | <p>SSROC notes that council control of street lighting is the norm in much of the developed world and, in many jurisdictions where this is not the case, steps towards transferring control of lighting from utilities to local councils is underway in an effort to speed up LED deployments. For example, a number of states in the New England region of the USA have facilitated such transfers with large, council-controlled LED replacement programs now underway in jurisdictions such as Connecticut and Massachusetts as a result.</p> <p>In Australia, the QLD government has a policy to support transfers of public lighting to councils that wish to take it over and the Sunshine Coast Council is expected to be the first council to finalise taking over direct control of public lighting in that state. In Tasmania, Hobart and Glenorchy councils have undertaken large-scale LED replacement programs that involved taking over responsibility for the lighting from the utility. In the Northern Territory, councils will assume full ownership and operational control of all public lighting from 1 January 2018. In South Australia, consideration is being given to council ownership of street lighting. In Victoria, the Public Lighting Code allows a limited form of contestability whereby councils can buy new lighting and contract with ASPs to install it but are then required to gift it back to the utilities (SSROC does not support this particular model).</p> <p>Expansion of the NSW Accredited Service Provider regime could provide a robust method to ensure that only qualified personnel work on public lighting and do so under a regime that maintains appropriately high safety standards. Enhancements may be needed to clarify points of delineation between network assets and public lighting assets, define acceptable locations for lighting and installation approach for lighting (if not already clearly covered in Network Standards), establish notice requirements, clarify approval procedures, establish information provision</p> |
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|  |  | <p>requirements, inspection regime, clarify rights, responsibilities and liabilities etc.</p> <p>SSROC notes that, beyond enhancements to the ASP regime, some other issues require consideration to ensure that expanded contestability actually leads to meaningful competition:</p> <p>a) <b>OWNERSHIP</b> - Currently the vast majority of public lighting in NSW is owned by the DNSPs. Expanding public lighting contestability would not in and of itself give councils the right to modify, remove, replace or maintain existing DNSP-owned lighting without the issue of ownership also being addressed. Recognising the monopoly position of the utilities and the negotiating imbalance this creates for councils, the NSW Government has an important role to play in determining an equitable basis for transfer of ownership of current public lighting to councils. SSROC notes that in the New England, State governments recognised that the Regulatory Asset Base valuation of public lighting was a pricing tool for an on-going service and not appropriate as an exit mechanism. They have therefore legislated the depreciated book value as a reasonable exit price for councils taking over public lighting from the utilities. In the Northern Territory, ownership of all existing public lighting is being transferred to councils at zero valuation from 1 January 2018.</p> <p>b) <b>PRICING OF RESIDUAL MONOPOLY SERVICES</b> - Establishing pricing for residual monopoly utility services related to public lighting (eg any inspection and inventory verification charges) would be essential to give pricing certainty and protect the public road authorities from new and potentially unregulated charges by the utility. Notably, in the Northern Territory a clause in the transfer agreement for street lights from the utility</p> |
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|  |  | <p>to the councils prohibits any fees or charges (other than for electricity) for street lights attached to or mounted on the assets of the power network.</p> <p>c) <b>AS 3000 INTERPRETATION</b> – Consideration should be given to the appropriate interpretation of AS3000 with non-DNSP entities owning public lighting assets. SSROC understands that this issue is being given detailed consideration in both QLD and the ACT at present in a similar context.</p> <p>d) <b>ACCC DISPENSATION</b> – Provisions of the Competition and Consumer Act 2010 may prevent large groups of councils working together on public lighting without dispensation from the ACCC. Working together as regional groupings would be essential to maintain economies of scale, minimise transaction costs, attract strong bids and overcome low levels of expertise in individual councils. Such dispensation from the ACCC has previously been sought successfully with respect to regional waste contracts.</p> <p><b>2) Minimum performance standards and reporting requirements in the NSW Public Lighting Code.</b></p> <p>SSROC strongly supports current efforts by the NSW Department of Industry to reform the NSW Public Lighting Code including by making it a mandatory instrument (as a proxy for a basic service level agreement), by introducing penalties for non-compliance with the minimum requirements of the Code, by enhancing reporting requirements and through a review of provisions of the Code which have not been reviewed for a decade and were developed long before the emergence of LED street lighting and smart controls.</p> <p>One option to enhance energy efficiency is through the inclusion of minimum luminous efficacy requirements</p> |
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|  |  | <p>(eg setting a floor of perhaps 100 lumens per Watt). Such an approach has been used widely in other jurisdictions, though not necessarily with respect to public lighting. SSROC understands the value of such measures but is unclear that such provisions are needed in this case because:</p> <ul style="list-style-type: none"><li>• Following completion of the Networks NSW tender, all three DNSPs appear set to adopt LEDs as their default lighting choices for residential roads in the coming weeks and for main roads in two of three jurisdictions within one year.</li><li>• Setting such a minimum standard needs to be done with care to guard against substandard products including those with inappropriate colour temperature, colour rendition and poor optical performance.</li></ul> <p>SSROC suggests that a more useful approach might be provisions in the Public Lighting Code that shift technology choice from the utility to the road authority, where it more appropriately belongs in any event.</p> <p><b>3) Other measures, such as targeted grants to accelerate replacement of inefficient fittings that have a long remaining economic life and high residual capital value.</b></p> <p>SSROC supports targeted grants to address high residual capital values of legacy lighting systems but notes that any measure of 'remaining economic life' would be hard implement in the Ausgrid region where the assumed economic life is a technology and LGA-specific modelling assumption that has little to no relationship to actual age of assets. In simple terms, the same lights on two sides of the same street installed at the same time can have asset age assumptions that differ markedly if they are in different LGAs. Targeting particular technologies (eg mercury</p> |
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|  |  | <p>vapour) irrespective of age may be a more appropriate and equitable approach.</p> <p><b>4) A program to support councils to access specialist services and build capacity to upgrade public lighting.</b></p> <p>While additional support would be welcomed by many councils, the lack of a robust basis of service and meaningful control over technology choice has been a bigger barrier to accelerated deployment of LED lighting than a lack of support. Even with the right advice and solid precedent from other jurisdictions, LED deployments have progressed far more slowly than councils would wish.</p> <p><b>5) What are the information requirements for councils to make better informed decisions regarding public lighting management and expenditure?</b></p> <p>Reporting and information provision requirements in the NSW Public Lighting Code should be enhanced to allow councils and the RMS to readily:</p> <ul style="list-style-type: none"><li>a) VALIDATE BILLS - Currently very difficult, particularly with lump-sum capital charges in some regions</li><li>b) IDENTIFY THE COSTS OF A LIGHT OR GROUP OF LIGHTS - Currently very challenging requiring input from inventories, pricing tables, AEMO unmetered load tables and multiple bills</li><li>c) IDENTIFY THE ENERGY CONSUMPTION OF A LIGHT - Currently challenging for some utilities requiring reference to both the inventory and AEMO unmetered load tables</li><li>d) UNDERSTAND RESIDUAL VALUES OF ANY ASSET - Currently requires separate request of utility</li></ul> |
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|  |  | <p>e) <b>DEMONSTRATE MAINTENANCE SERVICES ARE BEING PROVIDED</b> – Currently challenging for customers in some regions to know if a light has been repaired, if night patrols are being provided and when bulk lamp replacement has occurred</p> <p>6)</p> <p><b>7) How can this information best be delivered to councils?</b></p> <p>If billing systems are incapable of cost-effective modification, such information could be readily delivered by simple enhancements to public lighting inventories.</p> <p><b>8) The extent to which councils would be able to realise savings from the expanded role of ASPs?</b></p> <p>Realisable savings will be unclear until the market is tested but on a like-for-like basis, some specialist street lighting service providers have suggested that they could better utility maintenance costs could by up to 30%. Looking forward, the IPWEA has estimated in its recently released SLSC Roadmap that full deployment of LEDs has a 25% lower total cost of ownership as compared a portfolio of legacy lighting. If an expanded role for ASPs leads to earlier deployment of LEDs, this is the scale of potential cost savings available from new technology.</p> <p><b>9) Are there other policy approaches to reduce the cost of installation and maintenance of public lighting?</b></p> <p>The soonest possible deployment of LEDs and smart controls is the most effective way to reduce the total cost of street lighting to the community. This could be accomplished by enhanced contestability or via an enhanced Public Lighting Code that puts technology choice in the hands of the responsible road authorities. In SSROC's view, both paths should be pursued.</p> |
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|  |  | <p><b>10) How best to assess the economic viability of accelerated replacement of inefficient public lights (as in Option 2)?</b></p> <p>Provision of enhanced reporting and information as identified in item 5 above would give all parties the information required to assess the economic viability of accelerated replacements. Now that accelerated replacements with LEDs have become an option for the first time in the Ausgrid region with the completion of the Networks NSW tender and with pricing proposal having been made to councils, SSROC intends to undertake a business case analysis for all participating councils.</p> <p><b>11) What is an appropriate minimum requirement for the energy efficiency of public lights?</b></p> <p>See SSROC comments above in item 2 above.</p> |
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|  | <p><i>Q29: What is the best way to support councils to apply GREP?</i></p>                                     | <p>SSROC strongly supports the allocation of additional resources for communication and support to local governments delivering against the GREP (or a council-specific version) targets. Many councils have achieved significant energy savings under the NSW Energy Savings Scheme, and are still engaged in initiatives that would qualify, but there are often barriers to implementation such as access to funding: support in the form of funding or enabling councils to access funding would improve the chances of local governments delivering more major energy savings.</p> <p>Any reporting requirements should be incorporated into Councils' existing reporting under the Integrated Planning and Reporting framework, preferably using data that they already monitor. This would also help to embed the approach in Council business.</p> <p>SSROC member Councils value the OEH's energy saving courses and post-training support. This program should continue, and could be enhanced to be more targeted.</p> |
|  | <p><i>Q30: What is the best way to achieve energy and bill savings from hotels used by NSW Government?</i></p> | <p>SSROC would support the application of a NABERS for Hotels scheme, and a requirement to use accredited hotels where possible.</p>  |

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|   | <p><i>Q31: Are there other ways to save energy through government procurement?</i></p>  | <p>Every government procurement could include a requirement for the supplier to demonstrate their commitment to energy-savings, with a clear preference given to suppliers who best show that commitment (subject to a balance of delivering against other assessment criteria).</p> <p>Where a procurement involves a significant proportion of energy, such as electricity, gas, vehicle fuel supply, the criterion could be given a higher weighting than in other procurements.</p> <p>Specific requirements could be added to energy-focused procurements, such as additional energy-savings services, or incentives to reduce supply where the cost-saving is shared between the buyer and the supplier.</p> <p>NSW Government could invest in sustainable public transport instead of entrenching Sydney reliance on roads and cars.</p> <p>All NSW Government Agencies could:</p> <ul style="list-style-type: none"> <li>- be required to deliver on the net-zero emissions target through their strategic procurement actions, and be held accountable to the target.</li> <li>- move towards an electric vehicle fleet, with charging stations at their car parks, offices, depots and other buildings.</li> <li>- install battery storage technology in premises to maximise the use of renewable and off-peak energy.</li> </ul> |
| <p><b>3.2 Improve energy productivity for households and businesses</b></p> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?</p> | <p>SSROC fully supports the actions to improve energy productivity for households and businesses.</p>  |

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| <ul style="list-style-type: none"> <li>• accelerate energy efficient appliance standards under the national Greenhouse and Energy Minimum Standards program</li> <li>• consult on increasing the NSW Building and Sustainability Index (BASIX) targets for new homes to encourage industry innovation and best practice, and reduce energy bills</li> <li>• improve energy standards for new commercial buildings by advocating for new standards</li> <li>• investigate the introduction of energy standards for retail tenancies and common areas in apartment buildings.</li> <li>• partner with supply chains to improve the efficiency of the products available to end consumers.</li> </ul> | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>                    | <p>SSROC would strongly support a significant increase in BASIX targets, and would recommend that a supporting campaign of information and education be delivered, to enable developers and smaller builders to adapt to the new targets.</p> <p>BASIX targets were reviewed in 2014: it is important that the Government take account of the views that were expressed at that time when initiating another round of consultation. Perhaps a discussion paper, incorporating the 2014 feedback, would be a helpful and positive way to start the consultation process.</p> <p>However, A Plan to Save NSW Energy and Money s2.3 states that “In July 2017, the NSW Government will implement recommendations to update BASIX energy targets.” It is not clear whether these updates have already been identified, or whether they will be identified in the first part of 2017 through a consultation process.</p> <p>Either way, it is very important for councils to know and understand any coming changes to BASIX, so this consultation is becoming urgent. It is not possible to comment further without more detail about the changes.</p> |
|  | <p>Are there particular communities or industry sectors we should be targeting to improve energy efficiency?</p> | <p>Low-income households could benefit greatly from energy efficiency measures.</p>  |

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|  | <p>Are there other opportunities for energy efficiency we should be encouraging?</p> | <p>SSROC's Community Energy Services Organisation, which aims to achieve exactly this type of action by reaching out to our community, especially those who might consider sustainability changes as non-essential luxuries, not understanding that there are real achievable, cost-savings.</p> <p>The action to partner with supply chains is very important, since energy consumption over the whole lifecycle of a product is rarely considered and it is very likely that there is scope for energy efficiency through the supply chain as well as efficiency of products themselves.</p> <p>Property ratings could reflect the cost of running it. BASIX should include the net-zero emissions target and standards raised, with a commensurate compliance program. It could also include a requirement for solar PV for new multi-unit residential properties.</p> <p>NSW Government could fund or provide grant funding, for:</p> <ul style="list-style-type: none"><li>- councils to implement energy efficiency projects</li><li>- large solar PV project on commercial/industrial rooftops</li><li>- purchasing GreenPower or subsidising it</li><li>- schools to deliver lighting upgrades and to install solar PV.</li></ul> <p>These could also be funded by no- or low-interest loans, with the principal repaid from savings.</p> |
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|  | <p><i>Q8: What is the best way to keep BASIX standards up to date?</i></p>   | <p>A rolling program of consultation and updates, the frequency to be agreed through the forthcoming consultation process: perhaps an annual review by an expert panel in order to keep the standards in step with global standards and evolving technology.</p> <p>The expert panel could include academics e.g. CRC for Low Carbon Living and the Green Building Council, but also climate change experts to ensure that the standards are amended according to climate expectations.</p>  |
|  | <p><i>Q9: How can better information on BASIX performance help consumers and industry to understand the benefits of better designed and more energy efficient homes?</i></p> | <p>Fact sheets could be provided to everyone submitting a development application for any property that would benefit from BASIX. This information needs to be very clear and easily understood by a non-specialist without planning or construction experience. It should highlight the potential costs savings as well as energy performance.</p> <p>Fund Councils to enable them to resource a supporting program to work with builders at the planning stage and through to occupancy.</p>   |
|  | <p><i>Q11: What is the best approach to achieve energy and bill savings from common areas and shared services in apartment buildings?</i></p>                                | <p>SSROC agrees that under the existing strata laws it can be difficult to achieve the installation of solar power or any other energy or bill savings. SSROC is generally supportive of the requirement for energy efficiency audits for mid- and high-rise apartment buildings, subject to the cost.</p> <p>Where an auditor identifies one of the worst-performing technologies, then they could perhaps agree to accept all or part of the cost of audit from the savings that would be made once the technology was replaced.</p> <p>The Government could require all existing strata-type apartment buildings to develop an energy savings plan for common areas and shared services.</p> <p>New apartment buildings should be required to meet standards for energy efficiency, and to have solar PV to supply common areas (which could be by means of a PPA or a local electricity trading scheme).</p> |

*Q12: Could the NSW Government achieve energy savings from precinct-scale developments, high-growth areas and by partnering with local government areas?*

The NSW Government could achieve energy savings from precinct-scale developments and high-growth areas by encouraging and enabling decentralised renewable energy generation such as local energy trading using solar power or neighbourhood Energy-from-Waste. For example, the Bays Precinct development could derive a significant proportion of its energy from a large solar array mounted on the former power station, which would both symbolise and realise the future of power generation. It could also have an Energy-from-Waste facility, which could be an architectural feature like the Spittelau plant in Vienna. Such opportunities as these have enormous potential, and are already proven technologies.

Precincts could be given mandatory energy targets, and support could be given to enable them to incorporate smart grids, charging for electric vehicles, and to work with the CSIRO on the Internet of Things.

Buildings could be required or encouraged to exhibit a high standard of energy efficient design, and landscapes and surfaces could be designed to minimise the urban heat island effect. Trees should be preserved or planted since they have a significant cooling effect as well as providing shade.

Local governments could work in partnership with the NSW Government if given the appropriate tools to do so. Representatives from councils should be included in urban renewable strategy development teams, to bring local knowledge and expertise to the plan.

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|  | <p><i>Q13: What would be the benefits and impacts of encouraging precinct-scale or local government area energy savings for new homes and other buildings?</i></p>   | <p>At the precinct scale potential benefits are greater than at the scale of an individual building. Vegetated landscapes, particularly trees, can mitigate the urban heat island effect, and reduce the need for air-conditioning. The design of a precinct or local area could facilitate active travel, enabling local people to walk or cycle, rather than drive to their destination. This outcome can be maximised by designing a locality so that it has all the people need without the need to commute or travel any significant distance to facilities that are necessarily frequented such as schools.</p> <p>The power-generating potential of rooftop solar or neighbourhood Energy-from-Waste facilities could be maximised since it need not be limited to the consumption requirements of an individual building. While not strictly energy efficiency measures, such initiatives do reduce dependence on fossil fuels and improve energy security, as well as contributing to Australia's commitments under the Paris Agreement. See also SSROC submission on street-lighting.</p> |
|  | <p><i>Q20: Reports indicate a 70% improvement on 2010 energy consumption levels deliver significant and cost-effective energy savings for new commercial buildings. What level of stringency increase should the NSW Government advocate for to deliver significant and cost-effective energy savings?</i></p> | <p>Stringent requirements will need to be imposed in order to change the development industry in NSW, which is currently able to maximise profits by trading sustainability measures including energy efficiency (that would benefit occupants/residents in the long-term) against a developer's own short-term gains. The building should not be approved for occupancy until the requirements have been met.</p> <p>A robust and cost-effective standard for new commercial buildings would be essential to enable developers to be held to account in this way. However, this would need to be adequately and independently verified, to ensure that the measures to reach the standards had been delivered and were operating effectively.</p>  |

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|  | <p><i>Q21: What role, if any, could the NSW Government play to help businesses access private finance to help them adjust to improved energy standards for new commercial buildings?</i></p> | <p>NSW Government could have a role in raising awareness of the benefits of improved energy standards, and could perhaps introduce a financing mechanism similar to an Energy Upgrade Agreement, but which could be accessed to finance the design changes and additional construction effort necessary to bring a new commercial building to a efficiency level greater than the suggested defined minimum standard. This could be more cost-effective than upgrades after construction.</p> |
|  | <p><i>Q22: What other approaches could be taken to achieve energy and bill savings from commercial buildings?</i></p>  | <p>Energy efficiency audits would be necessary to provide assurance that the standards had been met. These would need to be completed by an independent expert, and should follow a defined and transparent process.</p> <p>The energy efficient information about a property could be required in or with the lease.</p> <p>The Barrangaroo carbon-neutral program, where tenants are allocated a carbon budget, could be replicated at other new developments.</p>                          |
|  | <p><i>Q23: What are the potential benefits and impacts of this option?</i></p>   | <p>Lower energy bills for building occupants, which would also tend to result in longer tenancies and lower rates of turnover, benefiting the building owner.</p>   |

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|  | <p><i>Q24: What other approaches could be taken to achieve energy and bill savings from large retail buildings?</i></p> | <p>Similar measures to those suggested for commercial buildings, but with a robust and cost-effective set of standards relevant to the retail space. Occupation of the building could be prohibited until an independent auditor, following a clear and transparent process, has verified that the energy efficiency standards have been met.</p> <p>The standard could include providing unit occupants with the capacity to control and pay for their own energy consumption, and to benefit from any energy efficiency savings that they are able to add to those of the building itself.</p> <p>The NSW Government could also support NEM rule changes to permit and encourage virtual net metering, and to have environmental objectives recognised the National Energy Objective.</p> |
|  | <p><i>Q25: What are the potential benefits and impacts of this option?</i></p>  | <p>Lower energy bills for building occupants, which would also tend to result in longer tenancies and lower rates of turnover, benefiting the building owner.</p> <p>The extension of Commercial Building Disclosure requirements could facilitate overcoming the split-incentive and information barriers, but would not of itself require any additional change to be made. The benefits of this would be constrained, but the success of the disclosure requirements evidenced by the 2016 review, suggests that it might have be a significant driver of change.</p>  |
|  | <p><i>Q34: What is the best approach for the NSW Government to support the acceleration and expansion of GEMS?</i></p>  | <p>SSROC supports the national Greenhouse and Energy Minimum Standards program, and NSW Government's proposals for advocacy to COAG Energy Council for better resourcing, supporting work to assess international standards and develop new standards, and the cooperate with other states to collectively trial accelerated standards.</p>   |

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|   | <p>Q36 <i>Are there opportunities to enhance the national Energy Rating Label system that could deliver significant energy savings?</i></p> | <p>SSROC supports the national Energy Rating Label system, and would support its use on the widest possible range of products, and in goods sold on-line for use in Australia.</p> <p>There is an opportunity for raising the minimum standards to keep pace with improving technology and changing societal expectations.</p> <p>The NSW Government could consider an enhancement to the label that takes into account the lifecycle emissions of appliances, to include the energy consumed in production, transport, and recycling or disposal of the products.</p> |
| <p><b>3.3 Support industry to realise cost-effective energy productivity opportunities</b></p> <ul style="list-style-type: none"> <li>• support large energy users to investigate energy savings opportunities.</li> <li>• support industry sectors to adopt best practice energy management practices</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?</p>               | <p>SSROC supports the action to support industry to realise cost-effective energy productivity opportunities.</p>  |
|   | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>   | <p>In providing support to large energy users, the NSW Government should ensure that the business is not being subsidised by the tax-payer to reduce its energy bills.</p> <p>Policy and incentives for low-emission and electric vehicles for the government fleet.</p>   |
|   | <p>Are there particular communities or industry sectors we should be targeting to improve energy efficiency?</p>                            | <p>Small businesses in particular should be targeted, since they are often too busy delivering and running their business to spend time and money on investigating energy efficiency, even if it would save money in the future.</p>   |
|   | <p>Are there other opportunities for energy efficiency we should be encouraging?</p>  | <p>There is potentially a strong synergy between industrial energy efficiency and the circular economy which could be encouraged more.</p>   |

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|  | <p><i>Q14: What is the best approach to providing funding support to large energy users to prepare plans?</i></p>   | <p>Large energy users could be required to develop, implement, monitor and publicly report on an energy reduction plan. Support this requirement by</p> <ul style="list-style-type: none"> <li>- partnering with retailers providing energy efficiency services to work with their large clients on these plans,</li> <li>- supporting local Energy Services Organisations to target large users, e.g. helping them through the process and assisting with procurement.</li> </ul> <p>Investigate why voluntary uptake of cost-effective energy efficiency measures has not been great, and determine what actions might be taken to overcome the barriers identified.</p> <p>Energy Upgrade Agreements could be made simpler, easier to understand and relevant to smaller buildings.</p> |
|  | <p><i>Q15: The NSW Government could determine program participation by targeting a set a number of large energy users, or by setting an energy consumption threshold.</i></p> <p><i>What is the best approach to determine which large energy users could be included in a program?</i></p> | <p>No comment.</p>   |
|  | <p><i>Q16: Payback periods or internal rates of return could be suitable ways to determine what makes a 'cost-effective' energy efficiency opportunity.</i></p> <p><i>What is the best approach to define 'cost-effectiveness'?</i></p>   | <p>No comment.</p>   |
|  | <p><i>Q17: Are there instances where large energy users should be exempt from preparing a plan? If so, under what circumstances?</i></p>  | <p>Large energy users should be exempt from preparing a plan only:</p> <ul style="list-style-type: none"> <li>- if they already one that is adequate for the purpose and that they can report against.</li> <li>- if they can demonstrate that they have already implemented all reasonable solutions.</li> </ul>  |

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|  | <p><i>Q18: Is requiring energy management systems similar to those applied in Germany or the United States appropriate for large energy users in NSW?</i></p>   | <p>No comment.</p>   |
|  | <p><i>Q19: Are there other initiatives or approaches that NSW should consider that could be effective in enabling large energy users in NSW to implement cost effective energy efficiency opportunities</i></p> | <p>The NSW Government could consider reinstating the requirement to prepare Energy Savings Action Plans.</p>   |
|  | <p><i>Q26: What opportunities may be available to the NSW Government to further promote waste heat recovery?</i></p>  | <p>No comment.</p>   |
|  | <p><i>Q34: Are there opportunities for the NSW Government to work with the hot water industry to explore innovations that can save energy and money?</i></p>  | <p>No comment.</p>   |
| <p><b>3.4 Drive clean energy upgrades for rental households</b></p> <ul style="list-style-type: none"> <li>provide ratings for homes at the point of sale or lease to help renters and buyers know which properties would be cheaper to run and more comfortable to live in</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?</p>   | <p>SSROC strongly supports the action to drive clean energy upgrades for rental housing. The split incentive is a major barrier, and typically low-income households, where energy cost savings would be particularly beneficial, are renting.</p> |

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| <ul style="list-style-type: none"> <li>• improve energy performance of tenanted homes to make them more affordable and liveable for renters.</li> <li>• provide financial incentives and/or access to affordable finance for landlords to improve their properties to make them more energy efficient</li> <li>• investigate opportunities to work with other jurisdictions on common approaches to energy efficiency in rental properties.</li> </ul> | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>                    | <p>The split incentive is a major barrier that needs to be addressed.</p> <p>In Sydney there is such a shortage of affordable rental housing, that the provision of information about a property's energy efficiency rating would be of negligible value to a landlord offering the property or to a prospective tenants.</p> <p>There is a risk that a rating system could exacerbate social disadvantage by creating a situation where the lowest-rated properties are the only affordable rental properties. This could be somewhat addressed by requiring that a minimal standard be met before a property can be let.</p> |
|  | <p>Are there particular communities or industry sectors we should be targeting to improve energy efficiency?</p> | <p>Property owners need to be targeted and convinced of the benefit to themselves of energy efficiency measures, especially in localities where there is a shortage of affordable rental housing such as southern Sydney.</p> <p>Property managers could have a role to play, by ensuring that when new appliances are installed, that the most energy efficient products are selected.</p>  |

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|  | <p>Are there other opportunities for energy efficiency we should be encouraging?</p>  | <p>Although not strictly energy efficiency, solar PV on rental housing can enable the tenant to save reduce their consumption of fossil-fuel energy by substituting renewable energy. This obviously would save them money, but for some vulnerable low-income groups could be life-saving in heatwaves. The landlord could be incentivised to install solar PV if they also deployed a system capable of monitoring the tenant's consumption of power generated by the system: the landlord could then charge the tenant for that electricity at a lower rate than the tenant would pay to an electricity retailer. The NSW Government could evaluate, accredit and promote such systems. (See for example <a href="http://matter.solar">http://matter.solar</a> - note that SSROC has not assessed or evaluated this product, and is not promoting it.)</p> <p>Vegetation, tree canopy and green walls around homes create shade, have a cooling effect, and can increase thermal comfort indoors. There is an opportunity to encourage tree-planting and preservation, particularly on privately owned urban land.</p> |
|  | <p><i>Q1: What are the best approaches to deliver a ratings program in a way that will drive implementation of energy efficiency and grow the market for energy efficient homes and upgrades?</i></p> | <p>The ratings system needs to be actively promoted, especially by real estate agents, so that it becomes a key factor in deciding which property to buy and therefore a good rating is likely to enhance the value of a property. However, such a system is unlikely to have a significant impact in Sydney, where housing is already relatively expensive irrespective of its sustainability or energy efficiency rating.</p> <p>The ratings system should be mandatory, and should raise standards significantly and as soon as possible.</p> <p>A compliance system would also need to be put in place to ensure that buildings are constructed as planned, and that the rated features are operating effectively.</p> <p>Engage with builders and developers quickly and early in the process of development,.</p> <p>Build the capacity of councils to assess development applications against the higher sustainability standards.</p>   |

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|  | <p><i>Q2: What are the key attributes for a voluntary ratings program to be considered successful and justify transition to a required scheme?</i></p>   | <p>The ratings program would need to be widely understood and acknowledged as a signal that the higher-rated property represents a better investment than a lower-rated one.</p> <p>All developers would need to be engaged in the program so that would make the new ratings part of their normal business.</p> <p>Completed developments would need to be assessed to provide assurance that the ratings submitted in the plan have actually been achieved.</p>   |
|  | <p><i>Q3: The NSW Government has identified performance standards, technology standards, and an incentive program as potential approaches to improve energy efficiency standards for tenanted homes.</i></p> | <p>A combination of approaches is required, since different situations call for different solutions. Performance standards are essential, and a minimum level required. Technology standards will help to enable owners to identify outdated technologies. Incentive programs should be used judiciously, to avoid subsidising the owner's investment, or giving the owner justification for an increase in rent.</p> <p>A combination would also reduce the risk of owners finding loop-holes.</p> <p>Completed works would need to be assessed to provide assurance that the standards have been met and that any incentive has been earned.</p>  |
|  | <p><i>Q4: Housing stress includes rent and energy bill pressures.</i></p> <p><i>What are the best approaches to reduce energy bill pressures for tenants without increasing housing costs and why?</i></p>   | <p>Enabling renters to install solar PV and reduce their energy bill that way: this implies NSW Government finding a way to incentivise property owners to make the investment, or to facilitate a leasing arrangement with a solar retailer. Working with Community Housing Providers to install solar PV on their properties.</p> <p>Energy Services Organisations could have a role, focusing on behavioural change for efficiency and support for tenants approaching landlords for upgrades. This is part of the role that SSROC sees for the proposed SSROC Community Energy Service, which is soon to be piloted and which is intended to devise a model to be rolled out across the region. Many other councils have expressed interest in the service, so it could be rolled out throughout NSW, with funding.</p> |

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|  | <p><i>Q5: On-bill financing and other innovative financing mechanisms could allow owners to share upgrade costs with tenants.</i></p> <p><i>What is needed to help landlords to improve the energy performance of tenanted homes?</i></p> | <p>No- or low-interest loans and repayments could be provided to owners through council rates, and owners could recoup through rent. Programs such as Darebin Solar Savers already offer such a mechanism.</p> <p>The NSW Government could evaluate, accredit and promote such systems that enable the landlord to charge a tenant for renewable energy generation from solar PV at a lower rate than the retailer. (See for example <a href="http://matter.solar">http://matter.solar</a> - note that SSROC has not assessed or evaluated this product, and is not promoting it.)</p> |
|  | <p><i>Q6: What are the best approaches to deliver a ratings program for tenanted homes in a way that will drive implementation of energy efficiency and grow the market for energy efficient homes and upgrades?</i></p>                  | <p>A ratings program for tenanted homes should be compulsory and should require that all such homes meet a minimum standard.</p> <p>Given the shortage of affordable rental housing in Sydney, it is unlikely that an energy efficiency rating system in tenanted homes would “empower and protect NSW renters”, since they have minimal choice in the rental market.</p>  |
|  | <p><i>Q7: What are the key attributes for a voluntary ratings program for tenanted homes to be considered successful and justify transition to a required scheme?</i></p>   | <p>Click here to enter text.</p>   |
| <p><b>3.5 Support vulnerable households to reduce their energy bills</b></p> <ul style="list-style-type: none"> <li>• upgrade 15% more social housing by reviewing and expanding the Home Energy Action program, strengthening partnerships and developing innovative financing mechanisms.</li> <li>• as part of a review of energy concessions, the government will investigate the use of energy rebates and other innovative mechanisms to fund</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?</p>   | <p>Click here to enter text.</p>   |
|  | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>   | <p>Click here to enter text.</p>   |
|  | <p>Are there particular communities or industry sectors we should be targeting to improve energy efficiency?</p>  | <p>Click here to enter text.</p>   |

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| <p>energy efficiency upgrades, taking account of community views</p> <ul style="list-style-type: none"> <li>provide bill reduction advice that is tailored to the needs of vulnerable customers identified through better information.</li> </ul>   | Are there other opportunities for energy efficiency we should be encouraging?   | <a href="#">Click here to enter text.</a>  |
|   | <p><i>Q10: What is the best approach to help vulnerable households save energy and money?</i></p>   | <p>Many vulnerable households would not be in a position to respond to price signals, so these consumers would need to be enabled to understand how to control system and the long-term impacts of low-efficiency appliances.</p> <p>SSROC would urge the NSW Government to fund home energy audits and upgrade services for low-income and vulnerable people. SSROC could pilot a program under the Community Energy Services Organisation, working with OEH. SSROC would be pleased to work with the NSW Government to develop a business plan for this arrangement.</p> |
| <p><b>3.6 Support small businesses to increase their energy productivity</b></p> <ul style="list-style-type: none"> <li>invest in market capacity to deliver innovative energy efficiency products and services to small businesses and collect data to inform the Energy Savings Scheme</li> <li>continue to provide energy efficiency training to general business advisers.</li> </ul> | Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?                            | SSROC support the action the support small businesses to increase their energy productivity.   |
|   | Are there particular issues we need to consider to ensure these actions are effective?  | No comment.  |
|   | Are there particular communities or industry sectors we should be targeting to improve energy efficiency?   | No comment.  |
|   | Are there other opportunities for energy efficiency we should be encouraging?   | No comment.  |
|   | <p><i>Q32: Are targeted incentives an effective way to deliver energy savings and kick-start new activities in the Energy Savings Scheme?</i></p> | Targeted incentives can be effective when reinforced by mandatory requirements and significantly rising minimum standards.   |
|   | <p><i>Q33: Are there more effective ways to grow and transform the market for energy efficiency products and services?</i></p>                    | No comment.  |

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| <p><b>3.7 Ensure that 40% of participants in the NSW Government clean energy program are in regional NSW</b></p> <ul style="list-style-type: none"> <li>provide information on the business proposition for energy efficiency service providers in regional New South Wales such as a map of known energy efficiency opportunities.</li> </ul>   | Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency? | No comment.   |
|  | Are there particular issues we need to consider to ensure these actions are effective?                                 | No comment.   |
|  | Are there particular communities or industry sectors we should be targeting to improve energy efficiency?              | No comment.   |
|  | Are there other opportunities for energy efficiency we should be encouraging?  | No comment.   |
| <p><b>3.8 Reduce peak demand through battery storage and other demand management measures</b></p> <ul style="list-style-type: none"> <li>engage with the COAG Energy Council to reform the National Electricity Rules to reduce barriers to broad based demand management</li> <li>advocate to the Australian Energy Regulator for greater implementation of demand management by network businesses</li> <li>jump start the demand management market during the current regulatory cycle with reverse auctions to reduce peak demand using technologies such as appliance demand response and battery storage</li> <li>work with network businesses and energy efficiency service providers to coordinate information required to target energy savings at grid constrained areas.</li> </ul> | Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency? | SSROC supports the action to reduce peak demand through battery storage and other demand management measures.   |
|  | Are there particular issues we need to consider to ensure these actions are effective?                                 | It is essential to address the lack of market for demand management services in NSW.<br>There is a need for a mechanism to trigger the use of stored power at peak time.<br>SSROC strongly supports the NSW Government<br>- engaging with the COAG Energy Council to reform the National Electricity Rules,<br>- advocating to the AER for greater implementation of demand management by network businesses,<br>- jump starting the demand management market, and<br>- working with network businesses and energy efficiency service provider to coordinate information required to target energy savings at grid-constrained areas. |
|  | Are there particular communities or industry sectors we should be targeting to improve energy efficiency?              | The stakeholders in the existing industry, for whom change is a challenge.  |

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|  | <p>Are there other opportunities for energy efficiency we should be encouraging?</p>  | <p>There is an opportunity for the NSW Government to make Environmental Upgrade Agreements easier, and to make them (or something similar) effective for smaller buildings.</p> <p>There is also an opportunity to expand an innovative financing models, which would need to be accompanied by awareness-raising and modelling tools.</p> |
| <p><b>3.9 Identify energy efficiency measures that could double New South Wales' energy productivity</b></p> <ul style="list-style-type: none"> <li>establish an Energy and Resource Efficiency Research Hub in collaboration with the research sector to build expertise in energy efficiency and support innovators to assess the performance of new products</li> <li>monitor and publish New South Wales energy use, energy savings and energy-efficiency sales data in collaboration with the energy services sector and the COAG Energy Council</li> <li>research the design of programs that are more effective in influencing consumers and suppliers to save energy</li> <li>provide funding to measure and verify energy savings in targeted industry sectors and technologies</li> <li>investigate the introduction of an energy productivity target for New South Wales and the form that it could take</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?</p> | <p>SSROC supports the action to identify energy efficiency measures that could double NSW's energy productivity.</p>   |
|  | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>                                 | <p>No comment.</p>   |
|  | <p>Are there particular communities or industry sectors we should be targeting to improve energy efficiency?</p>              | <p>No comment.</p>   |
|  | <p>Are there other opportunities for energy efficiency we should be encouraging?</p>  | <p>No comment.</p>   |

### 3. Preparing for a changing climate

Please provide any comments on specific potential actions below:

| Sections and potential actions  | Questions   | Responses  |
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| <p><b>4.1 Ensure 100% of NSW Government agencies are taking action to manage their climate change risks</b></p> <ul style="list-style-type: none"> <li>prepare best-practice guides, tools and targeted training to help government agencies identify and manage climate change risks</li> <li>support government agencies to meet their requirement to undertake initial climate risk assessments and develop appropriate responses</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to prepare New South Wales for the impacts of climate change?</p> | <p>SSROC strongly support the actions proposed. However, we note the conflict between the intent to manage climate change risks and the current changes to biodiversity legislation, which fails to prevent broadscale land-clearing, a major source of carbon emissions in Australia.</p> <p>The priority of “conserving private land to reduce the vulnerability of ecosystems to climate change” (Strategic Plan s1.1) is clearly not supported by these other reforms.</p> |

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| <ul style="list-style-type: none"> <li>• develop a framework for reporting government agencies' adaptation initiatives to foster best practice</li> <li>• build the capacity of land management agencies to enhance bushfire management and prevention.</li> </ul> | <p>Are there particular issues we need to consider to ensure these actions are effective?</p> | <p>Review the biodiversity reform package and other relevant legislation to ensure consistency with the priority of “conserving private land to reduce the vulnerability of ecosystems to climate change” (Strategic Plan s1.1).</p> <p>Location-specific information about sea level rise potential and hazards in coastal areas. Councils do not have the capacity to expertise for this analysis, and a state-wide approach that is consistent across LGAs would eliminate conflicts between adjacent areas and between contradictory policies.</p> <p>Location-specific information on the impacts of climate change on councils' hard assets (especially roads and footpaths which make up &gt;60% of the asset base), and information about what actions/technologies are appropriate to ameliorate adverse effects. Councils do not have the capacity for this and a state-wide consistent approach, including coordinated research and trails, would be the most cost-effective approach.</p> <p>Councils need to support to undertake climate change impact and adaption studies.</p> <p>Policy and incentives and State or national standards on green roofs and walls to encourage greening and reduce urban heat.</p> <p>NSW Government could adopt a policy to underground power lines as they are renewed to encourage greening, reduce costs and problems associated with vegetation around power lines, and reduce urban heat.</p> |
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|  | <p>Are there positive opportunities from climate change we should be targeting?</p>   | <p>The new industries that are developing as a result of climate change, adaptation and mitigation should all be fostered: the renewables sector, energy efficiency products and services, agricultural research, carbon off-setting schemes and related training and education. There are huge opportunities which could counter the decline of the coal-fired power industry.</p> <p>There is also an opportunity to communicate the NSW Government's actions and achievements in this area, contributing to general awareness.</p> <p>Ensure that all NSW Government and its Agencies are working towards the same objectives, particularly in relation to the conservation of private land and changing biodiversity legislation.</p>  |
| <p><b>4.2 Increase awareness of climate change risks in industry sectors and local governments</b></p> <ul style="list-style-type: none"> <li>• provide tailored information resources and updated climate change projections, including expanding the AdaptNSW website, on practical cost-effective ways to reduce risks for local councils and communities</li> <li>• help the primary industries, energy and infrastructure sectors understand how they can respond to climate change risks and capture opportunities</li> <li>• build capacity in coastal councils to respond to climate change risks</li> <li>• build capacity in local councils and joint organisations to understand and coordinate local responses to climate change impacts.</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to prepare New South Wales for the impacts of climate change?</p> <p>Are there particular issues we need to consider to ensure these actions are effective?</p> | <p>SSROC supports the action to increase awareness of climate change risks in industry sectors and local governments.</p> <p>It is also necessary to increase adaptive capacity and resilience of industry and councils.</p> <p>For councils, building capacity should include best practice guides, tools and financial assistance. All would need to be developed in collaboration with local councils, and to recognise that different councils are at different stages in responding to climate change.</p> <p>Local councils will increasingly have to deal with properties that are no longer viable, for example, due to coastal erosion. The NSW Government should consider its policy position in relation to such properties, whether compensation is due, and what is the position of a Council that constructs coastal defences in the interests of the broader community rather than those of an individual property-owner.</p> |

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|   | <p>Are there positive opportunities from climate change we should be targeting?</p>   | <p>No comment.</p>  |
| <p><b>4.3 Grow the adaptation services market</b></p> <ul style="list-style-type: none"> <li>• establish an adaptation innovation fund to support innovation and entrepreneurialism that could protect our local communities and provide export opportunities</li> <li>• investigate the need for accreditation schemes and information hubs for professional services involved in climate change adaptation such as agriculture, emergency preparedness and health</li> <li>• improve building standards and planning requirements to take into account the impacts of climate change</li> <li>• investigate and develop rating systems to assess the climate resilience of residential and commercial properties and infrastructure.</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to prepare New South Wales for the impacts of climate change?</p> | <p>SSROC supports this action of grow the adaptation services market.</p>   |
|   | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>   | <p>There is a need for coastal councils in particular to have access to the expertise for modelling the effects of ocean currents on the coastline, and for examining possible future changes to those currents resulting from climate change and sea level rise.</p> <p>Such modelling would need to include the effects of coastal protections such as sea walls and groynes, in order to make the decisions about such constructions as well informed as possible.</p>   |
|   | <p>Are there positive opportunities from climate change we should be targeting?</p>   | <p>SSROC's proposed Community Energy Services Organisation could be a vehicle for channeling suitably qualified service providers to residents and local small businesses.</p> <p>The Red Cross have developed an approach to enable communities to prepare themselves for emergencies. Their project "Beyond the Assembly Point" demonstrated the effectiveness to the approach with a rigorous evaluation process. The document "Disaster Ready: A Guide for Planning and Facilitating Workshops for the Community Service Sector" is a very clear and informative guide, that could, with the consent of the Australian Red Cross, be promoted more broadly by the NSW Government.</p> |

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| <p><b>4.4 Assist local communities to reduce their exposure to natural hazards</b></p> <ul style="list-style-type: none"> <li>• minimise the impacts of climate change on socially and economically disadvantaged urban, regional and remote communities through social impact investment for actions such as upgrading homes, community facilities and infrastructure</li> <li>• assist in making private finance, such as resilience bonds, available for households and businesses to adapt to climate change through partnerships with the finance and insurance sectors</li> <li>• support innovative pilot projects that demonstrate best practice adaptation and can be replicated in other regional communities or local government areas.</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to prepare New South Wales for the impacts of climate change?</p> | <p>SSROC supports this action to assist local communities to reduce their exposure to natural hazards.</p> <p>Minimising impacts on socially and economically disadvantaged communities is not only about infrastructure; it is also linked to poverty, health, and education. A holistic social impact assessment should drive the investment and associated actions, and could be an innovative pilot project to demonstrate best practice adaptation.</p> <p>The NSW Government should support projects that assist the most vulnerable, not just those that demonstrate best practice adaptation.</p> |
|   | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>   | <p>While access to private finance is very helpful to many households, it is of limited value to people who are socially and economically disadvantaged, for whom even interest-free borrowing is unlikely to be helpful.</p>   |
|   | <p>Are there positive opportunities from climate change we should be targeting?</p>   | <p>The recent St George Community Housing solar PV project, delivered with funding from the Home Energy Action Plan, is a good model which could be replicated by other Community Housing Providers. Evaluation has also demonstrated clear benefits.</p>   |
| <p><b>4.5 Increase canopy coverage in heat exposed suburbs and regional towns</b></p> <ul style="list-style-type: none"> <li>• implement a program of information, tools and funds for demonstration projects to improve green cover in our cities and regional towns</li> <li>• investigate how to encourage the use of natural ecosystems to reduce the effects of climate change on people, communities and infrastructure, for example through flood mitigation and preventing coastal erosion.</li> </ul>  | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to prepare New South Wales for the impacts of climate change?</p> | <p>SSROC supports this action to increase canopy coverage in heat-exposed suburbs and regional towns, and suggests that the demonstration projects should be directed at areas where tree canopy is most needed and where the urban heat island effect is strongest.</p>  |
|   | <p>Are there particular issues we need to consider to ensure these actions are effective?</p>   | <p>It would be helpful for the NSW Government to produce a detailed heat map of Sydney, so that it is easy to identify and target hot-spots for intervention. This could be done through the CRC for Low Carbon Living which is currently working on heat mapping in Sydney.</p> <p>A tool for modelling the effects of difference interventions would also be helpful.</p>   |

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|   | <p>Are there positive opportunities from climate change we should be targeting?</p>   | <p>There is an opportunity to increase protections for existing canopy cover, and to reassess the need to remove trees for development purposes, since their value is increasingly understood to be much greater than might previously have been thought. SSROC strongly supports investigation into use of natural ecosystems in climate change adaptation.</p> <p>There is also an opportunity to increase protections for existing ecosystems such as those that act as buffers in the coastal zone, and which reduce the impacts of climate change.</p> <p>SSROC has recently completed a project with the Sydney Coastal Councils Group and funded by the Australian Government, Connected Corridors for Biodiversity. The mapping of existing and potential areas of vegetation and linkages will be a valuable tool for the member councils both groups to use in planning conservation initiatives and in implementing the Green Grid. There is an opportunity to fund private land conservation work within these mapped corridors to improve green cover in the area.</p> <p>Although the mapping covers all of the South and Central Districts, as well as much of the North District, it does not cover the whole metropolitan area. So there is also an opportunity for the NSW Government to extend this mapping, which is hosted by Greater Sydney Local Land Services, across the metropolitan area.</p> |
| <p><b>4.6 Improve understanding of climate change impacts in priority sectors</b></p> <ul style="list-style-type: none"> <li>• update and enhance the state-wide climate projections developed with NARClIM, including projections for longer time periods and under different emissions scenarios</li> </ul> | <p>Do you have any comments on the actions we propose to fund through the Climate Change Fund to prepare New South Wales for the impacts of climate change?</p> | <p>SSROC supports the action to improve understanding of climate change impacts in priority sectors.</p>   |

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| <ul style="list-style-type: none"> <li>• produce hazard maps and reports for key hazards, such as flood, bushfire, drought and heat, to help decision makers understand risks</li> <li>• co-fund new research on extreme climatic events, such as extreme rainfall or wind, to understand future risks as part of the NSW Adaptation Research Hub</li> <li>• co-fund new research into climate change risks and adaptation options for priority sectors, such as primary industries, health, water security and vulnerable communities, as part of the Adaptation Research Hub</li> <li>• identify risks to critical public infrastructure, such as energy, water, transport and health infrastructure and options to manage these future risks.</li> </ul> | <p>Are there particular issues we need to consider to ensure these actions are effective?</p> | <p>Ecosystems should also be considered critical public infrastructure since they provide services that are essential to human health and well-being. Even in urban areas such as southern Sydney, biodiversity can contribute to reduced incidence of cancer, heart disease, diabetes and poor mental health.</p> <p>In developing its Regional Waste and Resource Recovery Strategy, SSROC identified the impact of extreme climatic events on waste management as a risk. As a result SSROC conducted research on the impacts and adaptations for climate, weather and other disaster events with regards to waste management in the Sydney region. While Councils have Local Emergency Management Plans (LEMP) to respond in such circumstances, the Government could take steps to ensure that the facilities exist to receive, treat, and dispose of very large, unplanned quantities of waste in a very short timeframe, especially as these could come from multiple LGAs at the same time, and so be beyond the scope of any one council's LEMP.</p> |
|   | <p>Are there positive opportunities from climate change we should be targeting?</p>           | <p>Some climate change adaptation actions will have co-benefits resulting from the strengthening of ecosystems. These co-benefits include improving air quality, improving amenity of residential areas, reducing stormwater runoff, enriching soil, and pollinating plants. There is an opportunity to achieve many co-benefits from managing future risks to ecosystems.</p> <p>Improving understanding of climate change impacts will undoubtedly reveal many additional opportunities to achieve benefits for NSW.</p>  |

## 4. General comments

This section provides an opportunity for any general comments on the overall strategic approach of the *Draft Climate Change Fund Strategic Plan AND A Draft Plan to Save NSW Energy and Money*.

| Questions  | Responses  |
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| <p>The government is interested in your feedback on whether and how we should refine and deliver the potential actions identified.</p>                                   | <p>SSROC strongly supports the overall direction of the policy framework, and welcomes this renewed focus from the State Government on climate change.</p> <p>The step of developing value for emissions savings to be applied in government economic appraisal is very encouraging. SSROC references the NSW Government Guidelines for Economic Appraisal in its own business cases, and will be interested to see how this value will be incorporated into the guidelines in due course</p> <p>The “NSW aspirational objective” of net-zero emissions by 2050 and greater resilience are both necessary and achievable, and need not be considered aspirational. The plan would be greatly strengthened if the targets and some of the actions were mandatory, and if off-setting outside NSW were excluded.</p> <p>However, SSROC is concerned that the \$240 million “of confirmed funding to help landholders and land managers reduce the the impacts of climate change on natural ecosystems” (Strategic Plan p5) may be the same \$240 million that is “for a new private land conservation program” (<a href="https://www.landmanagement.nsw.gov.au">https://www.landmanagement.nsw.gov.au</a>). This would be a \$240 million cut to the Climate Change Fund, which would be inappropriate at a time when the need for action to address climate change and to meet Australia’s commitments under the Paris Agreement is becoming increasingly urgent. While SSROC supports funding for private land conservation, that program requires its own funding targeted at biodiversity conservation under the Biodiversity Conservation Fund, and should not be at the expense of climate action.</p> |
| <p>The government is interested in your feedback on whether there are other actions that should be considered to deliver the government’s priority investment areas.</p> | <p>The State Government could consider using the Behavioural Insights Team <a href="http://www.behaviouralinsights.co.uk/behavioural-insights-team-australia/">http://www.behaviouralinsights.co.uk/behavioural-insights-team-australia/</a> since many of the objectives and the actions outlined in these documents rely on voluntary behavioural change and sector uptake; these units provide well researched advice based on behavioural science literature.</p> <p>Please note that, due to the timing of this submission, it has not been possible for it to be reviewed or endorsed at a formal meeting of SSROC Delegates. SSROC Secretariat will be in contact should any issues arise as a result.</p>  |