

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

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Organisation	Gas Energy Australia
Type of organisation	Business advisors and advocacy groups
Type of organisation (if other, please specify)	Click here to enter text.
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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
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<p>2.1 Maximise investment under the national Renewable Energy Target</p> <ul style="list-style-type: none"> 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 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 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' 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 advocate for stability and certainty in Commonwealth Government renewable energy policy sponsor energy market reforms to improve network connection processes. 	<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>Gas Energy Australia (GEA) has concerns with the focus on a Renewable Energy Target which is funded by consumers but does not include gas, rather than a broader greenhouse abatement policy.</p> <p>The Climate Change Fund and Renewable Energy Targets should not only be about renewables, but about ensuring that the best environmental outcome is achieved. This means including gaseous fuels, which are up to 70 per cent cleaner than some other fuels.</p> <p>GEA questions why low emission gaseous fuels are omitted from this discussion. Gaseous fuels should be included as they are cleaner, cheaper and readily available. Expanding the range of products and technologies would mean that the best and most appropriate technology can be chosen to perform the task required and at the same time contribute to a reduction in emissions.</p> <p>GEA considers policy settings should support Australians to make the best choice, to suit the circumstances they face, rather than prescribing particular technical solutions. The NSW Government should aim for technology neutral policies.</p> <p>In fact, limiting the discussion to renewables may result in the creation of barriers to the uptake of other more cost effective and affordable low emission energy sources which would weaken competitive pressures in energy markets and impose extra costs on consumers and taxpayers.</p> <p>The NSW Government should focus on outcomes rather than choosing particular technologies to support.</p> <p>Gaseous fuels can also assist in the reduction of environmental impacts by complementing renewables-</p>
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		<p>based technologies. Minister Frydenberg, the Federal Minister for the Environment and Energy, recently noted that “Gas is an important transition fuel. It can assist in providing a pathway to a lower emissions generation future with up to 50 per cent fewer emissions than coal”.</p>
	<p>Are there particular issues we need to consider to ensure these actions are effective?</p>	<p>Click here to enter text.</p>

Are there other opportunities for advanced energy we should be encouraging?

In the context of minimising the costs of carbon emission abatement, a recent report by the Bureau of Resource and Energy Economics noted that gaseous fuels are expected to have one of the lowest long term costs of production of all the alternative fuels out to 2050.

The technological solutions that currently exist to control emissions are costly and will take time to take effect.

Gaseous fuels are cost-effective low-carbon sources of energy which can be used now to reduce emissions. This buys time for other low-carbon alternatives to be developed and commercialised around the world.

Gasous fuels are some of the least carbon-intensive fuels, so replacing coal and heavier oil products with gaseous fuels can generate big reductions in gas emissions.

In addition, gaseous fuels are very portable and have proven to be essential in times of natural disasters, for example cyclones. The gaseous fuels industry is quick to respond and is readily able to provide emergency power to ensure that those affected by disasters have access to energy. Minister Frydenberg also acknowledged the advantages in using gas in that “gas can be dispatched in a short time frame, something renewables cannot do in an affordable way at this stage.”

Gaseous fuels have provided essential access to energy in NSW during many floods and bushfires. Without gasous fuels, many communities would be isolated and the impact from the disasters would be greater.

		<p>Through the use of virtual pipelines, ie the transport of gas in tanks by road, rail or water, the gaseous fuels industry is able to provide regional and isolated communities that do not have access to fixed pipelines with clean, cheap and available fuel.</p>
<p>2.2 Attract investment in advanced energy demonstration projects</p> <ul style="list-style-type: none"> • support research and demonstration projects for emerging advanced energy technologies that could provide flexible electricity generation • 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. 	<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>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 other opportunities for advanced energy we should be encouraging?</p>	<p>The NSW Government should aim for technology neutral policy rather than prescribing particular solutions. By remaining technologically neutral, the best low emission solution can be developed, which may in fact be additional to the list suggested by the NSW Government.</p> <p>To exclude gaseous fuels from the discussion potentially limits NSW's ability to be a world leader in meeting emission reductions targets.</p> <p>Gaseous fuels are a proven technology and the industry continues to innovate in the world of clean energy. There are many industry projects which would benefit from additional research and development support from government.</p>

<p>2.3 Provide start-up funding to accelerate innovation in advanced energy</p> <ul style="list-style-type: none"> • 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 • sponsor energy innovation events to facilitate collaboration among universities, industry, government and investors • develop tools to share information, connect collaborators and promote energy innovation in New South Wales • monitor the development of technologies, community attitudes, price signals and share information to encourage investment and support market growth. 	<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>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 other opportunities for advanced energy we should be encouraging?</p>	<p>Case Study: Australian Designed and Manufactured Stations (Bauer)</p> <p>Founded in Sydney in 2010 as a subsidiary of the international Bauer Group, BAUER KOMPRESSOREN Australia (BKA) is a world leader in manufacturing compressors and refuelling systems for CNG fuels. BKA are pioneers in refuelling system technology and using Australian skills and expertise have developed a robust “drop and go” innovative containerised system that allows refuelling systems to be dropped on-site, plugged in and ready to operate. This saves time and money during construction. BKA also designed and manufactured a certified CNG dispenser for fuel sales such as public refuelling with state of the art electronics and dispensing components. BKA also has the capability of full turnkey engineering design and project management solutions with additional national aftermarket support throughout the region. Designed and made in a local plant at Wetherill Park in Sydney’s west, the network of refuelling stations for different sized vehicle refuelling has been supplied to small to medium to large size companies which use CNG for forklifts, delivery trucks and bus depot fleets, which in turn refuel over 1500 CNG vehicles and nationally support over 50 jobs. Natural gas fuels are our natural competitive advantage and we need to keep the skills and manufacturing jobs here in Australia for now and in the future.</p>

<p>2.4 Put the New South Wales vehicle fleet on the path to doubling energy productivity</p> <ul style="list-style-type: none"> • advocate for higher national fuel efficiency standards • investigate appropriate incentives to encourage the purchase of fuel efficient light vehicles and to retire inefficient vehicles, including through stamp duty and registration charges • provide the right 'real-world' information so that businesses and individuals can choose fuel efficient light and heavy vehicles • work with vehicle suppliers and clean energy providers to make zero emission and flexible fuel vehicles available to the New South Wales vehicle market • 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 • investigate the case for public investment in electric vehicle charging infrastructure and the requirements for renewable energy power supply • review and extend the Green Truck Partnership approach to demonstrate new technologies for low-emissions light vehicles and freight (road, rail and other). 	<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>Gas Energy Australia considers that the NSW Government should keep all fuel options on the table, rather than prescribing a particular technology, ie electric vehicles. Autogas is a clean, cheap and easily accessible fuel and should be included in the mix.</p> <p>Gaseous fuels are cleaner, cheaper and healthier than other fuel options. Gaseous fuels vehicle technology is mature, proven in real world applications and is one of the only technologies that has a commercially available product for cars, heavy-duty trucks, buses, forklifts, trains, marine vessels and stationary energy.</p> <p>In particular, the NSW Government should include Autogas, CNG and LNG in its preferred fuel mix for public transport. There are already 4,000 natural gas powered buses in Australia and there is room for additional buses.</p> <p>Gas Energy Australia emphasises the importance of obtaining 'real world' information so that businesses and individuals can make informed choices on vehicle selection.</p> <p>Green Truck Partnership continuation can assist the future development of gaseous fuels technology for transport which can improve productivity and emissions by replacing diesel.</p> <p>There should be a process encouraging investment proposals and discussions to assist in accelerating the take up of new technologies or strategies to deliver better outcomes for the environment and economy.</p> <p>Some of our members have noted that they have operated trucks on diesel and Autogas (LPG) under the</p>
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		<p>Heavy Duty Dual Fuel Program. This has resulted in a reduction in CO2 emissions and fuel costs.</p> <p>GEA also notes that the Autogas Demand Study commissioned by the Victorian Government, the Victorian Automobile Chamber of Commerce and GEA, and released in May 2016, demonstrated that there is latent demand for Autogas vehicles. This study further indicated that a light duty Autogas vehicle is 10 per cent lower in CO2 emissions than petrol, much lower particular matters (PM) and NoX and fuels costs are typically 45 per cent lower than petrol and diesel.</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 other opportunities for advanced energy we should be encouraging?</p>	<p>Click here to enter text.</p>
<p>2.5 Build capacity of local communities to deliver and own renewable energy</p> <ul style="list-style-type: none"> • build capacity in councils in regional areas to provide advice to their communities on advanced energy 	<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>Click here to enter text.</p>

<ul style="list-style-type: none"> • 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 • help community energy groups to share knowledge and experience with financing and delivery models to get community energy projects off the ground • deliver connection guides and business case guides for sustainable energy community and residential projects • investigate the best ways to encourage developers to share the benefits of renewable energy projects with the local community. 	Are there particular issues we need to consider to ensure these actions are effective?	Click here to enter text.
	Are there other opportunities for advanced energy we should be encouraging?	Click here to enter text.
2.6 Identify low-emissions pathways for emissions intensive sectors <ul style="list-style-type: none"> • partner with researchers and industry to identify and assess the potential for heavy industrial sites to reduce emissions • work with industry to share knowledge of emissions reduction technologies and practices based on a 'learning by doing' approach. 	Do you have any comments on the actions we propose to fund through the Climate Change Fund to support our advanced energy transition?	50
	Are there particular issues we need to consider to ensure these actions are effective?	Click here to enter text.
	Are there other opportunities for advanced energy we should be encouraging?	Click here to enter text.
2.7 Reduce emissions in NSW to support achievement of Commonwealth objectives <ul style="list-style-type: none"> • 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, 	Do you have any comments on the actions we propose to fund through the Climate Change Fund to support our advanced energy transition?	Click here to enter text.

<p>including via the Commonwealth Government's Emissions Reduction Fund</p> <ul style="list-style-type: none"> strengthen emissions-performance requirements and monitoring in land-use planning and major project-planning approvals processes advocate for Commonwealth, COAG and international action consistent with the Paris Agreement advocate for improvements to Commonwealth policy and programs to address key emissions sources in New South Wales such as agricultural production systems and transport support farmers and the agricultural industry to reduce emissions or enhance carbon sequestration and attract funding from the Commonwealth Emission Reduction Fund. 	<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 other opportunities for advanced energy we should be encouraging?</p>	<p>Click here to enter text.</p>
<p>2.8 Make Sydney the Asia-Pacific's carbon market hub</p> <ul style="list-style-type: none"> 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. 	<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>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 other opportunities for advanced energy we should be encouraging?</p>	<p>Click here to enter text.</p>
<p>2.9 Identify cost-effective pathways to reduce greenhouse gas emissions to achieve net zero</p> <ul style="list-style-type: none"> 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 monitor and predict the impact of current and new policy initiatives on the state's emissions performance develop a plan for New South Wales to achieve net zero emissions. 	<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>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 other opportunities for advanced energy we should be encouraging?</p>	<p>Click here to enter text.</p>

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
<p>3.1 Expand investment under the Government Resource Efficiency Policy</p> <ul style="list-style-type: none"> • support councils to upgrade public lighting and adopt the Government Resource Efficiency Policy. • implement government energy management and reporting systems to help agencies understand where and how to make energy savings • develop clean energy standards for new government funded infrastructure projects and investigate the best way to implement them 	Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?	Click here to enter text.
	Are there particular issues we need to consider to ensure these actions are effective?	Click here to enter text.
	Are there particular communities or industry sectors we should be targeting to improve energy efficiency?	Click here to enter text.
	Are there other opportunities for energy efficiency we should be encouraging?	Click here to enter text.
	<i>Q27: What is the best approach to develop higher sustainability and energy efficiency standards that can apply across a range of infrastructure types?</i>	Click here to enter text.
	<i>Q28: What are the best policy options to facilitate the installation of energy efficient public lighting?</i>	Click here to enter text.
	<i>Q29: What is the best way to support councils to apply GREP?</i>	Click here to enter text.
	<i>Q30: What is the best way to achieve energy and bill savings from hotels used by NSW Government?</i>	Click here to enter text.
	<i>Q31: Are there other ways to save energy through government procurement?</i>	Click here to enter text.

<p>3.2 Improve energy productivity for households and businesses</p> <ul style="list-style-type: none"> • accelerate energy efficient appliance standards under the national Greenhouse and Energy Minimum Standards program • 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 • improve energy standards for new commercial buildings by advocating for new standards • investigate the introduction of energy standards for retail tenancies and common areas in apartment buildings. • partner with supply chains to improve the efficiency of the products available to end consumers. 	Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?	Click here to enter text.
	Are there particular issues we need to consider to ensure these actions are effective?	Gas Energy Australia notes that energy efficiency standards have the potential to disadvantage natural gas and LPG if focused on end-use efficiency rather than full life-cycle energy efficiency or full life-cycle GHG emissions. Most importantly, by discouraging use of low cost emission gaseous fuels, such standards disadvantage Australian consumers by pushing up the price of energy.
	Are there particular communities or industry sectors we should be targeting to improve energy efficiency?	There is a complex issue for driving greater efficiency for low income consumers or those that are on off peak tariffs as there is no incentive to improve appliance efficiency due to capital cost barriers in moving to gas.
	Are there other opportunities for energy efficiency we should be encouraging?	Click here to enter text.
	<i>Q8: What is the best way to keep BASIX standards up to date?</i>	Click here to enter text.
	<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>	Click here to enter text.

	<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>Click here to enter text.</p>
	<p><i>Q12: Could the NSW Government achieve energy savings from precinct-scale developments, high-growth areas and by partnering with local government areas?</i></p>	<p>Click here to enter text.</p>
	<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>Click here to enter text.</p>
	<p><i>Q20: What level of stringency increase should the NSW Government advocate for to deliver significant and cost-effective energy savings?</i></p>	<p>Click here to enter text.</p>
	<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>Click here to enter text.</p>
	<p><i>Q22: What other approaches could be taken to achieve energy and bill savings from commercial buildings?</i></p>	<p>Click here to enter text.</p>
	<p><i>Q23: What are the potential benefits and impacts of this option?</i></p>	<p>Click here to enter text.</p>

	<i>Q24: What other approaches could be taken to achieve energy and bill savings from large retail buildings?</i>	Click here to enter text.
	<i>Q25: What are the potential benefits and impacts of this option?</i>	Click here to enter text.
	<i>Q34: What is the best approach for the NSW Government to support the acceleration and expansion of GEMS?</i>	Click here to enter text.
	<i>Q36 Are there opportunities to enhance the national Energy Rating Label system that could deliver significant energy savings?</i>	Click here to enter text.
3.3 Support industry to realise cost-effective energy productivity opportunities <ul style="list-style-type: none"> support large energy users to investigate energy savings opportunities. support industry sectors to adopt best practice energy management practices 	Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?	Industry would welcome incentives to move to different technologies to provide alternative sources of electricity given the rising costs being experienced.
	Are there particular issues we need to consider to ensure these actions are effective?	Click here to enter text.

	<p>Are there particular communities or industry sectors we should be targeting to improve energy efficiency?</p>	<p>Click here to enter text.</p>
	<p>Are there other opportunities for energy efficiency we should be encouraging?</p>	<p>Click here to enter text.</p>
	<p><i>Q14: What is the best approach to providing funding or other support for large energy users to prepare plans?</i></p>	<p>Click here to enter text.</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> <i>What is the best approach to determine which large energy users could be included in a program?</i></p>	<p>Click here to enter text.</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> <i>What is the best approach to define 'cost-effectiveness'?</i></p>	<p>Click here to enter text.</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>Click here to enter text.</p>

	<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>Click here to enter text.</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>Click here to enter text.</p>
	<p><i>Q26: What opportunities may be available to the NSW Government to further promote waste heat recovery?</i></p>	<p>Click here to enter text.</p>
	<p><i>Q35: 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>Click here to enter text.</p>
<p>3.4 Drive clean energy upgrades for rental households</p> <ul style="list-style-type: none"> 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 	<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>

<ul style="list-style-type: none"> • improve energy performance of tenanted homes to make them more affordable and liveable for renters. • provide financial incentives and/or access to affordable finance for landlords to improve their properties to make them more energy efficient • investigate opportunities to work with other jurisdictions on common approaches to energy efficiency in rental properties. 	<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>
	<p>Are there other opportunities for energy efficiency we should be encouraging?</p>	<p>Click here to enter text.</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>Click here to enter text.</p>
	<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>Click here to enter text.</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><i>What is the best approach or combination of approaches and why?</i></p>	<p>Click here to enter text.</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>Click here to enter text.</p>
	<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>Click here to enter text.</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>Click here to enter text.</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>3.5 Support vulnerable households to reduce their energy bills</p> <ul style="list-style-type: none"> • upgrade 15% more social housing by reviewing and expanding the Home Energy Action program, strengthening partnerships and developing innovative financing mechanisms. • as part of a review of energy concessions, the government will investigate the use of energy rebates and other innovative mechanisms to fund energy efficiency upgrades, taking account of community views • provide bill reduction advice that is tailored to the needs of vulnerable customers identified through better information. 	Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?	Click here to enter text.
	Are there particular issues we need to consider to ensure these actions are effective?	Click here to enter text.
	Are there particular communities or industry sectors we should be targeting to improve energy efficiency?	Click here to enter text.
	Are there other opportunities for energy efficiency we should be encouraging?	Click here to enter text.
	<i>Q10: What is the best approach to help vulnerable households save energy and money?</i>	<p>GEA considers the best approach is to encourage the take up of new technologies that can reduce energy consumption at the lowest capital cost.</p> <p>CASE STUDY</p> <p>Liz Hayward from Tamworth, NSW replaced her old electric hot water system with an LPG hot water system because of its efficiency and because it is a better option for the environment. The installation of an LPG hot water system saw Liz's three person household electricity bills reduced from an average usage of 1650kWH per quarter at a cost of \$340 to 660kWH at a cost of \$190 per quarter excluding service charges. "I love the LPG hot water system and I would recommend it to anyone who was needing to buy a new hot water system to replace an electric one. Not just for the environment but also the amount of money you save and less electricity you use."</p>
<p>3.6 Support small businesses to increase their energy productivity</p> <ul style="list-style-type: none"> • invest in market capacity to deliver innovative energy efficiency products and services to small businesses and collect data to inform the Energy Savings Scheme 	Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?	Click here to enter text.
	Are there particular issues we need to consider to ensure these actions are effective?	Click here to enter text.

<ul style="list-style-type: none"> continue to provide energy efficiency training to general business advisers. 	Are there particular communities or industry sectors we should be targeting to improve energy efficiency?	Click here to enter text.
	Are there other opportunities for energy efficiency we should be encouraging?	Click here to enter text.
	<i>Q32: Are targeted incentives an effective way to deliver energy savings and kick-start new activities in the Energy Savings Scheme?</i>	Click here to enter text.
	<i>Q33: Are there more effective ways to grow and transform the market for energy efficiency products and services?</i>	Click here to enter text.
<p>3.7 Ensure that 40% of participants in the NSW Government clean energy program are in regional NSW</p> <ul style="list-style-type: none"> 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. 	Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?	Click here to enter text.
	Are there particular issues we need to consider to ensure these actions are effective?	Click here to enter text.
	Are there particular communities or industry sectors we should be targeting to improve energy efficiency?	Click here to enter text.

	<p>Are there other opportunities for energy efficiency we should be encouraging?</p>	<p>In a country as vast as Australia, service delivery and the provision of everyday necessities such as water, electricity and telecommunications can be very expensive and logistically difficult to provide. All Australians, including those living in NSW rural and regional towns, deserve easy access to cleaner, cheaper, Australian fuels – they should not have to wait until funding is available and the infrastructure is finally built. People living in NSW towns and regions should be given the same level of service and choice of energy source as those living in cities.</p> <p>Virtual pipelines of Australian LPG can help increase the choice and service to everyone in NSW. A virtual pipeline is a cheaper and faster alternative to a fixed pipeline, and as noted above is the supply and transportation of gas in tanks by trucks, trains or ships, instead of a physical pipeline infrastructure network.</p> <p>Virtual pipelines do not require much permanent infrastructure and can change their route or destination immediately, based on community and business needs. In areas where there are no gas networks, or when there is an issue with infrastructure, virtual pipelines can provide communities with a cleaner, cheaper source of secure and accessible energy. For much of NSW, virtual pipelines are more cost effective than expensive fixed pipelines.</p> <p>NSW (and the ACT) has around 30,000km of SWER (Single Wire Earth Return). It would be advantageous to replace much of this with gaseous fuels. Gaseous fuels have the energy source onsite thereby eliminating issues with supply such as voltage fluctuations and transients like lightning strikes. Additionally gaseous fuels also reduce the bushfire risks inherent in the SWER powerlines which are well known.</p>
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<p>3.8 Reduce peak demand through battery storage and other demand management measures</p> <ul style="list-style-type: none"> engage with the COAG Energy Council to reform the National Electricity Rules to reduce barriers to broad based demand management advocate to the Australian Energy Regulator for greater implementation of demand management by network businesses 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 work with network businesses and energy efficiency service providers to coordinate information required to target energy savings at grid constrained areas. 	Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?	Click here to enter text.
	Are there particular issues we need to consider to ensure these actions are effective?	Click here to enter text.
	Are there particular communities or industry sectors we should be targeting to improve energy efficiency?	Click here to enter text.
	Are there other opportunities for energy efficiency we should be encouraging?	Click here to enter text.
<p>3.9 Identify energy efficiency measures that could double New South Wales' energy productivity</p> <ul style="list-style-type: none"> 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 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 research the design of programs that are more effective in influencing consumers and suppliers to save energy provide funding to measure and verify energy savings in targeted industry sectors and technologies investigate the introduction of an energy productivity target for New South Wales and the form that it could take 	Do you have any comments on the actions we propose to fund through the Climate Change Fund to drive energy efficiency?	Click here to enter text.
	Are there particular issues we need to consider to ensure these actions are effective?	Click here to enter text.
	Are there particular communities or industry sectors we should be targeting to improve energy efficiency?	Click here to enter text.
	Are there other opportunities for energy efficiency we should be encouraging?	Click here to enter text.

3. Preparing for a changing climate

Please provide any comments on specific potential actions below:

Sections and potential actions	Questions	Responses
<p>4.1 Ensure 100% of NSW Government agencies are taking action to manage their climate change risks</p> <ul style="list-style-type: none"> • prepare best-practice guides, tools and targeted training to help government agencies identify and manage climate change risks • support government agencies to meet their requirement to undertake initial climate risk assessments and develop appropriate responses 	<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>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>

<ul style="list-style-type: none"> • develop a framework for reporting government agencies' adaptation initiatives to foster best practice • build the capacity of land management agencies to enhance bushfire management and prevention. 	<p>Are there positive opportunities from climate change we should be targeting?</p>	<p>Gaseous fuels, including LPG, have many applications, which due to their lower emission qualities, can assist NSW reduce its emissions. Some of these applications include but are not limited to:</p> <ul style="list-style-type: none"> Heating for swimming pools Barbecuing Gas bottle exchange and home cooking Camping stoves and outdoor mosquito traps Forklifts Welding, furnaces and boilers Household heating Commercial and household cooking Crop drying, heating livestock sheds and irrigation pumps Washing and drying Water heating Electricity generation <p>LPG is a low carbon alternative to other fossil fuels. Using LPG in the home, instead of electricity, for water heating, can reduce greenhouse gas emissions by up to 70 per cent.</p> <p>LPG hot water systems are even cleaner than solar electric hot water heaters, producing almost 15 per cent or 2.5 tonnes less CO2 emissions.</p>
<p>4.2 Increase awareness of climate change risks in industry sectors and local governments</p> <ul style="list-style-type: none"> • provide tailored information resources and updated climate change projections, including expanding the AdaptNSW website, on practical cost-effective 	<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>Click here to enter text.</p>

<p>ways to reduce risks for local councils and communities</p> <ul style="list-style-type: none"> • help the primary industries, energy and infrastructure sectors understand how they can respond to climate change risks and capture opportunities • build capacity in coastal councils to respond to climate change risks • build capacity in local councils and joint organisations to understand and coordinate local responses to climate change impacts. 	<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 positive opportunities from climate change we should be targeting?</p>	<p>Case Study: Growing tomatoes in the snow Guyra, a small town on the Northern Tablelands of NSW is known for its cold winters. It is here that the Costa Group has a 20 hectare tomato glasshouse facility and was planning to construct an additional 10 hectare glasshouse. To achieve optimum harvest levels, the climate in the glasshouse was required to remain between 16-28 degrees all year round and be rich in CO2. The expert growers chose LNG as the best fuel for their energy needs. The installation was done in a short timeframe, the energy source was readily available and reliable. LNG was an environmentally sustainable choice and a safe fuel. LNG is an environmentally cleaner fuel than many alternatives and the CO2 emitted was utilised by the plants. The flue emissions from the heating are actually pumped directly back into the greenhouse to the plants, which thrive on it. The growers noted a significant increase in crop yield as a result. Additionally, the LNG kept the plants alive during the crucial planting out phase and the LNG was a reliable fuel source that ensured that the system was running smoothly.</p>
<p>4.3 Grow the adaptation services market</p> <ul style="list-style-type: none"> • establish an adaptation innovation fund to support innovation and entrepreneurialism that could protect our local communities and provide export opportunities • investigate the need for accreditation schemes and information hubs for professional services involved in climate change adaptation such as agriculture, emergency preparedness and health 	<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>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>

<ul style="list-style-type: none"> improve building standards and planning requirements to take into account the impacts of climate change investigate and develop rating systems to assess the climate resilience of residential and commercial properties and infrastructure. 	<p>Are there positive opportunities from climate change we should be targeting?</p>	<p>Click here to enter text.</p>
<p>4.4 Assist local communities to reduce their exposure to natural hazards</p> <ul style="list-style-type: none"> 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 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 support innovative pilot projects that demonstrate best practice adaptation and can be replicated in other regional communities or local government areas. 	<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>Gas Energy Australia notes that increased use of distributed energy in remote and regional communities would reduce the risk of bushfires where transmission lines traverse difficult fire-prone country and the risk of fires in such country are increased by climate change.</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 positive opportunities from climate change we should be targeting?</p>	<p>Click here to enter text.</p>
<p>4.5 Increase canopy coverage in heat exposed suburbs and regional towns</p> <ul style="list-style-type: none"> implement a program of information, tools and funds for demonstration projects to improve green cover in our cities and regional towns 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. 	<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>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 positive opportunities from climate change we should be targeting?</p>	<p>Click here to enter text.</p>

<p>4.6 Improve understanding of climate change impacts in priority sectors</p> <ul style="list-style-type: none"> • update and enhance the state-wide climate projections developed with NARClIM, including projections for longer time periods and under different emissions scenarios • produce hazard maps and reports for key hazards, such as flood, bushfire, drought and heat, to help decision makers understand risks • 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 • 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 • identify risks to critical public infrastructure, such as energy, water, transport and health infrastructure and options to manage these future risks. 	<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>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 positive opportunities from climate change we should be targeting?</p>	<p>Click here to enter text.</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
The government is interested in your feedback on whether and how we should refine and deliver the potential actions identified.	We include as part of our submission our 2030 Vision for Natural Gas Fuels and Vision for LPG Stationary Energy. Both these documents include a 10 Point Plan for industry and government to use to work together to take control of our energy futury by embracing cleaner and cheaper local energy sources and can be found at: http://www.cleanercheaperfuels.com.au/ccf-content/uploads/2014/10/GEA_LPG2030Vision_LR.pdf http://www.cleanercheaperfuels.com.au/ccf-content/uploads/2014/10/GEA_NGF2030VisionUpdate_V1.pdf
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.	As indicated above, our 2030 Vision for Natural Gas Fuels and Vision for LPG Stationary Energy detail the way forward.