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Business NSW response to the [Energy Security Target and Safeguard](#)

Thank you for the opportunity to respond to the Energy Security Target and Safeguard consultation paper.

Business NSW welcomes the NSW Government's ongoing focus on business energy efficiency, as previously demonstrated by the Net Zero Plan and Electricity Strategy. Energy costs remain among businesses' biggest complaints. Improving energy efficiency is one of the cheapest ways to cut carbon. It also reduces businesses' energy costs. As a result, support for measure that help businesses cut energy use are a win-win-win, reducing the business's direct costs, lowering the costs of maintaining the energy system, and cutting greenhouse gas emissions.

Research undertaken by Business NSW in late 2019¹ showed that businesses in NSW were concerned about both energy reliability and energy costs. As shown in the table below, 86.7 per cent of businesses were worried about future electricity costs, and 71.6 per cent of businesses using gas were worried about future gas costs. More businesses expressed concern about electricity and gas costs than about supply reliability.

Question	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I am worried about the reliability of electricity supplies in the future	18.2	38.6	27.3	12.9	3.0
I am worried about the cost of electricity supplies in the future	42.3	44.5	9.7	2.4	1.2
I am worried about the reliability of gas supplies in the future*	16.8	31.3	35.2	14.5	2.2
I am worried about the cost of gas supplies in the future*	35.8	35.8	21.2	6.7	0.6
* Results from gas-using businesses only					

¹ NSW Business Chamber; *Infrastructure Survey*. Fieldwork conducted December 2019.

Formerly NSW Business Chamber, Business NSW is the peak policy and advocacy body which has been representing businesses in NSW since 1826. Business NSW is one of Australia's largest business support groups with a direct membership of 20,000 businesses. Business NSW works with government, industry groups, as well as business and community leaders to provide a voice for our members. Operating throughout a network in metropolitan and regional NSW, Business NSW represents the needs of business at a local, state and federal level.

The survey results suggest that decision-makers have to factor in cost-effectiveness when assessing energy security proposals. Targets that drive expensive capital cost projects need to deliver significant gains to supply security to justify the cost. Regulators expect regulated networks to provide evidence of customers' willingness to pay before embarking on costly expansions of infrastructure to improve reliability. This policy process should be subject to the same requirements. Government should provide evidence of the extent of the business community's willingness to pay for these security of supply measures, and calibrate its target accordingly.

Under current arrangements, the costs of electricity system unreliability or demand/supply imbalance are not evenly distributed. Some businesses are affected severely while others may be completely insulated from consequences of reliability standards not being met. Large industrial users can either be compelled by system operators to shut production at times of peak system load or may be driven to take the same actions if prices spike to unprofitable levels (as has occurred in recent summers).

Smaller businesses' exposure to price spikes is less severe because of contractual protections, so they are not as directly affected at times when reliability is in jeopardy. These businesses are much more likely to face supply disruptions due to weather-related damage or network maintenance than due to the supply adequacy issues addressed by the proposals under the target and safeguard policies.

Breaches of the Energy Security Target

The consultation paper describes the criteria that government will consider when responding to and correcting a breach of the Energy Security Target (EST):

"Consistent with the principles of the NSW Electricity Strategy, recommended government action, if any, in response to a breach of the EST must satisfy the following criteria:

- minimise cost to taxpayers and consumers
- not incentivise moral hazard such that market participants delay commercially justifiable investments to profit from any intervention
- be consistent with other NSW Government objectives, including protecting the environment
- take into account the duration and magnitude of any forecast breach.

The NSW Government has defined a limited number of actions that could be taken to correct a breach of the EST. This includes delivering one or a combination of the following:

- adjust scheme targets under the Safeguard to reduce operational demand
- increase program budgets or call for a further round of applications for the Emerging Energy program
- government electricity procurement
- make a priority transmission project declaration to remove capacity constraints in the transmission system."

Business NSW agrees that these are the right criteria for government to use. However, we also see that in practice they will prove challenging to implement. As soon as the prospect of intervention arises, the risk of market participants trying to manipulate the system increases.

Paradoxically, in trying to make the system more secure, there is a risk that incentives are changed in a way that leads to the system becoming less secure. Actions that could have been profitable in the market (such as developing a new power station), risk being deferred so that

investors can transfer some of the project risk or cost onto taxpayers or billpayers. That is, why would investors build now at their own risk when they can build the same thing later and get someone else to pay? Deferrals in the form of actions not taken can be difficult to detect and impossible to penalise. The consequences of these incentives are already challenging the designers of other capacity market and security of supply programs in overseas electricity markets.

This problem is compounded by a tendency among policymakers towards risk-aversion when designing similar policies (see Question 3 below). It is difficult for governments to not offer additional incentives when supply reliability is at stake.

The consultation paper prudently provides government with multiple options to respond to an EST breach. However, it does not clearly detail how these options will be prioritised at any given time, nor which criteria will take precedence when evaluating them. The absence of this detail makes it hard to judge the overall balance of the proposed response to any breaches of the target. While in principle they are the right ideas, their application is currently unclear.

Over time, the NSW power market is likely to be characterised by a move from a few large (mainly coal) generating units, supported by a fleet of smaller renewable generators, to a far larger pool of smaller and mid-size generators. As the biggest coal units close, the system will have fewer critical points of failure with a more distributed generation base.

As a result, the acuteness of the security of supply challenge should ease over time. However, this will only be true if coal retirements are matched by new generation coming onto the grid as forecast. This implies the EST could be a temporary addition to the electricity market. While considering how to introduce the EST in a way that avoids distorting incentives on market participants, government should also consider whether there are ways of structuring the policy that will be easier to unwind once it has served its purpose.

Responses to selected consultation questions

1. Is the approach to assessing firm capacities from generators, interconnectors and demand response used to meet the EST reasonable and appropriate? Is there an alternative approach?

In assessing how secure the balance of NSW's electricity market is, Business NSW supports an approach that looks at capabilities on both the supply and demand sides. This technology-neutral approach should be replicated in situations where government is deciding how to respond to any forecast breach of the target.

The response to a breach is the area of policy where significant costs are most likely to be incurred. As noted above, the consultation paper provides little detail on how options will be assessed and solutions chosen. If government gives demand side options equal weighting in responding to breaches of the target (as well as in determining whether a breach is forecast), then it will be moving in the right direction.

3. Are AEMO's maximum demand forecasts appropriate for use in determining the EST? Should alternatives be considered (e.g. TransGrid's forecasts)?

Determining the EST is a 'political economy' challenge, as well as a technical one. At all levels of government decision-making, the incentive is always to err on the side of caution when

determining electricity security goals. It is easier to justify spending a little more money than it is to explain a blackout. Forecasting five blackouts and none occurring is less damaging than forecasting no blackouts and one occurring. The costs incurred by consumers or taxpayers are less visible – and less politically damaging – than they would be if any outage occurred.

As a result, the process for determining the EST must be as transparent, and as mechanistic as possible, to reduce the influence of discretionary judgments.

Business NSW does not support a primary role for TransGrid in the process of evaluating the EST. As a monopoly company with a commercial stake in the outcome, the incentives on TransGrid are more compromising than they are for government agencies. TransGrid is as susceptible as other organisations to err on the side of caution in setting the EST and requiring consumer spending. However, it may be appropriate to use TransGrid's forecasts as a 'sense-check' of the AEMO findings. If a significant discrepancy between the AEMO and TransGrid forecasts arises, AEMO could be asked to carry out additional analysis or supply the NSW Government with explanatory information.

The EST is being introduced at a time when information about the energy system is at its weakest. Unlike the higher visibility of traditional generation and load in past years, a large amount of 'behind the meter' equipment exists which is currently not visible to system planners. The arrival of smart technology and new market design is likely to make this 'behind the meter' component much more visible to planners in coming years. As information quality improves, it is important that decisions relating to reliability targets are able to be recalibrated. Locking in decisions, particularly about high-cost generation investments, at the point of minimum information, risks exposing consumers to uneconomic remedies.

12. What issues should the NSW Government consider when setting targets to 2030? At what rate should the targets be increased to reach 13% by 2030?

There is scope to be more ambitious with the EST. Energy efficiency measures are among the lowest-regrets options available to energy policy makers. They reduce users' energy costs, improve energy system security, reduce greenhouse gas emissions – all while yielding savings in excess of the costs of the measures. The analysis featured in the consultation paper identifies a benefit-cost ratio of 2.6. This implies that there is scope for the target to be increased further, while still maintaining a positive outcome.

Greater ambition on energy efficiency would also be in keeping with other aims of government policy. As the economy recovers from the COVID-19 pandemic, there is a desire for job-generating activity. Energy efficiency measures can accomplish this, while delivering benefits to recipients and the wider energy system and achieving lasting improvements to productivity and growth.

13. What are the most promising opportunities once commercial lighting reaches market maturity? What is the likely size and cost of these opportunities?

Business Australia (Business NSW's business services provider) delivers the Business Energy Advice Program (BEAP), funded by the Australia Government through the Department of Environment and Energy. BEAP was set up as a result of a recommendation (number 52) from the ACCC's Retail Electricity Pricing Inquiry (REPI) in 2017-18.

Based on BEAP data, the most significant energy reduction opportunity, after the maturation of commercial lighting, is heating, ventilation and air conditioning (HVAC). HVAC covers all sectors

of the economy and is operated by users of all sizes – from the biggest industrial operations to sole traders, small businesses and households. It also drives demand during system peaks, making it the most valuable source of savings from an energy security perspective. In effect, the generation and network parts of the system are scaled to meet the demand created by HVAC needs on the hottest days and times.

However, despite its prominence as a source of energy demand, improving HVAC efficiency presents a more complex case than lighting improvements. The technical suitability of different options varies depending on users' premises and usage. Behavioural aspects of use will affect the savings businesses are able to generate. Well-designed control systems can have as big an influence as the choice of HVAC system technology. As a result, businesses require more sophisticated advice and assistance, both to ensure they are choosing the system best suited to their needs, and to ensure that they have the required training to use it optimally.

Over time, automating technology should reduce the demands on user decision-making to get the most out of their systems. More complex systems will be able to interact with smart meters and the wider energy system as two-sided market reforms are implemented. However, the business case will need to be clear for users to pay the price premium associated with these more sophisticated control and automation systems.

14. What would prevent the uptake of new opportunities? What support (including new standards and calculation methods) does industry need to transition to new opportunities?

A significant barrier to business uptake of energy efficiency is a shortage of trusted, independent advice. Businesses are generally unwilling to pay 'just' for advice, and advice from installers and sales representatives is seen as self-interested and is discounted or disregarded.

In the past, poor sales practices led to loss of confidence in the solar sector. If similar practices are tolerated in relation to other energy efficiency technologies, a similar loss of confidence could occur and result in promised savings not being realised or inappropriate solutions implemented. Sources of advice that are free at the point of use, and not attached to the need to sell a particular product, are crucial to address this problem. BEAP exists to address this need. Since the BEAP began in August 2019, more than 4,900 businesses nationwide have entered the BEAP process, of which 2,156 are in NSW.

BEAP data identifies a second issue that prevents the uptake of energy efficiency opportunities – the scale of improvements. Businesses prioritise 'major' improvements, such as replacing lighting with LEDs and installing solar PV, but neglect smaller improvements, such as installing or improving insulation, or adding appliance timers. There are several reasons for this. Grant programs for LED and solar raised the profile and improved the business case for implementing those technologies. Those grant programs also attracted marketing and promotional expertise, meaning benefits were more clearly communicated to users. When businesses wanted to know the length of the payback period on investments, and get clarity around the return on investment, these features were clearly visible and understandable.

Other technologies have not reached this level of maturity – language around benefits are more opaque and heavily weighted towards engineering details, rather than the economic bottom line. As other technologies move towards the mainstream, like LED and solar, the way their benefits are communicated to potential users will need to become more accessible for non-expert users. Independent advice can play a part in 'translating' these aspects into information business owners can use.

15. What additional data sources are available that could inform assessment of the size and cost of the energy efficiency opportunity in New South Wales? Refer to Appendix B for technical assumptions.

Business Australia and the sponsoring Department of Industry, Science, Energy and Resources collect data from businesses participating in BEAP on what energy efficiency actions they have already taken. Business NSW would be happy to share relevant data with the department to aid the design of the EST policy.

26. Are there other activities the NSW Government should consider for inclusion in the peak demand reduction scheme?

The small business sector is a largely untapped source for peak demand reduction opportunities. It is one we expect to become more prominent as other reforms to the energy market are implemented, particularly those focused on establishing a [two-sided energy market](#).

Small businesses are unlikely to be a major contributor to the scheme in its first year of operation. By the second half of the decade, assuming other reforms progress as planned, they should be in position to compete with other parties to participate in the peak demand reduction scheme. Smaller businesses are likely to be more dependent on the emergence of aggregators and intermediary service providers than bigger industrial users with resources and capabilities to participate as soon as the scheme begins.

28. Are there alternative ways in which the peak demand scheme could complement national schemes?

In principle, the proposed peak demand scheme appears to complement the NEM-wide scheme. There are two key parts to demand response: the first is having the load ready and available to turn off or down; the second is dispatching that load at the right time when it is needed. It seems that the proposed EST policy addresses the first part by subsidising the kit that makes the load ready. The new wholesale demand response rebate can then fund and drive the dispatch. By maintaining this division of roles, the two parts can be served well by the NSW and NEM-wide policies.

If you have any questions about this submission or would like to discuss in more detail, please feel free to contact me at Simon.Moore@businessnsw.com.

Yours sincerely

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