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17th June 2016

Dear Sir/Madam,

Re: Response to All Things Considered - Draft Options

The Eastern Alliance for Greenhouse Action (EAGA) welcomes the opportunity to respond to the Infrastructure Victoria's consultation regarding the State's 30 year infrastructure strategy described within the *All Things Considered* and *Draft Options* documents.

EAGA is a formal Alliance of seven Councils in Melbourne's East, including:

- City of Boroondara
- Knox City Council
- Maroondah City Council
- City of Monash
- City of Stonnington
- City of Whitehorse
- Yarra Ranges Council

EAGA is committed to delivering mitigation and adaptation projects and advocating for initiatives that support sustainable, low carbon communities. Our interest is in ensuring that the 30 year strategy prioritises investment in assets and infrastructure that will enable the State to reduce greenhouse gas emissions whilst building capacity to adapt to the impacts of climate change.

The recommendations within this submission are presented within the context of two key critical considerations:

- The introduction of rate capping will reduce local government's ability to provide funds for necessary infrastructure spending. The second Victorian Parliamentary inquiry into

rate capping¹ has recently found that under rate capping, councils lack operational capacity and budget certainty or flexibility to develop long term financial plans for infrastructure, which is essential to address uncertain and worsening climate change risks and impacts.

- Whilst we support the use of 'accelerated climate change mitigation' as scenario through which various options are considered in this consultation process, the ultimate criteria should be a test to assess whether the decision will enhance or reduce the State's ability to meet Victoria's newly adopted 2050 zero net emissions target. This rationale is consistent with the *Victorian Government Response to the Independent Review of the Climate Change Act 2010*. This has implications for all areas of State Government decision making with over fourteen other legislative Acts identified for inclusion into Schedule 1 of the revised Climate Change Act (see Recommendation 10 of the Response²). The priorities within the 30 year infrastructure strategy should therefore only be finalised within the bounds of future legislative obligations on decision making.

With this in mind, we urge the Infrastructure Strategy team and the Citizen Juries to consider the following recommendations when considering the initiatives identified in the Draft Options book:

Integrated power supply (IPS) p.219

Under Victoria's planning system, local councils and the State Government develop planning schemes to control land use and development. Currently, electricity network planning and land-use planning currently occur in isolation, meaning long term, viable and sustainable options for integrating demand and supply side opportunities are lost, resulting in inefficient investment and higher prices on consumer bills.

Whilst both land use planning schemes and the national energy market objectives intend to serve the long term interest of the community, they cannot do so whilst operating in isolation. Despite the implications land use planning has on local energy use and demand patterns, existing regulatory requirements do not require either sector to synchronise their respective planning processes.

Victoria's population is expected to grow by 16% per annum to 1.9 million people in 2031.³ This will see an additional 774,000 dwellings in greater Melbourne and 205,000 for the regions over the next 15 years. Where this growth takes place is not evenly distributed and will be concentrated in the outer growth areas of Melbourne and the inner city. One scenario for coping with this growth is continuing on a path of expensive network infrastructure upgrades, ultimately leading to higher network charges on consumer bills. An alternative scenario would involve coordinated planning resulting in smarter tailored integrated energy solutions that seek to alleviate the costs to consumers. This will also ensure that consumers have equitable access to a range of emerging energy services and are not constrained by traditional market models.

The current consumer engagement processes for network planning, such as the Regulated Investment Test (RIT-D), are overwhelmingly complex and time consuming for local (and to a lesser extent state) governments to proactively engage with. For example, a number of councils in

¹ Parliament of Victoria (2016) Second Report into Rate Capping Policy ([link](#))

² Victorian Government Response to the Independent Review of the Climate Change Act 2010 ([link](#)), page 12

³ http://www.delwp.vic.gov.au/__data/assets/pdf_file/0018/308511/Victoria-in-Future-2015-WEB.pdf

Melbourne's north have recently been consulted by their distribution business a few days prior to the RIT-D due date, with the distributor seeking local government support for substation upgrades. This is an example of this process failure and highlights the need for improved engagement. Greater efforts are required to build the capacity of local and state governments to effectively participate, advocate and collaborate in future network planning decisions to ensure more efficient outcomes for their respective communities.

To address the challenges described above, we recommend that the State:

- Introduce requirements for distribution network planners to proactively engage with land use planners in the state and local government sectors on an ongoing basis
- Facilitate data sharing between parties to deliver improved forecasting and more efficient infrastructure planning
- Develop shared mapping resources to assist in the identification of cross sector initiatives, particularly in areas of the network that are constrained
- Provide capacity building training to ensure effective cross sector initiatives are effectively scaled and replicated across distribution regions

Energy Demand Management Efficiency Schemes (EDM1) p.155

EAGA supports extending the Victorian Energy Efficiency Target (VEET) scheme to all industries and businesses. This will be an important first step in harmonising VEET with other state energy efficiency schemes, particularly the NSW Energy Saving Scheme, and ultimately enabling a single national energy efficiency scheme. Large businesses account for a significant portion of Victorian energy use, therefore broadening the scope of potential energy savings will widen the benefits of VEET and the consequently lower the certificate price. Therefore, including all businesses in the VEET would deliver both substantial benefits to these businesses and greater reductions in Victorian energy prices.

EAGA's research into the economic and job benefits of energy efficiency retrofitting in the commercial building sector alone are compelling. Our research estimated that an additional 15% uptake in commercial building retrofitting could unlock \$4.5B in investment and create ~18,000 jobs across Victoria.⁴ Our analysis within *The Ongoing Financial and Environmental Benefits of Retrofitting Victoria's Building Stock* indicates that this could deliver annual savings for Victorian businesses of approximately \$0.4B whilst cutting emissions by 1.7M tonnes.⁵ This could play a key role in assisting Victoria achieve its newly adopted zero net emissions by 2050 target. We therefore see no justification for commercial and industrial business being excluded from VEET.

Energy Efficiency Development (EDD) p.159

We urge the state government to consider the findings and recommendations within COAGs National Energy Efficient Building Project (NEEBP)⁶ and its final report which clearly identifies the need for mandatory disclosure of building energy performance. This was informed by sector wide views that a revised building code (Section J) needed to focus on actual, as built whole building performance, rather than existing 'deemed to satisfy' and designed based approaches. This will

⁴ EAGA (2013) EUA Finance for the Regions: The economic benefits of retrofitting Victoria's building stock ([link](#))

⁵ EAGA (2014) The ongoing financial and environmental benefits of retrofitting Victoria's building stock ([link](#))

⁶ Department of State Development - Government of South Australia (2014) National Energy Efficient Building Project ([link](#))

be critical for driving accountability throughout the supply chain by making performance outcomes more transparent to consumers.

Leveraging the State's powers to regulate building owners corporations (via the *Owners Corporations Act 2006*) should be prioritised as an initiative within this option. According to Strata Community Australia, there are over 88,475 owners corporations and 747,336 lots in Victoria, equating to ~1,500,000 Victorians or 1 in 4 people living in or affected by owners corporations.⁷

There is wealth of evidence demonstrating that increasing efficiency of the building stock through improved regulation is cost effective, both for commercial⁸ and residential⁹ sectors on time horizons relevant to Victoria's 30 year infrastructure strategy. Marginal abatement cost curve analysis consistently demonstrates that building energy efficiency is one of the lowest cost forms of abatement across the economy.¹⁰ EAGA therefore does not accept that this option be ruled out on the grounds of being a 'high cost' measure relative to its contribution to meeting the need of transitioning to a low carbon future.

Aging coal generation asset transition (ACG) p.65, Brown coal licenses (BCL) p.89

EAGA supports the introduction of a market based mechanism for regulated exit of highly emissions intensive power stations from the electricity grid.

The methodology described in *Brown coal exit: A market mechanism for regulated closure of highly emissions intensive power stations*¹¹ could be appropriate for addressing the existing surplus capacity in coal fired power generation in Victoria. It describes a process where "plants bid competitively over the payment they require for closure, the regulator chooses the most cost effective bid, and payment for closure is made by the remaining power stations in proportion to their carbon dioxide emissions. This could overcome adverse incentive effects for plants to stay in operation in anticipation of payment for closure and solve the political difficulties and problems of information asymmetry that plague government payments for closure and direct regulation for exit."

Smart implementation of this mechanism could facilitate an orderly transition that is mindful of the relevant workforce implications for the brown coal generation sector within the Latrobe Valley. EAGA urges the State to consider the findings and recommendations within the Federal Government's report "*Jobs and Skills Transition for the Latrobe Valley: Phase 1*" which identifies a number of transition strategies for vulnerable workers.¹²

⁷ <http://www.vic.stratacommunity.org.au/>

⁸ DCCCE (2012) Pathway to 2020 for Increased Stringency in New Building Energy Efficiency Standards: Benefit Cost Analysis ([link](#))

⁹ Moore, Morrissey (2013) Affordable zero emission housing: Through life cost-benefit analysis to identify policy pathways for residential new-build in Melbourne, Australia ([link](#))

¹⁰ ClimateWorks (2011) Low Carbon Growth Plan for Australia, ClimateWorks (2013) Melbourne's Zero net Emissions Strategy ([link](#))

¹¹ *Brown coal exit: A market mechanism for regulated closure of highly emissions intensive power stations, 2015*, by Frank Jotzo from Centre for Climate Economics and Policy, Crawford School of Public Policy, ANU, and Salim Mazouz, Principal, Centre for International Economics.

¹² Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE) Jobs and Skills Transition for the Latrobe Valley Phase 1: Benchmark occupations and skill sets ([link](#))

Wind and solar energy generation large-scale investments (WSE) p.421

We applaud the Premier's announcement (15th June 2016) that the State Government will legislate a renewable energy target of 25% by 2020 (up from the current 14%) increasing to 40% by 2025. This is a major milestone in the transition to a decarbonised energy supply and will generate significant job and growth opportunities for the Victorian economy.

Whilst details are yet to be released, we understand that this will be an auctioned based system that will see project developers compete to be the lowest cost provider. We recommend that the State develop an auction process that is inclusive of business and community sectors, similar to the recent procurement process led by the City of Melbourne in the *Melbourne Renewable Energy Project*. By taking this leadership and facilitation role, the State can capture further economies of scale and scope and broaden the benefits to a greater number of Victorians. This will also enable the State Government to deliver on its commitments within *Victoria's Renewable Energy Roadmap* (priority area 6) to "expand the Government's role in facilitating the uptake of renewable energy".¹³

Local solar energy generation (LSA) p.240

We strongly recommend that the infrastructure strategy provide strong financial support for the installation of solar PV systems for low income and vulnerable households.

EAGA's Solar Rates Business Case report¹⁴ presents an independent and objective analysis of the costs and benefits of a state wide Solar Rates program to assist low income households in Victoria to access solar PV. The report assessed the potential for scaling up the *Darebin Solar Savers* program and compared the economic, regulatory and technical viability and risks of funding its implementation through a number of different financing models.

The report demonstrated that whilst there is no shortage of finance for renewable technologies, the terms of current finance products exclude low income segments of the community, who are most vulnerable to energy hardship, from accessing solar PV systems. Findings showed that state-wide low income solar finance program has the potential to deliver immediate net savings of around \$10-30 per month on electricity costs for large numbers of low income households, materially reduce Victorian Government concession payments, and meet broader social and environmental policy objectives.

The interest rate (cost of finance) and repayment term have the most material impact on the economic viability of low income solar finance. A 5% interest rate and long repayment term (e.g. 10 years) are key thresholds. The interest rate is critically influenced by the risk that the money will not be recovered. This risk is reduced where security such as property or a default guarantee (e.g. by a government) is available. Managing default risk appropriately for low income households is critical to achieving net benefit.

Private finance, underwritten by a Government guarantee, could provide an alternative approach and allow state-wide access where council participation is constrained, however higher interest rates would reduce the range of households able to benefit. We therefore urge that the 30 year strategy include the establishment of a default fund to provide investor confidence. It should also support the establishment of a 'shared service model' for implementing the program. Support for the establishment of a shared services approach is recommended to improve efficiencies,

¹³ DEDJTR (2015) Victoria's Renewable Energy Roadmap ([link](#))

¹⁴ EAGA (2016) Solar Rates Business Case Final Report ([link](#))

leverage economies of scale, and access dedicated capability through existing service providers and partners.

Infrastructure resilience assessment test (IRA) p.217

EAGA strongly supports an infrastructure resilience assessment test for new major capital works, but emphasise that this test should be as comprehensive as possible. This could be achieved by adopting the Australian Standard “Climate change adaptation for settlements and infrastructure” as part of the approval process. This could be a standalone requirement or incorporated into environmental impact assessments. This would allow for major projects to be independently assessed for consideration of climate change impacts and transparent and open to public scrutiny. Implementation of this option should be harmonised with other areas of State Government strategy, including the next Victorian Climate Change Adaptation Plan and Plan Melbourne Refresh.

In addition, EAGA also recommends that the 30 year strategy supports resilience assessments for non-major capital works and existing infrastructure. For example, EAGA and the Northern Alliance for Greenhouse Action (NAGA) have been developing and trialling a regional building vulnerability assessment tool that could be supported and extended to non-council buildings.¹⁵ Local governments have also identified a priority need to incorporate climate change risks into asset management planning more broadly to include roads, street trees, footpaths, drains etc.

Energy demand management tariff reform (EDM2) p.157

Cost reflective tariffs would allocate network costs to those who incur them, reducing the cross-subsidies between users. This is a key equity issue for low income households without air-conditioning who have traditionally subsidised increased network costs (and peak demand) driven by air conditioning use in high consuming households. EAGA agrees with the findings and the recommendations within Consumer Utilities Advocacy Centre’s (CUAC) *Cost Reflective Pricing* report¹⁶ which states that:

“If designed and implemented well, cost reflective tariffs can improve the fairness and efficiency of the electricity distribution system, allocating costs to those who incur them and avoiding costs where consumers would rather not pay. Over time, this should lead to lower network costs for all consumers than continuing with current tariffs...”

“Mandating uptake of cost reflective tariffs is crucial to the success of network tariff reform. If, at the conclusion of the reform, consumers are not required to have a cost reflective tariff, they will naturally seek to avoid it where it is not in their interests; that is, consumers whose behaviour would be more expensive under cost reflective tariffs will avoid them. The costs they are incurring will continue to be borne by the broader system, in an inequitable outcome that damages the justification for the reform.....”

Furthermore, EAGA supports the recent findings of Essential Services Commission’s 2015, *Inquiry into the true value of distributed generation*¹⁷ which is likely to result in an increase to the solar feed in tariff. It is important that these changes be synchronised with the introduction of cost reflective tariffs to ensure the best outcomes for all energy users and producers.

¹⁵ eaga.com.au/projects/futureassetsforum/

¹⁶ CUAC (2015) Cost reflective pricing: Engaging with network tariff reform in Victoria, Consumer Utilities Advocacy Centre Ltd., Melbourne ([link](#))

¹⁷ Essential Services Commission’s 2015, *Inquiry into the true value of distributed generation – Proposed Approach Paper*, December 2015

Urban forest (UFF) p.399

One of the significant challenges for Melbourne's east is reducing the combined impact of urban heat island effect and more frequent, severe and longer duration heatwave events. Delivery of regional urban forest strategy was identified as a key opportunity to address these risks within EAGA's Regional Climate Change Adaptation Roadmap.¹⁸ Research also shows that establishing more 'green infrastructure', including enhancing tree canopy throughout the east could lead to many co-benefits such as:

- Reduced urban heat island effect
- Interception of stormwater runoff
- Lower cooling demand for electricity
- Carbon sequestration
- Wildlife habitat
- Increased property value
- Improved amenity
- Improved health and wellbeing
- Reduced asset damage

Monitoring during heatwaves has shown that in areas with adequate tree canopy shading, a person's physiological equivalent temperature can be up to 18°C lower at midday compared to non shaded areas.¹⁹ Also suburbs with mature trees can be 2-3°C cooler than new suburbs with no trees.²⁰

Despite the multiple benefits from developing green infrastructure and improving the urban forest, there are many complex considerations that could potentially lead to perverse or maladaptive outcomes if poorly planned. For example, the choices of tree species maybe vulnerable to decreased water availability, rising temperatures, and changing patterns of disease and pests and potentially facilitate further intrusion of bushfire risk into urban areas.

We recommend a State based approach could help to:

- Identify priority urban space for green infrastructure²¹
- Align council and state goals and targets
- Develop a common vision
- Assess differences between public versus private realm
- Develop a common supportive policy framework for increasing green infrastructure in the region
- Build habitat connectivity

¹⁸ EAGA (2015) Climate Adaptation Roadmap for Melbourne's East - a guide for decision makers in the EAGA Councils ([link](#))

¹⁹ Norton, B. Bosomworth, K. Coutts, A. Williams, N. Livesley, S. Trundle, A. Harris, R. McEvoy, D. (2013) Planning for a cooler future: green infrastructure to reduce urban heat, Victorian Centre for Climate Change Adaptation Research (VCCCAR)

²⁰ USA EPA 2008. Reducing Urban Heat Islands: Compendium of Strategies, USEPA, last accessed 10/02/2015

²¹ A 5 step framework for identifying priority urban space can be found in Norton et al. (2015)

- Share the key learnings between councils that are trying to “go it alone”
- Build community awareness of the value of green infrastructure for urban cooling
- Work with regional stakeholders such as VicRoads, energy and water companies to address the tensions between needs and values of managing the urban forest over time

EAGA is willing to work with the State Government and the Infrastructure Victoria team to ensure that consistent and robust approaches for infrastructure planning. This includes working collaboratively to implement programs that unlock investment and generate meaningful long term outcomes for all Victorians.

Kind regards,



Cr John Mortimore
Executive Chair
Eastern Alliance for Greenhouse Action
Councillor, Knox City Council



This submission has been approved through EAGA's formal governance structure as described in the EAGA Memorandum of Understanding 2012-16. The submission may not have been formally considered by individual member councils.