Australian Pipeline Limited ACN 091 344 704
Level 19, 580 George Street, Sydney NSW 2000
PO Box R41, Royal Exchange NSW 1225
P: +61 2 9693 0000 | F: +61 2 9693 0093
APA Group | apa.com.au

20th January 2017

EPA Air Policy

PO Box A290

Sydney South, NSW 1232.

Via email: Air.Policy@epa.nsw.gov.au

Re: Consultation Paper – Clean Air for NSW

APA Group (APA) welcomes the opportunity to make a submission to the NSW Environment and Protection Authority and the Office of Environment and Heritage(the Government), on behalf of the State of NSW, regarding the Consultation Paper – Clean Air for NSW (the paper).

About APA

APA own and/or operate around $19 billion of energy assets and deliver half the nation's natural gas usage. APA own 15,000 kilometres of natural gas pipelines that connect sources of supply and markets across mainland Australia. APA operates and maintains gas networks connecting 1.3 million Australian homes and businesses, and employs over 1600 people. APA also owns or has interests in gas storage facilities, gas-fired power stations and wind farms. APA Group (ASX:APA) is listed on the ASX and is included in the S&P ASX 50 Index. APA's Networks division operates natural gas networks in Tweed Heads, Albury and Wagga regions of NSW. APA owns and operates the Tamworth gas network.

Summary comments

APA acknowledges the efforts of the NSW Government to implement policy that will help to improve air quality performance in NSW.

APA supports policy based on a technology neutral approach that rewards least cost emissions reduction. It is APA's view that a technology neutral policy approach will provide outcomes that will be better for NSW energy customers, than any other policy option. APA also notes these beneficial customer outcomes will be long term in nature and will therefore be consistent with the objectives of the National Electricity Objective (NEO) i.e. in the long terms interests of NSW energy customers, in regard to price, energy reliability and a number of other key factors, as referred to in our response.

APA also recommends that, as a potential additional initiative aimed at also supporting efforts to improve NSW air quality, the Government considers the provision of funding for low emissions technologies, again, on a technology neutral basis. APA made the same recommendation in a recent response to another NSW government consultation i.e. *Draft Climate Change Fund Strategic Plan* and *A Draft Plan to Save NSW Energy and Money*[1],*i.e.;*

APA is supportive of technology funding that allows the construction of demonstration plant for low emission, least cost abatement technologies. Equally, start-up funding for low emission technologies is also supported, with the intention of accelerating innovation and growth in such technologies.

APA's final point relates to policy consistency. Given that APA has been reasonably active in providing responses to various NSW policy consultations over time, APA re-affirms its support for policy consistency across different areas of state interest. APA notes, for example, that the NSW Energy Savings Scheme (ESS) applies a technology neutral policy approach to the scheme's operation, whereas, for both this paper and the recent NSW consultation referred to above i.e. *Draft Climate Change Fund Strategic Plan* and *A Draft Plan to Save NSW Energy and Money*, little mention, if any, is made in regard to technology neutral policy.

APA thanks the Office for the opportunity to comment on the paper. Please contact either Josh Hankey (07 3215 6632) or myself (08 8113 9197), should you wish to discuss our submission further.

Peter Gayen
Manager, Networks Commercial
APA Group, Operator for AGN and Allgas

[1] APA Group – Response to NSW Government Consultation - *Draft Climate Change Fund Strategic Plan* and *A Draft Plan to Save NSW Energy and Money – page 4 – 22.12.16*

APA's comments on the paper *Technology neutrality as a policy principle*

APA encourages the Government to apply a technology neutral policy, as it considers ways to improve Air Quality outcomes across the state. By applying this policy approach, emissions reduction will be delivered on a least cost basis. This outcome is important as it will not only directly benefit NSW energy customers in environmental terms, but also it will also benefit them because of the downward pressure that will be placed on energy prices – outcomes that are entirely consistent with the National Electricity Objective(NEO) i.e.:

"to promote efficient investment in, and efficient operation and use of electricity services for the long term interests of consumers of electricity with respect to – price, quality, safety, reliability, and security of supply of electricity, and the reliability, safety and security of the national electricity system".[2]

As the Queensland Productivity Commission (QPC) states in its recent "Solar Feed-In Tariff Pricing in Queensland Issues Paper":

"Policy frameworks typically include a principle that policies should be technologically neutral. The idea is that what is important is the quality and price of the service, not the specific platform, technology or approach to delivering the service. The focus is on the long-term interests of consumers and not the industry or the development of a specific technology."[3]

As further evidence of the benefits of technology neutral policy, APA would like to acknowledge the work of the Energy Networks Association (ENA)) which has worked closely with Jacobs (energy consultants) to develop a further understanding of least cost carbon abatement policy options, Australia wide. Jacobs' findings indicate that technology neutral policy would achieve lower cost carbon abatement than the current policy mix.[4]

Jacobs' work also indicates that policies that do not maintain technology neutrality can cause higher cost emission abatement than a technology neutral policy, as well as creating perverse outcomes in the appliance markets for competing low emission technologies.

Consistent with the above views, APA recommends that as the Government considers ways to improve Air Quality in NSW, that it adopts a technology neutral approach, as such a policy approach will benefit NSW energy customers for the long term, more than any alternative policy approach.

Policy consistency

APA notes that policy consistency between state based policies, which are related or overlap, is as important in many ways as the inherent thrust of the policies themselves. AAPA appreciates that policy thinking is at an early stage for the NSW Air Quality paper, and that the purpose of a consultation process is to elicit policy feedback from interested parties. In any case, APA would offer an observation about policy consistency in NSW by using the technology neutrality policy, as a relevant example.

As APA has been active in its general support and consultation participation in the development of the NSW Energy Saving Scheme (ESS) over recent years, APA notes that the technology neutral principle is one of the key policy tenets of the ESS. On the other hand, APA recently participated in a NSW Government consultation re *Draft Climate Change Fund Strategic Plan* and *A Draft Plan to Save NSW Energy and Money, and* after considering those papers, APA made the following comment, amongst others, in its response to NSW Government:

"In general, APA supports a number of the principles outlined in the papers, although as highlighted, APA has a concern that a 'technology neutral' theme receives little or no mention in the papers."[5]

The above observation, in combination with the current consultation paper, where again APA observes that there seems to be little or no reference to the policy principle of technology neutrality, concerns APA. APA's fundamental recommendation to the NSW Government and its various departments, therefore, is that policy in different parts of government, where similar or overlapping areas of potential initiative are being considered, be consistent. To approach the policy setting process in any other way will result in the objectives of the NEO not being fully achieved. Further, the efforts of one part of government could be mitigated by the efforts of another part of government in a related policy area.

---

[2] http://www.aemc.gov.au/Australias-Energy-Market/Markets-Overview/National-electricity-market#NEO
[3] Queensland Productivity Commission, "Issues Paper – Solar Feed-In Tariff Pricing in Queensland", pg. 12.
[4] Energy Networks Association, "*Media Release: Technology neutral policies will deliver lower bills*", 10 March 2016, pg. 1.
[5] APA Group – Consultation response to "*Draft Climate Change Fund Strategic Plan* and *A Draft Plan to Save NSW Energy and Money*" – page 1 – 22.12.16

Potential Actions under development

APA considers that natural gas has an important role to play in terms of transitioning the current fuel mix (used to generate electricity) in NSW, to a lower carbon emission environment. As the ENA comments:

"Natural gas offers a number of environmental benefits over other energy sources. It is the least carbon intensive fossil fuel and creates less particulates and other air pollution."[6]

The paper identifies a range of "potential actions under development"[7], a number of which are now briefly discussed.

Industry – Minimise emissions from coal-fired powers stations

Currently, NSW electricity is sourced generally from a combination of coal, natural gas and renewable energies. In particular, the mix of these generation fuels places NSW as the state or territory with the second highest Emission Factor (EF) for electricity consumed from the grid. Notably, NSW's EF for 2016 was the same as 2015, whereas that majority of the other states and territories saw some improvement in their respective EFs, including Victoria, which has Australia's highest EF.[8]

As a result, the increased use of natural gas powered generation in NSW, therefore, has the potential to significantly reduce grid carbon emissions in the state and thus greatly assist NSW's Air Quality improvement aspirations. At the same time, energy security performance for the state, will also be maintained as the penetration of renewables grow and pressure mounts on the long term viability of coal fired generation. Natural gas is well-placed to act as a complementary fuel to renewable energy sources, such as wind generation. Gas powered electricity generation technologies have low lifecycle costs, are low in carbon emissions (compared to coal-fired generation), and have the ability to quickly adapt output to adjust for the fluctuating generation from renewable energies.

That is, the intermittent nature of renewable energy sources needs to be balanced by power generation systems that are able to rapidly adapt to changing supply and demand requirements. Gas powered generation is the only technology to be able to provide the rapid response required in order to work with the intermittent nature of renewable energy and optimise the integration of renewable energies.

Transport, engines and fuels – Examine policies and incentives to increase uptake of electric vehicles

APA also notes that the paper highlights plans to investigate opportunities to increase the uptake of electric vehicles (EVs) in NSW. Consistent with a technology neutral approach APA recommends that the Government also include other low emission vehicles types in that examination. To do otherwise i.e. restrict the investigation to only EVs, is essentially applying a 'picking winners' approach to policy – an action that is not consistent with the technology neutral principle and an action that can easily lead to poor outcomes for customers.

Indeed, the paper itself states:

"EVs and other low emission vehicles present significant opportunities to reduce the environmental impacts of road vehicle use."[9]

With those opportunities acknowledged it would be illogical if *other* low emission vehicles, such as gas, hydrogen and fuel cell vehicles were not also examined from the perspective of looking to those alternative low emission technologies to also contribute to air quality improvements in NSW, especially as emissions from a gas vehicle may be lower than from an EV when emissions at the point of power generation are considered.

Households – Reduce wood smoke emissions

Replacing wood as a fuel with a low emission fuel such as gas (natural gas or LPG) will also assist the Government to achieve their Air Quality objectives. Gas for cooking and heating, whether for water or space heating, are some of the obvious low emission ways to achieve air quality improvements in NSW. As gas networks continue to grow, opportunities to replace wood as a fuel, with a low emission fuel, can continue, providing however, that technology neutral policy is introduced across all NSW government policy making areas.

Government funding for the development of low emission technologies

APA is supportive of the concept of the Government providing development funding opportunities for low emissions technologies, based again on a technology neutral approach. APA sees such funding as being made available to accelerate innovation and growth in the development of

[6] Energy Networks Association, "Australia's Bright Gas Future ", December 2015, pg. 6.
[7] NSW Government – "Consultation Paper – Clean Air for NSW" - page (5)
[8] Department of the Environment and Energy, "National Greenhouse Accounts Factors", August 2016.
[9] NSW Government – "Consultation Paper – Clean Air for NSW" - page (31)

low emission technologies, on the basis of their ability to deliver emissions reduction on a least cost basis. Such funds could be focussed on the development or deployment of technologies that are uniquely suitable for the NSW environment.

APA observes however, that technology development is often seen to be the domain of the renewables industry alone, whereas the reality is that advances in technology are also driving the development of low emissions technologies, generally, including gas related technologies.

For example, developments in battery storage technology also offer opportunities to gas fired co-generation and tri-generation investment that can operate in a similar manner to solar or wind plant when combined with battery storage i.e. generate power in low cost times; use battery technology to store to store the output; and then export the stored electricity when pricing conditions in the market are attractive – with both technology types delivering low emissions outcomes.

Other examples of low emission gas related technologies include:

- *Biogas (or bio-methane)*, which is methane that is generated by the controlled decomposition of bio-degradable materials and can be injected directly into gas distribution networks;
- *Hydrogen*, which for example could be produced by reacting methane with steam, or from the electrolysis of water with electricity from renewable sources, and can be injected directly into gas distribution networks; and
- *Carbon capture and storage (CCS)*, which allows the greenhouse gases removed after the combustion or reaction of natural gas to be captured and securely stored in underground reservoirs.