

11<sup>th</sup> March 2016

Queensland Productivity Commission  
PO Box 12112  
George Street Qld 4003

Via email: [www.qpec.qld.gov.au/get-involved/how-to-make-a-submission](http://www.qpec.qld.gov.au/get-involved/how-to-make-a-submission)

**Draft Report – Electricity Pricing Inquiry**

Dear Sir/Madam,

APA Group is pleased to have an opportunity to provide comments to the Queensland Productivity Commission, in relation to the “**Draft Report – Electricity Pricing Inquiry**” (the paper) and commends the Queensland Productivity Commission for preparing the paper and inviting public comment.

**About APA Group**

APA Group (APA) is Australia’s largest natural gas infrastructure business, owning and/or operating approximately \$19 billion of energy assets. Its gas transmission pipelines span every state and territory in mainland Australia, delivering approximately half of the nation’s gas usage. APA has direct management and operational control over its assets and investments.

APA also has an ownership interest in, and operates the Allgas gas distribution network as well as operating the Australian Gas Networks (formerly Envestra Limited). Together the two networks have approximately 27,000 kilometres of gas mains and approximately 1.3 million gas customers, with well over 180,000 customers in Queensland. APA also owns other energy infrastructure assets such as gas storage facilities and a wind farm.

In addition to the Allgas Distribution Network, APA also has equity interests in a number of energy infrastructure assets, including SEA Gas Pipeline, Energy Infrastructure Investments (EII2) and the Ethane Pipeline Income Fund. APA is listed on ASX and is included in the S&P ASX 50 Index.

**Benefits of Natural Gas**

Natural gas is a key fuel for the transition to a low emission economy. Whilst natural gas is a fossil fuel, it is more greenhouse efficient than coal or oil, and indeed is only half as emission intensive as black coal and a third as intensive as brown coal. Natural gas is the cleanest burning of all fossil fuels. It is colourless, odourless, and non-toxic. Natural gas is currently the cleanest commercial form of reliable and scalable base-load generation.

Natural gas provides low emission energy for a wide range of applications including home appliances, vehicles, and commercial buildings through to large industrial processes.

As well as its traditional application for hot water, cooking and space heating, natural gas is also suitable for a range of distributed generation technologies including conventional engines, fuels cells, micro-turbines, co-generation and tri-generation.

Please contact either Josh Hankey (07 3215 6632) or myself ((08) 8113 9197), if you would like to discuss any matters raised in this submission.

Yours sincerely



Peter Gayen

Manager – Networks Commercial - APA Group

Summary response to QPC's Recommendations

**Recommendation 1**

APA recommends the Queensland Government adopts QPC's Recommendation 1.

**Recommendation 9**

APA recommends the Queensland government adopts QPC's *Recommendation 9*, noting that APA has significant reservations about the QRET and its potentially negative impacts on the long term interests of energy consumers.

**Recommendation 10**

APA recommends the Queensland government adopts QPC's *Recommendation 10*.

**Recommendation 11**

APA recommends the Queensland government adopts QPC's *Recommendation 11*.

**Recommendation 16**

APA recommends the Queensland government adopts QPC's *Recommendation 16*, whilst also ensuring that the government pursues lowest cost emission reductions principles in a fuel and technology neutral manner, when designing future schemes.

**Recommendation 17**

APA recommends the Queensland government ensures that future schemes reward participants on a fuel and technology neutral manner based on the lowest cost of emissions reduced.

APA also recommends the Queensland government ensures that for future schemes, the scheme costs are fairly allocated to participants.

APA further recommends to the Queensland government that non-participants of future schemes only contribute to the cost of the scheme, if they derive a benefit from the scheme – but only to the extent of the benefit derived.

**Recommendation 29**

APA recommends to the Queensland government, if CSO arrangements are in future to be managed by the electricity network, clear and disciplined data management processes will be required, to ensure **information transparency** is achieved.

APA recommends to the Queensland government, that in the event the CSO responsibility does become the network's responsibility that the potential risk of **information asymmetry** is anticipated and mitigated against. This could involve the Queensland government putting in place additional measures to ensure that the network company gives third party providers access to all relevant information that could reasonably be required by a third party, even if provided under appropriate confidentiality agreements, by the network business.

**Recommendation 42**

APA recommends the Queensland government adopts QPC's *Recommendation 42*.

APA also recommends the Queensland government support the principle of the Local Generation Network Credits in the current AEMC consultation process.

## Introduction

In APA's response to the Paper, APA focuses its comments on a relatively small number of recommendations relevant to APA. Those recommendations broadly relate to each of the following areas:

- Supply Chain Productivity
- Generation
- Networks
- Solar bonus scheme
- Options for increasing competition in regional Queensland
- Role of Local Service Provider

## Discussion

### Supply Chain Productivity

#### *Recommendation 1*

*To ensure the development of an efficient electricity market, the Queensland Government should not favour any technology over another, and allow the market to evolve to meet consumer demand.*

APA supports the views expressed by QPC in the above recommendation. In APA's experience, favouring one technology over another, often results in unfavorable outcomes for energy consumers. In particular, favouritism in policy for one technology over another can easily result in inequitable allocation of costs to energy customers. A relevant example of this potential outcome is highlighted in the paper:

"(w)e now have the unsustainable situation where those enjoying the benefit of the Solar Bonus, are contributing to the falling system utilization, leaving it to the remaining consumers not only to fund increased network charges that result from falling utilization, but also to fund the bonus."<sup>1</sup>

APA recommends the Queensland Government adopts QPC's Recommendation 1.

### Generation

#### *Recommendation 9*

*The Queensland Government's Renewable Energy Taskforce should consider:*

- A) the cost and the price impacts of a Queensland target;*
  - B) the merits of including small scale solar in a renewable energy target; and*
  - C) the benefits of an inter-jurisdictional approach to emissions reduction policy.*
- A) The cost and the price impacts of a Queensland target

The ACLL Allen modelling indicates that renewable generation of 37,250 GWh would be required to meet the 50% QRET, by 2030. To achieve this target, ACLL Allen project that an extra 6300 MW of wind and 3100 MW of rooftop solar PV would be required. In subsidy terms, ACLL Allen project that \$10.8 billion will be required (real) to be spent, between now and 2030, to meet the target. According to ACLL Allen, the impact of the QRET would be:

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<sup>1</sup> Draft Report - Electricity Pricing Inquiry – Queensland Productivity Commission – 2015 - page 85

“On average the rest of the NEM retail prices are around 3 per cent lower in a QRET case than in the base case. Queensland consumers would effectively subsidise other NEM businesses and consumers in achieving emissions reduction”.<sup>2</sup>

This projected outcome raises significant questions about benefit and cost outcomes for Queensland energy consumers.

The issue is emphasized further, when via macroeconomic modelling ACL Allen project that Queensland’s Gross State Product “would be around 0.25 per cent lower compared to the base case by 2034-35, with the rest of Australia 0.04 per cent better off.”<sup>3</sup>

The situation becomes more concerning when the cost of emissions reduced under a QRET, is considered. ACL Allen estimates that although an estimated 117Mt of emissions are reduced across the NEM, between 2017-2018 and 2034-35, ACL Allen’s costs forecasts for emissions reduced show high cost:

“The modelling suggests Queensland emissions would be abated at a price of around \$51 per tonne for large scale and \$443 for small scale for an average price of \$63. However, Australian emissions would be abated at a price of around \$92 per tonne, reflecting the displacement of carbon-fueled generation in other states.”<sup>4</sup>

When ACL Allen provides other emission costs as a point of comparison, it can be easily seen just how expensive the QRET is, for emissions reduction, i.e.

- the Federal Government’s Emissions Reduction Fund (ERF) average abatement costs achieved via auctions to date: \$13.95 per tonne April 2015 and \$12.25 per tonne November 2015 and ;
- the Australian Treasury’s core carbon cost for its 2050 modelling of \$23 per tonne

For APA, the irony of ACL Allen’s work is that they find the proposed QRET will cause the displacement of investment in low emission gas generation by higher emission coal generation.

“Compared to the base case, the additional QRET renewable investment displaces about 1600 MW of investment in gas-fired capacity. This is a result of a QRET targeting renewables rather than emissions reduction, which results in gas-fired generation rather than coal being displaced.”<sup>5</sup>

ACL Allen’s findings concern APA, both from the perspective of the forecast high comparative cost of the emissions likely to be achieved under a QRET, and also in terms of where the benefits and costs of the QRET, are forecast to fall (Queensland or interstate), remembering that the QRET is a Queensland government energy policy.

- B) The merits of including small scale solar in a renewable energy target

As per previous comments, APA is very concerned about the overall worth of the QRET to Queensland energy consumers and is concerned that it will not provide outcomes in the long term interests of energy consumers.

With regard to small scale solar, APA finds it extremely difficult to support its inclusion in the QRET, if its emissions reduction cost is forecast to be \$443 per tonne.

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<sup>2</sup> Ibid, pages56

<sup>3</sup> Ibid, pages57

<sup>4</sup> Ibid, pages58

<sup>5</sup> Ibid, pages55

C) The benefits of an inter-jurisdictional approach to emissions reduction policy

As the OPC has recommended, the Queensland government should consider “*the benefits of an inter-jurisdictional approach to emissions reduction policy*”<sup>6</sup>. APA also recommends that this approach includes working with the Federal government to ensure that the QRET and Emission Reduction Fund approach, work in tandem to complement and support each other.

APA recommends the Queensland government adopts QPC’s *Recommendation 9*, noting that APA has significant reservations about the QRET and its potentially negative impacts on the long term interests of Queensland energy consumers.

#### *Recommendation 10*

*In order to achieve least-cost carbon abatement, the Queensland Government should work with the COAG Energy Council to find opportunities for collaboration on Carbon Policy, as an alternative to pursuing independent action.*

Following on from the previous section regarding the forecast of high cost of emissions from the QRET, APA supports working with the COAG Energy Council on joint action in developing an integrated approach to emissions reduction.

APA is a supporter of energy policy that is nationally focused rather than state specific policy.

The Paper however, sums up the issue best when it says:

“However, we note that the introduction of a state based policy, rather than one using national frameworks, would concentrate emissions reduction costs in Queensland. This means the economic costs of emissions reduction would negatively impact the Queensland economy, in the absence of similar policies in other states or nationally.

There are benefits for all levels of government to cooperate to develop an effective approach to emissions reduction on the basis of least economic cost”<sup>7</sup>

APA recommends the Queensland government adopts QPC’s *Recommendation 10*.

#### *Recommendation 11*

*The Queensland Government should not intervene in the solar PV market to achieve 3000 MW capacity target for solar PV uptake in Queensland by 2020.*

The Queensland government’s target of achieving 3000 MW, or 1.0 million solar roofs, is another policy area that ACIL Allen has considered. Their findings are again concerning. Their work shows that policy intervention would be required to meet the 3000 MW target, and significantly, would require an export price incentive of 45 cents per kWh to achieve the target by 2020 – as the paper notes, a rate actually higher than the 44 cents per kWh of the once offered but now closed Solar Bonus Scheme (SBS).

With ACIL Allen forecasting that the SBS will incur a total cost of \$4.4 billion (until 2027-2028), it is not surprising that the Paper does not support incentives being paid to achieve the 3000 MW 2020 target, particularly when the Paper also forecasts that the 3000 MW target is likely to achieved just two years later, in 2022 anyway.

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<sup>6</sup> Ibid., pages 59

<sup>7</sup> Ibid page 58

APA recommends the Queensland government adopts QPC's Recommendation 11.

#### Networks

##### *Recommendation 16*

*Distribution businesses should continue to minimize or defer network capital expenditure by pursuing both tariff and non-tariff demand management programs (including discounts or rebates) for customers who shift their load to off-peak periods or are subject to interruptibility of supply.*

APA is a strong advocate of demand side management (DSM). Efficient application of DSM techniques helps to place downward pressure on electricity tariffs for electricity customers. Demand side management can be achieved by a number of participants, including customers, aggregators, embedded generators and others, across a range of technologies, being both renewable and non-renewable (low carbon).

From APA's perspective, achieving the lowest cost per unit of emissions reduction with a fuel and technology neutral approach to DSM should be fundamental. The payment of a true and fair value for services provided by demand side managers is also fundamental.

In regard what constitutes 'true and fair value', APA observes that other reviews looking at similar issues are currently underway in the NEM, i.e.:

- The AEMC and its rule change consultation process, involving the proposed introduction of the Local Generator Network Credits (LGNc), for embedded and distributed generation (DG) types, including renewable and non-renewable (more on the LGNC process later in this paper); and
- The Essential Services Commission of Victorian is currently investigating methods to assess the true value of DG, from an economic, social and environmental perspective. Significantly, this assessment will consider all generation types below 5MW, including renewable and non-renewable types.

The above approaches to evaluating potential demand side options are supported by APA, and indeed the Paper itself supports the concept of fuel and technology neutrality when it says:

*"To ensure the development of an efficient electricity market, the Queensland Government should not favour any technology over another, and allow the market to evolve to meet consumer demand."<sup>8</sup>*

APA recommends the Queensland government adopts QPC's Recommendation 16, whilst also ensuring that the government pursues lowest cost emission reductions principles in a fuel and technology neutral manner, when designing future schemes.

#### Solar Bonus Scheme (SBS)

##### *Recommendation 17*

*The Queensland Government should consider the merits of an earlier end to the Solar Bonus Scheme than the planned 2028 scheme closure.*

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<sup>8</sup> Draft Report - Electricity Pricing Inquiry – Queensland Productivity Commission – 2015 - page 22

The ACLL Allen analysis of the SBS highlights not only the high costs of such schemes, but more importantly the cost allocation inequities of such schemes. As stated in the Paper, the SBS is expected to cost approximately \$4.4 billion by 2027-28, with a typical Queensland residential electricity customer experiencing an increase of \$89 per bill<sup>9</sup>.

As ACLL Allen note, Queensland electricity users, whether or not they have participated in the SBS, will effectively share the cost of the scheme, i.e. effectively subsidizing the subsidies. From APA's perspective, this is not equitable, particularly considering this non-solar customer group, has incurred a scheme liability without arguably receiving any benefits from the scheme.

From APA's perspective therefore, the SBS does not operate in the long term interests of all Queensland energy customers, only those who have been able to participate in the scheme.

APA is also concerned that the scheme is selective in terms of which technologies are rewarded by the scheme, in this case solar only. This approach is contrary to a fuel and technology neutral approach and also doesn't consider the cost of emissions reduced under the scheme.

Schemes that financially reward one type of technology and not another, distort competitive markets by effectively making one appliance effectively cheaper than a competitor's. Interestingly, this very point was acknowledged by the QPC, in its recent consultation on Solar Feed-in Tariffs, when the QPC said:

*"In the context of solar exports, a technological neutrality principle would require that the regulated feed-in prices do not either advantage or disadvantage any particular suppliers based on the technologies used to generate energy."*<sup>10</sup>

APA recommends the Queensland government ensures that future schemes reward participants on a fuel and technology neutral manner based on the lowest cost of emissions reduced.

APA also recommends the Queensland government ensures that for future schemes, the scheme costs are fairly allocated to participants.

APA further recommends to the Queensland government that non-participants of future schemes only contribute to the cost of the scheme, if they derive a benefit from the scheme, and only to the extent of the benefit derived.

#### Options for increasing competition in regional Queensland

##### Recommendation 29

*The Queensland Government should make the current UTP arrangements transparent by:*

- *reporting on how the UTP CSO is defined and calculated; and*
- *reporting annually on the distribution of the CSO including identifying CSO recipients by category (Very large, large, small and residential customer), region, and industry sector and subsector (where possible).*

<sup>9</sup> Draft Report - Electricity Pricing Inquiry – Queensland Productivity Commission – 2015 - page (86)

<sup>10</sup> Issues Paper – Solar Feed-in Tariff Pricing in Queensland – Queensland Productivity Commission - 2.3.2 page (12)

#### *Recommendation 30*

*To facilitate retail competition in regional Queensland, the Queensland Government should implement a network CSO, although changes to the UTP arrangements should be considered to offset some of the additional costs to the State Budget.*

With respect to recommendations (29) and (30), APA provides an overall response to the two recommendations and focusses its comments on information transparency and information asymmetry.

APA appreciates the difficulties of managing a complex instrument like a CSO and can appreciate the many and varied options that might exist, for better management of same. APA's essential concern in regard to the treatment of the CSO, if the CSO becomes a network CSO, is transparency.

It is widely understood that electricity Network businesses are complex businesses. As such, APA's concern is that, if the CSO process was to become the responsibility of the electricity network business, the 'true' costs of the network could be distorted or confused by the inclusion of CSO information. If not managed correctly, this could lead to poor investment decisions being made by the network business.

In addition, the potential for added complexity and diminished transparency by the inclusion of the CSO arrangement, could also impact potential investments made by external parties, as those parties request and rely on the network information provided by the network business e.g. for embedded or distributed generation developers.

APA recommends to the Queensland government, if CSO arrangements are in future to be managed by the electricity network, clear and disciplined data management processes will be required to be followed, to ensure **information transparency** is achieved.

Apart from the issue of information transparency, a second and much debated issue for third parties wishing to connect to the network is information asymmetry (IA). IA occurs when the information available to a party wishing to connect to the network, for example, is less than the information available to network business. APA's concern is simply that if the network business was to take on the CSO, that the existing IA would be exacerbated.

Therefore, **APA recommends** to the Queensland government, that in the event the CSO responsibility does become the network's responsibility that the potential risk of **information asymmetry** is anticipated and mitigated against. This could involve the Queensland government putting in place additional appropriate measures to ensure that the network company gives third party providers access to all relevant information that could reasonably be required by the third party – even if provided under appropriate confidentiality agreements, by the network business.

#### Role of local service providers

#### *Recommendation 42*

*The Queensland Government should await the outcome of the AEMC's determination on a proposed national rule change to enable local generation network credits, rather than consider any state-specific arrangement.*



APA supports the above recommendation in regard to the LGNC for two reasons.

Firstly, as per a common theme in the QPC Paper, APA agrees it is highly desirable that a consistency is maintained between national and state energy policy, so that the respective polices can work together, efficiently, rather than potentially against each other.

*“As a general principle, unilateral action by a state government would be an inefficient option to resolve impediments in the harmonized national framework approach to network pricing”<sup>11</sup>*

For that reason, **APA recommends** that the Queensland government adopts QPC’s *Recommendation 42*.

Secondly, APA supports the concept of the LGNC and is confident that if the AEMC agrees to its implementation, the LGNC will operate in the long term interests of consumers. Fundamentally, the LGNC will provide the following benefits:

- Reduce localised capacity constraints on electricity distribution networks;
- Reduce losses experienced on the network due to the location of embedded generators on the network; and
- Lower electricity prices for consumers over the long-term through the increased supply of electricity to the grid and the reduction of augmentation investment required to meet increased peak demand.

Significantly, although there are a number of mechanisms currently in the market, designed to potentially provide similar outcomes to the LGNC, APA believes that these current mechanisms are not providing, and will not provide the benefits that an LGNC could provide.

*“..the incentives for local generation in the current Rules either do not provide adequate recognition of the benefits that the local generation can provide, and/or may not be readily accessible to small-scale local generators.”<sup>12</sup>*

APA believes an LGNC payment should apply to any generation unit that is connected to the electricity distribution network – renewable or non-renewable. In particular, APA agrees with the proponents that smaller embedded generators are typically less able to access existing credit mechanisms that are otherwise available to larger embedded generators in the market.

**APA also recommends** the Queensland government supports the principle of the Local Generation Network Credits in the current AEMC consultation process.

<sup>11</sup> Draft Report - Electricity Pricing Inquiry – Queensland Productivity Commission – 2015 – page 204

<sup>12</sup> Oakley Greenwood, “Local Generation Network Credit Rule Change Proposal” (proposed by City of Sydney, Total Environment Centre and Property Council of Australia), July 2015, pg. 1.