13 May 2016

Mr Richard Home
General Manager Economic Group

As Executive Director for the National Competition Council

Australian Competition & Consumer Commission
GPO Box 520
Melbourne Vic 3001

By email to: richard.home@accc.gov.au

Dear Mr Home,

Re: Light Regulation of Gas Networks in Queensland

The National Competition Council approved Light Regulation for Queensland gas distributors Envestra (now AGN) in November 2014 and Allgas in April 2015. We consumer advocates, representing a diversity of residential end users, write to express reservations about the move to Light Regulation and in regards to the process.

Consumer Consultation

In its Initial Application for Light Regulation[1], under the heading 'Customer Consultation', Envestra lists the stakeholders consulted:

> *"23. Envestra consulted with the Office of the Queensland Energy Minister, the Queensland Government, the National Competition Council (NCC), the Australian Energy Regulator (AER), the Queensland Competition Authority (QCA), the Energy Retailers Association of Australia, Origin Energy, AGL and Alinta Energy" (Page 5)*

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The National Competition Council then invited written submissions on the application from interested parties. Its draft decision[2] noted the process:

> *"2.18 In determining this matter the Council followed the standard consultative procedure set out in Rule 8 of the NGR.*
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> *2.19 Notice of the application was published on the Council's website and in The Australian newspaper on 21 August 2014. A 15 business day period for submissions was provided, with a closing date of 11 September 2014." (Page 5)*

No submissions from consumer advocates or organisations were received. Nor is there documentation of any engagement with any consumers.

As such, the opportunity for feedback from consumer advocates and organisations was missed. Notwithstanding the fact that the NCC followed the Rules, consumer advocates were not adequately resourced and engaged in the decision to move to Light Regulation.

Retailers and Consumer Interest

One factor in the NCC decision was the relative power of gas distributors and retailers and its implications for use of and constraints on market power.

It is self-evident that retailers will not represent consumer interests in negotiating access or price – retailers face different incentives than consumers. The incentive for retailers to seek a lower distribution price on behalf of consumers is negligible and vastly outweighed by any costs incurred by any one retailer in assessing and demonstrating that prices should be lower.

Effectiveness of Electricity as Competition

The decision to move to Light Regulation appeared to rely substantially on gas being a fuel of choice in Queensland. For example, "there are readily available substitutes for all natural gas applications, particularly from electricity and LPG"[3] and "the most significant constraint on market power associated with the QGDN is the ability for end users to substitute other forms of energy—electricity and LPG"[4].

As the distributors noted in their applications, Queensland households' gas appliances tend to be used for cooking and hot water, rather than space heating.

ATA's research confirms that Queensland households would be significantly better off (financially) using/moving to efficient electric appliances. Switching a hot water system and cooktop and

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disconnecting from the gas network would leave Queensland households better off by between $700 and $4,600 over 10 years, according to ATA calculations[5]. It varies according to the household's current gas usage and location (gas zone).

AGL wrote in its submission:

> *"That network charges are above efficient levels (ie. compared to if regulated today) but there has been little substitution away from gas to date raises further concerns on the market constraint provided by fuel substitution."*
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> *"The lack of consumer response suggests that the elasticity of gas demand at the current price, or awareness of alternatives, remains low."*[6]

With it being uneconomic to remain connected to gas, households may still choose to remain connected if it was their preferred option for non-economic reasons. In this case, it could be argued that gas is a "fuel of choice". However, with such large numbers of consumers staying on the gas network, despite the increasing economic imperative to fuel switch to electricity, it would appear that continued gas demand by Queensland households is more likely to reflect market failures in multiple areas.

Market Failure

The focus below is on discussing the hot water market since ATA research shows, for a typical southern Queensland household connected to gas for hot water and cooking, 91% of the gas consumed is used to heat water.

In the market for hot water appliances, several market failures were identified in a 2013 Regulation Impact Statement Consultation as part of Equipment Energy Efficiency (E3) program. The Department described the information barriers and split incentives (builder/owner, plumber/owner and landlord/tenant) that exist (see Appendix 1 for extract). Moreover it detailed the evidence for market failure in Australia for Heat Pump Hot Water (HPHW) system, concluding -

> *"There is evidence which supports the case that market failures occur in the HPWH market and have led to less than optimal purchasing decisions.* [7]*"*

These market failures, split incentives and information barriers, would result in demand for gas and number of customers remaining connected being higher than socially optimal (and rational). It limits the effectiveness of electricity as a competitor to gas and presents an effective cap on fuel switching.

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Imperfect Markets – Renters

> *"A residential landlord ... is likely to be motivated to minimise their capital outlay. Therefore this split incentive is only likely to operate within the HPWH market if they become the low capital cost option, as has occurred in the past for short periods due to rebates. The short term tenure of many rental properties also reduces tenants' consideration of energy costs (including water heating energy costs)."*[8]

Cook-tops and hot water systems are provided by landlords. Renters are not making the decision about which appliances they will use. They cannot easily substitute these appliances.

In 2011, 34% of Queensland dwellings are rented[9]. It is likely that a similar proportion of gas connections are in rental properties.

Rental households are likely to be a significant market that will continue historical levels of reliance on gas. The likelihood/frequency of fuel switching in this market is low.

Imperfect Markets – Low Economic Resource Households

The NCC final decision for Envestra claimed on page 15 "The cost of switching from natural gas to electricity or LPG is low".

ATA researched the capital costs in efficient electric and gas appliances. Queensland homes would require an additional $2000-$2,600 to buy efficient electric appliances instead of gas appliances (see Table below). This additional CAPEX would then allow them to access lower ongoing utility bills.

Table 1: CAPEX Assumptions in Queensland

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
	Ref home	Small home	Large home	Public housing	LPG home	New build
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Additional CAPEX needed						
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Cooking	200	200	200	200	-	200
HotWater+Cooking	2,292	2,526	2,102	2,592	2,392	1,992

Source: Research underpinning 'Are We Still Cooking with Gas', November 2014

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Whether this additional $2000-$2600 is "low" as claimed by National Competition Council and the gas distributers depends on your perspective and resources. Disadvantaged people do not necessarily have the financial ability to easily substitute electric appliances for gas ones even if, being to their financial advantage, it would be a rational choice.

BankWest Curtin Economics Centre has analysed the Household, Income and Labour Dynamics in Australia (HILDA) dataset of 2013 and reported:

> *"There are 937,100 households that are in the bottom 20% for both disposable income and savings that is, they have relatively low savings and financial assets to access... For those finding themselves with low economic resources, almost all have bank accounts but with a low median balance of $700 in cash deposits... Clearly, with such a small household budget, spending on other essentials like food, electricity, heating and clothing will have to be foregone."* [10]

In another recent publication, the same centre reports that Queensland has a high proportion of severe income poverty. Severe income poverty is defined as having access to household income of less than 30% of the national median. Across Australia around 5% of the population are in this category, but in Queensland it is 5.7%[11].

The NCC decision appears to assume energy markets work effectively, which is a false assumption. Any lack of fuel switching among renters and households of low economic resources should not be interpreted necessarily as preferring gas for non-economic reasons.

We advocate for further work to be undertaken to investigate the extent to which market failures account for continuing gas demand in Queensland.

Imperfect Markets – Information Barriers

Initial purchase costs of different appliances are usually transparent. Information about running costs, maintenance costs and expected lifetimes is often difficult to find. Additional complexity is introduced when comparing across different fuel types.

Consumers need to be better informed of the real cost of purchasing and operating both gas and electric appliances in order that they can confidently make better decisions regarding those appliance choices that are in their long-term interest.

The role of governments and industry here is to assist in the provision of accurate and complete, targeted information and advice, that is easy to understand, and that assists consumers in making these choices over the medium- to longer term.

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Confusingly for consumers, ATA found significant advertising of gas as cheaper than electricity[12]. ATA's research has conclusively found that such claims are often incorrect and, as such, should now be considered false or misleading. ATA wrote to the ACCC in October 2015 requesting monitoring of marketing materials in this area and responding appropriately to false and misleading information.

Long Term Interest of Consumers

The question of fuel choice and fuel switching as a competitor raises an important question about the boundaries of network regulation: Where does the National Gas Objective (NGO) start and the National Electricity Objective (NEO) end?

Clearly, the NGO applies to the regulation of gas networks and therefore to current and future gas consumers. And more or less all energy consumers are electricity consumers, so the NEO applies to them.

But what about a consumer facing a decision of choosing between these fuels? For a consumer who connects to gas because it is the most cost effective option over the longer term, the NGO has arguably been achieved. However as indicated by the ATA research, this is now the minority of new connections anticipated by gas businesses.

For the consumer who prefers gas for non-price related reasons and is happy to pay a premium for it, that is consistent with the NGO too.

However, let's look at three cases that might challenge the boundaries of the NEO and the NGO:

1. If some consumers make a decision not to connect to gas, because it isn't cost effective for them, we would argue that decision is in keeping with their long term interest with respect to prices, and so is in keeping with both the NEO and the NGO.

2. Likewise, a consumer who uses gas today, and replaces that appliance with an electric one because it is more cost effective, also is in keeping with both objectives.

3. On the other hand, consumers in either of those categories making the wrong decision would be a failure under both objectives.

We have inherited a false distinction in the separation of the NGO and NEO, whereas the real issue to the consumer is the cost effectiveness of energy, irrespective of the specific fuel type. In ATA's view, in the absence of an overarching single objective, energy market institutions should have regard to both fuels in the context of each objective.

[12] It used to be common for the gas industry to advertise that the running costs of gas appliances were cheaper than electric appliances. There is now a trend for industry to advertise that on an equivalent energy unit basis (e.g. MJ) gas is cheaper than electricity. This is true, but misses the issue of the difference in what can be achieved with joules of electricity compared with joules of gas. One joule of electricity can be turned into 5 joules of heat (using heat pump technology). Whereas one joule of gas can only be turned into 0.9 joules of heat (by burning).

Complaints Procedure

There is no (apparent) complaints procedure under Light Regulation. Robyn Robinson from COTA Queensland was contacted by consumers in a retirement village in Toowoomba who are unhappy with their distributor and who have not been able to find appropriate avenues for complaint. Robyn followed through with the AER to find out the complaints procedure for end users – without success.

Arrangements Not Fit For Purpose

Light Regulation was designed for gas transmission pipelines whose customers are energy businesses. The 'customers' of distribution networks are retailers with limited incentives to seek better end-use consumer outcomes.

The National Competition Council's decision relied in large part on the competitive position of electricity in curbing the market power of the distributers. However this competition is muted in its effectiveness as a result of market failures. In particular, fuel switching is nigh impossible for renters and other households with low economic resources.

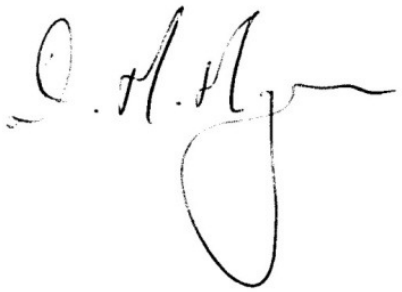
Ultimately, we contend that the Light Regulation arrangements as currently exists are not fit for purpose in distribution to households. A direct voice for end use consumers should result in a more suitable light regulation arrangement.

We, consumer advocates, ask of the National Competition Council/ACCC:

- Advise how the multiple market failures identified herein are being quantified and addressed;
- Advise of the complaints process for end user consumers;
- Assess whether light regulation is fit for purpose for gas distributors.

Thank you for reading about our concerns with light regulation. Should you have any queries, please do not hesitate to contact either Kate Leslie (kate.leslie@ata.org.au) or myself on 03 9639 1500.

Yours sincerely



Damien Moyse

Policy & Research Manager

Appendix 1 – Market Failures in Hot Water Market

The following is an extract from Commonwealth of Australia (2013), Equipment Energy Efficiency E3, Consultation Regulation Impact Statement: Heat Pump Water Heaters, July 2013 (pages 9-10). ATA's research compared gas hot water systems (storage and instantaneous) to a suitably sized heat pump hot water system.

Please note for the abbreviations 'HPHW' is Heat Pump Hot Water and 'ESWH' is Electric Storage Water Heater.

Market failures

Split incentives

A principal-agent issue can arise when the agent (landlord, plumber or builder) is unlikely to operate satisfactorily on behalf of the principal (buyer, tenant) due to 'split incentives' motivating the different parties. The split incentive is due to the fact that the ongoing energy costs of the water heater will be payable by the end-user rather than the adviser. Details of how these classes of split incentive apply in the water heater market include:

• ***Builder/owner split incentive:*** *As the HPWH (or any other type of water heater) is a relatively minor part of a building or renovation project, and it may be selected before the buyer is known, the motivation and the opportunity for the ultimate occupant to influence the water heater selection will usually be limited. Typically the builder will be motivated to keep the purchase and installation costs low and will have no stake in the long term energy consumption costs the owner or user will bear. Considering that new builds constitute a large proportion of recent HPWH sales (Figure 1), there is potential for this split incentive to influence the consumer choice process.*

• ***Plumber/owner split incentive:*** *Many replacement water heaters are supplied by plumbers or purchased on advice provided by a plumber. Plumbers have an incentive to recommend and sell the HPWH which provide the greatest profit margin while requiring the least effort to install. Additionally, some plumbers may have a bias in the brands they recommend due to their commercial links (e.g. free or low cost training programs, or discount purchasing) with particular suppliers and manufacturers. In these situations the owner's interest to obtain an efficient and appropriately sized unit may not be met. This separation of the owner from the purchase of the heat pump water heater will be the case for many residential purchases.*

• ***Landlord/tenant split incentive:*** *A residential landlord has little incentive to purchase a HPWH in the first instance, and is likely to be motivated to minimise their capital outlay. Therefore this split incentive is only likely to operate within the HPWH market if they become the low capital cost option, as has occurred in the past for short periods due to rebates. The short term tenure of many rental properties also reduces tenants' consideration of energy costs (including water heating energy costs). The impact of this incentive was highlighted by the Australian Council of Social Service submission to the 'Reducing energy bills and improving efficiency' report – it argued that this problem has resulted in 'some of the most vulnerable households living in the most inefficient properties in Australia'.*

These split incentive barriers are likely to apply to both the Australian and New Zealand markets. As HPWHs are not the lowest cost water heater option, split incentives are likely to be less of a factor in the HPWH market when compared to the ESWH market. However the commercial links between some plumbers and particular brands and significant numbers of installations in new homes still provide scope for split incentives to influence the selection of HPWH models. The potential for split incentives to influence consumer behaviour is exacerbated

by the information barriers surrounding a lack of reliable information on ongoing energy costs that consumers can easily access.

Information barriers

Considering lower lifetime costs are the key advantage of HPWHs to consumers over the dominant competing technology, ESWHs, it is reasonable to conclude that lower lifetime costs are a key preference for HPWH consumers. An informed HPWH consumer would ideally undertake research to inform themselves of the capital costs, expected service life and the projected running costs of models, then select the option with the lowest lifetime cost. Considering that HPWHs as a group are more energy efficient than ESWHs, there may be a perception amongst consumers that there will be sufficient benefit merely from selecting a HPWH, so there is no need to conduct further research to inform their purchase. This perception is further reinforced by the current lack of reliable comparative information on the energy efficiency and running costs of different HPWH models.

Lifetime costs of HPWHs comprise two main classes of cost: the capital cost of buying and installing the water heater and the ongoing energy costs to operate it. The capital cost is incurred up front and is easy to identify, while the energy cost is incurred progressively and is difficult to determine prior to purchase. For a typical HPWH purchase, the capital cost and ongoing energy costs are roughly equal (Section 4).

Ongoing energy costs reflect future hot water use and energy costs, which are uncertain and difficult for households to forecast. Such uncertainty can result in consumers focusing heavily on capital costs. Even where consumers have access to information, the complexity may result in poorly informed, sub-optimal decisions.

The information barriers caused by uncertainty surrounding ongoing energy costs and high certainty of capital costs, is likely to result in a purchase decision being made without appropriate knowledge or consideration of the ongoing energy costs.

13 May 2016

Ms Paula Conboy
Chair
Mr Chris Pattas
General Manager - Networks (Investment and Pricing)

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

By email to: paula.conboy@aer.gov.au and chris.pattas@aer.gov.au

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Light Regulation was designed for gas transmission pipelines whose customers are energy businesses. The 'customers' of distribution networks are retailers with limited incentives to seek better end-use consumer outcomes.

The National Competition Council's decision relied in large part on the competitive position of electricity in curbing the market power of the distributers. However this competition is muted in its effectiveness as a result of market failures. In particular, fuel switching is nigh impossible for renters and other households with low economic resources.

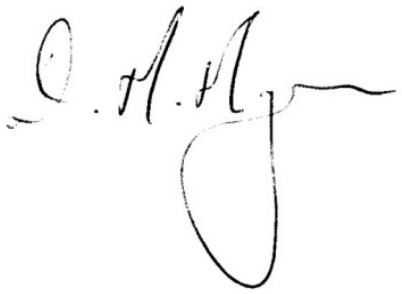
Ultimately, we contend that the Light Regulation arrangements as currently exists are not fit for purpose in distribution to households. A direct voice for end use consumers should result in a more suitable light regulation arrangement.

We, consumer advocates, ask of the AER:

- Advise how the multiple market failures identified herein are being quantified and addressed;
- Advise of the complaints process for end user consumers;

We have written to the NCC to assess whether light regulation is fit for purpose for gas distributers. Thank you for reading about our concerns with light regulation. Should you have any queries, please do not hesitate to contact either Kate Leslie (kate.leslie@ata.org.au) or myself on 03 9639 1500.

Yours sincerely



Damien Moyse

Policy & Research Manager

Appendix 1 – Market Failures in Hot Water Market

The following is an extract from Commonwealth of Australia (2013), Equipment Energy Efficiency E3, Consultation Regulation Impact Statement: Heat Pump Water Heaters, July 2013 (pages 9-10). ATA's research compared gas hot water systems (storage and instantaneous) to a suitably sized heat pump hot water system.

Please note for the abbreviations 'HPHW' is Heat Pump Hot Water and 'ESWH' is Electric Storage Water Heater.

Market failures

Split incentives

A principal-agent issue can arise when the agent (landlord, plumber or builder) is unlikely to operate satisfactorily on behalf of the principal (buyer, tenant) due to 'split incentives' motivating the different parties. The split incentive is due to the fact that the ongoing energy costs of the water heater will be payable by the end-user rather than the adviser. Details of how these classes of split incentive apply in the water heater market include:

• ***Builder/owner split incentive:*** *As the HPWH (or any other type of water heater) is a relatively minor part of a building or renovation project, and it may be selected before the buyer is known, the motivation and the opportunity for the ultimate occupant to influence the water heater selection will usually be limited. Typically the builder will be motivated to keep the purchase and installation costs low and will have no stake in the long term energy consumption costs the owner or user will bear. Considering that new builds constitute a large proportion of recent HPWH sales (Figure 1), there is potential for this split incentive to influence the consumer choice process.*

• ***Plumber/owner split incentive:*** *Many replacement water heaters are supplied by plumbers or purchased on advice provided by a plumber. Plumbers have an incentive to recommend and sell the HPWH which provide the greatest profit margin while requiring the least effort to install. Additionally, some plumbers may have a bias in the brands they recommend due to their commercial links (e.g. free or low cost training programs, or discount purchasing) with particular suppliers and manufacturers. In these situations the owner's interest to obtain an efficient and appropriately sized unit may not be met. This separation of the owner from the purchase of the heat pump water heater will be the case for many residential purchases.*

• ***Landlord/tenant split incentive:*** *A residential landlord has little incentive to purchase a HPWH in the first instance, and is likely to be motivated to minimise their capital outlay. Therefore this split incentive is only likely to operate within the HPWH market if they become the low capital cost option, as has occurred in the past for short periods due to rebates. The short term tenure of many rental properties also reduces tenants' consideration of energy costs (including water heating energy costs). The impact of this incentive was highlighted by the Australian Council of Social Service submission to the 'Reducing energy bills and improving efficiency' report – it argued that this problem has resulted in 'some of the most vulnerable households living in the most inefficient properties in Australia'.*

These split incentive barriers are likely to apply to both the Australian and New Zealand markets. As HPWHs are not the lowest cost water heater option, split incentives are likely to be less of a factor in the HPWH market when compared to the ESWH market. However the commercial links between some plumbers and particular brands and significant numbers of installations in new homes still provide scope for split incentives to influence the selection of HPWH models. The potential for split incentives to influence consumer behaviour is exacerbated

by the information barriers surrounding a lack of reliable information on ongoing energy costs that consumers can easily access.

Information barriers

Considering lower lifetime costs are the key advantage of HPWHs to consumers over the dominant competing technology, ESWHs, it is reasonable to conclude that lower lifetime costs are a key preference for HPWH consumers. An informed HPWH consumer would ideally undertake research to inform themselves of the capital costs, expected service life and the projected running costs of models, then select the option with the lowest lifetime cost. Considering that HPWHs as a group are more energy efficient than ESWHs, there may be a perception amongst consumers that there will be sufficient benefit merely from selecting a HPWH, so there is no need to conduct further research to inform their purchase. This perception is further reinforced by the current lack of reliable comparative information on the energy efficiency and running costs of different HPWH models.

Lifetime costs of HPWHs comprise two main classes of cost: the capital cost of buying and installing the water heater and the ongoing energy costs to operate it. The capital cost is incurred up front and is easy to identify, while the energy cost is incurred progressively and is difficult to determine prior to purchase. For a typical HPWH purchase, the capital cost and ongoing energy costs are roughly equal (Section 4).

Ongoing energy costs reflect future hot water use and energy costs, which are uncertain and difficult for households to forecast. Such uncertainty can result in consumers focusing heavily on capital costs. Even where consumers have access to information, the complexity may result in poorly informed, sub-optimal decisions.

The information barriers caused by uncertainty surrounding ongoing energy costs and high certainty of capital costs, is likely to result in a purchase decision being made without appropriate knowledge or consideration of the ongoing energy costs.

13 May 2016

Mr Paul Simshauser
Director General
Department of Energy and Water Supply
PO Box 15456
City East QLD 4002

By email to: paul.simshauser@dews.qld.gov.au

Dear Mr Simshauser,

Re: Light Regulation of Gas Networks in Queensland

The National Competition Council approved Light Regulation for Queensland gas distributors Envestra (now AGN) in November 2014 and Allgas in April 2015. We consumer advocates, representing a diversity of residential end users, write to express reservations about the move to Light Regulation and in regards to the process.

Consumer Consultation

In its Initial Application for Light Regulation[1], under the heading 'Customer Consultation', Envestra lists the stakeholders consulted:

> *"23. Envestra consulted with the Office of the Queensland Energy Minister, the Queensland Government, the National Competition Council (NCC), the Australian Energy Regulator (AER), the Queensland Competition Authority (QCA), the Energy Retailers Association of Australia, Origin Energy, AGL and Alinta Energy" (Page 5)*

The National Competition Council then invited written submissions on the application from interested parties. Its draft decision[2] noted the process:

[1] Envestra Ltd, Application for Light Regulation of Envestra's Queensland Gas Distribution Network, Public Version, 15 August 2014.
[2] National Competition Council, Light Regulation of Envestra's Queensland Gas Distribution Network, Draft decision and Statement of Reasons - Public version, 29 September 2014.

> *"2.18 In determining this matter the Council followed the standard consultative procedure set out in Rule 8 of the NGR.*
>
> *2.19 Notice of the application was published on the Council's website and in The Australian newspaper on 21 August 2014. A 15 business day period for submissions was provided, with a closing date of 11 September 2014." (Page 5)*

No submissions from consumer advocates or organisations were received. Nor is there documentation of any engagement with any consumers.

As such, the opportunity for feedback from consumer advocates and organisations was missed. Notwithstanding the fact that the NCC followed the Rules, consumer advocates were not adequately resourced and engaged in the decision to move to Light Regulation.

Retailers and Consumer Interest

One factor in the NCC decision was the relative power of gas distributors and retailers and its implications for use of and constraints on market power.

It is self-evident that retailers will not represent consumer interests in negotiating access or price – retailers face different incentives than consumers. The incentive for retailers to seek a lower distribution price on behalf of consumers is negligible and vastly outweighed by any costs incurred by any one retailer in assessing and demonstrating that prices should be lower.

Effectiveness of Electricity as Competition

The decision to move to Light Regulation appeared to rely substantially on gas being a fuel of choice in Queensland. For example, "there are readily available substitutes for all natural gas applications, particularly from electricity and LPG"[3] and "the most significant constraint on market power associated with the QGDN is the ability for end users to substitute other forms of energy—electricity and LPG"[4].

As the distributors noted in their applications, Queensland households' gas appliances tend to be used for cooking and hot water, rather than space heating.

ATA's research confirms that Queensland households would be significantly better off (financially) using/moving to efficient electric appliances. Switching a hot water system and cooktop and disconnecting from the gas network would leave Queensland households better off by between $700 and $4,600 over 10 years, according to ATA calculations[5]. It varies according to the household's current gas usage and location (gas zone).

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[3] National Competition Council, Light Regulation of Envestra's Queensland Gas Distribution Network, Final Determination and Statement of Reasons - Public version, 5 November 2014, page 14.
[4] Ibid, page 18.
[5] ATA, 'Are We Still Cooking With Gas', November 2014, pages 60-62.

AGL wrote in its submission:

> *"That network charges are above efficient levels (ie. compared to if regulated today) but there has been little substitution away from gas to date raises further concerns on the market constraint provided by fuel substitution."*
>
> *"The lack of consumer response suggests that the elasticity of gas demand at the current price, or awareness of alternatives, remains low."*[6]

With it being uneconomic to remain connected to gas, households may still choose to remain connected if it was their preferred option for non-economic reasons. In this case, it could be argued that gas is a "fuel of choice". However, with such large numbers of consumers staying on the gas network, despite the increasing economic imperative to fuel switch to electricity, it would appear that continued gas demand by Queensland households is more likely to reflect market failures in multiple areas.

Market Failure

The focus below is on discussing the hot water market since ATA research shows, for a typical southern Queensland household connected to gas for hot water and cooking, 91% of the gas consumed is used to heat water.

In the market for hot water appliances, several market failures were identified in a 2013 Regulation Impact Statement Consultation as part of Equipment Energy Efficiency (E3) program. The Department described the information barriers and split incentives (builder/owner, plumber/owner and landlord/tenant) that exist (see Appendix 1 for extract). Moreover it detailed the evidence for market failure in Australia for Heat Pump Hot Water (HPHW) system, concluding -

> *"There is evidence which supports the case that market failures occur in the HPWH market and have led to less than optimal purchasing decisions.* [7]*"*

These market failures, split incentives and information barriers, would result in demand for gas and number of customers remaining connected being higher than socially optimal (and rational). It limits the effectiveness of electricity as a competitor to gas and presents an effective cap on fuel switching.

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[6] AGL, letter titled 'Draft decision and Statement of Reasons - Light regulation of Envestra's Queensland Gas Distribution Network', 20 October 2014, page 6. http://ncc.gov.au/images/uploads/LRQGDNSu-007.pdf Accessed 12/11/15.

[7] Commonwealth of Australia (2013), Equipment Energy Efficiency E3, Consultation Regulation Impact Statement: Heat Pump Water Heaters, July 2013. Page 10.
(link - ris.dpmc.gov.au/files/2013/08/HPWH-consultation-RIS.docx)

Imperfect Markets – Renters

> *"A residential landlord ... is likely to be motivated to minimise their capital outlay. Therefore this split incentive is only likely to operate within the HPWH market if they become the low capital cost option, as has occurred in the past for short periods due to rebates. The short term tenure of many rental properties also reduces tenants' consideration of energy costs (including water heating energy costs)."*[8]

Cook-tops and hot water systems are provided by landlords. Renters are not making the decision about which appliances they will use. They cannot easily substitute these appliances.

In 2011, 34% of Queensland dwellings are rented[9]. It is likely that a similar proportion of gas connections are in rental properties.

Rental households are likely to be a significant market that will continue historical levels of reliance on gas. The likelihood/frequency of fuel switching in this market is low.

Imperfect Markets – Low Economic Resource Households

The NCC final decision for Envestra claimed on page 15 "The cost of switching from natural gas to electricity or LPG is low".

ATA researched the capital costs in efficient electric and gas appliances. Queensland homes would require an additional $2000-$2,600 to buy efficient electric appliances instead of gas appliances (see Table below). This additional CAPEX would then allow them to access lower ongoing utility bills.

Table 1: CAPEX Assumptions in Queensland

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
	Ref home	Small home	Large home	Public housing	LPG home	New build
Gas appliances						
Hot water	1,500	1,200	1,800	1,200	1,200	1,800
Cooking	1,800	1,800	1,800	1,800	-	1,800
Electric appliances						
Hot water	3,592	3,526	3,702	3,592	3,592	3,592
Cooking	2,000	2,000	2,000	2,000	-	2,000
Additional CAPEX needed						
Hot water	2,092	2,326	1,902	2,392	2,392	1,792
Cooking	200	200	200	200	-	200
HotWater+Cooking	2,292	2,526	2,102	2,592	2,392	1,992

Source: Research underpinning 'Are We Still Cooking with Gas', November 2014

[8] Ibid, page 9

[9] ABS Census 2011, Community Profile – Queensland, calculated from Table B32.

Whether this additional $2000-$2600 is "low" as claimed by National Competition Council and the gas distributers depends on your perspective and resources. Disadvantaged people do not necessarily have the financial ability to easily substitute electric appliances for gas ones even if, being to their financial advantage, it would be a rational choice.

BankWest Curtin Economics Centre has analysed the Household, Income and Labour Dynamics in Australia (HILDA) dataset of 2013 and reported:

> *"There are 937,100 households that are in the bottom 20% for both disposable income and savings that is, they have relatively low savings and financial assets to access... For those finding themselves with low economic resources, almost all have bank accounts but with a low median balance of $700 in cash deposits... Clearly, with such a small household budget, spending on other essentials like food, electricity, heating and clothing will have to be foregone."* [10]

In another recent publication, the same centre reports that Queensland has a high proportion of severe income poverty. Severe income poverty is defined as having access to household income of less than 30% of the national median. Across Australia around 5% of the population are in this category, but in Queensland it is 5.7%[11].

The NCC decision appears to assume energy markets work effectively, which is a false assumption. Any lack of fuel switching among renters and households of low economic resources should not be interpreted necessarily as preferring gas for non-economic reasons.

We advocate for further work to be undertaken to investigate the extent to which market failures account for continuing gas demand in Queensland.

Imperfect Markets – Information Barriers

Initial purchase costs of different appliances are usually transparent. Information about running costs, maintenance costs and expected lifetimes is often difficult to find. Additional complexity is introduced when comparing across different fuel types.

Consumers need to be better informed of the real cost of purchasing and operating both gas and electric appliances in order that they can confidently make better decisions regarding those appliance choices that are in their long-term interest.

The role of governments and industry here is to assist in the provision of accurate and complete, targeted information and advice, that is easy to understand, and that assists consumers in making these choices over the medium- to longer term.

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[10] BankWest Curtin Economics Centre, 'Beyond Our Means? Household Savings and Debt in Australia, Focus on the States Report Series, No.2, June 2015, page 43.

[11] Bankwest Curtin Economics Centre, 'Falling Through the cracks: Poverty and Disadvantage in Australia', Focus on the States, Issue No. 1, October 2014, page 6.

Confusingly for consumers, ATA found significant advertising of gas as cheaper than electricity[12]. ATA's research has conclusively found that such claims are often incorrect and, as such, should now be considered false or misleading. ATA wrote to the ACCC in October 2015 requesting monitoring of marketing materials in this area and responding appropriately to false and misleading information.

Long Term Interest of Consumers

The question of fuel choice and fuel switching as a competitor raises an important question about the boundaries of network regulation: Where does the National Gas Objective (NGO) start and the National Electricity Objective (NEO) end?

Clearly, the NGO applies to the regulation of gas networks and therefore to current and future gas consumers. And more or less all energy consumers are electricity consumers, so the NEO applies to them.

But what about a consumer facing a decision of choosing between these fuels? For a consumer who connects to gas because it is the most cost effective option over the longer term, the NGO has arguably been achieved. However as indicated by the ATA research, this is now the minority of new connections anticipated by gas businesses.

For the consumer who prefers gas for non-price related reasons and is happy to pay a premium for it, that is consistent with the NGO too.

However, let's look at three cases that might challenge the boundaries of the NEO and the NGO:

1. If some consumers make a decision not to connect to gas, because it isn't cost effective for them, we would argue that decision is in keeping with their long term interest with respect to prices, and so is in keeping with both the NEO and the NGO.

2. Likewise, a consumer who uses gas today, and replaces that appliance with an electric one because it is more cost effective, also is in keeping with both objectives.

3. On the other hand, consumers in either of those categories making the wrong decision would be a failure under both objectives.

We have inherited a false distinction in the separation of the NGO and NEO, whereas the real issue to the consumer is the cost effectiveness of energy, irrespective of the specific fuel type. In ATA's view, in the absence of an overarching single objective, energy market institutions should have regard to both fuels in the context of each objective.

[12] It used to be common for the gas industry to advertise that the running costs of gas appliances were cheaper than electric appliances. There is now a trend for industry to advertise that on an equivalent energy unit basis (e.g. MJ) gas is cheaper than electricity. This is true, but misses the issue of the difference in what can be achieved with joules of electricity compared with joules of gas. One joule of electricity can be turned into 5 joules of heat (using heat pump technology). Whereas one joule of gas can only be turned into 0.9 joules of heat (by burning).

Complaints Procedure

There is no (apparent) complaints procedure under Light Regulation. Robyn Robinson from COTA Queensland was contacted by consumers in a retirement village in Toowoomba who are unhappy with their distributor and who have not been able to find appropriate avenues for complaint. Robyn followed through with the AER to find out the complaints procedure for end users – without success.

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- Consider the evidence here that light regulation may not be fit for purpose for gas distributers.

Thank you for reading about our concerns with light regulation. Should you have any queries, please do not hesitate to contact either Kate Leslie (kate.leslie@ata.org.au) or myself on 03 9639 1500.

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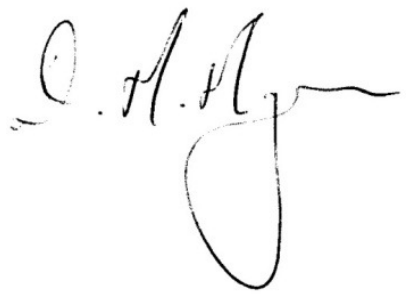

Damien Moyse

Policy & Research Manager

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