



RESPONSE TO
QPC ELECTRICITY PRICING INQUIRY REPORT
(DATED 3 FEB 2016)

US solar developer (SolarReserve) says large-scale solar tower and storage could be blue-print to bring in higher levels of renewable energy and accelerate transition away from coal, and gas. It proposes a "price competitive" 110MW plant with 8 hours storage for Port Augusta.

Why not in the sunshine State?

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Response

Most people would agree with RenewEconomy that the “QPC Report is actually a highly readable analysis on the challenges facing the energy industry”, yet there are many points of concern, listed below.

The fundamental concern for this Inquiry, and the Solar Pricing Inquiry, is the engagement of ACIL Allen to provide economic advice to the Commission, given their track record of opposition to the growth of renewable energy. Refer to Appendix A for further details.

Credibility and independence must be the hallmarks of the Queensland Productivity Commission’s Inquiries.

In that light the appointment of ACIL Allen brings a strong anti-renewables influence to both Inquiries. Not surprisingly, when the numbers in the draft report are subjected to scrutiny it is immediately noticeable that government election commitments that favour renewables are discouraged by inflated costs and/or by ignoring the benefits and/or by using a miniscule risk to justify inaction on an SBS buyback where the cost of inaction to the community is estimated at \$2 billion. For example:

Example 1: absurd FiT for 2020 solar PV targets

The draft report absurdly proposes that a 45c/kWh FiT is needed to achieve the installation of 3000 MW or 1 million solar rooftops by 2020. The draft report cites a market barrier that no longer exists and uses that to propose a FiT that would cause a substantial community backlash if it was ever implemented.

<i>Draft report page 60 - That is, higher prices have a proportionally small effect on encouraging greater solar investment, which is due to the number of households who have already installed solar, as well as there being barriers to installation for solar in the residential rental market.</i>	Barriers to installation of solar PV in the residential (and the far larger) business rental markets have largely been overcome with the introduction of power purchase agreements between tenants and landlords. These agreements have opened a new and far larger market. Market saturation is unlikely to be a constraint on the installation of solar PV on rooftops for a very long time.
<i>Draft report page 61 - Based on the relationship of uptake to price exhibited under the various price scenarios, we estimated that a price of 45 c/kWh would be required to achieve the 3000 MW target by 2020, rather than by 2022. This is a rate similar to the now closed SBS (which offered a premium FiT of 44 c/kWh).</i>	The 45 c/kWh scenario is not even modelled as a price scenario in Figure 34 on page 60 of the draft report because the resulting solar uptake rate would be off the chart.

In order to achieve the target of 3000 MW or 1 million rooftops by 2020 the Solar Pricing Inquiry needs to deliver a fair price for solar exports that takes into account all of the benefits.

Refer to Appendix B for further concerns with the draft report.

Example 2: miniscule risk to cost the community \$2 billion

The draft report floats the idea of a buyback of the Solar Bonus Scheme (SBS) and points out the below miniscule risk.

Draft report pages 90-91 - Moreover, there is also a risk that a voluntary program could be exploited by those who stand to gain financially from the transaction. For example, scheme participants would be incentivised to accept a payout if they had intentions to sell their property in the near future. The offer would not have been a factor in the relocation decision and the buyout proceeds would represent a windfall, which would otherwise not have been received.

It is correct to say that a buyback offer would not be a factor in a relocation decision. Relocation decisions are not taken lightly due to the effort and expense involved. About 900 households in the ENERGEX area exit the SBS

each month due to real estate churn. It is reasonable to project that a further 400 households exit the SBS in the ERGON area.

It lacks impartiality to suggest that a “windfall” for some of those 1,300 out of 265,000 SBS households should prevent an SBS buyback, estimated to cost about \$1 billion (depending on uptake), that has the potential to save all electricity consumers an estimated \$2 billion over the life of the SBS.

An SBS buyback based on an energy storage rebate payable to the storage supplier (75% from the State and 25% by the SBS householder) would almost eliminate the risk of any such “windfall”.

The draft report rules out an SBS buyback citing a miniscule risk that is manageable with a moments analysis, and instead, recommends winding up the SBS in 2020 which is estimated to cost \$2 billion (i.e. \$1 billion more than an SBS buyback).

Example 3: flawed Queensland Renewable Energy Target (QRET) analysis

There are deals on offer in Brisbane for 5kW solar PV for \$5,000 (after STCs) implying small scale solar PV now costs about \$1 per watt. The draft report suggests that under a QRET the Queensland Government would need to pay \$7 per watt for small scale solar PV out to 2030. This ridiculously inflates the cost of small scale solar PV within the QRET and reveals an astounding ignorance of the current market.

By assuming a more realistic cost of \$1 per watt for small scale solar PV, the QRET costs might look something like the below.

Draft Report Model	MW	Cost/MW	Total	
Large scale wind	6300	\$1,365,079	\$8,600,000,000	
Small scale solar PV	300	\$7,333,333	\$2,200,000,000	
			\$10,800,000,000	(A)
Alternative Model	MW	Cost/MW	Total	
Large scale wind	6300	\$1,365,079	\$8,600,000,000	
Small scale solar PV	300	\$1,000,000	\$300,000,000	
			\$8,900,000,000	(B)
Over-estimate of QRET cost by draft report			\$1,900,000,000	(A-B)
Reduction in wholesale generation costs - \$600 million per annum to 2030			\$8,400,000,000	

Notes.

1. The above is not meant to suggest that other renewable technologies such as solar thermal, solar pumped hydro, and hydro etc. be excluded from the QRET. It is just that it is more difficult for a member of the public to ascertain cost per watt information for these technologies.
2. The average cost per watt for small scale solar PV out to 2030 is likely to be less than \$1 per watt.

Based on the above, the QRET would seem to be almost cost neutral with projected costs out to 2030 of \$8.9 billion coupled with a projected reduction in the wholesale electricity price out to 2030 of \$8.4 billion, assuming the reduction in wholesale electricity prices is passed on to customers.

By comparison, the draft report identifies a cost for the QRET of \$10.8 billion. The projected reduction in wholesale electricity prices is identified in the draft report but downplayed, as the draft report goes on to state on page 56 that:

"Real retail prices are projected to be on average 0.5 per cent higher for households and 0.3 per cent higher for industry but 0.7 per cent lower for commercial customers over the period (Figure 33). Residential prices are more adversely affected than commercial and industrial prices as wholesale electricity costs are a smaller component of residential customers' retail bills".

The draft report accepts that the incumbent industry will absorb the reduction in the wholesale electricity price and not pass it on to most Queensland customers, and then the incumbent industry will have the cheek to increase retail prices on top. It is a delusion to think that this is a competitive market.

The draft report goes on to state on page 56:

ACIL Allen's modelling estimates that consumers in the rest of the NEM would be better off with a QRET. 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 (Figure 34).

...so even though wholesale electricity prices will **fall**, retail prices will mysteriously **rise** for most Queensland customers, yet a miracle occurs and retail prices **fall** by 3% for the rest of the National Electricity Market – desperate logic designed to discourage the QRET to the benefit of the incumbent industry.

There is good reason for Queensland to be known as the sunshine State. It is therefore a mystery why the draft report focuses on wind generation while disregarding large scale solar and other renewable technologies. This is not to say that wind generation should be excluded. It is just that to be credible the analysis of the QRET should consider a broad range of large scale renewable technologies. Presumably, reverse auction/s would be used to build QRET generation through to 2030 and all renewable technologies would be on the table.

The point that is being made above is that the draft report's analysis of the QRET:

- is unnecessarily constrained in the range of renewable technologies considered,
- small scale solar PV costs are ridiculously inflated (by 700%),
- benefits (\$600 million per annum) are not passed on to Queensland customers, instead the retail electricity price is hiked for most Queensland customers,
- yet by some miracle benefits are passed on to customers outside Queensland.

The analysis should be redone from scratch. The Queensland Government should not abandon or water down its election commitment for a QRET based on the flawed analysis in the draft report.

The Queensland Government may wish to consider other incentives for QRET participants such as prioritised land grants in areas where the grid capacity is constrained e.g. Beaudesert and the surrounding area. This would magnify the benefits of the QRET by deferring or avoiding the cost of grid capacity upgrades.

If the QRET is abandoned, the draft report forecasts that burning carbon will contribute **96.5%** to the State's electricity in 2035. If that occurs, it is reasonable to expect that Australia will be a pariah and subject to economy destroying punitive sanctions.

The draft report's estimated cost of \$10.8 billion through to 2030 for a QRET (a figure which does not stand scrutiny) pales into insignificance compared to the ongoing economic loss (and personal hardship) that would occur as a consequence of, for example, the destruction of the Great Barrier Reef. A study commissioned by the Department of Sustainability, Environment, Water, Population and Communities and the Great Barrier Reef Marine Park Authority estimates that the value-added economic contribution of the Great Barrier Reef World Heritage Area to the Australian economy in 2011-12 was **\$5.68 billion** and it generated almost **69,000 full-time equivalent jobs**. The study is available at this [hyperlink](#).

Refer to Appendix C for further concerns with the draft report.

Solar Bonus Scheme Buyback Proposal

The Queensland Government has already ruled out unilaterally terminating the SBS in 2020, as recommended by the draft report. However, it remains economically responsible for the Queensland Government to seek to reduce electricity prices via negotiation with SBS households. Hence, there is an opportunity for a conversation in good faith about the below principles that could underpin an SBS buyback, and to put a genuine proposal on the table.

1. The reduction in network charges resulting from the SBS buyback must be returned to all householders and businesses. The Queensland Government has shown that it has the power to direct the distribution monopolies when it instructed them NOT to appeal a recent decision of the National Energy Regulator.
2. The buyback must be voluntary.
3. It may be more electorally palatable to buyback the SBS in a way that drives down both short and long term electricity costs for all households and businesses. An investment in energy storage would lower evening peak loads, thereby re-invigorating the uptake of solar and the purchase of energy efficient appliances through lower network charges. The aim is to increase the acceptance of the buyback by both SBS households and the wider community.
4. The buyback should be open for a reasonable time to allow SBS households to raise any co-contribution.

Below is a buyback proposal that meets the principles. A short consultation process should be undertaken with SBS households to fine tune the proposal and gauge acceptance, together with some marketing to the wider community.

- The Queensland Government would direct the distribution monopolies to reduce charges for all households and businesses based on the uptake of the buyback. Distribution monopolies must provide independent verification of proportionate reductions in electricity charges to Parliament.
- Voluntary departure from the SBS would be encouraged by providing an energy storage rebate (amount to be determined by consultation) claimable by the supplier of the energy storage system. The SBS household would fund the balance (Principles 2, 3).
- SBS households would be given 6 months to participate in the buyback (Principle 4) starting from - say 1 July 2017. At the end of the period the terms of the buyback should be evaluated and fine-tuned.

The SBS buyback should be funded from:

- The distributor's capital allocation as there would be a material drop in evening peak loads that would avoid or defer investment in grid capacity upgrades to beyond 2020 (the next investment cycle).
- Proceeds of the sale of gold-plated network components.
- A contribution from the State.

The proposed buyback supports the government's election commitments by:

- Lowering electricity prices for all households now and into the future (through deferred / avoided investment in grid capacity upgrades).
- Reinvigorating the uptake of solar to achieve 1 million rooftops or 3000 MW of rooftop solar by 2020 (through lower network charges).
- Making a down payment on a QRET.

It is fundamental that the Solar Pricing Inquiry result in a fair FiT for solar exports, otherwise any proposal to buyback the SBS is likely to fail.

Conclusion

The QPC must take into account the concerns raised in this response and its Appendices in finalising the Inquiry report.

Appendix A – “Farcical” start to Tony Abbott’s renewable energy review

[Refer to the text highlighted in yellow below]

By Giles Parkinson on 24 April 2014

Tony Abbott’s controversial review of Australia’s renewable energy target (RET) made a “farcical” start to its public deliberations on Wednesday, attracting new accusations of bias and of having a pre-determined outcome.

Clean energy representatives were shocked by the panel’s appointment as chief advisor and modeller of ACIL Allen, a consultancy seen as close to the fossil fuel industry, and whose highly contested research formed the basis of the coal industry’s attempts to dismantle the RET in 2012.

Not only will ACIL Allen do the modelling for the RET Review panel, some of the assumptions that will form the basis of that modelling have also stunned the clean energy industry, and been branded as a farce.

This includes an apparent refusal to measure the benefits of renewable energy – including the health benefits, job benefits, and the network benefits – which the panel has dismissed as “too hard to model” and little more than a “transfer of wealth”, presumably away from the coal generators and network providers. There is concern about how it will model the reduction in wholesale prices – the main complaint from the existing fossil fuel industry.

Around 50 people who attended the RET Review panel’s modelling forum at the Mercure hotel near Sydney’s international airport were also told that the modelling will assume that there will be no carbon price out to 2030, and will not factor in any abatement targets. In other words, it is assuming there will be no carbon restrictions on the sector for another two decades.

John Grimes, the CEO of the Australian Solar Council, echoed the thoughts of many who attended the meeting and were interviewed by RenewEconomy when he said it appeared clear that the RET Review will serve only to protect the vested interests in the current electricity market.

“I’ve got to say – this is much worse than we had anticipated,” Grimes said. “This entire review process needs to be revealed for the sham that it is ... we can only conclude that the RET Review process is heading to a biased and predetermined outcome.

“Instead of making customer benefits the key measure of a successful energy market, this review is set to side with big business, giving little or no weight to the benefits of solar for householders, business and the community.

“Clearly any model that fails to consider a carbon price (in any form) up to 2030, in the face of international action on climate change, is negligent and lacks any credibility. ”



The RET review was already controversial because of the Abbott government’s decision to by-pass the Climate Change Authority (which dismissed the ACIL Allen modelling and the coal industry’s protestations in its 2012 review), and appoint a panel led by climate change denier and pro-nuclear advocate Dick Warburton.

He will be supported by fossil fuel lobbyist and former ABARE chief Brian Fisher, and Shirley In’t Veld, the former head of WA’s biggest coal generator, Verve Energy. The secretariat will be housed in Abbott’s own department.

Clean energy attendees said they were shocked by some of the statements – including Warburton’s apparent ignorance that the Abbott government went to the election with a “million solar rooftops” commitment, as well as assumptions by the panel that the current 41,000GWh could not physically be met.

The panel reportedly claimed that no large renewable energy projects would be able to be built for another 18 months, and no more than 1,000MW to 1,200MW of wind capacity would be possible in a single year, making it impossible to reach the current target. Both these claims were reportedly vigorously contested by the representative of the Clean Energy Council.

However, it was ACIL Allen’s appointment that confirmed the worst fears of the renewable energy industry.

In 2012, the energy consultancy produced a report for EnergyAustralia, one of the fiercest opponents of the renewable energy target, that suggested the cost of the RET amounted to a subsidy of \$53 billion – a number it said could be halved if the RET was adjusted from its fixed target of 41,000GWh to a “real 20 per cent”. This is the very argument that the fossil fuel industry continues today, and one that ACIL Allen, farcically, has been asked to adjudicate and model.

The figures produced by ACIL Allen in 2012 were ridiculed by the industry, and rejected by the CCA, which said that diluting the RET would save little for consumers, although industry analysts noted that doing so would destroy the price of renewable energy certificates currently held by clean energy developers and banks.

ACIL Tasman – as it was then known – was labeled by academic Guy Pearse in his book “High and Dry” as the coal industry’s favourite consultant. Read this New Matilda report on the links between Fisher’s ABARE, ACIL Tasman and the fossil fuel industry.

Even the Murdoch-owned Business Spectator made a spectacular demolition of ACIL Allen’s research, pointing to its previous reports that claimed that carbon pricing would eradicate the LNG industry, would force the closure of all brown coal generators by 2020, its predictions that geothermal would account for 30 per cent of the Renewable Energy Target, and how on two occasions it grossly miscalculated the uptake of rooftop solar.

On its website, another study undertaken for the Electricity Supply Association of Australia – another body that wants the RET diluted – recommended a “pricing or regulatory response” to try to prevent the widespread uptake of rooftop solar and the potential “islanding” of electricity consumers.

In yet another study, for the Department of Resources and Energy, ACIL Allen in 2010 was asked to assess various energy technology cost estimates. ACIL Allen made this extraordinary prediction for solar – saying its capital cost would be around \$4,650 a kW by 2015, possibly falling 30 per cent to \$3,255/kW by 2030. (See the table here, page 16, table 8).

Even in 2010 this prediction was patently absurd. Solar PV prices were falling 30 per cent a year, not every 15 years. By the end of 2013, capital costs for utility-scale PV are already at 1,500/kW – less than half what ACIL Allen predicted would be the cost two decades hence. Still, the ACIL Allen estimates formed a crucial part of the government’s commitment to fossil fuels.

This largely reflects the problem that the renewable energy industry faces – incumbents and ageing engineers and business people who reject the science, simply do not understand or accept that renewable energy sources can be effective and cost competitive, and cannot imagine an energy system any different to the centralised model that has dominated for the past 100 years, and/or who are merely seeking to protect their vested interests.

The problem is that not only do they now have the ear of the current government, they have their hand on the wheels – and their foot on the brakes.

Appendix B – Queensland inquiry’s big fail on rooftop solar and battery storage

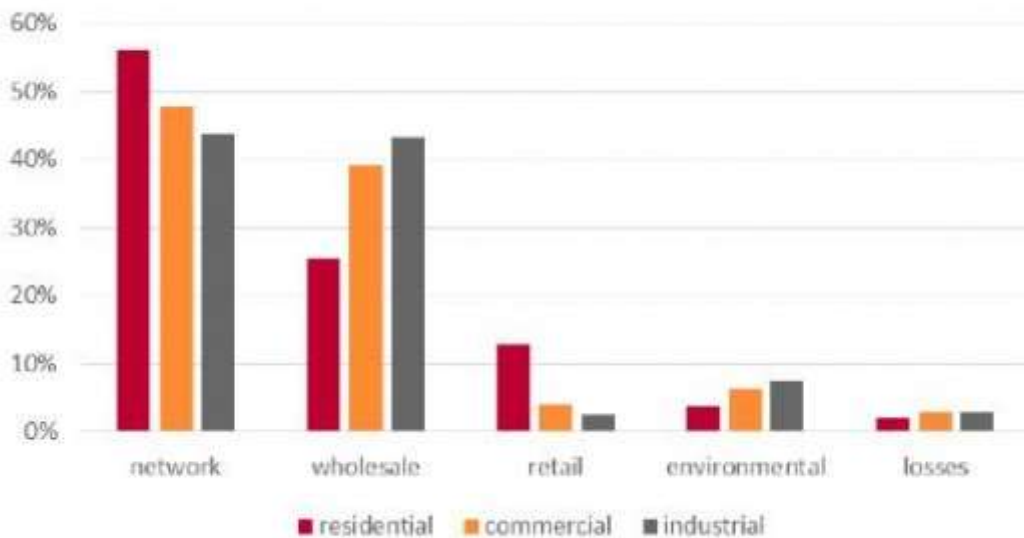
By [Giles Parkinson](#) on 8 February 2016

See also, [Queensland urged to ignore benefits of wind and solar and dump 50 per cent renewable energy target.](#)

Here’s a quick test. Imagine you are a government, or a pricing regulator, or an independent advisory body, and you have been charged with addressing issues surrounding the soaring cost of electricity: Where would you focus your efforts – on the biggest source of those price surges, or a minor addition labelled green?

In the case of Queensland, and the Queensland Productivity Commission’s inquiry into electricity pricing, there is no prize for guessing: pretty much ignore the main contributor and hit the small guys labeled “environment”. That is exactly what is happening in the latest report, like so many others in Australia.

Figure 11 Proportion of electricity costs by customer type, 2014–15—Energex



Source: ACIL Allen modelling results.

The QPC report is actually a highly readable analysis on the challenges facing the energy industry. But it also assumes a whole range of numbers that are questionable at best, and appears to use these to reach conclusions that favour the incumbent industry and the interests of “big energy”.

Almost every recommendation it makes targets the very technologies that it notes are challenging the status quo of the big incumbents – which in Queensland are as powerful and unassailable (and state-owned) as anywhere in the country.

As the QPC notes, “escalating network costs have been the primary driver of electricity price increases over the last decade, accounting for 82 per cent of the 87 per cent escalation in electricity prices.” This graph above shows the relative contributions to the average bill.

But don’t presume that the QPC is pursuing the big-ticket items.

Instead, included in its recommendation are a proposal to bring an early end to the solar bonus scheme – which gave 44c/kWh to several hundred thousand homes. It says it has been provided new data that suggests that the scheme’s cost has soared to \$4.4 billion, without giving details about how.

According to Energex, the Queensland utility, these premium feed-in tariffs cost \$15 million a month. The QPC wants the scheme stopped because of a “huge transfer of wealth” and its contribution to that huge red blob (I’m being ironic) marked environmental in the graph above.

But get this. The report also highlights the dubious bidding practices of the two big government-owned generators, CS Energy and Stanwell. According to the report, this practice from the two coal-generators which dominate two-thirds of the state's generation capacity added \$170 million to the cost of wholesale energy contracts in the first three months of last year alone. Those costs will be passed on to consumers in one way or another. The response? Set up a committee to monitor it.

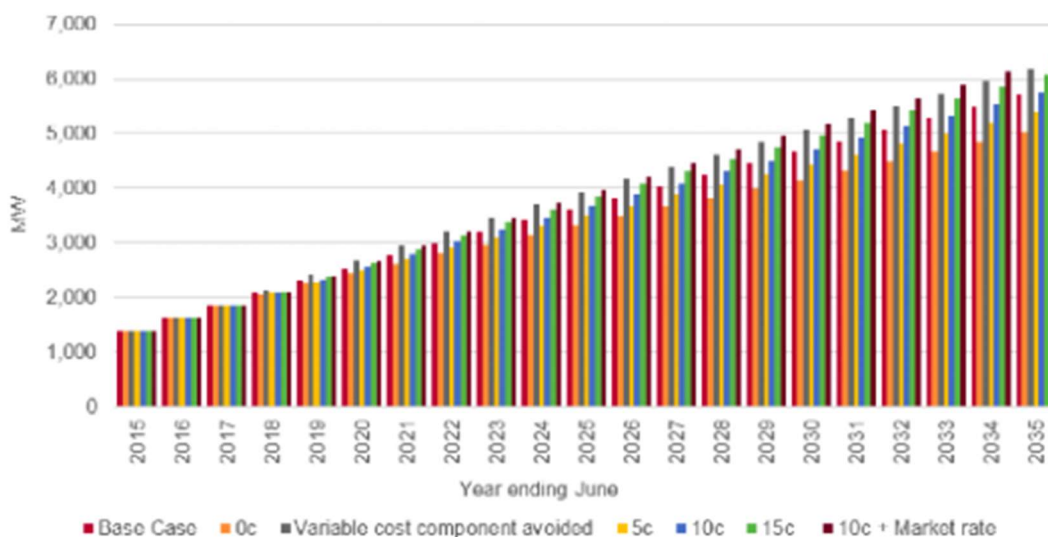
The second major recommendation concerning rooftop solar from the QPC was for the Queensland government to abandon its commitment to having one million homes – and therefore around 3,000MW – of rooftop solar installed by 2020.

This last one has me completely bamboozled.

The QPC argues that to reach that target would require the state government to re-introduce a feed-in tariff of 45c/kWh. Yet, according to the modelling done by ACIL Allen, the state will likely get close to the 3,000MW target anyway.

If the feed-in tariff was raised to 10c/kWh, then the target would be reached in 2021, and nearly reached in 2020. Even the "base case" – unchanged tariffs – nearly reaches the target in 2020.

Figure 36 Projected capacity of installed solar rooftop PV, for various FITs — Queensland



Source: ACIL Allen modelling results.

Why would it need a 45c/kWh tariff to breach that gap? Why wouldn't it need some targeted incentives to rental homes, pensioners, or low-income housing, which in turn could offset some of the income support payments needed over the long term. The conclusion is never properly explained.

There are some other odd numbers here, which we discuss in a separate story. This includes the supposed "subsidy cost" of \$10.8 billion of reaching Labor's state target of 50 per cent renewables by 2030. Don't do it, suggests the QPC.

Yet, in its same analysis, it notes that building extra renewable energy will lower wholesale electricity costs by more than \$10/MWh, or nearly \$600 million a year. Let's assume a minimum 20-year life for those renewable energy assets, that's a saving of more than \$12 billion. Guess who would suffer most from that reduction? Those same state-owned generators who currently own 64 per cent of capacity, etc etc.

There are other funny numbers that also go unaddressed. The cross subsidy of air conditioning is six-times greater than that of solar PV – \$700 per household versus \$200. Any suggestion of a air-con tax? Not a chance. But higher network charges for solar households who are using less electricity? Of course.

Then there is the estimated costs of going “off grid” – the QPC quotes two reports that suggest it could be anywhere between \$56,000 and \$72,000. It’s true that going off grid in the suburbs may not deliver a “return on investment”, nor that it would be an “optimum economic outcome.”

But as long as the incumbents are kidding themselves about the costs of going off grid, there is little likelihood that they will address their own costs – namely those of the network. The QPC admits that some of the investment in networks has not been necessary. But should the networks write down their regulated asset base? Not a chance.

Indeed, the only salient recommendations on the network costs – remember, they have contributed 82 per cent of the 87 per cent rise in bills – is to merge the two networks into an even bigger, more powerful state-owned monopoly than it is now. Many argue the opposite, that they should be broken up into smaller networks.

And the report also suggests that retail functions of Ergon be separated from the network assets, despite its own recognition that combining the two would provide a more effective means of extracting value from the arrival of battery storage.

Restricting access to the “behind the meter”, or the “in home” market for rooftop solar, energy storage, and home energy management systems – as the big retailers insist – leaves that market in the hands of energy groups keen to protect the interests of their generation fleet, which are the most threatened by the new technology. It is a conflict of business interest that utilities overseas have found unmanageable.

This is not the first time that proposals to change tariffs – particularly for rooftop solar – have been justified by data that is doubtful at best. We saw an example of this in South Australia just recently. The regulators presumably hope that no one notices, and they have even admitted that they never calculate the benefits of distributed energy.

Still, the QPC’s recommendations are good enough for some, and have been received enthusiastically by “big energy” and their acolytes, including Keith Orchison, the former head of various energy industry lobby groups and the only person I know who feels compelled to mention his Order of Australia in every article he writes.

He wrote in Business Spectator on Monday of his horror that Queensland Treasurer Curtis Pitt had rejected the QPC’s call for the solar bonus scheme to be terminated early.

Maybe, just maybe, Pitt actually read the report.

Appendix C – Qld urged to ignore benefits of wind and solar and rethink renewables target

By [Giles Parkinson](#) on 8 February 2016

The Queensland government has been advised to tread cautiously on its promise to deliver 50 per cent renewable energy by 2050, with a new study from the Queensland Productivity Commission estimating it will cost \$10.8 billion in subsidies.

There are a few questions about how the sum of \$10.8 billion was arrived at – and the assumption that no large-scale solar will be built over the next 10 years.

But most disturbingly – as is usually the case when Australian regulatory and pricing bodies weigh up the merits of renewable energy – is the fact that the benefits of new renewable energy are studiously ignored, even though buried in the report are estimates that the benefits could be significantly higher.

The estimated cost of \$10.8 billion was released by the QPC last week as part of a draft report into the state's electricity prices.

That report was notable for its recommendation of a retrospective cut to feed-in tariffs, a suggestion that was immediately quashed by the state Labor government. We go into [its assumptions on rooftop solar in more detail here](#).

But it is the assessment of the 50 per cent renewable energy target – a promise made by Labor in the lead up to the election it surprisingly won last year – that catches the eye.

The QPC study – some 250 pages – really is an excellent analysis, addressing some of the key changes and challenges of the energy markets. But the report is let down badly by the numbers, although it could argue that most of these are sourced from third parties.

The study into the QRET (Queensland Renewable Energy Target) – and its conclusion that this was a bad idea for the state – was based on a report by ACIL Allen.

Policy watchers may recognise ACIL Allen as the same outfit that did the report for Coalition government's review of the national renewable energy target, who argued that a 23,000GWh target could translate into a "real 20 per cent" target, and whose analysis [was used by the fossil fuel industry](#) in its unsuccessful attempt to convince the Climate Change Authority to abandon or cut back the RET in the previous review in 2012.

ACIL Allen have produced some extraordinary conclusions about how a QRET would be met. Apart from the programs being run by the Australian Renewable Energy Agency, and Clean Energy Finance Corp, it completely ignores large-scale solar.

It assumes that the QRET will be met with an additional 6,100MW of wind energy – and no additional large-scale solar. This is despite the likes of Bloomberg New Energy Finance and even Origin Energy identifying Queensland as the most prospective market for large-scale solar, and likely to account for most of the RET across Australia.

Why no large-scale solar farms? According to the QPC report: "It also suggested that a QRET is likely to be satisfied primarily by wind generation, due to the high correlation of solar output to daylight hours." What? That is exactly what is going to make large-scale solar particularly attractive, according to other analysis.

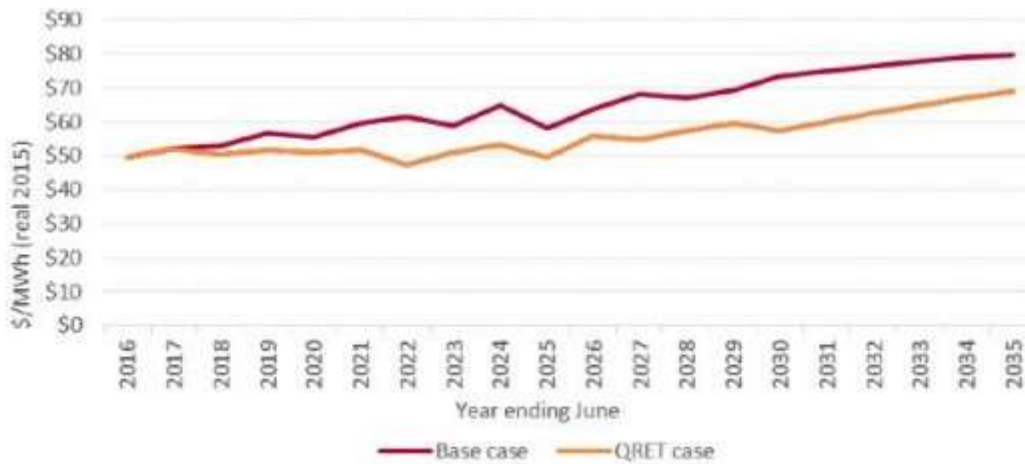
But ACIL Allen appears to have a blind spot on the RET overall, suggesting that it will be met largely by wind energy, and that without the QRET, Queensland would see little investment in renewable energy. Indeed, it suggests that renewable energy would provide just 2 per cent of Queensland's output by 2030. Somehow it imagines more than 2,100MW of gas-fired generation to be built in that time.

ACIL Allen's estimate of a \$10.8 billion subsidy comprises \$8.6 billion for an estimated 6,300MW of additional large-scale investment (almost exclusively wind), and \$2.2 billion for small-scale investment. The subsidy includes payment to those rooftop PV installations that are already expected to occur in the base case between 2018 and 2030, as well as the additional 300MW expected to come forward in the QRET case.

It uses this number to suggest that the marginal cost of subsidy for each additional megawatt of renewable capacity is around \$1.47 million for large-scale renewables, and \$7 million for small-scale generation.

The ACIL Allen modelling projects that the additional generation capacity brought on by a QRET would decrease wholesale electricity prices compared to the base case, and quite significantly.

Figure 32 Projected Queensland real wholesale annual average prices



Source: ACIL Allen modelling results.

On average, wholesale electricity prices are projected to fall by about \$10 or 15 per cent between 2016–17 and 2034–35. The wholesale prices in other NEM regions are also projected to be lower under a QRET relative to the base case.

Based on current state generation of 53,500GWh, expected to rise by 10 per cent over the next two years and continue smaller gains in the following decade, this would amount to \$600 million a year. By 2030, that would reduce wholesale generation costs by around \$8.4 billion, and continue to do so for the life of the plants.

The biggest loser from that reduction in wholesale prices? The state-owned generators that currently dominate two-thirds of the market by capacity, and whose practice of “rebidding” is alleged to have jacked up wholesale energy contract costs by six times the cost of the rooftop solar bonus scheme.

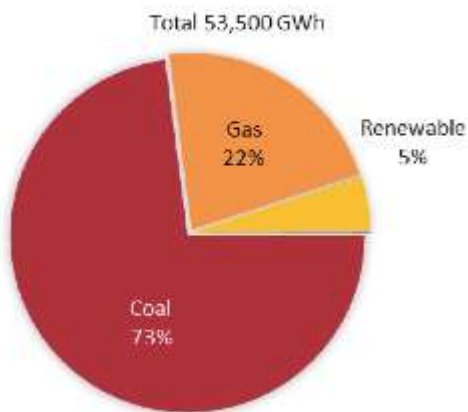
The report even admits that that the QRET will not affect retail prices – pushing them up just 0.5 per cent for retail users. This compares to the 87 per cent increase experienced in just the last 10 years – almost exclusively from network costs. But still the QPC argues against it.

As an example of some of the tortured logic behind its recommendation, the QPC report also argues that QRET would be a bad idea because it would benefit other states, because the excess capacity of wind energy would force prices down in New South Wales, and around 3 per cent across the whole National Electricity Market.

Queenslanders, it says, would pay for someone else’s benefits.

Well, apart from the fact that it ignores the benefits of its own cost reductions, the contrast with what would happen without the QRET is really quite extraordinary.

Figure 26 Queensland sent out generation by type (2014)



Source: Department of Energy and Water Supply

According to the QPC report, ACIL Allen estimates that without the QRET, there would be hardly any building of renewable energy in the state.

It suggests that Queensland would add just 250MW of wind capacity, and just 250MW of solar capacity from specific projects sponsored by the Australian Renewable Energy Agency, Clean Energy Finance Corporation and state government policies.

This is the current mix in generation in Queensland, and according to ACIL Allen, the percentages might actually get worse without a state-based target, because most of the construction to meet the federal renewable energy target would be built elsewhere.

Indeed, it suggests that by 2030, only two per cent of Queensland's generation would come from renewables – with the addition of some 2,600MW of gas over the next decade.

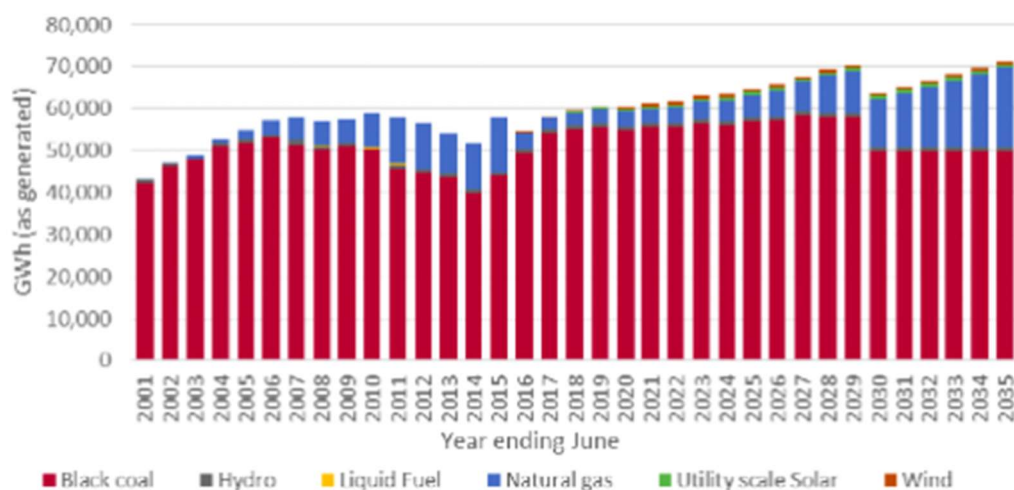
Quite how they arrive at that estimate is not entirely clear, particularly given the rising cost of gas generation and the closure and mothballing of the sort of gas plant they say will be built.

But it's not as bizarre as the report's conclusion, that this is a good thing. It's bad, the report suggests, to build lots of wind and solar under a state-based target and have other states enjoy the benefits of lower prices, but good not to build anything much in the state under a federal target, and pay the cost of large-scale generation certificates for wind and solar to be built in another state.

The point of state-based targets – because nothing is being done at national level, and states such as South Australia, and Queensland, and the ACT, can see the benefits of encouraging more renewables.

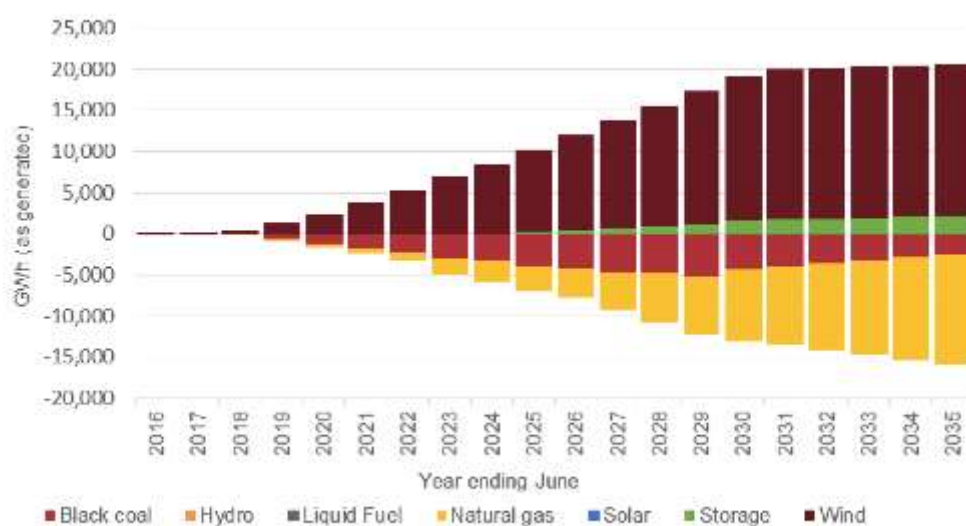
This is what ACIL Allen predicts will be the case without a state-based target – new renewables contributing little with coal and gas producing 96.5 per cent of the state's electricity by 2035.

Figure 17 Projected generation by fuel type NEM—Queensland



This is what it says will happen with a 50 per cent QRET. Apparently, no large-scale solar to speak of, a lot of wind, and a lot less coal and gas.

Figure 31 Change in generation by fuel type — Queensland — QRET case less base case



Source: ACIL Allen modelling results.