



**QUEENSLAND  
PRODUCTIVITY  
COMMISSION**

**Electricity Pricing Inquiry  
and Solar Feed-in Pricing Inquiry**

**Brisbane Public Hearing  
Transcript**

**4 April 2016**

**COMMISSIONER:** Thank you very much. Thanks, Robert. Good morning, everybody. Good to see some familiar faces, and there's a fair sprinkling of Queensland Productivity Commission people as well, which is great. We're getting to the, I guess the, the back third or back half of this process now. The Solar Feed-in Tariff Electricity Pricing Papers, you've seen a draft, sorry, you've seen an issues paper, you've seen a draft, and today's, today's efforts are in terms of seeing the result of that draft paper being released.

My name is Kim Wood. I'm the Principal Commissioner here at the Productivity Commission. Look, I'm pleased to be here today. It's the first of seven public hearings that, that we'll hold around the state to inform the final report for these two inquiries. The purpose of this round is to receive feedback on the findings, the recommendations and the draft reports of the two inquiries which were released in February and March respectively. These presentations, along with the written submissions, play an important role in the development of our final report, and our final reports are due in May for the Electricity Price Report, and in June for the Solar Feed-in Tariff Report.

Today will be relatively informal, but I would like to remind participants that a full record of proceedings is being taken and we cannot take comments from the floor. This is essentially a formal process where submissions have been arranged and will be taken today. We are very happy to engage people separately outside this process, and we have a number of protagonists in the space, and should you have a burning desire to make a comment, while formal submissions, written submissions have closed, we will talk and we are really keen to hear everybody, as I do say. So in terms of your opportunity today, we'll leave it to the team to see if we can find a way to make that work.

Catherine, Catherine is leading the electricity inquiry, and Kristy, who is here somewhere, is leading the solar feed-in tariff inquiry, we will simply (ui- unintelligible/inaudible). Participants are not required to take an oath. They should be truthful in their remarks. Participants are welcome to comment on issues raised by other submissions, but be just very cautious of the laws of defamation, et cetera, et cetera. I know that's not this sort of forum, but be very aware that, let's keep it professional.

We do not permit filming or photographic records to be taken during the proceedings and ask all members with a mobile phone just ensure it's switched off or switched to silent. We've

had the housekeeping and emergency evacuation instructions. Coffee and tea at the back. Feel free. Don't sit there busting and waiting for a break for any purposes.

Well, let's get started. It should be a very interesting morning. We should be done not too long after 11 o'clock, so, you know, it won't be too painful, and, in fact, it should be very interesting. This whole process for this inquiry has just been fascinating, and clearly feelings are strong in Queensland in all camps. There's been some most interesting data and evidence provided so far.

So without any further ado, Natalie Walsh, you're from MS Queensland, you're the advocacy manager, and we look forward to hearing you. Thank you very much.

**MS WALSH:** Thank you. Thank you, Kim. Thank you for having me here today. We'd like to thank very much the QPC and the investment that they're giving to the serious issue of electricity pricing in Queensland.

As Kim said, my name's Natalie Walsh, I'm advocacy manager for Multiple Sclerosis Queensland, and I, I will share information to the QPC, particularly in reference to draft recommendation 48. The Queensland Government is yet to undertake a review of the Medical Cooling and Heating Electricity Concession Scheme, known as MCHECS, and I'll refer to it as MCHECS, and the electricity life support rebate to consider if the level and delivery of the support is appropriate, and to consider the application and certification process. This information is supported through findings in two research studies that we have undertaken, one in 2009 and another one in 2014, and I've supplied the 2014 report.

Heat intolerance is a major medical problem affecting people with MS. As little as .2 to .5 degree different, degree Celsius increases in core body temperature significantly increases MS symptoms and significantly reduces the capacity of people with MS to participate in social, household and work activities, as well as increasing their need for pharmaceutical and medical services. Consequently, the use of air-conditioners with all associated purchasing prices and operating costs are a medical necessity for people with MS. People with MS typically use more energy in the homes than other households. 90 per cent of people with MS are heat intolerant and use their air-conditioners 15 times longer than other people.

The high use of energy comes at a significant economic and environmental cost. Keeping people with MS cool reduces need for other services and supports, including productivity in the public and private sphere and the ability to carry out the normal activities of life, including staying in employment. People are generally diagnosed with MS between the ages of 20 and 40, and they're usually employed obviously at this time, but within 10 years of diagnosis, 80 per cent are unemployed. Consequently, 52 per cent of Australians with MS have annual incomes of \$26,000. The end result is that ultimately most people with MS end up on fixed incomes, often provided through part and full government pension benefits. This combination of low incomes and high energy costs of MS mean that concessions such as energy relates are often a critical financial factor in their daily lives and in their ability to keep cool during the hot weather. The MCHecs is a much needed vital financial means tested energy rebate for people with medical conditions that use cooling and heating.

Through two in-depth studies undertaken by MS Australia, we have findings and recommendations that are provided in this report. For all recommendations provided, leadership and support from government is essential to ensuring that people with heat intolerant conditions are not further disadvantaged by their condition and are able to lead full, inclusive lives. The high levels of electricity used by this group, along with their low incomes, make them especially vulnerable.

The information that I shall provide in response to draft recommendation 48 is targeted to people living with multiple sclerosis and their non-discretionary need to use energy. My feedback is in response to, on behalf of the MS community in Queensland. As people living with MS don't use electricity life support rebates other than anecdotally offering support to another non-discretionary need for a targeted group of people for energy use, I can't provide any more comment to that in the submission.

In reference to the level and delivery of the support to be appropriate, through research conducted in 2014, a percentage rate of the energy bill rather than a daily rate appears to be the most progressive and fair approach. This approach does not discriminate against those living with larger families or those on lower incomes who might be, who might be living in poor quality housing, with outdated appliances and unable to put more measures in place to improve their home's thermal efficiency. The results of this targeted research that involves

2009 surveys of over 2000 participants, and in 2014 examining energy bills in households of people with MS over a two year period of 38 household made it clear that a proportional percentage based concession system linked to additional assistance for concession eligible households to install solar energy systems and other efficiency measures would also benefit concession eligible home owners through reduced costs and also more than pay for itself through lower concession costs from government over time.

Research shows that rebates must be set at meaningful levels and regularly adjusted to take into account residential electricity price increases and an awareness of the concession and different energy efficiency of housing. Energy efficiency of a home is very different for people who are home owners and those who rent their property. People who rent their property often live in poor quality housing, have poor levels or no insulation, poor air-conditioning, and, therefore, incur higher energy costs, and a level of the rebate will not hold the same value as someone who may have newer housing stock, solar energy and energy efficient appliances.

Unfortunately, I've had countless conversations with clients from MS Queensland who are both eligible and those who are ineligible to receive the rebate and discuss they have a great air-conditioner, oh, it's 15 years old, it runs on a dime. They have no idea of how inefficient it is to run this old system and the benefits that it could be to get a new system because they just don't see it as them saving money. Of course, with the higher temperatures experienced in Queensland, people living with medical conditions need to have their air-conditioners on longer and for longer periods than in other states.

I just have a case study from a lady who's living with MS. I've edited slightly for timeliness. But she's a female. She's married. She's 55. She lives with her husband. Her three children now live away from home. She has no solar, but she has air-conditioners, three units, within the house. But they run really well, but they're probably around 15 years old. She lives at Home Hill, which is about 100 kilometres south of Townsville.

She's just become a client of MS Queensland after previously never being in touch. "I've just been getting on with my life. But I called MS Queensland looking for some assistance or financial relief for energy", as she is ineligible for any concessions. She's previously been in touch with her doctor regarding accessing concessions, and her doctor has commented,

"This is ridiculous. You need to stay in air-conditioning to stay out of hospital." "And recently experiencing ongoing 44 degree temperatures, I really need some assistance fearing what my next energy bill will be. Because my husband works full time, I'm not eligible for any concession. I worked all my life until my MS got too bad. If I could get some assistance, it would be such a benefit to enable me to keep living in my home. I need air-conditioning for cooling because of my MS. I could not survive in these high temperatures. I use so much personal energy. Particularly with the temperatures as high as 44 degrees, the air-conditioner is on all night as my MS symptoms increase 10-fold. I'm completely fatigued in trying to get out of bed. In this heat, I use so much energy I nearly faint. We can't afford to outlay the money to buy solar, yet my friends with solar have said, 'We use our solar 24/7 because it's costing us nothing, so we may as well use it.' It just doesn't seem fair. I wish I had the ability to pay a weekly deposit so it wasn't such a huge whack."

That's just to give you an indication of just someone who is ineligible for the rebate but the impact of her perhaps inefficiency in the home is having on her bill.

The results of the 2014 research also make it clear that emerging opportunities must be accessible for all consumers to benefit, particularly vulnerable groups, such as those living with chronic progressive neurological conditions that must use cooling and heating to keep them well, as well as those who do not qualify for rebates. Information regarding available concessions and alternative options for targeted assistance need to be provided, including the need to complement initiatives with information regarding available concessions, improved access to energy efficiency advice in the home, retail market information and solar options, specific programs targeted at those who require cooling and heating as a consequence of medical need, and specific programs targeted at other vulnerable members of the community that experience difficulty understanding their energy bill for a variety of reasons, including language barrier, poor literacy, or they're just disengaged. And, unfortunately, there's just such a massive group of people who are just disengaged with the energy market in our community.

During the 2014 study, it was found that existing web-based information on concessions and the best value electricity and gas retailer to choose were not always easy to follow and not everyone has access to the internet. Ensuring that existing information sources include a

subset or specific information that addresses particular needs of households with medically related high energy need, including indicative costings and savings, would likely provide significant assistance to help those households to make considered choices. This should include assistance with energy efficiency and solar initiatives for households with high energy use as a consequence of medical need.

Suggested most appropriate delivery is for community organisations equipped with appropriate knowledge and financial support to deliver, together with retailers, to provide the concession directly to the account holder, and this is currently the occurrence happening in Western Australia and the ACT. So over time it would be hoped that the reliance on the community organisations would decrease as this ownership would transfer to the retailer.

In regard to the delivery of support, unfortunately not everyone who's eligible and needs the rebate is aware of the concession. Whilst MS Queensland advertises the rebate regularly, we're aware that people still remain unaware of rebates. Further promotional effort to make people aware via information everyone receives, such as on their bill or via their SMS message to pay their bill, which is, "Are you aware of concessions?" could clearly make a difference.

I have another testimony. This is from a gentleman who actually, who does receive the rebate, and I've edited it again, but John's aged 69. He lives on the Gold Coast. He's retired. "I've been living with MS for 10 years and live on the Gold Coast with my wife. The rebate is a great help to me. I'm convener of the Gold Coast MS Support Group, and through our regular meetings we've encouraged all support group members who are eligible to apply for and receive the rebate. The rebate is a great help to me and is a great innovation. We truly appreciate it. People feel truly valued receiving something that helps them with a genuine need. It's not something everyone gets, but something that's really needed for certain people. In our case, people with MS need to use their air-conditioners to stay well and participate in life's activities. The heat in Queensland has a massive impact for people living with MS. When I'm conducting meetings for our support group, I must always ensure that there is air-conditioning or else there isn't much use in holding the meeting. People just can't function."

In regards to the application and certification process, there is a recommendation in the

inquiry which MS initially agreed with of the transfer for policy ownership and responsibility for medical conditions to Queensland Health. In the interim, though, I've held further discussion with the authors of these reports that I'm referring to, and some questions were raised regarding concerns of the value of undertaking where the dedicated concessions unit exists within Smart Services Queensland, and Smart Services Queensland has an understanding of concessions, utilities and existing relationships. The question was raised as to the cost benefit of the transfer of MCHECS to Queensland Health.

MS Queensland has also been advocating for further investigation to undertake for medical conditions that have a non-discretionary need to use energy and extend their application. I work with a lot of community groups that don't have, I'm the only advocacy person in my organisation, and I run every advocacy issue, but we're lucky to have the support of MS Australia in the research that we've conducted. There's so many other particularly medical conditions that don't have, one person who has the disease runs the support group and runs everything. They just don't have the capacity to run any research, et cetera, but I'm very aware of the medical impact of lymphedema and lupus as an example of some of the medical conditions that don't currently qualify, so we really have advocated on their behalf, but they just have no awareness or ability to advocate for these issues, so just raise that awareness, too, for those organisations.

In further reference to the certification process, particularly for people living in regional areas, the time, cost and physical exertion to access their specialist can act as a deterrence for making the application, particularly if the person's condition isn't MS and that, because we only need GP certification, where people have to access their neurologist, their general physician or dermatologist, which they may not have access to other than their GP.

In the report, there was an information request seeking advice on the level of consumption, consumption pattern and electricity cost directly linked to medical conditions for those that receive or are eligible for the medical cooling and heating concession and the electricity support rebate. In regard to this submission, we supplied the 2014 domestic energy supply for people with MS, and within that report, there are some findings which would really greatly assist that information request. We'd be happy to work with the government and other interested parties to conduct further research and certainly use the research findings, which include air-conditioner use, concession data, summer thermostat readings, winter thermostat

readings, summer electricity use, winter electricity use, appliances in the respective homes, and modifications to houses and/or appliances for heating and cooling. Findings and summaries of case studies have been provided to illustrate energy, energy efficiency and solar use showing how great an impact appliance choice, efficiency initiatives and behaviour can have on energy use and therefore energy costs. Heating and cooling appliances for each case study were identified looking at five cooling and heating options. Other information included in the 2014 report includes bill comparisons for solar and non-solar homes showing concessions by state. This data is available to use for further modelling which we would really highly encourage.

With more detailed results of actual cooling and heating, energy use in these households via smart meter or data logging equipment, the most effective and fair means of providing medical energy concessions could be undertaken. It would also provide a stronger platform to further examine the links between different concession structures and savings and costs to government in relation to energy efficiency support programs. Deeper investigation could also include age and energy efficiency of housing stock, energy efficiency appliances, retrofitting to homes that immediately impact the ability to minimise both environmental and economic costs. It would be useful and equitable to include different vulnerable household profiles that do not qualify for energy concessions, yet have a higher energy use to maintain their health, such as the case study of the female living at Home Hill outside Townsville.

Thank you so much for your time and the opportunity to present in further detail some findings from our studies. We'd really encourage and be happy to work with you, and thank you so much.

**COMMISSIONER:** Thank you, Natalie. It's been a very productive submission. You've raised some, what I personally find some (ui- back ground noise) questions I think for, for us in constructing a report for government generally, and there's some people living in challenging circumstances out there, and I think you've highlighted that very effectively.

**MS WALSH:** Thank you.

**COMMISSIONER:** Thank you very much.

**MS WALSH:** Thank you very much.

**COMMISSIONER:** Carly, Carly Hyde from QCOSS. Carly, we've seen you once or twice before in other forums.

**MS HYDE:** Yeah, sorry.

**COMMISSIONER:** You're very active, which is fantastic. Don't be sorry. Advocate strongly. You'll summarise key points in the QCOSS submission. You've got up to 20 minutes, and I've seen you at work before, and I think we can expect an interesting presentation. So thank you very much.

**MS HYDE:** Okay. Thank you to the Commissioner and the QPC for the opportunity to speak today. My name's Carly Hyde. I'm from the Queensland Council of Social Service. For those of you that might not be aware of what we do, we're the peak body for the community services sector here in Queensland. So our members include large organisations like St Vincent de Paul and Salvation Army through to small neighbourhood centres offering vital services in local communities across the state. And we not only support and provide a voice for those organisations and the employees and volunteers that work in those organisations, but also the people that they work with on a daily basis, and that includes people in Queensland who are existing on very low incomes or who experience some other form of vulnerability or disadvantage in their lives.

So QCOSS has made two submissions, actually, to the QPC's draft report. One was QCOSS's own submission which focused on the recommendation specifically around low income and disadvantaged people, and the other was a submission in collaboration with the Chamber of Commerce and Industry Queensland which looked more broadly at the supply chain and the impact on small business and residential customers more broadly.

So a lot of our feedback in relation to electricity prices comes from our members in the community services sector. We conducted a survey of over 150 community sector workers

early last year which found that over 75 per cent of respondents reported that the proportion of their clients struggling with energy bills had increased in the last 12 months. And the respondents to that survey weren't necessarily people who were, who their role was to look at people's budgets or cost of living issues. They weren't specific experts in electricity, by any stretch. They were domestic violence support workers, mental health case workers, a real broad mix, disability support workers. So electricity is presenting in those conversations with their clients.

I've included a few quotes up on some of the slides. One is from an emergency relief volunteer who says, "When I first volunteered four years ago, assistance with electricity bills was rarely mentioned. These days, three out of four clients are having difficulty meeting the cost." A domestic violence support worker said that, "Every client states they are struggling to meet basic expenses. They have nothing left to cut out. In the past, there was a proportion of families who could afford electricity generally."

So those comments are also coming through in the statistics. In the last quarter of the last financial year, the June quarter, over 15,000 households in Queensland were part of their retailer's hardship program, which is the highest number ever, and this graph also shows that the proportion of customers that are part of a hardship program is also increasing. So not just increasing in terms of the numbers, but also the proportion. And what we also know is that access to hardship programs is quite difficult for many people who are disadvantaged and vulnerable, so they're not captured in these statistics. These are likely, many, many more customers are not represented in these statistics who are struggling.

The outcome for many of those customers who are unable to access a hardship program is disconnection for non-payment. We got a lot of commentary in our survey from the respondents around disconnection, one from a disability service provider who says people are getting their electricity cut off which did not happen as much in the past.

And this is also supported by the statistics from the Queensland Competition Authority. The last financial year, just shy of 30,000 households in Queensland had their electricity disconnected for non-payment, which is the highest figure ever, and, again, it is also rising as a proportion of the customer base as well. We note that the QPC did not really explore the disconnection statistics in its issues paper or draft report which we think is quite

disappointing. It is, I guess, an indicator of the impact of electricity prices on vulnerable people and what the outcomes of those prices are, and we believe there's opportunity in the final report to look at more targeted strategies for addressing these concerns trends.

So in terms of the priorities for addressing some of the issues that I've outlined, lower prices is obviously critical. We really do need to see some real price reductions in order to provide relief not just to the people that I've just described, but also small businesses and residential customers across the state more broadly. An effective safety net is also important and target initiatives that address the additional barriers that many vulnerable consumers face, so I'm just going to touch on each of those areas.

This is a graph of the price projections from the QPC's draft report which shows that even though the wholesale component of the prices is set to increase by around 52 per cent, that's offset by a reduction in the network cost component and then a stabilisation of that cost component out to 2035. So we just have some comments to make in regards to those protections.

First of all, price stabilisation is not a solution. Prices are currently too high, and we actually, what we need to see is actual price reductions for people, so we'd be really keen for the QPC to explore all avenues in their final report for placing further downward pressure on electricity prices than what is currently projected. Those projections also rely quite heavily on the accuracy of the network price projections that have been proposed, which they are proposing quite a significant reduction in the network prices. The reductions projected to 2021 are actually double the maximum price reductions of around 15 per cent that AER(?) applied in their recent regulatory determination for Energex, so there appears to be some consistencies perhaps in the underlying assumptions that the QPC has used as opposed to other parties in the electricity sector. And also we know that network prices have been the most significant driver of electricity prices in recent years, in the last 10 years, and that has resulted actually in the creation of these large regulatory asset bases which will continue to lead to high prices in the future. So it is unclear to us how the significant reductions will be achieved given the size of these asset bases as they are at the moment.

And also there is a high risk that the underlying assumptions that the QPC has used to provide these projections are incorrect, and I'm not meaning that to be critical in any way, just

realistic. We know that a lot of the projections that have been done in the past in the electricity sector have, you know, turned out to be inaccurate in some way or another, and given that we're entering a period with quite a lot of uncertainty, there are a multitude of possibilities in terms of technology. How solar batteries, electric vehicles and other technologies will play out will impact how the market develops, so I think there is definitely, we're concerned about the implications for consumers should these projections be inaccurate, and we consider that there's a high potential risk that that actually be the case. So our, I guess, message to the QPC is to continue to explore all possible avenues to place further downward pressure on prices and not take attention away, given the projections for stabilisation.

Steps to improve the safety net, the QPC's draft report included quite a lot of analysis around concessions, which is a really good thing to see, and I think completely justifiable given some of the problems that have been identified with concessions in Queensland. We strongly support the QPC's draft recommendation to extend the electricity rebate to health care card holders. We consider that that should be definitely high priority for the QPC in its final report and for the Queensland Government to consider when the final report comes down.

We also consider that there's an opportunity to take another look at the structure of concessions. The current concession payments are flat dollar payment amounts. As Natalie has talked about, the opportunity for percentage-based or proportional concessions is something we think is worth the QPC taking another look at for the final report. The percentage-based concessions, I guess, look at more the outcome for the eligible customer rather than the output, and not necessarily focusing on everybody receiving the same dollar amount, but making sure that everybody has a positive outcome in terms of what the size of their bill is and their ability to manage it.

Percentage-based concessions can also assist in smoothing the impacts for families, large families, and also tenants who have, many low income tenants, in particular, in poor quality rental accommodation with poor quality fixed appliances and limited control over reducing energy use as a result of that. Split incentives in the landlord/tenant market are really complex and difficult to tackle from that angle, so a percentage-based concession offers relatively an administratively simple way to smooth the impacts of those issues for tenants. Also as we look towards introducing tariff reform, a percentage-based concession also helps

to protect vulnerable customers from volatility in bills that may emerge from those changes in tariffs, and it also works along the uptake of solar and other technologies which can really dramatically affect the size of bills for different households.

Just further to the impacts of tariff reform, I guess our question is how will vulnerable consumers who are made worse off by changes to tariff structures be protected. The QPC's draft report stated that: "To the extent customers are generally vulnerable to adverse price impacts from tariff reform and unable to adapt their behaviour to otherwise manage the financial impost, we suggest the solution lies in well targeted concessions." Our perspective is that a flat payment concession doesn't actually adjust people's ability to (ui-incoherent words) to benefit or otherwise from tariff reform, and that a percentage-based concession would actually provide that assistance to people who are impacted by tariff reform and unable to respond as opposed to somebody who is able to respond and gets a reduced bill as a result.

Just to highlight the issues for tenants in the market, this is a bit of an overview of the housing tenure in Queensland broadly, and you can see if you look at the private rental market there in blue and the public housing, it makes up roughly about 30 per cent of the market. We looked at the housing tenure of people who applied for the Home Energy Emergency Assistance Scheme, which is a payment for people who are at risk of disconnection, and the housing tenure of those customers was predominantly private rental, disproportionately to the actual make-up of customers in Queensland more generally, which I think highlights the impacts of some of those structural issues for tenants and the impact it has on their ability to manage their energy costs.

This graph is from the QPC's draft report and is about the pathway to I guess empowering customers from those disengaged customers who just pay the bills through to people who are producing and storing and consuming energy to meet their own needs. This is, I guess, a strong focus for the electricity market, empowering customers and giving customers the control over their own bills. This, I guess, disengaged customer group doesn't really describe the customers that I've been talking about this morning. When we asked our survey respondents for a word to describe their clients and how they were feeling in relation to their electricity bills, we got a mix of responses. So the percentages there, we let people have multiple responses, so the percentages don't add up to 100, but a lot of, predominantly

people were in crisis, they were vulnerable, to a certain extent they were confused. Very limited numbers of responses said that they were stable or informed and no responses indicated confidence or empowerment. So we believe there's an opportunity for some more concrete strategies in the QPC's final report for how we're going to move this group of customers through that pathway to becoming empowered customers who aren't excluded from the benefits of market reform.

Another question that we asked in our survey was what barriers might your clients face in comparing offers in the competitive market, and we received a range of responses and comments that we put into this sort of snapshot, which indicates literacy is predominantly a major issue and a major barrier for people in this, that community services are working with in understanding their electricity bill and being able to make changes to address it. Lack of understanding and internet access also feature predominantly there.

The NGO sector, non-government organisations actually have a role in overcoming some of those barriers for disadvantaged groups, and the fact I think that, you know, a domestic violence support worker and a disability support worker are having conversations with people about their electricity bill really speaks to the fact that these people are trusted and they have good reputation in their communities and with their client group. So I think that's definitely a valuable commodity that the electricity sector should be looking to get messages and support through to vulnerable customers. The QPC did make some recommendations in its draft report around some initiatives to be delivered through the non-government sector, and I think there's some opportunities for some more concrete and tangible kind of descriptions of what that support might look like and how that might be rolled out.

So some of the perspectives from the responses to the survey was NGO's not knowing where to refer people who have a backlog of bills, and lots of comments around the concern, around the lack of financial counsellors in Queensland.

So we do have a resourcing problem in regards to financial counsellors here in Queensland. This graph is a representation of the per capita investment into financial counselling across the different states, and as you can see, Queensland there has the lowest per capita investment. That's largely due to the fact that it is all federal government funded and unlike the other states, the State Government does not make a contribution to that resource which

is an important referral resource for the community organisations that I've described, but also retailers who often refer their hardship clients to financial counsellors.

So I'm conscious of time. I've got 30 seconds. I guess the last point I wanted to make was we think there's an opportunity for the QPC to look at some of the initiatives that are working in other states, not just financial counselling, but there's a range of other energy efficiency schemes and activities that could really look to address some of the issues that have been, I guess, identified in the report, but bringing that together and actually provide being some real tangible direction to the Queensland Government about what they can implement to actually assist low income and disadvantaged people manage their electricity bills, given the price projections that we're seeing of high bills remaining into the future. So thank you.

**COMMISSIONER:** Carly, thank you very much. I mean, there's some very, very useful and sensible recommendations in the mix and I think we can respond favorably to some or all of those. There's no doubt these sorts of submissions are incredibly useful, and we, and government and others need to hear, so I hope we can, you know, move along, continue into a better place than where we are. So well done.

**MS HYDE:** Thank you.

**COMMISSIONER:** Keep advocating and good job. Thank you very much. Our next presenter, Bruce Cook. Bruce, an individual presentation.

**MR COOK:** That's right.

**COMMISSIONER:** You've got 20 minutes. Thanks, Bruce. We look forward to it.

**MR COOK:** I should be a lot quicker than 20 minutes. Hi, everyone. So as I was reading the electricity pricing report, the bit about the QRET, it occurred to me that for a couple of reasons it seemed to be quoting a too high figure. Now, the QRET is the name given to, I think the QPC was asked to investigate the, the State Government's proposal to have 50 per cent renewable energy by 2030, and, you know, just like the RET is supposed to get

Australia to 20 per cent renewable energy by 2020, the, the name that the QPC gave the Queensland proposal is the QRET. And in section 3.7 of the report, they came up with a figure of \$10.8 billion to get the QRET to happen, for Queensland to reach 50 per cent renewables by 2030. And it seemed to me to be too high for two reasons, one, that the base case they used in the report seemed to be too low, gave a too low renewable energy figure, and the other was that they selected what seemed to me a, well, I think they even hinted that themselves, that the small scale renewable options they selected, just seems unrealistic, too expensive.

So firstly I'll look at the base case which covers out to 2034-35. It's outlined in section 1.4 of the report. It says that from 24-25, the year 2024-25, gas is projected to provide most of the increased capacity. And in Queensland, large scale renewables are projected to make an insignificant contribution. And the third thing is that the outline in the report showed that electricity emissions would increase slightly over that period of time, from now until 2034-35. And that's what, that seems pretty unlikely to me, that that's what will actually happen. If we consider that Australia's Paris target is to reduce emissions by 26 to 28 per cent by 2030, it seems unlikely that we would have our electricity emissions not decreasing, and think of the upcoming election, which party will say there's going to be no large scale renewables built in Australia for the 12 to 13 years after the RET finishes. But that's effectively what this base case is saying, and both of those things make it seem, make it seem to me that the base case you've selected it too low on renewables, and it, in that case, the QRET estimate would have to put in more renewables than seems reasonable to me, and that would mean the QRET estimate is too high.

The second point is that in section 3.7 of the report, which outlines the QRET investigation they've done, to come up with a figure of 10.8 billion, they've selected a small scale option which generates 300 megawatts and costs \$2.2 billion dollars and that would increase, according to the report, if you look at the graph on rooftop solar, it would increase the rooftop solar from 4.7 gigawatts to five gigawatts, which isn't that significant. Doesn't make much of a difference. If you use large scale instead, large scale renewables instead, you'd get your 300 megawatts for about .4 of a billion dollars. And, look, and the QPC sort of says that in their report. Well, you'd really need to look at which option you use, but the fact is they've quoted the higher figure instead of what is seemingly the more reasonable figure. And the higher figure is what would come out in the media.

So if you pick the lower cost option, you'd come up with a figure of nine billion instead of 10.8 billion, and then, in my view, if you had a more reasonable base case for the QRET, your actual estimate would probably be of six to seven billion dollars, in my view.

So that's what, once I realised that, that's what prompted me to make a submission and to come here and talk about it. But I've just got a few more small points.

I'd really be interested in, you know, as I was reading through it, I was thinking, well, you know, how would the wind be provided, and there was not much detail on that. I don't know if you can go into that at all, but...

**COMMISSIONER:** We may unpack further for the final report, but it's based on a range of macroeconomic assumptions and (ui- inaudible words).

**MR COOK:** Yeah, yeah. Because, yeah, I know with the old RET, with the existing RET, most of Queensland's contribution has been wind in the southern states, which is a bit problematic, and, you know, would that same happen with the QRET. But if, if the wind is provided in Queensland, you know, just a few comments, would be interesting on how would that happen, you know, whereabouts and the quality of Queensland's (ui- inaudible word) resources. And I guess in the report, there's no info about assumptions on solar and wind costs, which would have been interesting, and how they vary over time, because, you know, historically models have generally overestimated the cost of renewables and underestimated the volume that is installed. So it would be just a handy thing to see that info. Okay. That's it.

**COMMISSIONER:** Thanks, Bruce. Well done. Look we're really here to receive submissions, not comments from the floor, from me today. I should note, I think we noted in the report, Catherine, we've passed across the (ui-incoherent words) modelling that we used as a basis for a range of those issues you've commented on today to the Energy Task Force, and we would expect they will report contemporaneously. So we've, we elected, I guess, to make sufficient comments to populate the space out there, to get people like you and others thinking, but essentially have passed across the full data to the Energy Task Force, and really they will press on with this work.

**MR COOK:** Yeah.

**COMMISSIONER:** We should see their report in a similar timeframe, but look the comments today about releasing some of the initial assumptions in terms of solar and wind cost and potentially pushing us to make some comments on where we see renewables coming from, whether it's solar, whether it's wind and (ui- back ground noise) those things we've heard and I'm sure we can comment on further.

**MR COOK:** Okay.

**COMMISSIONER:** Well done. Thank you very much for the presentation today. You were time efficient.

**MR COOK:** Yes, I was.

**COMMISSIONER:** And you made your points strongly.

**MR COOK:** Thank you.

**COMMISSIONER:** Do we have Brian Clark in the room? We do. Brian, you're from the Queensland Conservation Council, and you've got, your topics are energy conservation due to solar PV, excessive dividend payments by Energex and Ergon to the state, and excessive subsidies to business consumers. We look forward to this with great interest. Thank you.

**MR CLARK:** Good morning. Good morning, everybody. I've really only got bad news this morning, as you've probably read the newspapers anyway. QCC has determined to reject the draft report on solar feed-in tariffs. We made a fairly comprehensive submission on the preliminary draft report in which we pointed out that we had a great deal of difficulty in determining how fair the Commission was in its treatment of solar roofs vis a vis the people who haven't got solar roofs. We have made some inquiries as to where, in fact, this

preconceived notion that people without solar roofs have been severely disadvantaged by the feed-in tariffs that are paid to people who, in fact, used their savings or even went to borrow to do something which we all now recognise as being absolutely essential for the future productivity of Queensland, which is the development of solar electricity.

We haven't been able to reconcile for one instance the price paid which is now down at six cents or something like that for solar PV kilowatts. We did recommend in our previous submission that we, it should be increased to 54 cents, which is based on the latest information of how much it cost to repair the environment by the use of coal and gas, electricity generation. These figures are now fairly accepted by most of the people around the world, but apparently have gone past the Queensland Competition Authority.

The other problem that we had was, in fact, how, in fact, the value of the solar electricity used by the solar households was treated by the Commission. It seemed to us that, in fact, the submission was using a fairly outdated accounting procedure which, in fact, added in to the cost against solar roofs the long-term interest charged on some mythical figure that they came up with in relation to the original asset grant from the Federal Government. It's very difficult in this current circumstance to reconcile fairness with the State Government. The State Government, as you know, last year, in fact, instructed the two main distribution companies, Ergon and Energex, in Queensland, who, in fact, pay the subsidy, so-called subsidy for the feed-in tariffs. They requested these two companies pay \$3.2 billion into the state exchequer. Now, of course, the companies didn't have it, so they had to go, in fact, to the market and borrow substantial hundreds of millions of dollars to pay to the State Government. That's all going to be charged against Queensland household electricity consumers. We haven't been able to get a justification from the government. We have asked, in fact, whether, what they did, in fact, was, in fact, legal under the Companies Act and we're expecting to get some legal advice on that matter soon.

So all in all, we feel it's been a pretty poor year for the Queensland Competition Authority. They tried, unsuccessfully, I must admit, to, in fact, have the subsidy to Queensland business removed, but the previous government rejected it, so the current subsidy of 130 to 150 million dollars is still being paid to Queensland business. It's not going to be phased out for many years, and unfortunately the current government is going along with that. That, again, would make a substantial contribution to the renewables.

So I'll finish by saying we do totally reject your draft solar feed-in tariff report, and we will be making submissions to the government on that basis. Thank you very much.

**COMMISSIONER:** Thank you, Brian. Look, you make some points that I'm familiar with. You made them well, and clearly I think we could do a better job in the final report in explaining some of the thinking. Some of the logic, we may or may not agree. The final report, what you see with the draft will indicate the likely (ui- incoherent word) final report, but there's quite a bit of work going and the key writers of that report, those two reports are sitting in the room today listening with great interest. So I'd strongly encourage you to interact with the (ui- incoherent word) if haven't already, and I think I understand the points you've made today. You've made them very clearly.

**MR CLARK:** Thank you very much.

**COMMISSIONER:** So I thank you. Andrew, do we have Andrew in the room with us? Andrew was going to provide an individual presentation. Looks like Andrew is not with us. That take us I think to our final presenter, Stephanie Williams. Is Stephanie in the room today? It looks as though we don't, we don't have Stephanie. Mr James Baxter. James, you're very (ui- incoherent word) organisations or affiliations but you're a St Vinnie's volunteer.

**MR BAXTER:** I am.

**COMMISSIONER:** Good on you. I've done it a bit myself in other places, so more power to you. This is about increasing the supplier fixed charges.

**MR BAXTER:** Yes.

**COMMISSIONER:** Please, would you like step in front, so we can all eyeball you?

**MR BAXTER:** I'll try and be brief. Thank you.

**COMMISSIONER:** We're looking forward to it. Thanks, James.

**MR BAXTER:** Thanks for the opportunity. I only heard about this meeting this morning from the ABC breakfast program, so here I am, and I made some notes coming in on the train. But first of all, I've been concerned for a little while, and I go back to some months ago when my electricity supplier increased the supply charge on my personal account. It went up by, I've got the figures here, that's the first one there. The electricity supply charge went up in January 2014 by, there was an increase of 61.53 per cent, so I wrote to the supply company. Doesn't matter if I tell you who they are. It was AGL. So I suppose, and it took me a while to get a response from them.

And as a result of that, I contacted the, the Queensland Water and Electricity Ombudsman, and I had quite a, quite a good discussion there with them. The person that I spoke to, this was in March 2015, so it's just 12 months ago, and he told me then, and this, this was confirmed by the previous speaker, that there was a, the subsidy under the feed-in tariff at that time was approximately \$130 million per year, and it was expected to, to increase as time went on, and I think the figure given by the previous speaker was out to \$150 million a year.

So my understanding is that, that most of that subsidy which is, I believe, 44 cents a kilowatt, kilowatt hour with your solar panels on the roof, most of that is being paid for by this supply charge which the, the power companies are, are charging people with their quarterly or month electricity bills. So I just wonder that, my feeling is that the, well, at the time, I don't have solar power. At the time, I thought it was probably, this subsidy was probably more what they call, oh, middle to upper class welfare, and my view on that hasn't changed really, because some of my friends have the solar power on the roof, and they got in on the agreed time, and they're getting a check every quarter instead of paying a bill. I know they had an outlay, a capital outlay to install that, but there are so many people who are renting houses, renting industrial commercial buildings who have no opportunity to, to get the benefit of that subsidy. And I think this is, this was reiterated by the two earlier speakers.

I'm not on a witch hunt here, because at the time I had the choice of installing solar power myself, but I did not, I chose not to do it because of the reasons I've just given you. But in visiting homes as a member of the local St Vincent de Paul conference on the northwest side of Brisbane, we have a number of Department of Housing homes there, and a lot of those people are not working, so I suppose they're on Centrelink, Centrelink benefits, and one of the questions that I ask these people, how's your electricity and gas bills, are they up to date, and, well, some of them are, but a good percentage of them are not. I can't give you a figure here, but it would probably be at least 50 per cent of the people that I speak to, they're on some sort of payment plan. Now, Centrelink is good, if they're on Centrelink benefits, they are able to have a deduction taken out of their fortnightly benefit and that then is paid directly to the electricity or gas company. So that is some benefit to the people on that welfare benefits.

There is a, this was mentioned, too, by one of the previous speakers, the home emergency or Home Energy Emergency Assistance Scheme which will provide, the last figures I've got is up to \$720 a year for people who, who are on a payment plan with their electricity or gas supplier. It's available once a year with a maximum of two years. So there is some assistance there, and that's provided by the Queensland Government.

I suppose to summarise there, I could probably go on for a while, but just to summarise there, the contract, I assume it's some sort of a contract or a, an imagined contract between the Queensland Government and the people who were able to install the solar panels on their roofs. I understand the subsidy goes out to the year 2028, and that supply charge I imagine will be increased as time goes on to, to help pay for that subsidy. I know in my electricity bill last year, the electricity supply charge which was above the 65 per cent increase from two years ago, was another 39.5 per cent increase. That's just the supply charge. The tariff consumption went down by 12.3 per cent, and the control load, which is the, which is the hot water, night water rate, it went up by six per cent, so I was down about, still down about 33 per cent, but that was mainly due to the supply charge which goes towards paying that around about 130 to 150 million a year subsidy.

So I just wonder whether that, that contract which is either written or imagined, whether the term can be reduced, which would help, I'm not looking at myself personally, but I suppose I'm involved in it, but those people who are really on the low incomes. They're the ones who

are paying it all the time. Whether that term could be reduced from 2028 to, or just reduced, anyway. Could the government, the Queensland Government, install solar power on their own housing roofs? That would be of some benefit. There would be a cost involved there. But it would give a big benefit to those renting. Not only housing renters, but also private renters. And I also, I already mentioned there the cheques that some people are getting, some of my family and friends, they're very happy with the quarterly check they get in the mail from their electricity and gas supplier.

My understanding is that the supply charge applies to both electricity and gas. So if you've got both of those in your house, you pay the supply charge twice. So it's a big, it's a big price to pay for those people, especially on low incomes, yes. Thank you for the opportunity.

**COMMISSIONER:** Thank you, James. We formed a view on the 44 cents, the feed-in tariff in the draft report. The government definitively ruled out any changes to existing arrangements, and for reasons given, and very understandably. It's unlikely, I suspect, going forward. I mean, I can't speak for government, but it's unlikely we will see government during this term change those comments given that they were, they had a strong view that there was an existing contract with customers enjoying those benefits, and they saw no reason to break the contract. There are, of course, in the electricity and the gas world many options and many levers to pull, both at the federal and state and the electricity company level, as well as the consumer end. So our job is to identify what we think are the most significant of those and to provide (ui- incoherent word) policy recommendations for government.

I hear you clearly today. You're probably aware, that particular issue that you focused on is controversial, and there are, there are strong views on both sides. And we've heard many hundreds of views in recent weeks on, that cover that issue particularly via an email campaign that Solar Citizens has been running and running very effectively. Thank you, and I'm glad you heard about us on the ABC and took the time, and I think...

**MR BAXTER:** I did.

**COMMISSIONER:** ...you've added another dimension to this morning's debate. Thank you, everybody.

**MR BAXTER:** Okay.

**COMMISSIONER:** Appreciate it. Andrew, we've got a, we've got a late entrance, Andrew. That's excellent. So thanks, James. Andrew Furlong, you're going to give us an individual presentation this morning, and your topic was Queensland could be a world leader and distributor of home electricity generation, battery storage, electric vehicles and government needs to do more.

**MR FURLONG:** That's it.

**COMMISSIONER:** So you sound like you've brought a presentation.

**MR FURLONG:** I have, yeah.

**COMMISSIONER:** This is a matter of great interest, I guess, to people right across the world. We read the newspapers. We see the press. We hear about this disruptive technology, and you will add significant dimensions (ui- over talking).

**MR FURLONG:** Fairly high level, high level stuff.

**COMMISSIONER:** You've got 15 to 20 minutes, so...

**MR FURLONG:** Yeah, it's fairly high level. I'll probably get through it fairly quickly. But...

**COMMISSIONER:** Thank you.

**MR FURLONG:** ...first of all, thank you very much for the opportunity. Okay. Just a bit about myself. I'm just a local resident here, Holland Park resident. I'm a qualified chemical engineer. I've also got a post graduate, master's in energy, and I've got 22 years' experience

in energy intensive industry. Enough about me.

So my overview of, as was introduced here is that, my understanding, that Queensland Government is trying to encourage energy efficiency and household renewable energy. It's made some policy commitments for 50 per cent renewables by 2030 and one million rooftop solar by 2020. Part of my contention is that the network fixed charges are giving the opposite price signal, moving in the opposite direction.

**UNIDENTIFIED SPEAKER:** Yeah, spot on.

**MR FURLONG:** And I believe strongly that the, that the government and the Queensland Productivity Commission, QPC, need to consider the bigger picture, and that is that Queensland can be a world leader in distributed home electricity generation, battery storage and electric vehicle utilisation with all the opportunities that they bring, and that has to be brought into the picture.

So I've extracted some comments. I believe this one is attributable to the QPC. "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." Quote. So here is a graph. This is modelling done by a company called ACIL Allen, and the proportion of electricity costs by consumer type, 2014-2015, Energex. So we see up here, these are the network costs, right, wholesale costs. Down here is, that little tiny bit here, it's the environmental associated costs, and that's what we're kind of talking about today. So all this effort is focusing on maybe we should try and squeeze a bit more, reduce those costs even further and squeeze down that. Maybe we should be looking a bit closer on that. But this is where we're focusing on today, and I believe that's the wrong part of the equation to be focusing in on. We should be seeing, well, you know, what's the benefits we're getting from that. Clearly there's been an over spend here. What's the benefits that this is doing to us, the environmental side?

I also believe the QPC have made a draft comment regarding the feed-in tariff needed to make, get to the one million homes commitment along the lines that they would need a very large increase in the feed-in tariff, I think back towards the original 44 cents per kilowatt hour.

This is a graph. One million homes is equivalent to 3000 megawatts. Sorry for the poor quality here. 3000 megawatts is this line here, okay. And this is the timeframe. 2020 is here. Okay.

So even, basically what this chart is showing, that, you know, by 2022, 2023, according to the modelling by ACIL Allen, we'll be there at the 3000 megawatts by one million, so the one million home target will be reached without that need to, you know, I think the contention from the QPC or the maybe draft conclusion was by dramatically increasing, of course I'm in favour of increasing the feed-in tariff, but I think the contention was it would need to be dramatically increased, and therefore place a very significant burden on taxpayers as a whole because of the costs involved with putting in this very large feed-in tariff. Well, I'm refuting that today by saying I don't believe that's correct based on this modelling by ACIL Allen.

Here is a report, written report by the Queensland competition authority talking about, it's in relation to the tariffs, tariff increases. I've highlighted a couple of rows there. Again, it might be a bit hard to see. Sorry about that. This is a row for somebody with, sorry, the table is titled Change in Tariff 11 Component of Electricity Bills in 2015-16. So it relates to the tariffs. It shows here that for grid users, if you have an annual consumption of, a low consumption of 1000 kilowatt hours, your bill would be \$712, which is an increase of 16 percent. If you go down the other end, if you have a consumption of 10,000 kilowatt hours, your bill is \$2914, a drop of nearly seven percent.

So what does that mean in a bit more language? I'll try and explain it in words here. So fixed tariff increases are driving the opposite messages, opposite message to energy efficiency and reduced household consumption, and in my opinion that means penalising solar PV owners. You know, the government is trying to encourage energy efficiency. Part of that is solar PV, because obviously you're drawing less from the grid. But these tariffs and network charges are doing the opposite. So, you know, referring to the two rows that I had highlighted in the previous table, on the previous slide, the conclusion from that is that the lowest energy users have been hit the most. So, again, referring to those two rows, a household using just one megawatt hour of electricity, so that's these people here, 1000 kilowatt hours, one megawatt hour, again, \$712. Using one megawatt hour of electricity from the grid faces an annual bill of \$712. That is the equivalent of 71.2 cents per kilowatt hour.

Again, their bill has risen 16 percent. A household using 10 megawatt hours a year are paying an effective rate of just 29 cents per kilowatt hour. 10,000 kilowatt hours, 2914.

So these, as I said, these fixed tariff increases are driving the opposite message to energy efficiency. Apparently we're all better off by just using as much electricity as we should, and we should continue to do so, and why, in that regard, put in solar PV to try and reduce your usage from the grid doesn't seem to be supported by the current retail tariffs and costs in terms of the energy efficiency message.

And in that regard, then we have the comment that solar feed-in tariffs, sorry, are a massive transfer of wealth across subsidy, you know, from low income users to higher income, low income people to higher income people. (U- incoherent words) of air-conditioning is six times greater than that of solar PV. \$700 per household versus \$200. So, you know, we all put, well, you know, a lot of people obviously puts in air-conditioning, because it's a hot climate. What does that do? It obviously drives up the peak demand, as everybody knows, and in Queensland, we better spend more on our network because we want to avoid the .001 percent chance that there's a network failure, so we better keep on spending more and more money on the network. Again, we see my earlier graph, the percentage of costs on the network.

Then we take off some of that pressure on the network by putting in, you know, there's no penalty for anybody putting in the air-conditioners. They're, you know, we're all putting this in and driving up that cost of the network. Then we try and, the PV owners who try and, who actually have a benefit towards that equation are suddenly, you know, suddenly they're creating a big cross-subsidy and a transfer of wealth and we better do something about this. It just, the logic doesn't add up.

So I just want to quickly touch on, very quickly, bullet points, a few other benefits of solar PV, because when you're getting eight cents back or a payment of eight cents and then you're shifting it out to the grid, and when you're paying, when a retailer can charge 22 cents, and you get eight cents, there's a fair bit of disparity. I mightn't have the quite right numbers there, but obviously when you sell, you get a feed-in tariff of eight cents per kilowatt hour, it's a lot less than your unit charge on your bill. Is it fair? Well, obviously solar, solar PV is providing a lot more, you know, obviously the normal grid electricity is largely fossil fuel

driven. We all know at the moment it's predominantly coal-based. So solar PV is obviously providing carbon emission reductions that, I know there's no carbon price here in Queensland, but, and in Australia at the moment, but it's well recognized obviously, the cost of carbon pollution.

Further health benefits, because obviously there's, emissions from power stations and dust from coal mines. So they contribute some load. I don't have a figure to provide exactly here. Some load on health of Queenslanders, which is offset by solar PV.

As I said previously, the network upgrade offsets. Lowering, the reduction the need for future network upgrade.

Demand management with ever increasing opportunities in this space for battery storage. The ability to store power and again reduce that peak load is a benefit of having solar PV in combination with battery storage. And an enabler for electric vehicles. Electric vehicles will provide further, because obviously again they've got batteries, significant further demand for management opportunities, significant further network upgrade offsets, significant better grid utilisation, and also offset transport carbon emissions. Yet this seems to have been left completely out of the equation for, in this forum.

And, finally the offer improve end user choice, which is basically democracy. I thought that's what we should be trying to promote.

Just going to touch on, briefly on solar, solar PV, the feed-in tariffs, electric vehicles and battery storage. Electric vehicles, we've all, maybe we heard at the weekend that Tesla have now introduced a new car which is going to be selling at the average, not a pie in the sky, the average price of a typical car in the United States, that's what it's going to sell at. They've got 200,000 orders in two days. EVs are a potential massive mobile energy storage system, okay. I've got, the national grid, the daily output of the national grid at peak load is 1000 gigawatt hours. If the whole Australian vehicle fleet was fully charged with electric vehicles fully charged, we'd match the capacity of the national grid. That provides huge opportunity. You think all the benefit the grid provides, same benefits from the EVs.

Battery storage companies are aggressively targeting Queensland, okay. They see it as a major opportunity. Tesla, Enphase, Redflow, a lot of companies. EVs and battery storage will also be an enabler for a new range of associated businesses around energy efficiency, energy management. For instance, there's a, there's a ZEN Energy business been set up. Ross Garnaut is behind them.

So in summary I want to say that solar feed-in tariffs, the benefits of rooftop solar are failing to be realised by all Queensland consumers. Queenslanders are leading the world in the take-up of residential rooftop solar and have invested millions of their own dollars towards a cleaner, healthier, renewable energy future. Currently policy and direction of retail network charges is going in the opposite direction. Does not support energy efficiency.

**UNIDENTIFIED SPEAKER:** Spot on.

**MR PHELP:** Queensland has a fantastic opportunity to be a world leader in solar PV and electric vehicles, and that creates a whole range of new opportunities that most of us in this room probably can't even see at this stage. We need policy to support this, and we need to be looking at the bigger picture. Currently the feed-in tariff does not adequately reward PV (ui- incoherent word) for the benefits they can provide. Thank you.

**COMMISSIONER:** Thanks, Andrew. There's no doubt you've pointed out...

**UNIDENTIFIED SPEAKER:** (Ui- back ground noise).

**COMMISSIONER:** Well received presentation. You've pointed out some of the questions that many are raising. The potential disruptive nature of EVs and battery storage technology, we tested that at a technology forum we hosted last week. It's clear that there's more uncertainties than certainties, but, nevertheless, and I've met with Ross Garnaut and have an idea of what his company is offering, there's no question that there's a major disruption coming, and there's no question that the Queensland Government wants us as Queensland to be part of this to be in some way, shape or form. Finding coherent policy recommendations are a challenge for us.

**MR FURLONG:** Sure.

**COMMISSIONER:** And presentations like yours today assist greatly in that.

**MR FURLONG:** I mean, there's no, there's no, I understand there's no grants related to EVs or to, I mean, obviously we're right down at the start of the chain. Queensland is behind lots of places with regard to that. My contention is we should be ahead of the majority because we're in a great position with the amount of rooftop solar and the sun we have...

**COMMISSIONER:** Yeah.

**MR FURLONG:** ...you know. And the battery storage companies are really trying to get in here. They see massive opportunity.

**COMMISSIONER:** Well, I can report that we've been advised that there's a high level of interest in the Australian market from the new technology, battery and storage companies that we're seen as a potential test (ui- incoherent word) opportunity for the world (ui- inaudible word)). We can also indicate that while it seems intuitive that a battery, that an electric vehicle with a battery is a storage, electricity adjunct to the grid, one of the participants in the technology forum last week indicated that none of the electric vehicle terms and conditions, warranty terms and conditions allow the vehicle to be used as a storage device. But you would expect that to change over time as the Teslas and others find out how to monetise that opportunity to have their vehicles...

**MR FURLONG:** And, you know, with the type of economy that we're moving towards, you know, your Ubers and the like, people will see this car sitting in their front garage, most of the day doing as most people do, doesn't, sits there most of the day, it's a great wasted opportunity for them to...

**COMMISSIONER:** That's right.

**MR FURLONG:** ...transact electricity...

**COMMISSIONER:** It doesn't appear to be resolved yet, but again one of the participants, or several of the participants in last week's forum indicated that really they, one of the final frontiers now is the software enabling.

**MR FURLONG:** Yeah.

**COMMISSIONER:** Of getting this working together and said that there are opportunities for Australian companies to do that, and they may not be the large technology companies or retailers...

**MR FURLONG:** No.

**COMMISSIONER:** ...or energy storage businesses we see today. So it's a world where the crystal ball is foggy, but there's a lot of expectations building, so...

**MR FURLONG:** Yeah. My point is that Queensland is in a great position to take advantage of that, and we should be. You know, we once upon a time called ourselves the smart state.

**COMMISSIONER:** Yeah. I think the government would strongly agree with you.

**MR FURLONG:** Okay.

**COMMISSIONER:** Thank you very much.

**MR FURLONG:** Thank you.

**COMMISSIONER:** Have we got, have we got Stephanie Williams as late entry? Right. Look, thank you, everybody. It's been most interesting, and, frankly, very helpful. Not all presentations have been alike. We've heard some diverging views this morning, but they help enormously in bringing this final report home. We hope you will look with great interest in May and June when these two reports come out, and I expect that we will not satisfy every expectation, but I hope the reports are fully grounded and informed in public consultation and comment. Thank you for making the time today. Much appreciated.

*Informal/various conversations between different persons post hearing for several minutes until recording terminates.*