INDEPENDENT PRICING AND REGULATORY TRIBUNAL

DRAFT REPORT - 2018-2019 SOLAR FEED-IN TARIFF BENCHMARKS (Public Forum)

Tribunal Members

Dr Peter Boxall AO, Chairman Mr Ed Willett and Ms Deborah Cope, Members

Members of the Secretariat

Mr Hugo Harmstorf, Ms Fiona Towers, Ms Jessica Robinson, Ms Rosemary Jones and Mr Alex Kelty

At
The offices of IPART
Level 15, 2-24 Rawson Place, Sydney

On Tuesday, 15 May 2018, at 10.00am

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OPENING REMARKS

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THE CHAIRMAN: Good morning, my name is Peter Boxall and I am Chair of IPART. With me are my fellow tribunal members, Ed Willett and Deborah Cope.

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I would like to begin by acknowledging that this hearing is being held on the traditional lands of the Gadigal people of the Eora Nation.

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Welcome everybody, and thank you for making time to attend today. Today's public hearing relates to our draft decisions on benchmark ranges for solar feed-in tariffs for 2018-19.

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We have set benchmarks for solar feed-in tariffs since 2011. Our benchmark range assists both retailers to set their solar feed-in tariffs and solar customers to decide whether these tariffs are reasonable.

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This year, we have also been asked to set time-dependent benchmark ranges for solar feed-in tariffs, which means setting a range for feed-in tariffs for electricity supply to the grid at different times of the day.

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Under our terms of reference, we cannot, in effect. set the benchmark range higher than the financial value of the electricity exported by solar customers to a retailer that is, the price it would pay to purchase that electricity from the National Electricity Market otherwise the price of electricity for all consumers would have to be increased.

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The electricity market is constantly changing, and there have been significant change in the patterns of wholesale prices since we started reviewing the solar feed-in tariff back in 2011. More than 10 per cent of customers now have solar panels, and solar electricity is meeting an increasing proportion of demand during daylight hours. As a result, peak prices have shifted to later in the day. We have also seen the closures of large generators, such as Hazelwood last year, which has resulted in more price volatility in the national energy market.

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Finally, we are seeing some customers purchase batteries, which means they are not limited to exporting to

the grid during daylight hours. This year we have thought about how our approach to setting feed-in tariffs would apply to exports in the evening.

Our draft decision is to set an all-day feed-in tariff

benchmark for 7.5 cents per kilowatt hour. This is lower than it was last year, because wholesale prices are forecast to fall, as new supply comes on to the market.

We have also made a draft decision to set time-dependent feed-in tariffs for the first time. We have set different benchmark feed-in tariffs to help signal the value of solar exports at different times of the day.

If retailers were able to offer more cost-reflective feed-in tariffs across the day, it could encourage customers to respond by supplying a greater proportion of their exports to the market during the afternoon, such as by installing solar panels that face more towards the west instead of the north, or exporting from battery systems at this time. Supplying more energy to the grid when it is most needed could help drive market-wide efficiencies by putting downward pressure on wholesale prices at this time.

Setting separate benchmarks in the late afternoon and evening provides a signal to customers with batteries, or considering purchasing batteries, about when they might export their energy to the grid. We expect that over time this signal will become more important as the price of batteries falls and their uptake increases.

 Today's public hearing forms an important part of the public consultation process that the tribunal undertakes. To make our draft decisions, we have considered a lot of information, including expert advice from consultants Frontier Economics, as well as stakeholder submissions to our issues paper, on whether our approach to estimating feed-in tariffs remains appropriate.

We are keen to hear stakeholders' comments at this hearing on our draft report to obtain an input for our final report due to be submitted to the Minister for Energy in June.

Shortly, Jessica Robinson, from the IPART secretariat, will deliver a short presentation on IPART's approach and the draft decisions. This will be followed by short

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presentations from stakeholders seated at the table. will then open the floor to a Q&A session to provide an opportunity for people to ask questions and provide feedback on our approach to making the draft decisions.

A transcriber is present to record the proceedings, and the transcript will be publicly available. So that we can have a complete record, please introduce yourself when

you start to speak.

With that, I now invite Jessica to make a short presentation.

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IPART PRESENTATION

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MS ROBINSON: We will have some slides up on the screens, and I think they have also been handed out to everyone in the room. I am just going to talk through some of Peter's points in a little bit more detail.

We have been asked to set a feed-in tariff benchmark for each year for the next three years. This is not a mandatory rate - retailers can choose whether to offer a feed-in tariff and the level that they set it at, but IPART's benchmark provides guidance on the value of these solar exports.

This year we have set a daily feed-in-tariff draft benchmark at 7.5 cents per kilowatt hour. Our benchmarks are based on what a retailer would pay if they were to purchase this energy from the National Electricity Market. This is because when retailers supply their customers with solar that has been exported to the grid, they save on having to buy this wholesale electricity.

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The wholesale costs typically make up about 30 to 40 per cent of the total costs to retailers when they supply their customers with electricity, but for each kilowatt hour that they supply, retailers also have to pay network costs and green costs, regardless of whether the electricity has been purchased from the National Electricity Market or whether it comes from solar exports. This means that the solar feed-in tariff is less than the retail price of electricity because retailers only save on that wholesale cost component.

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As Peter said, our benchmark this year is lower than

it was last year because wholesale electricity prices are expected to fall. We have used the 40-day average of the ASX futures contract market to forecast the wholesale electricity price for 2018-19, so this represents what the market expects to pay for electricity next year.

This graph shows that the wholesale spot prices have fallen significantly in the last year. However, this next chart shows that the forecast wholesale price is still above the medium-term average spot price. So our draft benchmark is still higher than it has been in previous years, and you can see this on the next slide. The feed-in benchmark is lower than it was last year, but it is still higher than it was in the two years before that.

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The other key finding from this review is that the value of solar exports is now very similar to the average wholesale price across the day. In previous years, when we did these reviews, wholesale prices at times when solar was exporting to the grid were higher than they were at other For example, last year, we forecast that wholesale prices when solar was exporting to the grid would be about 15 per cent higher than the average wholesale price across the whole day.

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However, now we are finding that at the time when most solar electricity is being exported to the grid, wholesale prices are relatively flat. They start to increase from about 3pm in the afternoon, but only about 10 per cent of solar exports occur after this time.

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Back when we were first doing this work in 2011, we were seeing higher wholesale prices in the early afternoon. However, when we look at average prices across the year, we are not seeing these high prices in the middle of the day anymore, and peak prices are now occurring in the late afternoon.

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One of the reasons for this is because there is more supply from solar during the middle of the day, keeping these prices lower, but also, in the evening, prices are higher than they were because there is less supply in the market, particularly following the closure of some large generators, including Hazelwood in March last year.

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But to reflect the different values of solar throughout the day, this year we have set time-dependent benchmarks based on the wholesale prices at different times of the day. By better reflecting the cost of solar exports throughout the day through prices, retailers could provide incentives for customers to export more of their solar during the later part of the day. For example, some customers might be able to install their panels facing west rather than north to increase their exports in the afternoon. We are forecasting that the highest value of solar will occur between 5.30pm and 6.30pm, and we have set a draft benchmark of 12.8 cents to 20.9 cents per kilowatt hour for exports during this time.

While there is very little solar being exported to the grid after 5.30pm, we think that these price signals will become more important going forward for households with batteries or for those households that are considering buying batteries because these households will be able to control when they export their electricity to the grid.

We did receive a lot of feedback from stakeholders who thought our benchmark should be higher. A higher feed-in tariff would mean retailers would pay more for solar then they would pay to purchase this energy from the National Electricity Market. This would increase their costs and they would have to recoup these costs through higher retail prices.

For example, if retailers were to pay their customers a feed-in tariff of 25 cents per kilowatt hour, which is about equal to the typical retail price, this would cost retailers around \$135 million a year across New South Wales, and, on average, this would add around \$50 a year to customers' bills.

It is worth noting that all customers currently pay around \$15 a year for solar bills under the Commonwealth's Small Scale Renewable Energy Scheme - or the SRES - which subsidises the up-front costs of solar panels.

In addition to setting the benchmark, we also had a look at the solar feed-in tariffs currently being offered by retailers. We found that there is a range of offers in the market. Retailers are currently offering between 6 and 20 cents, but we found that a higher feed-in tariff does not necessarily mean that solar customers will be better off overall. We found that some of the offers with the highest feed-in tariffs also have the highest bill overall

because they have the higher retail charges, but some of the offers with relatively low feed-in tariffs also result in higher bills overall. In general, the retail prices are still the most important driver of the total bill for solar customers. Customers need to consider these, as well as the feed-in tariffs that they are being offered.

The major benefits to customers of having solar panels continues to be the savings they make because they can generate electricity themselves instead of having to buy it from their retailers. For example, a typical customer that uses two-thirds of the electricity that they generate from their solar panels to power their home is currently saving around \$400 a year, or more than \$400 a year in retail prices, compared with making \$100 a year in the revenue from the feed-in tariffs. Even if a customer only uses one-third of the energy that they generate and exports most of it to the grid, they are still saving more than \$200 a year. Thank you very much.

THE CHAIRMAN: Thank you very much, Jess.

Questions, comments from around the table? Keith, would you like to start.

PRESENTATIONS FROM STAKEHOLDERS

MR K ROBERTSON: Keith Robertson from Origin Energy. Thank you, Peter and thank you, Jessica.

I welcome again the draft report from IPART. I think it is a useful tool for customers and retailers to have a benchmark. I really only have one sort of observation: it is how we calculate that forward price. I know IPART, with the assistance of their consultant, have chosen to take what I will call a point-in-time estimate. They picked a point in time and said, "Well, rather than just the wholesale price on that day, we will look back 40 days and we will take an average over 40 days."

 The issue I see is that that does not really reflect how a retailer purchases energy. If this benchmark is meant to be useful for customers and retailers, in my mind, rather than perhaps searching for the most economically pure answer, we should be searching for one that is most reasonably attainable by retailers. Retailers are likely to purchase in that way and receive the benefit in that

way. That is why I would suggest that IPART looks at the wholesale forward prices over a period of time, say somewhere between, 12 months to two years, 18 months, around that sort of period. That better reflects the way most retailers will purchase their energy and, therefore, better reflects the benefit or avoided costs that a retailer has when it takes solar exports going forward.

I think there are a couple of benefits in that. One is that it is more reflective of what retailers do. Therefore when retailers set their solar feed-in tariffs, they are more likely to be around that range;

Secondly, there is likely to be greater consistency between the supply tariff from the grid and the solar tariff that retailers set, assuming they set them on a consistent basis, which is the case;

Thirdly, you are likely to get less volatility in the solar feed-in tariff that a customer receives year on year.

Last year we saw, under the methodology, a high wholesale prices was forecast, so the feed-in tariff leapt up, and this year it will fall a great deal. I think this is difficult for customers to adjust to when their exports are pretty much the same. This proposal would therefore have a smoothing effect on the tariff overall.

That is really the key observation. I am otherwise supportive of the benchmark concept.

MR WILLETT: Keith, that would suggest that we should be looking at contract prices rather than the wholesale prices, spot prices.

MR ROBERTSON: As I understand it, you look at the ASX prices to give a view of the wholesale. They are, of course, contract prices; they are not all of the market. The rest of the market is a bit more difficult, unless you were to survey retailers and generators, so that could be a consideration. I think the ASX market is liquid enough to use that as a good price and you could continue to do that, but just take a longer averaging period.

THE CHAIRMAN: Thank you very much, Keith. Moving over to the other side of the table, would somebody like to go first?

MS M GREEN: I will.

THE CHAIRMAN: Yes, Melinda?

MS GREEN: Melinda Green from EnergyAustralia. EnergyAustralia agrees with most of IPART's draft report. IPART clearly points out why the value of generation from solar panels is not the same as the retail price and why additional subsidies or benefits should not be paid to solar generation over and above their fair value. Anyone who reads these points carefully will see that these are not subjective arguments - this is the way it is.

Certainly one of the benefits of solar panels is that they do something good for the environment. They help to reduce carbon emissions associated with day-to-day usage. The feel-good value does not always translate into the financial value to the degree that everyone would like.

EnergyAustralia values our solar customers and we also value our non-solar customers. We strongly believe that solar customers should be paid fairly for their export generation to the grid; but to pay above that fair value to solar customers would be giving them something extra, and that would be at the expense of non-solar customers. Some of those customers cannot afford to install solar panels, others have other circumstances. We think it is an important point that they are already paying additional subsidies for solar panels, so we think it is reasonable to pay for solar exports at their market value.

For the people who believe the approach used by IPART undervalues the feed-in tariff by excluding certain elements, I want to go through two scenarios. One is the price paid to small stand-alone commercial solar farms is largely based on exactly the same components that IPART uses here. Why should a distributor at a solar generation site receive a higher price for their generation? Why would we want to encourage households and other businesses to install solar panels more so than to create solar farms?

 Both small-scale photovoltaic generation and commercial solar generation currently receive additional subsidies to encourage renewable generation, and that is fine, but when you are talking about what a retailer is paying for that generation, it is very, very similar, and additional subsidies are usually paid via different mechanisms and they can be quite complex.

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In the second scenario, just consider two side-by-side households. They have the same usage. One household invests in solar panels and the other invests in energy efficient appliances and makes behavioural changes to reduce their usage.

So both reduce their usage, say, by 20 per cent, they have identical energy bills, but the solar household is receiving some credits for the generation they feed back into the grid. But both of these have equally contributed to a small reduction in demand, and this results in a small reduction in wholesale prices.

IPART is correct not to increase the feed-in tariff for this effect. It would be unfair for solar households to be paid more for their investment and their effort than the energy-efficient households. I think these are quite clear arguments and I think it is all about paying a fair price for solar exports.

Getting into some more technical matters to do with the draft report, we do differ from IPART in our approach on how we calculate a feed-in tariff. We would expect that all retailers would do that in different ways from each other as well.

Like Origin, the 40-day period used by IPART for ascertaining the benchmark feed-in tariff can lead to a volatile price. Even over the consultation period, we have noted some changes in that, and we do encourage IPART to consider a longer term than 40 days. Even so, it does provide a reasonable benchmark for around about the sorts of prices we might expect. Sometimes in some years that might be higher or lower, and the different prices that retailers set also provide choices to customers.

I also wanted to comment on IPART's approach to the time periods for feed-in tariff pricing. We agree that IPART is correct in saying that solar generation is very low times when the wholesale prices are high, which is the late afternoon and early evening. As it becomes cheaper to install solar power and batteries, or some other storage device, it would be more useful for the customers to be paid different feed-in tariffs for their generation exported at different times of the day, or even different times of week.

For that reason, the time of use pricing is complex. It is complex for the customers to understand, especially when they are trying to decide when they should turn on their appliances. We expect that this will change and smart technology will take over the decision-making for customers, but in the early days it is likely that time-dependent pricing would contain fewer time periods than IPART outlined in their draft report, which outlines different hourly time periods in the late afternoon. That would be quite challenging, I think, for customers to ask, "What am I turning on and off, accordingly?" However, I think that will definitely become easier over time and that will probably happen with more batteries getting out into the market.

We support IPART including this analysis in its draft report. We also note that it is very hard to make use of those at the moment because you cannot average them easily. There is no ready reckoner or anything like that at the moment, but it does give an indicative idea of where the wholesale market is at and where that picture is leading to, and we think that is good.

I just wanted to provide some overall context on the feed-in tariff as well. If wholesale prices were to come down, as IPART thinks, then despite the lower solar tariff that solar customers receive, they would still likely benefit overall due to lower energy prices.

We encourage solar customers to maximise their benefits by making sure they have a net solar meter. EnergyAustralia provides smart meters at no additional charge to customers who wish to change their old electricity meter, and we recommend that that be set up as a net solar meter.

Once the customer has a net solar meter, they should use as much of their own generation as possible, for the reasons that Jessica has referred to. They also should shop around to get the best overall deal on their energy usage rate as well as their solar feed-in tariff.

We encourage customers to use "Energy Made Easy" from the Australian Energy Regulator. It is an independent site. We also note that a lot of these prices will change around about 1 July each year, so it is possibly best to wait till until after that occurs.

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Thank you for the opportunity to speak to you today.

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THE CHAIRMAN: Thank you very much, Melinda. Who else would like to speak? Derek?

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MR D BOLTON: Yes, thank you. I am Derek Bolton. I represent Climate Change Balmain Rozelle, which is the local climate action group. I want to think you, first of all, for going to such trouble to get me up here today.

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You might expect that I would come in on the issue about how much solar has done in reducing peak demand, but I quite accept the way you are doing that. You are saying it is another bidder into the market, and you are representing the PV producers as bidders into that market, and I think that is fair.

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However, there is another side to that, which is that distributed generation is a relatively new thing, and what the market is missing is the market introducing grid load. I know that that is something that may be coming with changes that are going on nationally, but at the moment, there is no market for reducing the load on the poles and wires by having local generation, and I see that actually part of IPART'S job is to represent PV producers in that fictitious market; in other words, that market should be anticipated.

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When I do the calculations - this is from memory each kilowatt hour of domestic PV saves the grid about \$40 a year, and that is just generating. It does not matter whether it is distributing or not, that is just generating that power big time, so I think it is a significant amount.

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I note in IPART's documents that it is considered too difficult to administer to repay back to customers on the basis of that, but I didn't really understand that point. I am not completely au fait with how the economics works within the grid, but it seems to me that the grid operator has costs which it somehow recoups. I thought it came from the major customers, like big industry, and the retailers behaving as primary customers. When I look at a bill that a local business gets from their retailer, it has a component for peak demand. If they can charge businesses

1 for peak demand, then I do not see why they cannot give PV 2 producers a rebate based on what they have saved at peak 3 demand. 4 5 I can see all the great effort that IPART has gone to to try to anticipate what the per kilowatt hour prices will 6 7 be over the next period. This may be a silly question but 8 I could not understand why it cannot be more like a genuine 9 bidder on the spot market. Why can't it be post facto? If they say, "Well, we are not going to tell you what you are 10 going to get. We will see what happens over the course of 11 the period," they can track that and say, "Oh, you fed in 12 13 this kilowatt hour at this time when the spot price was this, then that's what you get." Do you think that could 14 15 be done? 16 17 THE CHAIRMAN: That is something that a retailer could do. 18 The one advantage --19 20 MR BOLTON: Yes, and you recommend what retailers should 21 do. 22 THE CHAIRMAN: 23 What we do is recommend the feed-in tariff, 24 but it is not mandatory, as you know, in New South Wales. 25 26 MR BOLTON: No, I know that, yes. 27 28 THE CHAIRMAN: And retailers can adopt whatever they like, 29 and indeed they do. For example, at the moment the range is from - a few don't pay any - 6 to 20 cents. 30 31 see why a retailer could not adopt your suggestion. 32 33 MR BOLTON: But you have not recommended that. 34 35 THE CHAIRMAN: Sorry? 36 37 MR BOLTON: You have not recommended it. 38 39 THE CHAIRMAN: No, we have not recommended it, but we are not into recommending what retailers do. We were just 40 41 asked to provide a benchmark feed-in tariff. 42 43 MR BOLTON: Okay.

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THE CHAIRMAN:

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I think probably picking up on your point,

Derek, it is whether we should discuss it more.

1 MR BOLTON: Yes, I guess that is what I am saying, yes. 2

THE CHAIRMAN: And that point is well taken and we will look at that.

While I am on this, on your previous point about the network, you are probably aware that the AEMC looked at a rule change which would have provided the sort of market that you are talking about, and they decided in the end not to do it. I don't know whether you are aware of that.

MR BOLTON: I was aware that it had been kicked down the road, but I wasn't sure that it had actually been ruled out.

MS TOWERS: Yes, it has been ruled out. I think it was because of the administrative costs. Given that most solar power is not moving the network peak because solar is through the daylight hours and the network peak is --

MR BOLTON: No, no, but you are missing the point there.

When you talk about the spot price and the fact that the existing PV has brought down the spot price, that is fine. However, the trouble is because there is no market for the grid load, you cannot apply the same argument. All the existing PV is easing the grid load, and they are not getting anything for that. It is not the marginal value of raw PV; It is all the existing PV in this case.

MS TOWERS: I think when the AEMC looked at the peak load for the grid, it was later in the day, and solar was not contributing to that being reduced.

MR BOLTON: You still miss my point.

MR WILLETT: No, I am getting your point. You are asking what would happen if all PV generators were able to band together and meet the demand --

 MR BOLTON: No, no, that's not it, because I could make that point in regard to per kilowatt hour. I am not making that point, no. I am saying that if there were a market for grid load reduction, then you would be paying all the existing PV for that because they are creating that grid load reduction. They would be bidding into that market is what I am saying.

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MR WILLETT:

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to, and still get the subsidy?

Let's check that.

1 MS TOWERS: We will check that for you. 2 3 My name is Raj. I am from the Department MR R MAHANAMA: 4 of Planning and Environment. How that is calculated is 5 based on the location on the capacity of the system --6 7 MR BOLTON: I know how it is calculated. What I am asking 8 is whether it is actually a requirement that panels face 9 north. 10 11 As far as I know, there is no requirement MR MAHANAMA: that they be west-facing or north-facing. 12 They calculate 13 for the number of years, they calculate the production, and that gives the number of certificates, and that is how the 14 15 rebate is established, yes. 16 17 MR BOLTON: Thank you. Those are my points. 18 19 THE CHAIRMAN: Thank you very much, Derek. Alexy or 20 Craig? 21 22 MR C MEMERY: Craig Memery from PIAC. Thanks very much. On your point, Derek, the actual deeming of renewable 23 24 energy certificates is on a regional basis and not the 25 actual orientation or --26 27 MR BOLTON: Okay. 28 29 MR MEMERY: Thank you very much for having us on to discuss what we think is a very helpful paper that has some 30 31 very useful analysis in the draft determination. 32 33 We think the priority right now is to get the right signals in place for batteries, because they are coming. 34 35 It is very important that people make investment decisions where they have some long-term certainty around what the 36 37 market is going to be doing. Households that buy batteries 38 today or solar will expect them to work in a certain way 39 for a period of time. If we can avoid significant changes further down the track by getting the signals right at this 40 41 time, that should be a real priority for the next couple of 42 years.

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Overall, we support IPART's approach to the time We think that is a really constructive approach. The granularity that has been used throws up some considerations to which we would like to give some thought.

We suggested in our draft aligning the export timing with what people pay for their consumption from the grid in the interests of simplicity, except where it is inefficient to do so. I think what IPART has proposed goes most of the way there. There is just one small tweak that we would suggest making and it relates to the half past the hour measure.

We are looking at the potential introduction of cost-reflective pricing. We have existing peak demand and shoulder periods that are aligned to the hourly network pricing, which is a very important input for how retailers do their pricing. The confusion that might be faced by consumers if they are faced with a mish-mash of half hour and one and a half hour intervals could be quite awkward.

Alternatively, if retailers are facing that, it could make the task a lot harder for retailers for their internal settlement, for understanding their own risk exposure, and that might create inefficiencies that flow through to consumers or limit the ability of retailers to offer some innovative new products that go down the path of what we need to do with a more granular pricing.

We would ask IPART to consider - accepting the good being the enemy of the perfect - potentially aligning them with the hour, starting at 3pm, 3 to 4, 4 to 5, and so on rather than the half hour because of the extra confusion that could be created there.

We completely understand that that means this does miss out in terms of the accuracy, but tariffs are a very inaccurate mish-mash as a starting point, so anything that has more granularity is potentially an improvement there.

It is probably worth considering too how that value actually manifests in peak times. The higher values that we do see in those later peak periods more so than the average solar tariff are the product of a few high-price events each year. I suspect we will see that the retailers that are delivering the more innovative tariff pricing will actually focus on those events for the customers with batteries. It will be a nudge for retailers to do that innovation. We think therefore it is quite an important nudge to give and to frame it in that way and give them that guidance. They can, therefore, do that innovation

knowing that it is supported by the guidance.

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By the same token, we would not want the guidance to look like it is going to limit that innovation. retailers want to offer battery customers a product that gives them a high payment ten times a year when it is really needed in the market, that would be a great outcome. If that could be acknowledged in the guidance, that would be quite helpful.

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In terms of some specific other matters, we agree with IPART's take on the analysis of the wholesale value and the limitations in understanding what the network impacts are. We do think there are network impacts that could be considered, and we have some thoughts on those.

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One of the challenges for consumers is the variation year-on-year in that change. The consumer who bought solar panels last year was probably told, "Look, you will get 15 cents per kilowatt hour", or whatever, for the feed-in. They might never actually see that value again, based on the way prices are going.

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We would ask IPART, in a similar vein to what has been raised, to consider a longer term averaging period as a way of smoothing that. We do feel that they should, however, be based on spot market expectations not on contracts, because that actually reflects the impact on the market more broadly, rather than the contract, which is affecting the impact on that specific retailer.

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Particularly that volatility issue could be exacerbated under a more granular FIT. Considering a longer term averaging period to wash out that year-on-year variation would be important for consumers, we think.

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Picking up on a point made by IPART about solar exports not providing system-wide impacts on networks, we understand that the outcome of this probably would not change how the feed-in tariff is calculated because it is focused on wholesale benefits rather than network benefits.

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We think it is important that the opportunities for localised networks benefits that actually avoid augmenting and updating the infrastructure are important to promote, and it is important for network businesses to offer those products to retailers and for retailers to offer them to

consumers in turn.

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We would ask that IPART consider that there are localised transmission and sub-transmission networks that actually peak early in the afternoon, particularly those that feed mostly into industrial locations. There are quite a lot of locations where the benefit of solar that is provided in that afternoon period is actually making a material impact on the demand. That is not to say it is deferring investment because just reducing demand does not mean investment will be deferred.

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I am not trying to overly simplify it, but I would ask IPART to put a bit more granularity into that analysis and consider where locational impacts will actually flow through to system-wide benefits because we have postage stamp pricing in the network space.

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But, yes, I understand that that is definitive, but I think it is more about giving confidence that there are no cross-subsidies rather than applying that into the calculation.

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MS TOWERS: Craig, do you agree that that should then be done through the network prices?

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MR MEMERY: Well, that goes to another point around the network price-setting issues.

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MS TOWERS: Yes.

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MR MEMERY: In our view, we need to move towards more cost-reflective network tariffs. As IPART would know, because your rule change proposal got bundled in with the Commonwealth's one around that a few years ago, we have rules in place now that are meant to have us progressing to more reflective prices for consumption. different jurisdictions, but particularly in New South Wales, there has been a pretty slow progress on that front. We are optimistic that there is a lot more progress coming up. We will be engaging very closely with the networks in the coming period.

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We would ask, though - with complete acknowledgment of what IPART's limitations are - whether IPART would promote and provide some commentary, where relevant, on moving towards having more cost-reflective network prices to undo

the cross-subsidy issues that are identified.

In our view, the way to do that is by moving to prices that put a value on peak demand rather than just driving up fixed costs that consumers cannot respond to. If we put a value on peak demand, then customers with batteries and solar can actually respond to that and continue to reduce their price, as can other customers, but customers cannot respond to the fixed price very effectively. It is another issue, but it is a really important one for this context too.

Just commenting on the use of a single benchmark rather than a range, we think that makes good sense when you are transitioning from having a single figure to the time variance as well. We would suggest, in the interests of avoiding cross-subsidies both ways, that it be set at the middle of the actual range of expected outcomes for that period. Otherwise, you will end up either under or over-compensating solar customers through their generation.

The final point we would make is that we think the fact sheet that has been produced is really helpful. It provides some useful guidance not just to the market but also to consumers in terms of what to understand. We have some language suggestion around just disambiguating a few of the points that were made, which we would be happy to discuss that outside of this public hearing. So thank you very much for the paper.

THE CHAIRMAN: Thank you very much, Craig. Alexy?

 MR A VAKHNIN: Alexy Vakhnin from Red Energy. Lots of great points have been raised and I really don't have much to add. However, I want to stress that, over many years of reading IPART'S reports and looking through them, it is a robust analysis that you guys use every time. I really like that non-prescriptive nature of your decisions. This gives freedom to the retailer and at the same time provides guidance. I think that was one of the strongest point of your decisions.

At the same time, I really want to stress the point which Keith raised before about making the assessment at a very short period of time. Last year we saw that IPART's decision came at the time of very peak of prices. Hazelwood had just closed, the spot price peaked, and the

decision really pushed the price up. Now, we are facing a situation where we need to tell our customers that we will reduce their feed-in tariffs. Most solar customers are very sensitive to their feed-in tariffs. They are a lot more sensitive about that than they are about any other price component.

At the same time, this setting, like setting last year almost 15 cents, and setting this year half of that, leads the market to believe that wholesale price dropped, which is not necessarily the case, or that it has dropped to a very significant extent, which is not necessarily the case. We know that the wholesale price is still well above the two years average, as Jessica pointed out in her presentation. We are still facing quite high wholesale prices.

That is where I think Keith's point is incredibly significant. Let us think about the methodology. You guys are known for producing very good methodologies. You have looked at issues which no-one looked at before, such as cross-subsidising the whole of the solar feed-in tariffs by the other consumers. Let us think how we can develop a methodology which will take the spot price and look at that wider period.

There is one more issue with regard to peak demand, that solar customers were using peak demand. This is probably not in New South Wales, as an example, but we need to be careful when we are talking about reducing the peak demand. We need to look at other jurisdictions as well. In South Australia, we now see the situation where the network is openly saying that the peak demand is no longer an issue because they have lots of local generation - local distributed generation. However, on the other hand, they have an issue with the peak generation. The distributed generation makes networks' business so much more expensive to really get rid of this generation, because they don't have consumption to relieve out of the wholesale. If we can factor that in before we make any significant changes on this front, it would be very good.

THE CHAIRMAN: Thank you very much Alexy. Raj, would you like to say anything?

MR MAHANAMA: I don't think I have anything else to add. My comments are mostly around the terms of reference, why

the government - the minister - asked IPART to establish
the benchmark based on the two key estimates; namely, that
it should not result in an increase in electricity prices;
and it should support innovation.

That leads me to Derek's previous point. We assume
that retailers should come up with innovative products to
offer solar customers. I remember back at least one

That leads me to Derek's previous point. We assume that retailers should come up with innovative products to offer solar customers. I remember back at least one retailer - I think it was last year or it could be the year before last - came up with a product that they gave the same amount they received; they gave the wholesale value at that point in time. So retailers are doing it. That was one retailer I can remember.

With regard to the other point that EnergyAustralia and Origin raised about customer confusion. It seems our customers are still thinking that the tariff is a primary component or the only component that they should consider when they are selecting a retail offer, but that is not the case. What the government would say to customers is "Consider all aspects of the electricity offer." It was clear in Jessica's presentation that some of the high feed-in tariffs might not reduce the electricity price and vice versa.

That is the government's message. Other than that, I do not have any comments about the methodology, but if you have any questions about the terms of reference, I would be happy to answer them.

THE CHAIRMAN: Thank you, Raj. Yes, Derek?

MR BOLTON: My understanding about the terms of reference is that you only make recommendations, you cannot mandate a feed-in tariff; is that correct?

THE CHAIRMAN: Correct.

MR MAHANAMA: Yes, so we --

MR BOLTON: I think that is the other issue. How do we persuade the government to make it mandatory?

MR MAHANAMA: I can answer that question. Where there is competition, that gives enough incentive to retailers to value the solar-created tariff or solar exported to the grid. On the other side, if you think about mandating a

minimum feed-in tariff, you are mandating only one aspect of the retail offer, so it would not necessarily pass the appropriate benefit to the customer.

You have usage charges, network charges and feed-in tariffs, redevelopment charges and whatever other charges. For example, if you pick 30 cents and mandate 30 cents, the retailers have the ability to shift the other components of the electricity offer. In this current deregulated market, mandating a feed-in tariff would not provide the intended benefit to the customer. However, with the benchmark it can provide the indication to the market for the retailers to give a fair value for solar and, at the same time, for customers to use it when they are negotiating a better deal with the retailer.

MR BOLTON: Well, except that the other parts of the price you talked about there, apart from the feed-in tariff itself apply to all their customers; right?

MR MAHANAMA: Yes.

MR BOLTON: So they are not free to juggle all that. They still have to acquire other customers or persuade other customers to go with them, so they are a bit limited on how they play by that game.

THE CHAIRMAN: I think the point, Derek, is that if you were to mandate the feed-in tariff, and let's say you mandated it relatively high, then what would happen is that all the retailers would adjust the rest of their offer and that could well increase electricity prices.

MR BOLTON: I would be interested in how they could do that because there are non-feed-in customers. The point is the difference between a feed-in customer and a non-feed-in customer.

THE CHAIRMAN: But the point is if you mandate a feed-in tariff which is above, which makes it more expensive for the --

MR BOLTON: No, not more expensive. IPART says, "This is a fair amount." Why doesn't the government mandate that fair amount and say that it is not going to be increased?

THE CHAIRMAN: Because in the event that they were going

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to do that, it would mean that retailers would not have the discretion to offer innovative arrangements or products or anything like that. They would just be stuck with one feed-in tariff. At the moment you have a range. There are a few at zero, but you have a range between 6 and 20 cents. All that would do is, in a sense, compress it all to one level and you would not get different packages offered to different customers and it would reduce choice.

MR BOLTON: It would only be a minimum value, I mean 6 --

THE CHAIRMAN: Pardon?

MR BOLTON: You would make it minimum, but --

 MS COPE: I think your point on protection, Derek, assumes that it is not possible on the price of the electricity for the retailer to distinguish between a solar customer and a non-solar customer. Now, if they can distinguish their retail price based on that, and it is pretty clear to them who are their solar customers, then what they are offering the non-solar customers will not necessarily provide a constraint on the electricity price component to the solar customers.

MR BOLTON: That would be all part of the mandating. You would say, "For the same basic charge, on all other respects, the minimum for feed-in is this" - anyway.

THE CHAIRMAN: Thank you, Derek. Melinda?

MS GREEN: Could I add that a lot of solar customers are very well engaged in the market and they are quite aware of what they are getting. They are likely to be the ones going and getting some of those higher feed-in tariffs in the market and shopping around. I don't think there is any detriment in not having a minimum or a regulated amount. We have seen, with some of these feed-in tariffs, a doubling of the benchmark IPART set for the current year. Would changing that way it is set up actually generate any improvement?

MR BOLTON: Well, it depends. You say a lot of them are that smart, but I don't know what percentage that is.

MS TOWERS: And just remembering that the real benefit at the moment is using the power in-house.

MR BOLTON: I absolutely agree. Yes, that is the main benefit. I have no disagreement with that.

GENERAL DISCUSSION

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THE CHAIRMAN: Are there any questions or comments from the floor? Yes?

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MR J MULLER: I have a few points.

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THE CHAIRMAN: Sorry, could you introduce yourself, please.

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Yes, I am a member of the Central Coast MR MULLER: Community Energy Association

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THE CHAIRMAN: And your name?

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MR MULLER: My name is Jo Muller. One point is about shopping around. Shopping around in a market which is not transparent is not possible. You mentioned a website from New South Wales. Surprisingly, it has every electricity tariff in it, but no feed-in tariffs for solar and no solar tariffs. How can I shop if I don't have information? This is really a deficiency in the system.

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I asked the New South Wales department about that. They said, "Well, we don't have it. Maybe we will have it, we don't have it now." I think if IPART is looking at the strength of the market, it would be your role actually to address that.

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Secondly, the changes you suggest will affect to a tremendous amount the number of installed solar panels. the past, since we have had the net feed-in tariff, people looked to match their solar size to their demand. This changed last year. Last year, all of a sudden, it was possible just to maximise your solar panels because you got more feed-in tariff for the electricity on your solar system.

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Now, going back to the 7 cents, it is back to plan one. I now have to change what I recommend to people who ask me how much they should install. I would need to tell them, "Well, look at your demand and don't install too much because it will cost you money." This is really changing

the situation again.

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I guess IPART, unfortunately, has the restrained limits by the government to look only at the money, but I think you need to look at the environment. at the environment, we need to maximise solar. So the message at the moment goes the wrong way.

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The last point is just a small technicality. I am surprised by the wide ranges in the suggestions. instance, for this high price period, there is a price range suggestion between 12.8 to 20.9 cents. This is huge. This is nearly double from one end to the other; whereas, in other times it has been a very small and narrow range. In your documentation, I could not find an explanation for that.

If you look

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> THE CHAIRMAN: Jess?

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22 23 MS ROBINSON: In these high price periods, there is a lot of volatility in the market. Depending on the historical period that we use to calculate a solar multiplier, which is the premium for solar energy relative to the average price across the day, you do get quite different results.

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If you look at the most recent historical year of data that we have, which is 2016-17, and just use that year, then you get a very high solar multiplier and a higher solar feed-in tariff with 20.9 cents. We think the last year reflects the most recent supply conditions.

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But if we go back a little bit further to take into account other factors in the market, like demand or high weather events, and we look at a three-year period, then we get less volatility in the market and a lower feed-in tariff of 12.8 cents. It depends on which historical period you are looking at to calculate the solar multiplier. Because there has been such volatility in the last three years, that is reflected in that wide range especially in the 5.30 to 6.30 period.

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If I just might step in here, I think that MR MULLER: this is actually taking away from the value of any recommendation. If I tell someone, "Well, you can pay \$1 or \$10", I might as well say nothing. So this goes in the same direction.

1	MS ROBINSON: It is our best estimate. Depending on the
2	demand and weather conditions in the market, there might be
3	quite a range of outcomes next year. And it is just a
4	forecast, so it does reflect the inaccuracies or the
5	different scenarios that might arise in the next year.
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7	THE CHAIRMAN: We will take that point on board, Jo.
8	Thank you.
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10	MS TOWERS: If I could note. Energy Made Easy, which is a
11	national website, does have information about solar offers.
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13	MR MULLER: No, but it is
14	TIN HOLLEN. NO, Due IE 15
15	MS TOWERS: It is just not very useful. You have to click
16	on their contract term document and find it. It is not
17	very user friendly, and we have made some recommendations
18	that the website become more helpful.
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20	MR MULLER: I have to say that I was not able do that
21	without a lot of work.
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23	MS TOWERS: Yes, there is a lot of effort involved,
24	I agree.
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26	MR MULLER: It takes probably 10 hours or so to go through
27	five or six retailers. But with the electricity prices,
28	you click a button and you get the result. That is not
29	fair.
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31	MS TOWERS: Yes, and we have made some suggestions and
32	recommendations in the past to improve the usability of
33	that site.
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35	MS GREEN: And AER are actually making some improvements
36	to that. There will be some improvements to that site this
37	year, I think.
	year, I think.
38	MD MILLIED. Dut it wouldn't
39	MR MULLER: But it wouldn't
40	MC TOUTES N
41	MS TOWERS: No, we agree that it could be a lot more user
42	friendly.
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44	THE CHAIRMAN: Thank you. Are there any other comments or
45	questions from the floor? No.
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47	MS COPE: I have a question, and this is to the retailers
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around different price differentiation over the time of day and peak and shoulder pricing.

How far are we away from that being a lot more common in the offers that the retailers are making or are you still working on models that are sort of single price throughout the day, going forward?

THE CHAIRMAN: Keith? Melinda?

MS GREEN: To be honest, it is something we cannot sort of share publicly and release it out in the market. It is quite simple to calculate those prices and do that for different times of the day. We have to keep in our mind whether that will be useful to the customers. This is linked to the previous point about the big price band.

Electricity is incredibly volatile in price. If you were to put out spot pricing for customers like Derek is talking about, yes, that is possible, but it would also create a lot of confusion for customers about what are they getting paid and what should they do. It is a matter of trying to make it easy for customers and trying to make it cheap to operate. You do not want to roll out a really complicated product that not many customers will take up.

As I said earlier, it is really the customers who have batteries who can make the most use of that now, because it only applies to solar installations not to wind or any other forms of generation which might be generating power at different times of the day, so I think there is that sort of interplay. We can do that any time as long as customers want to take it up in the right numbers that would make it worthwhile to get out and make it available and market it.

THE CHAIRMAN: Thanks, Melinda. Keith?

MR ROBERTSON: Similarly, the overwhelming desire for most customers is for simplicity - towards a single or just a two or three parts tariff. Increasingly, as we get batteries, that is the point at which a small number of customers who have invested in things like batteries will see value from a disaggregated tariff. That is probably still a little way off.

THE CHAIRMAN: Yes?

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Energy Association. I would like to build on what Jo was saying.

MR G OLSEN:

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My concern is that much of the reduction of the costs has been actually noted in this diagram of yours that I have here, and that has been through solar production reducing that peak in the day. But, of course, with the closure of the coal-fired power stations, because they were decommissioned, prices have gone up. Lowering the price of the FIT, is a disincentive, as Jo was saying, against people putting a maximum number of solar panels on their roof.

Greg Olsen, from the Central Coast Community

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Those with a maximum number of solar panels on their roof would have the further advantage of being able to charge a greater amount of batteries, which would then, of course, be able to respond to these pricing signals here, and correctly so, by encouraging the uptake of batteries, which are a little expensive at the moment, but they will come down.

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Any disincentive to solar panels will end up in a reverse impact on the prices because there will be fewer solar panels able to charge batteries. People will buy smaller batteries, therefore, and then any ability to take advantage of producing this peak on your diagram I have here through battery storage would be negated somewhat because people have been putting fewer panels on. that is something that ought to be considered as well.

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THE CHAIRMAN: Thank you very much, Greg.

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MR OLSEN: Thank you.

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THE CHAIRMAN: Are there any other questions or comments? Derek?

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43 44 MR BOLTON: I just have another thought about the orientation and putting the panels west facing. something that IPART could help with? You have done this time of day profile here. Could you actually use that to say, "Well, with this orientation and that pitch, you could optimise what you would earn on this"?

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We don't know, I think is the answer to that. MR WILLETT:

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MS JONES: Can you predict the number of sunny days next year?

MR BOLTON: Well, you can predict it, but --

MR MEMERY: You can predict it all you like.

MR BOLTON: Yes, there is plenty of data for this. do the stats on that. That is no problem.

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THE CHAIRMAN: We'll take that on board, Derek.

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MR BOLTON: Thank you. Anna?

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MS A BRAKEY: I am Anna Brakey from the secretariat. I would like to explore something with the retailers and with PIAC.

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You all made comments about using a longer averaging period in order to achieve a less volatile feed-in tariff. I would like to explore with you whether, in the current environment, if we were to apply that now, it would mean a higher feed-in tariff that we would be setting; and also going to our earlier comments about the incentive that that might create for people choosing to use small solar panels, whether or not that would be an appropriate thing to do.

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THE CHAIRMAN: PIAC, Craig?

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That is a good point. If you look at this MR MEMERY: point in time, that would be the impact. In the longer term, though, having a few years of rolling average would really just to serve the purpose of filling in some of those valleys that would result in people being under incentivised while making a decision.

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The point that Jo made is a really good. that reputable installers give their consumers about how to maximise the value is really pegged to something that triggers on the value that they get for exported energy. You do get consumers who have been told, "You will get 15 cents a kilowatt hour and you're going to be in the money for a long term." Because they are expecting that over the longer time, they will actually over-invest. Likewise, they may under-invest, if they get an artificially low signal. If, as you say, using a longer

term average now would actually increase the level, I would say what it is probably doing is drawing it closer to an actual long-term average that would give people a more sustainable signal.

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THE CHAIRMAN: Melinda or Keith?

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MS GREEN: I think it does not have to be flat average over that period. In the shaping of that, some sort of hedging approach could to be considered, as it would be for energy prices as well.

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We will comment further in our submission, but I think it probably makes it more reflective and less volatile. I think it would be a better change overall.

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Thank you, Melinda. THE CHAIRMAN: Keith?

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Yes, similarly, I think the first MR ROBERTSON: consideration is are you getting closer to the way retailers incur costs and therefore price things? I think the answer to that one is yes, so it is a favourable move.

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As to the point in time, as to whether you do it this year or next year, I guess it was a bit of a trade-off this year. You would see a price range that was probably more appealing to customers as you are sort of coming down in a more gradual step. There is no absolute right time whenever you swap methodologies, of course. The overriding point would be if you get it better aligned to the way retailers purchase energy, you will get better alignment between the grid tariff and the solar feed-in tariff, you will get a closer answer to IPART's benchmark range and where retailers are coming from.

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Thank you, Keith. THE CHAIRMAN: Ed?

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MR WILLETT: This is a comment that I am inviting a response to, particularly from Keith.

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Moving more towards a longer averaging approach and looking at contract prices would mean that we would remove, I take it, the 5 per cent adjustment to ASX prices that we use to proxy measure spot prices. It is a different sort of approach where we are trying to actually benchmark contract prices over the longer term.

1	MR ROBERTSON: I think that is a separate consideration
2	for IPART, and perhaps there is some sense in having
3	another look at that. Overall, using exactly the same
4	approach and the same data that you are already using,
5	I think you can still make a shift. Step one is change the
6	average
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8	MR WILLETT: It is just actually targeting a different
9	thing, yes.
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11	MR ROBERTSON: A separate consideration is what do you
12	think about how much load is owned generation, contracted,
13	and spot for a retailer.
14	and spot for a recarrer.
15	MS TOWERS: So this comes down to the economics versus the
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	current
17	MD LITHETT. Hall there has been a let of discussion
18	MR WILLETT: Well, there has been a lot of discussion
19	about marginal versus average values
20	MC TOUTES 5 43
21	MS TOWERS: Exactly.
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23	MR WILLETT: which has been very interesting, and a
24	number of people have made comment along those lines. It
25	is actually doing a different thing from what we are doing
26	at the moment so we need to think about it.
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28	THE CHAIRMAN: Yes, Craig?
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30	MR MEMERY: I have one question for IPART on that matter
31	of the timing alignment and doing it on the half hour
32	rather than on the hour. Is that something that you have
33	actually considered; namely, aligning it with the hour
34	instead of the half hour? Did you have any feedback? It
35	would be useful for us in preparing our response to the
36	draft paper on that specific matter.
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38	MS TOWERS: It is a trade-off between accuracy versus
39	simplicity and acceptability to customers, so we are
40	considering those items.
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42	MS JONES: We can look at that, yes.
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44	THE CHAIRMAN: We are open to that. Yes, Greg?
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46	MR OLSEN: I have a question. Melinda, you mentioned
47	about the possibility of prices coming down for retailers,
. /	about the possibility of prices coming down for reculting,

but I believe there will be an increase in July; is that correct?

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MS GREEN: I can't talk about that in detail, but all I was saying is that IPART are looking at some wholesale price data and that if the same thing were to happen, the wholesale component of retail prices would come down, so that typically makes it about a third or less of the overall energy price that customers pay. I am not commenting on the overall price at all because it is also made up of retail costs and networks costs as well, and they are quite substantial in total.

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MR OLSEN: Because there is a review going on at the moment, and it may go either way.

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Also if the FIT is reduced to 7.50, would that reduce the cost of energy to all consumers?

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It is indirect, so IPART is setting a benchmark MS GREEN: for the feed-in price. The retailers independently set their retail prices. As I said earlier, we have different ways of setting prices. We cannot discuss all those. will naturally come out with different numbers.

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What EnergyAustralia determines to adjust the wholesale component by might be higher or lower than what IPART determines to adjust the feed-in price by. usually not commented on in detail, but the Australian Energy Market Commission do their report and do break out those components ever year.

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MR OLSEN: So who actually does benefit from a reduced FIT?

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40 41 MS GREEN: Basically it depends on where you use your If you are using your energy in the household, you are paying those usage rates. As the IPART analysis clearly shows, you are likely better off overall. depends on some of those ratios, how much you are using, how much you are exporting to the grid, and what sort of other differentials are in the pricing.

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I think, to answer your question, all other things being equal, which they are not, but all other things being equal, it is the retailer who benefits from the lower feed-in.

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MR OLSEN:

THE CHAIRMAN: Sorry, Greg, just a second. Melinda, did you want to reply to that?

Could I make a point?

MS GREEN: We are basically trying to make things as cost reflective and fair for customers as possible. All of these prices are forecasts of what we expect would happen on the wholesale side, and we can get that wrong up or down. Apart from making a profit in general, we are not setting out to make any more profit from solar customers than non-solar or anything like that. We are not seeking, because wholesale prices are coming down, to make any more profit.

 MR MEMERY: That's exactly why I made the point "all things being equal". I am not suggesting retailers are gaining; I am saying that is where the cost transfer will be.

THE CHAIRMAN: The fact is, Craig, that it's difficult to make the point, "All things being equal" because one of the key --

MS GREEN: It never is anyway.

THE CHAIRMAN: The wholesale prices are key drivers of the retail prices.

MR MEMERY: I totally agree.

THE CHAIRMAN: And they are also drivers of the feed-in tariff benchmark. So, Greg, yes?.

 MR OLSEN: I have one more point. On this page here, there is a note that all consumers pay, as mentioned, \$15 on average to subsidise up-front costs for solar panels. But that is offset by the reduction in the actual costs of electricity to all consumers because solar panels have worked effectively to eliminate that peak in the afternoon where prices were very high because gas peakers had to come in which was very expensive for electricity.

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I believe that up to April 2017, between \$2 and \$3 billion was saved to every customer in the grid because solar energy prevented the need for gas peakers to come on board. However, that is not mentioned here to offset that \$15 a year cost for subsidising solar panels, so it does offset that cost.

Sorry, what I mean is that if the panels were not there through that subsidy, then the savings would not have existed.

THE CHAIRMAN: We will take that point on board, Greg, thank you.

Are there any other questions or comments? Anything else around the table?

CLOSING REMARKS

THE CHAIRMAN: Thank you very much. It has been an interesting discussion and we have a number of issues to take on board, which we will discuss tomorrow at our meeting, and then proceed.

We invite submissions, and they are due by 4 June. We are looking to provide a report to the minister by the end of June.

Once again, thank you very much for your participation today. It is much appreciated and the discussion has been really useful. I have a list of points here, as do other IPART people. We will proceed on that and we will put out our final report to the minister by the end of June. We look forward to any written submissions. Thank you all very much and have a good afternoon.

AT 11.25AM THE TRIBUNAL WAS ADJOURNED ACCORDINGLY

