

**Division 21: Energy Policy WA, \$17 647 000 —**

Ms M.M. Quirk, Chair.

Mr W.J. Johnston, Minister for Energy.

Ms K. Ryan, Executive Director.

Mr J. Thomas, Program Director, Energy Transformation.

Mr R. Gracias, Chief Finance Officer.

Mr N. Roberts, Chief of Staff, Minister for Energy.

[Witnesses introduced.]

**The CHAIR:** This estimates committee will be reported by Hansard. The daily proof *Hansard* will be available tomorrow. I will ensure that as many questions as possible are asked and that both questions and answers are short and to the point. If an adviser needs to answer from the lectern, will they please state their name prior to their answer. The estimates committee's consideration of the estimates will be restricted to discussion of those items for which a vote of money is proposed in the consolidated account. Questions must be clearly related to a page number, item, program or amount in the current division. Members should give these details in preface to their question. If a division or service is the responsibility of more than one minister, a minister shall only be examined in relation to their portfolio responsibilities.

The minister may agree to provide supplementary information to the committee, and I ask the minister to clearly indicate what supplementary information will be provided. I will then allocate a reference number. Supplementary information should be provided to the principal clerk by Friday, 30 October 2020. I caution members that if a minister asks that a matter be put on notice, it is up to the member to lodge that through the online questions system.

I give the call to the member for Bateman.

**Mr D.C. NALDER:** Thank you. Minister, I was looking at page 290 in budget paper No 2, volume 1, the total appropriations. I noticed a sizeable underspend last year of around 15 per cent, but budget to budget, it is about a 25 per cent drop in expenses. Is the minister able to share what the underspend was and why, and what is creating such a large drop in expenses moving forward?

**Mr W.J. JOHNSTON:** It is the Energy Transformation Taskforce; it is only funded for two years.

**The CHAIR:** Further question.

**Mr D.C. NALDER:** If I refer to income statement on page 295, I notice a very large drop in grants and subsidies, and down the bottom of page 295 is "Western Power State Underground Power System".

**Mr W.J. JOHNSTON:** Sorry, I am getting confused here, because I think we are on different issues.

**Mr D.C. NALDER:** Sorry.

**The CHAIR:** Before you came in, member, I did actually counsel people to try stay on the one program or line item on the one page and not jump around too much.

**Mr D.C. NALDER:** The first question was to do with total appropriations.

**The CHAIR:** Yes, and now you are going into something else.

**Mr D.C. NALDER:** Well, it is more the specifics on the feed into total appropriations, which is the income.

**Mr W.J. JOHNSTON:** So why not just the ask: what is happening to the state underground power project?

**Mr D.C. NALDER:** That is where I am going to go.

**Mr W.J. JOHNSTON:** Okay. If the member asks that, I can answer it.

**Mr D.C. NALDER:** The minister gave me an answer for total appropriations that does not match that, so I am now asking the minister specifically: what is happening with the Western Power state underground power system?

**Mr W.J. JOHNSTON:** Certainly. The former Minister for Energy, the member for Riverton, gave a four-year approval for the state underground power project, so all the allocations were made by the former government, and that is the working out of those allocations.

**Mr D.C. NALDER:** Further to that.

**The CHAIR:** Further question, member.

**Mr D.C. NALDER:** In the budget of 19–20, \$6.5 million allocated —

**The CHAIR:** Nineteen twenty—we are not going that far back! Oh, the year 2019–20.

**Mr D.C. NALDER:** I am talking about the line item and how this impacts going forward. The minister just gave an answer —

**The CHAIR:** Sorry, I am just being glib. I apologise.

**Mr W.J. JOHNSTON:** She was making a joke about 1920 instead of 2019–20. I got the joke. It is all right.

**Mr D.C. NALDER:** Sorry, I missed the joke, I apologise. On the 2019–20 budget of \$6.5 million, only \$2.8 million was spent, and the minister said it is running out, so there is a major underspend?

**Mr W.J. JOHNSTON:** As I say, if the member wants to ask me about the state underground power project, I am very happy to explain. There have been some problems with that, and that is COVID-19. Western Power allowed all the councils to put their projects on hold because nobody knew what was going to happen with COVID-19, so Western Power has been given approval by government to continue to spend money of its own to keep those projects going if the councils are still going to proceed with them. Obviously, if the council does not want it, we are not going to give these things away for free, so if councils withdraw their consent, the project stops. We have allowed councils to effectively defer their expenditure by a year. That is going to lead to re-cashflowing of the state underground power project because this is the subsidy, the government bit.

Let me make it clear: I am not criticising the former government's decision; I am just explaining what happened. Councils were effectively allowed to bid for the work, and that meant that if they bid more, they were more likely to get their project supported. In the past, it was one-third, one-third, one-third—one-third Western Power, one-third the government, one-third from the council, which it obviously passed on to its ratepayers—but the member for Riverton changed the way the project worked. This is not a criticism. I am not saying that was a bad decision; I am just explaining what the decision was. Councils could then bid on higher than that one-third contribution, so some bid one-half, some bid 60 per cent, and obviously they then set up the program. When it came to COVID, everybody said they did not know what would happen, so we allowed Western Power to carry the costs of the works on its own balance sheet while the councils delayed their part being implemented—as in the money coming out of ratepayers' pockets. Therefore, because our moneys depended on the councils' money, there could be cash flow changes. We have made no announcement about renewal of the state underground power project, and Western Power has made an announcement, which I support, about changing the nature of undergrounding, because it is now getting to the point at which in certain circumstances it can actually be cheaper to underground than to renew overhead, so it is not clear whether we will need the existing underground power process to continue. The member for Riverton will tell the member for Bateman that sometimes these things are controversial. I can tell the member that, because in 2008 when I first got elected to Parliament, the suburb of Wilson had one of these projects. It had 70 per cent opposition during implementation. Interestingly, it had 70 per cent support when it was complete.

[10.30 am]

**Dr M.D. NAHAN:** Parkwood did, too.

**Mr W.J. JOHNSTON:** That was in the member's area at the time, now it is mine. Shelley is currently being —

**Dr M.D. NAHAN:** Shelley east and west are okay.

**Mr W.J. JOHNSTON:** I have had people write to me to complain about it, so we get these complaints. They are not straightforward. Some of the councils are getting nervous about how they interact. The classic example is Menora in the City of Stirling, where the bid was very high. The council said everybody would take two-thirds of the cost, and it did that without telling, so when the ratepayers got the bill, they kicked up. The council then asked me, "How are you allowing this price to go up so high?" It was because that was the price it had set. Some of the councils are now reviewing what they are doing, and Western Power can continue with the project but only if the council remains committed. Generally speaking, they are. I think there is one project with maybe a bit of wobble. Basically, they are all proceeding but they might be delayed by 12 months. Having said that, it is cheaper for Western Power to continue the work because it has already mobilised, so it will be spending on its own tick.

**Dr M.D. NAHAN:** Just to get confirmation. Has the government not committed to continuing the next wave of underground power?

**Mr W.J. JOHNSTON:** No, I think is round 6. We have not committed to round 7. Western Power is now doing St James and somewhere down near Fremantle, I forget. When we get to Western Power the member can ask. It is doing three suburbs, as trials, of self-funded undergrounding.

**Dr M.D. NAHAN:** Yes, it has always done that, and has been expanding capacity to do so, but there are areas that it simply will not do.

**Mr W.J. JOHNSTON:** It is saying that where overhead is 40 years old, it can be cheaper just to underground. Underground is more expensive up-front, but reduces operational expenditure. In some parts of the state where the overhead is old, everybody goes, "I have a 20-year-old overhead, will you underground it for me?" That is not value for money, but if it is older, it is value for money.

**Dr M.D. NAHAN:** So the government's position now is that it has made no decision on, let us say, round 7 —

**Mr W.J. JOHNSTON:** That is right.

**Dr M.D. NAHAN:** — and has an expectation for Western Power to increase its undergrounding of existing facilities as part of its capex policy.

**Mr W.J. JOHNSTON:** Yes, we are examining whether that is possible. Before we move off this topic I have to thank the member for Riverton because he approved the undergrounding of my own suburb, and I make the point that Kate Ryan from the agency is handling all aspects of that, so my office does not get involved and I do not get involved and there is no conflict of interest. But it was the member's decision to underground my street.

**Dr M.D. NAHAN:** I was hoping that the minister would have to pay top dollar!

**Mr D.T. REDMAN:** I refer the minister to page 291 on budget paper No 2 and the sixth significant issue impacting the agency under “Key government reforms”. It talks about the distributing energy resources road map, which I support. I am interested in any comments the minister has. There is a number of reforms happening and time-lined in the progress of that work. I am interested in the minister's comments on government policy as it applies to the extent of private sector involvement in this transition. The government clearly has a position on the sale of Western Power, that was a commitment, but there are a lot of opportunities starting to emerge on grid-related matters, and I am just interested in the extent of the where the line in the sand is on private sector involvement?

**Mr W.J. JOHNSTON:** It is a great question. Obviously, we are not selling Western Power, we are not selling Synergy and we are not selling Horizon. The private sector needs to identify the opportunities for it. Western Power is being required to produce a network opportunities map. This is a map of the challenges coming up because of distributed energy resources across the network for Western Power. The private sector can then tender for a solution. Obviously, Western Power has private sector partners, as does Synergy, that deliver much of the engineering outcomes. Sometimes people say that it is not fair that the government is letting Synergy or Western Power put a battery in somewhere, but they do not get to do it. The only reason that Western Power is able to put that battery in is that it might be able to get 50 or 60 per cent of the cost of the battery included in the regulated asset base. We have to fund the balance, and given that Synergy pays between \$70 and \$30 a megawatt hour for every megawatt of solar energy that comes off people's roofs, it is its electricity and it has to do something with it. At the moment Synergy generally sells it into the balancing market at negative \$1 000 a megawatt. It has paid \$70 for it but is it at minus \$1 000. That does not make any sense, so it is putting the electricity into batteries, and that is what Kwinana will do as well. If the private sector can work out how it can make money out of network augmentation, if it can work out how it can make money out of DER, it should come up with a plan, because I am not against it, but it cannot expect me to have Synergy pay for its costs and to have Western Power do an uncommercial arrangement. I will give an example in the member's electorate. The Margaret River community battery that has gone in there through Western Power is a behind-the-meter battery, so Western Power's partner is not Synergy, it is the Shire of Augusta-Margaret River. That is an example. Okay, the shire is still a “.gov” organisation, it is part of the broader government, but it is not a state government instrumentality in the same way that Synergy is. It is not that we are not prepared to partner with non-government organisations; it is just that nobody has worked out how they are going to make money out of it. The big part of the money is the installation. The private sector does that bit.

**Mr D.T. REDMAN:** In terms of private sector engagement, the member talked about, in this case, Western Power is offering up weak points in the system and therefore seeking private sector engagement to see if it can provide a solution. Is Western Power prepared to offer any parts of its network for the private sector to take over as a part of that solution?

**Mr W.J. JOHNSTON:** No.

**Mr D.T. REDMAN:** Is the minister not aware of any engagement by Western Power to consider taking over any parts of the network as a strategy to provide a solution?

**Mr W.J. JOHNSTON:** I understand there is a bunch of guys who want to come and see me because they want to take over two bits in the northern wheatbelt. I do not know whether the member has seen that brief. They have written to me saying that they have got a solution for a couple of spots outside Geraldton. It will be interesting to see what they say. A lot of people have a lot of solutions that require other people to pay for them. In terms of actually getting one that makes economic sense, it will be interesting to see how that goes.

[10.40 am]

**Mr D.T. REDMAN:** Will the legislation passed recently allowing Western Power to offer up standalone power systems as a strategy to offset upon replacement be an area in which the private sector could participate? It is actually not a part of the network; they are Western Power customers.

**Mr W.J. JOHNSTON:** There is no restriction on the supply of standalone power systems. Any private sector organisation can go to anybody and offer a standalone power system. Anybody can disconnect from the network

if they want. Of course, if they take that solution, they do not get the uniform tariff policy. The reason that farmers, generally speaking, do not do that is that if they take the Western Power solution, they pay Synergy for their energy, and therefore their energy is supplied at the grid price, which is probably 10 per cent of the actual cost of the supply. The member has seen the heat map. I think it is 14 times between the top and the bottom cost of supply. The reason the private sector cannot deliver is that it does not get the subsidy. Of course, Western Power and Horizon, in its area, have private sector partners that actually build the kit, and 100 per cent of that is built here in WA, and the private sector partners do the installations, but the relationship with the customer is through Synergy and the maintenance of the equipment through Western Power, because otherwise they do not get the subsidy. Anybody can disconnect tomorrow. There is no restriction on that.

**Mr D.T. REDMAN:** Part of the minister's earlier response talked about Western Power making a submission to get a battery, for example, included on its RAB, and he said that it might only get part included?

**Mr W.J. JOHNSTON:** Yes.

**Mr D.T. REDMAN:** Can the minister just walk me through how the threshold of the business case still makes the case for Western Power to be able to make that investment?

**Mr W.J. JOHNSTON:** At the moment these are trials and there are 10 of them. We are seeing what happens. There is an expectation that the cost of the batteries will come down over time, and it is fair to say Synergy is still trying to work out exactly what the price points are going to be. There has been quite a high churn of the customers who took the virtual battery space down in Meadow Springs, so clearly, the product being offered at the minute does not meet the customer expectations. That may be because the customers have an unrealistic expectation or because we have not yet settled on the appropriate pricing structure. The expectation is that the other uses of the battery for the energy trading, energy arbitrage, will provide the future. These are trials and we are not completely set yet.

**Mr D.T. REDMAN:** Nevertheless, there is a direct investment from Western Power that is not RAB approved.

**Mr W.J. JOHNSTON:** Yes, that is correct, and therefore, that comes at government expense, if you like, because it means a lower dividend.

**Mr D.T. REDMAN:** Did the minister say that the beneficiary could well be Synergy?

**Mr W.J. JOHNSTON:** Synergy is paid \$70 a megawatt hour for the energy that goes into the battery.

**Mr D.T. REDMAN:** Is that part of the decision on Western Power's part? Is that part of the business case?

**Mr W.J. JOHNSTON:** It is part of the business case.

**Mr D.T. REDMAN:** It is part of a trial business case, but it does not work for Western Power's books, does it?

**Mr J. Thomas:** Ultimately, Western Power will have that network services portion included in the RAB, and the balance can be recovered through other means. In this case there is an arrangement with Synergy for the customer service offering that allows that revenue stream to flow between Western Power and Synergy and help recover the portion.

**Mr D.T. REDMAN:** To be clear, in the examples of the batteries, and most of these are in metropolitan Perth, there has been an investment, part of which have been able to get RAB approval. The other part is a direct investment by Western Power, which is off its balance sheet and affects its dividends back to government. Outside of that, there is an arrangement with Synergy in order to make a broader case that is not within the remit of Western Power's activities.

**Mr W.J. JOHNSTON:** That's correct. The first round of standalone power systems, which were done by the member for Riverton when he was the minister, were done on the exact same basis. It is not that we are favouring the metropolitan area over the country area; it is just that we are trialling this and if it works, we can roll it out. The member cannot expect us to get everything 100 per cent right from the get go. Western Australia has more challenges in the electricity space than any other western country in the world because we are islanded. They say that Hawaii is the same. I am sure the member would be happy for me to go and visit Hawaii to see what solutions it is putting forward! I am not doing that. We are experimenting and they seem to be working. If the price of batteries falls over time, which is the expectation, that will sort that problem out. In the meantime, we are trying to work out what to do with the gap, remembering that the non-RAB approved part of these 10 batteries is not a significant contribution from Western Power. We are not talking about sheep stations at this stage. If we can get the customer-facing element from Synergy right, we can roll them out everywhere, so every time there is a network challenge, we can put the battery in, solve the network challenge and create this other benefit for customers at the same time.

**Mr D.T. REDMAN:** The minister said he was not playing favourites here, but the large proportion of those batteries are in metropolitan Perth. The minister has just acknowledged there is a direct investment from Western Power that is not on its RAB. Yet, in regional Western Australia 10 locations have been identified by Western Power as hot spots in terms of reliability and Western Power has chosen to go to the market directly, not choosing to make any investments directly out of its portfolio, similar to what has been done in metropolitan Perth.

**Mr W.J. JOHNSTON:** Really, this a Western Power question, but I am happy to answer it.

**Mr D.T. REDMAN:** I will pick it up in Western Power if that is the case.

**Mr W.J. JOHNSTON:** It is a misunderstanding of the challenges. This is not a reliability challenge; this is a network investment challenge. If we do not put the battery in, we have to upgrade the transformer. The problem is that the bi-directional flow of the electricity is overwhelming the transformer and if we do not do this, we have to replace the transformer. It is not an analogous situation. The reliability challenges in the country areas are about the long feeders. We have put a battery in Perenjori, we are doing the microgrid in Kalbarri, we are examining a microgrid for Mullewa and down the member's way there is an innovative solution being looked at, but they are different challenges. That is the reliability challenge. If we do not put the battery in, we have to replace the transformer.

**Mr D.T. REDMAN:** It is nevertheless a direct investment that Western Power is making against what its remit is, so it is making decisions and picking winners.

**Mr W.J. JOHNSTON:** No, the member is misunderstanding.

**Mr D.T. REDMAN:** The minister has just made it clear. He said there were direct investments outside of the RAB.

**The CHAIR:** Member, standing orders suggest that we do not engage in argumentative questions, and it is verging on that. Minister, you can choose to answer.

**Mr W.J. JOHNSTON:** Let us say a battery costs a quarter of a million dollars, and the alternative solution costs \$180 000. The problem for a long feeder is tens of millions of dollars. It is not the same. Now, I do not get how come the member does not understand that. It is exactly the same as the non-financial investment made—which I agreed with; I am not criticising it. When the member for Riverton was in my seat, he made a non-commercial decision to invest in the standalone power systems in the wheatbelt and in Horizon's area of coverage, which Horizon could recover, but Western Power could not recover one cent of that investment. It was absolutely the right decision, and we have now changed the act to let it be done. Does the member see what I mean? It was no bigger an experiment. We have to fix the challenge in front of us. The challenge of overwhelming an individual transformer in some suburb because everybody has rooftop solar is completely different to the challenge of long thin feeders in rural zones. To argue that the two things are the same is simply to misunderstand the nature of the electricity system.

**Mr D.T. REDMAN:** I understand the point that the minister is making. I do not agree with it. There has been a decision to make a direct investment against a challenge outside the remit of Western Power under a trial model in Perth. In regional Western Australia the government has chosen not to make any investment, even though some of the technology —

**The CHAIR:** That is an inference, member.

[10.50 am]

**Mr W.J. JOHNSTON:** That is not correct. We should be doing this debate under Western Power, rather than Energy Policy WA, but Western Power put the genset at Mullewa. That is not an approved expenditure from the Economic Regulation Authority; that is just using its money to do a sensible outcome. There is an experiment that Western Power wants to trial—again, let us talk about it when it is here—down the member's way. It is doing a range of innovations. The Kalbarri microgrid carries risks for Western Power. That was a great decision made by the member for Riverton. It is just not correct to say Western Power is only doing these experiments in the metropolitan area; it is wrong.

**The CHAIR:** Further question on this, member for Riverton?

**Dr M.D. NAHAN:** Perhaps.

**The CHAIR:** Well, if it is not I am going to —

**Dr M.D. NAHAN:** I think it is. On page 291—which dot point was member for Warren–Blackwood going for?

**Mr D.T. REDMAN:** The distributing energy resources road map—the sixth one.

**Dr M.D. NAHAN:** One of the problems when changing is that our grid is based largely on coal-fired power stations and the location of large generating units. They are concentrated in the Collie area to a large extent, but outside. Now that we are going to change from that—that is not a question, that is where it is going—the necessary pattern of the transmission system will be changed. In the road map, is the government taking into consideration that our system now is not priced properly? It is kind of averaged and it is concentrated in a certain area. One challenge the government has is moving from this status quo where it has all the networks, to something that is going to be different. How is that priced? It is very important to give signals to the players to develop new infrastructure.

**Ms J.J. SHAW:** There was an inquiry on that.

**Mr W.J. JOHNSTON:** Yes, Kate Ryan was behind it. My point absolutely goes to the question that the member for Warren–Blackwood was asking. We do not charge regional customers the cost of delivering electricity to them.

If we did, they would pay up to 10 times higher than what they currently pay. It is actually the reverse of what the member for Warren–Blackwood was arguing. We are subsidising regional electricity consumers. We do not apologise; that is not a bad thing. We agree with that cross-subsidy. We do not think cross-subsidies are a bad thing; we think cross-subsidies are a good thing. Of course, the more we expose them, the better. We will come to that in a minute when we get into Synergy, and I will explain what we are doing with cross-subsidies in Synergy. It is fundamental; there is a transfer of costs in the electricity system. People who live in Perth pay more for their electricity so that people in Warren–Blackwood can pay less. If we did not have that cross-subsidy —

**Mr D.T. REDMAN:** This is not a leverage argument.

**The CHAIR:** Member!

**Mr W.J. JOHNSTON:** No, it is just a fact. This argument that somehow we are favouring the metropolitan consumers is silly.

**Ms J.J. SHAW:** Minister, I refer to page 291 of budget paper No 2, volume 1. I ask whether, as has been reported for the eastern states, the main grid in Western Australia has experienced a shift in electricity consumption from business customers to households as a result of the COVID-19 pandemic.

**Mr W.J. JOHNSTON:** That is a very interesting question.

**Mr D.T. REDMAN:** Which point are we referring to?

**Ms J.J. SHAW:** Page 291 of budget paper No 2, volume 1.

**Mr D.T. REDMAN:** That is the page, so have we a point?

**Ms J.J. SHAW:** Yes, the third and fourth significant issue impacting the agency.

**Mr W.J. JOHNSTON:** It is the COVID pandemic. To save time, I might just ask Kate Ryan to address the committee.

**Ms K. Ryan:** Obviously, the COVID-19 pandemic has had a pretty profound effect on both health and the economy in WA and around the world. Western Australia, fortunately, has not been as hard hit in terms of cases, but also in terms of the economic impact. The interesting period is during the second quarter of 2020, when we were in the sort of shutdown period in Western Australia. From a whole-of-system perspective, Western Australia did not see any significant impact in demand on its main electricity grid here in the south west, but we did experience some shift, with a reduction in consumption by commercial customers, less than 10 per cent, and around about 7.3 per cent down by larger industrial customers, offset in large part by an increase in consumption by the residential customer base. That is the 8.2 per cent up figure. That has no longer persisted as economic activity has more or less returned to normal, as has demand on the grid, and the market operator now is reporting no significant deviation compared with this time last year. By contrast, of course, in the eastern states we have seen bigger swings, particularly in Victoria, in energy consumption between different customer classes and over a much longer duration. In Victoria, I understand that the residential customer base has increased its consumption by up to 30 per cent, which is obviously a significant shift, largely offsetting a fall in the commercial customer space of 10 per cent or thereabouts.

**Ms J.J. SHAW:** I would appreciate an understanding of the impact on liquid fuels.

**Mr W.J. JOHNSTON:** Again, I will throw to Ms Ryan in a moment. I also make the point that during COVID we stood up a weekly online conversation with the Australian Energy Market Operator, Western Power, my office and EPWA. In Italy and elsewhere in the world there were great challenges in managing the electricity system. Because we had COVID coming up in autumn, it was very difficult for us in managing low loads, so we stood up a weekly meeting to make sure that we were addressing all the challenges around keeping the system operating. I will invite Ms Ryan to make a comment about liquid fuels.

**Ms K. Ryan:** In my role as coordinator of energy, I am the hazard management agency for an energy supply disruption, be it liquid fuel, electricity or gas. As the minister has just mentioned, we initially set up weekly meetings—they have now become monthly—with the sector, not just in the electricity sector but also broadly across the energy sector. We have had an operational group meeting on a regular basis to keep track of the supply situation in all those areas. Liquid fuel, of course, has been an interesting one during the pandemic, with the restrictions in travel. We certainly saw a reduction in demand across Western Australia. Fortunately, there has always been adequate supply. The interesting period has probably been actually as the restrictions have been relaxed and demand has increased again, to make sure that supply has been able to flex again to meet demand. Fortunately, in Western Australia that has continued to be the case right the way through the pandemic. As travel has increased, we have seen petrol and diesel supplies growing to meet demand. We thought there might be some localised short-term interruptions, but we did not find any evidence of any, so that was great. Of course, aviation fuel demand is still down and will remain for some time.

**Dr M.D. NAHAN:** Before we get into Synergy, is the energy policy group looking at fine-tuning alteration or review of the operations of the Western Australian energy market, particularly in the south west interconnected system? Clearly, there are some issues that arise. If so, what are the principles? Could the minister particularly address the issue of pricing intermittency as part of an ancillary service or in that way?

**Extract from *Hansard***

[ASSEMBLY ESTIMATES COMMITTEE B — Thursday, 22 October 2020]

p470b-476a

Chair; Mr Dean Nalder; Dr Mike Nahan; Mr Terry Redman; Ms Jessica Shaw

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**Mr W.J. JOHNSTON:** Great question. The Energy Transformation Taskforce is working on all those issues, and I will ask Kate Ryan to make a comment.

**Ms K. Ryan:** We are looking at some significant reforms to the wholesale electricity market, the capacity mechanism, the energy market and what we are now calling the essential system services, which are those additional services that facilities provide to keep the systems stable. A key principle of the essential system services is a causer-pays approach, which sends a signal to those parties that caused the problems on the power system, including intermittency, to bear some of the cost of that challenge. Through the reserve capacity mechanism as well we have factored in constraints in the system, which sends another price signal to generators not to locate in areas of the grid where they will not be able to get their output at all times, so they need to be aware of that.

**The appropriation was recommended.**

[11.00 am]