

Horizon Power —

Ms M.M. Quirk, Chair.

Mr W.J. Johnston, Minister for Energy.

Ms S. Unwin, Chief Executive Officer.

Mr M. Houlahan, Chief Financial Officer.

Mr J. Thomas, Deputy Director General; Coordinator of Energy, Department of Mines, Industry Regulation and Safety.

Mr R. Sao, Chief of Staff, Minister for Energy.

Ms A. Keogh, Principal Policy Adviser.

Mr J. Stephens, Senior Policy Adviser.

[Witnesses introduced.]

The CHAIR: This estimates committee will be reported by Hansard. The daily proof *Hansard* will be available online as soon as possible within two business days. Questions must relate to the operations and budget of the off-budget authority. I will allow as many questions as possible. Questions and answers should be short and to the point.

A minister may agree to provide supplementary information to the committee. I will ask the minister to clearly indicate what information they agree to provide and will then allocate a reference number. Supplementary information should be provided to the principal clerk by noon on Friday, 2 June 2023. If a minister suggests that a matter be put on notice, members should use the online questions on notice system to submit their questions.

I give the call to the member for Cottesloe.

Dr D.J. HONEY: Thank you, chair. I did not manage to get a break over lunch today, so I am a little slow.

I refer to page 800 of budget paper No 2 and the customer satisfaction ranking, which is obviously measured by an annual survey. First, can the minister explain how that survey is conducted? It is in the top table, “Outcomes and Key Performance Indicators”.

Mr W.J. JOHNSTON: I ask Stephanie Unwin, the chief executive, to reply.

Ms S. Unwin: The surveys are typically conducted by phone, but also by other media such as online surveys.

Dr D.J. HONEY: I note the target of 70 per cent. I have had a chance to look at customer satisfaction with other agencies and bodies during this process. People are typically looking at satisfaction of 90 to 95 per cent, and they seem to have achieved that. I am wondering why that target of 70 per cent was lighted upon and whether it is not ambitious enough, given what other agencies seem to achieve.

Mr W.J. JOHNSTON: There are only two electricity companies governed in Western Australia, so I do not know how we can benchmark Horizon and Synergy against, say, the Department of Finance. They are completely unrelated entities. The satisfaction of the education department is probably very high, but that is because it does not send bills to people. Horizon Power is an organisation that sends people bills that demand money from them, so it is understandable that the satisfaction profile is going to be different.

Dr D.J. HONEY: Better than Health!

What are the principal areas of dissatisfaction with the service, given that it is a reasonably significant body of people?

Mr W.J. JOHNSTON: I ask Stephanie Unwin to reply.

Ms S. Unwin: The typical causes of dissatisfaction relate to the high cost of energy bills. It is not the unit rate, but the actual consumption in very high temperature towns. Some dissatisfaction would relate to outages through to adverse weather events—the periods when customers are out of energy.

Mr W.J. JOHNSTON: Can I make a comment about that? First is the price. For the highest cost town that Horizon serves, the cost of producing electricity is \$2.70 a kilowatt hour. At the last election, the Liberal Party had a policy to say that there would not be a subsidy, so people would have to pay the actual cost of energy. That would have seen a 1 000 per cent increase for some people in Horizon Power’s footprint. We have a uniform tariff policy, so everybody pays the same. One of the challenges for electricity consumption that is known around Australia is that our houses are not very energy efficient. I congratulate the new federal government on finally closing in on the building energy efficiency standards, which have been hanging around for six years, from back when I was the Minister for Commerce. That is finally being implemented and that should reduce people’s consumption over time.

Similar to what we talked about in Synergy, Horizon also has a team of people working with customers in hardship to try to help them reduce their bills. The best way to help people in hardship is not to give them a hardship utility

grant, but to reduce their energy consumption. The last government just used HUGS as a way of papering over all the problems. We are trying to address and solve the problems.

Dr D.J. HONEY: In relation to customer concerns about the organisation, have we seen an improvement in the number of total hours of power outages over the last year, or has that deteriorated?

Mr W.J. JOHNSTON: Horizon is a vertically integrated entity. It is not like in the south west, which has a gentailer plus a network business; Horizon runs everything. Each of its communities has 38 separate microgrids. They each have their own challenges and therefore their outage profile is different. They are not related to each other. Some will have a good time and some will have a more challenging time, depending on the circumstances in each of those different communities. It is a bit harder than it is for Western Power, because there are completely separate communities.

Dr D.J. HONEY: I appreciate that, but surely there must be an ability to aggregate the number of hours of outages for customer, for example. That would be a straightforward calculation.

Mr W.J. JOHNSTON: There is, but again, this is one of the challenges we are looking at. I am getting away from Horizon, but back when members opposite were in government, Western Power always reported averages. However, averages hide the challenges of individual locations. The point I am making is that an average for Horizon is almost meaningless, because there are 38 separate microgrids and each has its own performance challenges. An average does not tell the real story, because the real story is what individual customers experience.

The CHAIR: Member for West Swan, is that a further —

Ms J.J. SHAW: Swan Hills.

The CHAIR: Swan Hills. I am sorry.

Dr D.J. HONEY: She is going to make the move one day!

Ms J.J. SHAW: I sit next to you, chair!

The CHAIR: I know.

[2.40 pm]

Ms J.J. SHAW: I would like to discuss the climate change policy under paragraph 8 on page 798 of budget paper No 2. I congratulate Horizon Power for doing some genuinely world-leading innovation and sandboxing of some absolutely incredible sustainable energy options. I am not being biased—I used to work there many years ago! Horizon Power has set a very ambitious carbon emissions reduction target of 80 per cent by 2030. How is Horizon Power looking to deliver on this ambitious target?

Mr W.J. JOHNSTON: It is a very good question. I invite the chief executive officer to comment, because I know that she is very passionate about Horizon's improving carbon profile. I know that she has great ambitions, on behalf of her business, to see it do even better.

Ms S. Unwin: First and foremost, we either have a series of power purchase agreements with independent producers or we use our own generator. Each town has an end-of-life profile. Our recent success in Esperance took that town from about 80 or 90 per cent thermal energy to 50 per cent renewables. That was done through a combination of solar and wind farms with a backup battery. That idea now needs to be rolled out across each of our systems as those PPAs roll off. Our next one is Exmouth, which is due to expire in 2024. We have a proposal and we are in commercial discussions to settle for an 80 per cent renewable solution in that town. That will be exactly as described for Esperance, but with a higher penetration of renewables. For each of those, a series of approvals and the like need to be taken through their natural course, particularly with the land in the local shires—a considerable amount of our effort goes into acquiring land. Essentially, that is the process. We take each town, look at its renewable content and then work out, based on the age of the assets and the profile of the town, how we can then deliver 80 per cent. The next project of magnitude after Exmouth will likely be Broome.

For a bunch of other high-cost diesel towns, we really look to the customer to do a lot of the heavy lifting. We really try to encourage rooftop solar, which we will then manage through what we call our distributed energy resources management system to enable all that little stuff to play with our centralised system. That is how we are trying to do it. At the same time, the idea is to minimise the overall cost by going after the biggest emitters first and in the right order.

Dr D.J. HONEY: It seems that getting to a 70 per cent reduction in emissions with renewables is not trivial, but it is reasonably straightforward. However, going the additional 10 per cent or so seems to be the really hard nut to crack. Is the minister confident that Horizon will achieve the full 80 per cent reduction required by 2030? Is the agency confident that it will do that, or is it going to be difficult?

Mr W.J. JOHNSTON: There are two issues there. One is the carbon emissions and the other is the question of renewable content. They are not quite the same thing. Generally speaking, people think that 80 per cent renewable is achievable under current technologies. It is the last 20 per cent that is the problem. Achieving that usually gets to

what is actually needed out of the carbon question. Of course, the other thing is that if we put 80 per cent renewables in a diesel town, it will lead to a bigger reduction in carbon emissions than in a gas town, because a gas town has less carbon emissions. There is a balance to get what is needed out of the business. Look at the Denham trial. It was a great innovation. It was a world-first use of a hydrogen electrolyser and fuel cell in an electricity grid. That is the sort of thing that we are doing. The other thing we are doing is zero refusals for rooftop solar. I ask Ms Unwin to make further comment about the technology being looked at for these solutions.

Ms S. Unwin: In reference to zero refusals for rooftop solar, it was really important in our footprint that we enable all customers who want to put solar on their rooftops, big and small, to have the opportunity to do so. Our challenges are quite different from the south west interconnected system. We typically have only one or two generation opportunities. Keeping that system stable is really important. In order to do that, we have a DERMS platform, which I spoke about earlier, that we trialled in Onslow. We have been supported by the state to roll that out across our footprint. That will enable us to see the demand that is required to keep a town running, look at the supply that is available to meet it, adjust that based on the weather that we can forecast and bring into the mix, and also deal with all the small customer-related distributed energy. We are trying to create a way to have all those pieces operating at the same time for a reliable system. For each of the towns in which we have rolled that out, that has enabled us to say yes to any customer who would like to connect their rooftops. We will do that progressively over a period of time, because we need to get the installers lined up and ready to go to make sure that it works with what is often a limited supply pool. That is the technology that enables us to do it.

That does not mean that a customer will not be curtailed ever again. From time to time, we will still need to manage the system for reliability and ask ourselves, as well as our customers, to throttle down the amount of generation to keep the renewables running and the whole town reliable.

Ms M.J. DAVIES: I refer to the asset investment program on page 801 of budget paper No 2, volume 2, and to paragraph 3, under the heading “Energy Storage in Regional Towns”. I suspect it crosses over with some of the things that we have been talking about. I am specifically asking about the shifting of the—what is it?

The CHAIR: The two batteries were moved to Halls Creek and Fitzroy Crossing.

Ms M.J. DAVIES: It is the shifting of the BESSs—the battery energy storage systems—in Gascoyne Junction and Menzies to Halls Creek and Fitzroy Crossing. When the minister talks about substantial upgrades, what are we talking about? Are they still on the list? Will they be on the list in the near future?

Mr W.J. JOHNSTON: The member for Vasse asked a question on notice about the rollout of the BESSs that was announced a few years ago. We are rolling them all out. However, for technical reasons that I will get Ms Unwin to explain, we had to shift some. It is not because we choose not to do it there; for a range of reasons, we were not able to deploy the BESS to that town. We are deploying it to a different town. I will let Ms Unwin explain some of the challenges. Each town is different. There are different demand and generation profiles and different PPAs. If there is a minimum demand on the PPA, it can often cost more than it needs to if it is put into the wrong town at the wrong time. I ask Ms Unwin to explain.

Ms S. Unwin: There were two main reasons why we moved the batteries from Gascoyne Junction and Menzies up into the Kimberley to Halls Creek and Fitzroy Crossing. Both those towns in the Kimberley were fast approaching what we call our hosting capacity limit, which is the ability to say yes to rooftop solar. It was felt that there was more utility in providing that opportunity to customers in the near term. The second very difficult technical challenge we had was about the information technology and operational technology systems. We have operating technology that enables us to control the BESSs. Based on the existing technology in Gascoyne Junction and Menzies, the upgrades needed were very significant and nearing \$1 million per battery, which made it quite an uneconomic decision compared with the benefit we could get in the other two towns. We want to go back and revisit how we can get a better technology solution for a lower cost, which will then make the battery a more viable outcome for those two towns. However, at this point, they do not need hosting capacity; they are in fairly good shape from a customer perspective. That is why that preference was made.

Ms M.J. DAVIES: That work is underway. How long will it be until we see that alternative solution realised?

Mr W.J. JOHNSTON: Horizon has a very detailed understanding of all the communities it operates in. It has short, medium and long-term plans for each community. As the CEO just pointed out, when there is no hosting challenge at a location, the pressure for the battery is smaller. In terms of the cost for the consumer, it is exactly the same, because we have the uniform tariff and the government absorbs the higher cost, not the consumer. Eventually, all these towns will have more dynamic electricity systems, but the exact timing is an operational issue and Horizon Power will come to me each time it needs to make a decision. Using Exmouth as an example, the preferred provider organisation agreement is coming to an end. Horizon has engaged with the commercial side and with the community. It has come up with a plan and is taking advantage of the learnings it had at Onslow with the new technology available and the ambition to reduce carbon emissions at the same time as wanting to have zero refusals, and it is coming up with a technical solution that works in that location. We will continue to do that for all our

communities over a period and at the same time we are also rolling it out in 115 remote Aboriginal communities, plus the standalone power system rollout in the Horizon footprint, which is obviously much smaller than the Western Power rollout, but very significant nonetheless.

[2.50 pm]

Dr D.J. HONEY: Whilst the minister mentions that, I refer to page 801 in budget paper No 2 and the standalone power system rollout. The government had what I thought were pretty ambitious targets for that standalone power system.

The CHAIR: Question please.

Dr D.J. HONEY: The question is: did Horizon Power achieve its target in the last financial year for the rollout of those standalone power systems?

Mr W.J. JOHNSTON: I will ask Ms Unwin to let the member how she is going and what our expectation in the future looks like as well.

Ms S. Unwin: In the last financial years we installed an additional nine SPSs in our footprint. It is important to note that for the Horizon Power footprint we cannot do that automatically. Until there is regulatory change, we need to sign up every customer as prerequisite and get their consent before we can move ahead. We have another 45 customers signed up and 43 site layouts completed. That now means we can install the rest of the SPSs under that program because we have those in place. Definitely a limiting factor for our speed to execute has been the need to get every individual customer to say that yes, they are happy to move off, in a sense, an overhead to an SPS. That is quite a body of consultation and work to get done.

Dr D.J. HONEY: What was the target last financial year?

Mr W.J. JOHNSTON: There is not an annual target; it is a total target of 50. Western Power is the one with the biggest effort in the SPSs.

Dr D.J. HONEY: Just to be clear on those standalone power systems, is each power system for an individual property or are some for aggregated properties?

Mr W.J. JOHNSTON: Each customer is separate, but we might need more than one SPS in a location.

Ms J.J. SHAW: I refer to paragraph 6 on page 798, the “Esperance Energy Transition Plan”. Obviously this was triggered by the withdrawal of services of ICG from the market, but is also an example of the electrification of a township, which is so important as we transition. Can the minister give us an update on the progress of the Esperance community energy transition plan?

Mr W.J. JOHNSTON: I certainly will. I will ask Ms Unwin to talk on it in detail. It has been quite a success. It was forced on us; it was not like we chose to do it. Interestingly, 93 per cent of customers were satisfied on the project and 95 per cent answered yes to the question, “Was the application process straightforward?” It was highly regarded by the people in Esperance. Interestingly, we are the first place in Australia to transition away from natural gas. It would not be my first option as 850 000 gas connections on the ATCO system would cost about \$8.5 billion. If we had \$8.5 billion to spend on decarbonisation, it would not be on the top of my list. On the other hand, there might be other ways to decarbonise the gas network. I notice that the United Kingdom is seeing whether it can use its existing network for zero carbon gas; we will see whether that is a better pathway. I invite Ms Unwin to talk about the customer experience and how everything has gone down there.

Ms S. Unwin: The customer experience on the Esperance transition plan was very, very satisfied—93 per cent was an extraordinarily high satisfaction rate. We found that, logistically, even with a burning platform of an end date within one year when the gas was going to be cut off, there was a huge reluctance for people to move through a process to switch out their appliances. In effect, it meant that our project team, which we relocated to Esperance in order to do this work, had to really handhold every single individual customer through the process. We also went to great lengths to ensure we had local trades lined up ready to do both the gas parts of the electrification work, so ending the gas network and the meter, and then installing the electrical appliances, as well as making sure we had the local appliances ready to be ordered locally from businesses.

As of 31 March, I think we had all but four customers transitioned. The only customers who were not transitioned had either made a choice that they were awaiting a particular specialised appliance, or for reasons around the grain companies and wanting to wait out the final parts of gas in order to use their grain-drying equipment. We have had a very, very successful project and we came in under the budget that was allocated to us with all our customers at the moment expressing great support. We hope we can provide a report on this in due course.

There are quite recent reductions in their energy bills as a result of them moving to electrification, sometimes in the order of about 30 per cent. We are looking forward to the report to see whether the data accords with the initial views of customers.

Dr D.J. HONEY: I refer to page 803 of budget paper No 2 and the Denham hydrogen demonstration plant. I am interested to know how that has gone and what is the maximum time that that system has been able to sustain itself based on the backup of the fuels cell into that system.

Mr W.J. JOHNSTON: It is not intended to have the town 100 per cent supplied by hydrogen; it is only for 100 houses.

Dr D.J. HONEY: For those 100 houses, then?

Mr W.J. JOHNSTON: Yes, but they are embedded in the system. It is the demand for the 100 houses, not 100 specific houses, if the member sees what I mean. It has been quite successful. I will invite the chief executive to make further comments, because I know that Stephanie is deeply engaged in the future of hydrogen.

Ms S. Unwin: The Denham hydrogen plant has been a world first in terms of using a fuel cell to bring a hydrogen-based storage solution into the distribution network. It has been extremely complex. One of the challenges we found was the integration of what are mature technologies by integrating them into a whole-of-system approach. The electrolyser itself has performed at about half of its capacity for some of the time, not because of a technology problem, but because it had a water leak. I understand that that is being fixed at the moment and will be in full service by July. Prior to that, we were getting full service from that straight out of commissioning. The idea is that that serves about one-quarter of the houses in Denham. We have a lot to learn out of this project about how reliable a source of storage can be using hydrogen. One of our most critical questions that we need to answer is where would we put these based on the skills and capabilities to deal with problems; hence, thinking about these for our very remote very far away communities is quite a challenge for us. We would really like to see Denham have about a year or two in full operation to then understand where would we go next and where does it make sense, based on its operating profile and how we service it.

The CHAIR: That completes the examination of Horizon Power.

[3.00 pm]