

ECONOMICS AND INDUSTRY STANDING COMMITTEE

INQUIRY INTO MICROGRIDS AND ASSOCIATED TECHNOLOGIES IN WA



**TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
MONDAY, 18 JUNE 2018**

SESSION THREE

Members

**Ms J.J. Shaw (Chair)
Mr S.K. L'Estrange (Deputy Chairman)
Mr Y. Mubarakai
Mr S.J. Price
Mr D.T. Redman**

Hearing commenced at 11.34 am**Mr IAN LEARMONTH****Chief Executive Officer, Clean Energy Finance Corporation, examined:****Mr SIMON BROOKER****Executive Director, Clean Energy Finance Corporation, examined:****Ms SAMANTHA TOUGH****Non-Executive Director, Clean Energy Finance Corporation, examined:**

The CHAIR: On behalf of the committee, I would like to thank you for agreeing to appear today for a hearing for the committee's inquiry into microgrids and associated technologies in Western Australia. My name is Jessica Shaw and I am the Chair of the Economics and Industry Standing Committee. I would like to introduce the other members of the committee: to my right is Yaz Mubarakai, member for Jandakot; to my left, Deputy Chair Sean L'Estrange, member for Churchlands; Stephen Price, member for Forrestfield; and Terry Redman, member for Warren-Blackwood. It is important that you understand that any deliberate misleading of this committee may be regarded as a contempt of Parliament. Your evidence is protected by parliamentary privilege. However, this privilege does not apply to anything you might say outside of today's proceedings.

Ms TOUGH: Jessica, thank you very much for inviting the Clean Energy Finance Corporation to be here and to talk in front of the committee. Ian and Simon have just landed here from Sydney. Because they regard this as being important they decided that being here face-to-face would be more helpful.

The CHAIR: Thank you very much for that. I appreciate that it is quite a trek and is very disturbing of sleep patterns in particular! We really do appreciate you making the effort to come across; it is greatly appreciated. Before we begin with our questions, do you have any questions about your attendance today?

Ms TOUGH: No.

The CHAIR: Would you like to make opening statements?

Ms TOUGH: We have some very short ones, just to give you a bit of context. I will refer to the Clean Energy Finance Corporation as Clean Energy, otherwise it gets a little long and wordy. We have some preliminary comments, and then you can ask questions on the back of that. My role here today is just to give you a bit of context. Clean Energy, as you may be aware, invests debt and equity to increase the flow of finance into the clean energy sector. It is essentially a \$10 billion Federal fund that was set up less than six years ago, and to March 2018 it has nationally made around \$6 billion in cumulative commitments, contributing to projects with a total value of over \$19 billion.

In Western Australia, Clean Energy has committed \$34 million in finance towards projects totalling more than \$500 million. A couple of examples include a \$15 million commitment towards a 10-megawatt solar plant, with six megawatts of battery storage at Sandfire Resources' DeGrussa copper-gold mine in the state's north. This is an important example for this Committee because it demonstrates the significant potential for off-grid renewables in regional and remote Australia.

In addition, Clean Energy recently made a cornerstone commitment of \$US15 million—approximately \$AUS19 million—towards a \$US100 million senior, secured, bond issued by

Pilbara Minerals. The Committee will appreciate that Pilbara Minerals is one of our key players in the supply of lithium to battery manufacturers. Clean Energy sees the lithium proposition in Western Australia as very important. We continue to have discussions with both Pilbara and other players about the role Clean Energy could play in helping to develop what I think is now colloquially known as “Lithium Valley”.

There is a further pipeline of projects in Western Australia looking at more than \$600 million in finance for more than \$2 billion in total project value. They range across grid infrastructure, community housing, property and energy from waste, as well as large-scale wind, solar and storage. I guess that is one of the things to appreciate—the gamut of projects that Clean Energy finances; it is not just renewables, it is the build infrastructure, agriculture and the like.

Part of Clean Energy is a \$200 million innovation fund, which is particularly focused on emerging technologies in distributed energy resource management. We have made investments with companies such as Redback Technologies, Thinextra and GreenSync. As Clean Energy continues to demonstrate successfully across all jurisdictions in Australia, we are definitely very interested in continuing to work in tandem with Western Australia-based proponents and the government to assist in leveraging a positive energy outcome for Western Australia through financial deployment of capital.

I think this is a good point for me to now hand over to our CEO, Ian Learmonth.

Mr LEARMONTH: Thank you for that, Sam. It is a pleasure to be here today. To open, Clean Energy Finance Corporation invest in renewable energy, energy efficient investment opportunities that have an energy efficiency angle and low emissions technology, so it is quite a broad remit. Microgrids, of course, are of interest to us and we see them as an important opportunity to make our electricity system cheaper, cleaner, more reliable and more resilient.

Remote microgrids at mines or rural sites or on islands can help to reduce fuel consumption, particularly diesel, and integrate renewables and storage. Grid-connected microgrids are usually installed to ensure that sites—particularly, say, resources sites—can continue to operate when the main grid experiences an outage. They can also help to manage on-site demand and integrate multiple energy sources, including on-site renewables. We expect and anticipate that the cost of solar and storage technologies will continue to decrease. As we have seen, prices have been tumbling over the last five years in particular. Industry participants are becoming more familiar with how to integrate these solutions into our energy delivery systems. We expect that lower cost and greater experience with the solar, storage and integration technology will drive a more competitive price outcome for the residents of Western Australia, as well as the businesses.

Despite this, we acknowledge that projects in the microgrid sector, at a commercial level, can experience a challenge with scale when it comes to bankability. We see that the average microgrid in Australia is only 1.7 megawatts. That might only be \$3 million to \$5 million, so the financing of that has to be considered in the light of that scale. To overcome this, it is important that projects are aggregated to reach scale and we see this as part of our role. We would be happy to continue to play that role. We are also looking at microgrids in the residential sector—virtual power plants and so on—and we are working in other states on those initiatives. We are very happy to talk about that today.

Meeting the energy challenges of the state presents a significant opportunity for investment for our organisation. We see microgrids as a potentially important component of Western Australia’s energy transformation and we look forward to working with the state on these opportunities. Thank you.

The CHAIR: Thank you. An amount of \$34 million in a \$6 billion total spend so far strikes me as an extraordinarily low level of investment in Western Australia. Why is it that we have not tapped the CEFC as a resource here in Western Australia?

Mr LEARMONTH: There are probably a few reasons for that. My colleagues will no doubt add to this. Part of it is the dynamics of the market, particularly when you have government-owned major players like Synergy and Western Power that have been key participants in the development of renewable energy here. In other states we have been financing a lot of large wind and solar projects with independent developers unrelated to the major power companies. In many cases they may or may not have off-take agreements. We have financed them particularly where they do not have off-take agreements. We try to fill gaps in the market. Partially because of that, we have not seen as many large-scale wind and solar projects in this state. We financed one, as we said, with Sandfire Resources, but we are working on some very large projects as we speak, particularly in the waste-to-energy sector here. We have been talking to a lot of your players, like Horizon and others, for many years and we are very optimistic about deploying a great deal more capital here over the coming years. But it is probably been the market dynamics that have been responsible for a fairly muted need for us to date.

The CHAIR: But who identifies that need? Do the companies proactively engage you and say, “We’ve got a project”? How does the CEFC’s funding come down if you are not having approaches made to you by the GTEs or by IPPs or by whoever is out there?

Mr LEARMONTH: We do have that. Corporates here in the west or wind–solar developers are all aware of our presence, even though today we do not have an established office here. They would approach us. We are working on some solar projects as we speak—30 megawatts just south of Perth with a corporate offtake from a lot of the power with one of the corporates here in WA. Yes, they very often would come to us. We also, of course, strategically come to Perth from time to time and we make strategic visits to the right players. Of course, we now have a resident director here, which is helping with our business development activities.

Ms TOUGH: I have been doing a lot of work just getting around the various industries to make them aware. I think you are aware that we have a different energy market here to the east coast so the penetration of large-scale renewable projects, particularly wind and solar, has been problematic. Where I think our opportunities in the state lie are in other renewables like the waste-to-energy. The two biggest projects Clean Energy are looking at in Australia sit here; “Lithium Valley” sits here. We need to look a bit more strategically about how to access these funds.

My role here is sort of ambassadorial. I get around as much as I can. I am very familiar with all the industry sectors here, so that is what I spend my time doing. There is a commitment from Clean Energy to establish a more permanent base and find the right person for that role. But, Jessica, it has not been for want of desire; it is a different market, but that is going to change. Over the next couple of years, I think the position in Western Australia and the Northern Territory—so, on both sides of the country—will look a bit more balanced. It is definitely a national fund and it is up to us here in Western Australia to ask ourselves how we can use it, as opposed to the other way around. Part of my role is getting all of us here in WA, no matter what industry we are connected to, thinking strategically and laterally on how we can access the Clean Energy Finance Corporation fund.

Mr D.T. REDMAN: You have probably part answered this; I was wondering how much your operating remit and scale—your thresholds of scale were factors in the Western Australian piece of this, and the other one was participation in the NEM as distinct from being a relatively isolated system in Western Australia of energy distribution?

Ms TOUGH: Sorry, what are you asking?

Mr D.T. REDMAN: In respect of Western Australia's share and not getting many projects on the ground, how constraining was the operating remit of your organisation?

The CHAIR: Do you have any constraints?

Mr LEARMONTH: No.

Ms TOUGH: No, none at all. It is actually just the nature of the market—the ability for large-scale renewable projects to be attached to the grid here in this state as opposed to the east coast, and just the knowledge of various sectors here. I have been surprised over the year that a lot of people do not quite understand what Clean Energy is about and thought it was wind and solar. They did not appreciate that the Clean Energy Finance Corporation can invest across the entire value chain of energy efficiency. No, there are no operating restraints. There are no parameter restraints. In fact, I have had it reinforced—we have, at board level from Josh Frydenberg—that this is a national fund. Part of investing in people like myself, an office and coming here is to reinforce that this fund is there and it is up to us to look at how we can take advantage of it.

Mr D.T. REDMAN: Are there no scale constraints, because you talked about the importance of scale?

Mr LEARMONTH: With scale, because we are kind of a wholesale fund, in a sense, and most of the transactions that we do as Clean Energy we will do bilaterally, we will do a direct deal with a proponent—a project for example. They would normally be \$15 million or greater up to \$200 million. That has tended to be the scale. For deals smaller than that, so a small business might want to put solar panels on their factory roof or whatever it might be, we have worked with financial intermediaries like the banks particularly. Many transactions in the west have been done through what we call aggregation partnerships. They would be with CBA, NAB—the banks—or some of the automotive finance companies where we would provide a cheap, wholesale loan to an organisation like NAB of \$200 million at a reduced interest rate as long as it was used for a particular asset, as I say, like solar panels or batteries for example for small businesses or in agriculture, whatever it might be. They have to pass on that saving to the prescribed list of assets that are financed. That is a way of reaching smaller scale investment. Certainly, if there were opportunities that were less than \$10 million or \$15 million here in the West, we would hope that we would pick them up through those channels.

Mr D.T. REDMAN: How big is the incentive?

Mr LEARMONTH: It is about 70 basis points.

Mr D.T. REDMAN: Is that the differential?

Mr LEARMONTH: Yes.

Mr S.K. L'ESTRANGE: So it is up to the clean energy supplier in Western Australia to go seek you out for funding support; it is not you trying to promote something into Western Australia?

Ms TOUGH: It is very much both ways.

Mr S.K. L'ESTRANGE: With it being both ways, is there a priority or is there a plan which shows the priorities for Australia and where Western Australia sits in that priority?

Ms TOUGH: The short answer right now is no. We want to move to a more strategic approach to Western Australia because the opportunities on this side of the country do not quite look the same as they do on the east coast. It is one of the things of working together with the executive team and the reason I go to as many meetings as possible is to assist them with that thinking. Again, I reinforce that things like "Lithium Valley" and aggregating microgrid opportunities are the sorts of things that the Clean Energy fund would look at.

The CHAIR: What about the enabling technology? If there was a bit of a gap—say we had a smart meter rollout, but no capital available to invest in the communications technology, or the IT smarts to make sure we could maximise the opportunities. Is that the sort of thing? It sounds to me like there is an incredible breadth of projects that you could potentially look at. What are your criteria? Could you give us a bit of sense of the criteria for investment?

Mr BROOKER: What we are looking for is offtake or a market that we can sell a product into if an offtake does not exist. For example, half of our targeted portfolio has to be in renewable energy generation. I think I was here in the second week of the CEFC being in existence and we were looking at Greenough stage 2. We were also looking at a solar project near Kalgoorlie at the time. One project was able to be done with the existing owner and the other project needed an offtake. So we are very much reactive to: is the project proponent able to secure an offtake for the energy or the service that we are being asked to finance? In some respects, that can be difficult if the only offtaker either is not prepared to sign or has different strategic objectives.

Certainly, over the years, we have looked at a number of projects including smart meters, confidential on an opportunity. I think there is a willingness to put our capital to work in the State, but it is important that, for the sake of the federal taxpayer, we have a solid and defensible basis upon getting our capital back. Usually that is either a deep market that we will take merchant risk in in the National Electricity Market—a bit of a misnomer sitting here in WA, of course. We will take merchant risk in the NEM because it has a deep liquid market to offlay our exposure to the extent that we are not contracted.

It is a little bit more challenging in this State, but, having said that, we have looked at a number of interesting opportunities. We have done the microgrid project for the mining—there is a tremendous untapped mining opportunity in this state. One of the reasons I think it has been difficult to break through that, again, some key actors are important in terms of their attitudes towards and confidence in the technology. It is not unfounded to tread carefully when your mining operations are dependent on reliable, secure power and you are doing the first of something. The Sandfire project for us was very important, and it had its teething issues to get to the line for a bunch of reasons. Now that it is there and it is performing, hopefully it will lead to other projects.

We have looked at and had detailed discussions around the opportunity in the small IES sector—the small, independent communities: how can we serve them better? The technology is moving and the cost structure is moving in the way of more innovative solutions, but, at the end of the day, what we have to find a way to do is package that up from a profile of a revenue stream we can get repaid, a risk profile that works for everyone and it is getting aggregated at scale. I think mining is a tremendous opportunity.

I think, as Sam said, if we are looking a little bit more outside the renewable generation sector, you get into community housing, for example. There is a massive opportunity there. We are doing some really interesting work on the east coast with social housing providers. We are putting in solar and battery smart meters. We found that in the St George trial, of the homes that we kitted out with this equipment, their energy consumption was reduced by 70%, so there was a significant win there. Would love to do something in this state on that scale.

Where I am seeing solar and battery storage going in terms of pricing is really going to be very significant. Already, we have seen prices probably halve in the last two to three years. For example, there was a microgrid trial on Bruny Island off the coast of Tasmania. It has a significant summer peak load when all the holidaymakers turn up. They were facing a potentially significant network investment in the connecting cable. So they thought and said, “Why don’t we look at solar battery storage, and, importantly, trial a technology that would optimise the use of that equipment so that

surplus solar could be shared with other households, and storage could be shared and optimised to help the network as well?”

Mr D.T. REDMAN: Who is the proponent on that project?

Mr BROOKER: It is interesting; it is a joint venture between a few folks. It is ARENA-funded. From memory, it has TasNetworks, the University of Sydney, ANU and I think the University of Tasmania as well—UTAS. Each of these proponents brought different pieces of intellectual property to the proposal, and importantly Reposit brought a software layer to glue all this together. So third-party providers put the battery and solar in. Reposit put in the communications box that linked this technology together. ANU had developed an algorithm, I think, to work out how to charge and discharge the battery to protect the network, then there was a piece of software being developed by one of the other universities to help manage this whole place. I guess I am making the reference here only to initially point out that when they did the trial, these batteries cost—it was a \$22,000 investment and it is half that today. It was only in 2016–17 that these pieces of hardware were going in. It may well be that there were additional pieces of equipment, perhaps, or issues around the installer network not being as developed and for whatever reason, that made it more expensive than we would see today on the mainland, but I just make that point that the technology cost is coming down dramatically.

Of course, the point of the trial is the software layers; it is all about digital at the end of the day. The hardware is going to come down in cost, but the point about microgrids is orchestrating all this stuff behind the meter and presenting it in a way that the grid can cope with. Do I charge? Do I discharge? What am I doing with my solar? What am I doing with my loads? That is where the software layers are obviously incredibly important. The comms layer is very important and that is what these trials are helping to take the rough edges off.

Coming back to WA, one of the issues in many of these mining projects is: “I have diesel gensets there. I would like to put some solar in. How do I ramp the diesel off or ramp the diesel up in a way that copes with solar intermittency? If I put a battery into the mix, how does the battery communicate with the solar, communicate with the storage?” We backed one of the very first of these projects—refinanced—one in the Northern Territory called TKLN, which was a remote community. We actually probably learnt firsthand the challenges of doing small projects because it was a relatively small investment for us—seven megawatts. They are just as complicated as the big ones. It did show firsthand also the particular issues that we needed to think about when we are going into small communities and how these technologies interrelate. The opportunity is going to be there to really take this technology out into the market. Out of these pilots, people get experience and it will get easier and easier and easier but it is still early days.

Mr D.T. REDMAN: Do your finance arrangements always go with the private sector? In the Bruny Island example, is there a state-owned network that has a share?

Mr BROOKER: That is a good question. In that particular trial, our sister agency, ARENA, was the right agency for that job because it was probably —

Mr D.T. REDMAN: So it was a grant?

Mr BROOKER: It was a grant program to get it going. Of course, as they come out of that trial and it looks to be working and they want to scale it up, that is when they should be chatting to us. There is an overlay about —

Mr D.T. REDMAN: You said that “they” should be chatting to you; who is “they”?

Mr BROOKER: For example, TasNetworks.

Mr D.T. REDMAN: That is state-owned?

Mr BROOKER: It is state-owned. If they are unable to borrow, that is sometimes an issue for the borrower. Are they allowed to or is it appropriate?

Mr LEARMONTH: In some cases we would; for example, [redacted] —

Mr D.T. REDMAN: An organisation like Western Power or Horizon?

Mr LEARMONTH: It is possible. And Horizon. We have wanted and discussed and looked at all sorts of possibilities with Horizon. We do not have any preclusion and there is no impediment for us to finance any of the Government-owned or State-owned enterprises. It is normally balanced with their access to capital and what it would mean for a common agency to finance them. It would depend, I suppose.

Mr D.T. REDMAN: Do you know whether it stays off the Government balance sheet? What is your understanding of the accounting treatment of that?

Ms TOUGH: I think that is up to WA Treasury. We do not have a view.

The CHAIR: Can I, just for a moment, explore the concept of monetisation? Obviously, it would seem—and please correct me if I am wrong—but when you make your investments you are expected to deliver a return on those. In order to access that return, as you have pointed out, you need a liquid market or some sort of depth in a market. In Western Australia, as you have identified also, we have a funny market structure. A lot of the potential benefits offered by microgrid technologies and, indeed, traditional energy generation technologies, the value of those things and particularly in the market around provision of ancillary services, there is no way to recognise that value, let alone monetise it. But that is not to say that that is not something that should be looked at in terms of recognising the value of these technologies. It is kind of a chicken and egg thing. If you went through and properly valued these types of technologies and the services and benefits they deliver to the network from a reliability and security perspective, and you had the right signals coming through and the revenue structure, you could then get a return on your investment. Do you see where I am going with that?

Mr BROOKER: Certainly, that was one of the interesting challenges for the Hornsdale Power Reserve and thinking about how it would earn its keep.

The CHAIR: Yes, indeed.

Mr LEARMONTH: Sorry, Simon. Maybe you should explain first what that is.

Mr BROOKER: This is colloquially known as the Tesla big battery.

The challenge of investing, but particularly in storage assets and battery storage to boot, is that it is still a relatively expensive asset with a—let us call it a 10-year operating life, give or take, so you have to get your money back in a relatively short space of time. The asset is an incredibly flexible asset. It can do all sorts of things, but it is often doing its job in a relatively shallow market. A 120 megawatt-hours 100 megawatt battery going to South Australia is going to really squash the ancillary services market. As an investor, you are sitting there thinking, “I am about to write a cheque for \$85 million. I have to get my money back in 10 years. I am not sure the impact of my investment is going to have on the market, but more to the point, someone else could come along later and invest after me in something that is probably cheaper. It is a very dynamic marketplace to be thinking about how to make your returns.

Where, sometimes, these assets have found a way into the market is because they have been contracted. The value is recognised and a contract structure is put in place to pay for them. A contract structure underpinned the delivery of the Tesla battery. The proponents, as I understand

it, took their own views about the piece that they were allowed to trade—what it was worth to them—and formed their view and made their position on that basis. Any kind of arbitrated asset that is sitting in the market—essentially, any asset that is trying to close in arbitrage is eating its own lunch. That is the investing challenge.

The CHAIR: The better it performs, the more it undermines its own business case, right?

Mr BROOKER: That is right. But having said all that, it depends what you are asking a battery—or the storage asset—to do. In many cases in the behind-the-meter setting now, storage will make sense coupled with solar because the customer or the potential purchaser of the asset is comparing something different. They are saying, “I can buy my energy from the grid in Western Australia for roughly 28c per kilowatt hour—in South Australia over 40c per kilowatt hour—or I can invest in solar and have a net liability to pay the grid, or I can invest in solar-plus storage.” That is the economic calculus that is weighed up.

It would be fantastic if battery technology in that context was also enabled to provide other grid services and rewarded on that basis, because it has the potential to provide that sort of valuable service. But it may mean, in any event, that it does not have to. For example, storage right now in South Australia makes sense in the current tariff structure. It will not be too long in WA before I think we will see solar-plus storage making compelling sense here as well. I am already seeing price points in the market that could gain traction here. It would be nice to have ancillary services. It would be nice if this asset was enabled to help the grid, but it may not matter because the economics may well just be sustained, on the consumer side anyway, just for reduced energy prices.

Mr LEARMONTH: Just to add to that, it comes a little bit back to the question about—maybe there has not been as much investment that we have seen in WA as other states. Many other state governments have used price signals and various incentives to drive some of these investments, particularly, as you have said, in Queensland and Victoria, through various initiatives and recently the announcement by the incoming South Australian Government to support 40,000 batteries in the home with up to \$100 million of grant funding. Even though we are seeing that payback period coming into sight for householders around Australia, people still need to be convinced that they are going to get their money back in a reasonable period of time. Something like that, particularly a grant to a home to South Australia, would encourage, particularly at that level, people investing in batteries who may not otherwise do it.

Other states, of course, have had offtake agreements for wind and solar. Victoria has a battery initiative. The South Australia big battery, of course, was a contracting arrangement with the South Australian government that is almost like a capacity payment for having that in place. The balance of the return for the investors, which is the French investor Neoen, was around arbitraging prices at the right time, having drawn down power from the grid during the course of the day when prices are cheap. There are various ways of doing it and adding stimulus to this market.

The CHAIR: Just coming back to the point Terry was pursuing earlier around the appearance of the financing that the CEFC provides appearing on balance sheets. Is that the only way that the money can come down, or would Clean Energy consider taking an equity position in a project and receiving a return as opposed to just providing debt that could potentially appear on balance sheets?

Mr LEARMONTH: We are lucky enough to be able to invest right across the capital spectrum. We do senior debt, corporate debt, sub-debt, mezzanine, pref shares and ordinary share capital. To date, about 85% of our capital has been debt. A lot of that has been project financed—wind and solar projects around the countryside. On the equity side, we have been investing in early-stage companies in this space, putting capital into companies like Redback, a technology company called GreenSync out of Victoria, which has had some success here in WA as well—it regulates demand

management and is a software company that has very sophisticated programs around that, which is very important and is getting uptake around the countryside—and other players across the distributed energy market which, of course, is growing. Australia has, almost on a world scale, a competitive advantage almost to anywhere else in terms of its resources, the homes that it has, and the technology it has available to it. We can do equity, we can do debt and we invest in all sorts of companies.

The CHAIR: If you take an equity position, presumably there is potential massive upside if the project takes off. Your returns will be significant. But if it flops, you could lose your shirt.

Mr LEARMONTH: That is right.

The CHAIR: I want to ask you about what your hurdle rates are. How do you work out whether you will take an equity position, or your preference is that you will just finance—you will just provide debt. How do you work that out?

Mr LEARMONTH: There are so many different things that come our way. With those early stage companies that are in solar technology, for example, or grid technologies, that is what they need. They need equity. They do not want a liability on their balance sheet. They would not be able to deal with that. That is relatively easy. With the larger scale wind and solar projects, very often—it is important for us not to crowd people out—the international development groups are prepared to put their balance sheet on the line and be the equity provider. In many cases, we will provide debt, particularly when they do not have an offtake agreement. We will provide that project finance based on a merchant project.

There are other transactions that we have done where we have been an investor in a fund, so an equity investor in, for example, an agriculture fund. Macquarie launched one last year—a cropping fund. We were prepared to be a limited partner. We had equity in the fund, cornerstoning it, because the wheat, barley and avocado crops that they were all investing in were going to undertake a whole raft of particular energy efficiency initiatives and carbon abating programs that we thought was attractive to us and was consistent with our mission. In fact, that fund has bought a large wheat property in Western Australia. There is another angle which we take. It depends upon the transaction and the opportunity. As we see it, we will decide the appropriate capital from our perspective.

Mr S.K. L'ESTRANGE: In this State—it translates nationally as well—we have the exploration incentive scheme to try to promote exploration investment into future resource projects. One of the resources which is a bit scarce in Western Australia—linked to lithium battery production, for example—is graphite. I am drawing a long bow here, but if somebody was looking for some sort of exploration incentive scheme support, is that something you have looked at anywhere else in Australia or is that well and truly in the mining domain and out of your remit?

Ms TOUGH: Firstly, of itself, Clean Energy has taken position in the resource part of the value chain, like lithium, for example, because it would ultimately contribute to a clean energy outcome; it already has a tick. To the extent that graphite plays in that, yes. I know that exploration scheme quite well because I have a background in the resources sector. I do not know that supporting exploration for the resource—I think that is a step outside of where Clean Energy can actually invest.

A couple of things, I think: Clean Energy is committed to Western Australia. I can say that from sitting on the board. I just think there have been some challenges around the different market structure, how to penetrate with renewables and just knowledge about clean energy. I just wanted to go back and reinforce that point. The other thing is that Clean Energy also looks to fund things that might drive catalytic change, not just standalone little projects. It has to have a bigger impact. Generally,

that is around carbon abatement but the organisation is now even looking further afield than carbon abatement. It could be jobs, it could be creation of an industry, and it could be a creation of a new workforce in energy efficiency.

My observations of this organisation since being involved is they take as lateral and broad a view as possible on what could be the energy efficiency thing. Unfortunately, I think the risks around exploration is probably one step too far and needs to be left to the resource sector. However, if a resource—it may not be a reserve yet—is found and support needs to get there to get to a reserve and, say, the first stage of development, like minerals, a conversation with Clean Energy could well be appropriate.

Mr D.T. REDMAN: In terms of the decision making, there is a lot of competition emerging in this space now for different companies, whether it be technology development or different sources of renewables, or whatever it might be—even carbon abatement strategies where people are competing for a piece of the pie. You are in a position to provide support in a whole range of finance arrangements. How do you work through those competing interests and the potential advantage you may or may not be giving to some parties? You just talked about a sister organisation in ARENA that is funding wave energy, for example. It does not get a good wrap across the broader energy market, yet it is receiving funds. I guess applying principles to your organisation and how you pick the winners, can you give us a run on that, given that it is a very competitive space?

Mr LEARMONTH: I have a few thoughts in mind. We have to be very careful not to overly favour a particular form of technology or a particular participant in the marketplace. That applies to everything. Even in the social affordable housing space, there is another round in New South Wales, where the New South Wales government is looking for proponents to build additional housing. We would provide subsidised or a concessional loan to players as long as they drive energy efficiency, which ultimately is good, of course, for people who live there. In these tender situations, we will get five or six proponents that come to us and we have to establish information barriers and provide fairly even-handed support to them, particularly at early stages, but, ultimately, if things are not commercial, we are not going to support everyone just because we are nice people.

Particularly it applies, I guess, for the technology opportunities that we see. We get a lot of people coming to us. The government asked us some two years ago to set up an innovation fund. We have \$200 million, which is earmarked for these early stage equity-style investments that we talked about—GreenSync, Redback, Thinextra, Internet of things—various companies in this space. The challenge comes a bit back to your point. We get a number of people who come to us who might be making inverters or they might be making batteries. We have to be very even-handed. If we think that that market is still yet to play out, maybe we might have to back a couple of the leading players or someone who we think is the best demonstration model. It is a judgement call at the end of the day.

The CHAIR: In terms of the gating process and the business case development for these things, at what point do you start working with parties? Does someone come to you with an idea and then you mature the project and gate it accordingly through your own internal decision-making processes or do they come to you with a fairly fully formed commercial proposition with a consortia of parties sitting there and they just ask you to kick in the finance? A lot of these companies as well are very young in their own evolution and some potentially have quite a low level of commercial sophistication. Do you help them or not? How does that work?

Mr BROOKER: It tends to filter by projects on the one hand and small businesses on the other, I think, take a slightly different approach. On large projects where the ticket size we are writing is typically \$20 million plus and usually more, reflective of the fact that we are a wholesale finance

fund—there are only about 30 or 40 of us in the investment team, so unfortunately we do not have the arms and legs to consider absolutely every deal. That is why we have this two-tiered approach of smaller deals we put through our partners; larger deals we can look at. When you are coming and asking for \$20 million, you really have to have your proposal together. I think we are more patient than most banks in that we will go on the journey.

If you have seen some releases around, some of the projects our name has been associated with, they are going through a journey to get to the end goal and we will help them with that because I think it is important strategically that we are there. I think we try to take an approach, that says, “If you are coming to ask for federal taxpayers’ money, you really have to have done your homework and put your proposal together.” We will often engage early and give some pointers and say, “This is what you should look at if you want to raise money.”

For example, many of the waste-to-energy projects, we will go through a checklist with them. “These are the sorts of offtake agreements you need to put in place, and the counterparties you need to be working with.” We give them some homework and they will go away and develop the project up a little bit more, and come back to us making progress. Ultimately, when it comes to our credit committee, we have to stand in front of our credit committee and defend the project. We have to be comfortable that we have the answers to what we need to ask for the money.

It is a slightly different approach perhaps with the technology companies because you get a range of people coming to you. At the end of the day, you are often looking to back management smart ideas and an obvious market gap that they are trying to solve for. We looked at 80 businesses last year that came to us—a wide range in the quality of the approach.

You kind of have to play it case by case as to who you think is looking good and who is advancing well and, of course, the deal might reflect the stage of their maturity. It ranges from a Relectrify, which is a battery reconditioning business, where we rate it as a very small cheque and seek capital around with an experienced investor alongside us, to a stake in a well advanced Geelong carbon fibre manufacturer based in Geelong with institutional heavyweight capital around it, in a very different stage of evolution in its business.

Mr D.T. REDMAN: Have you had to write-off any investments, and in your risk assessment are you expecting that you will get to that situation very often?

Mr LEARMONTH: We have had a couple of very small impairments that we have taken—very small—in the hundreds of thousands dollars. That is against a portfolio today, as we say, that is over \$5 billion of committed capital and nearly \$3.7 billion of deployed capital—capital that is actually out the door. Like most financial institutions, we take certain provisioning as we make each loan, depending upon the nature and the risks attached to it. But in terms of write-offs of loans to date, it is almost immaterial—touch wood, we have had a good run so far.

Ms TOUGH: If I can, I just wanted to go back very quickly to the question you asked of Simon, because I think it is a good one: how do you practically get something started? If I speak from my perspective, even before the process that Simon outlined, and there is always business judgement in there, I make phone calls and sense-check at a high level. That is: is this of interest? Should this progress further? And, if it is, they give it a point person who then works with the proponent. I am always encouraging the proponent to do and put as much effort and money, if possible, into any proposal. But it is that first phone call: is this something that would be of interest? The process does work, yes.

The CHAIR: Can I come back just very quickly to the point that was being made about your gating process, particularly on joint ventures or where project finance is being raised. Typically, there is

never just one bank involved; the project proponents go and seek financing from a whole group of banks. How do you behave in that space? Do you participate in the formation of a funding syndicate and then work amongst yourselves, as you are going through the due diligence process of project assessment, or do you sit apart from any group of other financiers that may be being sought on global markets for specific project financing of a power station or a solar farm, or something like that?

Mr BROOKER: Perhaps a recent example is that we participated in an eight-bank syndicate. When the sponsor approached us, they were very nervous that they would get any banks to the line at all for the full capital requirement they had. In that particular example, we were comfortable that although ultimately banks got to the line, in the time frame and in the nature of the project, it was by no means a sure thing. It is reflected in the fact, ultimately, that it took practically that number of banks to share the risk. We were involved because the other banks felt we had some domain expertise; it helped.

The CHAIR: Do you think it helped them get comfortable with the project—that you were prepared to participate?

Mr BROOKER: You never quite know, right? The sponsor came to us and said, “Look, I’m having trouble making this deal work. Can you get involved and see if we can get it to the line?” So we got involved and we worked closely with the banks. We rarely do, though. When we go to the credit committee and go to the board, one of the things the deal team has to show is that we need it. That is why you will very rarely see us at any kind of fully contracted solar deal, because there are a lot of banks that can do that. It is not our job to do what the banking market can do.

On the other hand, someone comes and asks for capital to do a partially contracted deal, a deal with a short offtake, or a deal with some funky risk structure—that is our job to look at it more closely—and then it can play one of two ways. We can either be with another bank, in which case our preferences definitely can work alongside as a team. We do not try to sit outside the structure; we try to work within it. We are co-financiers at the end of the day so it is in our collective interest to work together. We have not had to do it very often, but we might be a different part of the capital structure, which means we are in the deal but with a slightly different risk profile and retain our own view of the deal. It might be different from, say, the senior lenders, but it has not happened very often.

Mr LEARMONTH: It is important that we are not seen to be crowding out the banks. It is very important, because they play a role where there is confidence and particularly where there might be a state government offtake of all the power, both green and the black, sources of income, then that is not really a place for us. It is important, as we say, to test—we are always testing ourselves: Why are we here and what difference are we making with our capital?—and not just join the herd on another contracted deal.

Mr BROOKER: We are not afraid to be the sole end-driver though, at the end of the day, if no-one else is there and we think the deal should go ahead.

Mr D.T. REDMAN: Do you benchmark your investments against any other organisations? I am thinking of superannuation funds and others that have got an investment profile number of areas. Do you keep an eye on that and do you test your market risk against what commercial players are doing?

Mr LEARMONTH: It is interesting that you ask that. The government itself, or the minister of the day, has the ability to direct us to seek a particular return for our portfolio. It has changed a bit over our life, but the current investment mandate as it is referred to, directs us to seek a return of three

per cent to four per cent over the five year Commonwealth Government bond rate. That would be about a 5.7% to 6.7% return on the portfolio. To date, we are at about 4.5%. We are kind of below that. That is a bit of a reflection of an 85% secure debt portfolio, largely secured, because we have looked at all the opportunities that have come our way, we have filtered through them, we have decided the ones we think will make a difference with us, but also—and it is another thing that is required under the act or our directions—not to seek excessive risks. To date, we are at about 4.5%, as the portfolio-blended return, and that is everything from these small companies we have talked about right through to \$150 million wind farm financings.

It is difficult to benchmark that against a peer, in a sense. When we do, say, senior debt on a solar project, along 10 to 12 years fixed, we would certainly benchmark the margins and establishment fees against what would be appropriate here, what would the banks be doing, and if they do not like this particular project then we probably get a bit more than that to reflect the risk that we are taking. We are careful to benchmark on all our transactions, but there is not really a like-for-like comparator otherwise.

The CHAIR: Thank you ever so much. I will proceed to close today's hearing. Thank you for your evidence before the Committee today. A transcript of this hearing will be emailed to you for correction of minor errors. Any such corrections must be made and the transcript returned within seven days of the date of the letter attached to the transcript. If the transcript is not returned within this period, it will be deemed to be correct. New material cannot be added via these corrections, and the sense of your evidence cannot be altered. Should you wish to provide additional information or elaborate on particular points, please include a supplementary submission for the committee's consideration when you return your corrected transcript of evidence. Thank you so much for coming across.

Ms TOUGH: Just before you close up, one thing I want to say for all the committee members is that the Clean Energy Finance Corporation has a fantastic amount of information on the clean energy sector in Australia—what works, what does not, structures and the like. I would encourage the committee at an appropriate time to think about how you might want to use that. Because they do share their knowledge and IP—not commercial confidence stuff. But because they are across Australia they are in a very unique position. I encourage us in Western Australia to make use of it.

The CHAIR: Excellent, thank you very much.

Hearing concluded at 12.28 pm
