

INDUSTRY SKILLS 360 SERIES – ESI GENERATION WEBINAR

Webinar held: 25 March 2021

Panellists:

Tony Saxby, Interim Chair, ESI Generation Industry Reference Committee

Anita Talberg, Member, ESI Generation Industry Reference Committee

Andrew Fitisemanu, Industry Skills Manager, AIS

Paul Walsh, CEO (facilitator), AIS

Q & A with the panel

1. What are the challenges facing the ESI – Generation with the closures of the fossil fuel generation sites?

Tony Saxby: I'll comment on that one. The first comment that I would make is that where the fossil fuel sites are, is not necessarily where the renewables would be if they take them over. So, we've got a situation where fossil fuel sites (coal-fired) in New South Wales, places like Lake Macquarie, you're unlikely to close them down and replace them with solar farms and wind farms in the same place for instance. So, if we're looking at challenges with regards to workforce - the existing workforce is not necessarily going to automatically up stumps and move families out to different sections of the countryside where you might find the wind farms and the solar farms. In many cases in New South Wales for instance they're quite a few hundred kilometres away from the coast. The other issue is we're not going to see all of the coal-fired power stations close within a short period of time. Not in a situation for a good while yet where you can close them all down. So, they're going to be closing my guess would be one at a time. For instance, as they're being replaced by renewables. You're not going to see a glut of workforce from coal-fired generators across the country all of a sudden looking for all the same jobs in a different industry. I think that'll happen over a period of time and they're going to close in different areas. You're not going to see all of the stations in New South Wales closed at the same time. you might see one in Victoria, and then a couple of years later one in New South Wales and then so on around the countryside, but it's not going to happen all at once and it's not going to happen all in the same place.

Anita Talberg: I think I'd agree with Tony's comments there. I think probably the other thing is that while it's not even the same locations, it's probably not also a lot of the exact same skills. We did some very high-level research to look at that sort of skills overlap and there is some but it's not a huge amount. And that's why it's useful to explore what reskilling can happen and where they use the appetite to move sometimes not too far away, you know what reskilling needs to take place. I think one thing that should be brought into a conversation around closures of some of coal generation is we shouldn't be looking directly to renewables potentially. We

should be talking more broadly about other things that are enabled by renewables, so things like manufacturing, clean manufacturing or supply chain of clean energy and start to think about that as more of a whole skills ecosystem than that direct transfer from say coal to renewables.

2. What focus is on Hybrid technologies?

Anita Talberg: Certainly, what we're hearing from our members across clean energy is that there is a lot more interest in having those skills that sit across the various technologies. Having workers that you can see more as a renewable energy technician so that we can start to understand what are those fundamental skills across that they can (use to) work with say batteries, solar, they can be useful on a wind farm. And as we look more and more to stand-alone systems, they're going to be hybrid systems anyway. We're going to see more and more of that combination of the technologies, so definitely one that we're hearing that our members would like to see more attention to.

3. Do you anticipate government funding for up skilling and development of the new skills required for renewable industry?

Tony Saxby: I think the industry is going to need government funding for that. As to whether I anticipate it, it's a bit hard to answer that one, but I'd like to think it will be coming. But as we move away from fossil fuel technology, if we genuinely want to make these changes in the time frame that we need to make those changes, I think we need to anticipate some funding somewhere yes.

Anita Talberg: I was just going to say the same thing. We would love to. We are seeing more focus from the states [such as] o Tasmania and Victoria, the establishment of taskforces that are specifically focused on looking at the skilling needs in clean energy. What that means and I guess I hope that we'll see more of, more of that strategic sort of approach from government around what skills base is needed to support that deployment of renewable energy. But whether we anticipate it, I'm working on it.

Paul Walsh: So, fingers crossed. Obviously, you know funding for skills is always the domain of the various states and territories. It's not a federal position. They might also put programs in place but typically it comes through states and territories. The IRC can make recommendations on where apprenticeships or traineeships should exist and into the future that may well expand into providing other advice on Skill Sets or other things that might exist as they become more common in the system. Obviously then there's other opportunities for advocacy through state, territory and other bodies within the industry to advocate to government. So, a whole range of ways that people can become active in that. There's always the old simple way of writing to your minister. Certainly, you know all those things are open so obviously the generation industry in particular, as we move into renewables, there's a lot of talk about it as we recover from COVID and the importance it will play, so I think there will be an ear of government listening. Just need to make sure that they hear well.

4. How can the industry encourage women to pursue a career in the ESI – Generation industry?

Andrew Fitisemanu: I want to give this one a go. I think I've actually had really interesting conversations with Anita about this in the last few weeks. It was quite a powerful conversation and part of what we talked about is that maybe we shouldn't shy away from talking about what the barriers are of encouraging why women would want to pursue a career in the generation

industry. But I also think there is part of the demographic that Tony talked about at the very start. Are we experiencing a culture shift or are we actually dropping the ball on how we should be moving with the times of getting a diverse workforce out there. As well I would just question what those new roles would look like and where those opportunities open up. I know the research that the Clean Energy Council conducted last year about the potential occupations and I think we actually are leaning towards. And this has happened with a lot of the project work with the different Training Packages that AIS look after. We could be looking at recruiting from like-minded generation and energy Training Packages so that the workforce is there just the opportunities made available. One of the things is that I think we do have an opportunity to really start championing, those women who do work in the generation industry and I think in nature with the Clean Energy Council. That's one of the strong initiatives that has been championed by your organisation and I think we should be leveraging off those organizations that actually help promote that as a potential career pathway.

Anita Talberg: I would have to mention the women in the renewables program that we run at the Clean Energy Council. This is you know something that's quite successful, quite important. But it's a problem that an issue that needs to be tackled from I suppose lots of different fronts. I liked that your language Andrew when you were talking more about diversity than just gender. And really, it's an issue about inclusion and looking at what policies we have in the sector that maybe are barriers for women. I think the other thing is that a lot of women who are in the sector don't necessarily want to be champions. They just want to do their job and so it's going to come from the top and from the bottom. I think mentoring programs are where there's a role for government as well to incentivize employers to bring on women and have those mentoring programs that bring them through. I think just looking for example at us here today, I mean it's great that I'm here sort of bringing the stats up a little bit but it's I guess it starts right at the beginning. So, are we designing these Training Packages to be inclusive? Is that an element, I don't know the answer to that I'm not an expert in that pedagogical side. Are we from the industry's perspective, which I think is where the question was going, what sort of employment policies do we have and practices that make it difficult for women, especially when they've got caring duties. I know a lot of wonderful women working in the sector and it's just been very difficult for them to juggle their responsibilities at home, responsibilities that they want to have but they also want to have a great career in this sector.

Paul Walsh: Thanks very much both Andrew and also Anita. Some good initiatives there and typically in workplaces that are not always seen as female friendly. The good initiatives coming through industry and industry bodies are really important to encourage women. I think often in industries, once women realize that those jobs aren't necessarily how they were perceived from the outside, you start to break those barriers down and more will come along. Obviously, jobs are changing with new technologies and so that's making it easier for different types of jobs to become available. So again, thank you to that person for the question.

5. Are there plans for work relating to utility-owned stand-alone power systems (maintenance etc) and does this fall under ESI - Transmission, ESI - Generation, or Electrotechnology?

Andrew Fitisemanu: I'm going to tackle this one if that's all right with everyone. I think that's a really great question and that's [one] of the questions that popped up during the public consultation rounds with the variety of energy Training Packages that we have. For example, the UET training package has gone through a review, the Gas and also currently our Generation Training Package. I think what we're looking at here is that from my perspective as a developer of

this product we need to understand more about what this means to industry. And potentially we could be looking at maybe a hybrid, looking at a joint IRC project. I think at this stage I feel it would be just too soon to really start commenting on what that project would look like because obviously we would need to validate that. I guess this is where it falls into where and which Training Package really takes ownership of that work. That's another challenge that we have and [I'm] not saying that we couldn't do it, it just means that there's a larger consultation piece that we would need to engage in the background. but I think that theme has constantly in the last 12 months where actually 18 months has appeared every so often. It hasn't sat on the back burner. It is something that in-house we are constantly discussing and looking at, how do we validate that in industry with trying to get a broad and Australian-wide interpretation.

Anita Talberg: I don't have much to say, but the question is about which one of those packages it sits under. I think that it's a really important point that the work needs to be done, regardless of where it sits, and it's with funding coming into this WA and it's an issue that we should be making sure that those skills are up to scratch.

6. The operating units in particular in the Gen package don't have a pre-requisite pathway that resembles a solid competency pathway (acknowledging that the sector had strong training internally). Evidence suggests that some of the gen units are being offered outside of the context of the traditional generators and even outside of the ESI industries.
 - 1) Do the IRC anticipate the retirement of some of those units that were only for coal fired plant operators, especially where there are equivalent UEE/UET units?
 - 2) Alternatively, is there a way to further clarify the context under which those units are/are not suitable?

Tony Saxby: I might add one comment to question one, do we anticipate the retirement of some of those units? Not for a while, I wouldn't think. Certainly, those units are going to be used by coal-fired plant operators for some time. While we might see some of the coal-fired generators close in the not-too-distant future I think you're also going to see some qualified units still operational for quite a few years to come. I would expect well into the 30s. Until we replace what they're producing with renewable generation we can't necessarily close the ones that we've got. As to whether they're equivalent UEE and UET units, yes that's something that the IRC is looking at constantly upgrading our units and the packages, we look at that all the time. Question two, Andrew might want to comment a little bit more on that one. Alternatively, is there a way to further clarify the context. Yes, there is. To do that we would need to know which ones are actually being used out of context to do that. So, if we get feedback on that that would be good as well.

Andrew Fitisemanu: And that's that question. This webinar is also to help garner that feedback, so people can ask those questions. I would be really interested in identifying what particular units we should be addressing and putting our attention [to] look at. So, I guess Neil I'm open to having a conversation identifying what these products are and at the end of this webinar my details will be made available. I can direct these questions back to the IRC if we can just gather a little bit more background.

7. Renewable energy Units of Competence exist in the UEP, UET and UEE Training Packages, and there is jurisdictional conflict, how do we create a Renewable Energy Technician able to work across all industry?

Anita Talberg: I was just going to ask whether Gary when he says jurisdictional conflicts does he mean across the different states? If he does, then I'll leave it to you Andrew.

Andrew Fitisemanu: I guess Gary we've had a couple of conversations on the background, so this isn't a new question. The way that I would look at that, there is no issue of us creating a new qualification in the future and if that qualification requires that we pull units in from different Training Packages that can that's a task that we can do. I guess the question I really want to understand is what does the role of a renewables energy technician look like in industry? What does that job description look like, how do you recruit that type of individual? Those are the questions that I would need to understand. What that qualification would look like as well and then what are the competency fields, and who are the subject matter experts who can actually provide that feedback mechanism and then we go to consultation. So, if I were to just drill it back and if we're looking at that Australian-wide role, what does that person look like as well, so that's a great question Gary. Once again, I'm putting myself out there again Gary if you like to get a hold of me after the webinar and let's actually try to work out what that technician is responsible for and what that job role competency looks like. And then where do we go from there [as far as] next steps. I'm just going to leave it there because I could probably talk for a while about this.

Anita Talberg: I guess it comes down to what extent does it matter what the course codes are, what package it sits in. It's whether you can package them up I suppose into something that's useful. So what I think this point goes to, and it's an important one, is that communication between them between the packages, between the IRCs. That holistic view, every time we pick apart one part and review it and change it you then sort of need to see that needs to fit back into the hole. So, there's always going to be that conflict. You can't tackle everything at once, but you can't do everything in an itsy-bitsy approach. So, it's probably more of a systemic question there, but absolutely again Gary that's something that we would like to see, the renewable energy technician as someone that can work across the sector.

8. What is the IRC view on the challenges to the industry over the next 5 years?

Tony Saxby: Yeah, a couple of comments that I've probably already made. I think one of the things is that where the renewables is going to be is not necessarily where the existing workforce is at the moment. And I think that will have an impact on whether or not we see the existing workforce in generation move into the renewable workforce. I think we will see some of that, but I don't think that we'll see a lot of it mainly because of the two things that I've said. The locations are likely to be very different, and two, the workforce is going to change over a period of time. It's not going to be something that happens all together, you know all of a sudden, the non-renewable stop generating, and the renewables take over. It's not going to happen like that. It's going to happen over a period of quite a few years, so while there'll be some come out of the existing workforce, we're also going to need to attract a lot of people from other places as well for the renewable sector. And apart from that, as we've already said, some of the skills simply don't match. An ageing workforce for instance out of the coal-fired generation are not going to be too excited about climbing wind towers.

Anita Talberg: I think there's probably two avenues for answering that question. One is the challenges to the industry and what we hear from our members constantly is good connection

issues [is a] key problem for our industry [and] under investment in the network capacity., Basically uncertain energy policy constantly [and] a lack of integration of federal and state policies. Climate and border closures was another challenge. We don't know what that's going to look like in five years' time or that we need to eliminate, but that's not going to be an ongoing problem. But if we're looking specifically at the recruitment analysis that our employers face, [through] our survey last year, number one at the top of that list was always a lack of a specific experience in renewable energy. So, we could get technicians, we could get tradies that had other skills but not specifically in renewable energy. And then other issues were around the regional and remote location of the work. Wanting longer term work. A lot of the work is short-term, but I think it's the nature of the job. But as I said, as we go forward, we're going to have more of those assets and there'll be more and more of those longer-term skilled roles in operation and maintenance.

9. What are the challenges in the recruitment of skilled workers to meet the needs of a growing renewable energy sector?

Anita Talberg: Well, I think I just answered that.

Paul Walsh: Yeah, I would agree.

Anita Talberg: I guess beyond that there's going to be emerging technologies that we don't really understand the skilling needs for yet. Hydrogen is obviously case in point but that's not for this Training Package. We've got a huge offshore wind that's going to be hopefully coming to fruition. There'll be a lot more in the space of electric vehicles as Gary has alluded to. A lot of these hybrid technologies. So, there's all these emerging areas where we actually don't have a good grasp of what those skills needs will be and so obviously, we're starting to look at how we tackle that.