

NSW Parliamentary Inquiry on the Protection of the Environment Operations Amendment (Clean Air) Bill 2021: Questions on Notice

Questions on Notice Origin Energy

1. What would it cost Origin to install the equipment necessary to achieve the emissions standards set out in this bill?

Ms ABIGAIL BOYD: I understand that is the conclusion that you are drawing, but I really want to get down to what the cost would be. Would it be fair to say that if you could find investment, which I am sure Origin could in the current market, especially if it is for something environmentally friendly, you would be looking at \$50 million a year over 10 years?

Mr JARVIS: To be honest, I will have to go into capital structures. Borrowing any kind of money for a coal plant these days is highly prohibitive.

Ms ABIGAIL BOYD: As I say, it is definitely to expand. But when we are talking about actually doing something good for the world, I think you might find there is more capital there. We might say \$50 million a year. Are you arguing that if you had that extra \$50 a million a year cost on Eraring for the next 10 years that you would just have to close Eraring down?

Mr RIGBY: If you look at the calculations that you are looking at, the \$455 million would be for one unit. There are four units at Eraring.

Ms ABIGAIL BOYD: Sorry, are you saying that it is actually four times that?

Mr JARVIS: That is right.

Mr RIGBY: It would be four times that. Yes.

Ms ABIGAIL BOYD: Are you able to provide that on notice to show us what those calculations are? That does sound quite a bit higher than what we have been hearing. That would be very useful. Are you intending on all units of Eraring to continue until 2032?

The Australian Energy Council (AEC) commissioned a report from engineering consultants WSP on the costs of retrofitting emissions control systems in Australian Coal Plants. The report is available on the AEC web site at the following address:

<https://www.energycouncil.com.au/media/dtyjfc dh/addendum-and-report.pdf>

The report found that the capital cost of installing new fabric filters, wet flue gas desulphurisation and selective catalytic reduction would be around \$430m per unit for Eraring Power Station or around \$1,720m for the power station as a whole. The report also found that ongoing operating cost would be around an additional \$26m per unit or \$104m for the power station as a whole.

The actual cost for Eraring Power Station would depend on any changed emissions standards and detailed design and engineering studies but we consider the costs in the WSP report to be reasonable estimates.

2. What was Origin's operating profit last year?

Ms ABIGAIL BOYD: I understand. Can you explain why your counterparts in other countries have been able to afford this technology and continue without going out of business but someone with your financial credentials is not capable of doing that?

Mr JARVIS: There are different characteristics in different markets. I do not want to go through every detail but Japan has different characterisations. It is very landlocked, it does not have other technologies and it does not have renewables policies like we do in this country. There are many different factors to assess here. I think Delta, in their submission, were talking about different geographies and people. There are lots of characteristics you need to take into account. Quite frankly, from an Origin perspective, to put further capital—we already spend a lot of capital to make sure that the availability is around. But to put more, you simply look at doing something different. I do not want to get into if we can borrow. Our balance sheet is tight and it is very difficult to raise money for coal-fired power stations.

Ms ABIGAIL BOYD: How much was your operating profit last year?

Mr JARVIS: We had massive losses. I can take that on notice, but the reality is we had big losses because we wrote off a lot of our power station plant capital.

Ms ABIGAIL BOYD: What was your profit after tax for Origin as a whole?

Mr JARVIS: I will take that on notice. I cannot remember after write-offs and what have you.

Ms ABIGAIL BOYD: That is alright. I am sure I could look it up. I am just wondering if it is over \$50 million or not.

Mr JARVIS: Yes, it is all available. It is not very good, let me tell you.

For financial year 2021 Origin Energy, as a whole, reported a Statutory Profit of a Loss of \$(2,291) million and an Underlying Profit (after tax) of \$318 million.

3. What is Eraring's load-based licensing levy? If the load-based licensing levy was increased to incorporate the true health costs of the air pollution, which some have estimated to be 50 times what it would be now, would that be far more financially prohibitive than the costs of implementing this bill?

Ms ABIGAIL BOYD: I have one final question before I pass to my colleagues. There has been some talk about whether instead of doing this we could increase the load-based licensing levy to an amount that would actually incorporate the true health costs of the air pollution coming out of the coal-fired power stations, which some have estimated to be 50 times what it would be now. Presumably, that would be far more financially prohibitive for you than if we were to go with this bill.

Mr JARVIS: I do not know whether I can comment. I do not know what the number is and I do not know how we can pass it onto consumers. Again, I can take that on notice but you need to provide a bit more detail than that.

Origin's Load Based Licencing fees for financial year 2021 were \$2.36 million.

Origin cannot comment on the health costs associated with air quality impacts from the collective emissions from coal fired power stations in NSW. Government agencies would be best placed to coordinate such assessments with input from health professionals, air quality experts and industry.

The Load-Based Licencing Scheme is aimed at incentivising emission reduction using mechanisms that are economically sustainable. The cost of power station emission controls to meet the standards in the Clean Air Bill could not be sustained by Origin and as such increasing licence fees would not incentivise the uptake of such controls. Additionally, an increase in load-based licence fees would reduce Origin's capacity to invest in renewable technologies and drive an orderly energy market transition towards a low emissions future.

4. Does Origin have any documentation or other submission on the energy transition including costs?

The Hon. CATHERINE CUSACK: Mr Jarvis, I will direct my questions to you because I am aware that, out of everybody, Origin has tried harder in this space and understanding the changes that the world is going through. Can I first of all establish that perhaps your industry has a bit of inquiry fatigue and maybe that contributed to not getting a submission for our particular inquiry? I hope you understand that puts us at a bit of a disadvantage because the verbal evidence that we are getting is very strident and very much in contrast with what we have heard. Is it possible for some documentation to come through—even if it is something you have given somebody else—that will assist us to understand the costings in the statements that you are making now? That is my first question.

Mr JARVIS: There is certainly fatigue because there are lots of inquiries. If the question is more about the transition and what is going to occur, I am more than happy to do that. We have given a lot of submissions on how the energy market should transition to a lower carbon future. If that is the question, we have got oodles of it. I can take that question on notice and get the team to come back to you.

The Hon. CATHERINE CUSACK: This discussion about climate change and renewable energy has been going on for nearly two decades now. There has been a lot of resistance from the coal-fired power generator industry, which I think is just a lot of pushback on all of that and there are a lot of resources put into defending the status quo in the industry, if I can put it like that. This is my perception. But there must have been some sense that ultimately we were going to get to a position like this and that, in the interest of the assets, this inevitable shift needed to be planned for. That is what has kind of taken me by surprise—the sense from the verbal submissions you have all given, particularly from Mr Flood. He was terribly strident in his submission. Can you just unpack a bit of that for us?

Mr JARVIS: Is that for Mr Flood or for me?

The Hon. CATHERINE CUSACK: That is for you as well. I would appreciate Mr Flood's comments, but he is so emphatic that this is all rubbish. I wanted to hear from Origin first and then maybe from Mr Flood.

Mr JARVIS: Firstly, we are frustrated by where the debate has gone. We are under no illusion about decarbonisation. We are running Eraring far differently to how it used to run. We wind it up like a yo-yo. In the middle of the day, we try to run it right down because there is so much solar on, and then wind it back up. Greg Everett did mention that back in July and August when there was a lack of reserve—there was a lot less sunshine and less wind—there was a real shortage, so we had to wind it up. The reality is that we have spent a lot of capital just making sure it is more flexible. We even take units off now. We have been on this for a long time now. This is not a surprise where we have woken up yesterday. We have been on this debate for well and truly over a decade. I will not go into all public policy decisions and what have you, but it has been, from an industry point of view, very hard to manage these investments going forward. I will not go into that detail. At the end of the day, there is a simple reality here. Renewables are actually fairly easy. That is the simple bit. Running the assets differently and building assets like batteries to keep the lights on, that is the true challenge going forward. I will pause there and I will hand over to Mr Flood.

Mr EVERETT: Mr Flood, if you do not mind, I might just field that question. I would note that, in New South Wales, I would agree with Greg Jarvis that the industry is not in denial. The industry has been changing rapidly. There has been many coal-fired plant closures—Wallerawang, Munmorah, Redbank, Liddell is about to occur. Those closures and those responses to greenhouse challenges—the industry is dealing with those. What we would say is that this particular bill does not address greenhouse. It addresses other pollutants. We do not believe that there is any hard evidence to support this.

You asked about submissions previously. In our opening statement, we will have a number of references. We are also happy to provide further information beyond our opening statement to reports from the Department of Primary Industry and from the EPA that show that air quality in New South Wales in the greater metropolitan region is either good or very good. The only events that you really see of poor air quality relate to bushfires. We will have a reference to an OECD paper, which shows that Australia has the second least mortality because of pollutants. We will also have plenty of references, again, from New South Wales Government publications which show what the sources of pollution are. In most cases, the highest ones are motor vehicles. We would reinforce that motor vehicles emit NOx, in particular, but particulates and other pollutants at ground level, where the population density is. They have a much greater impact. We are very happy to provide more information.

The Hon. CATHERINE CUSACK: You are not a public health organisation; you are a business. I get that. But, as members of this inquiry, we have been given a lot of evidence that there are public health issues that need to be addressed. We would love the evidence that you are offering. To blanket refuse to admit that there is a public health imperative here—which is essentially the position—would for us, as members of the inquiry, need some more evidence because the evidence that we have received so far has been fairly compelling.

Mr EVERETT: We will gladly also provide a reference to a report and we will provide the report as well. We have seen that a lot of the submissions have referred to a report by Dr Ben Ewald. The Australian Energy Council had that peer reviewed by a professional air science company, Environmental Risk Services [EnRiskS]. That is a company that is qualified to conduct air modelling and air science studies for the EPA in New South Wales. They made a lot of derogatory comments about that Ewald study. We do not need to go through all of those here, but we are very happy to provide that reference to you. That is the study that most of the evidence that you have seen has referenced. To be honest, it did not withstand peer review.

Origin's 2021 Sustainability Report sets out Origin's response to climate change including managing the energy transition to net zero emissions. The full report is available at this link <https://www.originenergy.com.au/about/sustainability/sustainability-reports/> with key points copied below.

The energy sector is rapidly transitioning towards a low-carbon future, with more renewables coming into the market every day. It is important that our industry gets this transition right so we can continue to deliver reliable, affordable and cleaner energy.

We will continue to adapt Eraring Power Station during the energy transition ahead of our exit from coal-fired generation by 2032. We are planning for how we will eventually replace Eraring's supply with renewables, firmed by large-scale batteries, gas-fired peaking generation and pumped hydro. In FY2021, we announced our intention to investigate installing a large-scale battery at Eraring, which would have an overall capacity of up to 700 MW and a dispatch duration of four hours.

Our fleet of gas-fired power stations will continue to play a vital role in supporting the increasing supply from renewables across the grid as, unlike coal, they can be switched on and off quickly and operated efficiently on an intermittent basis. We are also investing in our existing gas fleet to improve its reliability and flexibility.