



20/10/2023

Dear Safeguard Implementation Team

Below you'll find the questions and answers to the consultation paper in regards to NSW Peak Demand Reduction Scheme rule change

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IMPORTANT CHANGES THAT FREEWATTS STRONGLY DISAGREE.

CHANGE 1

The most important change that we noticed within the “Draft Rule” in which we strongly disagree is within the HVAC1 “Equipment Requirements” Point 3 indicated below:

“The New End-User Equipment or replacement End-User Equipment must be internet connectable and include capability for demand response control by a Demand Response Aggregator.”

We are probably the only ACP implementing new Air Conditioning units and replacing old Air Conditioning units with new ones through the NSW ESS and PDRS scheme, in which many different AC models from different brands have been installed. From hundreds of implementations that we have done, not a single AC unit that has been installed has had the feature of internet connectable. We work with approximately 50 Air Conditioning companies and none of them are installing Air Conditioning units with this feature.

My recommendation is to remove point 3 entirely from the “Equipment Requirements” of HVAC1 otherwise it will **KILL** this activity.

PROPOSAL / SOLUTION - CHANGE 1

What we propose as a solution, is that the point 3 of the “Equipment Requirements” from HVAC1 could be slightly changed and entirely be moved to the HVAC3 activity, which would suit the Peak Demand Response Capacity much better.

The change would consist of removing the limited requirement of the AC unit to have an **integrated internet connection** in the AC unit, and instead, have the additional option that if the AC unit doesn't have an integrated internet connection, then to have an external device that has **internet connectivity** that could control the AC unit.

The reason for this slight change is because all of the AC units that are being installed today could have an **AC LINK** installed externally, which in addition they are not expensive. The AC unit doesn't need to have the integrated feature to connect to the internet, nevertheless, with the **AC link**, any AC unit could be controlled through internet connection. These **AC LINKS** are not expensive and are compatible with all AC units that have an infrared receptor for the remote control (99.99% have)



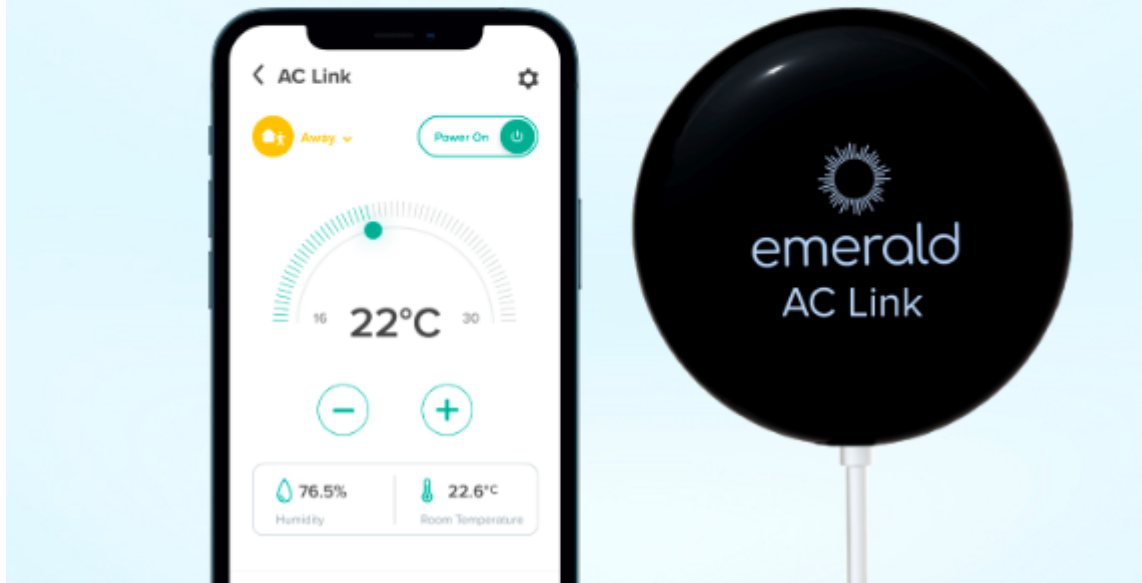
These types of devices (**AC LINKS**) can control AC units through Infrared (IR) signals, and could have the aggregated feature to be controlled by a third party, such as indicated in the Demand Response requirements.

As there would be incentives for the HVAC3 activity for having the AC Link installed, we are quite confident that the Air Conditioning Installer / Supplier could even include the AC Link device into the whole AC unit cost deal for free. In other words, if an OES will purchase an AC unit for \$2000 and the AC Link costs \$70. With the PRCs created from the HVAC3 activity, the installer could add the AC Link into the deal without charging the customer any additional amount.

Below is some visual and very clear information of an AC link.

AC Link

Smart thermostat – Control your air-con anytime, anywhere



What is AC Link?

Turn your air-con into a smart air-con with Emerald AC Link.

Whether you're at work, on vacation or enjoying a walk, easily control the climate of your home with AC Link and the Emerald app.

Access the complete functionality of your air-con via your smartphone.

- Adjust mode and fan settings
- Set schedules and timers





CHANGE 2.

The second change that we strongly disagree with and we believe that this will affect the program is that for the Peak Demand Response the OES is required to sign a Nomination Form for each year.

Based on our experience, OES don't like to be contacted for these purposes, we see a lot of issues that could easily escalate for everyone if going through that path, we believe that one of the many issues that could arise from this action could be that by contacting an OES every single year, some OESs could take this action as harassment, even though they had previously signed and had committed to this process.

PROPOSAL / SOLUTION - CHANGE 2

We propose for the OES to have the option to OPT OUT at any given time instead of having to be asked to sign a nomination form document every single year. The options for the OES to OPT OUT could be even added to the NSW ESS website, not only for the OES to contact the ACP directly.

CHANGE 3

The last and final change that we strongly disagree with is that the number of years given for a Pool Pump as 7 years is not correct. After receiving thousands of telephone calls from potential OESs that would like to have their existing Pool Pumps replaced, I can certainly tell that everytime that an OES mentions the number of years that they have used their existing pool pump (in working conditions) before they would like to have it replaced either as a result of the existing pool pump failing or they would just like to replace it for a more efficient one, is always at least more than 10 years.

PROPOSAL / SOLUTION - CHANGE 3

The proposal would be to change the number of years from 7 years to 10 years.



QUESTIONS AND ANSWERS.

1. Do you agree with the update to the equation, adjustment factors and lifetime for SYS2?
 - a. **No, lifetime should be 10 years not 7.**
 - b. **Adjustment Factors are ok.**
2. Is the pool pump industry able to meet a requirement that pool pumps have demand response capability and what would the cost impact of this be?
 - a. **I believe so, maybe with timer installed, I don't think the cost could be a lot. We could have a discussion about this with Pool and Spa, they have a lot of knowledge in this area.**
3. Do you agree with adding a capacity factor to WH1?
 - a. **I couldn't locate the proposed capacity factor added for WH1 in the draft rule or the consultation paper, could you please clarify this.**
4. What evidence should be required under WH1 to ensure that customers aren't being taken off controlled load?
 - a. **PENDING**
5. Is the new air conditioner requirement (equipment requirement 3), as written in the rule, going to be effective to enable consumers to participate in demand response programs using their new air conditioner?
 - a. **This will seriously affect the number of implementations as mentioned above. The requirement 3 should be entirely removed from HVAC1 and be modified as indicated above and moved to the HVAC3 (Demand Response)**
6. Do you need a transitional period to prepare for the new demand response requirements?
 - a. **Not a period of time but a little tolerance in regards to how strict at the beginning when starting new process.**
7. Do you agree with the requirement to verify demand response capacity through dispatch data?
 - a. **It wasn't clear how the Wholesale Annual Response Mechanism (WARM) would work, if you could be more clear or provide more examples I would appreciate.**
8. Do you agree with the proposal to leverage data from the Wholesale Demand Response Mechanism to validate PDRS capacity?
 - a. **SAME AS ABOVE.**
9. Do you agree with the exclusion of RERT and LTESA loads from the PDRS?
 - a. **Pending**
10. Are the implementation requirements sufficient to drive best practice installation of batteries?
 - a. **YES**

11. What additional steps can we take to mitigate fire and other safety risks from batteries supported through the scheme?

a. **N/A**

12. Will there be any challenges meeting the requirement for batteries to be registered on AEMO's DER register?

a. **N/A**

13. Are there additional requirements you recommend we add to ensure consumers get the best outcomes?

a. **Yes, remove the requirement 3 of HVAC1, add it to HVAC3 and change it to have an AC LINK device with internet connectivity.**

14. Do you support the dataset used, data assumptions and proposed calculation method for certificates for activity BESS 1?

a. **N/A**

15. Do you agree with the way we've considered round trip losses in the factor of 10%?

a. **N/A**

16. Do you support the data assumptions and proposed calculation method for certificates for activity BESS2?

a. **YES**

17. Are there additional requirements you recommend we add to BESS2 to ensure consumers get the best outcomes?

a. **N/A**

18. Can you provide evidence of what proportion of a battery's capacity is available for demand response under orchestration contracts?

a. **N/A**

19. Can you see any potential issues with the 12-month cadence of certificate creation for each NMI?

It would be better if the certificates could be created ALL upfront.

20. Do you support the data assumptions and proposed calculation method for certificates for activity HVAC3, especially those relating to duration and temperature limits?

I couldn't locate the Temperature limits in the draft rule, only in the consultation document and it's not clear. What I understood is that the control device wouldn't allow the user to decrease the temperature below 26 degrees?

Could you clarify in hot, average and cold climate areas what would be the upper and lower limit?

21. Are there additional requirements you recommend we add to HVAC3 to ensure consumers get the best outcomes?

a. **Have the AC LINK devices to have an upper and lower limit installed.**



22. Can you provide evidence on the approximate duration of events where an air conditioner is controlled by a third party? In addition, can you provide evidence that customer comfort is not noticeably impacted?

a. We don't have that information.

23. Can you provide evidence of opt out rates for third party control of air conditioners?

a. NO

24. Can you see any potential issues with the 12-month cadence of certificate creation for each NMI?

a. If we need to come back to the customers every year, yes it will be a critical issue as customers really dislike being contacted constantly.

25. For any of the activities we are continuing to look at, can you provide any relevant information on baseline demand/discharge, demand response or shifting, and other key operational characteristics that the NSW Government could use for rule development?