From:
To: EPWA - Submissions
Cc: Subject: Embedded Networks:
Date: Thursday, 22 June 2023 3:52:28 PM
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Hello,

Thank you for the opportunity to make a submission regarding embedded networks.

I note that the AES framework aims to ensure end-use customers of new and emerging alternative electricity services access to customer protections relevant to the service being provided.

I am an end-use customer within an embedded network comprising of a tourist and permanent park home village. The purpose of my submission is to draw attention to and hopefully answer some questions I have regarding the electricity supply to my residence and the general policies in place which directly affect my life and those of my village community.

I would like to make some observations regarding my recent experiences installing a photovoltaic solar power generation system (solar). All of the issues raised may or may not have bearing on this particular consultation and if not, kindly forward this email to the appropriate department.

The following is a summary of the situation as I see it regarding the embedded network at

- 1. Large solar arrays have been installed by park management;
- 2. I believe that all inverters must now also incorporate a remote switch-off function controlled by Western Power, which disables the production of photovoltaic electricity on an indivdual house;
- 3. Many park homes have solar installed, but these are all limited to a maximum 2.5KW (inverter output) system. Due to this size limitation, at times I and others are forced to pay for electricity that with a larger solar system would be provided by sunshine. In addition, I was verbally told by previous management that "no batteries are allowed". I am therfore

forced to pay for electricity during my household peak times and when the sun is not shining sufficiently. The park "solar policy" at the time I applied for permission to install my system in April 2020 is attached in PDF format;

- 4. Installed solar in the park is at times feeding too much electricity back into the embedded network for the main transformer to manage;
- 5. As one of the consequences of the above, when I applied to have solar installed in April 2022, my solar provider Sunterra at the last minute added \$300 to the quoted price for a smart meter, before they would install the system. It was explained that in order to obtain approval to proceed with the installation, Western Power required the ability to remotely set an export limit and/or switch off my electricity export to the embedded network and I suppose ultimately to the wider grid. I understand that this is required for load balancing. However, this was an unwelcome additional expense;
- 5. Other park residents who are wanting to install solar to ultimately save money on electricity bills are now reportedly being denied permission to install any solar system at all;
- 7. Recently, all park homes have been upgraded with new electricity meters to comply with regulations. My understanding is that as a consequence of this there will be no KWhr or financial credit for households. Considering that all homes with solar will at various times export electricity into the embedded network and thereby contribute to the reduction of overall park electricity operating costs, this does not seem equitable. This also means electricity costs will immediately increase for many residents;
- 3. Most residents here are age pensioners and with increasing food, rent, fuel and gas (approx. 50% increase in 18 months) costs, and the pension nowhere near keeping pace with these cost increases, some can ill afford increased electricity expenses as well.

In a state such as Western Australia with so much sunshine, I do not understand the seemingly unreasonable limitations and the logic thereof, as follows:

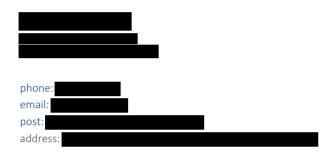
- 1. The denial of permission for new installations in an embedded network if the grid and/or embedded network is also remotely controllable and export can be limited?
- 2. I can understand that this may be necessary in emergency situations, but I cannot understand why Western Power would need to remotely turn off my inverter and prevent me from producing and using my own sunshine generated electricity within my own house if it is isolated from the grid and/or embedded network using the export limit function of the smart meter described above;
- 3. Limiting the system size of any residential solar installation if electricity export into the grid and/or embedded network is also remotely controllable and can be limited to zero? Surely this is nothing less than forced under-utilisation of a renewable resource and seems to me to ultimately contribute to the use of more non-renewable resources, thereby slowing the progression away from non-renewables and the direction that the world is ultimately moving.

In relation to electricity billing within an embedded network and as is stated in the attached

Village Solar Policy, my view is that every KWhr of electricity exported to the embedded network from an indivdual house should be deducted from the KWhrs imported by that individual house, and the difference billed accordingly. If everyone with solar is being export limited for load balancing purposes, then this limit should be applied equally across all systems within the park, including management owned and operated systems. This would ensure that no individual household is penalised financially and that any benefits accruing from the significant expense that they have incurred in installing solar in the first place are equitably distributed.

Thank you for your time.

Sincerely,





20/4/2022

Purpose.

The purpose of this policy is to outline the conditions and requirements for the installation of solar panels within

Scope

All solar installations are required to comply with the conditions contained within this policy.

Responsibility

It is the responsibility of park management and park residents to adhere to the requirements contained within this policy.

Requirements

- Residents can install up to a maximum 2.5 kVA inverter energy system.
- All inverter energy systems (IES) installed needs to be AS/NZS 4777 and IEC 62116 type certified and must be incapable of sustaining any form of islanded supply.
- All inverter energy systems need to be installed by an accredited installer and these companies can be found by heading to www.cleanenergycouncil.org.au/consumers/buying-solar/find-an-installer Clean Energy Council accredited installers are certified and trained to ensure your system meets industry best practice standards and all relevant Australian Standards.
- Residents need to complete the attached form with the relevant details of what system will be installed. At this point we will supply the NMI meter number and all necessary documentation needed for your solar installer to proceed.
- Please note any residents who installs an IES without the written confirmation from management will be asked to remove it.
- Each time that the electricity meter is read the number recorded is the starting number for the following month's read for example if the meter was read in June at 100 kW and in July it went backwards to 80 kW for July you would just be charged the electricity supply fee. If the reading for August was recorded at 90 kW then this month you would pay 10 kW for power usage plus the electricity supply fee.
- Anyone who has existing solar and is needing for it to be replaced will still need to complete the form attached.

Please contact the parks Managers if you require any further information.