



8 August 2018

Attention: Mr Sebastian Roberts  
General Manager, Networks  
Australian Energy Regulator  
GPO Box 520  
Melbourne VIC 3001  
mailto: [NSW2019-24@aer.gov.au](mailto:NSW2019-24@aer.gov.au)

Dear Sir,

**Response to AER: Essential Energy - Determination 2019-24**

I refer to the AER's Essential Energy - Determination 2019-24 published on 21 May 2018 with an invite for submissions by 8th August 2018.

I welcome the opportunity to comment on the preliminary positions and ask that you accept this letter as Steel Energy Technologies views on the Essential Energy - Determination 2019-24 for the Essential Energy electricity distribution. [Something has gone terribly wrong with electricity prices](#), since exiting electricity industry employment in 2011 then attempted feedback via appropriate channels:

- [Why have microgrids not already seen mass adoption in regional Australia?](#)
  - *Until you achieve weightless microgrid, you are fighting gravity. In the microgrid danger zone, you need to constantly expend energy on your microgrid in the form of budget, political capital, executive sponsorship, business investment, management attention, and microgrid life cycle efforts. Otherwise, you will fall back to earth (like a failed rocket). Things will revert back to the way they were before microgrid.*
  - [ACCC Communications Sector Market Study](#) gives great support to achieving escape velocity through licensing of microgrids in regional Australia, as Telecoms industry licenses frequencies. ['Lousy' NBN prompts community to crowdfund their own internet](#) and [Australia can't get Smart Grid without communications](#). Imagine how angry voters will be when penny drops on electricity and communications integration.,
- Australian Energy Market Operator CEO Audrey Zibelman pointed to the sheer scale of connection requests – where once it might be dealing with 20 such requests, it is now dealing with around 300, and many were looking to build in weak parts of the grid. A fast-track solution is needed, for example;

- Developing Australia's 50Hz corrigenda to [IEEE Std 1547™-2018](#) can be outsourced to advisian.com or similar.
- Review and adoption has to be by Australia's DNSP's plus AEMO with appeals and disputes process by AER / AEMC.
- Subordinate power system engineering to [IEEE 1547™-2018](#) has to be jurisdictionally by each State, not AEMO.

IEEE published [IEEE 1547™-2018](#) for Interconnection and Interoperability of Distributed Energy Resources (DER) with Associated Electric Power Systems Interfaces. IEEE 1547™ assures commissioning compliance across any type and size of DER implementation. Global expertise made [IEEE 1547™-2018](#).

□ As I emailed on Thu 14 May 2015 7:07 AM to Darren Kearney (Director) Australian Energy Regulator, I remain interested in a rationale of 'grid resilience' wherein distributed protection and automation intelligence harmonises with the power system topology.

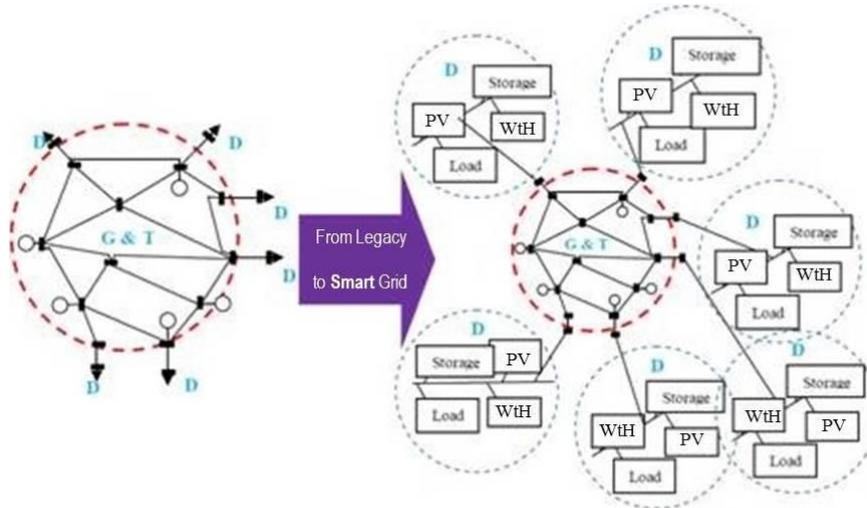
- Reference: "*Recycling in general, and the environment, is supposed to be a federal issue first and foremost — the state of our environment as a whole,*" [Garth Lamb said](#). "*Then it becomes state government in terms of managing waste, and then a local government [issue].*"
- All levels of Australia's government needed to assist in finding a solution according to Waste Management Association of Australia (WMAA) president Garth Lamb.
- You may not know it, but just to be sure that you are aware;
  - Tenterfield Shire Council Meeting 23 May 2018 attachments included a [Waste-to-Energy discussion paper](#)
  - [Business Minute Item No. 72/10 GOV37/18\) \(1\)](#) resolves to add to page 68 of [Operational Plan 2018/2019](#)
  - Investigate the operation of converting waste to energy during development according to media release.
- My generic proposal for waste-to-hydrogen facility and Microgrid in Tenterfield Shire Council *summarised in Appendix A and B* is based on;
  - Essential Energy Determination 2019-24 has Staged Reconductor Investment Option *ESS\_4022 Casino – Augment supply to Urbenville*.
  - Retain a portion of Option 2 Staged Reconductor (Stage 1 - 15km) :: staged reconductoring of Casino - Mallanganee 33kV feeder.
  - Establish Urbenville as Microgrid per papers page 3 of my resume (v7) :: stage 2 - ~14km reconductoring 33kV feeder to Bonalbo.
- Please note both Urbenville (Tenterfield Shire Council) and Bonalbo (Kyogle Shire Council) have hospitals – here's [Kyogle Economic Future Discussion Paper](#) (Part).

I would be pleased to discuss our comments at your convenience. Should you wish to discuss this submission in any way, please do not hesitate to contact Marcus Steel on 0488 145 494.

Yours sincerely,

Marcus DW Steel  
Principal Application Engineer  
Steel Energy Technologies  
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Steel Energy Technologies submission continues in Confidential Appendix A and Appendix B



Focus shifting from 'G&T' towards 'D' in Smart Grid

