



Clean Energy Council submission to the SA Government Department for Energy and Mining on Relevant Agents and compliant technologies

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback on the Government of South Australia (SA) Department for Energy and Mining proposed new requirements for distributed energy resources (DER) in SA.

The Clean Energy Council is the peak body for the clean energy industry in Australia. We represent and work with Australia's leading renewable energy and energy storage businesses, as well as rooftop solar installers, to further the development of clean energy in Australia. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

An important outstanding issue for the system of Relevant Agents is the extent to which pairing of agents and inverter manufacturers will be allowed. The current proposal seems to assume that all Relevant Agents will be willing and able to work with all inverter manufacturers and vice versa. This is unlikely to be the case.

We also have further questions regarding the role of SA Power Networks, regulation of Relevant Agents, compliant technologies and warranty issues.

We look forward to discussing these and other issues in further detail with representatives of the SA Government at the 16 September meeting of CEC's Distributed Energy Directorate.

Pairing of agents and inverter manufacturers

It will not be feasible to allow customers unfettered choice from the companies that have registered as a 'Relevant Agent'. Not all Relevant Agents will have arrangements with all inverter manufacturers and vice versa. It would be more practical for the customer, having chosen their preferred brand of inverter, to then choose their Relevant Agent from a list of the companies who have arrangements with the manufacturers of the customer's inverter. This will require maintenance of a register of which Relevant Agents work with which inverter manufacturers. A recent article¹ by Joseph Kassouf (chair of CEC's Inverter Listing Working group) titled 'Why controlling residential inverters is more complicated than it appears' should be compulsory reading for all policy makers proposing regulations for integration of DER.

- Will the SA Government allow pairing of Relevant Agents and inverter hardware / manufacturers and will it maintain a register for the administration of this system?
- Where third party controllers are claiming to be compatible with specific hardware (inverters) will the Office of the Technical Regulator (OTR) require verification that the appropriate technical and legal arrangements are in place?

The role of SA Power Networks

We understand that SA Power Networks (SAPN) intends to apply to become a Relevant Agent. SAPN has indicated that it intends to manage the customer relationship (i.e. agent authorisations, including managing customer 'churn'), provision of the 24/7 control room facility and a simple communications pathway, and eventually a simple Application Programming Interface (API) to issue remote disconnection/reconnection instructions. The technical solution providers would implement the capability to manage the remote disconnection and reconnection of the DER. SAPN is not intending to charge fees for the provision of this Relevant Agent service. SAPN has confirmed that it intends to be a Relevant Agent for systems larger than 200kW for which it already requires supervisory control and data acquisition (SCADA). It also intends to be a Relevant Agent for smaller systems over which it has no direct control. For smaller systems, SAPN intends to meet the OTR rules which require the Relevant Agent to illustrate technically how the inverter can be remotely disconnected / connected by partnering with technology providers that have the capability to provide this functionality. We note that this approach will necessitate the OTR allowing for pairing of Relevant Agents with technology providers. If this approach is allowed for SAPN then we would expect it would be allowed for all Relevant Agents and technology providers.

Regulation of Relevant Agents

- What consumer protections will be in place to protect customers from unscrupulous Relevant Agents?
- Will there be a 'Relevant Agent of Last Resort' for customers whose Relevant Agent goes into liquidation and who do not have access to a suitable alternative?

Sites with multiple agents, generating plants and NMIs

It is unclear whether multiple agents will be allowed for generating plants, components of generating plants and National Metering Identifiers (NMIs).

- How many agents will be permitted for each National Metering Identifier (NMI)?
- How many agents will be permitted for each electricity generating plant?
- Will there be a limit on the number of agents allowed per site?

¹ Kassouf, J. (2020), *Why controlling residential inverters is more complicated than it appears*, available at <https://www.linkedin.com/pulse/why-controlling-residential-solar-inverters-more-than-joseph-kassouf/>

- For sites that are installing solar PV plus AC coupled storage (i.e. systems can be controlled separately), do both systems need agents from the commencement of this requirement, or just the solar PV?

Compliant technologies

In a previous response from the Department of Energy and Mining it was confirmed that “it is not the intent of these changes that sites limited to zero export would require a relevant agent”.

- How and when will the intent that sites limited to zero export do not require a Relevant Agent be clarified in regulations?

Dynamic export limits

The Department for Energy and Mining ‘Recommended Regulatory Changes for Smarter Homes’ states that, “The owner or operator of plant connected by an inverter must have internet capability and an onboard communications port from 28 September 2020”. The draft *Electricity (General) (Technical Standards) Variation Regulations 2020* require inverters to be “remote communications capable” and require the Technical Regulator to prepare and publish guidelines that set out the requirements for ensuring that an inverter is “remote communications capable”.

Some inverters use wireless communication and do not require a physical connection socket. To avoid limiting the use of wireless communication, the CEC recommends the guidelines to be prepared by the Technical Regulator should allow for wireless communication or a physical connection socket. The CEC will be happy to assist with the development and implementation of the guidelines. We have extensive and detailed information on the internet capability of inverters which can be made available to DNSPs, regulators and others.

- Will the Technical Regulator’s guidelines to ensure that an inverter is “remote communications capable” allow for inverters with wireless internet capability as well as inverters with a physical connection socket?

Warranty issues

There could be unintended consequences for product warranties, particularly if there is not a system enabling pairing of Relevant Agents and inverter manufacturers. We also note that on declaration of an electricity supply emergency, the Emergency Management Act 2004 gives the Minister power to give directions to any person who engages in generation of electricity that the Minister thinks are reasonably necessary to respond to the electricity supply emergency. In addition to remote disconnection and reconnection, this could also involve requiring a battery system to switch into charge mode or provide support for black start capability.

- Will the Relevant Agent be liable for any actions that might void a product warranty? If not, who will be liable for product warranties if systems are required to operate outside the warranted operating range during an emergency response?