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11 September 2023

The Hon. Shane Rattenbury MLA  
Minister for Water, Energy and Emissions Reduction  
GPO Box 1020  
Canberra ACT 2601

Dear Minister,

**RE: ACT's Integrated Energy Plan**

SwitchDin welcomes the Australian Capital Territory (ACT) Integrated Energy Plan (IEP) and opportunity to provide feedback. In our submission we focus on how the ACT Government can support integration of consumer energy resources (CER) at least cost to consumers while minimising the risk of 'stranded assets'.

SwitchDin is an Australian energy software company that bridges the gap between distribution network service providers (DNSPs), original equipment manufacturers (OEMs), energy companies, and energy end users to integrate and manage energy resources on the grid. SwitchDin's technology enables our clients to build and operate vendor-agnostic virtual power plants (VPPs) and to optimise performance across fleets of diverse assets. SwitchDin operates in leading-edge distributed energy projects like Project Symphony, Simply Energy's VPP, the Northern Territory (NT) Solar Connect VPP, and others. We are working closely with SA Power Networks (SAPN), AusNet Services, Horizon Power and others, to enable direct interaction with CER using utility servers and clients compliant with the IEEE 2030.5 Australian Common Smart Inverter Profile (CSIP-AUS) protocol handbook. We have a gateway device, called a Droplet, which can operate as a IEEE 2030.5 client and we support other interoperability standards and methods. Using these capabilities we enable DNSPs to implement flexible exports, and we enable traders to access energy markets. This experience gives us a deep understanding of the challenges and benefits of the various interoperability approaches.

SwitchDin believes there is a very important role for the ACT Government and Evoenergy to support the efficient integration of CER. Efficient integration means that CER must be capable of receiving and responding to instructions from the DNSP. For this to be possible, inverters must incorporate a communication channel. Already, inverters connecting to the SAPN network are required to demonstrate the capability to communicate and respond to network managers using a communication channel that is compliant to the IEEE 2030.5 CSIP-Aus handbook. Victorian DNSPs are expected to adopt similar grid connection rules in early 2024.

We urge the ACT Government and Evoenergy to mandate that all inverters connecting to the ACT grid must be capable of communication and responding to the network operator. The longer the ACT delays this requirement, the greater is the risk that in future Evoenergy will need to manage a legacy of obsolete CER that is incapable of communication and providing support for management of the grid.

Thank you for the opportunity to respond to these important issues. I remain available for further discussions and inputs.

Best regards,

A handwritten signature in brown ink, appearing to read 'D. Gladman', with a long horizontal flourish extending to the right.

Darren Gladman  
Head of Policy and Regulatory Affairs

## **Why Efficient Integration of CER in the ACT Matters**

The transition from gas to electricity will be accompanied by the continuing rapid uptake of CER by Canberrans.

In its 'consumer-led' approach there will be an important role for the ACT Government to ensure that CER investments by Canberrans are 'fit for purpose' for the electrified suburbs and networks of the future.

CER must be effectively integrated into distribution networks in order to minimise the cost of the energy transition for all consumers.

Effective integration requires that CER be interoperable. This means that it is capable of communication and can respond to signals from the market or the ACT's DNSP, Evoenergy.

There is an important role for the ACT Government to set the pace and timing for the transition to interoperable CER. In its response to the Energy Security Board (ESB) draft interoperability policy, the Australian Energy Market Commission (AEMC) indicated that jurisdictions and networks are expected to drive uptake of interoperability at the rate that suits their circumstances. The ACT Government needs to make decisions in this area. It cannot be assumed that the AEMC or other market bodies of the National Electricity Market (NEM) will make these decisions on behalf of the ACT.

As Canberrans transition toward CER and away from gas, it is important that they invest in CER assets that will be capable of meeting the demands that are increasingly being placed on CER in other jurisdictions.

The ability for inverters to communicate with and respond to instructions from the DNSP is already a requirement for new CER connections to the South Australian grid, and Victoria will follow suit in early 2024.

Since 1 July 2023, inverters connecting to the South Australian distribution grid have been required to demonstrate flexible export capability based on testing conducted by SAPN. The Clean Energy Council (CEC) maintains a list of [Inverters with Software Communication Clients](#), which includes inverters with a communication channel that is compliant to the IEEE 2030.5 CSIP-Aus handbook. There are (as of 11 September 2023) 372 makes and models of inverter made by 19 original equipment manufacturers (OEMs) that have been tested by SAPN and listed by the CEC. This represents about 28% of the total number of makes and models of inverters that are approved for sale in the ACT, however the proportion by market share is significantly higher because the highest selling inverter brands have been among the first to implement CSIP-AUS.

The ACT Government should help to minimise the risk that Canberrans will invest in technology at risk of rapid obsolescence by encouraging or instructing Evoenergy to update its rules for inverters connecting to its grid. There should be a timetable that sends a clear signal to industry when it will be expected to install inverters that are capable of communication and interaction with signals from the market and the distribution network.

Allowing the continued installation of obsolete inverters that are incapable of responding to signals from the DNSP will exacerbate future challenges of managing the distribution network while allowing continued investment in CER by all Canberrans.