

Your views on the opportunities and challenges of a digitalised electricity system

User:

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Summary of information submitted

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Yes

Who are you submitting as? *

Individual

First name *

Steve

Last name *

Southall

Email *

[REDACTED]

1. What could stop or slow digitalisation of the electricity system? What would make it successful? How far should digitalisation go?

Stop or slow: Manufacturers not adding connectivity/APIs into their electrical products.
Inability to retrofit existing systems

2. Do you agree with how we have defined 'data' and 'information', especially in the context of making data more visible?

3. What data do you think needs to be more visible?

The data recorded by my "smart" electricity meter. It is completely inaccessible to me, and the small subset relayed to my electricity retailer is out of date, aggregated, and essentially worthless for home energy management

Data from any large household consumer of electricity needs to be accessible. In particular, power and temperature associated with hot water heating, hot water heat pumps, HVAC systems & spa pools

Data from solar/battery systems including all power flows - available locally over eg Modbus and not just aggregated into web stats

Data from EVSEs

4. What challenges do you think we might face in trying to increase visibility? What considerations need to be given to data privacy or cybersecurity? How could increasing visibility create more opportunities for consumers, participants and innovators?

Internet interfaces are always problematic. They can be subject to outages, security issues, latency and arbitrary data aggregation. Much better is a local device network, whether wifi, Zigbee etc so the data can be incorporated into home automation systems such as Home Assistant

5. What work are you planning or doing to increase visibility within the electricity system? Are you aware of any work that contributes to this goal?

Personal development of my home energy management system

6. What challenges do you think we might face in increasing interoperability? What other opportunities do you think greater interoperability will bring?

The EA's role should be to support existing and future interoperability standards, and encourage manufacturers to support them through open interfaces. Simple questions like:

Why can't householders have access to their smart meter data?

Why can't householders see the power consumption and water temperature in their

HWCs?

Why can't householders make use of the huge battery capacity of their EVs? (V2H or V2G capability)

7. What work are you planning or doing to increase interoperability within the electricity system? Are you aware of any work that contributes to this goal?

I'm doing my best with Home Assistant, CT clamps and sensors, but things would be so much better with direct device connectivity and open APIs

8. What challenges do you think we might face in simplification? How could simplifying create more opportunities?

Consistent open standards over a variety of physical and data transport options. Not necessarily simple, but consistent

9. What work are you planning or doing to increase simplification within the electricity system? Are you aware of any work that contributes to this goal?

Real time access to smart meter data would be a major step to simplification

10. Do you have any other comments on this paper?

Why wasn't it published five years ago? The EA almost appears to be asleep at the wheel. Technology is evolving at a rapid pace but the electricity industry in NZ seems to be stuck in the dark ages.

Written feedback and/or supporting documentation

We will publish all survey responses on our website alongside your name and organisation (if applicable). Are you happy for the Authority to publish your submission? If you think we shouldn't publish any part of your survey response, please select 'No' and let us know what parts should not be published and why in the box below. *

Yes
