

# Wattwatchers Response to the ESB's Data Services Delivery Model Consultation Paper February 2023

DATE: 13 February, 2023

CONSULTATION: ESB Data Services Delivery Model

SUBMISSION STATUS: For release as a public submission

## INTRODUCTION TO OUR SUBMISSION

Wattwatchers Digital Energy (Wattwatchers) appreciates this opportunity to respond to this second instalment in the Energy Security Board (ESB) reforms of data strategy for the energy sector, focused on data services delivery model options.

We also responded to the first instalment in August 2022, noting that both the first and second instalments deal primarily with data that is already held by the industry, but is restricted from flowing to relevant approved stakeholders - mainly intra-industry stakeholders - under current policy settings (e.g. sharing of AEMO data).

As an energy data commercial enterprise, Wattwatchers is operating primarily outside of the regulated side of the market. Our team continues to anticipate that subsequent stages of this ESB-led data strategy reform process, including a broader focus on data services, will be of greater relevance to Wattwatchers - and other players in the emerging commercial energy data services sector - than these limited, and still very intra-industry focused early stages.

In this regard we note and appreciate that this ESB consultation paper says: '*Data services models however should also be explicitly assessed for their capacity to adapt, scale, and grow over time, responding to emerging needs and priorities.*' A number of our submissions below are framed and included with this guidance in mind.

Our team knows, in a number of cases, the policy and regulatory personnel working on data and metering/monitoring strategies and reforms in the ESB, AEMC, AEMO and other agencies, and we have a high regard for their skills, professionalism and commitment.

Nonetheless, we are concerned about the incremental path being taken on data strategy by the ESB, and related regulatory and market bodies, and what we perceive as the lack of coherence, coordination and complementation across multiple relevant regulatory processes currently underway, including but not limited to the AEMC metering review (now at draft rule consultation stage, and closed for submissions on 2 February 2023); the National Energy Productivity Strategy (NEPS) consultation (closed for submissions on 3 February 2023); and the AEMC flexible trading arrangements consultation (closing for submissions on 16 February 2023).

There are lots of bits, but in our submission all of the dots are not being joined up.

### **Too little, too slow, too limited**

Overall, however, we are concerned that given its high level of importance to accelerating and delivering the clean energy transition and decarbonisation for Net Zero targets, the current progress on data strategy is a case of being too little, being done too slowly, and is too limited in terms of its scope and ambition.

In submitting this - with respect and also with recognition of the complexity and many challenges involved, especially for the legacy energy sector - Wattwatchers points to the energy data strategy work being done in the UK, which is widely recognised as being a usefully comparable market (and regulatory structure) to that in Australia.

In October last year (2022) the UK Government announced it was moving on to a major feasibility study for a 'digital spine' for the energy system, following the release earlier in 2022 (January) of landmark UK Energy Digitalisation Taskforce recommendations, which span areas including interoperability, security and carbon monitoring<sup>1</sup>, and which followed the UK Energy Data Taskforce's earlier report in 2019<sup>2</sup>.

The UK Energy Digitalisation Taskforce<sup>3</sup> describes a 'digital spine' thus:

*'... a thin layer of interaction and interoperability across all players which enables a minimal layer of operation critical data to be ingested, standardised and shared in near real time.'*

---

1

<https://www.current-news.co.uk/news/energy-system-will-fail-to-manage-growing-complexities-without-digitalisation-taskforce-warns>

2 <https://www.gov.uk/government/groups/energy-data-taskforce>

3

<https://www.gov.uk/government/publications/energy-system-digital-spine-feasibility-study#:~:text=The%20Energy%20Digitalisation%20Taskforce%20report,shared%20in%20near%20real%20time%E2%80%9D.>

Relevant to ESB's role, its current consultation, and the priorities for Australian energy networks, a media report on the launch of the 'digital spine' feasibility study said in part:

*'The Department for Business, Energy and Industrial Strategy (BEIS) claims a smart, flexible energy system can improve energy security and help deliver net zero by 2050 at a lower cost to the consumer. Digitalisation of assets could prove to be crucial in achieving net zero in the UK. This could be achieved via the proposed "digital spine" which is able to facilitate efficient system operation, improve access to new markets and support development of new services for a smart and flexible energy system.'*<sup>4</sup>

We note and appreciate that the ESB consultation, advised by consultancy Accenture, did include relevant UK stakeholders on its consultation list (i.e. UK regulatory body, Ofgem and UK energy data specialists Energy Systems Catapult). Page 10 of the consultation paper, however, clearly shows that Australian innovators and solution developers have not been included in the stakeholder consultations that have helped to frame proposals on data services delivery model options.

With both consumer and system interests in mind, we submit that the ESB should look to leapfrog ahead of its current trajectory on data strategy/data services by leveraging the UK's leadership work and ongoing direction, avoiding spending a lot of time potentially 'reinventing the wheel'.

In particular, we submit that the light-touch concept of a flexible 'digital spine' makes good sense for Australia as well, and should be embraced by the ESB and the industry bodies it represents. In our main submission below, Wattwatchers has included proposed high-level principles for energy data strategy in Australia that echo much of the UK work, and are based on own experiences and lessons learnt as an emerging energy data services provider from the (mainly) non-regulated space.

---

4

<https://www.current-news.co.uk/news/uk-government-launches-to-feasibility-study-to-create-a-digital-spine-for-the-energy-system>

## MAIN SUBMISSION

### Who we are

Wattwatchers is Australia's leading digital energy platform, enabling fast, powerful and scalable solutions to monitor, analyse and control electrical circuits in real time – maximising the benefits from renewable electricity, sustainable building and energy management.

Our solutions suite spans devices, datasets, analytics, software and Internet of Things (IoT) connectivity, for energy and non-energy applications across home, community, commercial and industrial, and utility use cases.

Our open business model promotes technology collaborations, with dozens of third-party partner integrations with our REST API - in Australia, and internationally. Product brands include Wattwatchers (hardware and data to the cloud), MyEnergy (mobile app) and ADEPT (agile IoT platform for managing multi-technology fleets in real-time).

Data is effectively both the DNA and the connective tissue of our business. We create and contribute to an energy solutions ecosystem in which vital data and insights are readily available to multiple stakeholders, and can be easily shared between a choice of services and applications, while protecting cybersecurity and consumer data rights including privacy, security and accessibility.

### Our data resources

Aside from our business as usual, Wattwatchers has considerable field experience with data sharing and security/privacy issues - spanning customer and system-relevant data - through our two major grant projects:

- My Energy Marketplace (MEM) supported by grant funding from the Australian Renewable Energy Agency (ARENA)<sup>5</sup>;
- Heyfield MyTown Microgrid project<sup>6</sup>, with grant funding from the Australian Government through the Regional and Remote Communities Reliability Fund (RRCRF), and the Victorian Government through the Latrobe Valley Authority (LVA).

---

<sup>5</sup> The My Energy Marketplace project is receiving funding from ARENA as part of ARENA's Advancing Renewables Program. The views expressed herein are not necessarily the views of the Australian Government, and the Australian Government does not accept responsibility for any information or advice contained herein. <https://arena.gov.au/projects/wattwatchers-my-energy-marketplace/>

<sup>6</sup> <https://www.uts.edu.au/isf/explore-research/projects/mytown-microgrid-heyfield-victoria>

Among other objectives, the MEM is creating a major new energy dataset with granular, real-time and historical electricity data for homes (up to 5000 around Australia), small businesses and schools, with end-customer pre-approval for data sharing under user-friendly terms and conditions (personally-identifying information is excluded without further express authorisation).

This MEM data is already being accessed for a range of government, industry, research and community project purposes, providing hard-to-obtain data from behind the utility meter, down to individual circuit level (e.g. whole-of-site grid imports and exports, solar generation if applicable, and major loads such as air-conditioning, electric hot water, pool pumps, EV charging etc.)

Via other projects and arrangements, data from Wattwatchers devices has been used extensively by AEMO, working with researchers, to support the integration of small-scale solar generation into the electricity grid<sup>7</sup>.

### **Who should have access to data?**

As with the ESB's initial data strategy consultation last August, Wattwatchers does want to make submissions in regard to a core topic, being who can access data (i.e. currently Class A and Class B bodies for what can be broadly-described as 'regulated industry-held data').

We respectfully submit that the ESB should broaden its thinking in regard to access to data in order to ensure that technology innovation is directly targeted, is well supported, and can be accelerated to help deliver an orderly and successful energy transition.

In suggesting this course of action, we are not merely proposing a one-way flow of data from official or industry sources to public-funded researchers, as appears to be envisaged as the starting point if not the ultimate end point in the ESB Data Services Delivery Model (this consultation).

Significant energy data resources increasingly are being created by technology players - including Wattwatchers, but also others such as Solar Analytics, SwitchDin, Redback Technologies, Tesla, Evergen, Sonnen and many more now or in the future - and it is important to establish both commercial and public interest channels for securely sharing such data, and potentially for data exchanges as well.

---

7

<https://arena.gov.au/projects/enhanced-reliability-through-short-time-resolution-data-around-voltage-disturbances/>

Thus we see the need for a UK-style 'digital spine' that is flexible enough to allow data to flow multi-directionally, between regulated and non-regulated, and customer and industry, and incorporating commercial data services providers and technology innovators as well as the industry establishment and public-funded research institutions.

### **Principles for a more ambitious and effective data strategy**

High-level elements of, or principles for, an 'energy data strategy' and 'digital spine' for Australia should include:

- Useful energy data should be as 'open' as possible by default - notwithstanding very significant issues around cybersecurity, privacy, user security and consumer data rights broadly defined (including but not limited to the Consumer Data Right for Energy which was launched in November 2022).
- Energy data has value, and real costs to capture or create it, but is significantly affected by split incentives, proprietary ownership (i.e. 'data walled gardens', regulatory barriers and other factors, and in most cases no single party can access the full 'value stack' of an investment in energy data-related assets (e.g. metering, monitoring, apps, analytic platforms etc).
- Thus there needs to be a 'marketplace for energy data' operating in parallel with the 'marketplace for electrons', running on a 'digital spine', which will enable sharing of data, its portability between applications and use cases, its availability for a wide range of innovation in services and solutions, and cost-effective access to and equitable sharing of the value that is being created from data (especially for customers where data that originates from them is involved).
- And, similar to the electricity system itself with the rise of Consumer Energy Resources (CER), also known as Distributed Energy Resources (DER), data should be enabled to flow bi-directionally and indeed multi-directionally between the regulated and non-regulated sides of the energy system (again relevant to the concept of a 'digital spine' for Australia).

### **Access to data**

Wattwatchers submits that greater access to data for commercial operators, especially those developing technology and data-driven solutions, is vital for a fit-for-purpose energy system in the 21st century.

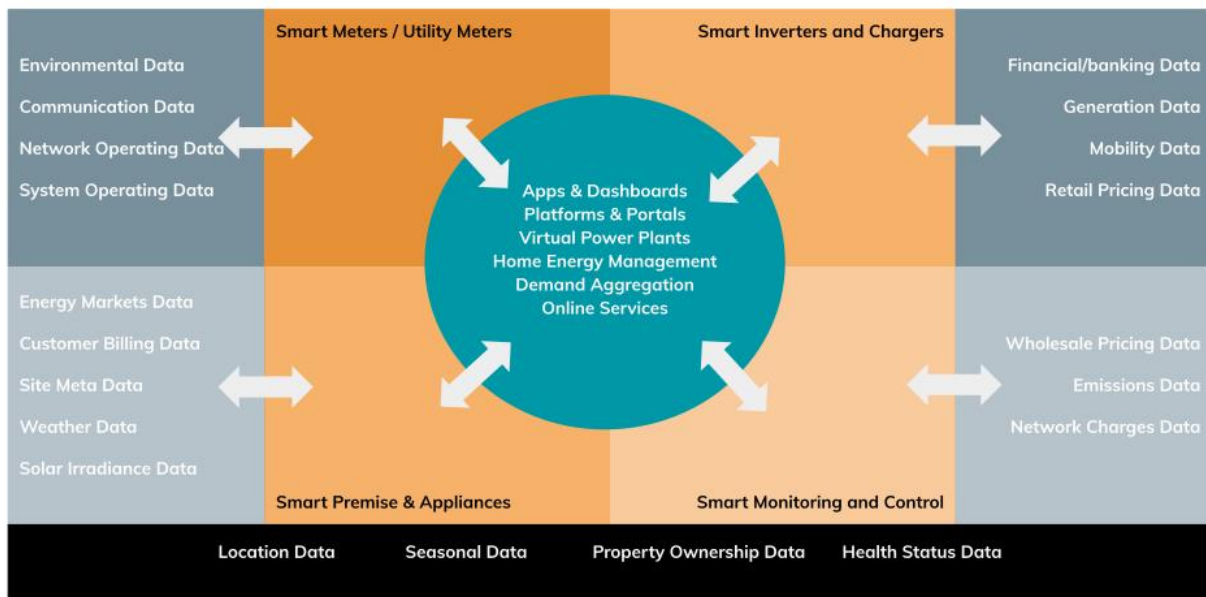
In the Grid 1.0 past, a narrow set of known industry players (e.g. Class A) and recognised researchers (e.g. Class B) may have covered the field for an inner circle for data sharing

purposes. In the new Grid 2.0 era, however, data-driven energy technologies, business models and solutions will feature, and these will be developed in many cases beyond the ‘usual suspects’, by both energy and non-energy commercial players, and by a wide range of software/app developers.

The graphic below (Figure 1) indicates the very broad view we have in regard to what data is relevant for the energy transition and the data-driven solutions that will support customers, communities, researchers, the industry, regulators, markets and a broad range of commercial solution developers and providers.

**Figure 1:**

**New data ecosystem for low voltage electricity networks**



We urge consideration of including a further category of ‘Class C bodies’ which would cover commercial and non-commercial entities that are engaged in the development and delivery of energy-related solutions, or non-energy solutions that use energy data.

In our submission the current exclusive focus on a narrow set of apparently ‘trust by default’ industry bodies as Class A bodies, and researchers as Class B bodies (potentially with additional security requirements), will hold back innovation for the energy transition.

We accept that the entities we believe should be included in a 'Class C bodies' category may still be excluded from some especially sensitive system data, and would be required to demonstrate their *bona fides*, but nonetheless contend that this discussion should be opened up by the ESB in the context of its data strategy consultations.

## **RESPONSES TO SPECIFIC CONSULTATION QUESTIONS**

### **Question 1: Are there any priority data services missing from the analysis?**

As explained above, Wattwatchers is concerned that the whole consultation currently excludes the technology innovation sector and the emergence of commercial energy data services providers with their own datasets which are already, or may be of value to the electricity system for a range of reasons, purposes and use cases. The stakeholder consultation list on Page 10 of the paper makes this clear. Also as explained above, we see the need for useful data to flow multi-directionally, in a marketplace for energy data, which includes data from both regulated and non-regulated sources, and for purposes and use cases that are both inside and outside the regulated system - with end-customer benefit being the primary consideration rather than whatever suits industry players best.

### **Question 2. Are there other barriers that inhibit data services not identified here?**

Yes, as we have indicated earlier in this submission, the failure to recognise and embrace an expanding multiplicity of relevant data sources and services, including the emerging case of commercial datasets and data services providers.

### **Question 3. The ESB welcomes feedback on the features proposed for data services delivery models. Are there other considerations that should be taken into account?**

Wattwatchers submits there should be greater coverage of how a data services delivery model would be implemented, especially if it is intended to evolve and grow over time, including mechanisms for service delivery e.g. specific items like using Application Programming Interfaces (APIs) and the broader flexible 'infrastructure' including a 'digital spine'.

### **Question 4: What are stakeholder views on the appropriate scope for data services in the short to medium term?**

The current point of view is very intra-industry focused and needs to be more end-customer benefit focused.



**Question 5: Are there other data services delivery models that could be considered?**

Yes, inevitably, but don't put the choice of carts in front of the horse. Wattwatchers urges the ESB to consider a much wider, more ambitious scope for envisaging the future data strategy, and the flexible 'digital spine' infrastructure required to truly support and augment the clean energy transition and decarbonisation era, and to ensure that a more expansive approach is reflected across other relevant regulatory and policy processes. To this end, there is much more to learn and follow from the UK approach. The intra-industry exchange of data, and its provision to selected public-funded researchers, is largely a 'no brainer' that should be dealt with as a more routine digital housekeeping and updating exercise.

**Question 6: Are there better governance models for the AEMO dedicated unit proposal, outlined in the example?**

Other stakeholders will be better positioned to respond to this question. In our submission, this is more of a 'just do it' case for AEMO because the current barriers to sharing its data are so clearly out-of-date and needlessly impeding the orderly and effective execution of clean energy transition and decarbonisation.

**Question 7: Are there other benefits, challenges and implementation issues that should also be considered? Are there any cost considerations that haven't been explored in this paper?**

As previously indicated, the emerging commercial energy data services sector and technology innovators are largely being ignored in spite of their potential to both be contributors to the pool of data available from which services can be created and supported; and also to be users of data from industry and other sources to deliver solutions and services for end-customers and industry players alike. This maps to the importance of a flexible 'digital spine' and the need, in our submission, for the concept of a marketplace for energy data where the costs and value of data can be properly recognised and shared, including with end-customers where their data is being used by third parties to create additional value.

**Question 8: The ESB welcomes stakeholder views on whether the proposed criteria are appropriate to assess alternative data service delivery models.**

We broadly support the proposed criteria, noting that our issues lie mainly with the failure to recognise a wider set of legitimate stakeholders, and in particular technology innovators and emerging players in a commercial energy data services sector.

**Question 9: The ESB welcomes stakeholder views on the initial assessment of the strengths and weaknesses of each model presented here?**

We believe other stakeholders are better positioned to respond in regard to specifically assessing the strengths and weaknesses of the different models offered in this paper.

**Question 10: The ESB welcomes stakeholder feedback on its proposed phased approach to delivery of data services.**

As indicated earlier, in our submission freeing up data within the industry is a ‘no brainer’ and should be expedited with a minimum of fuss and bother i.e. this is housekeeping and updating, not the real reform required. There are much bigger issues for future data sharing, including allowing data to flow much more freely between the regulated and non-regulated sectors, that need to have real attention focused on them.

**Question 11: The ESB welcomes feedback in particular on how well models deployed for this first phase of delivery (e.g. AEMO dedicated unit model) might be able to evolve or transition to future models.**

As indicated above, the proposals in this paper should be seen more as ‘just do it’ housekeeping. The work may be useful to improve how industry data is created, held, organised and shared, but it is not the basis for real energy data strategy when compared with the UK work by its Energy Data Taskforce and subsequently its Energy Digitalisation Taskforce.

**Question 12: The ESB welcomes views on what might be priority features, services or data sets as part of this first phase.**

Given the limited menu of data services, other stakeholders are better positioned to respond in detail. We do, however, as indicated earlier in this submission, contend that the scope of ‘who’ can access data needs to be expanded to include technology innovators who are creating and providing new, often data-driven solutions and services.

## Conclusion

We thank the ESB for this opportunity.

As outlined above, a key point in this submission is the need for a 'Class C bodies' category or similar to open up greater potential for useful data to flow to and from the innovation sector, and we urge the ESB to consider this further as part of stepping up its ongoing data strategy policy development work.

Wattwatchers would welcome further opportunities to engage on this and related topics, including how a free-flowing 'marketplace for energy data' can be created, evolved and scaled.

***This submission has been coordinated for Wattwatchers ([www.wattwatchers.com.au](http://www.wattwatchers.com.au)) by its Head of Impact and Communications, Murray Hogarth - email [info@wattwatchers.com.au](mailto:info@wattwatchers.com.au) (these email contact details can be published).***