Progressive Green PTY LTD T/A Flow Power
ABN 27 130 175 343

Real-time data for consumers

Flow Power submission

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About Flow Power

Flow Power is an electricity retailer that works with energy customers throughout the National Electricity Market (NEM). Together with our customers, Flow Power is committed to our vision of creating Australia's renewable future.

Flow Power now offers retail plans to residential customers, accelerating the take up of consumer energy resources.

We empower customers to take meaningful action. By providing energy knowledge and innovative technology, we are delivering smarter ways to connect customers to clean energy to make our renewable future a reality. We provide our customers with:

- Engineering support, access to live data and transparent retail tariffs that reward demand flexibility and encourage electricity usage at times of plentiful renewable output.
- Hardware solutions that equip customers with greater information, visibility and control over energy use.
- Access to renewable energy, either through distributed solar and storage installed on site, or through a power purchase agreement with utility-scale wind and solar farms.

We believe that by equipping customers with these tools, we can lower costs for all energy users and support the transition to a renewable future.

Background

Real-time meter data is foundational to the energy transition

Flow Power strongly supports the provision of real-time meter data to consumers. Through our experience servicing customers across the NEM, we've found that access to real-time meter data is a crucial first step to unlocking demand flexibility. We support the real-time meter data being made available to the consumer to do use for their own benefits, and to consider sharing this data with third parties. With access to real-time meter data, consumers are better able to engage with their energy use and to be presented with the opportunity to participant in demand response, demand flexibility and more.

The demand-side of the market is expected to grow quickly. This will be driven by electrification of heating and transport. In AEMO's Integrated System Plan, consumer energy resources represent large shares of both new generation and storage entering the market. It is key that real-time data is enabled as soon as possible to lay the groundwork for the integration of these consumer energy resources into the broader energy market.

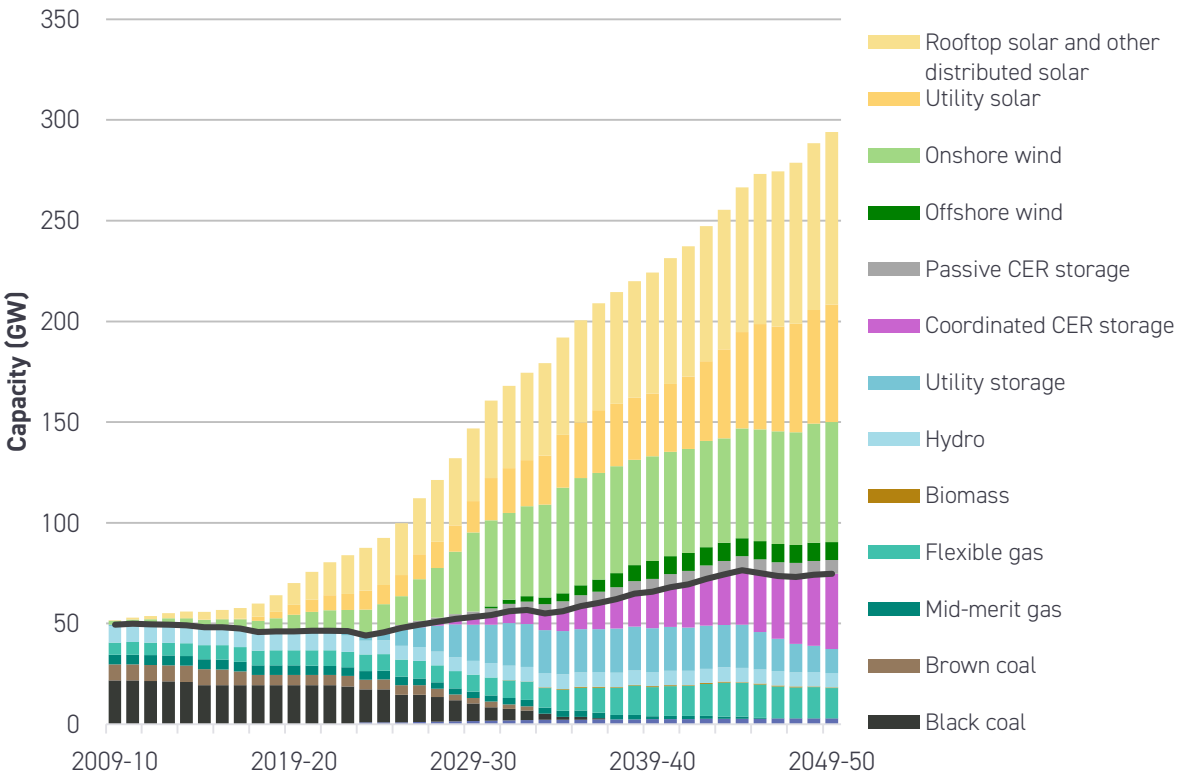


Figure 1 - AEMO ISP forecast

Demand flexibility is a *must* alongside electrification

To get the most out of electrification, there needs to be a focus on demand flexibility. The growth of residential electrification presents enormous opportunities for demand flexibility. Embracing demand

flexibility along side electrification will lower costs for participating customers and across the electricity market. Alternatively, embracing electrification without demand flexibility risks pushing up costs across distribution networks and the wholesale market.

Flow Power has been highly successful in working with a diverse range of energy customers and supporting their development of demand flexibility. Unlike other retailers, we pass through incentives to all our customers to encourage them utilise their demand flexibility and use electricity at times of low prices and high renewable output. The tariff structure of all our products is designed to engage customers further with the wholesale market; not only providing them with opportunities to achieve financial savings but to also improve the carbon-intensity of their electricity usage.

We equip our customers with the tools they need to start using energy in smarter ways. Demand flexibility improves outcomes for our customers and improves market wide outcomes by moving load out of peak periods into otherwise low demand periods, improving reliability and integrating grid-scale renewables.

Encouraging more demand flexibility

The graph below shows the correlation between the renewable output, carbon intensity of the grid, and wholesale electricity price dynamics in Victoria from 2017 to 2023. It shows an inverse relationship between wholesale prices and renewables/grid carbon intensity. Below, we have also provided a case study of a Flow Power customer who changed their demand in response to real-time data and price signals.

These graphs represent the opportunities available for increasing demand flexibility. Customers with the right incentives can take advantage of these variations in spot price, and better align energy use with renewable generation.

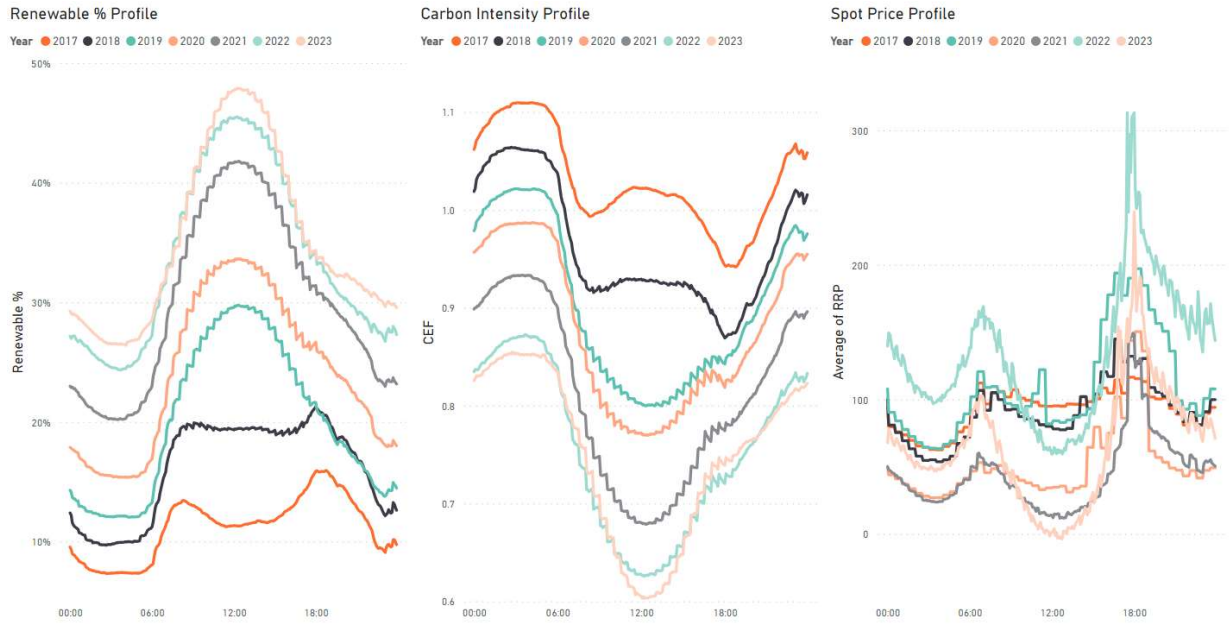


Figure 2: Renewable percentage, grid carbon intensity and spot price profile in Vic, 2017-23

Benefits of real time data access

Flow Power offers its customers access to real time meter data. This meter data gives customers instant feedback on the amount of electricity they are using, which in turn assists them in making decisions about how and when they use electricity. Real-time data helps customers understand the relativity of different loads. For example, how lighting compares to cooking to washing machines to EV charging. In our experience, it is very difficult to get customers to engage in demand flexibility without starting with access to information.

The scale of the benefits associated with real-time meter data access will grow with electrification. The electrification of homes will significantly change the amount of electricity homes use and their potential interaction with the grid. It is possible that if customers electrify cooking, heating and transport with accompanying information, their load shapes with significantly contribute to peak demand. An example of this is shown in the figure below.

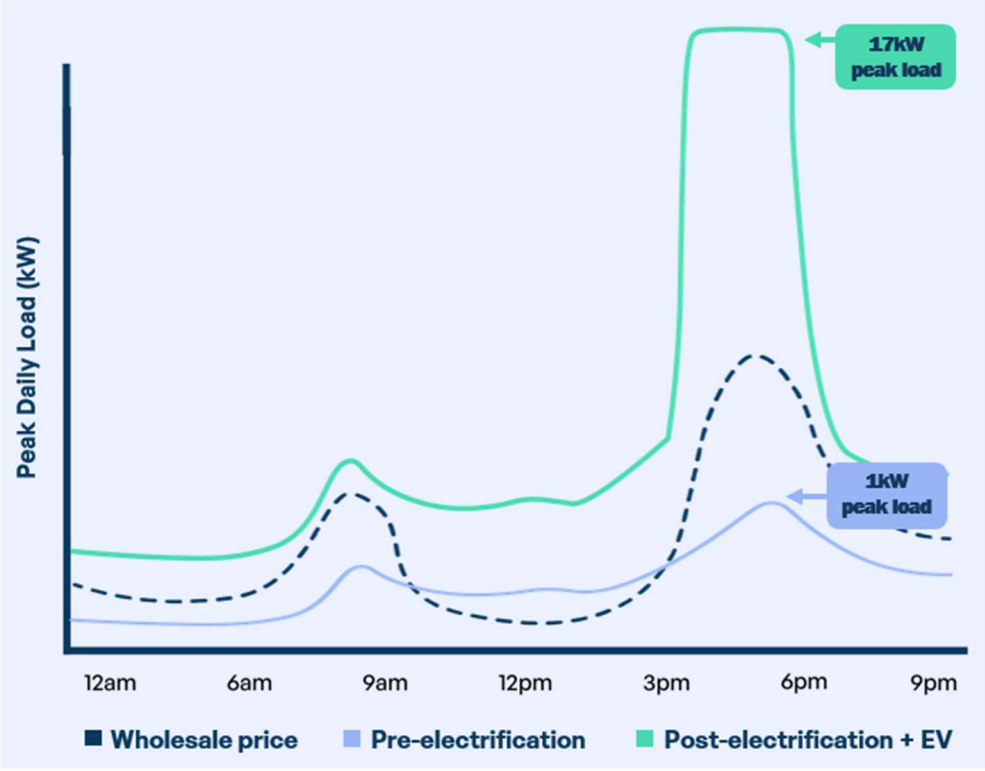


Figure 3 - Changing load profile with electrification

On the flip side, real-time data, coupled with price incentives can give these customers with a basis for moving that electricity consumption out of peak periods into lower priced windows. A case study of a Flow Power customer is shown below. This customer concentrates their EV consumption and battery charging around negative spot prices.

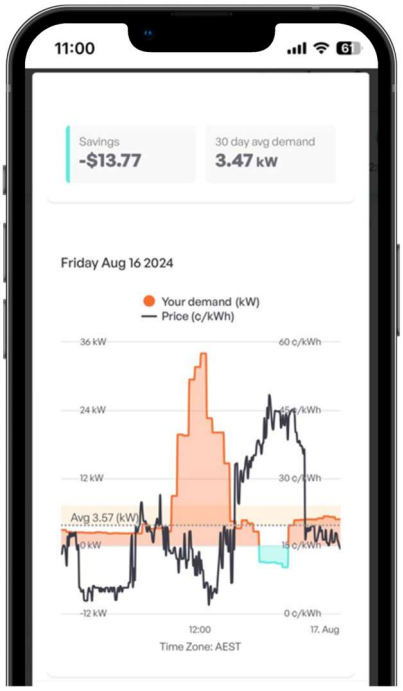
Case study - What happens if we give customers with CER real-time data and incentives?

Overview

- Home 11kW electric vehicle charging
- 15kWh battery
- Charge times 10am - 3pm
- Ausnet's EV Network Tariff trial
- Flow Home's dynamic pricing mechanism which rewards load shifting

Results

- Consumption increased by 57%
- Energy rate decreased from 30.95 c/kWh to 21.19 c/kWh On average paying 40% below VDO



Response to other consultation questions

Who should have the right to access real-time data?

We believe the consumer should have the right to request access to their meter data. The consumer should have the right to provide access to third parties where they choose to provide access.

The process of allowing the consumer to provide permission to third parties to access this data should be made as simple as possible e.g. a check-box in the change of retailer process.

There are multiple ways to provide access to real-time meter data. We encourage the AEMC to consider an approach that is both scalable and robust over time

How should real time data be defined?

For real time data to be useful, it should be provided at a high granularity than expressed in the rule change request. The NEM operates on five-minute pricing and dispatch intervals. Five-minute granularity of meter data would not allow this data to be used with respect to wholesale electricity prices. Instead, we believe the focus should be on data granularity at sub-15 second intervals and as close to real-time as practicable.

Conclusion

Flow Power is strongly supportive of this rule change proposed by Energy Consumers Australia. If you have any queries about this submission, please contact me on (02) 9161 9068 or at Declan.Kelly@flowpower.com.au.

Yours sincerely,

Declan Kelly

Regulatory Policy and Corporate Affairs Manager

Flow Power