



Power and Water Corporation

Power Networks Large Energy Users Forum

12th October 2017

Research Findings

PowerWater



REPORT PREPARED BY

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EXECUTIVE SUMMARY



Power and Water Corporation (Power and Water) conducted a two hour Large Energy Users Forum (LEUF) at the Darwin Central Hotel on Thursday 12 October 2017.

The LEUF was designed to gain the feedback and opinions of the largest energy users across the Northern Territory (NT), specifically regarding Power and Water's network distribution and transmission business for the next five year regulatory period, commencing July 2019.

These large users (consuming >750 MWh pa) are the only customers across the NT who aren't protected by the NT Government's Pricing Order. Any network pricing or tariff structure impacts will be represented on their retail electricity invoices.

40 consumers were invited to participate in the LEUF, representing approximately 20% of the of the major customer segment. 17 participants attended the forum representing 15% of sites within this consumer class, and approximately 38% of the total energy (KWh) consumed within this segment. All attendees received individually-calculated briefing packs detailing the impacts of tariff options for their sites.



EXECUTIVE SUMMARY



Power and Water conducted the LEUF as part of the broader Customer and Stakeholder engagement program which it ran throughout 2017. The engagement program has been specifically designed to gain feedback from a wide cross section of the NT community.

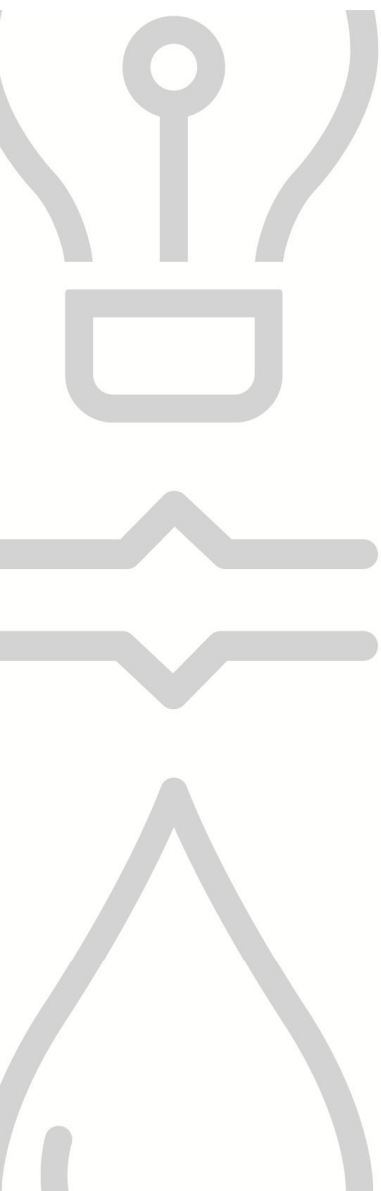


Power and Water presented participants with information relating to our:

- Engagement program
- Benefits of cost reflective tariff structures
- Forecasted revenue and revenue alignment by customer type
- Tariff structures
- System load profiles and how they're changing and how that relates to costs, and
- Power Factor – what it is and why its important.

Once we had gone through this information we then presented customers with site specific information relating to:

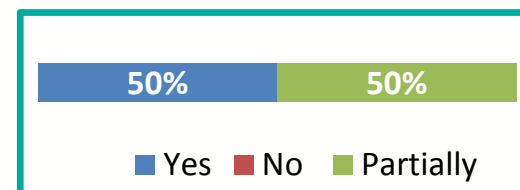
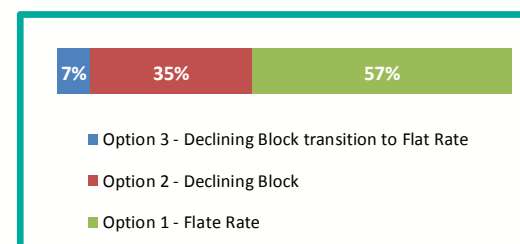
- Our draft thinking
- Elements of each proposed tariff structure, and
- Bill impact to customers for tariff design options.



EXECUTIVE SUMMARY

Our research questions focussed on specific tariff changes, options, and impacts for these customers. It identified that these customers:

- **Supported the cost reflective option** | More than half selected our “Fully Cost Reflective” tariff structure option as their first preference. This option removes the declining block in our demand and energy charges and adds a charge for customers with a poor power factor.
- **Understood impacts** | Half understood their bill impacts and the other half partially understood these, noting they needed to understand their total bill impact from their retailer.
- **Wanted time to fix power factors** | Some customers requested more time to prepare for the introduction of poor power factor surcharges (KVA_r charge), asking that these are introduced later in the regulatory period to allow time to design and budget for their power factor correction solutions.
- **Welcomed making weekends off-peak** | Aligning with the retailer treatment of all weekend as off-peak.



“The transition period, 1 July 2019, does not give business sufficient time to adapt/change to new power factor tariffs”
Major Energy User

“The move to weekend off-peak is very good”
Major Energy User

EXECUTIVE SUMMARY

Overall, customers within this segment supported Power and Water's proposed plans for the next regulatory period. They also provided feedback at the conclusion of the event, rating this forum 8.3 out of 10.

“Keep doing forums and communicating with businesses.”

Major Energy User

“Presenters were very open and transparent.”

Major Energy User



The information gained through the forum will be correlated with the feedback gathered throughout our program, including the focus groups, in-depth interviews and Customer Advisory Council meetings. This feedback will inform our January 2018 regulatory submission.



Tariff journey so far



The NT Electricity Market has undergone significant reform over the past four years. This has largely been driven by the transition to the National Electricity Market and structural separation of Power and Water into three stand alone government owned corporations:

- Power and Water – Electricity network service provider
- Jacana Energy – Electricity retailer
- Territory Generation – Electricity generator

To begin the forum, Power and Water sought to gage customer sentiment regarding pricing over the last few years (because this segment had been subject to tariff rebalancing in the current period). Many of the responses didn't relate directly to the current structure of the electricity market, especially the network business. Any feedback that has been provided not relating directly to the Power Networks business, has been passed on to relevant system participants.

Q1. Please note any feedback on your experiences with our pricing changes over the last 5 years

“Clearer breakdown of electricity invoice, lack of communication on tariffs, better reliability with increased network prices which happy with”

“Challenging to get detailed information on pricing & usage”

“Pricing changes for network and system control have not had a significant impact”

“Massive rise in 2013 was very difficult”

“Peak vs Non Peak timing between retail & distribution are not aligned”

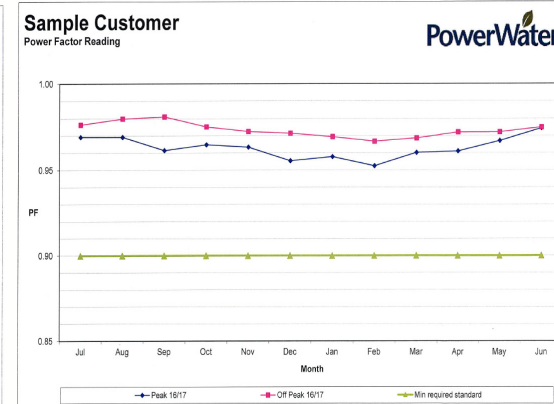
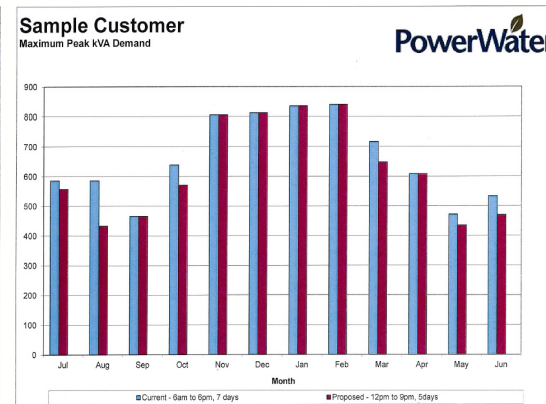
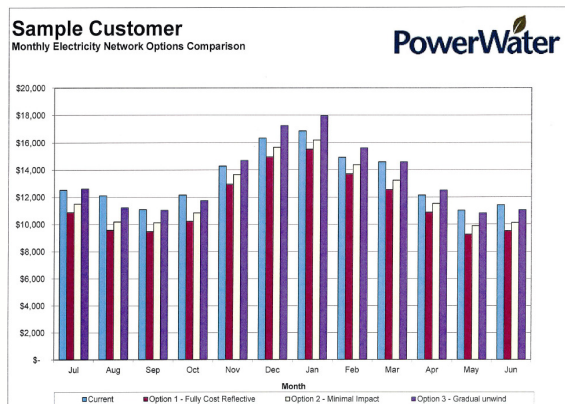
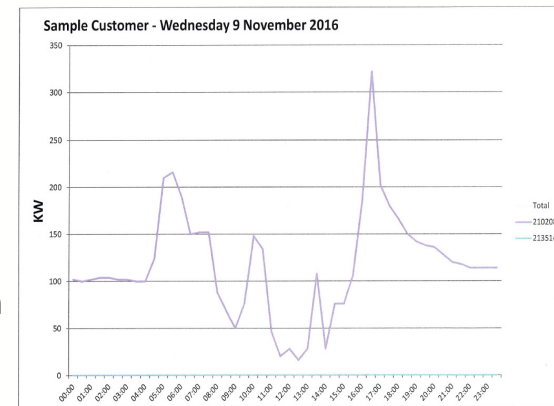
Future tariff design | Impact analysis



In testing Power and Water’s proposed tariffs, we provided each participant their site specific impact analysis, for each of their sites consuming above 750 MWh pa. This ensured participants were able to understand the potential network bill impact on their business of each tariff option we presented.

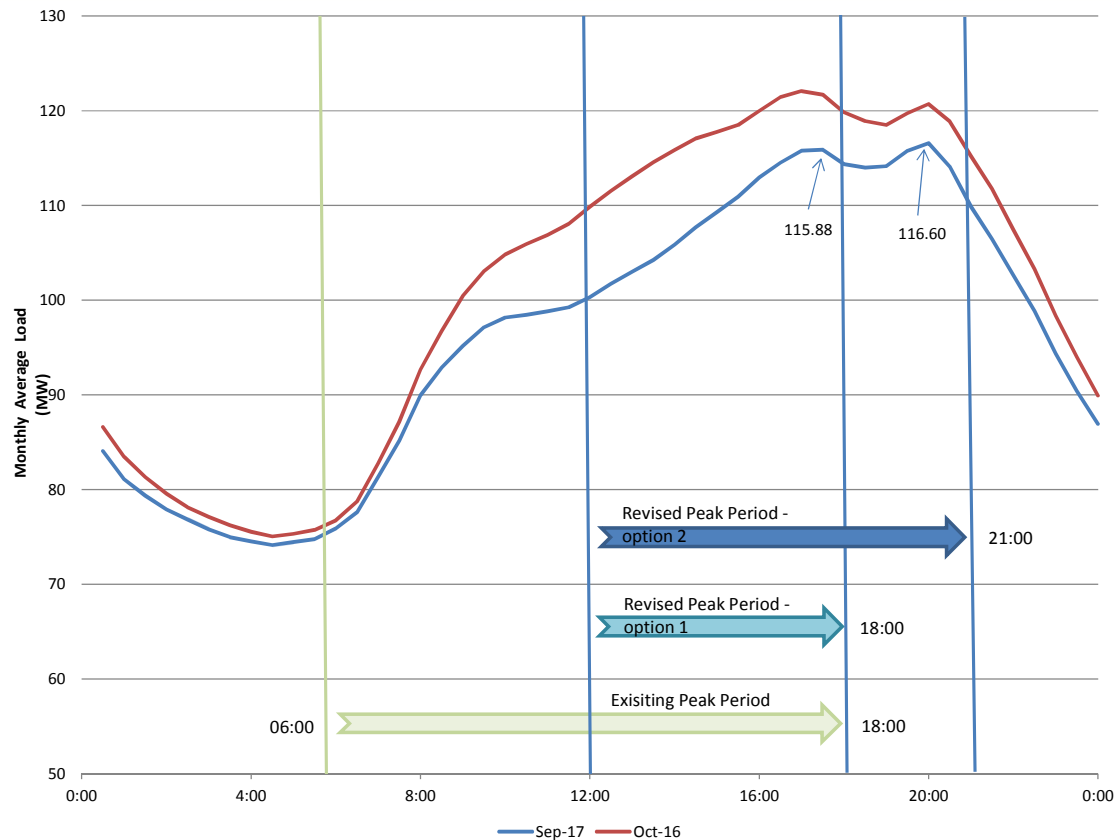
The information included:

- Peak usage of the site
- Network bill impact – current vs proposed options
- Peak Demand – current vs proposed
- Power Factor – actual vs minimum standards
- Facts Sheets on power factor correction & the distribution determination



Future tariff design | Setting charging windows

Power and Water's tariff design proposal to participants began with the proposed realignment of the Peak Period to better represent current system peaks.



We will adjust the peak period for current peak demand times by shortening it by 37 hours a week from:

- the **current peak period** of 6:00am to 6:00pm, seven days a week, to
- the **new peak period** of 12:00pm to 9:00pm, week days only.

Large users:

- welcomed the closer alignment with retailers by treating weekends as off-peak.
- Understood why we needed to realign the peak period with current peaks.

Future tariff design | Tariff structures

Power and Water then explained proposed tariff structures, and tested the major customers' preference on three options for the energy (KWh) component of the proposed tariff design. Energy charges are the largest bill component for most users, and provide an opportunity to manage the bill impacts of the proposed changes to the demand and power factor charges.

To ensure customers could provide informed feedback, Power and Water presented each customer with the estimated impact to their sites for each tariff option:

1. Option 1 – Flat Rate anytime energy (KWh) charge (“fully cost reflective option”)
2. Option 2 – Declining Block energy (KWh) charge
3. Option 3 – Declining Block Peak energy moving to a flat rate by the 5th year & Declining block Off peak changing from 5 to 3 tiers

Power and Water informed customers that all three options contained common elements, and that the impact analysis provided was based on proposals for the energy (KWh) costs.

Common elements of all three options

Access | Fixed Daily Charge (System Availability Charge)



Demand | Flat Rate Peak only demand charge (kVA) and \$0 Off Peak charge



Power factor | Excess KVAr charge



Future tariff design



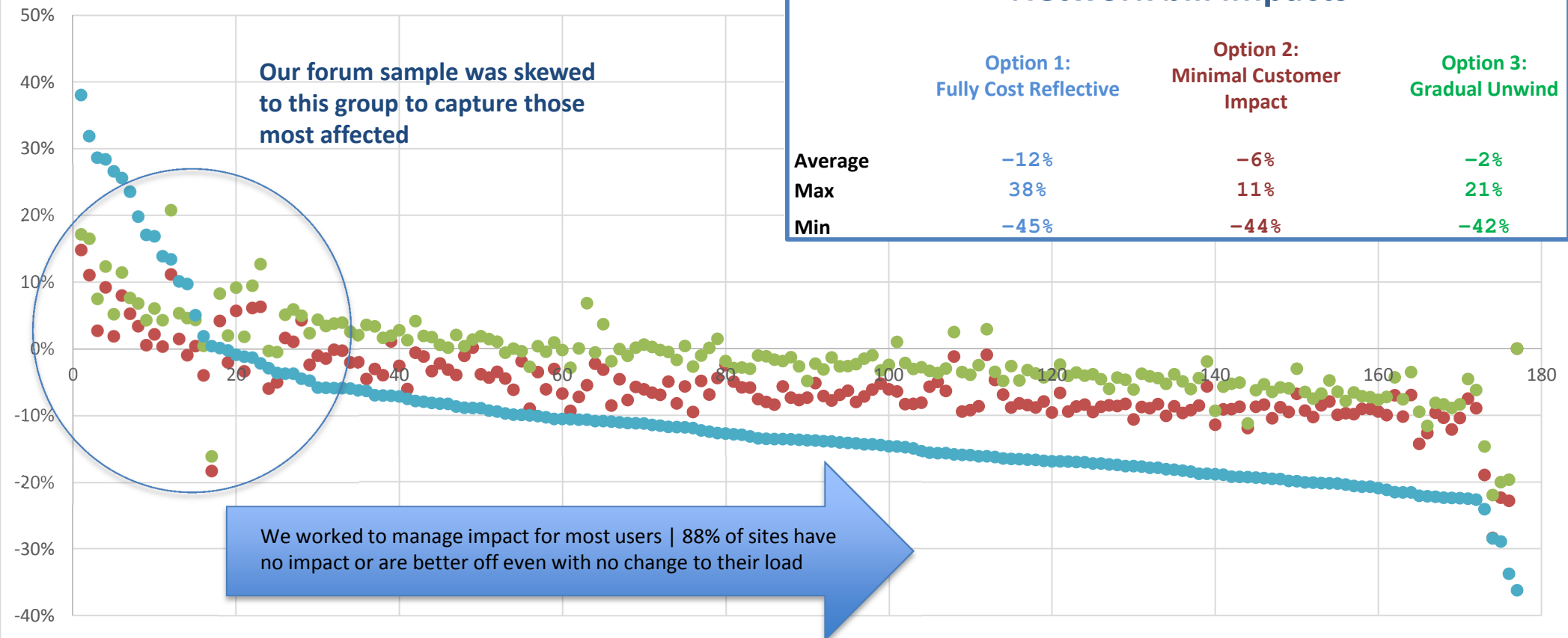
Prior to requesting feedback, Power and Water demonstrated the impact to participants by explaining the following table which indicates the impact to the entire major user segment from the options presented.

Network bill impacts

	Option 1: Fully Cost Reflective	Option 2: Minimal Customer Impact	Option 3: Gradual Unwind
Average	-12%	-6%	-2%
Max	38%	11%	21%
Min	-45%	-44%	-42%

Our forum sample was skewed to this group to capture those most affected

We worked to manage impact for most users | 88% of sites have no impact or are better off even with no change to their load



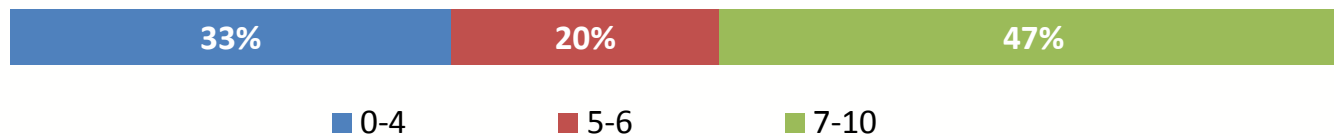
Future tariff design – Findings

Q2. Please rank the options in the order you would prefer we consider them (1 for most supported, 3 for least supported)

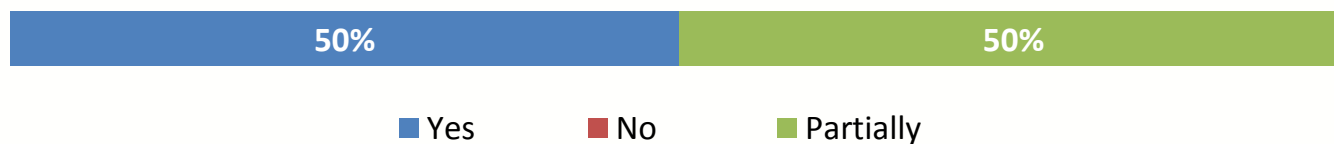


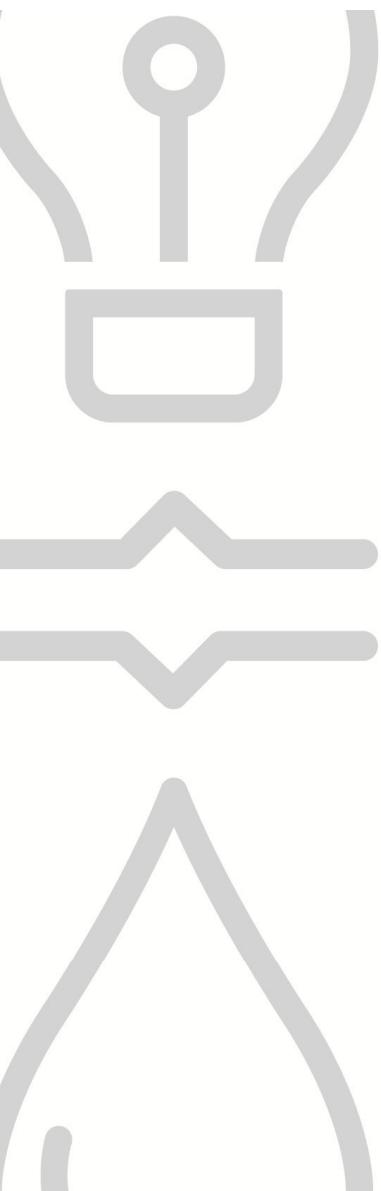
Please note: The above graphic is based on customer preferences for their “most supported” tariff option.

Q3. How acceptable to you is Power Networks’ proposed approach to pricing design for large users?



Q4. Do you understand the impact (to you) of our pricing options?





Future tariff design

Power and Water asked customers to provide additional comments on our proposed pricing designs.

Q5. Please note any feedback or any further support you would like from PWC to understand these pricing options and how your business(es) can respond

“Power factor and peak demand options to reduce costs”

“Need to see the final tariffs to properly assess the actual impact”

“Can we look at progressive network charges based on time”

“The move to all weekend off peak is very good”

“I believe that it helps shine focus on energy savings that can be made within a business”

“At least a 2 to 3 year horizon to allow for adjustment”

“Having a more equitable system for all users based on usage is the way to go”

“If power factor is affected, support on how to adjust the results”

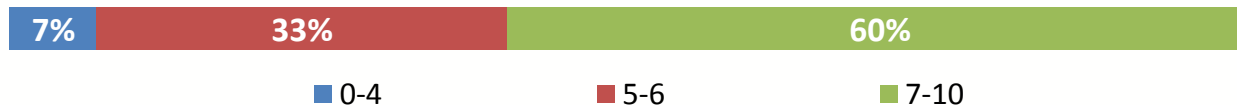
Communication preferences

Power and Water tested with the major customer group their preferences on how they would prefer we communicate with them. Information was presented to the forum including Power and Water Account Managers' details, as well as a demonstration of Power and Water's mobile application.

Q6. Were you aware that Power and Water had a mobile app that could be used to bills, log faults and supply a meter reading?



Q7. How interested are you in downloading the Power and Water app?



From the major customer responses, Power and Water will be developing a campaign promoting the app and all in built functions.

Communication preferences



Power and Water also tested the communication preferences of the major energy user segment in order to improve our notification process for major customers.

Q8. What is your one preferred method for Power and Water communicate outages (blackouts)?

