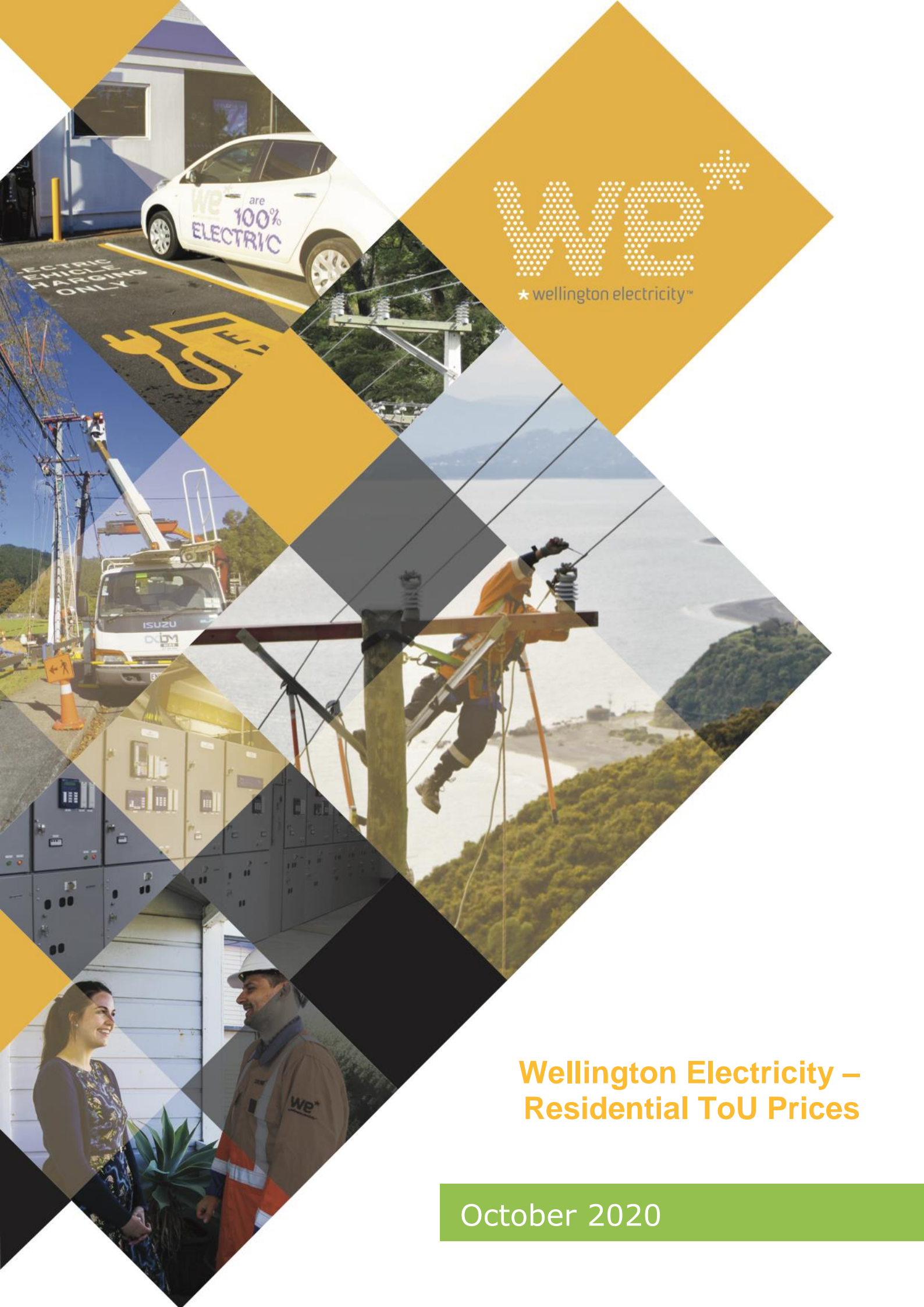




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## Wellington Electricity – Residential ToU Prices

October 2020

## Contents

1	Purpose.....	3
2	Background.....	4
2.1	Progress against the pricing roadmap.....	4
2.2	This year’s pricing programme .....	4
2.3	April 2021 prices.....	5
2.4	Residential ToU pricing structure .....	5
3	Consultation process.....	6
3.1	Feedback questions .....	6
3.2	How to make a submission.....	6
3.3	Consultation timetable .....	6
4	Applying ToU prices to all consumers.....	7
4.1	Change in price category structure.....	8
4.2	‘Opt out’ option .....	9
4.3	Transfer process.....	10
4.4	Data file requirements .....	11
4.5	Consumer impact .....	11
5	Next steps and closing.....	11
6	Appendix A: Comparison of pricing categories .....	12
7	Appendix B: Customer impact analysis.....	13
7.1	Box and whisker diagram .....	13
7.2	The consumer impact of moving to ToU.....	13

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Copies of Wellington Electricity’s prices, pricing methodology and pricing disclosures can be downloaded from [www.welectricity.co.nz/disclosures](http://www.welectricity.co.nz/disclosures)

Any comments or suggestions regarding this consultation document can be made to:

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# 1 Purpose

The Electricity Authority (the **Authority**) has provided guidance on the requirement for Electricity Distribution Businesses (EDBs) to adopt efficient prices for distribution services. The guidance includes pricing principles to support the development of efficient prices and the introduction of a new scorecard framework to report on how cost reflective an EDB's prices are. The Authority also requires EDBs to publish a Pricing Road Map outlining how and when they will transition to cost reflective prices and to publish regular progress updates (WELL's Pricing Roadmap is published at <https://www.welectricity.co.nz/disclosures/pricing/> and progress updates are provided in its Pricing Methodology which can be found at <https://www.welectricity.co.nz/disclosures/pricing/2020/>).

Wellington Electricity Lines Limited (**WELL**) published its Pricing Road Map<sup>1</sup> in 2017. In 2018, WELL completed the first phase of the Pricing Road Map with the introduction of Time of Use (**ToU**) prices for Electric Vehicle (**EV**) and Household Battery System consumers (the prices were called **EVB**).

In 2019 WELL consulted with traders about applying ToU prices to all residential end-consumers (**consumers**) which resulted in ToU being offered as a pricing option. Approximately 12% or 18,000 residential consumers are now on the residential ToU tariff.

WELL's residential prices will not be cost reflective while the flat variable price, which does not signal the cost of using energy during peak periods of network demand, is offered as an option. WELL is now planning to move all residential consumers to ToU prices which do reflect network congestion on the Wellington network. Signalling the cost of network congestion provides consumers with the opportunity to change their energy use behaviour and to reduce their electricity costs by moving their demand to lower congestion periods. This has the immediate benefit of less expensive lines charges (for those move there energy consumption to off peak periods) and the long term benefits of lower prices through avoiding or delaying network re-enforcement. In WELL's final decision to the 2019 ToU consultation, WELL indicated that it would consider applying ToU prices to all residential consumers in 2020.

The purpose of this consultation is to:

1. Update traders on progress against the pricing roadmap;
2. Request feedback from traders on the proposal to apply WELL's current ToU prices to all residential consumers;
3. Request feedback on the 'opt-out' process for ICPs where the metering installations are not able to provide the data needed to calculate ToU prices;
4. Request feedback on the proposed process required to transfer consumers to the ToU pricing categories.

WELL proposes applying its current ToU pricing structure (timing of peak periods, no weekend peaks or seasonal variation etc.) to the TOU pricing for the 2021/22 pricing year. This structure was developed using trader feedback in 2019.

<sup>1</sup> The Pricing Road map can be found at: <https://www.welectricity.co.nz/disclosures/pricing/>.

## 2 Background

WELL published its Pricing Road Map in 2017. Like most electricity distributors, we have been working on a pricing reform programme. Our efforts are motivated and informed by:

- The cost impact of re-enforcing the distribution network to meet growing demand during peak congestion periods. Signalling the cost of re-enforcing the network will let customers choose to avoid network re-enforcement and have lower long term prices, or to pay more to build a larger network that removes the anticipated restrictions on when energy can be used. The price signal therefore represents a clear price-quality trade-off for consumers.
- The risks (e.g., of congestion and cost of providing higher network capacity) and opportunities (e.g., to reduce network investment pressures) of new and maturing technologies – these increase the value of adopting prices that clearly signal congestion periods and costs of increasing network capacity, which encourages more efficient use of the network;
- The Electricity Authority's work reviewing pricing principles and monitoring activities – this adds impetus to our focus on pricing efficiency;
- Last year's Electricity Pricing Review considered pricing outcomes and frameworks – this supports pricing efficiency, affordability, fairness and points to the phasing out of low-fixed user charges.

### 2.1 Progress against the pricing roadmap

WELL's pricing roadmap initially focused on Electric Vehicle (EV) and battery owners and residential consumers. Residential consumers are the main contributors of peak demand on the Wellington distribution network.

- WELL introduced ToU prices for Electric Vehicle and battery storage customers in 2018 after trialling different pricing methods. A study of the impacts of that pricing was conducted in 2018 to better understand the sustainability of shifting load to less congested periods. An important observation from that study was an effective pricing structure balances cost reflectivity with practical considerations. Practical considerations include whether consumers can readily understand and respond to price signals and whether traders can readily implement prices within their overall retail product. For these reasons, we initially favour a ToU pricing structure that aligns with the emerging industry standard design for mass market consumers. WELL continuously reviews its pricing structures and may consider alternative cost reflective structures in the future.
- WELL introduced optional residential ToU prices in 2020. Residential ToU prices were offered as a pricing option (rather than applying ToU to all residential consumers) following trader feedback that more time was needed to develop and change internal processes and to consider how to practically apply the new prices.

### 2.2 This year's pricing programme

WELL is proposing to apply ToU prices to all residential consumers from April 2021. The focus of this year's pricing programme is consulting with traders on this change.





### Cost reflective prices for small commercial consumers

WELL will delay considering whether to introduce cost reflective prices for small to medium size commercial and industrial businesses to align with timing of the Electricity Price Review (EPR) recommendations. The EPR recommended rebalancing was required between commercial and residential prices. The Government has not focussed on this recommendation yet as priority has been given to other EPR recommendations.

WELL will re-consider cost reflective commercial and industrial prices again next year.

### Managed EV and battery charging prices

WELL is trialling new technology that will allow management of EV and battery charging to move demand from congested periods. WELL has now developed a prototype and will be trialling this with a trader later this year.

### Combining EVB and residential ToU prices

WELL will consider simplifying the pricing structure by removing EVB prices once we are ready to offer the new managed EV and battery charging service. WELL expects that the new service will provide a comparable replacement to the current EVB prices.

### Collecting consumption data to assist in network management

In the future, WELL may require consumption data to be provided in 30 minute increments to better understand end-consumer usage patterns and their responsiveness to price signals. More detailed consumption data is also likely to be needed to support the managed EV and battery charging prices and other future services. Consideration will be given to whether billing files are the best way to collect this data or whether alternative collection methods outside of the billing process may be more appropriate.

## 2.3 April 2021 prices

WELL will be transitioning from its Customised Price Path (CPP) onto the Default Price Path (DPP) from 1 April 2021. The Commerce Commission is providing WELL's new regulatory allowances by November 2020. WELL will calculate its prices for the regulatory years starting 1 April 2021 in December 2020 once distribution allowances are known and Transpower have confirmed their pass through prices.

## 2.4 Residential ToU pricing structure

WELL proposes applying its current ToU pricing structure which is currently offered as an option. The ToU pricing structure and billing requirements were described in our response to last year's ToU consultation and are described in WELL's pricing disclosures:

- Pricing Methodology
- Electricity Network Pricing Schedule (module 15)

These documents can be found at <https://www.welectricity.co.nz/disclosures/pricing/2020/>

### 3 Consultation process

We are consulting with traders to seek their feedback on applying WELL's residential ToU prices to all residential consumers. A list of 'opt-out' criteria is also being proposed for traders whose consumers do not have meters that can provide the 30 minute interval data needed to calculate ToU prices.

This consultation is additional to our usual pricing notification process, which we will carry out in January.

#### 3.1 Feedback questions

To help make the submission process easier, we have provided feedback questions throughout the document. The questions are summarised in the separate Microsoft Word document titled 'Appendix A, consultation questions' - the document includes spaces for traders to respond.

#### 3.2 How to make a submission

WELL welcomes feedback from traders on the proposal to apply ToU prices to all residential consumers. Traders are invited to respond to the questions and/or to provide feedback on topics not covered by the questions.

Submissions can be provided to [WE\\_CustomerService@welectricity.co.nz](mailto:WE_CustomerService@welectricity.co.nz). Please include "Residential TOU pricing consultation" in the subject line of the email.

The consultation process starts on 8 October 2020 with the distribution of this consultation document to all traders. WELL will also be available during the consultation period to answer any questions. The consultation process will end at 5pm on 29 October 2020. WELL may not consider submissions received after this time and date.

While we will not be publishing trader feedback, we will be summarising feedback on the key themes and will provide this feedback as part of our submission response.

#### 3.3 Consultation timetable

The consultation timetable is provided in Figure 1 below.



**Figure 1: Consultation timetable**

Consultation step	Consultation date
Consultation documents e-mailed to traders and consultation started	8 Oct 2020
Closing date for trader submissions	29 Oct 2020
WELL to circulate a summary of submission and our response to the feedback	Nov 2020
Commerce Commission to calculate allowances for year starting April 2021	Nov 2020
Transpower provides their prices	Dec 2020
Calculate final prices	Dec 2020
Traders provided with final prices in EIEP 12 format	31 January
Consumers notified of new prices	Late February
New prices apply	1 April 2021

## 4 Applying ToU prices to all consumers

Last year's ToU consultation provided useful feedback on how to apply ToU prices to all residential consumers. Important aspects highlighted in the consultation included:

- Traders indicated that approximately 10% to 15% of residential customers do not have meters that can provide time sliced data needed to calculate ToU prices. An 'opt-out' pricing option will be needed for these customers.
- A trader proposed a simplified way of structuring price categories and tariff codes. The alternative structure combines ToU and the 'opt out' pricing options into a single price category. The alternative structure means that a price category change would not be required for a change in 'opt out' eligibility. This would reduce administration time for both traders and WELL. WELL decided not to make this structural change while it offered ToU as an optional residential price because there would be no visibility of how many people were using the new ToU prices and how many remained on our current prices.

WELL is considering whether the administrative benefits of the alternative structure would outweigh the reporting benefits if residential ToU prices are applied to all residential customers.

- The AMI flag on the registry does not guarantee that traders have access to half hour consumption data, or that they can provide the data (the data may be old or incorrect). Traders should have the chance to review and correct the registry data. EIEP1 files errors could result otherwise.



- Some traders' billing systems did not have the capability to provide time sliced billing data. Submissions indicated that they would by April 2021.

WELL notes that some other EDB's have applied ToU prices to all residential consumers from 1 April 2020 and trader billing systems are likely to have evolved since last year's consultation.

## 4.1 Change in price category structure

WELL is considering the benefits of the simplified structure of price categories and tariff codes that was suggested by a trader in the ToU 2019 consultation. All residential consumers (excluding EVB customers who would remain on the current price categories, eligibility criteria and tariff codes) would be moved to either the residential standard user (RSU) or residential lower user (RLU) pricing categories. The applicable tariff code would depend on a consumers meter configuration and whether they are eligible to 'opt out' of ToU prices. The proposed new price category's and tariff codes are provided in Figure 2 below. The proposed two pricing categories would replace the current RLU, RSU, RLUTOU and RSUTOU pricing categories. A comparison of the proposed and current residential pricing categories is provided in Appendix A.

**Figure 2: Pricing categories and tariff codes**

Pricing category	Tariff code	Description
RLU	RLU-FIXD	Residential low user daily
	RLU-P-UC	Residential Time of Use low user uncontrolled peak
	RLU-OP-UC	Residential Time of Use low user off uncontrolled off-peak
	RLU-P-AI	Residential Time of Use low user all-inclusive peak
	RLU-OP-AI	Residential Time of Use low user all-inclusive off peak
	RLU-CTRL	Residential Time of Use low user controlled / Residential low user controlled (ToU opt out)
	RLU-NITE	Residential Time of Use low user night boost / Residential low user night boost (ToU opt out)
	RLU-24UC	Residential low user uncontrolled (ToU opt out)
	RLU-AICO	Residential low user all-inclusive (ToU opt out)
RSU	RSU -FIXD	Residential standard user daily
	RSU -P-UC	Residential Time of Use standard user uncontrolled peak
	RSU -OP-UC	Residential Time of Use standard user uncontrolled off-peak
	RSU -P-AL	Residential Time of Use standard user all-inclusive peak
	RSU -OP-AL	Residential Time of Use standard user all-inclusive off peak
	RSU -CTRL	Residential Time of Use standard user controlled / Residential standard user



Pricing category	Tariff code	Description
		controlled (ToU opt out)
	RSU -NITE	Residential Time of Use standard user night boost / Residential standard user night boost (ToU opt out)
	RSU -24UC	Residential standard user uncontrolled (ToU opt out)
	RSU -AICO	Residential standard user all-inclusive (ToU opt out)

**Question 1:** What are the benefits of the alternative price structure?

**Question 2:** What other feedback and/or requests do you have on the proposed pricing categories?

## 4.2 'Opt out' option

WELL's default position is to move all customers to ToU prices and to have an 'opt out' price for consumers who cannot provide data in the format required to calculate a ToU price. The 'opt out' option would revert to a price structure equivalent to our current flat variable price category. WELL proposes the following eligibility criteria for consumers to 'opt out' of applying residential ToU prices and to apply the current flat pricing structure:

- Must be residential consumer as defined in WELL's Electricity Network Pricing Schedule (module 15).
- Must be an existing consumer. WELL expects all new ICP's to have a smart meter and ToU prices will automatically be applied.
- Residential ICP's that do not have advanced meters that can provide consumption data in 30 minute increments required to apply ToU prices.
- WELL proposes to reply on the Authority's electricity registry for an assessment of ICP's that do not have smart meters. Specifically, WELL proposes using the Metering 'half hour' data and 'AMI Comm' flags to assess whether to apply residential ToU prices or the 'opt out' pricing option.
- Retailer feedback suggests that the registry smart meter flags may sometimes be incorrect. WELL proposes the following process to correct any errors in the registry. :
  - Retailers to provide WELL with ICPs where the registry smart meter flags are incorrect – instances where the registry indicates an ICP meter can provide the 30 minutes interval data and can communicate correctly but in reality it does not (by 30 November 2020). The following information should be provided with each ICP:
    - ICP number



- Reason for the error
  - Each trader will then correct any errors with meter providers (28 February).
  - WELL will apply prices based on the registry smart meter flag from 1 April 2021.
- WELL may apply peak prices to ICP's which are identified as capable of providing data to apply ToU prices but still provide data in the "opt out" format.

The reason for this approach is to ensure WELL's billing assumptions are aligned with the rest of the industry and to avoid maintaining a separate consumer 'eligibility' registry. WELL's preference is to ensure the core information in the registry is correct and are we are not duplicating existing systems. WELL would like to know traders views on whether this approach is sensible.

**Question 3:** Will the 'opt out' criteria correctly capture residential consumers who do not have the meters required to capture billing information needed to apply ToU prices?

Are there other reasons that consumers will not be able to provide the data needed to apply ToU prices?

Would this impact a material number of customers?

**Question 4:** What other feedback and/or requests do you have on opt-out eligibility?

### 4.3 Transfer process

The proposed process and timetable for migrating residential consumers to ToU prices is:

1. Final prices will be circulated in EIEP12 and Electricity Networks Pricing Schedule formats. We can also provide prices in an Excel format if requested by a trader (by 31 January 2021).
2. As outlined above, traders will correct any registry Smart meter flag errors with the meter provider (28 February 2021).
3. WELL will then migrate consumers to the new tariffs in batches (1 April 2021).
4. WELL expects that changes to ICP's who have 'opted out' will be limited. WELL expects that changes will only be required to correct ICP's that were initially missed from a traders assessment of a meter capability and for ICPs that have new meters installed replacing old 'non' smart meters.

**Question 5:** Do you think the proposed process will be effective at identifying consumers who cannot provide billing data in the correct format?

**Question 6:** Do you think the proposed process will be effective at transferring consumers to residential ToU prices?

**Question 7:** What requests and/or feedback do you have on WELL's proposed migration of ICPs on residential pricing to the new residential TOU pricing category?



## 4.4 Data file requirements

WELL requires all residential ToU prices to be provided in EIEP1 format – this includes both non-half hourly and half hourly ICP meters. WELL does have some commercial prices which are required in EIEP 3 format. See WELL's Electricity Network Pricing Schedule (module 15) for the files formats required for each price.

Last year's consultation indicated that traders preferred providing data in the EIEP1 format.

**Question 8:** Can you provide time sliced billing data in EIEP 1 format for consumers that have an AMI meter?

## 4.5 Consumer impact

The proposed prices have been applied to a sample data set of 30 minute consumer consumption data representing over 10% of WELL's consumers. Consumer deprivation data has been combined with the consumer data to analyse the impact the proposed prices would have on different levels of consumer wealth. WELL is cognisant of the potential impact ToU prices might have on those in energy hardship, especially with the impact of Covid-19.

The analysis shows that moving to ToU prices changes prices by +/- 2% for the majority of consumers. The analysis also shows that the expected change to an annual power bill is similar across all deprivation groups. A summary of the analysis is provided in Appendix B.

While the price impact of moving to ToU is modest for most customers, WELL is aware that some consumers could be adversely impacted. Conversely, all consumers could be paying more in the future if demand isn't shifted away from peak periods and network re-enforcement is required. WELL believes it is important to implement cost reflective prices as soon as possible so as not to erode the long term savings from avoiding network re-enforcement.

WELL also notes that WELL's prices decreased in April 2020 by 13% and the Commerce Commission Draft decision for April 2021 price proposed a further 2.1% price reduction. The reduction in prices will help elevate the impact of changing to ToU prices.

## 5 Next steps and closing

Thank you for taking the time to read this consultation document. Please don't hesitate to ask any questions you might have by email to [WE\\_CustomerService@welectricity.co.nz](mailto:WE_CustomerService@welectricity.co.nz). Please include "Residential TOU pricing consultation" in the subject line of the email.

We look forward to answering any questions and receiving your submissions.



## 6 Appendix A: Comparison of pricing categories

Proposed residential pricing categories		
Code	Description	Units
<b>Residential</b>		
RLU-FIXD	Residential low user daily	\$/con/day
RLU-P-UC	Residential low user uncontrolled peak	\$/kWh
RLU-OP-UC	Residential low user off uncontrolled peak	\$/kWh
RLU-P-AL	Residential low user all-inclusive peak	\$/kWh
RLU-OP-AL	Residential low user all-inclusive off peak	\$/kWh
RLU-CTRL	Residential low user controlled	\$/kWh
RLU-NITE	Residential low user night boost	\$/kWh
RLU-UC	Residential low user uncontrolled (ToU opt out)	\$/kWh
RLU-AL	Residential low user all-inclusive (ToU opt out)	\$/kWh
RSU -FIXD	Residential standard user daily	\$/con/day
RSU -P-UC	Residential standard user uncontrolled peak	\$/kWh
RSU -OP-UC	Residential standard user off uncontrolled peak	\$/kWh
RSU -P-AL	Residential standard user all-inclusive peak	\$/kWh
RSU -OP-AL	Residential standard user all-inclusive off peak	\$/kWh
RSU -CTRL	Residential standard user controlled	\$/kWh
RSU -NITE	Residential standard user night boost	\$/kWh
RSU -UC	Residential standard user uncontrolled (ToU opt out)	\$/kWh
RSU -AL	Residential standard user all-inclusive (ToU opt out)	\$/kWh
<b>Residential electric vehicle and battery storage</b>		
RLUEVB-FIXD	Residential EV & battery storage low user daily	\$/con/day
RLUEVB-PEAK	Residential EV & battery storage low user peak	\$/kWh
RLUEVB-OFFPEAK	Residential EV & battery storage low user off-peak	\$/kWh
RLUEVB-CTRL	Residential EV & battery storage low user controlled	\$/kWh
RSUEVB-FIXD	Residential EV & battery storage standard user daily	\$/con/day
RSUEVB-PEAK	Residential EV & battery storage standard user peak	\$/kWh
RSUEVB-OFFPEAK	Residential EV & battery storage standard user off-peak	\$/kWh
RSUEVB-CTRL	Residential EV & battery storage standard user controlled	\$/kWh

Note, EVB pricing structure and eligibility criteria will remain unchanged.

Current residential pricing categories		
Code	Description	Units
<b>Residential</b>		
RLU-FIXD	Residential Low user daily	\$/con/day
RLU-24UC	Residential Low user uncontrolled	\$/kWh
RLU-AICO	Residential Low user all inclusive	\$/kWh
RLU-CTRL	Residential Low user controlled	\$/kWh
RLU-NITE	Residential Low user night boost	\$/kWh
RSU-FIXD	Residential Standard user daily	\$/con/day
RSU-24UC	Residential Standard user uncontrolled	\$/kWh
RSU-AICO	Residential Standard user all inclusive	\$/kWh
RSU-CTRL	Residential Standard user controlled	\$/kWh
RSU-NITE	Residential Standard user night boost	\$/kWh
<b>Residential electric vehicle and battery storage</b>		
RLUEVB-FIXD	Residential EV & battery storage low user daily	\$/con/day
RLUEVB-PEAK	Residential EV & battery storage low user peak	\$/kWh
RLUEVB-OFFPEAK	Residential EV & battery storage low user off-peak	\$/kWh
RLUEVB-CTRL	Residential EV & battery storage low user controlled	\$/kWh
RSUEVB-FIXD	Residential EV & battery storage standard user daily	\$/con/day
RSUEVB-PEAK	Residential EV & battery storage standard user peak	\$/kWh
RSUEVB-OFFPEAK	Residential EV & battery storage standard user off-peak	\$/kWh
RSUEVB-CTRL	Residential EV & battery storage standard user controlled	\$/kWh
<b>Residential Time of Use</b>		
RLUTOU-FIXD	Residential Time of Use low user daily	\$/con/day
RLUTOU-P-UC	Residential Time of Use low user peak	\$/kWh
RLUTOU-OP-UC	Residential Time of Use low user off-peak	\$/kWh
RLUTOU-P-AI	Residential Time of Use low user all inclusive peak	\$/kWh
RLUTOU-OP-AI	Residential Time of Use low user all inclusive off-peak	\$/kWh
RLUTOU-CTRL	Residential Time of Use low user controlled	\$/kWh
RLUTOU-NITE	Residential Time of Use low user night boost	\$/kWh
RSUTOU-FIXD	Residential Time of Use standard user daily	\$/con/day
RSUTOU-P-UC	Residential Time of Use standard user peak	\$/kWh
RSUTOU-OP-UC	Residential Time of Use standard user off-peak	\$/kWh
RSUTOU-P-AI	Residential Time of Use standard user all inclusive peak	\$/kWh
RSUTOU-OP-AI	Residential Time of Use standard user all inclusive off-peak	\$/kWh
RSUTOU-CTRL	Residential Time of Use standard user controlled	\$/kWh
RSUTOU-NITE	Residential Time of Use standard user night boost	\$/kWh



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## 7 Appendix B: Customer impact analysis

This appendix provides the consumer impact analysis which estimates the pricing impact of moving customers from flat variable prices to ToU prices. The analysis only considers the impact on the distribution component of a consumers bill.

Residential ToU prices have been applied to a sample data set of consumer consumption data representing over 10% of WELL’s consumers. The consumption data has been combined with consumer deprivation data to analyse the pricing impact on different levels of consumer wealth.

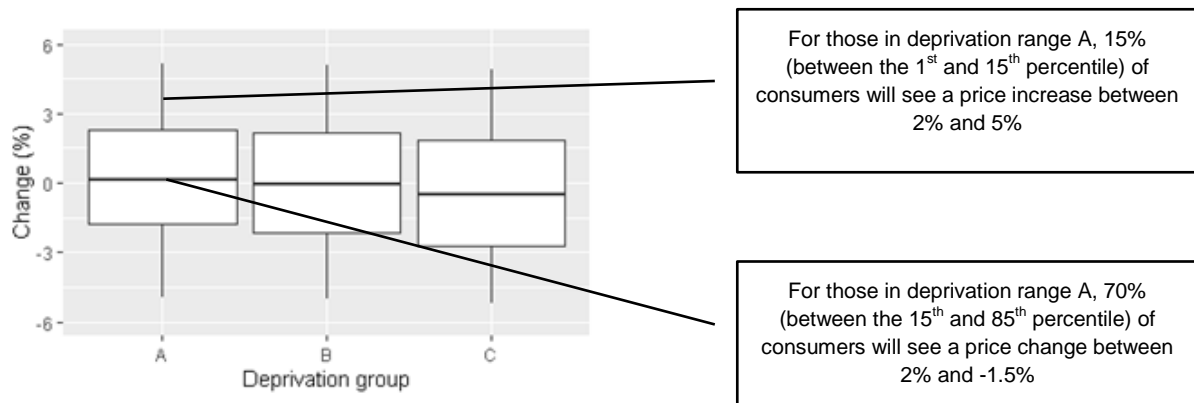
### 7.1 Box and whisker diagram

The impact on consumers is illustrated using box and whisker diagrams. The Y-axis of the box and whisker diagram indicates the magnitude of bill impact (in this example bill reductions for all), either in \$pa or %. The height of the box and whiskers show how impacts are distributed across a group of consumers. The height of the boxes represent 15<sup>th</sup> and 85<sup>th</sup> percentile impacts and the end of the whiskers representing 1<sup>st</sup> and 99<sup>th</sup> percentiles – i.e., 70% of consumers have impacts inside the range covered by the box, and 98% fall within the whiskers.

The X-axis groups consumers according to the Statistics NZ deprivation level for their household. Households in the wealthiest areas (deciles 1 and 2) are in deprivation group A, and the least wealthy are in group C. Group B captures the middle two deciles (5 and 6).

Figure 1 illustrates how to read the box and whisker diagram.

**Figure 1: Reading a box and whisker diagram**



### 7.2 The consumer impact of moving to ToU

Figure 2 below illustrates the impact of moving to residential ToU prices. Figure 2 shows that 50% of consumers would see prices decrease, with the price decrease ranging down to 5%. Conversely, 50% of consumers would see a price increase, with the price increase ranging up to 5%.

The majority of higher deprivation consumers (70% of consumers represented by the box) would see a price change of approximately +/-2% or +/- \$25 per year. Those in energy hardship are slightly better off than the higher deprivation group – 70% will see changes between a 2% (or \$15) increase and a 3% (or \$25) decrease per year. This reflects that those in energy hardship generally consume less of their electricity at



peak times. There is a minority (15%) who could receive price increases between \$25 and \$48 p.a. Conversely, 15% of consumers could receive a price decrease of \$20 and \$45 p.a.

**Figure 2: Impact of moving to ToU prices**

