Quality of service for DPP3

Targeted workshop

16 August 2019

Commerce Commission

Housekeeping

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Toilets	Access via stairwells either side of the lifts – please see reception for a swipe card to gain entry back to the floor
Fire	Emergency exits via stairwells either side of the lifts – please follow instructions from Commission staff. Assembly area outside St Andrew's church on the Terrace
Earthquake	Drop, cover, and hold. Please do not exit the building until the all-clear is given as there may be danger of falling glass

Introduction

Purpose of normalisation

As outlined in the draft reasons paper…

Significant year-on-year volatility in total SAIDI or SAIFI may be the result of major events, rather than the result of underlying declines or improvements in the reliability delivered to consumers.

The purpose of normalisation is to limit the impact of these major events, so that the standards we impose, and the incentives distributors face are not merely reflecting unpredictable and major events, such as severe weather events.

Identifying major events through the DPPs

DPP1 final – pure IEEE approach

- Any calendar day that is 2.5 standard deviations above the historical daily event average is considered a major event. Excludes zero-event days.

DPP2 draft – modified IEEE approach

- 2.5 standard deviation was replaced by an alternative ‘k-value’ to better account for zero event days and better align with expectation of 2.3 major event days per year. Particularly relevant to smaller networks.

DPP2 final – IEEE outcome approach

- A major event day identified as the 23rd highest SAIDI or SAIFI day over the ten-year historical period. Consistent with IEEE expectation of 2.3 major event days per year – but based on observed days rather than statistics.

DPP3 draft – Rolling three-hour assessment

- A major event identified as the 150th highest half-hour of the summed three-hour SAIDI and SAIFI.

IEEE comparison

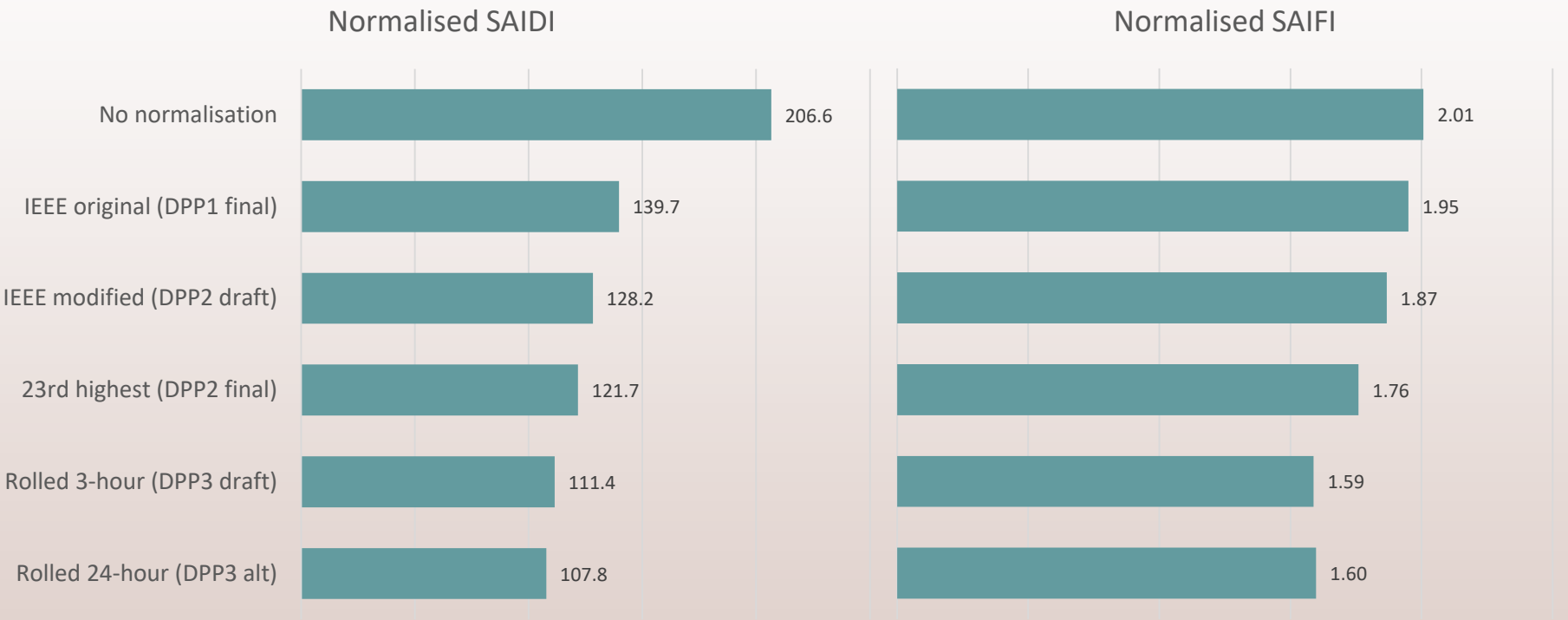
Over time the major event trigger has deviated further from the original IEEE 2.5 beta methodology, often with the support of stakeholders.

- Accounting for zero event days
- Pulling away from a statistical approach
- Taking account of major events with overlapping calendar days

However some submitters expressed concern that our draft method was deviating from the IEEE too much.

How much reliance should be placed on IEEE method and how do we get there?

Impact of normalisation with different methods



* Average of 17 price-quality regulated EDBs; derived from data provided in December 2018

Draft approach to normalisation

Three-hour assessment

- Analysis suggested that most of the major event impact occurred within a much narrower time frame than one day – for example three-hours
- It was not considered appropriate to normalise periods that was not part of the initial major event

Rolling mechanism

- This acknowledges that major events do not fit neatly within calendar days or fixed three-hour blocks
- Provides a mechanism to normalise major events more equitably regardless of when they begin
- Allows major events to extend beyond the specified time frame
- Rolled on a half-hourly basis to reduce some complexity

Frequency of major events

- Expectation of 15 half-hours to be normalised per year
- Similar exposure to normalisation as DPP2 at an aggregate level

Submissions on draft approach

There were a large range of views on the draft normalisation approach

- Many EDBs were supportive of the rolling mechanism with a couple concerned with the complexity
- Some EDBs, while supporting a rolling mechanism, implied that a three-hour window was complex
- Some EDBs expressed concern that the three-hour assessment was too short and may capture relatively benign days
- Concern that there may be a financial incentive to divert resources away from restoring a major event to restoring interruptions not within the major event window
- Support from EDBs for reducing the impact of a major events using the pro-rated approach

Questions for discussion

Identifying the source of complexity and how might this be reduced?

Are there any examples of major events not adequately captured in the draft three-hour rolling method?

Is there scope for increasing the timeframe of identifying major events?

Extreme event standard

Overview

- We have proposed to introduce an extreme event standard to be set at 3x the major event boundary value
- Applicable to events caused by defective equipment, human error, or unknown
- Such events are largely normalised out for compliance and incentive purposes

Submissions

- EDBs generally against the introduction of an extreme event standard
- Considered that it may incentivise over-investment to avoid such a contravention
- Questioned the link of the extreme event standard to the concept of ‘no material deterioration’
- Highlighted importance of enforcement response guidelines
- Suggested additional reporting for such events

Extreme event standard

Using the draft methodology we have identified 17 potential extreme events over the 10 years we assessed, including three in the regulatory period to date.

EDB	Date	SAIDI	EDB	Date	SAIDI
Nelson Elec.	5/5/2008	39	Vector	7/11/2013	17
Vector	26/7/2008	30	Horizon	21/1/2014	47
Alpine	24/11/2009	168	Centralines	8/2/2014	23
Nelson Elec.	10/8/2010	104	Vector	5/10/2014	216
OtagoNet	17/5/2011	49	EIL	5/1/2015	15
EIL	19/1/2012	23	EA Networks	18/6/2015	58
EA Networks	24/3/2012	30	OtagoNet	11/5/2016	41
EIL	6/3/2013	16	Top Energy	11/7/2017	87
OtagoNet	10/9/2013	78			

Questions for discussion

What would you consider an extreme event? Is the proposed standard catching the right events?

What is the probability of such events occurring – how many to expect over 10 years?

How can we improve the extreme event standard to make more workable?

Notification incentive – overview

Our draft decision provided a largely asymmetric incentive to provide better notification of planned interruptions that met the following criteria:

- the distributor must provide retailers and major consumers, or directly to all consumers, with at least five full working days' notice of a planned interruption;
- the distributor must ensure that planned interruptions are prominently located on the distributor's website or via other online means, for example, phone applications, or social media;
- notification windows for planned interruptions must be no longer than four hours;
- planned interruptions must occur entirely within the specified window; and
- planned interruptions are still counted for the purposes of assessing incentives even if the interruption does not eventuate.

Submissions on notification incentive

Submissions from EDBs ranged from those supportive in principle of a notification incentive to those that expressed concern.

Those EDBs that expressed conditional support suggested some of the criteria be relaxed including:

- Extending the window for planned works from four hours – citing many planned works take longer and creates perverse incentive to split interruptions
- Allowing for alternative days in the event of adverse conditions or consumer requests
- Narrowing the scope of ‘major consumers’ to be notified
- Removing the assessment of notified interruptions that do not eventuate

Questions for discussion

What changes could be made to increase reception of the notification incentive?

What is the importance of an historic baseline (noting asymmetry in EDBs favour)?

What complexities does the scheme pose for businesses and how this might be reduced?

Next steps

Date	
25 September	Revised draft and model
9 October	Submissions on revised draft
16 October	Cross-submissions on revised draft
25 October	Audited s 53ZD responses due
28 November	Final DPP decisions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