Request to amend the Electricity Industry Participation Code 2010

This form is to request:

☒ an amendment to an existing clause or clauses in the Electricity Industry Participation Code 2010 (Code)

☐ ~~the removal of an existing clause or clauses in the Code~~

☐ ~~a new clause or clauses in the Code~~

Please refer to the Code amendment request guidelines [insert link] when completing this form. The Guidelines contain more information about requesting a Code amendment and the Authority's process when it receives a request.

Please complete all relevant sections of this form, with as much information as you can. The more information you include in your request, the better we will understand and be able to assess your request. If there is not enough room in this form, you can attach more pages.

Email completed forms to info@ea.govt.nz.

Proposer

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Section 1: Information to include for all requests

Complete this section for all Code amendment requests.

The proposal

1. Objective of the proposal What do you want the proposal to achieve? Provide supporting information on the problem or issue the proposal seeks to resolve.	Code Amendment Request (CAR): *adjustment event batching.* The objective of this proposal is to reduce *complexity, volatility and uncertainty* (CVU) and transaction costs associated with the precision sought from constantly tracking and communicating charge changes due to adjustments events, such that the net benefits of reducing CVU and transaction costs are larger than any economic cost arising from loss of precision. The amendments in this CAR will streamline BBC adjustments by Transpower, aiding customer understanding and reducing the multi-year reverberations to customer pricing (complicating pricing, compliance and disclosure requirements for our regulated network customers) that currently result from each adjustment event. This objective is described in our consultation as "*Refine adjustment mechanisms to reduce volatility and customer disruption*.[1] The two aspects of adjustment policy creating cost for Transpower and uncertainty for Customers are: • The *timing* of adjustments to charges and current practice of 'washing-up' the effect of adjustments in later years • The *volume* of adjustments. This proposal discusses only timing, please refer to alternative 1 for our discussion on a proposal to address both timing and volumes. **Status Quo** Generally, adjustments currently need to be calculated at the point in time of an adjustment event (to Transpower's reasonable knowledge). Adjustment events alter the allocations for all beneficiaries of the affected investments, but Transpower only updates the monthly BBCs within year for the directly affected customer (from the date of the event). All other customers' monthly BBCs are updated in the following pricing year (with BBC wash-ups applied to invoices up to two years

[1] TPM Operational Review 2026 Workstream 1 - Consultation Document.pdf, section 11.1

	later) creating uneven timing and compounding uncertainty. Adjustments, and associated wash-up calculations, need to be performed in the order in which they occur. This process requires event specific modelling for the charge and wash-up calculations with internal assurance, and with corresponding tasks for customers – in particular, regulated lines companies, where accounting for transmission cost wash-ups and within year charge changes is administratively complex driving disproportionate effort and assurance cost. **The proposal** • *Treat most adjustment events as occurring on a deemed date under the TPM (one exception being exiting customer), and process the adjustments simultaneously, and* • *apply changes only in the following pricing year (no backdating of charges or wash-ups).* A diagram illustrating how batching would change the timing of charges and wash-ups for the 'causing customer' and other affected parties is provided in Attachment A.3. **Macro concern: complexity, volatility and uncertainty** Transpower has received strong feedback from current and prospective customers that the TPM is a 'black box' and that the level of complexity, volatility and uncertainty negatively impacts their investment decisions and the decisions of their customers. The uncertainty principally relates to BBC charges where customers are (without exception) unable to reliably estimate charges or forecast future charges. Underlying CVU in the BBC methodology is exacerbated by the suite of adjustment provisions and the increasing volume of adjustment events. **The problem this amendment seeks to address** The TPM contains multiple situations whereby adjustments are made to a customer's allocation of a benefit based investment (BBI) under the Simple Method or the Standard Method (refer clause 81 of the TPM). Adjustments are also used for connection charges and residual charges (clauses 76 and 92 respectively).

	The volume of adjustments[2] has been greater than anticipated at the time the TPM Guidelines were issued, and is projected to increase further due to: (a) the number of circumstances where adjustment is required (b) the low threshold for certain adjustment events (c) increasing change in supply/demand across the electricity system driven by electrification. Already, some customers have experienced multiple adjustment events, some occurring within the same pricing year, resulting in repeated changes to their charges. This scenario is expected to become more common as the number of adjustment events increases. Customers have told Transpower that the large number of adjustments creates uncertainty, increases administrative costs, complicates pricing, reduces confidence, and affects customer investment decision making. Experience has shown that adjustment events consume a disproportionate amount of Transpower and customer time, are confusing for customers and are an increasing source of frustration as customers seek to understand, track and account for adjustments in business planning, pricing and regulatory disclosures (in particular for regulated lines companies). Our TPM post-implementation review found that TPM CVU is a significant impediment for overseas investors to investing in the New Zealand electricity generation projects (alongside consenting and network connections) and has disproportionate impacts on investment by new entrants who lack portfolio diversity (horizontal or vertical).[3] While the underlying BBCs methodology is the main driver of CVU, adjustments events serve to exacerbate CVU even further. **How this CAR helps to addresses the problem** While this proposed amendment does not reduce the *volume* of adjustments it does significantly: • reduce complexity, administrative, compliance and assurance burdens for customers and Transpower

2 TPM Operational Review 2026 Workstream 1 - Consultation Document.pdf, refer page 19 for a graph that shows number of adjustment events for different MW capacities

3 TPM PIR - summary report.pdf, page 10.

	• increase the efficiency with which adjustments are calculated by Transpower and administered by Transpower. Batching leads to a slight delay to commencement of charges for affected customers, a time delay that is very small relative to multi-decade plant typical lifetimes. We think this temporary cost advantage is not material and may have beneficial effects. A potential beneficial effect observed by the IWG (refer section 10) is that the delay applying BBCs would coincide with the period where the new plant is financially exposed - having incurred capital and commissioning costs but yet to realise full revenue or productivity benefits enabled by the plant. For example, a generator may be staging commissioning and is unlikely to have hedged its production. Batching is competitively neutral (applies equivalently between all parties triggering an adjustment event whether a generator, or offtake and grid connected or embedded). There is a slight cost advantage relative to existing plant, but this is temporary and small in the scheme of both the affected party's own investment cost and the costs being recovered by Transpower. Many or most existing plant would have enjoyed a period where not exposed to BBIs or equivalent charges under the preceding TPM, while some existing plant still does not attract any BBI charge i.e. pre-existing DG, embedded plant <10MW). Modelling indicates administrative, compliance and assurance related efficiencies of $5.6m net present value (twenty years) for customers and Transpower. In addition to these direct efficiencies, further benefits include: • reducing an exacerbator of BBC CVU • the benefit associated with releasing expert staff to focus on more productive tasks
2. Category of request State whether you think the request is minor, medium or complex, and why (applying the criteria in the Guidelines [insert link]). For minor requests, specify whether you think the nature of the amendment is technical and non-controversial.	We consider this Code amendment request is "**medium**" as the underlying policy intent under the TPM for cost allocations to be based on benefits is unaltered, but the proposed approach to adjustment events will require some re-drafting of the TPM.

3. Clause(s) to which the proposal relates If the proposal relates to existing Code clause(s), state the full clause reference/s here. If the proposal relates to a new clause, state where you think this would best fit in the Code.	Clauses 3 (new definition), 75, 81A (new clause) , 82 and 84 of the TPM.
4. Description of the proposed amendment Describe the Code amendments you are proposing (or attach a draft of the proposed Code amendment when submitting this form). Note: if you are providing draft wording of the proposed Code amendment, see the Code drafting manual for guidance.	The Code amendment proposes changes to provisions related to the timing of adjustments events, specifically that all events are deemed to have occurred on a single date (e.g. June 30). A draft of the proposed Code amendment is attached. Appendix E – Proposed drafting changes: Adjustment Events, Batching.
5. How the proposal supports the Authority's main objective Identify how your proposal would support the Authority's main objective of promoting competition in, reliable supply by, and/or efficient operation of the electricity industry for the long-term benefit of consumers. If the proposal is not expected to impact a limb of the main objective, use "No impact on this limb" See section 15(1) of the Act	**Competition:** This proposal is unlikely to have a material impact on competition. However, at the margin, it may promote competition by (i) enabling Transpower to better explain charges for a new customer thereby supporting new customers to enter the market (ii) reducing a key source of uncertainty for the customer enabling more efficient operational and investment decisions. **Reliability:** We consider this request is unlikely to have a material impact on reliability. However, at the margin, it may promote reliability by reducing a key barrier to entry and expansion (as noted in the competition section). **Efficiency:** This proposal promotes efficient operation though (i) increased productive efficiency for Transpower and its customers through once-a-year adjustment to charges. (ii) increases dynamic efficiency through the effect that improved charge certainty (or reduced uncertainty) leads to certainty in decision making.

6. Application of the Authority's additional objective Identify whether your proposal relates to the dealings of industry participants with domestic consumers and small business consumers. If it does, identify how your proposal will protect the interests of domestic and small business consumers in relation to the supply of electricity to those consumers. See sections 15(2)-(3) of the Act	N/A
7. How the proposal complies with section 32 of the Act The Code may only contain provisions which are necessary or desirable to promote specific matters listed in section 32(1) of the Act which are: a) competition in the electricity industry b) the reliable supply of electricity to consumers c) the efficient operation of the electricity industry d) the protection of the interests of domestic consumers and small business consumers in relation to the supply of electricity to those consumers e) the performance by the Authority of its functions f) any other matter specifically referred to in the Act as a matter for inclusion in the Code. Identify which of the section 32(1) matters listed in the adjacent column your proposal relates to.	The proposal complies with the Act by: • promoting specifically, the efficient operation limb of the statutory objective, through improving productive efficiency for both Transpower and its Customers relating to pricing processes and • promoting, consequentially, competition in the electricity industry by the effects of better understanding on charges and charge changes such that Customers of all sizes, resources and balance sheets can make efficient investment and operational decisions.

8. Affected parties Who is likely to be substantially affected by the proposal? Thei could include other participants (such as generators, distributors metering equipment providers, intermittent generation owners), consumers, market operation service providers.	All Transpower customers will be positively impacted through reduced complexity (aiding TPM comprehension) and stable in-year pricing. EDBs will be positively impacted through removal of wash-up provisions which are burdensome to administer and assure. Transpower will be positively impacted by this proposal, reducing the transaction costs of the current manual, multiple adjustment processes (albeit that some of those manual processes are able to be systemised). Removal of wash-up provisions applies equally for all adjustments (generation and offtake) and is competitively neutral.
9. Urgency Identify whether you consider your proposal to be urgent (providing supporting rationale). Section 40 of the Act	This CAR is not urgent to the extent of section 40 of the Act, but to ensure the benefits of the change for Customers can be realised as soon as possible, the Code amendment would need to be approved by 1 November 2026 and allow for Transpower to apply batching from 1 July 2026. This would provide the cleanest and earliest 'cutover' date for Transpower to incorporate 'batching' in setting prices for Pricing Year April 2028 – March 2029.

10. Support for the proposal Do you consider there is widespread support for your proposal among the people likely to be affected? If so, provide supporting rationale.	There is widespread support for this CAR, based on feedback from both the Industry Working Group (IWG) and the wider industry consultation (from March 6 – March 20, 2026). Refer "summary of submissions".[4] The IWG represents a cross-section of TPM stakeholders with expertise from across the electricity system. The IWG considered batching adjustment events to be the most straightforward and proportionate reform, and an obvious candidate for early implementation. It also noted batching would not reduce the number of adjustment events; or materially alter the transaction and other costs associated with: • (for Transpower) creating or obtaining the information required from its customers to perform adjustment events; and • (for customers) incorporating indicative prices from the annual update into its operational processes (such as informing its own customers of the price changes)
11. Prior consultation Do you consider there has been adequate prior consultation on the proposal so that all relevant views have been considered? If so, provide supporting rationale.	Yes. Two avenues of prior consultation: First: Views sought through the Operational Review Industry working Group. This working group represents a cross-section of TPM stakeholders with expertise from across the electricity system. Second: views sought through Transpower's industry consultation on the issue. Please refer to footnote 3.

[4] Transpower - summary of submissions - TPM OpRev26 - FINAL VERSION.pdf All submitters that responded to this question supported batching of adjustment events, although several did so on a qualified basis: Contact, ENA (with design caveats), Genesis (qualified[3]), IEGA, Lodestone (noting, however, the limited benefits for Distributed Generation (DG)), MEUG, Orion, Unison and Centralines, Vector and Westpower. **Genesis:** "Transpower should consider how the proposal to batch adjustment events may have unintended consequences. Specifically, the proposal would seem to mean customers who connect early in a pricing year will not pay increased (adjusted) benefit-based charges for up to a year i.e. until the new pricing year takes effect with the adjusted benefit-based charges."

12. Other relevant information Is there any other relevant information you would like the Authority to consider?	This CAR is considered a 'quick win' within TPM Operational Review Workstream one. The benefits, while material, will be increased if efforts workstreams two and three to reduce CVU in simple method and standard method BBC are successful. Our analysis of the monthly charge that would be deferred is in Attachment A2. Connection events are chosen as new connectees are the main beneficiary of our proposal to have all events occur at a deemed date (e.g. June 30), with pricing adjustments then all applied for the next pricing year.

Section 2: Standard Code amendment requests

This section should be completed for all standard Code amendment requests. A request will be treated as a standard Code amendment request unless the Authority is satisfied that one of the following applies:

- the nature of the amendment is technical and non-controversial (question 2)
- the proposed amendment should be made urgently (question 9)
- there is widespread support for the amendment among the people likely to be affected by it (question 10), or
- there has been adequate prior consultation so that all relevant views have been considered (question 11).

You do not need to complete this section of the form if any of these apply. However, if the Authority does not agree with your assessment and decides to treat the request as a standard Code amendment request, we may come back to you and ask you to complete this section.

Provide a summary of the costs and benefits in the table below. Benefits can be qualitative and/or quantitative.

Costs and benefits of the proposal (batching as at a deemed date under the TPM)

(Refer Chapter 10 of Workstream 1 cover paper, "Adjustment events: timing and volumes" option A)

13. Costs of the proposal Identify the expected costs of the proposal, including: • your assessment of the direct cost to develop and implement the proposed Code amendment, and • the consequential costs as a result of the amendments.	There are few direct costs to develop implement the proposal beyond communicating changes to customers and minor changes to existing processes for Transpower. These are unlikely to exceed $100k. Costs of approximately up to $500k will be incurred by Transpower to partially automate adjustment event processing. This investment reduces operational cost to process adjustment events, and those lower costs are reflected in the cost benefit analysis described below. Under the CAR, connecting customers would not incur BBCs until the start of the pricing year following connection. It is possible some customers might alter the timing of commissioning to delay the incidence of BBCs.

	In practice, we consider this risk to be small because the financial gain is small relative to likely project cost increases (cash burn, project financing), project financing costs and business disruption to not commissioning as soon as possible. **Example: hypothetical 100MW solar generation project** • Capital cost $190m[5] • Annual revenues of $17m per annum ($1.44m per month) assuming generation weighted average price of $100MWh and 20% capacity factor • Project finance at 8% for $1.27m per month (late in the project's delivery when expenditure has occurred) The per month benefit of early delivery is the sum of avoided financing and incremental revenue ($2.7m). The project has a 'cash-burn' of $100k per month, this is the cost to keep the project running once key deliverables have been met. The per month cost to delay the commissioning date is the sum of additional financing costs, cash-burn and foregone revenues ($2.8m). In other words, to justify additional costs and foregone revenues from a one-month delay, the hypothetical generator would need to avoid BBC charges of $2.8m. The average BBC per MW for pricing year 26-27 is $5,991 or $599k per annum for our hypothetical generator.[6] This is less than the $2.8m cost, meaning the hypothetical generator would not be incentivised to delay commissioning, by even one month. There is, therefore, a strong financial incentive to commission as soon as possible and to avoid project delays and not an incentive to delay commissioning, even by one month, to temporarily avoid BBC charges. Additional factors counting against unnecessary delay include meeting investor or public commitments, supplier, system (e.g. outage windows) and customer deadlines. Some parties may argue that not applying BBCs until the following pricing year is unfair. However, this was not considered a material issue by the IWG who recognised the relatively small effect and competitive equivalence between all parties connecting or otherwise triggering an adjustment. Some submitters noted raised this as a concern but, as outlined above, it is not a material inequity and is competitively neutral. Please see Attachment A.2 for numerical indications of the impact of monetary amounts being deferred.

5 2025 Generation Stack Report, Beca and Concept Consulting, section 5.3.2, cost trajectory

6 Average per/PW BBC charges across the entire generation fleet exposed to BBC charges are slightly lower, at $5,578 per MW generating capacity.

14. Benefits of the proposal Identify the expected benefits of the proposal	**Direct benefits** are the *avoided transaction costs* from the status quo (SQ) compared with the proposal and *incremental reduction in BBC complexity, volatility and uncertainty*. The CAR will improve efficiency by reducing the following costs for Transpower, the party causing the adjustment, and electricity distribution businesses (EDBs): 1. Transpower's computational costs, customer interaction costs and wash-up / implementation costs. 2. The causing party (may be grid-connected or embedded generation or offtake, may be an EDB) to interact with Transpower. 3. EDBs (where an adjustment is caused by an offtake or generation customer on their network) to interact with Transpower and manage wash up / implementation. 4. All other parties affected by the adjustment. For example, each adjustment affects all beneficiaries of the relevant BBI. Transpower has, for the factual (CAR) and counterfactual (status quo), estimated or forecast: • costs for 1-4 above based on either its own knowledge or sampling of affected third parties • future adjustment volumes and activities • calculated net present values for each scenario using a 5% discount rate.
15. Net benefit of the proposal State whether you consider the proposal has a positive net benefit, and why.	This analysis described above indicates positive net benefits over an initial twenty-year period of ~$5.6 million (in present value terms) resulting from reduced transaction costs enabled by this CAR. This excludes qualitative benefits arising from the incremental reduction in the CVU of BBC charges which negatively affects efficiency (investment commitment by generation and offtake) and likely affects competition and reliability for the reasons outlined earlier in this CAR. The CBA is discussed further in Attachment A.1.

Assessment of alternative options

The status quo is described in the Cost Benefit Analysis that was part of Transpower consultation for Workstream one of its Operational Review

TPM Operational Review - Workstream 1

	Alternative means of achieving proposal's objective
Name of alternative option	Batching **and** raising the Large Plant capacity threshold (Refer Chapter 10 of Workstream 1 cover paper, "Adjustment events: timing and volumes" Option B)
16. Describe alternative option Include a brief description of any alternative means identified of achieving your objective	Treat most adjustment events as occurring on a deemed date under the TPM (the option proposed in this CAR), **plus:** • Increasing the Large Plant capacity threshold (currently 10MW) to better reflect viable scale for generation or offtake plant to connect to the grid, to 25MW
17. Identify extent to which the alternative would achieve your objective	The alternative would better achieve the efficiency objective of reducing the transaction costs. This is because the number of adjustment events would reduce by approximately 50% enabling a further reduction in transaction costs associated with BBC adjustments. The alternative is likely to result in higher qualitative benefits, by reducing the number of generation and offtake investments exposed to (and therefore negatively impacted by) BBCs and the associated CVU. However, submitters to our consultation and the IWG indicated discomfort progressing the alternative without first addressing the risk of incentivising inefficient plant sizing / location. Transpower could not complete this analysis in the time available. This alternative may be considered further in later stages of the Operational Review.
18. Affected parties	Transpower and parties affected by BBCs.
19. Expected costs and benefits Please include direct costs to develop the alternative and consequential costs and benefits to all affected parties	The alternative was described in the CBA contained in our March consultation paper. This CBA has been refined to take account of stakeholder feedback and improved information. The alternative indicates additional positive net benefits over an initial twenty-year period of ~$2 million (in present value terms). This option is presented in conjunction with that proposed in the CAR in Attachment A.1. The CBA demonstrates that for Transpower and Customers' transaction costs, there is a *greater* reduction in those costs than the proposal, due to the reduction in the number of adjustment events to process.

20. Why do you prefer the proposal over this alternative?	The IWG considered batching to be straightforward and proportionate (our proposal). However, it did not support both batching AND increasing the threshold, without first addressing potential risks[7] including potential incentives to embed plant to avoid transmission costs. From submissions to Transpower's consultation [refer summary of submissions[8]] • Gentailers Genesis Energy and Contact Energy did not support raising the threshold. Contact Energy argued that higher thresholds would create boundary issues and likely encourage inefficient embedding of generation. Genesis Energy raised concerns that increasing the threshold could result in disproportionate cost impacts on other parties, who could ultimately pay more as a result. • There was a measurable level of support for increasing the large plant threshold, particularly from distributed generation (DG) developers and electricity distribution businesses (EDBs). ENA noted that embedded load customers are actively moderating enhancement activity to avoid triggering adjustment events, indicating that the current threshold is influencing behaviour. MEUG supported an increase in the threshold, and Meridian Energy expressed tentative support. Specifically, inefficiencies may arise in generation investment due to suboptimal investment decisions at the higher threshold, such as project fragmentation leading to operations that fail to achieve economies of scale. But in contrast, increased thresholds may allow for more efficient load behaviours, enabling demand growth without being constrained by current threshold limits, particularly where the grid deliberately lacks peak pricing signals to indicate transmission capacity limitations (i.e. demand shouldn't be constrained). Given these opposing viewpoints, we have concluded we have insufficient understanding of the potential inefficiency **and** efficiency consequences for both generation and load resulting from an increased threshold and the associated trade-offs, to propose an amendment to the TPM to increase the threshold. Nevertheless, the TPM Guidelines premise that "large plant" is a threshold aligned with plant being able to "viably connect to the grid" suggests the threshold is currently too low.[9] Transpower analysis shows that 98.4% of plant in its connection queue is >25MW (while plant <25% causes 50% of all adjustment events).

7 TPM Operational Review 2026 Workstream 1 - Consultation Document.pdf

8 Transpower - summary of submissions - TPM OpRev26 - FINAL VERSION.pdf

9 26850TPM-2020-guidelines-10-June-2020.pdf definitions for "large generating station" and "large offtake plant"

Name of alternative option	**Batching but using actual event date (option 2 in the consultation paper)** (Refer Chapter 10 of Workstream 1 cover paper, "Adjustment events: timing and volumes" Option C)
16. Describe alternative option Include a brief description of any alternative means identified of achieving your objective	Calculate adjustments using actual event dates but process all events together as part of the annual pricing review, with wash-ups applied.
17. Identify extent to which the alternative would achieve your objective	This option would increase (rather than decrease) the administration effort for adjustment and it would not achieve the objective of reducing transaction costs (for itself and TPM affected parties). This alternative would not achieve our objective because • Transpower still has to obtain *timely* information required to record the adjustment event date (and it is the effort needed to ensure accuracy on timing that generates high transaction costs - engagement - between Transpower and the Customer). • Instead of adjusting charges based on that information at the time of the information (spreading the administrative workload over the year); the charge changes would all be processed at one time (in the period from 1 July until prices are notified in December), creating a cumulative processing task that is only going to increase with an anticipated increase in adjustment events. Noting that adjustments have no impact on Transpower's actual revenue and 'precision' comes from wealth transfers between Customers creating winners and losers.
18. Affected parties	Transpower and parties affected by BBCs.
19. Expected costs and benefits Please include direct costs to develop the alternative and consequential costs and benefits to all affected parties	We have not undertaken a cost analysis of this option. We consider that in delivering benefits to Customers by removing intra-year changes, it would create an unreasonable and potentially unmanageable increase in Transpower processing tasks, at an already busy time for the pricing team starting to prepare for the next pricing year's prices.
20. Why do you prefer the proposal over this alternative?	The proposal achieves Transpower's objective to reduce the transaction costs of processing adjustment events under the status quo and remove volatility and engagement costs for Customers. This alternative might achieve a reduction of volatility for Customers but at the expense of even higher transaction costs for Transpower.

Name of alternative option	**The causing customers start paying from the June batching date, with a wash-up in April** (Refer Chapter 10 of Workstream 1 cover paper, "Adjustment events: timing and volumes" option C)
16. Describe alternative option Include a brief description of any alternative means identified of achieving your objective	The causing customer starts paying from June and not from the actual event date. The costs they would have paid had they been charged from their event date are recovered from them later via a wash-up. The intention of this option would be to preserve the precision of current allocations while enabling batching (through use of retrospective invoicing for the causing party and attributing any recovered revenues to affected parties).
17. Identify extent to which the alternative would achieve your objective	We do not think this option meet the objective of the proposal. At a practical level this option is potentially more onerous than the status quo due to the need to: • calculate partial year historical charges at the same time as performing annual price setting (a particularly intensive period) • perform wash-ups, to the extent required, which are onerous for Transpower and affected customers and are a key driver of complexity, volatility and uncertainty.
18. Affected parties	Transpower and parties affected by BBCs.
19. Expected costs and benefits Please include direct costs to develop the alternative and consequential costs and benefits to all affected parties	Wash-up implementation costs of the status quo would remain. A quantified cost benefit analysis was not performed for this option because, on examination, it became clear the option would not achieve the targeted outcome. This is because, to calculate and apply back-charges, Transpower would need to do all the computational tasks under the status quo but at the end of the year (peak work period) rather than throughout the year.
20. Why do you prefer the proposal over this alternative?	The proposal achieves Transpower's objective to reduce the transaction costs of processing adjustment events under the status quo and remove volatility and engagement costs for Customers.

Attachment A.1 – Cost-benefit analysis

Transpower has undertaken initial Cost Benefit Analysis (CBA) for the proposal.

Despite being high-level, it indicates the proposal could yield a benefit of up to $5.6 million (present value) over an initial twenty-year period.

For clarification, in the context of this CBA, 'the proposal' means to batch adjustment events. The benefit of increasing the large plant threshold to 25 MW is shown as an incremental step.

The approach to CBA

The approach to the CBA is straightforward. Focusing on Transpower's and affected parties' transaction costs, it compares a scenario that has the proposed changes embedded to the status quo.

The transaction cost under each scenario fall into three categories:

(a) The computational cost to Transpower in deriving new prices.

(b) The wash-up implementation costs (and management thereof) to Transpower and affected customers.

(c) The engagement cost to Transpower, affected customers and parties causing an event, leading up to and following an adjustment event.

For these categories, the costs are driven by the number of adjustment events and the per unit (per event) costs for computational, wash-up and customer engagement efforts. Put simply, the transaction cost per scenario can be expressed in the below equation:

Cost benefit (the proposal) = Transaction cost (the proposal) – Transaction cost (status quo)

For clarification, the CBA is only focusing on the effect the proposal could have on purely transaction costs as these can be quantified with some certainty.

The CBA does not incorporate any flow on impacts the proposal could have, such as competition, reliability and efficiency benefits potentially arising from an incremental reduction in BBC complexity volatility and uncertainty. Such effects are likely to be modest and quantifying and forecasting these effects would come with a significantly lower degree of confidence.

Inputs and assumptions

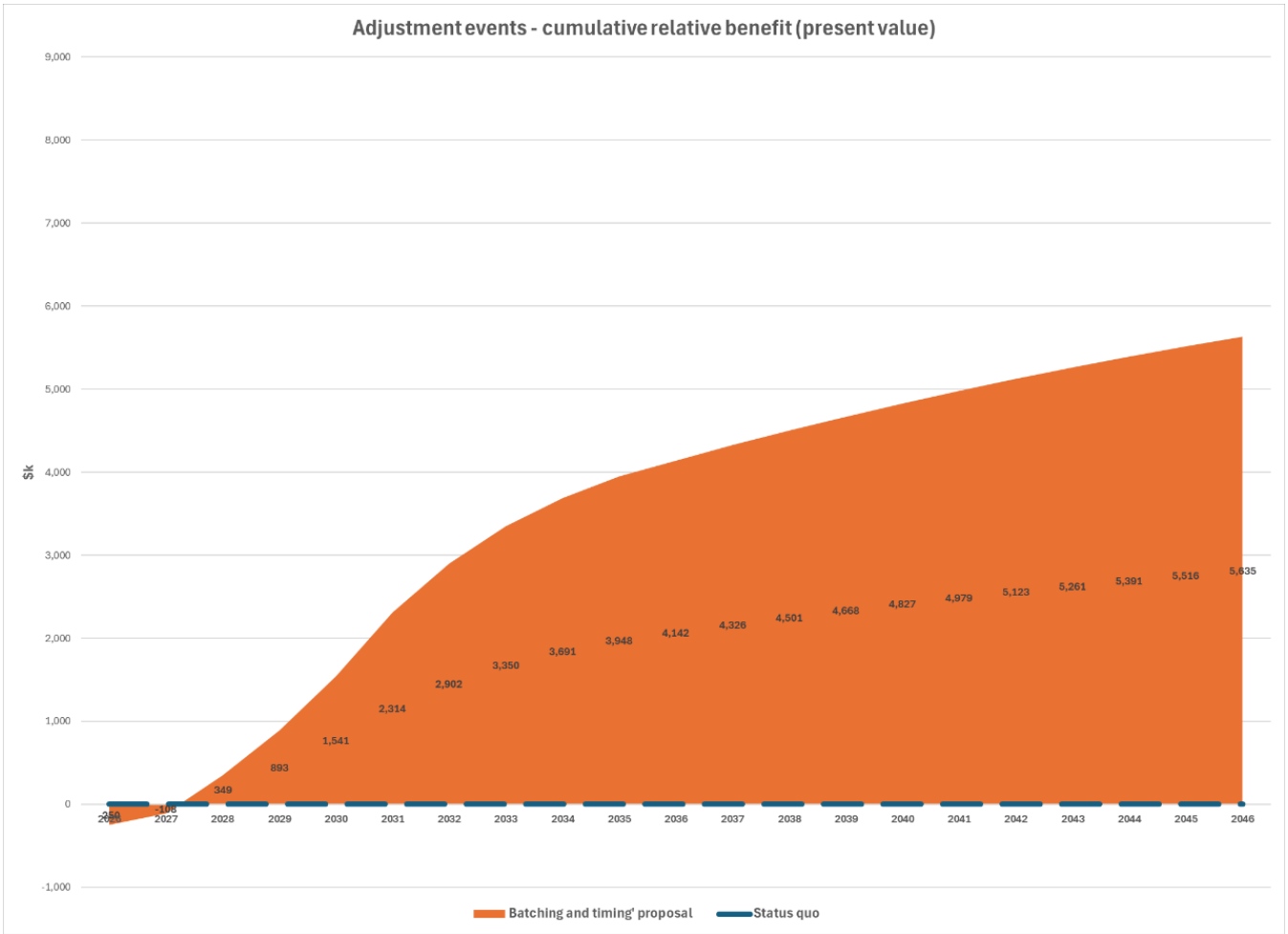
The inputs and assumptions are summarised in the table below:

Input	Status Quo	The proposal
Computational unit cost	$9k/event reducing to $3k/event with systemization from year 2027.	'Batching and timing' reduces the cost to $1k/event.
Wash-up implementation unit costs (to Transpower and an average of two EDBs affected of changes to IRAs.)	$9k/event (note this amount was modified following consultation due to improved cost estimates).	'Batching and timing' removes these costs.
Customer engagement unit cost	$6k/event (note this amount was $5k/event in the CBA consulted on, changed following submissions).	$6k/event.
One-off systemisation cost	-	$500k for 'batching and timing'.
Adjustment event frequency (for alternative)	30 events in 2026, increasing by 25% annually to 2031 (94 events) before it decreases over five years back to 30 events.	Redefining 'large' plant to 25MW would reduce the event profile by 50%.
Other	Discount rate = 5%	Discount rate = 5%

CBA results

The proposal could yield a benefit of up to $5.6 million (present value) over an initial twenty-year period. As can be seen in the graph (figure 1) below, the cumulative benefit (in present value terms) of the proposal accumulates steeply before it starts to level off due to the discounting effect.

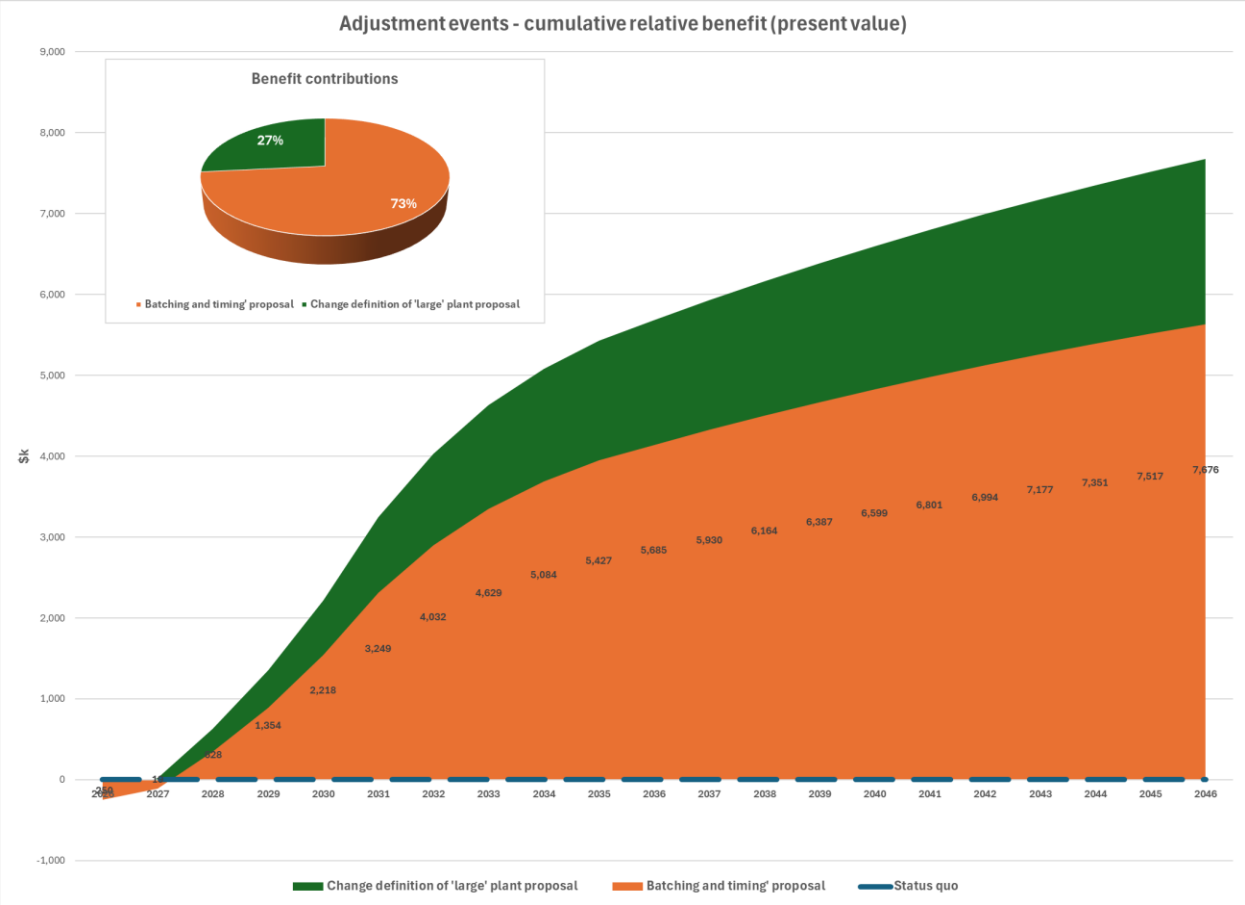
Figure 1 Cumulative net benefit build-up of batching proposal



Cumulative net benefit build-up of batching proposal and increased threshold alternative

Changing the definition of 'large' plant to 25 MW would create an incremental benefit of $2 million, shown in figure 2. Note, this value relies on the batching proposal to be implemented. It would be less on a stand-alone basis.

Figure 2 Cumulative net benefit: batching plus threshold



Attachment A.2 – Deferral costs

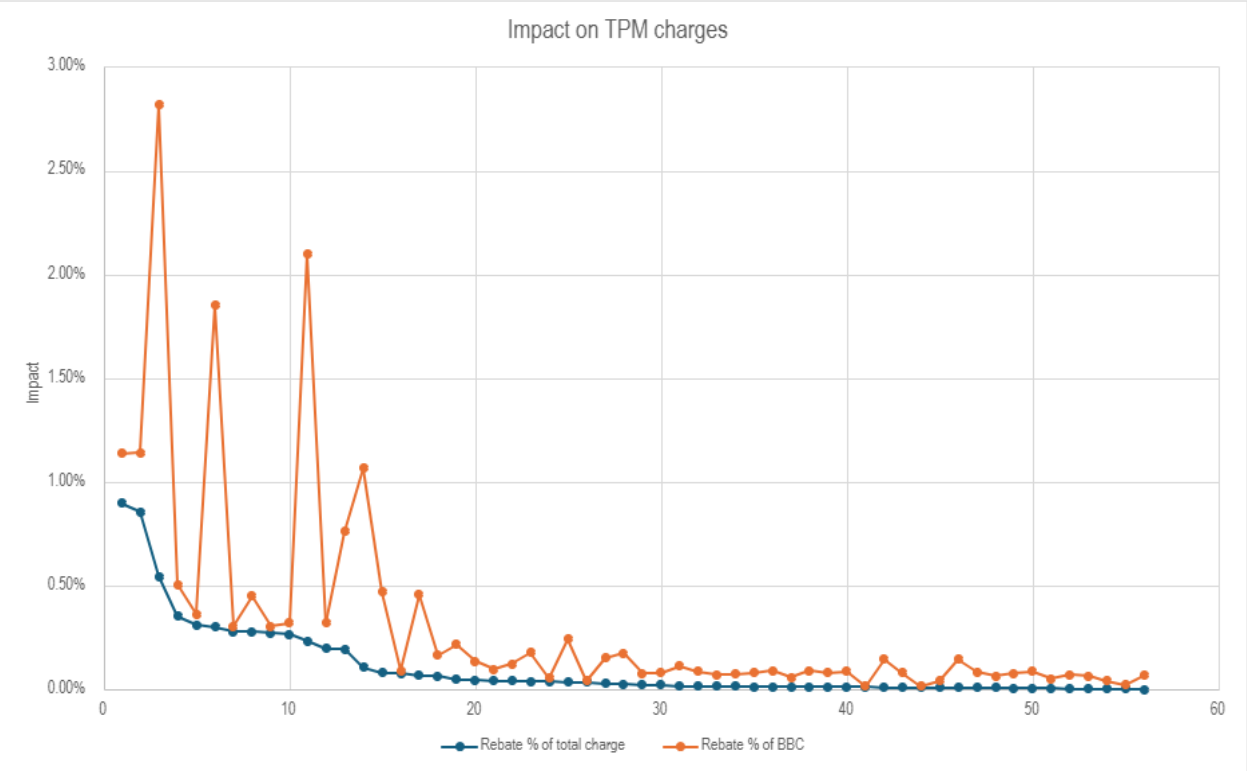
The table below (figure 3) provides an indication of the size of the monthly charge that would be temporarily avoided by the 'causing customers', with the causers disaggregated by size (<25MW) and by location (grid connected or embedded).

Figure 3 Impact on causing parties, by capacity and location

Category	Annual charge	MW	Total monthly charge (all parties)	Monthly MW	Number of parties	Monthly charge per party
<25MW	$981,815	220.49	$81,818	371.07	11	$7,438
All embedded	$2,794,702	486.09	$232,892	479.11	17	$13,700
Grid connected	$1,941,149	480.40	$161,762	336.72	4	$40,441
All adjustments	$4,735,851	966.49	$394,654	408.34	21	$18,793

Figure 4 below is an Indication of impact on affected parties, showing the rebate value as a percentage of total charges (lower line on graph below) and as a percentage of BBCs (upper line in the graph below).

Figure 4 Impact on affected parties annualised values



All of Transpower's customers were affected by adjustments to BBIs that resulted in rebates to their next year's prices. However, the changes are very small with the biggest impact being:

- <1% of overall transmission charges
- <3% of benefit-based charges

The largest single impact was around $90,000 which is not a trivial sum but is small in context of overall transmission charges (<0.3%) and BBCs (<0.5%) for that customer.

Attachment A.3 – How batching would change the timing of charges and wash-ups for the ‘causing customer’ and other affected parties

(submitted as a separate pdf)