Energex Limited

Tropical Cyclone Alfred
Cost Pass Through Application

October 2025

energex
Part of Energy Queensland

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Tropical Cyclone Alfred Cost Pass Through Application

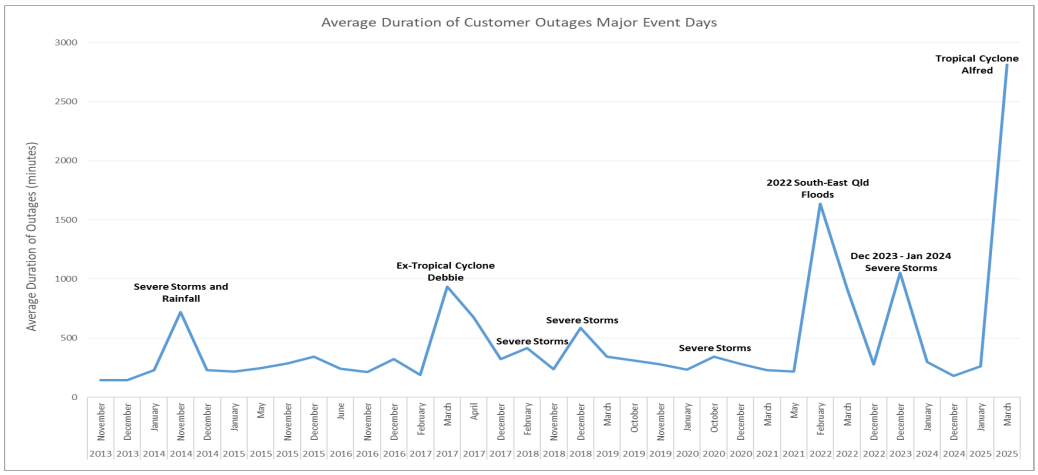
EXECUTIVE SUMMARY

This application seeks approval from the Australian Energy Regulator (AER) to recover from customers the additional costs incurred by Energex Limited (Energex) in responding to damage sustained by its distribution network as a result of Tropical Cyclone Alfred in March 2025. The impacts of this tropical cyclone weather system, and the resulting network damage, materially affected Energex's ability to deliver direct control services.

Tropical Cyclone Alfred was a prolonged and severe weather event, characterised by its unpredictable trajectory, slow movement, and fluctuating intensity. The system produced damaging winds, hazardous ocean swells, and intense rainfall, resulting in flooding and widespread impacts across South East Queensland. Energex's electricity distribution network sustained substantial damage, including to distribution transformers, poles, and powerlines. Approximately 500,000 customers experienced loss of electricity supply, prompting the largest natural disaster restoration effort in Queensland's history.

A significant and coordinated operational response - mobilising over 2,400 field crew from Energex and Ergon Energy - was required to address the impacts of Tropical Cyclone Alfred and restore electricity supply to customers, once weather conditions allowed for safe operations. The most significant impacts to Energex's electricity distribution network occurred in the Gold Coast, Sunshine Coast, Scenic Rim and Moreton Bay Local Government Areas. The magnitude of this event is illustrated in Figure 1, which shows the average duration of supply interruptions experienced by customers on major event days,[1] relative to previous large events since 2013. Further recognition of the event's severity is reflected in the Queensland Reconstruction Authority's activation of disaster relief assistance for affected communities in South East Queensland.

Figure 1: Average duration of customer outages on major event days (November 2013 to March 2025)



[1] As defined in Appendix D of the Australian Energy Regulator's Service Target Incentive Scheme v2.0.

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Energex is seeking approval from the AER to recover $56.88 million ($2024-25) and $3.51 million ($2025-26) in incremental capital and operating expenditure incurred as a result of Tropical Cyclone Alfred. This expenditure was not included in Energex's 2020-25 or 2025-30 distribution determinations. Energex proposes a positive cost pass through amount of amount of $59.6 million ($nominal, smoothed) over the 2026-27 and 2027-28 regulatory years, being the second and third year of the current regulatory control period. This cost pass through application:

- Illustrates that Tropical Cyclone Alfred meets the requirements to qualify as a natural disaster pass through event, as approved by the AER as a nominated pass through event in Energex's 2020-25 and 2025-30 distribution determinations;
- Demonstrates the incremental costs incurred by Energex in responding to Tropical Cyclone Alfred satisfy the one per cent materiality threshold in the National Electricity Rules (NER), and the pass through event is considered a positive change event;[2]
- Addresses each of the relevant requirements outlined in clause 6.6.1(c) of the NER; and
- Was submitted by 31 October 2025, being the date of the extension granted by the AER on 28 May 2025 in accordance with clause 6.6.1(k) of the NER.

The incremental expenditure incurred as a result of Tropical Cyclone Alfred had a material impact on the cost of providing direct control services in Energex's distribution area. Accordingly, Energex seeks to recover the proposed positive cost pass through amount in line with the provisions of the NER.[3]

Energex's positive cost pass through amount represents actual costs incurred within the 2024-25 regulatory year as well as costs to be incurred in the 2025-26 regulatory year as a direct consequence of Tropical Cyclone Alfred. The materiality threshold of $12.93 million ($nominal, smoothed) to constitute a positive change event has been met and this application demonstrates the costs incurred by Energex as a result of Tropical Cyclone Alfred were prudent and efficient.

The eligible cost pass through amount is estimated to add approximately $10.23 and $28.61 to an average residential customer's and $10.39 and $29.12 to an average small business customer's 2026-27 and 2027-28 annual network charges respectively.

[2] NER Chapter 10, definition of "materiality".

[3] See clause 6.6.1.

Tropical Cyclone Alfred Cost Pass Through Application

1 INTRODUCTION

Tropical Cyclone Alfred was a prolonged, slow-moving severe weather event that significantly affected South East Queensland between 1 and 16 March 2025. It brought damaging winds, hazardous ocean swells, and substantial coastal erosion. The system's slow progression resulted in sustained heavy rainfall, leading to riverine and flash flooding across the Gold Coast, Sunshine Coast, Lockyer Valley, Ipswich, Logan and Brisbane regions. This natural disaster caused considerable damage throughout the area, including to Energex's electricity distribution network. The magnitude of the event, which led to widespread power outages, necessitated a comprehensive and well-coordinated recovery response. The scale and complexity of this recovery response resulted in material expenditure beyond the allowances set out in Energex's 2020–25 and 2025-30 distribution determinations.

Tropical Cyclone Alfred had a significant impact on Energex's electricity distribution network and operations, resulting in:

- the interruption of electricity supply to approximately 500,000 customers throughout South East Queensland over the course of the 16-day event
- widespread damage to network assets, including to over 580 crossarms and 24 distribution transformers
- over 1,600 fallen powerlines with more than 175 kilometres of wires requiring replacement, and
- access issues and challenging working conditions due to flooding and fallen vegetation, which delayed or restricted safe restoration and repair works.

Figures 2 to 5 provide examples of the damage sustained by Energex's electricity distribution network as a result of Tropical Cyclone Alfred and some of the challenges faced by crews during restoration efforts.

Figure 2: Trees and wires down in Redland Bay

Figure 3: Vegetation access issues and network damage in Ormeau

Figure 4: Broken crossarm replacement in Upper Coomera

Figure 5: Pole down and smashed transformer in the Scenic Rim

This application is made pursuant to clause 6.6.1(a) of the NER and seeks to pass through the incremental costs associated with Tropical Cyclone Alfred, which Energex submits qualifies as a positive change event. This event has materially increased the cost to Energex of providing direct control services, with the associated total incremental cost being $60.39 million, comprising $56.37 million in operational and $4.02 million in capital expenditure.

The remainder of this pass through application is structured as follows:

- Section 2 provides an overview of Tropical Cyclone Alfred, including the key events that had a direct adverse effect on Energex's distribution network
- Section 3 summarises the relevant provisions of the NER, the legislative basis for the application, and demonstrates how Tropical Cyclone Alfred meets the cost pass through provisions
- Section 4 details Energex's insurance arrangements as they relate to natural disaster events

- Section 5 summarises Energex's governance arrangements for its planning and management of emergency situations
- Section 6 outlines the key elements of Energex's response to Tropical Cyclone Alfred
- Section 7 provides details of the incremental costs associated with Energex's response to Tropical Cyclone Alfred, and
- Section 8 summarises the eligible and proposed cost pass through amount.

In addition, the following attachments are included:

- Attachment 1 - Energy Queensland's Natural Hazards Strategy 2024-25
- Attachment 2a - Emergency Management Plan Distribution Network (public version)
- Attachment 2b - Emergency Management Plan Distribution Network (confidential version)
- Attachment 3 - Use of Polygons to identify affected areas and assets
- Attachment 4 – Energex's Tropical Cyclone Alfred Cost Pass Through 2024-25 Build-up of Costs
- Attachment 5a - 2020-2025 Energex's Cost Pass Through Post Tax Revenue Model
- Attachment 5b - 2025-2030 Energex's Cost Pass Through Post Tax Revenue Model
- Attachment 6 – Energex's Tropical Cyclone Alfred Compliance Checklist, and
- Attachment 7 – Energex's Confidentiality Claim October 2025

2 TROPICAL CYCLONE ALFRED IN SOUTH EAST QUEENSLAND

On 21 February 2025, a tropical low formed northeast of Cooktown. Over the following days the weather system continued to evolve, eventually reaching tropical cyclone intensity on 23 February 2025. Tropical Cyclone Alfred moved in a southeasterly direction, fluctuating in intensity between a category 1 and category 2, before abruptly turning westward towards the Queensland coast on 4 March 2025. The system then progressed slowly toward the South East Queensland coastline, intermittently stalling and altering its trajectory.

Tropical Cyclone Alfred made landfall at approximately 1:00am on 8 March 2025, crossing Moreton Bay Island as a Category 1 cyclone. Figure 6 illustrates the cyclone's highly irregular path from formation to landfall.

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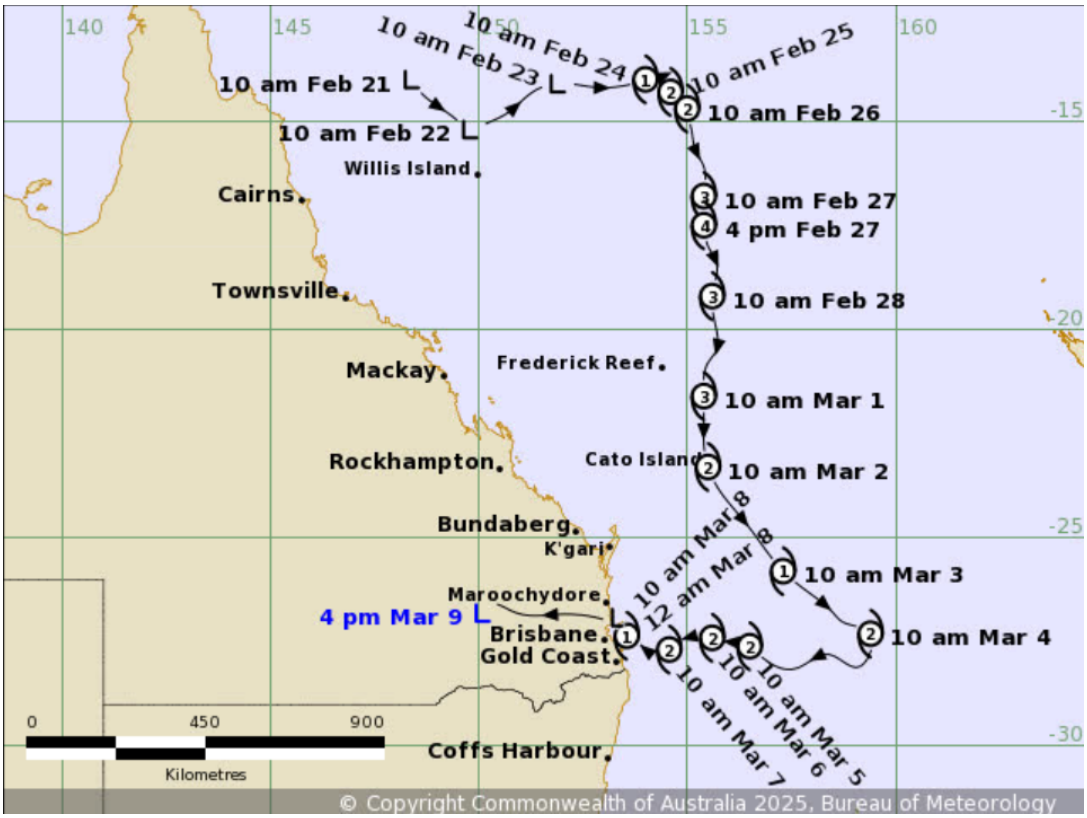
Figure 6: Trajectory of Tropical Cyclone Alfred 21 February to 9 March 2025



Source: Bureau of Meteorology

Shortly after landfall, the system weakened and was reclassified as a tropical low. Ex-Tropical Cyclone Alfred then stalled over waters east of Bribie Island for most of the day before moving inland later that evening. The slow moving nature of this weather system resulted in sustained, heavy rainfall over the region, leading to riverine and flash flooding in the Gold Coast, Sunshine Coast, Lockyer Valley, Ipswich, Logan and Brisbane regions. On 9 March 2025, the Brisbane region recorded its highest daily rainfall since 1974.

As a direct consequence of Tropical Cyclone Alfred and the subsequent ex-tropical cyclone conditions, approximately 500,000 customers experienced loss of electricity supply and Energex's distribution network sustained significant damage, including to:

- 130,000 metres of cable
- 2,589 insulators
- 90 poles
- 24 distribution transformers
- 589 crossarms, and
- 1,184 switchgear.

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In the days leading up to Tropical Cyclone Alfred making landfall, Energex initiated preparedness activities to ensure readiness to respond to potential impacts on its network and customers. Field crews and generators were mobilised from all of Energex's South East Queensland depots, and additional Ergon Energy Network and contract crews and resources were prepared to assist when and if required. Equipment such as generators, fuel, communication devices, and other critical supplies were proactively deployed to Bay Island communities in anticipation of potential access limitations.

Figure 7: Equipment preparation at Garbutt Depot

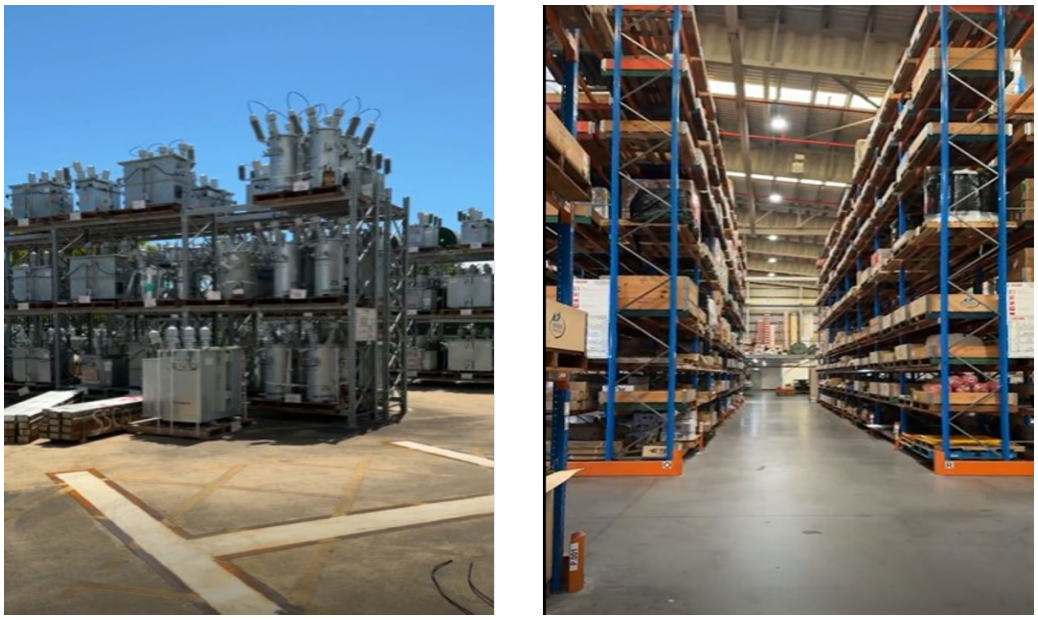

Figure 8: Ergon Energy crew and equipment rollout to support restoration efforts

Figure 9: Tracked equipment arriving at Southport

Figure 10: Equipment being deployed to the Bay Islands ahead of Tropical Cyclone Alfred

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Following Tropical Cyclone Alfred making landfall, and as soon as the weather conditions eased and allowed for safe access, Energex commenced damage assessments to inform its restoration and repair strategy. Crews patrolled more than 9,000 kilometres of network - equivalent to the round-trip distance between Brisbane and Perth – whilst navigating difficult working conditions including ongoing rain and obstructed access due to flooding and fallen vegetation. Figures 11-15 provide examples of lines patrolled and wires down in difficult to access areas and field crews responding to network damage in the wake of Tropical Cyclone Alfred.

Figure 11: Wires down in densely vegetated areas patrolled by field crew

Figure 12: Crews responding to network damage in Norman Park

Figure 13: Crews responding to network damage in Cashmere

Figure 14: Restoration work during continuing rain on the Gold Coast

Figure 15: Crews working to repair multiple areas of damage on the Energex distribution network

3 LEGISLATIVE AND REGULATORY PROVISIONS

3.1 Legislative Framework

Energex is an electricity distribution authority holder under the *Electricity Act 1994* (Qld), and is responsible for the safe and reliable supply of electricity to customers within its distribution area in South East Queensland. As shown in Figure 16 below, Energex's distribution area runs from the New South Wales border north to Gympie and west to the base of the Great Dividing Range, and includes the major urban areas of Brisbane, Gold Coast, Sunshine Coast, Logan, Ipswich, Redlands and Moreton Bay, and the rural and semi-rural areas of Lockyer Valley, Scenic Rim and Somerset.

Figure 16: Energex supply area

Energex is required by law to provide connection services.[4] However, this obligation does not apply in the following circumstances:

- in an emergency (or to prevent an emergency happening)
- where the connection, reconnection or supply to the premises would breach technical requirements, or
- where the connection, reconnection or supply to the premises would unreasonably interfere with the connection, reconnection, or supply of electricity to the premises of another customer.

Energex's obligations in terms of its management of the distribution network, performance requirements and the services provided to retailers are contained in a number of legislative instruments, including:

- *Electricity Act 1994* (Qld)
- *Electrical Safety Act 2002* (Qld)
- National Electricity Law and NER
- National Energy Retail Law and National Energy Retail Rules, and
- Queensland Electricity Distribution Network Code (EDNC).

The Standard Connection Contract (SCC), a deemed contract between the electricity distributor and customer for ongoing supply regarding the delivery of electricity, defines the terms under which a premises is connected to the electricity distribution network. For example, in accordance with clause 13.1 of the SCC, Energex may disconnect a customer under the following circumstances:

- there is an emergency or for health and safety reasons
- it is required to do so at the direction of a relevant authority, or
- it is otherwise permitted by the energy laws to disconnect the premises.

All customer connection services provided by Energex are performed in accordance with electrical safety legislation and applicable industry standards.

All actions taken by Energex in response to Tropical Cyclone Alfred were undertaken in accordance with electricity legislative provisions.

[4] Section 66 National Energy Retail Law (Queensland).

3.2 Regulatory Framework

The AER is responsible for setting the maximum revenue that Energex can recover from consumers for the use of its electricity distribution network in South East Queensland. Every five years, the AER assesses Energex's proposed expenditure forecasts to determine whether they are prudent and efficient.

The AER employs a "building block" approach to setting Energex's revenue allowance which is intended to provide sufficient revenue to cover its capital and operating costs. In June 2020, the AER set Energex's revenue for the five-year regulatory control period from 1 July 2020 to 30 June 2025.

3.3 NER cost pass through provisions

Clause 6.6.1(a1) specifies that a pass-through event may include any one of the following defined events:

- a regulatory change event
- a service standard event
- a tax change event
- a retailer insolvency event, and
- any other event specified in a distribution determination as a pass-through event for the determination.

Clause 6.6.1(c) of the NER sets out the mechanism for a Distribution Network Service Provider (DNSP) to seek approval from the AER to pass through to Distribution Network Users materially higher costs in providing direct control services incurred as a result of a positive pass through event, where those costs would not have been incurred but for that event.

The AER approved the following 'nominated' pass through events in Energex's 2020-2025 distribution determination:

- natural disaster event
- terrorism event
- insurance coverage event, and

- insurer credit risk event.[5]

In its final decision, the AER defined "natural disaster" to mean:

> "any natural disaster including but not limited to cyclone, fire, flood or earthquake that occurs during the 2020–25 regulatory control period that increases the costs to Energex in providing direct control services, provided the fire, flood or other event was:
>
> - a consequence of an act or omission that was necessary for the service provider to comply with a regulatory obligation or requirement or with an applicable regulatory instrument; or
> - not a consequence of any other act or omission of the service provider.
>
> Note: In assessing a natural disaster event pass through application, the AER will have regard to, amongst other things:
>
> - whether Energex has insurance against the event,
> - the level of insurance that an efficient and prudent network service provider would obtain in respect of the event."[6]

3.3.1 Tropical Cyclone Alfred is a natural disaster pass through event

The severe weather experienced in South East Queensland as a result of Tropical Cyclone Alfred, and later ex-Tropical Cyclone Alfred, resulted in catastrophic damage throughout the region. This was an atypical and uncontrollable natural disaster event, the occurrence of which could not have been prevented or mitigated by Energex. The Queensland Government activated the Disaster Recovery Funding Arrangements (DRFA) in South East Queensland from 1 to 16 March 2025 for communities within South East Queensland affected by Tropical Cyclone Alfred and the associated severe weather experienced by many customers. Energex refers to 1 March 2025 as the commencement date of the event, being the date the DRFA was activated.

Energex submits that the severe weather experienced as a result of Tropical Cyclone Alfred in South East Queensland meets the conditions of a pass-through event, being a natural disaster pass through event as defined in Energex's 2020-2025 distribution determination.

[5] AER Final Decision, *Energex Distribution Determination 2020-25*, Attachment 14 - Pass through events, June 2020, p. 14-4.
[6] AER Final Decision, *Energex Distribution Determination 2020-25*, Attachment 14 - Pass through events, June 2020, p. 14-6.

3.4 Positive Change Events

Clause 6.6.1(a) of the NER provides that if a positive change event occurs, a DNSP may seek approval from the AER to pass through to Distribution Network Users a positive pass-through amount.

A "positive change event" for a DNSP is defined as:

"(a) a pass-through event, other than a retailer insolvency event, which entails the Distribution Network Service Provider incurring materially higher costs in providing direct control services than it would have incurred but for that event, but does not include a contingent project or an associated trigger event, or

(b) a retailer insolvency event",[7]

where "materially" is defined as:

> "For the purposes of the application of clause 6.6.1, an event results in a Distribution Network Service Provider incurring *materially* higher or *materially* lower costs if the change in costs (as opposed to the revenue impact) that the Distribution Network Service Provider has incurred and is likely to incur in any regulatory year of a regulatory control period, as a result of that event, exceeds 1% of the annual revenue requirement for the Distribution Network Service Provider for that regulatory year."[8]

In assessing a cost pass through application for a positive change event, the AER is to take account of the matters listed in clause 6.6.1(j)(1)-(8) of the NER when making its determination. These include:

- the increase in costs in the provision of direct control services that Energex has incurred and is likely to incur until the end of the regulatory control period in which the positive change event occurred, or the end of the regulatory control period following that in which the positive change event occurred
- the efficiency of Energex's decisions and actions in relation to the risk of the positive change event occurring, including whether it has failed to take any action that could reasonably have reduced the magnitude of the pass through amount or has taken or omitted to take any action where such action or omission has increased the magnitude of the amount
- the time cost of money based on the allowed rate of return for Energex for the regulatory control period in which the positive change event occurred

[7] NER Chapter 10, definition of "positive change event".

[8] NER Chapter 10, definition of "materially".

- the need to ensure that Energex only recovers any actual or likely increment in costs to the extent that such an increment is solely as a consequence of a positive change event, and

- whether the costs of the positive change event have already been factored into the calculation of Energex's annual revenue requirement for the regulatory control period in which the pass through event occurred or will be factored into the annual revenue requirements for a subsequent regulatory control period.

3.4.1 Tropical Cyclone Alfred is a positive change event

For a pass through event to be considered a positive change event for which a DNSP can apply to the AER to pass through the associated incremental costs to consumers, the event must result in the DNSP incurring materially higher costs in providing direct control services than it would have incurred but for that event. That is, Energex must have incurred, or be likely to incur, a change in costs (as opposed to the revenue impact) in any regulatory year of a regulatory control period, as a result of Tropical Cyclone Alfred, that exceeds one percent of Energex's annual revenue requirement for that regulatory year.

Under the NER, annual revenue requirement is defined as:

> "An amount representing revenue for a Distribution Network Service Provider, for each regulatory year of a regulatory control period, calculated in accordance with Part C of Chapter 6".[9]

Tropical Cyclone Alfred is the first tropical cyclone to make landfall in the South East Queensland region in more than fifty years. Consequently, and combined with Tropical Cyclone Alfred's extremely unpredictable nature, the resulting network response and repair costs could not reasonably have been factored into the approved capital and operating expenditure forecasts included in Energex's 2020-2025 distribution determination. As outlined in detail later in this application, the incremental costs associated with Energex's response to Tropical Cyclone Alfred of $56.88 million ($2024-25) and forecast costs of $3.51 million ($2025-26) are material and exceed the one per cent ($12.93 million) materiality threshold of Energex's smoothed revenue allowance in 2024-25.

Therefore, Energex submits that Tropical Cyclone Alfred, meets the conditions to be classified as a positive change event, including meeting the one per cent materiality threshold, for the purposes of the NER.

[9] NER Chapter 10.

4 INSURANCE ARRANGEMENTS

Energy Queensland Limited (Energy Queensland) has a range of insurance policies designed to mitigate risk for the Energy Queensland group of companies (EQ Group). However, it does do not hold insurance coverage for damage to the "poles and wires" network caused by a natural disaster event. The cost of transferring this risk to another party via payment of a premium outweighs the benefits of eliminating or substantially mitigating the cost impact of natural disasters.

Standard practice requires regular reviews of the EQ Group's insurance coverage where policies such as "weather derivative coverage" (i.e. a financial instrument used by companies or individuals to hedge against the risk of weather-related losses when certain pre-determined conditions are met) or "captives" have been assessed to be not economically viable due to:

- insurance market pressures resulting in cost prohibitive premiums
- premium cost increases once a claim is made and insurance arrangements are renegotiated, along with further exclusions making future claims more onerous to pursue, and
- substantial initial set up costs for "captives".

The insurance market appetite to offer coverage for "poles and wires" assets is challenging, with most concern focused on catastrophic weather events such as flood, cyclone and storm, which could potentially result in large insurance losses for these types of assets. As a result, underwriters look to price the coverage accordingly and are likely to impose limitations on the coverage and large deductibles.

In past years, Energy Queensland has worked with its insurer to complete a detailed risk assessment process addressing "poles and wires" assets. This review included natural catastrophe loss modelling, risk profiling, maximum foreseeable loss scenarios, impact on business assessment, regulatory factors, development of go-to-market strategies, insurer presentations (in Australia, London and Singapore), consideration of alternative risk transfer options (e.g. parametric solutions, use of captive structures) and market indications for a range of risk transfer solutions. After following this process, Energy Queensland made the decision not to insure "poles and wires" assets given the premium cost impact is not economically feasible. This approach is generally consistent with that taken by other DNSPs.

5 GOVERNANCE ARRANGEMENTS

Each year Energex, as part of the EQ Group, undertakes thorough preparation and planning activities to ensure it is prepared for the potential impact of the various natural hazards that can occur in South East Queensland. Energex needs to ensure its network is resilient and able to withstand the impact of natural hazards, and that its response capability is efficient and effective.

As part of its business-as-usual activities, Energex maintains several preparedness plans, policies and procedures to ensure it can respond effectively to significant weather and emergency events. The importance of these measures is reinforced through legislative and regulatory obligations, corporate governance arrangements, internal policies, and procedures (for example, work practice documents) and staff training. In some cases, these measures are made publicly available, thereby providing confidence that Energex is appropriately prepared.

Energex's approach is structured hierarchically under Energy Queensland's Organisational Resilience Strategy, which features a Natural Hazards Strategy **(Attachment 1),** and supporting response documents to be used when planning for and responding to natural hazards and other emergencies. A Resilience Framework is used to assist the organisation in the management of crisis, emergency, and business continuity events. This framework is comprised of a suite of documents designed to guide Energex in its prevention, preparedness, response, and recovery for emergencies, including natural hazard events.

The Resilience Framework is modelled on the Queensland Government's Emergency Risk Management Framework[10] and the principles of the Australasian Interservice Incident Management System[11] to align with emergency services and other response agencies and organisations. Energex also maintains representation on the following groups and committees to ensure appropriate collaboration and interagency information sharing with emergency services. These groups and committees are convened throughout the year (both during and outside emergency events):

- Queensland Disaster Management Committee
- State Disaster Co-ordination Group
- District Disaster Management Groups
- Local Disaster Management Groups
- State Bushfire Committee, and
- Regional Bushfire Committee.

5.1 Natural Hazards Strategy

The Natural Hazards Strategy (**Attachment 1**) details Energex's planning and preparation activities critical to providing South East Queensland with a reliable network where disruptions are minimised during natural hazard events. When disruptions occur, Energex ensures that it responds as quickly as possible to restore supply safely. This Strategy provides a summary of natural hazards including

[10] Queensland Government Disaster Management

[11] Australian and New Zealand Council for fire and Emergency Services (AFAC)

severe storms, tropical cyclones, bushfires, heatwaves, tsunamis, floods, earthquakes, landslides, pandemics and space weather.[12]

In acknowledgement of the changing climate, an expanded view of natural hazards and the additional preparation, planning and response now required outside the typical summer period, the Natural Hazards Strategy includes Energex's Summer Preparedness Overview for the 2024-25 season.

To minimise the impacts of exposure to the elements and severe weather events on its network operations and customers, Energex regularly undertakes critical maintenance activities including various asset maintenance and inspection, vegetation management and asset improvement initiatives, capital investment programs, and preparedness training. An annual cycle of dedicated activities commences in May and continues throughout the year to prepare for the start of the bushfire season (typically from August) and the summer storm period (from October). These activities include planning and documentation updates, training in the Resilience Framework, familiarisation of emergency management plans, emergency response exercises, emergency response refresher training for all field personnel and online training for all employees involved in emergency management.

Several memoranda of understanding (MoU) are maintained with other DNSPs and supporting bodies to assist with Energex's ability to prepare, plan for and respond to emergency events. As part of the annual preparation, Energex conducts a review of these MoUs. Arrangements are also in place for assistance from approved contractors and suppliers.

The Natural Hazards Strategy sets out the governance framework which features the following elements:

- **Roles and Responsibilities**

  A dedicated organisational structure has been developed for oversight and emergency management teams. Charters and role statement handbooks outline each role and the associated responsibilities required for an emergency response.

- **Processes**

  Detailed guidelines, processes and checklists have been developed to assist roles during events.

- **Reviews and Updates**

  The Natural Hazard Strategy and Summer Preparedness Overview are reviewed annually to

[12] Refer to Energy Queensland Natural Hazards Strategy, Inc. Summer Preparedness Overview for 2023/24, pg 10 for detailed descriptions of each of these hazards.

ensure currency and application of learnings from previous events and to identify improvement opportunities.

- **Reporting**

  A Summer Preparedness Working Group operates to ensure Energex's business divisions have conducted preparations throughout the year and in the lead up to the summer storm season. In addition, there are hazard specific committees and technical advisory groups covering bushfire, flood, heatwave, space weather and pandemic hazards. This assures a safe and robust network, sound emergency response procedures and safety awareness of employees and the broader community.

- **Continuous Improvement**

  Regular assurance checks of the framework, procedures, processes and work practices are conducted to ensure Energex maintains a current and effective emergency management framework to safely support the community. Energex also conducts hazard-specific reviews to identify the risk and exposure to business continuity, its functions and assets and the potential effect on customers and the community. Following the activation of escalated emergency response functions, Energex undertakes debriefs to identify both success and improvement opportunities for application in future events.

The Natural Hazards Strategy also sets out Energex's Resilience Approach (Planning, Preparation, Response and Recovery) which includes the following key components:

- **Risk Management**

  Natural hazard risks are managed in accordance with Energy Queensland's Risk Management Policy and Framework. The Risk Management process aligns with the internationally recognised Standard AS/NZ ISO 31000:2018 Risk Management – Principles and Guidelines. Management of risk is critical to effective asset management and is integral to the ISO 55000 Asset Management suite of Standards. Inherent and emerging risks as a result of operations are therefore regularly reviewed.

- **Preparation**

  The specific activities undertaken to prepare the network and improve resilience against natural hazards include appropriate design and location of assets, inspection and maintenance programs, network capacity and security improvement programs, safety net requirements, plant emergency rating information, strategic spare components, peak load monitoring, temporary load support, and demand management and inspection programs. Natural hazard profiles detailing the potential impacts and protocols of specific natural hazards, including tropical cyclones, describe the major elements of Energex's preparation for these events.

- **Contingency**

  Network contingency plans detail the load transfer and load management options available to restore supply following a single contingency event affecting bulk supply substations, zone substations and sub-transmission feeders. Each year, Energex reviews the entire network to ensure that all substations and feeders can supply forecast peak load under system normal conditions. Energex has implemented a process to monitor loads during the summer peak period so that, as hot weather develops, emerging “hot spots” where demand growth may have exceeded the previous annual forecasts are identified. In these cases, Energex takes corrective action to avoid an overload well before a capacity constraint occurs.

- **Response**

  Energex employs a standard fault response and emergency escalation framework to respond to incidents. An initial assessment of potential damage determines whether the response is managed using local operational arrangements (Level 1) or escalated to a Level 2 or Level 3 Emergency Management structure. The response is managed within a tiered escalation process that increases resource capabilities and coordination, drawing across regions as required to meet the response requirements in the impacted area.

  The main priority immediately following the impact of an event is the safety of employees and the community, identifying the number of customers affected, the extent of damage, and types of customers impacted and the availability of response teams. Making the network safe for staff and the public occurs before restoration activities commence. Energex then responds as quickly as possible to safely restore supply, with the priority for restoration focused on emergency services, critical infrastructure and community assets.

- **Recovery**

  Recovery is the coordinated process to permanently restore operational capability, the network infrastructure and/or electricity supply to the community. Energex plays a key role in immediate recovery activities, as well as working with government agencies on infrastructure resilience, business continuity, reliability and community and customer support.

Also attached, for the AER’s information, is Energex’s (and Ergon Energy’s) Emergency Management Plan – Distribution Network 2024-25 (**Attachment 2a (public version**) and **2b (confidential version**)).

6 RESPONSE TO TROPICAL CYCLONE ALFRED

6.1 Operational Response

Energex was committed to safely restoring supply of electricity to its customers impacted by Tropical Cyclone Alfred as soon as weather conditions permitted safe operations. The scale of this natural

disaster event, which extended from the Fraser Coast to the New South Wales border in Energex's Distribution Area, meant there were widespread impacts to communities across the region, with significant damage to properties, infrastructure and network assets. As shown in figures 17 and 18, crews faced access issues due to flooding and fallen vegetation, making it difficult to assess and repair network damage.

Figure 17: Flooded roads and fallen vegetation created access issues

Figure 18: Access issues encountered due to fallen vegetation

The response to Tropical Cyclone Alfred required the combined effort of more than 2,400 Energex and Ergon Energy field crew. Crews worked in close co-operation with local councils and emergency

and response agencies and departments to repair the network and restore electricity supply as quickly and safely as possible.

Behind the scenes, support staff worked tirelessly to ensure field crews were adequately resourced, while Energex's Contact and Network Control Centres were reinforced to support both customers and restoration teams. Contact Centre response operations were activated on 24 February 2025 in preparation for the Tropical Cyclone Alfred and remained activated until 17 March 2025. During this period, over 120,000 fault calls were received—averaging more than 8,600 calls per day—with an additional 118 staff deployed to assist in managing the contact centre response. Daily update messages were also sent to life support customers to keep them informed. In parallel, Energex's community outreach teams delivered the equivalent of 720 hours of face-to-face engagement through Queensland Government Community Recovery Hubs and other community activities.

Figures 19 to 23 show field crews and support personnel assembling to support recovery efforts.

Figure 19: Crews and Trucks assembling in Burleigh

Figure 20: Staff assisting customers at a Community Recovery Hub in Nerang

Figure 21: Crews preparing at an induction session

Figure 22: Staff preparing to respond at an Energex warehouse

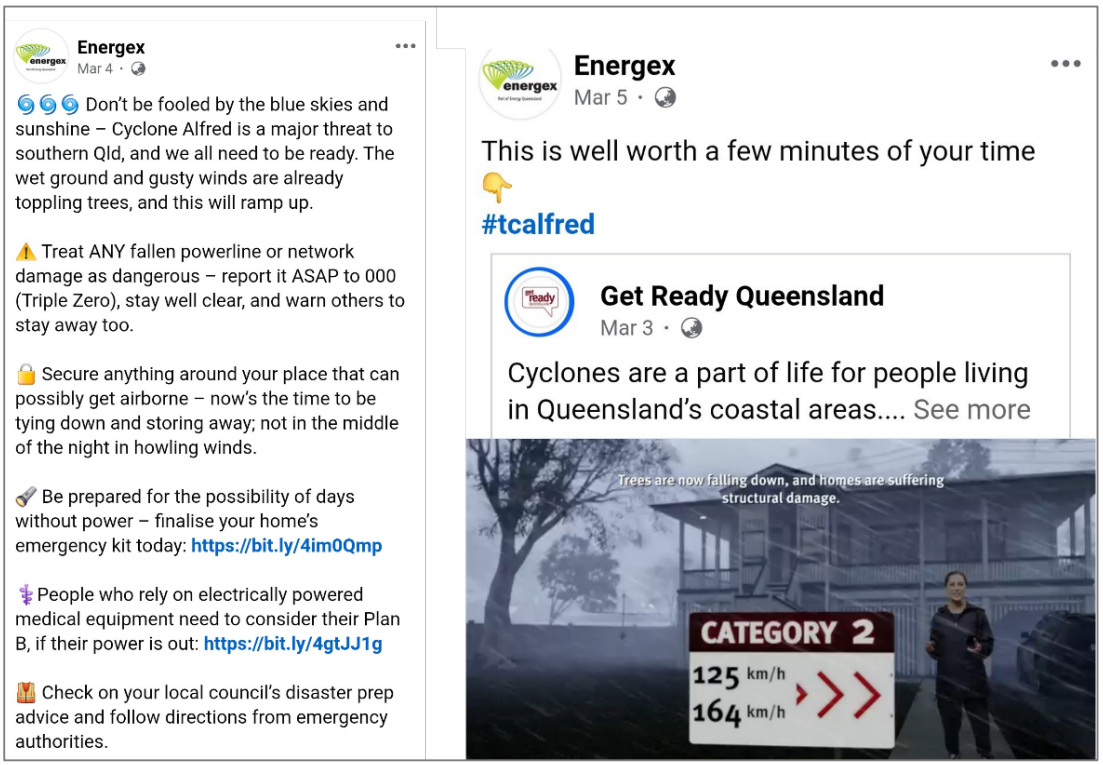
Figure 23: Caboolture depot morning muster

Energex's response to Tropical Cyclone Alfred required its largest disaster-related restoration effort to date. In spite of the challenges, on Monday 10 March 2025, two days after Tropical Cyclone Alfred made landfall, Energex targeted a supply restoration date of 16 March 2025.[13] This plan equated to the restoration of a town the size of Bundaberg every day of the week leading up to the target date. On 16 March 2025, Energex had completed the restoration of supply, via network or generation, to most customers impacted by Tropical Cyclone Alfred.[14]

6.2 Communications and safety messaging

Community safety was a significant focus of Energex's public communication activity during and following Tropical Cyclone Alfred. Messages via traditional news media (television, radio, print and online) and social media included network impact and restoration updates, as well as key safety messaging relating to general severe weather safety, fallen powerlines, solar photovoltaic (PV) and generator safety, and reconnecting power.

Figure 24: Social media posts on Energex's Facebook page



[13] Subject to it being safe to do so.

[14] All but approximately 1,000 customers impacted by Tropical Cyclone Alfred who were unable to be reconnected to due safety or structural issues arising from damage caused by Tropical Cyclone Alfred. Following repairs by licensed electrical contractors. Energex re-connected these customers as soon as possible.

Tropical Cyclone Alfred Cost Pass Through Application

During Tropical Cyclone Alfred there were:

- responses to more than 1,000 media enquiries responded to, including several live to air interviews. These produced approximately 3,600 media mentions (online, print, radio, and television) and reached an audience exceeding 171 million people (cumulative total audience)
- 124 separate social media posts viewed by over 21 million people across Facebook, Instagram, LinkedIn and X (formerly Twitter)
- approximately 30 million visits to Energex's online Outage Finder website (map and text versions) which provided live network restoration updates
- over 264,000 calls to our customer contact centre loss of supply line, and an interactive voice response satisfaction rate of 68.12 per cent, and
- more than 65,000 calls answered by contact centre operators, with an average speed of answer of 49 seconds.

Energex provided regular updates to external stakeholders (including relevant government departments and the State Disaster Coordination Centre) on network restoration efforts which included key safety messaging. In total, 26 situation reports were provided to the State Disaster Coordination Centre, response agencies and departments. Further, Energex representatives liaised with local disaster management groups to provide updates on network impacts and restoration progress and assistance to coordinated local disaster response efforts.

Figure 25: Energex staff working with the Tallebudgera Rural Fire Brigade to deliver safety messaging

Energex provided daily briefs at whole of government media and communication meetings, which were led by the Department of Premier and Cabinet. These briefings regularly focused on community safety messaging.

During Tropical Cyclone Alfred, Energex fielded numerous requests for information from response agencies and departments, particularly regarding network outage and restoration information for critical infrastructure such as schools, water pumping stations, aged care nursing homes, emergency services facilities and telecommunication sites. Energex data was also supplied to, and used by, government agencies to facilitate assistance payments.

6.3 Restoration of supply

Following initial network damage assessments, Energex followed a network restoration hierarchy response, commencing with make safe works, and then prioritising supply restoration for core network assets and critical community infrastructure, such as hospitals, aged care facilities, evacuation centres, police, ambulance and fire brigade services, water treatment and pumping stations. The next priority was to restore power to the largest number of customers as quickly as possible, which is typically achieved by way of repairing distribution powerlines which connect individual locations, such as powerlines in local streets. Following this, repairs were made to distribution transformers and service wires to residential homes and businesses.

Energex patrolled over 9,000 kilometres of its network during this natural disaster event. On 10 March 2025, Energex released its Tropical Cyclone Alfred Power Restoration Plan. The plan recognised that more than 450,000 individual homes and businesses had been impacted by the event, the greatest number of power outages caused by a natural disaster event in Queensland history. Under its plan, Energex set a target to restore power to 75% of South East Queensland households and businesses by 12 March 2025 and 95% of all impacted households and businesses in its distribution area by 14 March 2025. Energex targeted restoration for the remaining 5% of customers, in some of the hardest hit areas such as Tallebudgera Valley, Springbrook and Currumbin Valley, by 16 March 2025.

As shown in Figure 26, the network in these areas was heavily impacted and required extensive asset/infrastructure replacements rather than repairs. Estimated restoration times for all impacted customers were made available and regularly updated on Energex's online Outage Finder tool. The availability of the Outage Finder tool was advertised across all communication channels as a means for customers to proactively remain updated on restoration progress.

Figure 26: Network damage in the Gold Coast Hinterland and Mount Tamborine

The number of electricity distribution outages in Energex's distribution area as a result of Tropical Cyclone Alfred exceeded 500,000.[15] Despite these extraordinary numbers, by 12 March 2025, Energex had restored power to 87% of all customers within its distribution area and was 24 hours ahead of its target restoration plan. On 13 March 2025, Energex remained well ahead of its restoration targets with power restored to 97% of impacted customers in its distribution area. Community engagement activities in areas yet to be restored continued and, on 16 March 2025, power supply was restored, via mains supply or generation, to 100% of Energex's customers impacted by Tropical Cyclone Alfred.[16]

7 INCREMENTAL COSTS INCURRED

This section outlines the incremental costs to Energex incurred in responding to damage to its network during and following Tropical Cyclone Alfred. It includes pre-event, immediate response and post-event expenditure.

7.1 Use of polygons to identify affected areas and assets

In accordance with clause 6.6.1(j)(5) of the NER, Energex employed the use of spatial and operational analysis to ensure the incremental costs identified as having been incurred as a result of Tropical Cyclone Alfred did not include any costs already factored into the calculation of Energex's annual revenue requirement for the 2020-25 and 2025-30 regulatory control periods.

[15] Numbers include outages sustained as a result of wind impacts prior to Tropical Cyclone Alfred making landfall and customers restored but then impacted by secondary outages during ongoing severe weather.

[16] This excludes approximately 1,000 customers who were unable to be reconnected due to safety or structural issues arising from damage caused by Tropical Cyclone Alfred. Following repairs by licensed electrical contractors, Energex re-connected these customers as soon as possible.

The spatial analysis (**Attachment 3**) involved the generation of spatially explicit shapes (or polygons) which represent a geographic location and are composed of vertices which were a set of x and y coordinates or spatial points that encompassed network assets damaged during Tropical Cyclone Alfred, resulting in unplanned power outages (Event impacted polygon (EIP)).

The EIP was then compared to the geographic locations of our planned programs of work (replacement expenditure planning polygons) for network replacement or refurbishment (capital expenditure). These EIP locations were also compared against our operating expenditure vegetation clearance and planned maintenance activities.

The overlap of EIPs and operational polygons would indicate areas for further investigation to determine if assets located within the overlap area had been previously identified for planned replacement or refurbishment works or were due for planned inspection or maintenance in the period immediately following Tropical Cyclone Alfred.

If planned operational activity was associated with assets in these locations, this may have indicated that Energex might expect a reduction in planned expenditure for the same period and therefore, this would be reflected in its forward program of works activity and costings and not represent an incremental cost for cost pass through purposes.

The polygon analysis identified instances where emergency works were undertaken following Tropical Cyclone Alfred in areas already scheduled for planned asset replacement. Consequently, not all restoration costs have been classified as incremental. Energex has excluded an amount of $0.52 million from this application, as the associated assets were deemed to be subject to future planned works. The timeframe applied to event restoration efforts was a 30-day period which commenced from the date when storm damage, or power outages, was initially reported and recorded in Energex's Outage Management System or Damage Assessment Tool.

7.2 Material change in the costs of providing direct control services

Energex's response to Tropical Cyclone Alfred resulted in additional capital and operating costs (total incremental expenditure) of $56.88 million ($2024-25) and a further estimate of $3.51 million in ($2025-26). Tables 7.1 to 7.3 break down the incremental costs by financial year and element (e.g. Labour, Overtime, Contractors) and exclude those expenses that were funded in Energex's 2020-2025 and 2025-30 distribution determinations.

Table 7.1 Incremental operating expenditure by element

	$M	$M
$ million	**2024-25**	**2025-26**
Labour - Ordinary Time Opex	18.188	
Labour Overtime	18.110	
Contractors	15.848	
Other Operating Costs	4.225	
Sub-Total	**56.371**	

Table 7.2 Incremental capital expenditure by element

	$M	$M
$ million	**2024-25**	**2025-26**
Labour - Ordinary Time Capex	0.065	
Labour Overtime	0.090	
Contractors		3.510
Materials	0.329	
Material Oncost	0.026	
Sub-Total	**0.510**	**3.510**

Table 7.3 Total incremental expenditure by element (Incremental Totex)

	$M	$M
	2024-25	**2025-26**
Emergency (replacement) capital works	0.510	3.510
Emergency corrective works (opex)	56.371	
Total	**56.881**	**3.510**

The nature of the response included operating expenditure ($56.37 million) and capital expenditure ($0.51 million) in 2024-25, with an additional estimated $3.51 million in capital expenditure in 2025-26. Expenditure classifications have been determined in accordance with appropriate accounting standards and Energex's agreed cost allocation method. Table 7.4 summarises the incremental expenditure by the two major expenditure categories.

Table 7.4: Incremental costs by activity

	$M	$M
	2024-25	**2025-26**
Emergency (replacement) capital works	0.510	3.510
Emergency corrective works (opex)	56.371	
Total	**56.881**	**3.510**

As shown in Table 7.5, the incremental expenditure incurred meets the calculated pass through threshold of $12.93 million (nominal, smoothed). Total costs, incremental and non-incremental, are $85.9 million ($2024-25) with a further estimated $3.51 million incremental expenditure in 2025-26.

Table 7.5: Materiality assessment of expenditure associated with Tropical Cyclone Alfred

$ million (nominal, smoothed)	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	Total
Incremental operating expenditure	0.00	0.00	0.00	0.00	56.37	0.00	**56.37**
Incremental capital expenditure	0.00	0.00	0.00	0.00	0.510	3.51	**4.02**
Total incremental expenditure	0.00	0.00	0.00	0.00	56.88	3.51	**60.39**
AER approved unsmoothed revenue per 2024/25 RoD updated PTRM	0.00	0.00	0.00	0.00	12.93		**12.93**
Materiality	**N/A**	**N/A**	**N/A**	**N/A**	**4.39%**		

7.3 Network Repair and Restoration Services

As a consequence of Tropical Cyclone Alfred, Energex incurred $56.37 million in additional operating costs related to the provision of emergency corrective works such as network repair and restoration services. These operating costs are summarised in Table 7.6 below according to the nature of the response.

Table 7.6: Eligible pass through amount emergency corrective works Opex

	$M	$M
$ million	2024-25	2025-26
Planning and Intelligence Response	1.568	
Communication and Stakeholder Response	0.187	
Logistics Response	3.484	
Safety Response	0.046	
Operations Response	51.086	
TOTAL	**56.371**	

Operating expenditure incurred is predominantly associated with operations response which includes the coordination of various field teams, damage assessment and repairs, and network operations.

Planning and Intelligence Response activities includes the cost of employees from:

- Restoration Planning (Restoration Planners and Network Operations, Customer Market Operations and Asset Management lead personnel)
- Labour Resource Planning (Resource, Travel and Accommodation, External entities, Contractor and Aircraft coordinators)
- Information and Data (Data Coordinators, Intelligence Coordinators), and
- Finance.

These costs are confined to additional overtime effort required during response efforts to Tropical Cyclone Alfred, and incremental operating expenses.

Communications and Stakeholder Response activities includes the cost of employees from:

- Liaison (State Disaster Coordination, District Disaster Management, Local Disaster Management and Government Liaison representatives)
- Reporting (Internal, External and Board Reporting), and
- Community Media (Media and Social Media representatives, Visitor Management and Community Engagement Coordinator).

These costs are confined to additional overtime effort required during response efforts related to Tropical Cyclone Alfred, and incremental operating expenses.

Logistics Response includes the cost of employees from:

- Fleet (Fleet supervisors and representatives)
- Stores (Stores field supervisors and representatives)
- Catering Supervisor and Staging Managers, and
- Administration, Infrastructure and Security (Property and Security Coordinators, Digital Support and Field Force Automation representatives).

These costs are mostly confined to additional overtime effort required during response efforts related to Tropical Cyclone Alfred, and incremental operating expenses.

Safety Response includes the cost of employees from:

- Health, Safety and Environment (Field Safety and Environmental representatives, nurses and fatigue advisors)
- Pastoral Care and Welfare (Human Resources representatives and mental health advocates), and
- Investigation (Regulatory Reporting officer and Incident Investigators).

These costs are confined to additional overtime effort required during response efforts related to Tropical Cyclone Alfred and incremental operating expenses.

Table 7.7 highlights response expenditure by element and frontline and support response.

Table 7.7 Operating emergency response expenditure by frontline and support response

$ million	Ord Labour	Overtime	Materials	Contractor	Other	Total 2024-25	Total 2025-26
Front Line Response	17.367	16.681	1.812	14.302	0.924	51.086	
Support Services	0.821	1.429	1.008	1.546	0.481	5.285	
Total	**18.188**	**18.110**	**2.820**	**15.848**	**1.405**	**56.371**	

7.4 Expenditure by Element

Expenditure by element is as follows:

- **Labour**

  Energex's response to Tropical Cyclone Alfred was labour intensive, not only requiring the assignment of internal labour field resources to the tropical cyclone affected areas but also assignment from Ergon Energy and contract labour. The use of internal labour resources was managed in compliance with Energex's safety and fatigue management policies.

  Labour incurred during Tropical Cyclone Alfred was costed based on Energex's standard labour costing processes. The rates vary between the type of resource deployed by Energex or Ergon Energy and, while the rates are standard across the distribution businesses, they vary according to their ten labour resource types. The rate is designed to be inclusive of allowance and labour on-costs.

- **Contractors**

  As a Government Owned Corporation, Energex must comply with the strategies and objectives of the Queensland Procurement Policy published by the State of Queensland. This Policy requires Energex to adopt a strategic and considered approach to procurement management to achieve value for money and ensure probity and accountability for its procurement outcomes.

  Energex manages a significant proportion of its contractor engagement through formal procurement arrangements. Under these arrangements, Energex engages in market-based tendering and assessment of contractors to establish long-term, flexible and lowest supply chain cost contracts. Due to the time-critical and safety-focused nature of Energex's emergency response, the remaining contractor expenditure was incurred on an "as needed" basis, with invoices reviewed for reasonableness prior to payment.

  Typical contractor spends deployed for the event included aerial surveillance, traffic control, security arrangements, earthmoving and vegetation contractors.

- **Materials**

Materials primarily represent the Energex stores' issue of materials used by field resources in repairing and maintaining network assets. Minor purchases of materials not readily available from the stores were sourced directly from suppliers due to the urgency of requirement. Materials requisitioned included:

- generator maintenance parts and consumables required to operate mobile generators during the event response
- relays used in the restoration of substations, and
- cross-arms and cable used in repairing distribution assets.

7.5 Expenditure by Function

Expenditure by function is as follows:

- **Frontline Response**

When natural disasters impact Energex's network, appropriately qualified employees are required to address safety risks and restore supply to customers. The response required a significant deployment of Energex crews and assistance from Ergon Energy and other contractor support.

Typical service response included:

- network switching operating activities from control centres and appropriate frontline support
- restringing and repair of fallen conductor (downed powerlines)
- repairs to pole structures and equipment
- damage assessment and hazard reductions
- attendance to high voltage lockouts
- de-energisation of assets due to safety concerns, and
- clearing vegetation.

These key operating tasks are labour intensive and not of a capital nature.

- **Field Services**

In the aftermath of Tropical Cyclone Alfred and the associated severe weather, field crews began assessing structural damage, de-energising electricity assets that were a risk to the

community and undertaking repairs, where appropriate. This activity resulted in a significant amount of labour incurred as overtime. However, it was considered prudent to ensure the safe and timely restoration of electricity supply to customers consistent with community expectations.

During the event response period, inspection activities occurred to assess the extent of the damage and plan specific targeted responses by feeder and area to maximise the effectiveness, and assist in the overall prioritisation, of restoration efforts.

Following the event, significant effort was required to restore electricity supply to customers. This effort included:

- inspection (including by foot, car, and helicopter patrols)
- clearing of debris and repairs to network where possible - removing vegetation and erecting conductors, and
- network data validation.

In addition to the extensive internal labour used leading up to, during, and in the aftermath of Tropical Cyclone Alfred, field contract services were contracted to provide the following services:

- civil construction
- customer services - connections
- distribution network overhead and underground services
- earthmoving and debris removal
- equipment and stores transport;
- equipment hires
- generator support
- helicopter hire
- property repair and landscaping
- streetlight maintenance
- towing and equipment recovery
- traffic control, and

- vegetation clearance and disposal.

- **Network Operations and Control**

Network Operations was responsible for the coordination of Energex's response to the event. The labour costs represent staff involved in coordinating the emergency event room and managing the high-level response, including:

- monitoring and operating the network
- receiving and prioritising work requests
- requesting dispatch of field crews
- network switching, and
- reporting of outage and other relevant information.

- **Coordination, back-office support and customer engagement**

Additional coordination, back-office support and customer engagement activities were performed as part of the response to the tropical cyclone event. These support areas included conducting planning and intelligence functions, safety support, logistics and customer and external stakeholder engagement. Only the incremental costs, such as overtime, have been included in this application.

- **Materials Warehouse & Logistics**

Energex's materials warehouse operated 24 hours a day during the event to ensure materials were provided quickly and efficiently to crews working in the impacted areas.

Due to the volume of goods being transported and the need for urgent delivery, Energex did not have the manpower or available vehicles to cater for the evolving requirements. As a result, contractors were engaged to provide transport of materials to depots and field crews.

- **Media, Community and Government Liaison**

Energex Corporate Communications staff provided 24 hours a day access for television, radio and print media to ensure customers, the community and Government agencies were constantly informed of safety issues, the impact of the event on Energex's network and ongoing response to restoration.

Responses were provided to over 1,000 media enquiries throughout the event, including many live to air interviews.

- **Safety and Records Management**

Overtime was incurred in relation to the testing of safety and live line equipment, and updating meter and meter reading records for meters replaced during the event.

7.6 Guaranteed Service Level Payments

Energex is subject to the EDNC in Queensland which requires it to make guaranteed service level (GSL) payments to small customers where service levels are not met. The payments relate to, for instance, the duration and frequency of customer outages, wrongful disconnections, the timeliness of connections and reconnections, and notification of planned interruptions.

The EDNC requires the Queensland Competition Authority to review the GSL measures, thresholds and payment amounts that will apply at the beginning of each regulatory control period. The regulatory control periods coincide with the regulatory periods for the distributor's revenue determinations by the AER (e.g., 1 July 2020 to 30 June 2025).

The GSL costs incurred by Energex as a direct result of Tropical Cyclone Alfred do not exceed GSL payment amounts included in Energex's revenue determination for the 2020-25 regulatory control period. Accordingly, Energex has not included GSL related costs as incremental costs for the purposes of this application.

7.7 Emergency Capital Works

Energex incurred incremental capital costs of $0.51 million ($2024–25) to replace emergency high voltage equipment required to restore services following the impacts of Tropical Cyclone Alfred, including severe weather and heavy rainfall. An additional $3.51 million is estimated in incremental capital works in 2025-26 for re-enforcing a steel transmission line degraded by a landslip. Table 7.8 outlines the breakdown of capital costs incurred for emergency response activities. Refer to section 7.71 for more detail of the emergency capital works associated with these costs.

Table 7.8 Capital emergency response - $M

Activity	Ord Labour	Overtime	Materials	Contractors	Total 2024-25	Total 2025-26
Front Line Response	0.065	0.090	0.355	3.510	0.510	3.510
Total	**0.065**	**0.090**	**0.355**	**3.510**	**0.510**	**3.510**

7.7.1 Emergency Capital Works – Landslide Gold Coast Hinterland Transmission Towers

As a consequence of Tropical Cyclone Alfred and the associated severe weather, a landslide occurred in the suburb of Worongary within the Gold Coast Hinterland region (refer to Figure 27). The landslide occurred in close proximity to one of Energex's double circuit transmission towers. This Energex owned asset plays a critical role in the transmission of power to its distribution network and customers. The effects of the landslide present a significant risk to the structural integrity of the

tower which, in turn, poses a safety risk to Energex staff, contractors and the surrounding community.

Analysis, survey and evaluation by a geotechnical consultant identified immediate and long term controls are necessary to stabilise the hillside and protect the tower's foundation. Without these controls, there is a significant risk of damage to this asset and a high risk of further landslides occurring, particularly during severe weather events or periods of high rainfall. The objective is to secure and stabilise the upslope land and establish a tower protection system by way of a debris flow barrier similar to that shown in Figure 28.

Figure 27: Worongary Landslide

Figure 28: Example of Debris Flow Barrier Construction

7.8 Cost Capture Methodology

To ensure the accurate identification and segregation from other program of works, a works request (unique number) and subsidiary parent work orders (also unique numbers linked to the works request) were created in the Energex works system. More detailed work orders are also created linked to these parent work orders. This facilitates accurate cost capture and reporting capabilities for Tropical Cyclone Alfred.

The parent works orders allow for the identification of costs by the major type of emergency response activity directed by the appointed Emergency Event Team. The parent work orders are as follows:

1. Operations Response Support

2. Planning and Intelligence Response Support

3. Comms and Stakeholder Response Support

4. Logistics and Response

5. Safety Response Support, and

6. Emergency Manager Response Support.

The operations response support function is considered the frontline support. The majority of the costs for this event were operating expenditure, including clearing vegetation and rebuilding the network in impacted areas. Overhead expenditure (inclusive of fleet allocations) and ordinary time labour, of support was deducted from total expenditure to calculate incremental costs.

8 ELIGIBLE AND PROPOSED COST PASS THROUGH AMOUNTS

In the context of Tropical Cyclone Alfred, clause 6.6.1(c) of the NER requires Energex to identify:

- the eligible pass through amount in respect of this positive change event, and
- the positive pass through amount Energex proposes to recover from Distribution Network Users in the year and each regulatory year following the positive change event.

8.1 Eligible pass through amount

The eligible pass through amount represents the increase in costs in the provision of direct control services that Energex has incurred or is likely to incur as a direct result of Tropical Cyclone Alfred. In accordance with the definition in the NER, the eligible pass through amount also includes costs

likely to be incurred in the regulatory control period subsequent to the regulatory control period in which the event occurred.[17]

The eligible pass through amount includes $56.88 million ($2024-25), representing the incremental operating and capital expenditure incurred in 2024-25 regulatory year, being the year in which the positive change event occurred. An additional $3.51 million in forecast capital expenditure is expected to be incurred in 2025-26, reflecting the remaining balance of incremental costs directly attributable to the positive change event.

Table 8.1 specifies the eligible cost pass through amount associated with Tropical Cyclone Alfred.

Table 8.1: Tropical Cyclone Alfred incremental costs

$ million	2024-25	2025-26
Emergency replacement Capital Works	0.510	3.510
Emergency corrective works opex	56.371	
Total	**56.881**	**3.510**

Energex's incremental costs are identified in Section 7 of this application. In determining the eligible pass through amount, only incremental costs attributable to the event were included. The actual incurred costs of $56.88 million were extracted from Energex's enterprise resource planning and accounting system. The future work estimated cost of $3.51 million was derived from a staged high-level plan developed in response to a significant landslide in the Gold Coast Hinterland, the results of which pose a risk to the structural integrity of a double circuit transmission tower. The estimate includes preliminary costs for geotechnical investigations, short-term civil works to mitigate immediate risks, and the construction of permanent stabilisation measures. These costs are based on current best information available.

Attachment 4 provides a build-up of costs incurred to determine the eligible pass through amount.

8.2 Costs included in eligible pass through amount are solely as a consequence of the positive change event

As previously stated, Energex must only seek to recover the incremental costs incurred from the pass through event, being Tropical Cyclone Alfred. In Section 7, Energex has described the incremental costs incurred because of the Tropical Cyclone Alfred, focusing on the additional work undertaken.

In deriving the eligible pass through amount, Energex included only the incremental costs for those activities that were incurred solely as a result of the positive change event. All expenditure incurred by Energex in responding to Tropical Cyclone Alfred has been reviewed to ensure that it:

[17] NER Chapter 10.

- can be specifically attributed to Energex's response to Tropical Cyclone Alfred and the subsequent associated severe weather in South East Queensland
- has been conservatively adjusted to remove overlaps between "business as usual" operations funded through Energex's distribution determination and those activities undertaken as a result of Tropical Cyclone Alfred, and
- reflects prudent and efficient expenditure in the context of the significant operational challenges presented by Tropical Cyclone Alfred.

Specifically, Energex excluded the following costs from this application, given the difficulties in clearly distinguishing the incremental nature of the costs:

- GSL payments
- corporate overheads
- ordinary time for support resources, and
- fleet allocation charges for operating costs and depreciation.

Energex has captured expenditures that were in response to Tropical Cyclone Alfred in a manner consistent with its accounting framework, creating specific projects and work orders to clearly record and track the costs incurred due to the event. The accounting structure allowed Energex to record costs as business-as-usual or tropical cyclone-specific, and into capital and operating expenditure categories.

8.3 Efficiency of eligible pass through amount

Clause 6.6.1(j)(3) of the NER requires the AER to consider the efficiency of Energex's "decisions and actions" in relation to the risks presented by Tropical Cyclone Alfred, including "whether Energex failed to take any action that could have been reasonably taken to reduce the magnitude of the eligible pass through amount".

Energex's preparedness for natural hazards affecting the network and its actions to restore services, as outlined in Section 5.1, after the impact of Tropical Cyclone Alfred ensured an efficient response.

The measures Energex adopts to efficiently manage risk from the potential impact of numerous natural hazards are set out in Section 5 "Governance Arrangements". Information about the efficiency and prudence of Energex's approach to insurance is discussed in Section 4.

8.4 Positive pass through amount

Clause 6.6.1(c)(4) of the NER requires Energex to specify the positive pass through amount that it proposes in relation to the positive change event. The positive pass through amount is defined as an amount not exceeding the eligible pass through amount.

Energex proposes a positive pass through amount of $59.6 million ($nominal, smoothed) in incremental revenue, arising from the operating and capital expenditure summarised in section 8.1 to be recovered in 2026-27 and 2027-28, the second and third year of the current regulatory control period. The positive pass through amount does not exceed the eligible pass through amount. Refer to Table 8.2 below.

Table 8.2: Positive pass through amount

$, million	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Return on Capital		0.03	0.25	0.26	0.26	0.27
Return of Capital		(0.00)	(0.03)	(0.02)	(0.02)	(0.02)
Operating Expenditure	51.45	0.00	0.00	0.00	0.00	0.00
Revenue Adjustments						
Tax		53.66	-	-	-	-
Building block revenue		53.70	0.23	0.23	0.24	0.25
Smoothed Revenue	51.45	**0.00**	**29.40**	**30.20**	**-**	**-**

The proposed positive pass through amount has been calculated as the change in Energex's required revenues for the 2026-27 and 2027-28 regulatory year due to the positive change event. That is, Energex's proposed positive pass through amount incorporates the operating expenditure and return on capital and return of capital for the 2020-25 and 2025-30 regulatory control periods arising from the incremental expenditure incurred as a direct result of Tropical Cyclone Alfred. The Post Tax Revenue Models used to calculate the pass through amount for this application are provided as **Attachment 5a** and **Attachment 5b**.

8.5 Pass through amount in each regulatory year

Clause 6.6.1(c)(5) of the NER requires that Energex specify the amount that it proposes to pass through to customers in the year, and each regulatory year after that, in which the positive change event occurred. Energex proposes to recover the positive pass through amount of $59.6 million ($nominal, smoothed) over 2026-27 and 2027-28, the second and third years of the current regulatory control period.

The proposed cost pass through amount is expected to increase the average residential customer's network charges by approximately $10.23 in 2026-27 and $10.39 in 2027-28. For the average small business customer, network charges are expected to rise by $28.61 and $29.12 in 2026-27 and 2027-28 respectively.