Attachment 27

Cost pass-throughs and true-ups

30 September 2024

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1.1 Our approach to risk management

We have analysed the key risks that could impact the costs of providing services over the determination period, to determine how each is best addressed. We have sought to consider these risks holistically across the 'regulatory package', and through this determination are seeking prices and a framework that allow us to efficiently manage and – where appropriate – share risks with our customers. Ultimately, we consider that our proposed package represents a fair sharing of risk while respecting and protecting the long-term interests of our customers and the wider community.

In determining the most appropriate approach to address each risk, we have drawn on the following principles for managing risk:

Table 1 – Principles for managing risk

Allocate risks to the party best placed to manage them - a balanced approach to ensure sharing of risk between WaterNSW, government and customers)
Be fair – retaining risks with high uncertainty and maintaining appropriate incentives for WaterNSW to manage risks within their control
Risk management should not jeopardise public health or the environment, with specific emphasis on ageing infrastructure investment
Be long-term focused
Promote customer value

We have approached the management of risks for the 2025 Determination period in a holistic manner that draws on the mechanisms outlined in the 3Cs Handbook. This framework summarises our principles and approach to:

1. Ensuring risks associated with our proposal are identified and quantified
2. Identifying the mechanisms to manage those risks
3. Guiding how risks should be allocated between customers and WaterNSW

1.2 Reducing the allocation of risks to customers

WaterNSW proposes to apply IPART's key risk management mechanisms under IPART's 3Cs regulatory approach for unforeseen costs that arise during the determination period (IPART Water Regulation Handbook, July 2023).

- **Cost pass-throughs**: When there is a known, material cost that the business cannot control, a cost pass-through may be included in the determination. If costs are incurred, the business may be able to pass these costs through to customers within the determination period. IPARTs Water Regulation Handbook outlines six principles that need to be demonstrated in proposing a cost pass-through. These are in addition to the BRC and MDBA cost pass-throughs as discussed in Attachments 12 and 16, respectively.
- **True-ups**: A true-up allows for the recovery of 'material' cost changes at the beginning of the next determination period from customers. The costs that the business will incur can then be recovered from customers in the following period.

- **Targeted Reviews and Letter of comfort**: These are mechanisms to provide additional comfort in proceeding with new projects/spending while waiting for an IPART review.
- **Replacement of the price determination (full or partial)**: IPART may agree to replace a determination (partially or completely) where the ability to deliver services is materially affected, and a business cannot wait for a true-up of efficient costs, and a cost pass-through has not already been set.

Targeted reviews, a letter of comfort and or a full or partial replacement of the determination are all useful mechanisms that may be sought by WaterNSW during the regulatory period, noting the specific circumstances when each would be invoked are impractical (or impossible) to identify *ex ante*.

WaterNSW has taken on considerable risk in providing regulated services in a manner that balances operational and financial risk with outcomes for customers. While our approach goes some way to addressing unforeseen risks, or addressing risks where the costs cannot be readily forecast, we support and have drawn on IPART's framework for risk management that draws on cost pass-throughs, true-ups, letters of comfort and or partial or full replacement of the determination in establishing a fair sharing of risk between WaterNSW and our customers.

Our proposed approach to managing cost and revenue risk is outlined below.

Figure 1 – Risk management and how we address major risks

Category	Risks	Impact - cost or revenue?	Mechanism	Risk allocation
Systematic risk	Risks that cannot be eliminated through diversification e.g. macroeconomic factors impacting rate of return / WACC	Cost	**WACC / cost of debt true-up**	Business
Business-specific risk	Staff safety in relation to operating and maintenance, breach of licence, equipment failure	Both	**Cost allowance** (to meet good industry practice –complying w/ licence conditions)	Business
	Natural disasters, major asset failure	Both	**Cost allowance** (insurance)	Business (via insurers)
	Water usage compared with regulatory forecasts	Revenue	**Cost reflective tariff structures / Revenue Cap**	Customers
	Insurance cap/credit/coverage event regulatory & service standards/tax changes	Cost	**General cost pass through**	Customers
	Movements in annual energy prices Shoalhaven transfer scheme costs	Cost	**Nominated cost pass throughs**	Customers
	New projects/spending driven by ongoing customer engagement	Both	**Targeted reviews / letter of comfort**	Shared
	Ability to deliver services is materially affected and a true-up not suitable (Warragamba Dam Safety, Drought resilience expenditure)	Both	**Partial or Full reopener**	Shared

WaterNSW proposes to apply IPART's key risk management mechanisms that we consider meet these regulatory principles. These mechanisms are outlined in the sections below.

As illustrated above, WaterNSW has taken on considerable additional risk to help place downward pressure on our costs over the 2025 determination period in recognition of customers affordability concerns.

Targeted reviews, a letter of comfort and or a full or partial replacement of the determination are all useful mechanisms that may be sought by WaterNSW during the regulatory period, noting the specific circumstances when each would be invoked are impractical (or impossible) to identify *ex ante*.

WaterNSW's proposed approach to managing risk in through cost pass-throughs, true-ups and full or partial reopeners is identified in Figure 2 below and discussed in the following sections.

Figure 2 – Proposed approach to managing cost risk in the 2025 Determination period

Category	Description	Event
Cost pass throughs	**Nominated events** Specific events where the costs cannot be accurately assessed at the time of the determination	**6 Nominated Events** Shoalhaven Transfers Scheme costs; Chaffey pipeline pumping costs; Warragamba Deep Water Pump Station costs; projects undertaken for Government; Operating Licence amendments; Non-Urban Metering reform costs
	General events Activities and associated costs cannot practically be identified at the time of the determination, but the cost impacts are likely to be material.	**7 General Events** A regulatory change event; a service standard event; a tax change event; an insurance coverage event (costs beyond the insurance cap and beyond the reasonably available insurance cover); an insurer's credit risk event; a natural disaster event and a terrorism event.
True-ups	Recovery of changes in benchmark or actual costs at the subsequent determination. Appropriate when costs are material and outside of the control of WaterNSW	**2 True-ups** Electricity cost true-up / Sydney Desalination Plant volume true-up
Full or partial reopener	Partially or completely replace a determination where the ability to deliver services is materially affected, and a business cannot wait for a true-up of efficient costs, and a cost pass-through has not already been set. To be invoked only as required.	

1.3 Cost pass-throughs

In providing regulated services, WaterNSW is exposed to a range of risks that may influence the costs of providing services, or the revenues we receive from providing services. These costs and/or revenues may differ from those assumed by IPART in making its determination. This creates a risk that WaterNSW over or under recovers the efficient cost of providing services, as well as a risk that prices do not reflect the cost of efficiently providing these services.

One way to address these potential cost changes is to estimate the likelihood of a change event occurring and include a probabilistic assessment of the costs in our proposed expenditures. **The obvious drawback with this approach is that the estimates are likely to be inaccurate and would increase the costs of providing bulk water services beyond an efficient level if the change event does not occur or if the costs are lower than estimated**. A more practical approach that is common in all Australian regulatory frameworks is to pass through the efficient costs of an event (subject to an IPART review of the reasonableness of the expenditure) only if the event occurs.

Cost pass through mechanisms are a common element of incentive-based regulatory frameworks. They are used to manage the risk associated with external events that occur within a determination period – events that are outside the control of the business but have a material impact on costs and hence the financial position of the firm.

These risks are unable to be adequately managed through internal risk management, insurance or self-insurance. Examples can include natural disasters where insurances may only cover a portion of the total costs of addressing the event.

Cost pass throughs provide a mechanism to allow regulators to review the efficient costs associated with events (after they have occurred) that could not be forecast as part of the revenue proposal and allow regulated businesses to recover the determined efficient costs to ensure that prices continue to reflect efficient costs.

The costs associated with pass through events are those that would have been included in the 2022 Determination had WaterNSW and IPART known with perfect foresight the scope, timing and efficient costs of the pass through event in advance. For the majority of pass through events, at least one element of the scope, timing or efficient costs of the event are unlikely to be known over the 2022 Determination period.

Therefore, WaterNSW proposes a targeted cost pass through framework to address the risk of defined exogenous events occurring during the 2022 Determination period that may change the efficient costs of providing transportation services (i.e. such that efficient costs differ from those assumed by IPART in setting prices in the 2022 Determination).

WaterNSW has applied a framework for cost pass throughs based on "nominated" and " general" events. The two prong approach provides a mechanism to allow regulated businesses to recover efficient costs associated with events that could not be forecast as part of the revenue proposal and ensure that customers do not pay higher prices over the period should the events not occur.

Water NSW is proposing cost pass throughs to manage the risks of defined exogenous events. IPART has long-standing cost pass through principles in place and have discretion under the IPART Act to define a cost pass through mechanism. We are seeking an approach that:

- Defines seven general pass through events: a regulatory change event; a service standard event; a tax change event; an insurance coverage event (noting that this addresses costs beyond the insurance cap and beyond the reasonably available insurance cover); an insurer's credit risk event; a natural disaster event and a terrorism event. [Events to be confirmed by WaterNSW]
- Provides for IPART to determine the efficient pass through amount and the recovery period for the pass through amount at the time of the event (i.e. within the determination period rather attempting to specified unknown costs in advance in the determination). This aligns with the standard implementation approach for cost pass throughs across a number of regulatory regimes, including the national energy regulatory regime for electricity and gas networks.

WaterNSW has taken on considerable risk in providing regulated services in a manner that balances operational and financial risk with outcomes for customers. While our approach goes some way to addressing unforeseen risks, or addressing risks where the costs cannot be readily forecast, we support and have drawn on IPART's framework for risk management that draws on cost pass throughs, true-ups, letters of comfort and or partial or full replacement of the determination in establishing a fair sharing of risk between WaterNSW and our customers.

Is this passing through all risk to customers?

No. Any change event should pass the threshold test of "*if the event was known at the time of the determination, would the associated costs likely have been included in revenues and prices?*". If yes, then a pass through is simply a process to incorporate the efficient costs of providing bulk water services if or when the event occurs, rather than forecasting the costs at the start of the period or tracking the costs until the subsequent regulatory period.

1.3.1 Nominated pass through events

Nominated pass through events are those where specific activities have been identified, but the costs of the event cannot be accurately assessed at the time of the determination. WaterNSW proposes the six nominated pass through events as outlined in Table 2 below.

Table 2 – Proposed nominated pass through events

Pass through event	Description
Shoalhaven Transfers Scheme	The operation of the Shoalhaven Transfers Scheme and the associated increase in electricity costs when the Scheme operates. WaterNSW has largely adopted the approach in the Greater Sydney 2020 Determination with some proposed refinements
Projects we undertake for Government	Projects we undertake as a result of a Government-led business case and investment decision. For example, the pipeline which would connect Lostock and

Pass through event	Description
	Glennies Creek dams, transferring Lostock inflows that would otherwise be spilled and emergency drought projects.
Operating Licence changes	To take account of changes in our Operating Licence arising from any IPART review of that were not able to be fully assessed and incorporated into the final determination.
Non-urban metering reform	The cost of complying with the NSW Government's Non-Urban Metering Reform that were not able to be fully assessed at the time of our pricing proposal. These costs are likely to apply to services contained in both the Rural Bulk Water and WAMC determinations
Chaffey pipeline drought operations	Costs associated with operating the 18.2km pipeline from Chaffey Dam to Tamworth, during drought operations, allowing water to be transferred to the Dungowan Pipeline by piping it into Tamworth Regional Council's Calala Water Treatment Plant. Where the pipeline is required to operate during drought, a significant increase in operational cost is expected, predominantly due to electricity costs for pumping.
Warragamba Dam Pumping Station	The operation of the Warragamba Dam Deep Water Pumping Station and the associated increase in electricity costs when the Station operates. WaterNSW has largely adopted the same approach as for the operation of the Shoalhaven Transfers Scheme

The proposed mechanism to pass through the electricity costs, consistent with the overarching methodology from the 2020 Greaer Sydney Determination. WaterNSW is also proposing a true-up of electricity costs (if any) resulting from the operation of these schemes or infrastructure to reflect the trigger mechanisms are outside of WaterNSW's control and that the benchmark costs at the time of the 2025 Determination may materially differ from the benchmark costs at the time these schemes or infrastructure become operational. A true-up combined with a nominated cost pass through in these circumstances is considered appropriate and consistent with IPART's criteria for a cost pass through.

Shoalhaven transfers

As part of our wider approach to assessing the forecast cost of electricity, WaterNSW proposes a continuation of the IPART formula for calculating the cost of the Shoalhaven Transfers scheme.

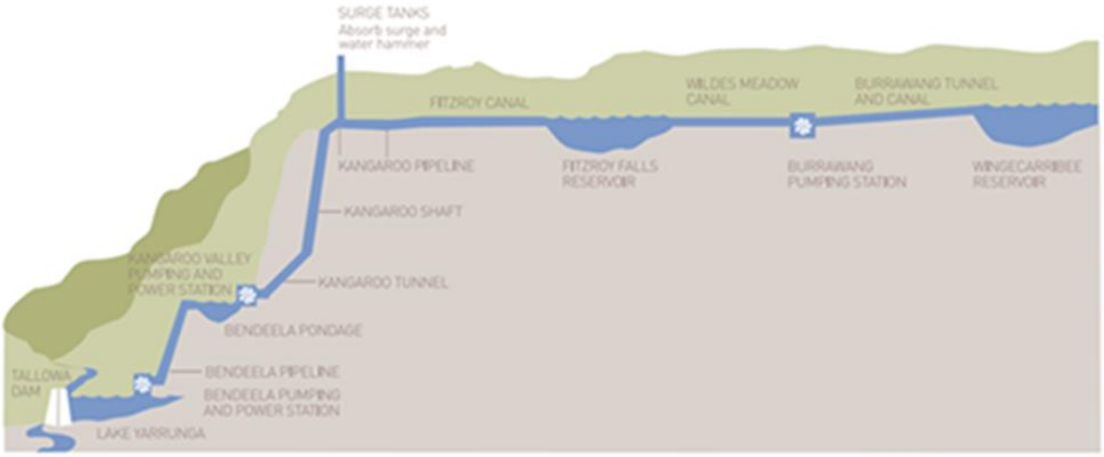
The Shoalhaven Transfers Scheme (the Scheme) enables water to be pumped by WaterNSW from Tallowa Dam to the Upper Nepean dams and Warragamba Dam to supplement existing water supply to the Sydney and Illawarra water supply systems.

Under the NSW Government's Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources (2023) pumping is triggered when total dam storage levels in the Sydney system is less than 75% and continues until total storage level reaches 80%.[1]

The Scheme is energy intensive. It includes hydro-electricity power generation and various pumping stations owned and operated by a third party. These facilities enable water to be pumped between Lake Yarrunga and Fitzroy Falls Reservoir and to Wingecarribee Reservoir, at WaterNSW's request, as shown below.

[1] Page 62 https://legislation.nsw.gov.au/view/pdf/asmade/sl-2023-329

Figure 3 – Shoalhaven transfers scheme illustration



WaterNSW has little control over when operation of the scheme is triggered, which is specified by the Water Sharing Plan and influenced by factors such as climate. The costs of this scheme are outside of WaterNSW's reasonable control and are generally set by other regulators. WaterNSW's proposed Shoalhaven Transfer scheme charges are shown in Appendix 2 with updated energy cost components reflecting the expected benchmark cost of energy over the 2025-2030 determination period.

Chaffey Pipeline Drought Operations

As a drought measure WaterNSW constructed an 18.2km pipeline from Chaffey Dam to Tamworth, allowing water to be transferred to the Dungowan Pipeline by piping it into Tamworth Regional Council's Calala Water Treatment Plant. The Chaffey to Tamworth Pipeline eases pressure on the Chaffey Dam supply by directly piping water to Tamworth Regional Council for treatment and distribution to reduce transmission losses.

Where the pipeline is required to operate during drought, a significant increase in operational cost is expected, predominantly due to power costs for pumping.

Drought conditions are triggered where Chaffey Dam reaches 20% storage capacity and the Chaffey Pipeline may be operated subject to final regulatory approval.

Warragamba Deep Water Pump Station

In accordance with the Greater Sydney Drought Response Plan (and as contemplated in the Raw Water Supply Agreement), should the level in Warragamba Dam drop below critical storage levels that are within the DWPS operating range, WaterNSW shall operate the Warragamba Deep Water Pump Station, which has a maximum capacity of 1,000 ML/day, made up of 250 ML/day for each of the four pumps.

WaterNSW is proposing that IPART apply a similar charging mechanism to that of the Shoalhaven Transfers Charging Scheme (including the same benchmark costs of electricity as summarised above), to pass on the efficient energy costs associated with the operation of the Deep Water Pump Station if it becomes operational.

The Deep Water Pump Station is a key operational asset and is assumed to be available in order for WaterNSW to meet the requirements of the Raw Water Supply Agreement, the objectives of the Greater Sydney Drought Response Plan, and our operating licence requirements in terms of continuity of supply and performance criteria.

1.3.2 General pass through events

General pass through events are those where activities and associated costs cannot practically be identified at the time of the determination, but the cost impacts are material.

Our approach to identifying general cost pass through events consists of:

- Identifying potential changes to our operating environment and regulatory and legislative framework that may create risk over the 2025 Determination period;
- Assessing the certainty, likelihood and consequence of each risk to determine whether risks can be accounted for in expenditure forecasts or in the case of low consequence risks, absorbed internally; and
- Reviewing the available risk management measures that may be used to mitigate or prevent risks, including opex, capex, insurance, self-insurance, WACC and specific pass through events.

Water NSW is proposing general cost pass throughs to manage the risks of defined exogenous events. IPART has long-standing cost pass through principles in place and have discretion under the IPART Act to define a cost pass through mechanism. We are seeking a mechanism that:

- Defines seven general pass through events: a regulatory change event; a service standard event; a tax change event; an insurance coverage event (noting that this addresses costs beyond the insurance cap and beyond the reasonably available insurance cover); an insurer's credit risk event; a natural disaster event and a terrorism event. These are outlined in detail in Appendix 1.
- Provides for IPART to determine the efficient pass through amount and the recovery period for the pass through amount at the time of the event (i.e. within the determination period rather attempting to specified unknown costs in advance in the determination). This aligns with the standard implementation approach for cost pass throughs across a number of regulatory regimes, including the national energy regulatory regime for electricity and gas networks.

1.4 True-ups

A true-up allows for the recovery of changes in benchmark or actual costs as relevant at the subsequent determination period. A true-up is appropriate when the costs for an activity are material and outside of the control of WaterNSW and there is risk that including an estimate of costs in customer charges may result in prices that over or under compensate for the costs of the activity. In some cases, the true-ups rely on other regulators' decisions (for example in the case of electricity costs) or market data (for example a cost of debt true-up).[2]

[2] As a cost of debt true-up is applied as part of IPART's standard WACC method, it is not discussed further in this section.

Table 3 – Proposed true-ups

Pass through event	Description
Electricity cost true-ups	Due to the highly uncertain and potentially volatile future of energy prices and infrastructure, WaterNSW is seeking a mechanism that shares the risk of forecasting these costs similar to that provided for by IPART in the 2022 Broken Hill Pipeline determination where actual network charges and benchmark wholesale electricity costs over the 2025 determination period are "trued up" in the subsequent (i.e. 2030) determination. The proposed true-up relies on updated benchmark data and decisions by other Australian regulators as relevant and would be applicable for the Shoalhaven Transfer Scheme, the Chaffey Dam pipeline and the Warragamba Dam pumping station.
Sydney Desalination Plant volume true-up	As the operation of the Sydney Desalination Plant (SDP) is outside of WaterNSW's control and can have a material impact on the variable charges to Sydney Water, WaterNSW proposes that a true-up is introduced to record the variance between regulatory forecasts and actual SDP water usage. The revenue effect of the variance in SDP usage (positive or negative) is proposed to added to the Greater Sydney revenue requirement for the 2030-35 Determination period

Electricity cost true-ups

The proposed mechanism to pass through the electricity costs, consistent with the overarching methodology from the 2020 Greaer Sydney Determination. WaterNSW is also proposing a true-up of electricity costs (if any) resulting from the operation of these schemes or infrastructure to reflect the trigger mechanisms are outside of WaterNSW's control and that the benchmark costs at the time of the 2025 Determination may materially differ from the benchmark costs at the time these schemes or infrastructure become operational. A true-up combined with a nominated cost pass through in these circumstances is considered appropriate and consistent with IPART's criteria for a cost pass through.

In proposing electricity cost true-ups for the Shoalhaven Transfer Scheme, we have drawn on regulatory precedence from across Australia, including IPART's other water and energy decisions, including the 2022 Broken Hill Pipeline determination.

We have also ensured the proposed mechanisms:

- Retain incentives for WaterNSW to procure and use electricity as efficiently as possible.
- Result in WaterNSW's prices reflecting the costs that would be incurred by a prudent and efficient benchmark entity in providing these services over the Determination period.
- Can also be applied simply and mechanically without a need for IPART to exercise discretion through the Determination period by referring to the relevant published charges.

The cost of electricity is highly uncertain given that key components of electricity prices are determined by dynamic market forces, or independent regulators and/or market authorities. This represents a risk which is not practically controllable by WaterNSW.

We have considered this risk holistically, and compared to alternative options we consider this to be the most efficient means of managing this forecast price risk. For instance, we do not believe that it is in a customer's best interest to set an energy cost allowance that includes a positive adjustment or uncertainty premium to the price for potential unforeseeable increases in market prices and/or network charges. Nor do we believe it is in a customer's best interest to provide WaterNSW with additional compensation (outside the WACC) for bearing the risk of annual movements in wholesale and/or network prices.

The proposed mechanisms to treat the electricity costs for the operation of the Shoalhaven Transfer Scheme, the Chaffey pipeline operation and the Warragamba Dam Pumping Station as nominated pass through costs based on a benchmark electricity price ($/ML). WaterNSW engagement Frontier Economics to review and update the Shoalhaven Transfer Scheme electricity costs from the 2020 Greater Sydney Determination based on current market conditions. The proposed benchmark cost of electricity for the Shoalhaven Transfer Scheme (to also be applied to the Chaffey pipeline and the Warragamba Dam Deep Water pumping station) are set out in Appendix 2.

Changes in electricity costs are designed to ensure WaterNSW is incentivised to take accountability for events within their control, while not exposing them to risks beyond their control - particularly where it may not be efficient for WaterNSW to manage this risk.

In designing these mechanisms, we have drawn on regulatory precedence from across Australia, including IPART's other water and energy decisions, including the 2022 Broken Hill Pipeline determination. We have also ensured the proposed mechanisms:

- Retain incentives for WaterNSW to procure and use electricity as efficiently as possible;
- Result in WaterNSW's prices reflecting the costs that would be incurred by a prudent and efficient benchmark entity in providing these services over the Determination period; and
- Can also be applied simply and mechanically without a need for IPART to exercise discretion through the Determination period by referring to the relevant published charges.

1.5 Full or partial reopeners

Replacement of the price determination (full or partial) is an option whereby IPART may agree to replace a determination (partially or completely) where the ability to deliver services is materially affected, and a business cannot wait for a true-up of efficient costs, and a cost pass-through has not already been set.

WaterNSW will only seek a full or partial reopener during the determination period if an event, or a combination of events, impacts on our ability to deliver services and or the financial consequences are such that it is not possible to wait for the 2030 Determination. Possible changes that might be suitable for a full or partial reopener include the following:

- the exit or significant reduction (that is, 50% or greater change in historic water usage) of a large customer (including, but not limited to Bayswater and or Mt. Piper power stations) and the appropriate arrangements required to ensure remaining customers and WaterNSW are not unreasonably affected
- a natural disaster or significant climate event
- pandemic event (or other broadscale event constraining movement or logistics – for example, cyber or military events materially impacting imports and/or transport for a protracted time)
- changes to water sharing plans that have or could have a material impact on how the system is managed, water is used or how much water is available within a valley
- the introduction of new regulatory or legislative obligations or changes in service standards not captured in other pass-through mechanisms that have a material financial impact.

Appendix 1 – Proposed general cost pass throughs

We propose that a general pass-through mechanism apply for the 2025 Determination period for Greater Sydney and the Rural Valleys that specifies the following pass through events:

- A regulatory change event;
- A service standard event;
- A tax change event;
- An insurance coverage event (noting that this addresses costs beyond the insurance cap and beyond the reasonably available insurance cover);
- An insurer's credit risk event;
- A natural disaster event; and
- A terrorism event.

Process and mechanism for passing through efficient costs (or savings) associated with eligible pass through events

It is proposed that the process would involve:

1. An eligible event occurring that results in a material increase (**Positive Change Event)** or decrease in costs (**Negative Change Event**) of providing WaterNSW's water transportation services (**Pass Through Water Services**)
2. WaterNSW applying to IPART (or IPART initiating) and substantiating the increase (or decrease) in costs of providing the water transportation services (**Eligible Pass Through Amount)**
3. IPART reviewing the WaterNSW application to determine the efficient increase or decrease in costs to be passed through to customers (**Approved Pass Through Amount)**
4. IPART notifying WaterNSW (and stakeholders) of the decision and the prices to apply in each remaining year of the regulatory period within which the eligible event occurs.

Box 1 sets out definitions that will be required to specify the process and mechanism for passing through efficient costs (or savings) associated with eligible pass through events. These have been developed in line with the following regulatory principles:

- Ensuring the trigger event is clearly defined and can be identified in any cost pass through application.
- Requiring WaterNSW to substantiate the efficient increase (or decrease) in costs associated the eligible events (within a reasonable timeframe, say 90 business days, following the event), including actions taken to reduce the magnitude of any increase in costs.
- Ensuring IPART (and potentially stakeholders) have sufficient time to review, consult on and assess the proposal (say no more than 120 business days) to ensure that only material (e.g. 0.25% of annual regulated revenue) increases (or decreases) in the efficient costs associated with the event are passed through to customers.
- Allowing prices to be updated, following IPART's decision, within a reasonable timeframe (or ensures WaterNSW is not worse off for any delays) to allow WaterNSW to continue to invest, operate and maintain a water transportation service.
- Where possible, drawing from other regulatory precedents, including in Australia.

We would welcome engagement with Essential Water, IPART and other stakeholders in developing the process and mechanism for passing through efficient costs (or savings) associated with eligible pass through events. This would include the items discussed in Box 1, as well as specification of other matters such as:

- Information provision requirements on WaterNSW as part of any pass through application.
- The timeframe and decision-making process – including matters to be considered by IPART in determining the efficient increase (or decrease) associated with the event are passed through to customers[3] – and reporting requirements on IPART in making a decision on any pass through application.

Box 1: Other definitions necessary for refining the process and mechanism for passing through efficient costs (or savings) associated with eligible pass through events

We have developed definitions that will be required to specify the process and mechanism for passing through efficient costs (or savings) associated with eligible pass through events.

These definitions include:

- **Approved Pass Through Amount** means the amount which the Tribunal determines should be passed through to customers in respect of that Positive Change Event or Negative Change Event
- **Eligible Pass Through Amount** means in respect of a Positive Change Event or Negative Change Event the increase (or decrease) in costs in the provision of Pass Through Water Services that WaterNSW has incurred since 1 July 2022 and is likely to incur until the end of the Regulatory Control Period as a result of that Positive Change Event or Negative Change Event.
- **Materially** means 0.25% of regulated revenue for the year in which the event occurs with the threshold defined on a per event basis
- **Negative Change Event** means a General Pass Through Event which entails WaterNSW incurring Materially lower costs in providing Pass Through Water Services than it would have incurred but for that event.
- **Pass Through Water Services** means the water transportation services provided by WaterNSW.
- **Positive Change Event** means a General Pass Through Event which entails WaterNSW incurring Materially higher costs in providing Pass Through Water Services than it would have incurred but for that event.
- **Relevant Tax** means any Tax payable by WaterNSW other than:
  - income tax and capital gains tax;
  - stamp duty, financial institutions duty and bank accounts debits tax;
  - penalties, charges, fees and interest on late payments, or deficiencies in payments, relating to any Tax; or
  - any Tax that replaces or is the equivalent of or similar to any of the Taxes referred to in sub-clauses (a) to (c) (including any State equivalent tax), and also includes any fee payable by WaterNSW in respect of a Licence.

[3] One of the matters for IPART's consideration may be the implications for efficient costs of WaterNSW's decisions and actions, including whether (in the case of a Positive Change Event) WaterNSW has failed to take any action that could reasonably be taken to reduce the magnitude of the Eligible Pass Through Amount.

Definitions of pass through events

We have developed definitions of the eligible events that we propose be included in a pass-through mechanism to apply for the 2022 Determination period. Where possible, these events have been defined consistent with other regulatory determinations that apply to infrastructure services in Australia.

Regulatory change event

A regulatory change event occurs when a change that is made to a regulatory obligation that is imposed on WaterNSW, e.g. by the Commonwealth or State Government, that materially changes WaterNSW's costs (increasing or reducing WaterNSW's costs). Examples could be the imposition of more stringent cyber security compliance requirements or a levy (e.g. a new Dam Safety Levy).

Events that change the standards or nature of WaterNSW's Pass Through Water Services are addressed separately, by the service standard event defined below.

The regulatory change event definition below is based on the definition on the national energy market regulations (including the National Electricity Rules).

Box 2: Definition: Regulatory change event

A change in a regulatory obligation or requirement that:

(a) falls within no other category of pass through event; and

(b) occurs during the 2025 Determination period; and

(c) substantially affects the manner in which WaterNSW is required to provide Pass Through Water Services; and

(d) materially increases or materially decreases the costs of providing those services.

Service standard event

A service standard event relates specifically to changes in WaterNSW's Pass Through Water Services, including changes to the minimum standard of service, scope of services, or way services provided. The service standard event may occur as a result of a change to legislation, administrative act or a decision e.g. government. An example of a service standard event could be a change to the nature of the water transportation services provided by WaterNSW.

The service standard event definition below is based on the definition on the national energy market regulations (including the National Electricity Rules).

Box 3: Definition: Service standard event

A legislative or administrative act or decision that:

(a) has the effect of:
  (i) imposing minimum standards on WaterNSW in respect of the provision of Pass Through Water Services that are different from the minimum standards imposed on WaterNSW in respect of the provision of Pass Through Water Services immediately prior to that event;
  (ii) substantially altering the nature or scope of the services that, immediately prior to that event, collectively comprise the Pass Through Water Services; or
  (iii) substantially varying the manner in which WaterNSW is required to undertake any activity forming part of the Pass Through Water Services; and

(b) results in WaterNSW incurring Materially higher or Materially lower costs in providing Pass Through Water Services than it would have incurred but for that event, but does not include:
  (i) the making of the 2022 Determination period
  (ii) any other category of pass through event.

Tax change event

A tax change event relates to changes to relevant taxes, as defined in Box 4 that have a material impact on WaterNSW's costs.

The tax change event definition below is based on the definition on the national energy market regulations (including the National Electricity Rules).

Box 4: Definition: Tax change event

A tax change event occurs if:

(a) any of the following occurs during the course of the 2025 Determination period:
  (i) a change in (or a change in the application or official interpretation of) a Relevant Tax, in the rate of a relevant tax, or the way in which a Relevant Tax is calculated;
  (ii) the removal of a Relevant Tax; or
  (iii) the imposition of a Relevant Tax, and
  (b) results in WaterNSW incurring Materially higher or Materially lower costs in providing Pass Through Water Services than it would have incurred but for that event.

Insurance coverage event

An insurance coverage event addresses the risk of incurring liability losses that exceed WaterNSW's insurance coverage. The insurance coverage event addresses costs that are incurred above WaterNSW's insurance policy limit (an insurance cap event) or beyond the limits of WaterNSW's coverage (an insurance coverage event).

The second element of the insurance coverage event addresses changed circumstances in the insurance market that are beyond WaterNSW's control, but mean that it is no longer possible to take out an insurance policy or set of insurance policies at all, or on reasonable commercial terms. This second arm of the coverage event has been included in cost pass through mechanisms for energy network businesses in the national energy markets. This is in recognition that there have been changing conditions in insurance markets that have made previously available insurance more expensive and difficult to procure.

A particular concern for energy networks were the adverse changes in the bushfire insurance market following bushfire events in Australia and overseas. Similar adverse changes may be seen in relation to cyclone and flood insurance in Australia.

The insurance coverage event definition below is based on the definition on the national energy market regulations (including the National Electricity Rules).

Box 5: Definition: Insurance coverage event

An insurance coverage event occurs if:

1. WaterNSW:

a) makes a claim or claims and receives the benefit of a payment or payments under a relevant insurance policy or set of insurance policies; or

b) would have been able to make a claim or claims under a relevant insurance policy or set of insurance policies but for changed circumstances; and

2. WaterNSW incurs costs:

a) beyond a relevant policy limit for that policy or set of insurance policies; or

b) that are unrecoverable under that policy or set of insurance policies due to changed circumstances; and

3. The costs referred to in paragraph 2 above materially increase the costs to WaterNSW in providing Pass Through Water Services.

For the purposes of this insurance coverage event:

'changed circumstances' means movements in the relevant insurance liability market that are beyond the control of WaterNSW, where those movements mean that it is no longer possible for WaterNSW to take out an insurance policy or set of insurance policies at all or on reasonable commercial terms that include some or all of the costs referred to in paragraph 2 above within the scope of that insurance policy or set of insurance policies.

'costs' means the costs that would have been recovered under the insurance policy or set of insurance policies had:

i. the limit not been exhausted; or
ii. those costs not been unrecoverable due to changed circumstances.

A relevant insurance policy or set of insurance policies is an insurance policy or set of insurance policies held during the regulatory control period or a previous regulatory control period in which WaterNSW was regulated; and

WaterNSW will be deemed to have made a claim on a relevant insurance policy or set of insurance policies if the claim is made by a related party of WaterNSW in relation to any aspect of WaterNSW's Pass Through Water Services; and

WaterNSW will be deemed to have been able to make a claim on a relevant insurance policy or set of insurance policies if, but for changed circumstances, the claim could have been made by a related party of WaterNSW in relation to any aspect of WaterNSW's assets or business.

Note for the avoidance of doubt, in assessing an insurance coverage event, the Tribunal will have regard to:

i. the relevant insurance policy or set of insurance policies for the event
ii. the level of insurance that an efficient and prudent business would obtain, or would have sought to obtain, in respect of the event;
iii. any information provided by WaterNSW to the Tribunal about WaterNSW's actions and processes; and
iv. any guidance published by the Tribunal on matters the Tribunal will likely have regard to in assessing any insurance coverage event that occurs.

Insurer credit risk event

This is an event where costs are incurred as a result of an insurer becoming insolvent.

The Insurer credit risk event definition below is based on the definition on the national energy market regulations (including the National Electricity Rules).

Box 6: Definition: Insurer credit risk event

An insurer credit risk event occurs if an insurer of WaterNSW becomes insolvent, and as a result, in respect of an existing or potential claim for a risk that was insured by the insolvent insurer, WaterNSW:

(a) is subject to a higher or lower claim limit or a higher or lower deductible than would have otherwise applied under the insolvent insurer's policy; or

(b) incurs additional costs associated with funding an insurance claim, which would otherwise have been covered by the insolvent insurer.

Note: in assessing an insurer credit risk event pass through application, the Tribunal will have regard to, amongst other things:

i. WaterNSW's attempts to mitigate and prevent the event from occurring by reviewing and considering the insurer's track record, size, credit rating and reputation; and

ii. in the event that a claim would have been covered by the insolvent insurer's policy, whether WaterNSW had reasonable opportunity to insure the risk with a different provider.

Natural disaster event

The cost impact of a natural disaster can be significant. Potential natural disasters that could cause significant property damage include, but are not limited to earthquakes, storms and floods. WaterNSW's insurance cover provides a level of protection against property damage caused by natural disasters. However, the cost impact of a natural disaster could materially exceed the coverage provided by these policies.

The natural disaster event is complementary to the insurance coverage event specified above, addressing the unexpected, material costs that an insurance policy would not ordinarily cover.

The relative infrequency and material financial costs of a natural disaster creates significant practical challenges for self-insuring such events. A pass through mechanism provides a more appropriate arrangement for managing the cost impacts in the event that a natural disaster event occurs and causes a material increase in costs. We consider that managing costs through a nominated pass through event is in the long-term interest of consumers.

Any pass through amount claimed in a pass through application for a natural disaster event would be net of any insurance payout made to WaterNSW and any amounts recovered through an insurance coverage event pass through application.

The natural disaster event definition below is based on the definition on the national energy market regulations (including the National Electricity Rules).

Box 7: Definition: Natural disaster event

Natural disaster event means any natural disaster including but not limited to cyclone, fire, flood or earthquake that occurs during the 2025 Determination period that changes the costs to WaterNSW in respect of the provision of Pass Through Water Services, provided the cyclone, fire, flood, earthquake or other event was:

(a) 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

(b) not a consequence of any other act or omission of the service provider.

Note: In assessing a natural disaster event pass through application, the Tribunal will have regard to, amongst other things:

i whether WaterNSW has insurance against the event;

ii the level of insurance that an efficient and prudent business would obtain in respect of the event.

Terrorism event

As with a natural disaster event, a terrorism event may impost cost that materially exceed the limits of prudent insurance policies.

Any pass through amount claimed in a pass through application for a terrorism event would be net of any insurance payout made to WaterNSW and any amounts recovered through an insurance coverage event pass through application.

The terrorism event definition below is based on the definition on the national energy market regulations (including the National Electricity Rules).

Box 8: Definition: Terrorism event

Terrorism event means an act (including, but not limited to, the use of force or violence or the threat of force or violence) of any person or group of persons (whether acting alone or on behalf of or in connection with any organisation or government), which:

(a) from its nature or context is done for, or in connection with, political, religious, ideological, ethnic or similar purposes or reasons (including the intention to influence or intimidate any government and/or put the public, or any section of the public, in fear); and

(b) changes the costs to WaterNSW in providing Pass Through Water Services.

Note: In assessing a terrorism event pass through application, the Tribunal will have regard to, amongst other things:

i. whether WaterNSW has insurance against the event;

ii. the level of insurance that an efficient and prudent business would obtain in respect of the event; and

iii. whether a declaration has been made by a relevant government authority that a terrorism event has occurred.

Appendix 2 – Forecast electricity costs

The cost of electricity represents a significant portion of the variable cost of providing water as part of the Shoalhaven Transfer Scheme. It is also likely to be a key component of the variable costs for the operation of the Chaffey pipeline and the Warragamba Dam Pumping station.

This attachment sets out the proposed forecast benchmark cost of electricity for the Shoalhaven Transfer that we propose is also applied for the Chaffey pipeline and the Warragamba Dam Deep Water Pumping Station.

Shoalhaven Transfer Scheme benchmark cost of electricity

We engaged Frontier Economics to propose a forecast benchmark electricity price for the Scheme for the 2025 determination period based on an update to the approach and formulas used by IPART at the 2020 Greater Sydney Determination.

This forecast reflects information available today, but the cost of electricity is also highly uncertain given that key components of electricity prices are determined by dynamic market forces, or independent regulators and/or market authorities.

To manage this forecast price risk - which WaterNSW cannot practically manage itself - WaterNSW is also proposing a true-up of the electricity costs at the 2030 Determination, should the Scheme be operational over the 2025 Determination period. The true-up is proposed to address movements in the network and wholesale components of the benchmark electricity price over the 2025 Determination period.

Forecast electricity prices

We engaged Frontier Economics to provide us with forecast prices for the five-year period of the determination by updating the formula and electricity costs from the 2020 Greater Sydney determination for the Shoalhaven Transfers Scheme.

Frontier Economics used a cost build up approach to estimate the likely cost of electricity the Scheme will incur during the projection period 2025-26 to 2029-30. Frontier Economics' proposed benchmark electricity costs are illustrated overleaf:

Shoalhaven Water Transfer Scheme - Energy Purchase Costs

Results - Annual

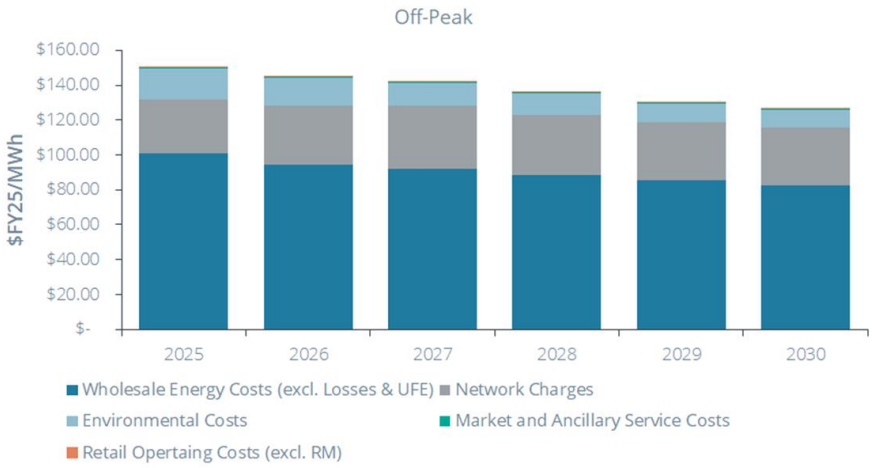
Results

Overall Results - Off-Peak

Financial Year	UoM	2025	2026	2027	2028	2029	2030
Wholesale Energy Costs							
Wholesale Energy Purchase Cost	$FY25/MWh	$ 100.79	$ 94.59	$ 92.09	$ 88.45	$ 85.25	$ 82.64
Losses	$FY25/MWh	$ 0.13	$ 0.12	$ 0.12	$ 0.11	$ 0.11	$ 0.11
UFE	$FY25/MWh	$ 2.90	$ 2.72	$ 2.65	$ 2.54	$ 2.45	$ 2.38
Network Charges							
Network Access Charge	$FY25/MWh	$ 0.02	$ 0.02	$ 0.03	$ 0.03	$ 0.02	$ 0.02
Energy Off-Peak	$FY25/MWh	$ 15.30	$ 16.43	$ 17.64	$ 16.96	$ 16.31	$ 16.31
High Season Peak Demand Charge	$FY25/MWh	$ 16.02	$ 17.20	$ 18.47	$ 17.76	$ 17.07	$ 17.07
Low Season Peak Demand Charge	$FY25/MWh	$ 15.76	$ 16.92	$ 18.17	$ 17.47	$ 16.80	$ 16.80
Environmental Costs							
Costs of Complying with LRET	$FY25/MWh	$ 8.45	$ 7.17	$ 5.72	$ 4.73	$ 3.70	$ 2.66
Costs of Complying with SRES	$FY25/MWh	$ 7.51	$ 7.25	$ 5.58	$ 5.45	$ 5.31	$ 5.18
Cost of Complying with ESS	$FY25/MWh	$ 1.56	$ 1.63	$ 1.71	$ 1.78	$ 1.85	$ 1.93
Market and Ancillary Service Costs							
Market Fees	$FY25/MWh	$ 0.41	$ 0.41	$ 0.41	$ 0.41	$ 0.41	$ 0.41
Ancillary Services	$FY25/MWh	$ 0.40	$ 0.40	$ 0.40	$ 0.40	$ 0.40	$ 0.40
Retail Operating Cost and Margin							
Retail Operating Costs	$FY25/MWh	$ 0.002	$ 0.002	$ 0.002	$ 0.002	$ 0.002	$ 0.002
Retail Margin	%	5.2%	5.2%	5.2%	5.2%	5.2%	5.2%

Summarised Results - Off-Peak

Financial Year	UoM	2025	2026	2027	2028	2029	2030
Wholesale Energy Costs (excl. Losses & UFE)	$FY25/MWh	$ 100.79	$ 94.59	$ 92.09	$ 88.45	$ 85.25	$ 82.64
Network Charges	$FY25/MWh	$ 31.19	$ 33.49	$ 35.96	$ 34.58	$ 33.24	$ 33.24
Environmental Costs	$FY25/MWh	$ 17.51	$ 16.05	$ 13.01	$ 11.96	$ 10.87	$ 9.78
Market and Ancillary Service Costs	$FY25/MWh	$ 0.81	$ 0.81	$ 0.81	$ 0.81	$ 0.81	$ 0.81
Retail Opertaing Costs (excl. RM)	$FY25/MWh	$ 0.002	$ 0.002	$ 0.002	$ 0.002	$ 0.002	$ 0.002
Total Off-Peak (excl. RM)	**$FY25/MWh**	**$ 153.33**	**$ 147.78**	**$ 144.64**	**$ 138.45**	**$ 132.73**	**$ 128.95**
Total Off-Peak (incl. RM)	**$FY25/MWh**	**$ 161.30**	**$ 155.47**	**$ 152.17**	**$ 145.65**	**$ 139.63**	**$ 135.66**
Composite Usage Rate Factor	MWh/ML	1.96	1.96	1.96	1.96	1.96	1.96
Total Off-Peak (excl. RM)	**$FY25/ML**	**$ 300.53**	**$ 289.66**	**$ 283.50**	**$ 271.36**	**$ 260.15**	**$ 252.75**
Total Off-Peak (incl. RM)	**$FY25/ML**	**$ 316.15**	**$ 304.72**	**$ 298.25**	**$ 285.47**	**$ 273.68**	**$ 265.89**



Overall Results - Peak

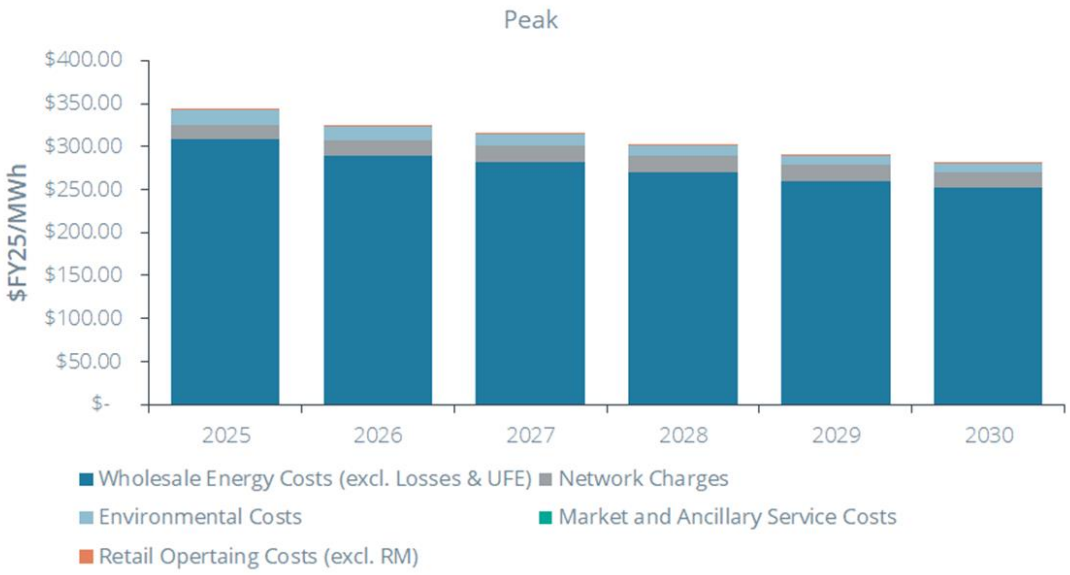
UoM

Financial Year		2025	2026	2027	2028	2029	2030
Wholesale Energy Costs							
Wholesale Energy Purchase Cost	$FY25/MWh	$ 307.78	$ 288.85	$ 281.22	$ 270.09	$ 260.31	$ 252.37
Losses	$FY25/MWh	$ 0.39	$ 0.37	$ 0.36	$ 0.34	$ 0.33	$ 0.32
UFE	$FY25/MWh	$ 8.85	$ 8.31	$ 8.09	$ 7.77	$ 7.49	$ 7.26
Network Charges							
High Season Energy Peak	$FY25/MWh	$ 17.24	$ 18.51	$ 19.88	$ 19.11	$ 18.37	$ 18.37
Low Season Energy Peak	$FY25/MWh	$ 16.64	$ 17.87	$ 19.18	$ 18.44	$ 17.73	$ 17.73
Environmental Costs							
Costs of Complying with LRET	$FY25/MWh	$ 8.45	$ 7.17	$ 5.72	$ 4.73	$ 3.70	$ 2.66
Costs of Complying with SRES	$FY25/MWh	$ 7.51	$ 7.25	$ 5.58	$ 5.45	$ 5.31	$ 5.18
Cost of Complying with ESS	$FY25/MWh	$ 1.56	$ 1.63	$ 1.71	$ 1.78	$ 1.85	$ 1.93
Market and Ancillary Service Costs							
Market Fees	$FY25/MWh	$ 0.41	$ 0.41	$ 0.41	$ 0.41	$ 0.41	$ 0.41
Ancillary Services	$FY25/MWh	$ 0.40	$ 0.40	$ 0.40	$ 0.40	$ 0.40	$ 0.40
Retail Operating Cost and Margin							
Retail Operating Costs	$FY25/MWh	$ 0.002	$ 0.002	$ 0.002	$ 0.002	$ 0.002	$ 0.002
Retail Margin	%	5.2%	5.2%	5.2%	5.2%	5.2%	5.2%

Summarised Results - Peak

UoM

Financial Year		2025	2026	2027	2028	2029	2030
Wholesale Energy Costs (excl. Losses & UFE)	$FY25/MWh	$ 307.78	$ 288.85	$ 281.22	$ 270.09	$ 260.31	$ 252.37
Network Charges	$FY25/MWh	$ 16.89	$ 18.13	$ 19.47	$ 18.72	$ 18.00	$ 18.00
Environmental Costs	$FY25/MWh	$ 17.51	$ 16.05	$ 13.01	$ 11.96	$ 10.87	$ 9.78
Market and Ancillary Service Costs	$FY25/MWh	$ 0.81	$ 0.81	$ 0.81	$ 0.81	$ 0.81	$ 0.81
Retail Opertaing Costs (excl. RM)	$FY25/MWh	$ 0.002	$ 0.002	$ 0.002	$ 0.002	$ 0.002	$ 0.002
Total Peak (excl. RM)	**$FY25/MWh**	**$ 352.24**	**$ 332.52**	**$ 322.96**	**$ 309.69**	**$ 297.81**	**$ 288.53**
Total Peak (incl. RM)	**$FY25/MWh**	**$ 370.55**	**$ 349.81**	**$ 339.76**	**$ 325.79**	**$ 313.30**	**$ 303.54**
Composite Usage Rate Factor	MWh/ML	1.96	1.96	1.96	1.96	1.96	1.96
Total Peak (excl. RM)	**$FY25/ML**	**$ 690.39**	**$ 651.74**	**$ 633.01**	**$ 606.99**	**$ 583.71**	**$ 565.53**
Total Peak (incl. RM)	**$FY25/ML**	**$ 726.29**	**$ 685.63**	**$ 665.92**	**$ 638.55**	**$ 614.07**	**$ 594.93**



Accounting for movements in the benchmark electricity price over the 2025 Determination period

WaterNSW is proposing an end of period true-up for movements in the network and wholesale component of the electricity benchmark price over the 2025 Determination period.

In updating the energy cost allowance, we are not proposing to update the energy use profile, rather this would be 'locked in' for the 2025 Determination period. Instead, we are proposing the benchmark price is updated or escalated to reflect movements in network and wholesale costs.

We have considered a range of potential options to give effect to this proposal drawing on regulatory precedence from across Australia, including IPART's other water and energy decisions. We have also been minded to ensure the proposed mechanisms:

- Retain incentives for WaterNSW to procure and use electricity as efficiently as possible;
- Result in WaterNSW's prices reflecting the costs that would be incurred by a prudent and efficient benchmark entity in providing these services over the 2022 Determination period; and
- Can be applied simply and mechanically without a need for IPART to exercise discretion through the 2022 Determination period by referring to the relevant published charges.

We recognise that IPART may have a preference for specific options to give effect to this proposal and we would seek to work with IPART to identify a transparent and workable solution.

Calculating movements in wholesale component of electricity costs

The proposed mechanism to track or calculate movements in the wholesale component of the electricity benchmark price over the 2022 Determination is as set out as follows:

Formula 1 – Calculating movements in the wholesale component of the benchmark electricity price

$$WEC_2 = \frac{ASX_2}{ASX_1} \times WEC_1$$

Where:

- **WEC_2** is the wholesale electricity cost component of the benchmark price for the *second* year of the 2025 Determination period

- **WEC_1** is the wholesale electricity cost component of the benchmark price for the *first* year of the 2025 Determination period
- **ASX_2** is the price of a baseload financial year strip for NSW for the *second* year of the regulatory period, average over a defined period (for instance, for x days prior to the annual review)
- **ASX_1** is the price of a baseload financial year strip for NSW for the *first* year of the regulatory period, average over a defined period (for instance, for x days prior to the determination)

This movement would be compared annually to the forecast wholesale component of the benchmark electricity price included in the 2025 Determination period. This movement could then be applied to the energy use profile to calculate the true up amount for each year in the determination period.

Accounting for movement in the network charge component of electricity costs

We propose changes in the network component of the benchmark electricity price are updated with reference to actual network charges over the 2022 Determination period.

We have not proposed a formula for this update recognising the many components of network charges. We propose the true-up amount account for movements in all of the network components of the benchmark electricity price including:

- Actual network prices; and
- The actual maximum demand for the maximum demand ($/MVA) charge.

As noted above, in calculating these movements we propose holding constant the assumed energy use profile for the variable ($/MWh) network charge.

This ensures WaterNSW faces strong incentives to pump efficiently, while recognising the important influence of maximum demand charges on our electricity cost allowance. Importantly, this is consistent with the electricity pass-through arrangements for SDP.