

SeaWell

SW-Series Marine Desalination Technology

SUBMISSION TO THE

Productivity Commission

National Water Reform 2026

Submission in response to the Call for Submissions - Part B: Secure, Resilient and Sustainable Services

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Executive Summary

SeaWell welcomes the Productivity Commission's National Water Inquiry and submits this response in the context of the Eyre Peninsula in South Australia, with reference to Streaky Bay as a representative case study of the structural challenges facing regional and remote communities under Australia's current water pricing and regulation frameworks.

SeaWell is the developer of the SW-series Marine Desalination Buoy - a modular technology platform that uses UV and Reverse Osmosis to desalinate seawater to potable standard. SeaWell has operated a test module at the US Navy Desalination test site over 2024–25, with a public demonstration unit to be deployed in Auckland Harbour during Q4 2026.

SeaWell's commercial objective is to deploy its marine desalination platform through two complementary pathways: direct supply to communities not currently connected to an existing utility network; and third-party access to existing utility infrastructure, supplying water into networks such as SA Water's on a commercial basis. Both pathways require targeted reforms to pricing, regulation, and financing frameworks. This submission identifies those reforms precisely, grounded in an analysis of what already exists in South Australia and other Australian jurisdictions.

This submission advances six core arguments:

- The fundamental issue facing communities like Streaky Bay is not simply the cost of water - it is the quality and reliability of supply from a single, long-distance pipeline. Seawater desalination directly addresses both constraints.
- Modular distributed water supply technologies represent a capital-efficient and scalable alternative to costly network extensions, enabling right-sized investment that grows incrementally with demonstrated demand.
- Pricing reform should prioritise nodal transparency. SA Water's statewide uniform pricing cross-subsidises regional areas - a well-intentioned policy, but one that obscures the true cost of supply and makes it impossible for councils or investors to assess alternatives on a level basis. Targeted reform of the existing inclining block tariff, and introduction of connection charges already standard in NSW, WA, and Victoria, would begin correcting this.
- A Coastal Zoning Overlay - distinct from and simpler than the offshore wind energy frameworks that have shaped energy regulation - can dramatically reduce consenting time for coastal water infrastructure in state coastal waters where no equivalent pre-assessment framework currently exists.
- South Australia's Community Wastewater Management Scheme (CWMS) provides a proven financing model currently limited to wastewater. Extending it to drinking water supply requires specific legislative steps, not invention. Care must be taken to learn from cases like Coober Pedy, where council-operated water supply has encountered operational difficulty.
- Third-party access to existing SA Water infrastructure is the critical policy unlock for commercially viable distributed supply. This submission recommends the Commission address access pricing, connection terms, and competition barriers directly.

Part A: NWI Assessment - Forward Reform Priorities

This submission is primarily directed at Part B (secure, resilient and sustainable services) of the terms of reference. However, it also responds briefly to Part A Question 3 - forward reform priorities for the next three years - as the proposed reforms are directly relevant to NWI objectives and the PC's 2024 findings.

2024 PC Findings Relevant to this Submission

Three findings from the PC's 2024 NWI assessment are directly relevant to this submission and ground the reforms proposed in Section 8:

- Finding 6.1 (Pricing): 'Some governments have moved away from NWI commitments to deliver cost-reflective and consumption-based pricing.' This submission argues that SA Water's statewide uniform pricing, while well-intentioned, obscures the true nodal cost of supply in regional areas and prevents investment decisions that would improve resilience. The reform proposed - mandatory public disclosure of nodal LRMC - is the minimum step needed to restore transparency without immediately changing tariffs for consumers.

- Finding 6.2 (Infrastructure investment): 'Some government decision-making for major water infrastructure is not fully compliant with the NWI' - specifically that infrastructure investments are not rigorously assessed against all available options. The Eyre Peninsula's continued dependence on a single pipeline, without transparent cost comparison against distributed alternatives such as coastal desalination, is a direct example of this finding in practice. Technology-neutral capital allocation criteria and the pilot program proposed in this submission address this gap.
- Finding 9.1 (Regional access): 'Some regional and remote areas still do not have access to safe drinking water supply,' with quality issues from exceedances of Australian Drinking Water Guidelines. While Streaky Bay is currently connected to the SA Water network, its single-source dependency creates fragility analogous to the access problems identified in Finding 9.1. Supply diversification through locally produced desalination directly addresses this structural risk.

SA-Specific 2024 Priority

The PC's 2024 assessment identified a specific priority for South Australia: 'continue water security planning and investment activities in line with its Water Security Statement.' The Streaky Bay Localisation Assessment currently underway, and the suite of reforms proposed in this submission, are precisely the kind of activity the PC envisaged in identifying this priority. This submission asks the Commission to recommend the regulatory, pricing, and financing reforms that would make such investment commercially viable.

Three Forward Reform Priorities (Part A Question 3)

From SeaWell's perspective as a distributed water supply technology developer, the three reforms that would most improve outcomes over the next three years in the South Australian context are:

- Mandatory public disclosure of nodal LRMC by SA Water, building on ESCOSA's existing 12-zone analysis - enabling councils and investors to evaluate alternatives on a level economic basis (addresses Finding 6.1).
- Establishment of a regulated third-party access framework for SA Water's distribution network, enabling independent water producers to supply into the existing network on defined commercial terms (addresses Finding 6.2 and NWI competitive neutrality principles).
- A pilot Coastal Water Infrastructure Overlay Zone on the Eyre Peninsula coastline, establishing a state-level pre-assessment framework for coastal water infrastructure that does not currently exist in any Australian jurisdiction.

Part B - Section 1: The Core Problem: Supply Quality and Reliability

Responding to: Part B Theme 3 (Regional, remote and equity considerations) - specifically the questions on structural factors affecting provider viability and what alternative service provision models would improve performance.

1.1 The Eyre Peninsula Water Challenge

The Eyre Peninsula is one of South Australia's most water-vulnerable regions, served primarily by a single, long-distance pipeline from the River Murray managed by SA Water. The fundamental problem is not primarily the cost of water - statewide pricing means regional users currently pay the same tariff as metropolitan customers, a cross-subsidy that protects them from the true cost of delivery. The problem is the quality and reliability of supply.

A single pipeline hundreds of kilometres long creates systemic risk that no amount of tariff reform can mitigate. Any failure, drought event, infrastructure outage, or capacity constraint along that corridor has immediate and wide-ranging consequences. River Murray water quality is itself variable and subject to increasing climate and salinity pressures. For coastal communities on the Eyre Peninsula, surrounded by a reliable, effectively unlimited source of seawater, continued dependence on a single distant pipeline is an infrastructure vulnerability that can be directly addressed through a more resilient approach.

Streaky Bay, used throughout this submission as a case study, is representative of a broader pattern of supply vulnerability across the western Eyre Peninsula. Elliston, a coastal community approximately 100 kilometres to the south, is an instructive contrast: it relies entirely on groundwater from a local bore, with no connection to the SA Water pipeline network. That bore supply is subject to seasonal variability, water quality constraints, and the inherent risk of a single, finite aquifer in a low-rainfall environment. Elliston and communities like it face the full supply risk that Streaky Bay's pipeline connection partially mitigates, but in neither case is the underlying problem of single-source dependency resolved. Ceduna, and other coastal communities across the region share variants of this structural vulnerability.

The case for seawater desalination across the Eyre Peninsula is not primarily an economic argument. It is a reliability and quality argument: locally sited, autonomous desalination systems provide water that is independent of river conditions, pipeline outages, bore variability, and supply corridor constraints. This submission argues for the pricing and regulatory reforms that would make that resilience case commercially viable across the region.

1.2 Streaky Bay: A Representative Case Study

Streaky Bay is a coastal community on the western Eyre Peninsula, connected to the SA Water network via the Tod Trunk Main, which carries Murray River water across the peninsula. The community previously drew on a local groundwater lens as a supplementary supply source, reflecting a longstanding recognition that pipeline-only supply carried risk. That groundwater resource, however, has limitations: the lens is subject to seasonal variability, quality concerns including hardness and salinity, and the risk of overdrawing a finite aquifer in a low-rainfall environment.

Seawater desalination is the preferred new source for four reasons. First, it is effectively unlimited in volume - the Southern Ocean is not subject to drought or over-extraction.

Second, seawater desalinated through reverse osmosis produces water of consistent, high quality that meets or exceeds SA Water's drinking water specifications without the variability of either the groundwater lens or the River Murray. Third, it is locally autonomous - it does not depend on the Tod Trunk Main corridor remaining intact and operational. Fourth, it is modular and scalable, meaning capacity can be right-sized to current need and expanded as demand warrants. These same four advantages apply equally to Elliston's bore-dependent supply and to the pipeline-dependent communities further along the Eyre Peninsula coast.

The District Council of Streaky Bay has engaged SeaWell to conduct a Localisation Assessment for a marine desalination deployment - a staged, evidence-based process assessing site feasibility, engaging SA Water, evaluating local demand across residential, agricultural and industrial users, and confirming appropriate system sizing before capital is committed. The capacity and configuration of the deployed system will be determined through this assessment process, with SeaWell's modular platform scalable to meet the community's demonstrated need.

1.3 SA Water Network Integration: The Strategic Question

A central question that any deployment at Streaky Bay must address is the relationship between a new desalination source and SA Water's existing distribution infrastructure. There are two distinct models, and they carry different regulatory, commercial, and community implications.

The first model is standalone community supply: SeaWell's system delivers water directly into a local distribution system that is independent of or supplementary to SA Water's network, with Streaky Bay retaining SA Water connection as a backup or secondary source. This model maximises local autonomy but requires the community and its council to take on responsibility for a water supply asset.

The second model is third-party network injection: SeaWell produces potable water at a coastal desalination installation on the Eyre Peninsula and supplies it into SA Water's Tod Trunk Main distribution network on a commercial third-party access basis, as a regional diversification source serving not only Streaky Bay but Elliston, and other Eyre Peninsula communities. This model leverages existing SA Water infrastructure, creates a regional resilience benefit, and does not require the council to operate a water supply system. It does, however, require third-party access pricing, connection terms, and water quality standards to be negotiated or regulated.

SeaWell's preferred long-term model is third-party injection into SA Water's existing network - providing a new, reliable, locally produced source that diversifies the regional supply base without requiring communities to exit the SA Water system. This is both technically achievable and strategically aligned with SA Water's stated interest in supply resilience. The policy barriers to this model are the primary focus of Section 6 of this submission.

It is important to acknowledge community context. Streaky Bay residents currently receive SA Water supply, benefit from statewide pricing cross-subsidies, and have not been broadly consulted on the prospect of a locally operated or third-party supplied desalination system. Any proposal should be developed with genuine community engagement, transparency about implications for tariff structures and responsibility allocation, and recognition that the goal is better water security - not structural change for its own sake.

Part B - Section 2: Modular Capital Deployment: A More Efficient Path to Resilience

Responding to: Part B Theme 3 (Regional, remote and equity considerations) - specifically the questions on how current funding arrangements encourage efficient service delivery and what alternative service provision models are likely to improve performance. This section also addresses the PC's Finding 6.2 (2024): infrastructure investments not rigorously assessed against all available options.

2.1 The Problem with Centralised Infrastructure Economics

Australia's water sector has historically favoured large, centralised infrastructure designed to serve large populations over decades. This model is poorly suited to dispersed regional communities where demand is relatively low, pipeline extension costs per connection are disproportionate, supply corridors carry single points of failure, and lead times for major infrastructure are measured in years or decades.

2.2 The Modular Alternative: Right-Sized, Staged, Scalable

Modular water supply technologies offer a fundamentally different capital deployment model:

- Right-sizing: capacity matched to current demand rather than projected peak demand, reducing stranded asset risk.
- Staged investment: initial units deployed quickly, with capacity added as demand warrants.
- Replicability: a design proven and approved once can be replicated across multiple sites at significantly lower marginal regulatory cost.
- Portability: modular assets can be relocated if community circumstances change.
- Competitive procurement: modular technology markets are contestable, placing downward pressure on unit costs over time.
- Reliable, sustainable supply: For modular seawater desalination solutions in particular, the source of water is not weather dependent or impacted by climate change.

SeaWell's marine desalination platform exemplifies this model. A system proven and approved at Streaky Bay can be replicated across other Eyre Peninsula coastal communities - Elliston, Ceduna - creating regional supply diversification through replication rather than a single large infrastructure project. The platform's modular design means capacity can be configured to match each community's specific demand profile, whether that is supplementing a pipeline connection or replacing a constrained bore supply entirely.

2.3 Capital Allocation Framework Implications

The Commission should ensure capital allocation frameworks credit: lifecycle optionality from staged investment and avoided stranded asset risk; resilience value from supply diversification; and replication value, where a technology proven at one site can be replicated at similar sites at lower marginal cost. These are systematically undervalued in frameworks designed for large centralised projects.

Part B - Section 3: Pricing Reform: Nodal Transparency and Tariff Innovation

Responding to: Part B Theme 1 (Pricing and economic regulation) - specifically the questions on how pricing determinations balance service reliability, long-term financial viability, and affordability; and what specific pricing reforms would materially improve outcomes. This section also addresses PC Finding 6.1 (2024): some governments have moved away from NWI commitments to deliver cost-reflective pricing.

3.1 The Cross-Subsidy Reality: Proceeding with Care

Before recommending pricing reform, it is important to acknowledge a structural tension that the Commission will need to address directly: SA Water's statewide uniform pricing actively cross-subsidises regional customers. Whether in Ceduna, Elliston, Streaky Bay, or Campbelltown, residential customers currently pay the same price per kilolitre. For communities on the Eyre Peninsula, where the true long-run marginal cost (LRMC) of supply via the Tod Trunk Main significantly exceeds the uniform tariff, this cross-subsidy represents a material benefit.

This creates a genuine policy tension. If statewide pricing were replaced with fully cost-reflective nodal tariffs, regional communities would likely face higher water bills, not lower ones. SeaWell does not advocate for that outcome. Consumer protection must be built into any pricing reform from the outset, not added as an afterthought. The appropriate sequencing is:

- First: publish nodal LRMC as a planning and procurement tool - available to councils, investors, and regulators, but not automatically changing what consumers pay.
- Second: use that transparency to calibrate the existing inclining block tariff by zone, so that conservation signals are meaningful and Tier 3 revenue can fund regional resilience investment, without increasing baseline bills for essential household use.
- Third: introduce connection charges on new development, so that growth funds the capacity it requires rather than drawing on existing customers' bills.
- Fourth: enable avoided-cost credits for communities that invest in local supply, reducing their net SA Water bulk charge - improving supply resilience while keeping consumer bills stable or reducing them over time.

This sequencing ensures that nodal transparency serves its intended purpose - enabling better investment decisions - without becoming a vehicle for immediate tariff increases on communities that are already economically constrained. The analytical work has already been done: ESCOSA's 2015 regional study identified 12 Water Infrastructure Zones across SA Water's network with materially different supply costs. Publishing those figures costs nothing and changes no tariff. It simply allows the system to make better decisions.

3.2 Tariff Structure Analysis

The following table analyses seven candidate tariff structures relevant to this inquiry. Where mechanisms already exist in Australian jurisdictions, this is noted. The consumer protection principle - that transparency should precede any tariff differentiation, and that essential household use must remain protected regardless of nodal cost differences - is reflected in the design notes for each structure.

Tariff Structure	How It Works	Strengths	Limitations / Status
Two-Part Tariff(Capacity + Volume)	Fixed capacity charge recovers infrastructure and capital costs. Separate volumetric charge recovers operational costs.	Separates fixed and variable cost recovery. Supports utility revenue stability. Foundation of most Australian utility tariffs.	Fixed charge can be regressive for low-income households. Already the standard structure in SA and nationally.
Increasing Block Tariff (IBT)[EXISTS in SA - reform needed]	Volumetric price rises in steps as consumption increases. SA Water already applies three-tier inclining block tariff to residential customers statewide.	Rewards conservation. Cross-subsidises essential use. Signals scarcity at high-use levels. Platform for reform exists in SA already.	Current SA IBT uses flat statewide thresholds ignoring regional cost differences. No separate agricultural track. Tier 3 revenue not ring-fenced for capacity investment.
New Connection Charge[EXISTS in NSW, WA, Vic - NOT in SA]	One-time charge on new connections sized to marginal cost of capacity at that node. NSW reintroduced IPART-regulated charges July 2024 after decade at zero.	Impactor-pays principle. Prevents existing customers cross-subsidising growth. Revenue can fund new supply capacity. Nationally consistent reform opportunity.	SA Water has no developer contribution framework. Ring-fencing revenue to node-specific capacity funds (proposed here) has no national precedent.
Nodal / Zonal Pricing	Different tariff rates at different nodes reflecting LRMC of supply to each location. ESCOSA modelled 12 SA supply zones in 2015 - never publicly disclosed. Reform starts with disclosure, not tariff differentiation.	Accurately reflects geographic cost differences. Enables competitive evaluation of alternatives. Analytical groundwork already done in SA. When paired with essential-use protections, can improve investment efficiency without harming consumers.	Must be introduced in stages: LRMC disclosure first, then optional zonal calibration of IBT tiers, with Tier 1 (essential use) protected from any zonal adjustment. Full tariff differentiation should only follow once consumer safeguards are established.
Supply Resilience Tariff	Dedicated tariff component funds a regional water security reserve, ring-fenced for resilience infrastructure including distributed supply.	Makes cost of resilience visible and fundable. Dedicated revenue stream for distributed supply investment. Reduces reliance on ad-hoc grant funding.	Requires clear governance of the resilience fund. May face resistance without visible local benefit. No existing national precedent.
Avoided-Cost Credit	Communities or councils investing in local supply receive a credit reflecting costs they avoid imposing on the network, equivalent to the network's avoided LRMC.	Directly incentivises distributed supply. Analogous to solar feed-in tariffs. Credit rate derived from nodal LRMC. Key enabler for third-party supply model.	Requires robust avoided-cost methodology. Network operators may resist. Dependent on nodal LRMC being published first.
Seasonal / Scarcity Pricing	Volumetric tariffs vary by season or in response to	Reduces consumption during scarcity. Incentivises on-site	Creates billing uncertainty. Requires smart metering. No

	declared supply scarcity events.	storage and efficiency. Can reduce peak demand on constrained corridors.	known Australian utility has implemented real-time variable pricing for water.
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Reforming SA's existing IBT: three targeted changes

SA Water's residential inclining block tariff already provides the structural platform. Three reforms would substantially improve its effectiveness for regional supply contexts:

Tier	Consumption Band	Rate Signal	Policy Purpose
Tier 1(Essential)	0–150 L/person/day	Below cost-reflective rate	Protects affordability for essential household use. Consistent with social licence and existing statewide pricing intent.
Tier 2(Standard)	150–400 L/person/day	Cost-reflective rate (zone-calibrated)	Covers full operational cost at this supply node. Reform needed: thresholds should vary by zone LRMC, not apply as flat statewide rates.
Tier 3(Scarcity premium)	Above 400 L/person/day	Above cost-reflective rate	Signals scarcity. Reform needed: revenue ring-fenced to a regional Resilience Tariff reserve rather than absorbed into general utility revenue.

A fourth reform, absent from SA entirely, is a separate IBT track for agricultural and commercial customers. SA Water's current inclining block tariff applies only to residential customers; commercial customers face a single volumetric rate. Eyre Peninsula aquaculture, grain, and livestock industries face high-volume water requirements that a residential-style IBT would penalise inappropriately. Separate agricultural tracks with calibrated thresholds reflecting productive-use profiles are necessary to maintain conservation signals without damaging regional industry.

3.3 New Connection Charges: Catching SA Up and Going Further

Infrastructure contribution charges on new water connections are well established in several Australian jurisdictions. NSW reintroduced IPART-regulated contributions from July 2024, following a Productivity Commission recommendation that the previous zero-charge policy - in place since 2008 - had cost existing Sydney Water customers an estimated \$200 per year in cross-subsidy. WA's Water Corporation and Victoria's ESC both operate standard and negotiated developer contribution frameworks. SA Water has no equivalent.

SeaWell recommends SA adopt connection charges, and go further than existing state models by ring-fencing revenue at the node level. Revenue collected on new connections in high-LRMC zones like the outer Eyre Peninsula should be held in a node-specific capacity fund available to finance new supply capacity - including distributed alternatives. This creates a direct funding pathway from growth-driven demand to local supply investment, without requiring that investment to compete within SA Water's metropolitan-priority capital program.

Preferred layered framework

SeaWell recommends a layered framework: (1) a two-part tariff as the base structure; (2) reformed IBT with regional calibration and agricultural tracks; (3) nodal LRMC public disclosure; (4) connection charges ring-fenced to node capacity funds; (5) a Supply Resilience Tariff; and (6) an avoided-cost credit scheme enabling commercial third-party supply into SA Water's network at a rate derived from nodal LRMC. This last element is addressed further in Section 6.

Part B - Section 4: Regulatory Reform: Coastal Zoning Overlays

Responding to: Part B Theme 2 (Governance, accountability and coordination) - specifically the questions on overlapping or fragmented responsibilities across agencies, and what reforms would strengthen accountability and improve outcomes. Also relevant to Theme 4 (National consistency) - in which areas would national consistency deliver net benefits.

4.1 The Consenting Barrier for Coastal Water Infrastructure

One of the most significant barriers to deploying marine-based water supply infrastructure is the cost and time associated with site-by-site environmental and planning assessment. For each proposed installation, proponents must commission fresh marine environment assessments, prepare planning applications across multiple agencies, and navigate regulators with overlapping jurisdiction over coastal, foreshore, marine, and land-use domains. For a community-scale project, this overhead is disproportionate.

4.2 The Environmental Case for a Standalone Coastal Water Overlay

Marine desalination buoys represent a category of coastal infrastructure with a genuinely modest environmental footprint, and the consenting framework should reflect that. The characteristics of the technology support a streamlined, standalone overlay approach:

- **Scale:** a moored marine desalination unit is a small, low-profile structure with minimal visual or navigational impact on the coastal environment.
- **Reversibility:** a moored system can be removed or relocated without lasting seabed disturbance, presenting a materially lower environmental risk than fixed coastal or marine structures.
- **Brine discharge:** concentrated brine from a reverse osmosis system requires management, but at community scale in an open coastal environment, dilution is rapid and well understood. Discharge protocols are established in international practice and manageable through zone-level standards rather than site-by-site assessment.
- **Noise and visual amenity:** the operational profile of a marine desalination buoy is low, with no landscape-scale transformation of the coastal environment.
- **Cumulative impact:** multiple small desalination units along a coastline have predictable, manageable cumulative effects that are well-suited to zone-level assessment, reducing rather than increasing regulatory complexity compared to site-by-site review.

These characteristics mean that a Coastal Water Infrastructure Overlay can be designed around the specific, well-understood attributes of marine desalination technology. A zone-

level strategic environmental assessment can establish clear, science-based standards for deployment within designated coastal corridors - making individual project approvals faster and more certain, while maintaining genuine environmental oversight at the appropriate scale.

The Commonwealth's Offshore Electricity Infrastructure Act 2021 provides a useful governance template: it establishes a declared-area licensing model, with ministerial declaration following public consultation and multi-agency input, within which individual projects are assessed against zone standards. That model operates beyond three nautical miles. The Coastal Water Infrastructure Overlay proposed here applies the same logic to state coastal waters within three nautical miles - the zone where marine desalination buoys are most practically deployed and where state planning jurisdiction is clear.

A Coastal Water Infrastructure Overlay designed specifically for marine desalination and similar coastal water infrastructure - with standards calibrated to the technology's environmental profile - offers a faster, lower-cost approvals pathway that is proportionate to the genuine environmental risk involved. It does not require analogy to any other sector. The case for it stands on its own merits.

4.3 State Coastal Waters: Design for State Control

A SeaWell marine desalination installation anchored close to shore would sit within state coastal waters - inside the three-nautical-mile boundary where state and territory laws govern, not Commonwealth legislation. This is both a constraint and an advantage. It is a constraint because a national framework under Commonwealth powers cannot directly compel state consenting reform. It is an advantage because state governments have direct planning, coastal management, and environmental jurisdiction over this zone and can act without the Commonwealth's participation.

The Commission should frame its recommendation as guidance to states for action within their own planning systems, rather than a proposed Commonwealth framework that risks being delayed by jurisdictional complexity or state reluctance. The recommended form is a model Coastal Water Infrastructure Overlay provision that states can incorporate within their existing planning codes - analogous to the way model provisions have been used in other national reform contexts to encourage jurisdictional consistency without mandating it.

In South Australia specifically, the Planning and Design Code already provides for designated overlay zones. The Coastal Protection and Management Act provides the environmental framework. SA Marine Parks provides spatial data on coastal environmental values. The institutional architecture for a Coastal Water Infrastructure Overlay Zone exists - it requires political will and a model provision, not new legislation from scratch.

Under the overlay model, state authorities would: designate Coastal Water Infrastructure Overlay Zones based on strategic environmental criteria; conduct a single zone-level assessment establishing baseline conditions and acceptable technology parameters; issue zone development standards against which individual projects are assessed by compliance rather than full EIA; and require proponents to demonstrate compliance and lodge notification with relevant agencies, rather than seeking fresh approval from each independently.

A single Eyre Peninsula Coastal Water Infrastructure Overlay Zone assessment could provide the consenting framework for SeaWell deployments at Streaky Bay, Elliston, Ceduna, and other coastal communities across the region - achieving both planning efficiency and regional water security objectives simultaneously.

4.4 Technology-Neutral Regulation: Broader Reform

Beyond the Coastal Overlay, SeaWell recommends the Commission examine: network connection standards ensuring decentralised water supply has a clear pathway to existing distribution networks; a tiered approvals framework scaling regulatory burden to project scale; a single-coordination-point model for multi-agency coastal approvals; and a technology-neutrality test applied to all proposed water regulation to prevent structural advantages accruing to centralised supply models.

Part B - Section 5: Financing: Adapting South Australia's CWMS Model

Responding to: Part B Theme 3 (Regional, remote and equity considerations) - specifically the questions on alternative service provision models, structural factors affecting provider viability, and what reforms would improve equity outcomes without undermining financial sustainability. Also relevant to Theme 2 (Governance) on whether responsibilities between levels of government are sufficiently clear.

5.1 The CWMS Precedent - and Its Limits

South Australia has a well-established model for financing community-scale water infrastructure outside the SA Water utility framework: the Community Wastewater Management Scheme (CWMS). Local government currently operates 175 CWMS across 50 SA councils. The SA Government provides \$4.1 million annually through the Office of Local Government as a subsidy, with the Department of Health and Wellbeing setting operating standards and the EPA issuing licences for larger schemes.

Key structural features of the CWMS model relevant to a water supply adaptation: council asset ownership and management; LGFA concessional long-tenor finance; cost recovery through annual service charges on connected properties; SA Government capital co-contribution; and augmentation charges on new connections (applied by some councils including the Barossa Council) providing a direct precedent for node-specific connection charge ring-fencing.

It is essential to be precise: the CWMS model applies exclusively to wastewater collection and treatment. There is no SA Government program, LGFA facility, or Water Industry Act provision that currently extends the council-ownership, service-charge-recovery, and state-subsidy model to drinking water supply infrastructure. Extension requires deliberate legislative action, not just intent.

5.2 Council Operation of Drinking Water: Interstate Context and Caution

The proposition that councils could own and operate drinking water supply assets is not novel nationally. In Queensland, New South Wales, and Victoria, many smaller communities are served by council-owned water utilities rather than state utilities. Independent regulated entities such as regional councils or special purpose water boards operate water supply

infrastructure under state licensing frameworks in these jurisdictions, with cost recovery through service charges.

However, the Commission and the SA Government should proceed with appropriate caution, informed by the experience at Coober Pedy. The Coober Pedy Corporation - a council-operated utility - has faced serious and sustained difficulties in operating its water supply system reliably, including infrastructure failures and financial sustainability challenges. While the Coober Pedy case reflects specific local conditions (extreme remoteness, small population, desalination-based supply using a different technology), it illustrates that council operation of drinking water supply is not without risk, particularly where technical complexity, maintenance capacity, and financial reserves are constrained.

SeaWell's preferred model - council ownership of the asset with SA Water retaining network operation and customer service responsibility under a third-party access arrangement - explicitly separates asset ownership from water system operation. The council funds and owns the desalination unit; SA Water operates the distribution network and maintains the customer relationship. This division of responsibility captures the financing and accountability benefits of the CWMS model while keeping technical water system operation within SA Water's competency.

5.3 The Adapted Community Water Supply Scheme (CWSS) Model

Under a CWSS adapted from the CWMS framework:

- The council commissions and owns the SeaWell marine desalination asset, sized to meet demonstrated community demand.
- LGFA provides long-tenor concessional finance (20 – 30 year tenor) spread over the asset's useful life.
- Annual debt service and operational costs are recovered through a Water Security Service Charge on connected properties, levied as a separate service charge alongside council rates.
- SA Water's bulk supply charge to the council is reduced by the volume of water injected into the network by the local asset, creating a direct financial offset against the new service charge.
- The SA Government provides an upfront capital co-contribution recognising the strategic value of regional water security, reducing the LGFA borrowing and lowering the annual service charge to ratepayers.

The legislative and policy changes required are specific and bounded: amendment of the Water Industry Act 2012 to recognise council-owned distributed supply assets; establishment of an LGFA lending facility for potable supply infrastructure; definition of a state capital co-contribution program; and a regulatory pathway under ESCOSA for CWSS service charges. These are achievable reforms within the existing institutional landscape.

5.4 Recommended National Recognition

The Commission should recommend the National Water Agreement explicitly recognise council-led, LGFA-financed Community Water Supply Schemes as a legitimate and fundable delivery model, and that SA Government undertake the minimum legislative review to enable the CWSS model with Streaky Bay as the pilot site.

Part B - Section 6: Third-Party Access: The Critical Policy Unlock

Responding to: Part B Theme 1 (Pricing and economic regulation) - specifically the questions on regulatory incentives and efficiency, and what reforms would support efficient and prudent capital expenditure. Also relevant to Theme 2 (Governance) on how current arrangements support coordination between water supply options and service providers.

6.1 Why Third-Party Access Matters

The most commercially attractive and regionally transformative deployment model for SeaWell is not standalone community supply - it is third-party injection into SA Water's existing distribution network. Under this model, SeaWell produces potable water at a coastal marine desalination installation on the Eyre Peninsula and supplies it into SA Water's Tod Trunk Main or local reticulation infrastructure on a commercial basis, diversifying the regional supply base and providing a locally produced, climate-independent source for multiple communities simultaneously.

This model is superior to standalone community supply for several reasons. It does not require communities to exit the SA Water system or take on operational responsibility for water supply. It leverages existing infrastructure - the Tod Trunk Main already connects Eyre Peninsula communities to a central distribution network; a new local source feeding into that network reaches all those communities without individual reticulation assets. And it aligns with SA Water's own interest in regional supply resilience, potentially making SA Water a partner rather than a counterparty.

6.2 Current Barriers to Third-Party Access

SA Water currently operates as the monopoly provider of potable water through its network. There is no established framework for third-party access to SA Water's distribution infrastructure by independent water producers. The barriers are both regulatory and commercial:

- No regulated access regime: unlike the energy sector, there is no access code or regulated third-party access framework for SA Water's water distribution network. A third party wishing to inject water into the network would need to negotiate access terms bilaterally with SA Water, in the absence of any regulatory reference point.
- No standard water quality acceptance framework: SA Water would need to accept that water injected by a third party meets its quality standards. Establishing the quality assurance, testing, and liability framework for third-party injected water requires regulatory definition.
- No pricing methodology for access credits: there is no established methodology for calculating the credit or avoided cost payment that SA Water would make to a third-party supplier whose water displaces Murray River supply in the local network. The avoided-cost credit mechanism proposed in Section 3 is the vehicle for this payment, but it requires a nodal LRMC disclosure framework to provide the reference price.
- Capital contribution framework: SA Water may require a capital contribution from a third-party supplier connecting to its infrastructure, but there is no standard framework for calculating or regulating such contributions in the water context.

6.3 Recommended Reforms for Third-Party Access

SeaWell recommends the Commission address third-party access to water distribution infrastructure directly. The energy sector provides the relevant framework analogy: regulated third-party access to distribution networks, reference tariffs, and connection standards are foundational to a competitive distributed energy market. The same principles should apply to water.

Specifically, the Commission should recommend:

- A regulated third-party access framework for water distribution networks, establishing reference terms, conditions, and pricing principles for independent water producers seeking to inject into utility-owned networks.
- Standard water quality acceptance protocols enabling SA Water (and other utilities) to receive third-party injected water against defined quality standards, with a clear liability and assurance framework.
- An avoided-cost credit methodology derived from published nodal LRMC, providing the reference price for third-party supply agreements and ensuring that distributed producers are compensated at a rate reflecting the true value of supply they provide.
- A standard capital contribution framework for network connection by third-party suppliers, preventing SA Water from imposing arbitrary or unreasonable connection costs as a de facto barrier to entry.

Third-party access reform is the single policy change that would most directly enable SeaWell's commercial model on the Eyre Peninsula. Without it, distributed water supply remains confined to standalone community systems. With it, a SeaWell installation at Streaky Bay could supply water into SA Water's network serving the entire western Eyre Peninsula - and a deployment at Elliston could end that community's sole dependence on a constrained bore - transforming the regional resilience case from community-scale to regional-scale.

7. Sustainability and Long-Term Resilience

7.1 Environmental Credentials and Net Zero Compatibility

SeaWell's marine desalination platform operates using UV and Reverse Osmosis technologies proven in marine environments. Power requirements can be sourced from renewable generation - coastal wind and solar - positioning the technology as compatible with the net zero transition. The modular design means energy source can be upgraded independently of the water treatment system, providing a pathway to fully renewable-powered desalination as the energy transition progresses.

7.2 Supporting Agricultural and Industrial Demand

The Eyre Peninsula is home to significant aquaculture, grain, and livestock industries, all water-dependent and growing. Distributed desalination capacity sited close to communities and industries can serve these demands more efficiently than centralised pipeline supply. Critically, a reliable, locally produced water source would reduce these industries' exposure to the supply reliability and quality risks inherent in the current single-pipeline model.

8. Recommendations: What Already Exists and What Needs to Change

The following table summarises each recommendation against its existing jurisdictional precedent and the specific reform required.

Recommendation	What already exists	Specific reform required
1. Nodal LRM public disclosure	ESCOSA 2015 study identified 12 SA supply zones with different costs. NSW provides optional LRM guidance tools.	Mandatory public disclosure of nodal LRM as a planning tool. Disclosure reform only - analytical work already done.
2. IBT reform (not introduction)	SA Water three-tier inclining block tariff already live for residential customers. Nationally widespread.	Regional tier calibration by supply zone; separate agricultural tracks; ring-fence Tier 3 revenue to Resilience Tariff reserve.
3. Connection charges (SA adoption + ring-fencing)	NSW (IPART, from July 2024), WA Water Corporation, Victorian ESC all operate developer contribution frameworks.	SA adoption aligned with national best practice, plus node-specific ring-fencing to local capacity funds - a national first.
4. Coastal Water Infrastructure Overlay Zone	Commonwealth OEI Act declared-area model for offshore energy >3nm. No equivalent for coastal waters or water infrastructure anywhere.	State-level standalone overlay (not linked to offshore wind). SA Planning and Design Code overlay. Model provision for national consistency.
5. CWMS extension to drinking water (CWSS)	175 SA CWMS schemes for wastewater. Council water utilities common in Qld, NSW, Vic. Coober Pedy a cautionary example.	Water Industry Act amendment; LGFA lending facility for potable supply; state co-contribution program; ESCOSA service charge pathway.
6. Third-party access to SA Water network	Regulated third-party access frameworks exist in energy sector. No equivalent in any Australian water jurisdiction.	Regulated access framework; standard water quality acceptance protocols; avoided-cost credit methodology; standard connection contribution framework.

SeaWell respectfully makes the following formal recommendations to the Productivity Commission. For each, the problem addressed, priority rationale, and key implementation risks are noted in accordance with the Call for Submissions guidance.

1. Mandate Public Disclosure of Nodal LRM

Problem: Statewide uniform pricing obscures the true cost of supply at remote nodes, preventing councils and investors from making informed decisions about local alternatives. **Priority:** ESCOSA's 12-zone analysis already exists - this is a disclosure reform only, achievable without new modelling or immediate tariff changes. **Implementation risk:** SA Water may resist on commercial grounds. The Commission should frame disclosure as a planning obligation under ESCOSA's regulatory determination, not a voluntary undertaking.

2. Reform SA's Existing IBT and Introduce Node-Linked Connection Charges

Problem: SA Water's inclining block tariff applies flat statewide thresholds with no agricultural track and no ring-fencing of scarcity-tier revenue. SA also lacks the developer contribution framework standard in NSW, WA, and Victoria. **Priority:** Both are targeted

reforms to existing or nationally proven mechanisms. Implementation risk: IBT calibration requires robust nodal LRMC data (dependent on Recommendation 1). Agricultural IBT tracks require careful threshold design to avoid penalising legitimate productive use. Connection charges require a transition plan to avoid deterring residential development.

3. Establish a Standalone Coastal Water Infrastructure Zoning Overlay

Problem: Site-by-site environmental and planning assessment for community-scale coastal water infrastructure is disproportionate in cost and time, creating a structural barrier to distributed supply. Priority: No equivalent pre-assessment framework exists in any Australian state for coastal water infrastructure. Implementation risk: This is a state-level planning reform - the Commission can recommend it but cannot compel it. The recommended form is a model overlay provision for states to adopt within their own planning codes, reducing but not eliminating the risk of state-by-state delay. The overlay must be designed as a standalone water infrastructure mechanism, distinct from offshore wind regulation, to avoid importing the political controversy of that sector.

4. Extend the CWMS Financing Model to Drinking Water Supply

Problem: The CWMS financing model (175 schemes, proven over decades) applies only to wastewater. No equivalent mechanism exists for council-led potable water supply investment. Priority: Extension requires specific legislative steps (Water Industry Act amendment, LGFA mandate extension) but not new institutional invention. Implementation risk: Council operation of drinking water supply carries operational risk, as evidenced by Coober Pedy. The preferred operating model - council asset ownership with SA Water retaining network operation - mitigates this risk by keeping technical operation within SA Water's competency. The Commission should specify this operating model as a condition of any national recognition.

5. Establish a Third-Party Access Framework for Water Distribution Networks

Problem: There is no regulated access framework for independent water producers seeking to inject potable water into utility-owned distribution networks in any Australian jurisdiction. SA Water operates as the monopoly provider with no reference terms for third-party access. Priority: The energy sector's third-party access frameworks have demonstrated that regulated network access is foundational to a competitive distributed supply market. The same logic applies directly to water. Implementation risk: SA Water may resist as the incumbent network operator. The Commission should draw on the National Electricity Rules framework as the model, including independent price oversight of access terms, to prevent the incumbent from using connection costs as a de facto barrier to entry.

6. Endorse an Eyre Peninsula Water Resilience Pilot Program

Problem: The reforms above are mutually reinforcing - nodal disclosure enables connection charges; connection charges fund local capacity; CWSS financing deploys that capacity; third-party access makes the investment commercially viable. A pilot program on the Eyre Peninsula would apply all reforms together, generating evidence for the national framework. Priority: The PC's 2024 assessment specifically identified 'continue water security planning and investment' as SA's key priority. The Eyre Peninsula pilot is the most direct expression of that priority available. Implementation risk: Requires genuine state-federal co-investment and SA Water's cooperation as a network partner. Community engagement on the implications for local water supply responsibility must be early and genuine.

Conclusion

The Productivity Commission's National Water Reform 2026 inquiry is an opportunity to reset Australia's water policy frameworks for a world of greater climate uncertainty, more distributed technology, and growing pressure on regional supply systems.

The Eyre Peninsula - and Streaky Bay in particular - illustrates both the problem and the opportunity. The problem is not cost: statewide pricing means regional users are already partially protected from the true expense of their supply. The problem is quality and reliability: a single pipeline from the Murray is the only source, and that is a vulnerability that no amount of tariff reform addresses. Seawater desalination directly solves the problem.

What this submission demonstrates is that the building blocks for a solution are closer than they might appear. SA Water's inclining block tariff exists - it needs calibration and an agricultural track. ESCOSA's nodal LRMC analysis exists - it needs to be published. The CWMS financing model works for 175 wastewater schemes - it needs legislative extension to drinking water supply. The OEI Act's declared-area governance model works for offshore energy - a simpler, standalone version for coastal water infrastructure needs to be created at state level. And the energy sector's third-party access frameworks have demonstrated that regulated network access enables distributed supply at scale - the same logic needs to be applied to water.

None of these are sweeping new programs. They are precise extensions of what already works, applied to close the specific gaps that prevent commercially viable, reliable, locally produced water supply from reaching communities that need it most.

SeaWell welcomes the opportunity to present to the Commission and to participate in stakeholder consultation as the inquiry progresses.