Enabling distributed water supply for regional coastal communities

Supplementary submission to the Productivity Commission, National Water Reform 2026

Responding to the interim update on water services reform directions (June 2026)

Submitted by SeaWell, further to submission no. 27. Lodged ahead of the 10 July 2026 closing date.

Australia is among the highest proportionally populated coastal nations on earth, yet many regional coastal communities depend for their water on long, single-source pipelines drawing on distant inland supplies. That arrangement is expensive to extend or expand and exposed to drought, climate stress and single points of failure. As a result, the draft National Water Agreement's first outcome, reliable access to safe water for regional and remote communities, cannot be met for these communities by pipeline augmentation alone. Locally produced seawater desalination can diversify supply at almost any point along the coast. Because it produces water at the point of demand, it avoids both the network augmentation and the long-distance pumping energy that delivering supply to the far end of a long pipeline requires; this avoided augmentation is the central economic case for distributed supply. At community scale it also disperses brine into open, well-flushed coastal water where it dilutes rapidly, a materially smaller environmental footprint than the single concentrated outfall of a large centralised plant. The reforms set out in this submission would allow that option, together with other distributed and lower operating-expenditure options, to be assessed and funded on a level basis with conventional centralised infrastructure. The benefit is national and technology-neutral: it accrues to communities, and to any producer able to supply them, rather than to a single proponent.

This submission is lodged by SeaWell, a developer of distributed marine desalination whose low-energy units have operated at a United States Navy desalination test site, and which has been engaged by the District Council of Streaky Bay, on the western Eyre Peninsula of South Australia, to assess a local deployment. It is written from the perspective of a proponent seeking to deliver distributed supply in practice, and identifies the specific points at which current pricing, regulatory and funding settings prevent that delivery for communities that need it. Streaky Bay is used below as a representative case: it depends on a single long-distance pipeline and its local groundwater source is now exhausted.

SeaWell welcomes the Commission's interim update and supports its central direction: that secure, resilient and sustainable services depend on settings under which the lowest-cost option can prevail on a level basis. The interim update reflects two foundational principles: cost-reflective pricing accompanied by transparent cross-subsidies, and the equal treatment of distributed and operating-expenditure options alongside capital-intensive utility infrastructure. The underlying difficulty is that the framework was built for centralised, capital-intensive supply and continues to disadvantage distributed alternatives. This submission identifies several mechanisms that would correct that imbalance but are not yet addressed in the interim update, maps each to the Commission's information requests, and requests that they be carried into the final report. It also proposes a refinement to the pricing analysis: the appropriate reference price for distributed supply is the utility's avoidable cost, inclusive of deferred augmentation, rather

than its full long-run marginal cost. The mechanisms are presented in order of their alignment with the interim update.

1. Equal footing for distributed supply (Information Request 2)

The interim update acknowledges that current pricing and regulatory arrangements “favour utility infrastructure over alternatives such as … distributed water sources,” and Information Request 2 asks how options that incur operating expenditure may be “assessed on an equal footing with capital intensive options.” That direction is well founded. Equal footing requires more than statements of intent; it requires capital-allocation frameworks that expressly credit the value distributed supply creates and that centralised frameworks systematically overlook.

The comparison with a large centralised desalination plant is instructive. Because a distributed unit needs no fixed seawater intake or brine outfall structure, it can be built on a shorter program, carries less embedded carbon, and can be scaled to demonstrated demand rather than built ahead of it; its lower energy intensity can be met from renewable generation, and the same modest footprint eases environmental approval, as discussed in section 5. These are the practical advantages of a scaled, fit-for-purpose alternative that a level assessment framework should be able to recognise.

The Commission should ensure that capital-allocation and planning frameworks credit:

- the network augmentation cost, and associated pumping energy, that supply at the point of demand defers or removes, which current frameworks attribute to the centralised option but rarely to its distributed alternative;
- lifecycle optionality and avoided stranded-asset risk created by staged, right-sized investment;
- resilience value delivered by supply diversification away from single-source dependency; and
- replication value, where a technology proven once may be deployed across comparable sites at lower marginal cost.

The enabling instrument is disclosure of cost at the node. At present, neither of the two figures that matter is published. Zonal long-run marginal cost analysis largely exists (for example, ESCOSA's Sapere zonal work in South Australia) but is not disclosed, while regional augmentation cost is priced case by case and is not published at all. The figure that governs investment comparison is the utility's avoidable cost: marginal operating and pumping cost where spare capacity exists, together with the pipeline and pumping augmentation that local supply defers or removes. This submission recommends disclosure of both zonal long-run marginal cost and avoidable cost, inclusive of augmentation, at the node, as a planning and procurement obligation distinct from any change to consumer tariffs. Such disclosure alters no tariff and protects no incumbent; it enables councils, investors and regulators to compare local alternatives against the true cost of supply.

2. Connection charges directed to local capacity (Improve charging for growth)

The interim update's treatment of developer charges, including the New South Wales experience of returning from zero charges to cost-reflective contributions, aligns closely with the position taken here. This submission supports cost-reflective connection charges and asks the Commission to address one further aspect of their design: where such charges are levied in high-cost regional nodes, the revenue should be ring-fenced at the node level within a capacity fund available to finance new supply, including distributed alternatives, rather than absorbed into a utility's metropolitan-priority capital program. This establishes a direct funding pathway from growth-driven demand to the local supply that demand requires. A suitable venue already exists in South Australia: the State Government's review of augmentation charging for the 2028 to 2032 regulatory period, which the Commission may identify as the appropriate forum to establish node-level, ring-fenced charging.

3. A regulated third-party access framework (Box 1 and Information Request 4)

Box 1 endorses regulatory processes that "facilitate effective competition in potentially contestable parts of the industry," and Information Request 4 invites alternative service-delivery models. The injection of water into an existing distribution network is precisely such a contestable activity, yet no regulated access regime for independent water producers exists in any Australian jurisdiction. This is the single most significant opportunity to unlock value through commercially viable distributed supply, and this submission asks the Commission to address it directly in the final report. Drawing on the energy sector as the established model, the framework should provide:

- reference terms, conditions and pricing principles for the injection of water into utility-owned networks;
- standard water-quality acceptance protocols supported by a clear assurance and liability framework;
- an avoided-cost credit methodology, so that distributed producers are remunerated at a rate reflecting the value they provide; and
- a standard capital-contribution framework, so that connection costs cannot operate as a de facto barrier to entry.

With respect to the credit methodology, the appropriate benchmark is the utility's avoidable cost rather than its full long-run marginal cost. Where an existing desalination plant constitutes a sunk cost already recovered through the regulated asset base, its full long-run marginal cost overstates what the utility avoids by accepting third-party water. The avoided cost comprises marginal operating and pumping cost together with any augmentation that local supply defers.

Streaky Bay illustrates the principle, and the constraint is live. The District Council of Streaky Bay reports that the existing potable pipeline from Poochera is no longer meeting demand, that no new development areas are being connected, and that some connection requests are being

refused; in early 2026 the council sought state funding for a water supply options paper to weigh pipeline expansion against alternative water options (District Council of Streaky Bay 2026). Relieving the constraint by conventional means requires augmenting the roughly 60-kilometre Poochera to Streaky Bay trunk line, increasing its diameter or duplicating it to carry the pressure and flow needed to reach the coast without starving inland users. That cost is not published, but it can be interpolated: SA Water's current Ceduna upgrade, about $37 million for a 4.5 megalitre tank and a 12-kilometre pipeline, implies a far-west reinforcement rate of the order of $2.5 million to $3 million per kilometre, which over 60 kilometres, with associated storage and pumping, points to an augmentation cost of the order of $200 million.

That South Australia is building the Billy Lights Point desalination plant near Port Lincoln, at a revised capital cost of about $470 million for 5.3 gigalitres a year, confirms the underlying logic: at scale it has already chosen desalination over extending supply across long distances. A central plant, however, still relies on the trunk network to convey water some 300 kilometres to the far end, so demand at Streaky Bay still forces the Poochera augmentation and still carries conveyance pumping cost and single-line risk. Distributed production at the point of demand takes the same logic one step further, producing water where it is consumed and avoiding that augmentation and conveyance; the council's own call to weigh pipeline expansion against alternatives is precisely the level assessment this submission asks the Commission to enable. The pattern of a coastal community at the far end of a long pipeline recurs across regional Australia, and the same avoidable-cost logic applies wherever it does. Priced against that avoidable cost, locally produced supply is comfortably economic, and a payment set above the retail tariff but below avoidable cost is defensible to the economic regulator as cost avoided rather than preference.

A regulated framework should further accommodate the available contracting structures, which include purchase by the council as a licensed minor retailer, bulk offtake by the utility under a water purchase agreement, and a capacity payment compensating the producer for augmentation deferred.

4. Recognition of council-led, fit-for-purpose delivery and funding models (Information Requests 4 and 5)

Information Request 4 addresses technology and infrastructure options that are “fit for purpose, place and people,” and Information Request 5 seeks predictable funding for small towns beyond the cycle of grant dependency. This submission asks the Commission to recognise council-led, government-financing-agency-backed Community Water Supply Schemes as a legitimate and fundable delivery model, adapted from South Australia's established Community Wastewater Management Scheme. To address the operational risk illustrated by council-operated supply at Coober Pedy, the model should separate asset ownership from network operation: the council owns and finances the asset, while the incumbent utility retains network operation and the customer relationship under a third-party access arrangement. This preserves the financing and accountability benefits of the model while retaining technical operation within established competency.

5. The consenting gap for coastal water infrastructure (Information Request 4)

A further barrier of particular relevance to coastal marine supply has no counterpart in the interim update: the disproportionate cost and time associated with site-by-site environmental and planning assessment for community-scale coastal water infrastructure. Information Request 4's reference to assisting providers to “navigate government approval … and regulatory processes” is the appropriate place to address it. This submission asks the Commission to recommend a model Coastal Water Infrastructure Overlay: a zone-level, pre-assessment approach that states may adopt within existing planning codes, designed for low-footprint marine desalination and kept distinct from offshore wind frameworks so as not to import the controversy attending that sector. The proportionate basis for such an overlay is the modest footprint of community-scale marine desalination: small, dispersed brine discharges into open, well-flushed coastal water present materially lower environmental risk than a single concentrated outfall, and are well suited to zone-level standards rather than repeated site-by-site assessment. Because community-scale units also avoid the fixed intake and outfall structures of a large plant, the environmental assessment task is smaller again; resolving this consenting gap would let that advantage translate into materially faster and more certain approvals for distributed supply, and a correspondingly quicker path to improved water security for the communities that depend on it.

Summary: alignment of the proposed reforms with the interim update

Proposed reform	Where it lands in the interim update	Status
Equal footing for distributed supply (technology-neutral capital allocation)	Information Request 2; update concedes settings favour utility infrastructure over distributed sources	Principle reflected
Node-linked connection charges, revenue ring-fenced to local capacity	Improve charging for growth section (developer charges)	Strongly reflected
Regulated third-party access, credit priced on avoidable cost	Box 1 competition principle; Information Request 4 (service delivery models)	Principle only
Disclosure of zonal LRMC and avoidable (augmentation) cost at the node	Cost-reflective pricing and cross-subsidy transparency; Information Request 5	Theme only
Council-led, LGFA-financed Community Water Supply Scheme (CWSS)	Information Requests 4 and 5 (delivery and funding for small communities)	Adjacent theme
Streamlined consenting for coastal water infrastructure	Not addressed; closest hook is Information Request 4 (navigating approvals)	Gap

Taken together, these reforms would allow distributed supply to compete on its merits wherever a coastal community faces the cost of augmenting a long pipeline, with direct application across regional coastal Australia. They are capable of implementation now, and not solely at the national level: two South Australian processes are presently open and directly relevant, the ESCOSA small-scale framework review, through which third-party local supply may be made creditable against avoidable cost, and the State Government's review of augmentation charging for the 2028 to 2032 regulatory period. The Eyre Peninsula, with Streaky Bay as a lead site, offers a ready setting in which to demonstrate the reforms in combination. SeaWell would welcome the opportunity to assist the Commission, and its initial submission (no. 27) provides further supporting detail and analysis.