

Distributed Generation Pricing Principles

Submission on the Electricity Authority's Issues Paper

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1. INTRODUCTION

1.1. PRELIMINARY

1. We welcome the opportunity to submit our views in response to the Electricity Authority's (the Authority's) Issues paper – "Distributed Generation Pricing Principles".
2. Section 1.2 of this document provides a summary of the key aspects of our feedback, with responses to the submission questions provided in Appendix A.
3. No part of our submission is confidential.

1.2. CONTEXT FOR CHANGE

4. The DGPPs were introduced in 2010 to encourage investment in distributed generation (DG) by limiting distribution charges to incremental costs. At the time, this approach was intended to address perceived imbalances in bargaining power and facilitate greater DG adoption. However, the energy landscape has evolved significantly:
 - Electrification is driving increased network costs, which are being passed on to consumers, aggravating affordability issues.
 - DG operators benefit from high wholesale market prices while avoiding network costs, creating an inequitable situation where consumers bear a disproportionate share of common network costs.
 - The ability of distributed generators to select networks introduces natural competitive pressures, reducing the need for regulatory intervention to protect them from excessive pricing.
5. Given these changes, it is no longer appropriate for consumers alone to bear shared network costs while DG benefits from access without fair contribution. The current pricing framework creates distortions that require reform.

Support for a Comprehensive Overhaul and Consistency in Pricing Principles

6. The Authority's proposal to comprehensively overhaul the DGPPs is a necessary step toward ensuring a level playing field between DG and load customers. We support this direction, particularly the recognition that evolving market conditions make it increasingly difficult to justify separate pricing principles for DG and load.
7. Currently, DGPPs require distributors to charge DG only the incremental cost of connection, incorporating the avoided cost of distribution (ACOD). We agree that there are limitations in this approach, particularly its inability to support cost-reflective pricing.

8. To avoid market distortions and confusion, DG pricing principles should align with those for load consumers. This would:
 - Simplify the regulatory framework by removing unnecessary complexity from multiple sets of pricing principles.
 - Ensure equitable treatment of all network users, recognising that both DG and load consumers benefit from access to the distribution network.
 - Provide a transparent methodology for cost recovery that reflects economic costs and encourages efficient investment.

9. Aligning DGPPs with broader distribution pricing principles will enable distributors to better reflect network costs, leading to more efficient investment decisions and pricing signals that match actual network benefits.

Distinguishing Between Distributed Generation and Flexibility Services

10. The Authority discusses the relationship between DG and flexibility services but does not fully address whether direct rebates for DG could discourage investment in flexibility.
11. The proposal treats DG rebates as a form of price-based flexibility, rewarding any injection at the right time and location. Meanwhile, contracted flexibility, typically managed by aggregators, involves structured agreements that provide distributors with a predictable response. DG and flexibility services are not necessarily interchangeable. Flexibility providers offer controlled, dispatchable responses, whereas mass-market DG, such as rooftop solar, is often intermittent and cannot always be relied upon at peak times.
12. The Authority acknowledges that where a distributor contracts flexibility through an aggregator, the value of additional DG injection may be limited. However, this raises further questions:
 - Should EDBs be required to offer solar export tariffs if a flexibility provider is already managing network constraints?
 - If multiple flexibility providers exist, how should rebates be structured to avoid distorting competition?

13. The Authority should clarify how it differentiates between passive DG and actively managed flexibility to avoid unintended consequences, such as crowding out aggregator-led demand response or misallocating rebates in ways that do not reflect actual network benefits.

Distribution and Transmission Pricing Consistency

14. The pricing framework should also consider disparities between transmission and distribution-connected generators. Unlike grid-connected generators, DG currently avoids contributing to shared network costs, despite using distribution infrastructure. Ensuring consistency between transmission and distribution pricing would prevent inefficient incentives and ensure all generators contribute fairly to network costs.

Appendix A. CONSULTATION QUESTIONS – DISTRIBUTED GENERATION PRICING PRINCIPLES

Q1. Do you have a view on the definition of incremental cost that is contained in the Code? Should it be more tightly defined to include only network costs and to exclude consequential costs relating to factors such as frequency keeping and voltage support? Would this lead to more timely generation build and lower energy costs?

We believe that the definition of incremental cost should be clearer. The Authority should also ensure that distributed generation pricing is more reflective of actual network costs. Under the current framework, distributed generators gain network access without contributing fairly to shared infrastructure costs, which creates an artificial advantage over grid-connected generators. This pricing imbalance risks distorting investment signals and leading to inefficient outcomes where distributed generation is prioritised, even when grid-connected alternatives may be more cost-effective.

Q2. Do you agree with the problems with the incremental cost limit identified in this section? Why or why not? Do you have a view on the relative importance of the problems identified?

While the intent of the DGPPs in 2010 was to ensure that DG could connect to the network without undue barriers, the incremental cost limit now appears to be restricting efficient network investment and cost recovery. By preventing distributors from recovering more than incremental costs, the current framework limits the ability to plan for future DG connections, discourages efficient investment in shared infrastructure, and results in higher long-term costs for consumers.

The incremental cost limit also creates an artificial advantage for distributed generators over grid-connected generators. Grid-connected generators contribute to common network costs through transmission charges, while DGs only pay for their direct connection costs. This disparity means that consumers bear the burden of network upgrades and shared infrastructure costs, rather than the parties who benefit from them.

Q3. Do you agree circumstances have changed significantly since the DGPPs were introduced, including that there are now far fewer impediments to DG than in the early 2000s?

We agree that circumstances have changed significantly. When the DGPPs were first implemented, the primary concern was ensuring that DG could connect to distribution networks without facing excessive costs or unfair treatment by distributors. At the time, DG was relatively uncommon, and policymakers aimed to encourage its development as a viable alternative to large-scale grid-connected generation.

However, the energy landscape has evolved considerably. The cost of distributed energy technologies, such as solar and battery storage, has declined substantially, making DG

more competitive without regulatory intervention. Additionally, DG is now more modular and scalable, meaning it is no longer constrained by location-specific resources in the way it once was. This increased competitiveness suggests that the original justification for the DGPPs—particularly the incremental cost limit—may no longer apply in the same way.

Q4. Do you agree with the assessment of the current situation and implications of incremental cost pricing? If not, why not? What if any other significant factors should the Authority be considering?

We broadly agree with the assessment of the current situation.

Q5. Do you agree these are the appropriate options to consider?

We broadly agree.

Q6. Are there other options the Authority should consider for improving rules about costs that can be recovered from distributed generators?

We have no comments at this time.

Q7 Will new aggregator business models emerge to solve the problem?

The Authority treats DG rebates as a form of price-based flexibility, rewarding any injection at the right time and location. However, flexibility services managed by aggregators typically involve structured agreements that provide distributors with a predictable response. These two approaches are not necessarily interchangeable. While flexibility providers can offer controlled, dispatchable responses to network needs, mass-market DG, such as rooftop solar, is intermittent and cannot always be relied upon at peak times.

Q8. Are distribution price signals alternative to, or complementary to contracting?

We have no comments at this time.

Q9. Which, if any of the above options, do you consider would best support efficient pricing for recovery of distribution costs from DG?

Option 4, the comprehensive overhaul of the DG pricing principles, would best support efficient pricing for recovery of distribution costs from DG.

Q10. Do you agree with the Authority's tentative view on a solution? In particular:

- *Should efficient price signals be sent through a revised set of pricing principles?*
- *Would voluntary guidelines or mandating through the Code be the best approach?*
- *Should we rely on the distribution pricing principles outside the Code or codified new pricing principles for DG? Why?*

- Yes, efficient price signals should be sent through a revised set of pricing principles. This approach ensures that the pricing reflects the true economic costs and benefits associated with DG.
- Mandating through the voluntary guidelines would be a better approach.
- Guidelines outside the code would be preferred.

Q11. Are there any unintended consequences from removing the existing DGPPs?

- *Do you agree with the risks we have identified, and our assessment of them?*
- *Do you think there are any other risks we should consider associated with the removal of the DGPPs?*
- *Do you have any information that would allow the Authority to better assess such risks?*

We recognise that potential risks could be mitigated if the new pricing principles are carefully developed and clearly defined. If the revised framework offers stability and clarity for DG investors, the risks associated with removing the DGPPs may be reduced.

Q12. Do you agree market and regulatory settings provide efficient incentives for DG reducing or avoiding transmission costs? What, if any, other significant factors or options should the Authority consider?

We have no comments at this time.