

# Criteria for evaluating options to address common quality issues

3 July 2023

# Introduction

The Authority has developed a set of 7 criteria against which to evaluate options to address the identified issues with the common quality requirements in Part 8 of the Code

## Criteria for evaluating options to address common quality issues

1. The option is feasible / implementable with little or no risk of unintended consequences
  - Feasibility / ease of implementation, and little or no risk of unintended consequences are important
  - Preference is given to options/solutions that are flexible, scalable and relatively easily reversible
2. The option is consistent with the Authority's statutory objectives
3. The option promotes competitive neutrality amongst technologies / fuels
  - The option/solution should be neutral as to which technology / fuel can provide the required service/output
4. The option signals full costs and benefits
  - The option/solution should signal the full marginal costs and benefits to participants / consumers associated with alternative technologies / fuels providing the required service/output
5. The option is output-based rather than prescriptive
  - If practicable the option/solution should specify outcomes required of industry participants
6. The option is a market-based approach
  - Preference is given to market-based approaches to providing the required service/output, to promote innovation and transparency of the full costs and benefits of an option/solution
7. The option is durable
  - The option/solution should be durable across a range of uncertain future scenarios

## Criteria for evaluating options to address common quality issues – Notes

- The evaluation criteria are drawn from, in particular:
  - The Authority's Code amendment principles in the Authority's consultation charter
  - MDAG's proposed principles to guide the development of proposals by the FSR project, set out in MDAG's 6 December 2022 'Library of options' paper on price discovery in a renewables-based electricity system
  - The principles to guide the design of Code arrangements for new generating technologies set out in MDAG's 30 June 2020 final recommendations paper on enabling participation of new generating technologies in the wholesale electricity market

# Criteria for evaluating options to address common quality issues

## 1. *The option is feasible / implementable with little or no risk of unintended consequences*

- Feasibility / ease of implementation, and little or no risk of unintended consequences are important
- Preference is given to options/solutions that are flexible, scalable and relatively easily reversible

### Elaboration:

- The Authority considers that, when evaluating options to address common quality issues, the feasibility / ease of implementation of an option/solution, and the risk of an option/solution having unintended consequences, are important considerations.
- Preference is given to options/solutions that are flexible, scalable and relatively easily reversible (with relatively low value transfers associated with doing so). In these circumstances the Authority will monitor the effects of the implemented option/solution and reject, refine or expand that option/solution in accordance with the results from the monitoring.

## 2. *The option is consistent with the Authority's statutory objectives*

### Elaboration:

- The Authority's main statutory objective is "To promote competition in, reliable supply, and the efficient operation of, the electricity industry for the long-term benefit of consumers".
- The Authority's additional objective is to "protect the interests of domestic consumers and small business consumers in relation to the supply of electricity to those consumers".
- Refer to the Authority's interpretation of its original (2010) statutory objective for guidance on this criterion
  - NB: The Authority is yet to include an interpretation of its additional (December 2022) statutory objective in its interpretation document
- To further the Authority's statutory objectives, the benefits of an option must outweigh its costs
  - NB: This assessment of costs and benefits is a separate matter to the criterion 'Signal full costs and benefits'

## Criteria for evaluating options to address common quality issues

### 3. *The option promotes competitive neutrality amongst technologies / fuels*

- The option/solution should be neutral as to which technology / fuel can provide the required service/output

#### Elaboration:

- Reflecting a preference for greater competition, the option/solution should be neutral as to which technology / fuel can provide the required service/output in the most economically and technically efficient manner. The option/solution should facilitate a 'level playing field' from a competition standpoint -- that is to say, it should not 'pick winners' or give some technologies / fuels special treatment relative to others.

### 4. *The option signals full costs and benefits*

- The option/solution should signal the full marginal costs and benefits to participants / consumers associated with alternative technologies / fuels providing the required service/output

#### Elaboration:

- The option/solution should signal the full marginal costs and benefits to participants / consumers associated with alternative technologies / fuels providing the required service/output, including reliability, security of supply, voltage support and frequency keeping.

## Criteria for evaluating options to address common quality issues

### 5. *The option is a market-based approach*

- Preference is given to market-based approaches to providing the required service/output, to promote innovation and transparency of the full costs and benefits of an option/solution

#### Elaboration:

- Preference is given to market-based approaches to providing the required service/output, including reliability, security of supply, voltage support and frequency keeping, to promote innovation and transparency of the full costs and benefits of an option/solution.

### 6. *The option is output-based rather than prescriptive*

- If practicable the option/solution should specify outcomes required of industry participants

#### Elaboration:

- If practicable, the option/solution specifies the outcomes required of industry participants rather than prescribing what they must do and how they must do it. That is, outcome standards are preferred to input standards, wherever possible.

# Criteria for evaluating options to address common quality issues

## 7. *The option is durable*

- The option/solution should be durable across a range of uncertain future scenarios

### Elaboration:

- The option/solution should be durable across a range of uncertain future scenarios and allow for the efficient evolution of rules to enable better ways of providing the required service/output.
- Preference will be given to options/solutions that provide industry participants with greater freedom and lower costs to adapt to the option/solution as they see fit, unless more restrictive options/solutions are justified on the grounds of non-rivalry and/or non-excludability conditions.<sup>1</sup>
- Where these conditions (non-rivalry and non-excludability) hold perfectly, it is generally efficient to adopt a 'one size fits all' approach, such as uniform standards. Where these conditions do not hold, it may be more efficient to utilise flexible mechanisms, such as incentives.

<sup>1</sup> *A good or service is non-rival when additional consumption by one party does not reduce the amount available for any other party to consume. For example, electricity consumption is rival but security of supply is non-rival.*

*A good or service is non-excludable when it is not economically viable to exclude parties from consuming the good or service. For example, electricity consumption is excludable because retailers generally incur a relatively low economic cost to cut power supply to consumers that do not pay their electricity bills. On the other hand, market prices are non-excludable because it is too costly to prevent disclosure of prices to parties that do not contribute to the costs of operating the market.*



## Evaluation criterion 1 – evaluation rating

Evaluation criterion 1	Evaluation rating
The option is feasible / implementable with little or no risk of unintended consequences	<p>✓✓ Strongly feasible with no risk of unintended consequences (&lt;1 year to change the Code, &lt;2 years to change assets, &lt;\$10m implementation cost)</p>
	<p>✓ Moderately feasible with low risk of unintended consequences (&lt;2 years to change the Code, &lt;3 years to change assets, &lt;\$20m implementation cost)</p>
	<p>- Feasible with uncertain risk of unintended consequences</p>
	<p>xx Feasible but expensive to implement <u>or</u> has long implementation <u>and/or</u> moderate risk of unintended consequences (&gt;3 years to change the Code, &gt;5 years to change assets, &gt;\$50m implementation cost)</p>
	<p>xxx Feasible but expensive <u>and</u> has long implementation <u>and/or</u> significant risk of unintended consequences (&gt;5 years to change the Code, &gt;7 years to change assets, &gt;\$100m implementation cost)</p>

## Evaluation criterion 1 – evaluation rating (cont)

Evaluation criterion 1	Notes
The option is feasible / implementable with little or no risk of unintended consequences	<ul style="list-style-type: none"><li>• Evaluation criterion 1 and evaluation criterion 2 (consistency with the Authority’s statutory objectives) are considered more important than the remaining five evaluation criteria</li><li>• The ticks and crosses have been assigned to enable the summing of an option’s assessments under the seven evaluation criteria</li><li>• <b>Evaluation criterion 1 is used twice:</b><ul style="list-style-type: none"><li>○ <u>To remove from the long list of options</u> those options that are feasible but:<ul style="list-style-type: none"><li>▪ expensive or have a long implementation and/or a moderate risk of unintended consequences (&gt;3 year code change, &gt;5 year asset change, &gt;\$50m)</li><li>▪ expensive and have a long implementation and/or a significant risk of unintended consequences (&gt;5 year code change, &gt;7 year asset change, &gt;\$100m)</li></ul></li><li>○ <u>To prioritise the short list of options</u> based on the extent to which a short-listed option is flexible, scalable and relatively easily reversible (with there being relatively low value transfers associated with doing so)</li></ul></li></ul>

## Evaluation criterion 2 – evaluation rating

Evaluation criterion 2	Evaluation rating	
The option is consistent with the Authority's statutory objectives	✓✓✓	Strongly promotes one or more limbs (Expected net benefit > \$20m over 30 years)
	✓✓	Moderately promotes one or more limbs (Expected net benefit 0 to \$20m over 30 years)
	✓	Weakly promotes one or more limbs (Uncertain expected net benefit)
	xx	Uncertain whether promotes any limbs (No expected net benefit)

## Evaluation criterion 2 – evaluation rating (cont)

Evaluation criterion 2	Notes
The option is consistent with the Authority's statutory objectives	<ul style="list-style-type: none"><li>• Evaluation criterion 2 and evaluation criterion 1 (The option is feasible / implementable with little or no risk of unintended consequences) are considered more important than the remaining five evaluation criteria</li><li>• The main statutory objective is given more weighting than the additional statutory objective</li><li>• A 'limb' refers to any of the three limbs of the Authority's main statutory objective and also, for the purposes of this evaluation, the Authority's additional statutory objective</li><li>• Within the main statutory objective, 'reliable supply' is given more weighting than competition and efficiency</li></ul>

## Evaluation criterion 3 – evaluation rating

Evaluation criterion 3	Evaluation rating	
The option promotes competitive neutrality amongst technologies / fuels	<b>Yes</b> (✓✓)	Option is neutral as to which technology (synchronous / inverter-based) and fuel type can provide the required service/output
	<b>Somewhat</b> (✓)	One technology or one fuel type cannot provide the required service/output
	<b>Little</b> (x)	Two or three technologies and/or two or three fuel types cannot provide the required service/output
	<b>No</b> (xx)	Option requires a specific technology to provide the required service/output

## Evaluation criterion 3 – evaluation rating (cont)

Evaluation criterion 3	Notes
The option promotes competitive neutrality amongst technologies / fuels	<ul style="list-style-type: none"><li>• The ticks and crosses have been assigned to enable the summing of an option's assessments under the evaluation criteria</li><li>• The maximum of two ticks for 'yes' is intended to acknowledge that promoting competitive neutrality amongst technologies / fuels, while desirable, is not as important to an option's overall ranking as the first two evaluation criteria</li><li>• 'Technology' refers to synchronous and inverter-based technologies</li><li>• 'Fuel' refers to coal, gas, geothermal, hydro, hydrogen, solar, wind, etc.</li></ul>

## Evaluation criterion 4 – evaluation rating

Evaluation criterion 4	Evaluation rating
The option signals full costs and benefits	<p><b>Yes</b> (✓✓)</p> <p>Option signals the full marginal costs and benefits to participants / consumers associated with alternative technologies / fuels providing the required service/output (Marginal cost pricing and costs allocated to beneficiaries or causers)</p>
	<p><b>Somewhat</b> (✓)</p> <p>Marginal cost pricing and costs not allocated solely to beneficiaries or causers</p>
	<p><b>Somewhat</b> (✓)</p> <p>Non-marginal cost pricing and costs allocated to beneficiaries or causers</p>
	<p><b>No</b> (xx)</p> <p>Option does not signal the full marginal costs and benefits to participants / consumers associated with alternative technologies / fuels providing the required service/output (Non-marginal cost pricing and costs not allocated solely to beneficiaries or causers)</p>

## Evaluation criterion 4 – evaluation rating (cont)

Evaluation criterion 4	Notes
The option signals full costs and benefits	<ul style="list-style-type: none"><li>• The ticks and crosses have been assigned to enable the summing of an option's assessments under the evaluation criteria</li><li>• The maximum of two ticks for 'yes' is intended to acknowledge that signalling the full marginal costs and benefits of alternative technologies / fuels, while desirable, is not as important to an option's overall ranking as the first two evaluation criteria</li></ul>



## Evaluation criterion 5 – evaluation rating

Evaluation criterion 5	Evaluation rating	
The option is a market-based approach	<b>Yes</b> (✓✓)	Option is a market-based approach to providing the required service/output, to promote innovation and transparency of the full costs and benefits of an option/solution
	<b>Yes</b> (✓)	Option is a tender-based approach to providing the required service/output, to promote innovation and transparency of the full costs and benefits of an option/solution
	<b>Yes</b> (✓)	Option is a causer-pays approach or beneficiaries-pay approach to providing the required service/output
	<b>No</b> (xx)	Option is not a market-based / tender-based approach to providing the required service/output

## Evaluation criterion 5 – evaluation rating (cont)

Evaluation criterion 5	Notes
The option is a market-based approach	<ul style="list-style-type: none"><li data-bbox="741 401 2193 496">• The ticks and crosses have been assigned to enable the summing of an option's assessments under the evaluation criteria</li><li data-bbox="741 519 2237 668">• The maximum of two ticks for 'yes' are intended to acknowledge that a market-based approach, while desirable, is not as important to an option's overall ranking as the first two evaluation criteria</li></ul>

## Evaluation criterion 6 – evaluation rating

Evaluation criterion 6	Evaluation rating
The option is output-based rather than prescriptive	<p><b>Yes</b> (✓✓)</p> <p>Option focuses on the outcome required in relation to common quality and leaves participants to decide how best to achieve the outcome (A participant can enter into an equivalence arrangement)</p>
	<p><b>Somewhat</b> (✓)</p> <p>Theoretically possible for participants to decide how best to achieve the outcome</p>
	<p><b>Not practicable</b> (-)</p> <p>Option is prescriptive as to what a participant must do/provide to achieve the common quality outcome because an output-based option is not practicable  (A dispensation to a participant will not impose costs on other participants)</p>
	<p><b>No</b> (x)</p> <p>Option is prescriptive as to what a participant must do/provide to achieve the common quality outcome  (A dispensation to a participant will impose costs on other participants)</p>

## Evaluation criterion 6 – evaluation rating (cont)

Evaluation criterion 6	Notes
The option is output-based rather than prescriptive	<ul style="list-style-type: none"><li>• The ticks, crosses and null values have been assigned to enable the summing of an option's assessments under the evaluation criteria</li><li>• The maximum of two ticks for 'yes' are intended to acknowledge that an output-based approach, while desirable, is not as important to an option's overall ranking as the first two evaluation criteria</li><li>• The one cross for 'no' is intended to acknowledge that a prescriptive approach, while less favourable than an output-based approach, is not necessarily a bad design option</li></ul>

## Evaluation criterion 7 – evaluation rating

Evaluation criterion 7	Evaluation rating	
The option is durable	✓✓	The option is durable across a wide (>3) range of uncertain future scenarios that may happen in the next 15 years
	✓	The option is durable across a narrow (1-2) range of uncertain future scenarios that may happen in the next 15 years
	-	The option's durability is uncertain across 1-2 uncertain future scenarios that may happen in the next 15 years
	✗	The option is not durable across a wide (>3) range of uncertain future scenarios that may happen in the next 15 years
	✗✗	The option is not durable across a narrow (1-2) range of uncertain future scenarios that may happen in the next 15 years

## Evaluation criterion 7 – evaluation rating (cont)

Evaluation criterion 7	Notes
The option is durable	<ul style="list-style-type: none"><li data-bbox="718 382 2252 492">• The ticks and crosses have been assigned to enable the summing of an option's assessments under the evaluation criteria</li><li data-bbox="718 492 2252 648">• The maximum of two ticks for an option that is durable is intended to acknowledge that the degree of durability is not as important to the option's overall ranking as the first two evaluation criteria</li></ul>