



**Housekeeping:**

- Please turn your camera/mic off in plenary
- We will be recording
- Only registered attendees will be moved to breakout sessions
- Slido code: #2838448 – please add names to questions

# Net Zero Market Reform (NZMR): Market Reform Package Workshop

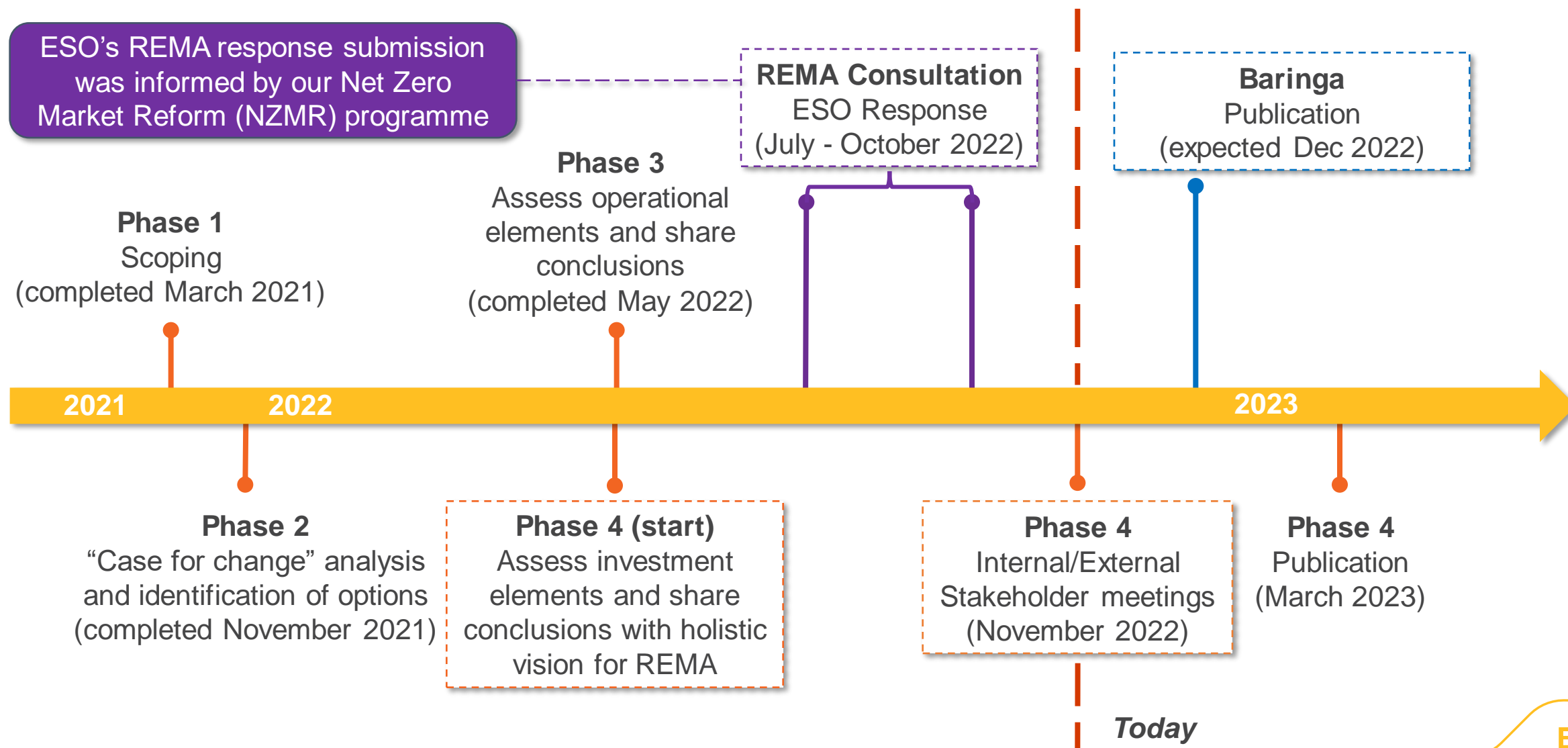
29/11/22

ESO

# Agenda

<i>Item</i>	<i>Timing</i>
Introduction and context	<b>13:30-13:40</b>
Baringa presentation:	<b>13:40-14:10</b>
a) Method and approach to package assessment	
b) Package composition and results from assessment	
Q&A session:	<b>14:10-14:35</b>
a) Clarification questions on Baringa's assessment	
b) Questions on technical coherency of packages	
Breakout: National, zonal or nodal package composition	<b>14:35-15:20</b>
a) Discussion in breakout groups	14:35-15:05
b) Playback to plenary	15:05-15:20
ESO next steps, feedback and close	<b>15:20-15:25</b>

Context: in Phase 4 of ESO's NZMR programme we are working with Baringa to assess market design options and to develop holistic packages



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Baringa presentation: a) Method and approach to package assessment b) Package composition and results from assessment	<b>13:40-14:10</b>
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# Net Zero Market Reform – Phase 4

External Stakeholder Session

Workshop Presentation

NG ESO

24 11 22



Baringa is a certified B Corp™ with high standards of social and environmental performance, transparency and accountability.

# Introduction

- The ESO's Phase 2 work on Net Zero Market Reform concluded that the current market design requires reform to achieve a secure Net Zero power system at lowest whole system cost.
- Phase 3 focused on the challenges arising in operational timescales and found that the existing market arrangements, established for a different type of electricity system, are increasingly incompatible from what is needed to achieve a cost-effective and secure decarbonised power system by 2035 and a Net Zero economy by 2050.
- As part of the Phase 3 assessment, options for the locational and dispatch design elements of system were assessed against a range of criteria. The assessment concluded that a nodal pricing system and a centralised dispatch mechanism is the ESO's recommended approach.
- Phase 4 continues the programme and intends to support BEIS and Ofgem in their market reform work.
- Phase 4 builds on Phase 3 by focusing on challenges that arise in the investment timescale, and considers the full range of options covered in BEIS's Review of Electricity Market Arrangements (REMA) consultation.
- **The objective of Phase 4 is to identify and assess credible packages of options that can adequately address the challenges identified and give the best chance of achieving timely, cost-effective decarbonisation and wider policy objectives.**



# Approach to package design

We have taken a six-stage approach for assessing policy options and packages of options

- 1 Develop sub-criteria (under 10 criteria from Phase 3)
- 2 Assess long-list of options against sub-criteria, with Status Quo as the counterfactual (unless stated)
- 3 Combine options to design packages for National, Zonal and Nodal pricing market designs reflecting least change. Results in 3 'Baseline' packages
- 4 Build on top of 'baseline' packages to design more optimal alternatives. Results in 3 'Build' packages
- 5 Assess the 3 Baseline packages against each other, using the criteria, which can be weighted depending on priorities
- 6 Assess each Build package against each other and relative to their corresponding Baseline

Process of combining options to develop a package

Criteria	Sub-criteria	Option 1	Option 2	Option 3	Option 4	...	Option X	Package 1-2-3
Criteria 1	Sub-criteria 1	🟢	🟢	🟡	🟢	...	🟢	🟢
	...	🟡	🟢	🟡	🟡	...	🟢	🟢
	Sub-criteria X	🟢	🟡	🟡	🟡	...	🟡	🟢
...	Sub-criteria 1	🔴	🟢	🟢	🟢	...	🟢	🟢
	...	🟡	🟡	🟡	🟡	...	🟡	🟡
	Sub-criteria X	🟡	🟢	🟡	🟡	...	🟡	🟢
Criteria X	Sub-criteria 1	🟡	🟢	🔴	🟢	...	🟢	🟢
	...	🟡	🔴	🟢	🟡	...	🟢	🟡
	Sub-criteria X	🟢	🟢	🟢	🟢	...	🟢	🟢

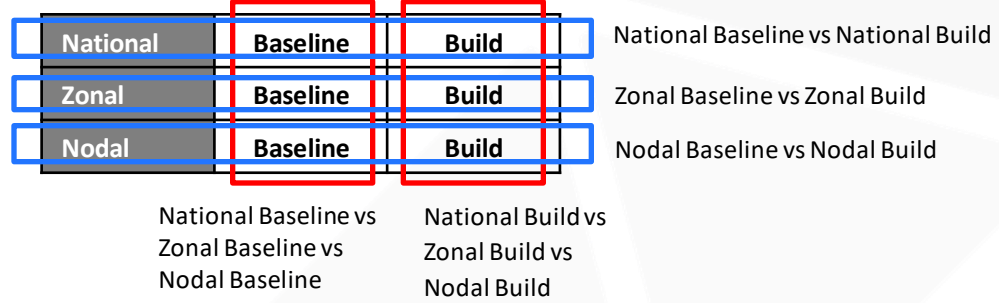
Option 4 incompatible with Option 1 - not combined in example package

Combining options 1, 2 and 3 results in a package that scores consistently better than the options on their own

**'Baseline' packages**  
 For a given pricing mechanism (national, zonal or nodal), what is a cohesive set of policies *entailing minimal deviation from existing policies*, which address, to some extent, the key areas in the case for change.

**'Build' packages**  
 For a given pricing mechanism, what cohesive set of policies would increase the confidence in achieving the REMA objectives (i.e. score more strongly against the assessment criteria).

The 6 packages



# Proposed Packages and Assessment



# List of options considered under baseline and build packages

System dimension	Policy option	Considered for 'Baseline'			Rationale	Considered for 'Build'			Rationale
		National	Zonal	Nodal		National	Zonal	Nodal	
Mass Low Carbon	Evolved CfD	✗	✓	✓	Changes required to accommodate zonal/nodal pricing	✗	✗	✗	Would be insufficient to remove market distortions as volumes of CfDs increase
	CfD with Deemed Output	✗	✗	✗	Significant change	✓	✓	✓	Would remove dispatch distortions
	CfD with Price Cap and Floor	✗	✗	✗	Significant change	✓	✓	✓	Would provide stronger indication of the value of electricity at different times and locations
	Revenue Cap and Floor	✗	✗	✗	Significant change	✓	✓	✓	Would reduce dispatch distortions
	Elective Participation	✓	✓	✓	Would allow greater role of market in determining generation mix	✓	✓	✓	As for Baseline
	Supplier Obligation	✗	✗	✗	Incompatible with coordinated delivery of large scale infrastructure	✗	✗	✗	As for Baseline
Capacity Adequacy	Evolved CM	✓	✓	✓	Changes required to promote low carbon flex	✓	✓	✓	As for Baseline
	Optimised CM	✗	✗	✗	Significant change	✓	✓	✓	Include combination of flex, carbon and locational dimensions in auction algorithm to strengthen market signals
	Centralised Reliability Option	✗	✗	✗	Significant change	✓	✓	✓	As above, but replacing with financial option that aligns better with centralised dispatch
	Decentralised Reliability Option	✗	✗	✗	Significant change	✓	✓	✓	As above, but replacing with decentralised financial option
	Reverse Reliability Option	✗	✗	✗	New mechanism	✓	✓	✓	Create stronger investment signals for long duration storage/demand turn up to reduce curtailment risk
	Strategic Reserve	✗	✗	✗	Option to bolster security of supply	✓	✓	✓	Option to bolster security of supply

New option

New option

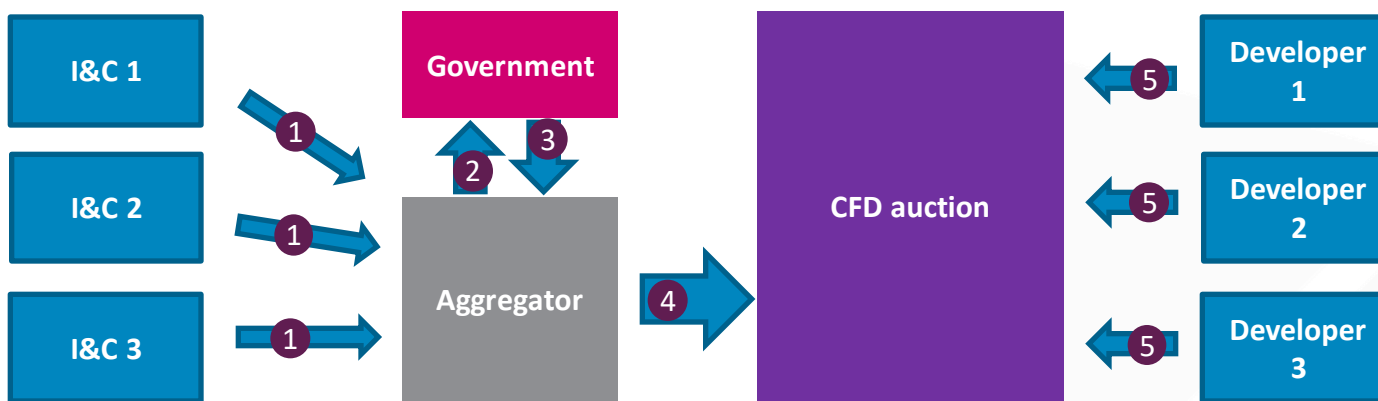
# List of options considered under baseline and build packages

System dimension	Policy option	Considered for 'Baseline'			Rationale	Considered for 'Build'			Rationale
		National	Zonal	Nodal		National	Zonal	Nodal	
Dispatch	Centralised dispatch	✗	✗	✓	Pre-requisite for nodal pricing	✓	✓	✓	Reduces the need for de-dispatch
	Self dispatch	✓	✓	✗	Least change option for national and zonal pricing	✗	✗	✗	Centralised dispatch likely to lead to better efficient operational outcomes
Operability	BAU	✗	✗	✗	Insufficient to promote low carbon flex	✗	✗	✗	As Baseline
	BAU+	✓	✓	✗	Necessary to promote low carbon flex	✗	✗	✗	Assumed co-optimisation with centralised dispatch
	Co-optimisation	✗	✗	✓	Integral to nodal pricing/centralised dispatch	✓	✓	✓	As Baseline
Other	Split Market	✗	✗	✗	Assuming gas/electricity price de-coupling can be achieved more easily through expansion of CfDs	✗	✗	✗	As Baseline
	Carbon Intensity reporting	✗	✗	✗	Improving carbon disclosure	✓	✓	✓	Could be used in conjunction with CfD opt out to ensure large consumers are meeting required decarbonization trajectory
	PTR/FTR	✗	✓	✓	Necessary for managing locational basis risk/grandfathering existing rights	✗	✓	✓	As Baseline
	Network Access and Charging Reform	✓	✗	✗	Considered as an alternative or transitional step to locational pricing	✓	✗	✗	As Baseline
	Settlement Period Reform	✗	✗	✓	Integral to nodal pricing/centralised dispatch	✓	✓	✓	Implementable with centralised dispatch
	Scarcity Adder	✗	✗	✗	Significant change	✗	✗	✓	In conjunction with wholesale price cap, could help limit market power under locational pricing whilst maintaining strong dispatch signal

New options

# Elective participation - CFD auction 2-way market example

## Simple design concept



- 1 Customers submit a 'complex' bid that specifies demand at different prices and in different years
- 2 Government assesses further need on the basis of policy goals
- 3 Government supplements demand if necessary
- 4 Third party aggregator puts the bids together to form a single demand curve and set of auction parameters
- 5 Generation developers submit bids into the CFD auction

### Advantages

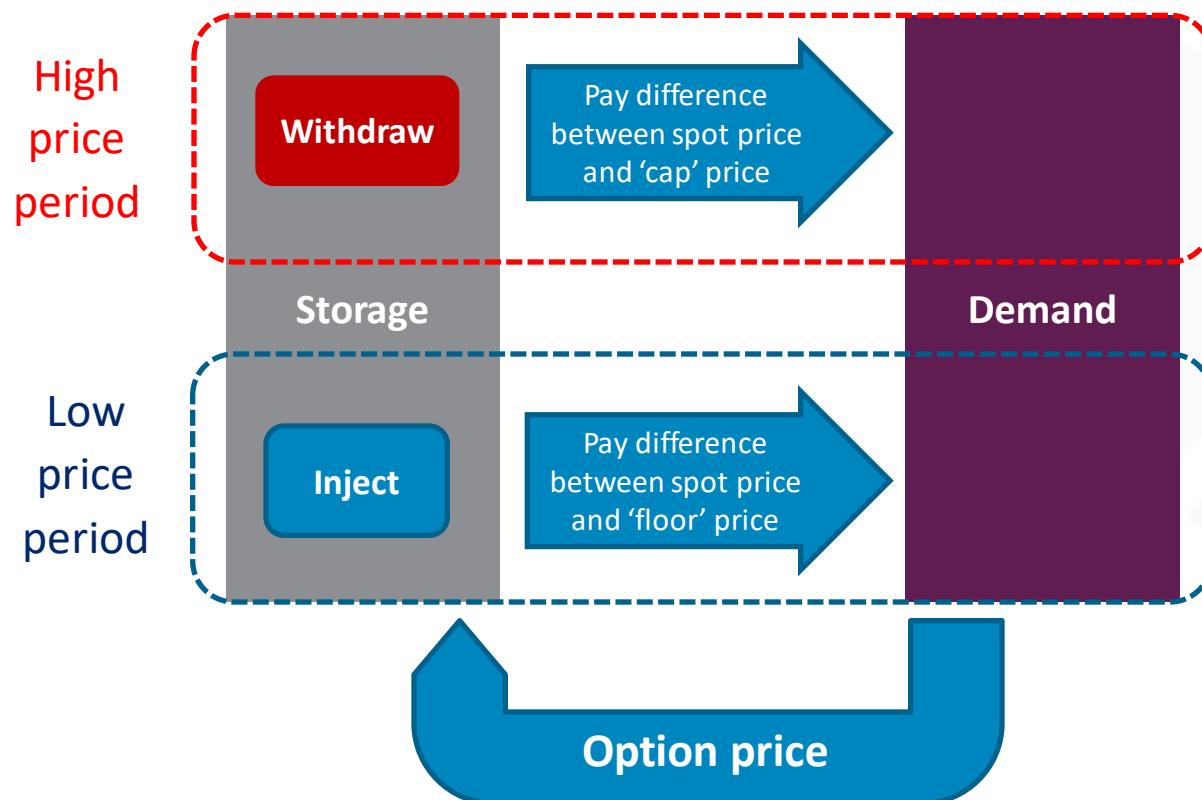
- Convergence on a single instrument currently covered by mandated CFDs and PPA market – liquidity benefits and economies of scale
- Enable corporates to lock in prices for a longer period – PPA terms are typically shorter than CFDs
- Obtain a credible signal of the willingness for commercial demand to lock in for an extended period

### Drawbacks

- It would not provide the same assurance of demand for CFD capacity as the current CFD scheme – the willingness to pay by commercial customers is not certain
- Commercial customers would have little motivation to subsidise development of more innovative renewable technologies (eg floating offshore wind or tidal)
- The scheme is unlikely to match the flexibility of the PPA market

# Reverse and regular reliability option for long duration storage (LDS)

## Simple design concept



### Description

- Akin to a Reliability Option in reverse – a put option rather than a call option
- The Reverse Reliability Option holder has the right to sell energy at a floor price
- This would provide the LDS developer with certainty on the 'injection leg'
- Combination of Reliability Option and Reverse Reliability Option could support LDS investment case
- Auctions for RO and RRO could be linked and they could be transacted as a single instrument

**Strengthens business case for LDS and sends stronger signal for all forms of demand turn up**

## Baseline packages

The 'Baseline' packages represent, for a given pricing mechanism, a cohesive set of policies entailing minimal deviation from existing policies.

	National Baseline	Zonal Baseline	Nodal Baseline
Pricing	National	Zonal	Nodal
Dispatch	Self	Self	Central
Mass Low C	Evolved CfD; Elective Participation	Evolved CfD; Elective Participation	Evolved CfD; Elective Participation
Cap Adequacy	Evolved CM	Existing CM	Existing CM
Operability	BAU+	BAU+	Co-optimisation
Other	Network Access and Charging Reform	PTRs/FTRs	FTRs; 5 min settlement

# Build Packages

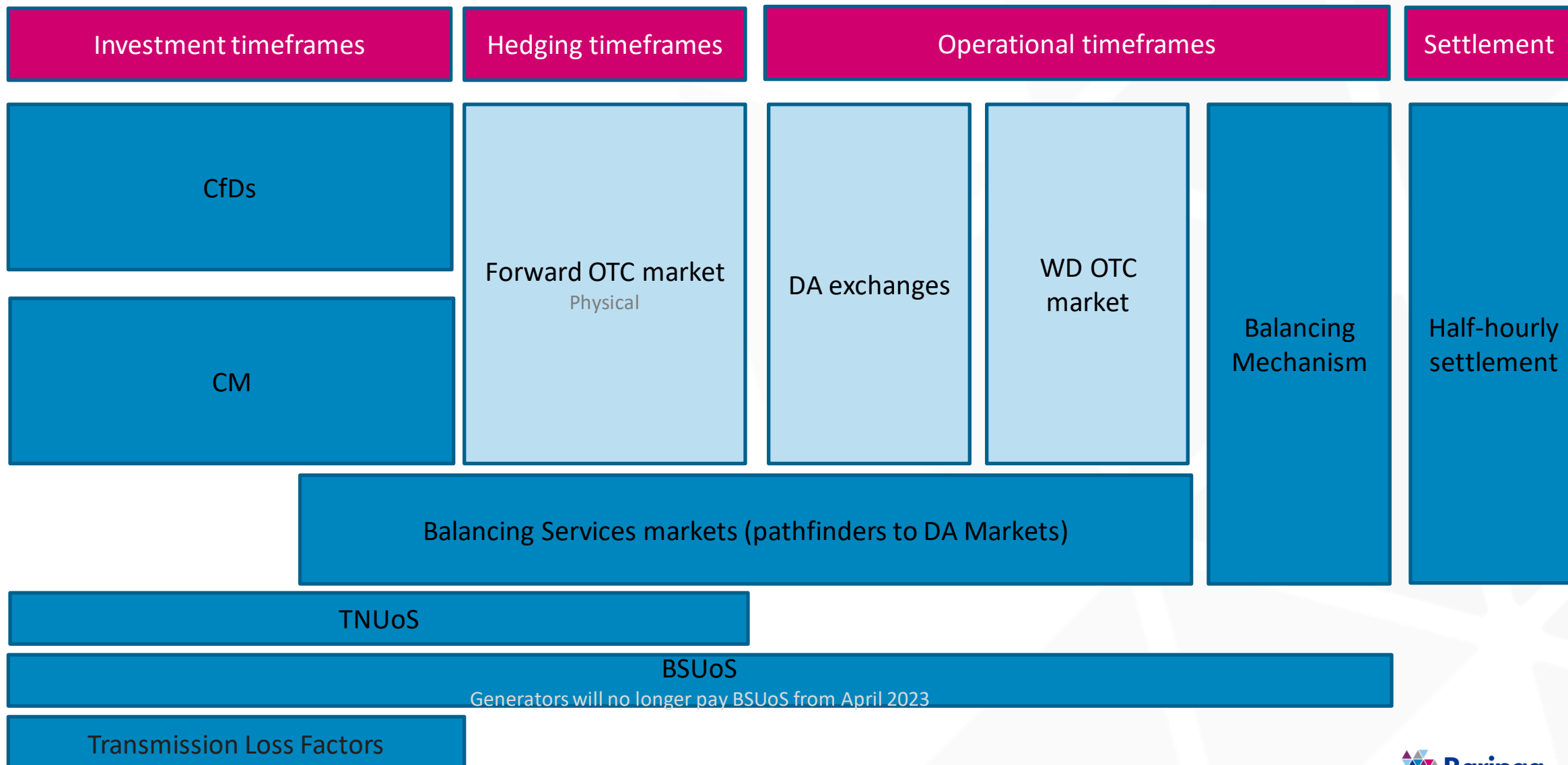
For a given pricing mechanism, what more optimal set of policies would increase the confidence in achieving the REMA objectives (i.e. score more strongly against the assessment criteria).

	National Build	Zonal Build	Nodal Build
Pricing	National	Zonal	Nodal
Dispatch	Central	Central	Central
Mass Low C	Revenue C+F; Elective Participation	Revenue C+F; Elective Participation	Revenue C+F; Elective Participation
Cap Adequacy	Optimised CM: Zonal, Min C, Flex	Optimised CM: Min C, Flex	CRO; RRO; Scarcity Adder; Strat Reserve
Operability	Co-optimisation	Co-optimisation	Co-optimisation
Other	Network Access and Charging Reform; 5 min settlement; Carbon Rep	FTRs; 5-min settlement, Carbon Intensity Rep	FTRs; 5-min settlement, Carbon intensity rep



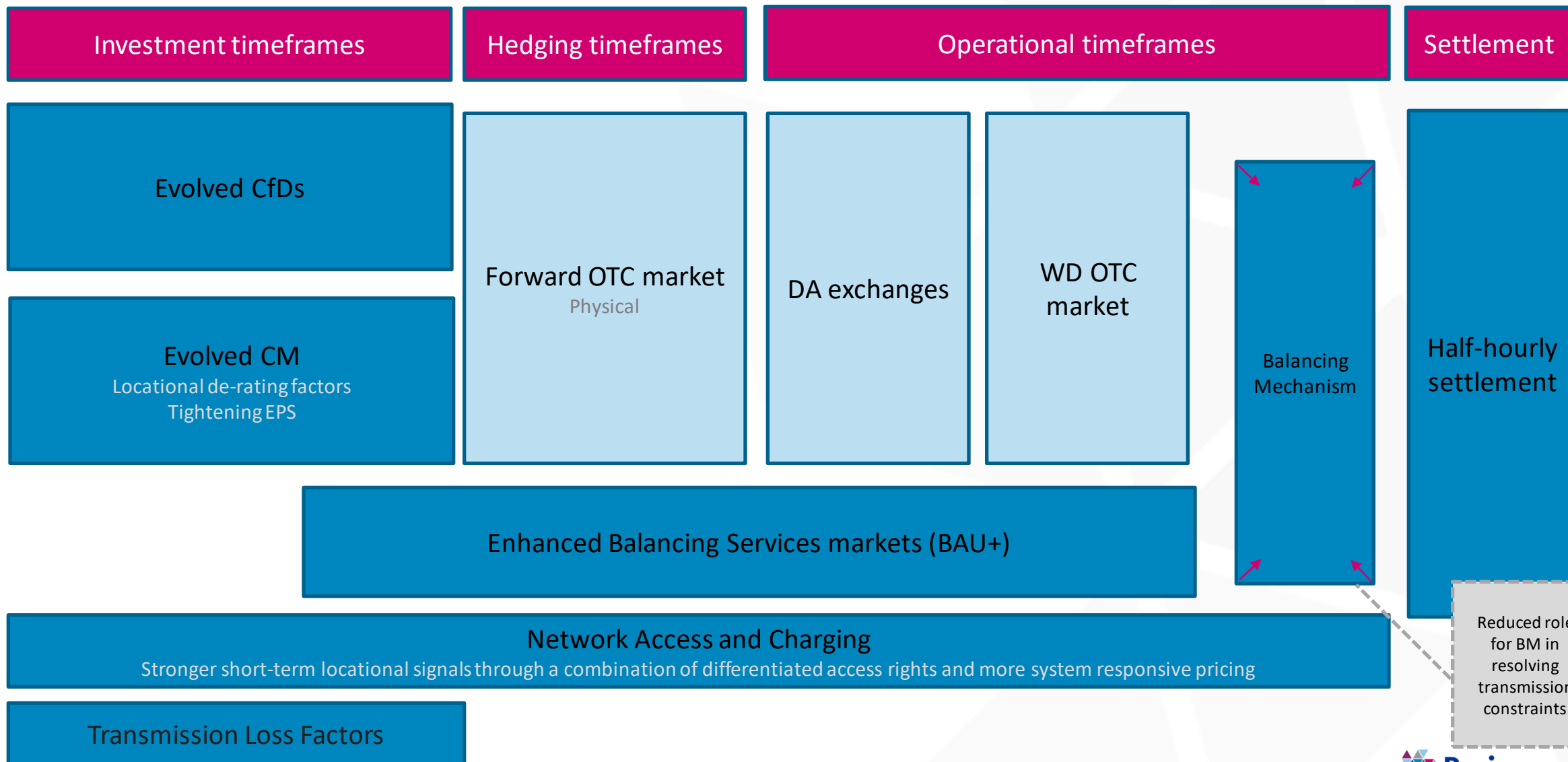
# National Pricing – Status Quo

Stylised representation of current electricity markets



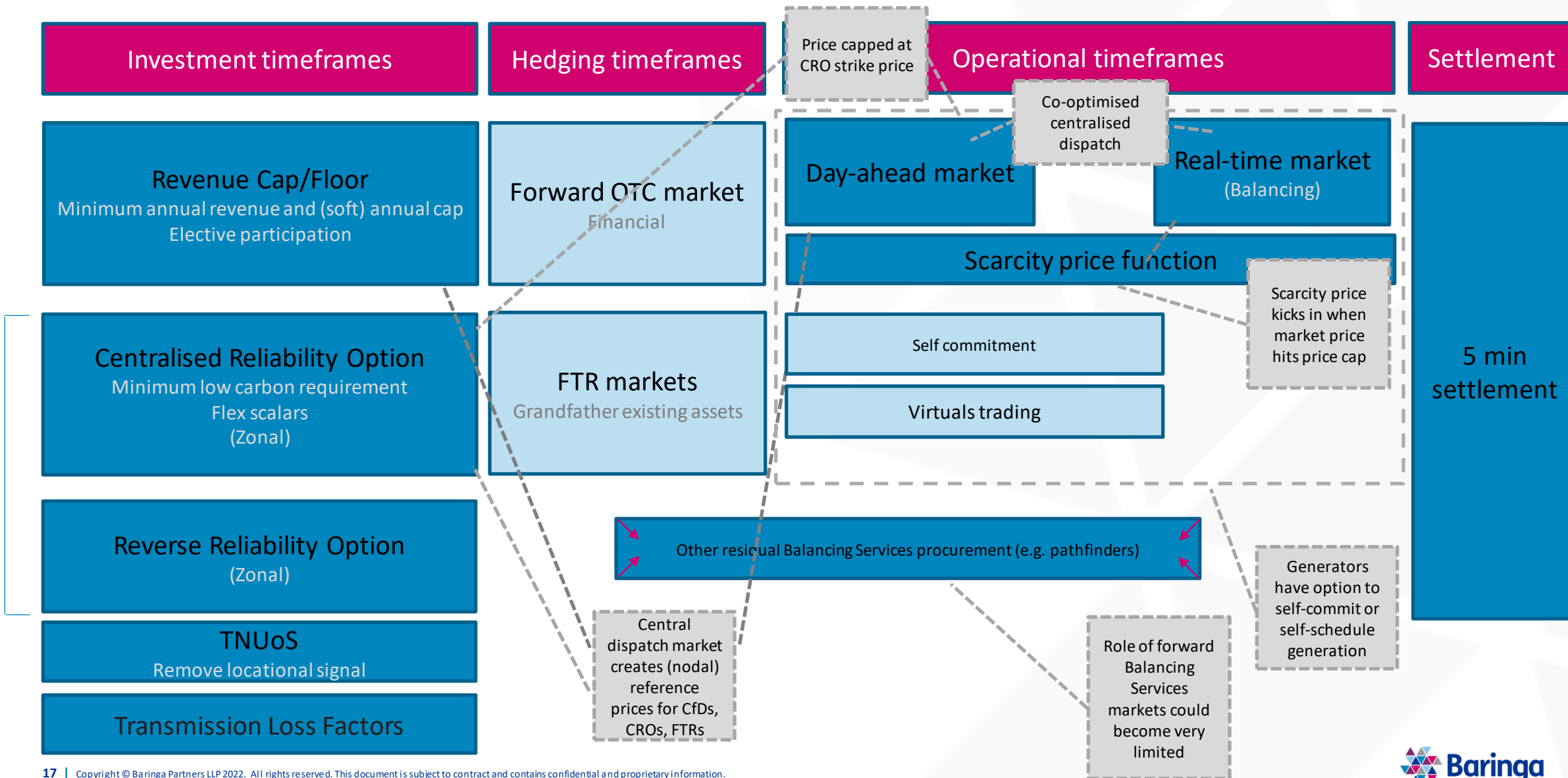
# National Pricing – Baseline

Evolution of CfDs and CM, with stronger short term locational signals through Access and Charging Reform



# Nodal Pricing – Build

Nodal pricing with centralised dispatch and scarcity price function; optimised CRO for nodal pricing



# Full package scoring

		National Baseline	National Build	Zonal Baseline	Zonal Build	Nodal Baseline	Nodal Build
<b>Value for Money</b>	Reduce relative proportion of redispatch						
	Improve operational efficiency of interconnectors						
	Ensure appropriate risk allocation for generation and demand	🟡	🟢	🟡	🟢	🟢	🟢
	Increase system flexibility						
	Reduce inefficient inframarginal rent						
<b>Competition</b>	Align markets/avoid distortions						
	Better target system costs through market signals						
	Promote greater inter-technology competition	🟡	🟢	🟡	🟢	🟢	🟢
	Promote greater market transparency						
	Reduce barriers to entry						
	Reduce risk of gaming or exploitation of market power						
<b>Investor confidence</b>	Respect existing legal framework and rights						
	Provide assurance for debt holders						
	Provide suitable incentives for equity	🟡	🟡	🟠	🟡	🟠	🟡
	Promote market liquidity						
	Minimise ongoing regulatory risk						
<b>Full chain flexibility</b>	Optimise investment in flexibility						
	Optimise dispatch of flexibility						
	Manage large and extended mismatches between supply and demand	🟡	🟡	🟡	🟢	🟢	🟢
	Promote demand side participation						
<b>Whole system</b>	Align investment incentives for cross-vector assets	🟡	🟡	🟡	🟡	🟡	🟢
	Align dispatch incentives for cross-vector assets						
<b>Adaptability</b>	Facilitate new and evolving business models						
	Reduce risk of lock-in or asset stranding	🟡	🟡	🟡	🟡	🟡	🟢
	Adapt to changing technology trends						
<b>Consumer fairness</b>	Limit adverse distributional impacts for consumers						
	Allow greater consumer choice	🟠	🟡	🟠	🟠	🟠	🟡
	Facilitate fair allocation of costs, based on cost-reflectivity						
<b>Energy security and system operability</b>	Ensure sufficient capacity to meet peak system needs						
	Ensure sufficient available energy and demand response to manage extended low renewable output	🟡	🟡	🟡	🟡	🟡	🟢
	Ensure sufficient responsive capacity to maintain system operability						
	Manage external shocks and unintended consequences						
<b>Decarbonisation</b>	Increase probability of achieving decarbonisation objective	🟡	🟡	🟡	🟢	🟡	🟢
<b>Challenge to implement</b>	Minimise policy complexity/interdependencies						
	Minimise market disruption						
	Reduce implementation cost	🟡	🔴	🔴	🔴	🔴	🔴
	Reduce risk of unproven solutions						
	Expedite implementation						
<b>Total</b>		🟡	🟡	🟡	🟡	🟡	🟢

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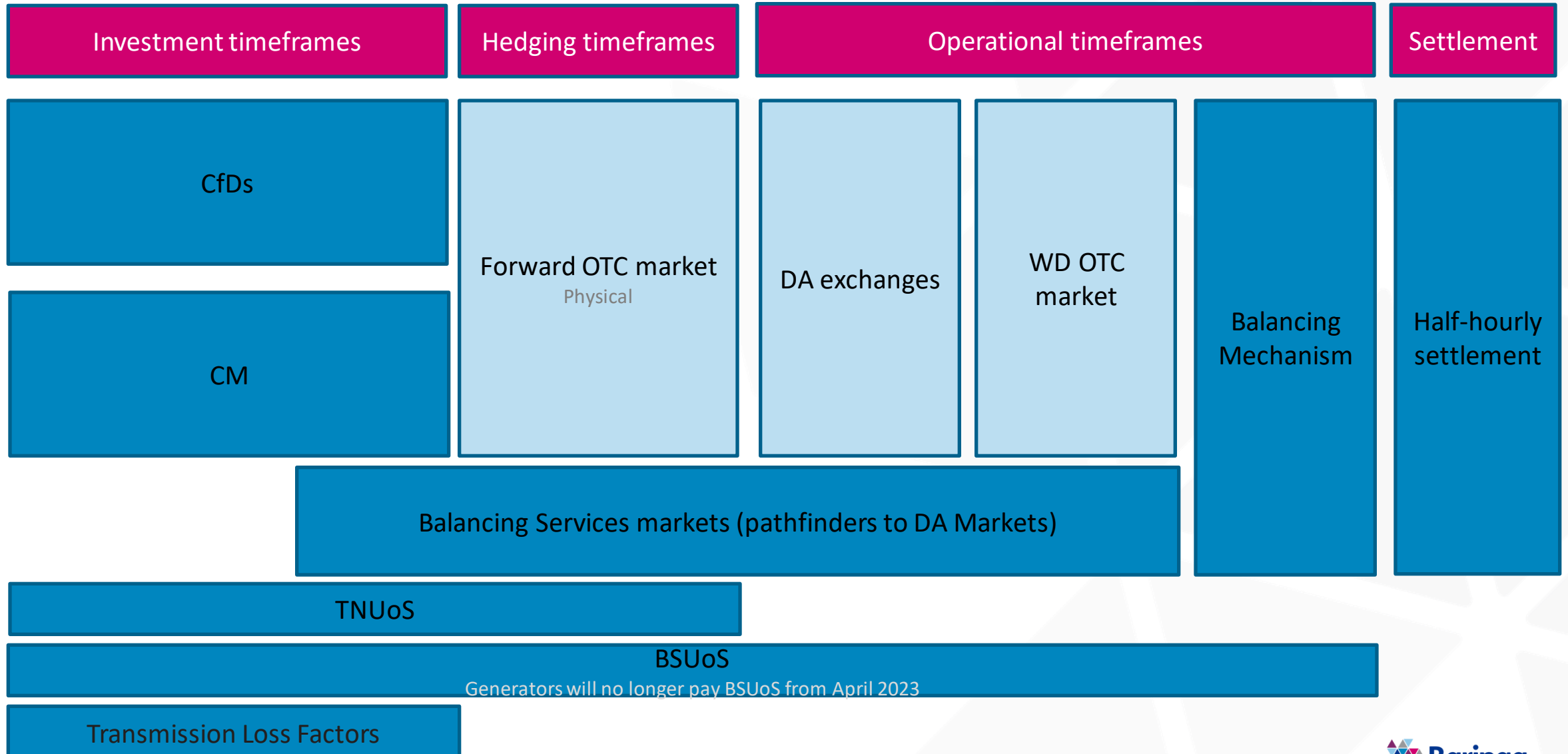


# Breakout questions

- 1. Have we got the Baseline package right – anything you would change and why?** *(i.e. a cohesive set of policies entailing minimal deviation from existing policies, which address, to some extent, the key areas in the case for change. Implicit in this is the prioritisation of implementation)*
- 2. Have we got the Build package right - anything you would change and why?** *(i.e. a cohesive set of policies that would increase the confidence in achieving the REMA objectives and score more strongly against the assessment criteria)*

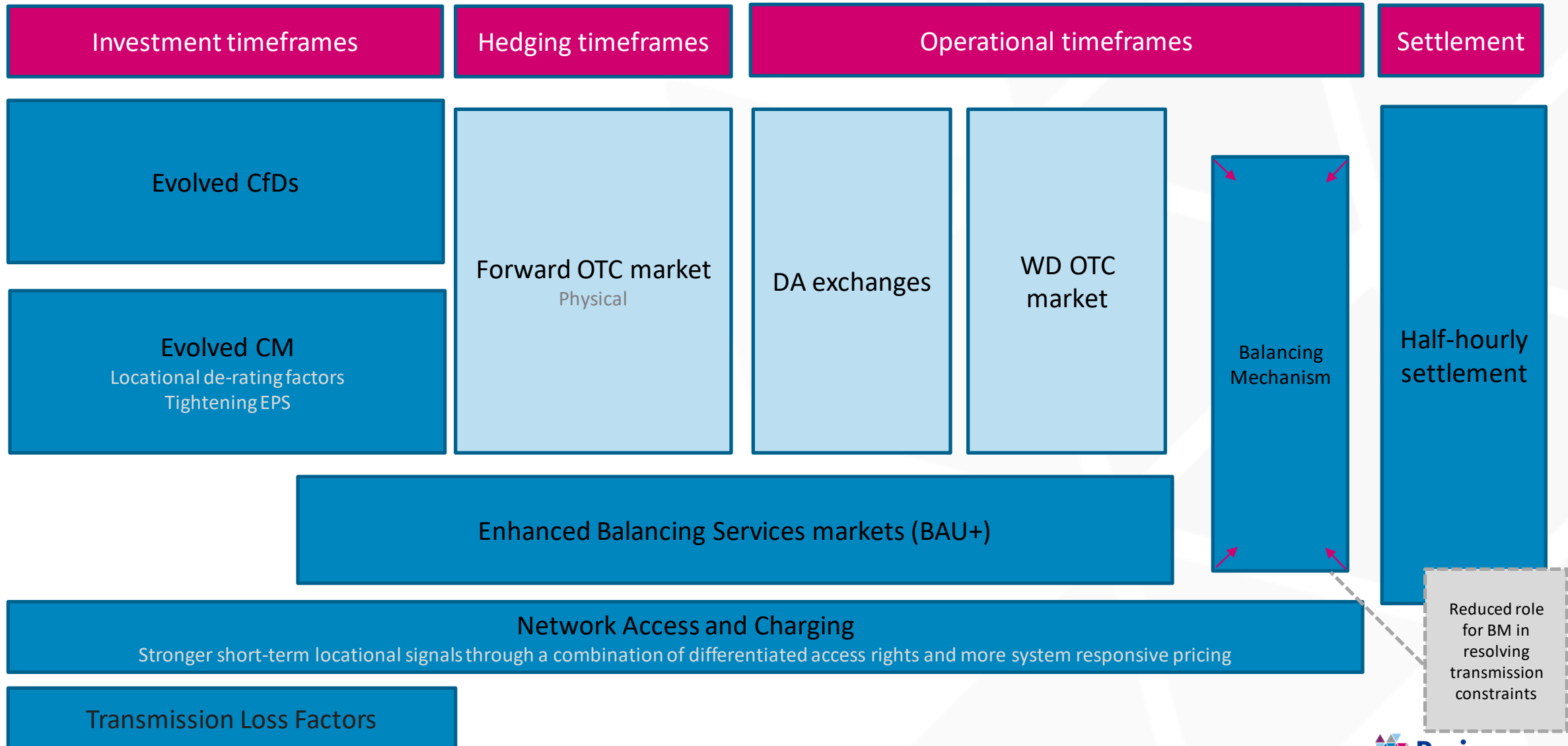
# National Pricing – Status Quo

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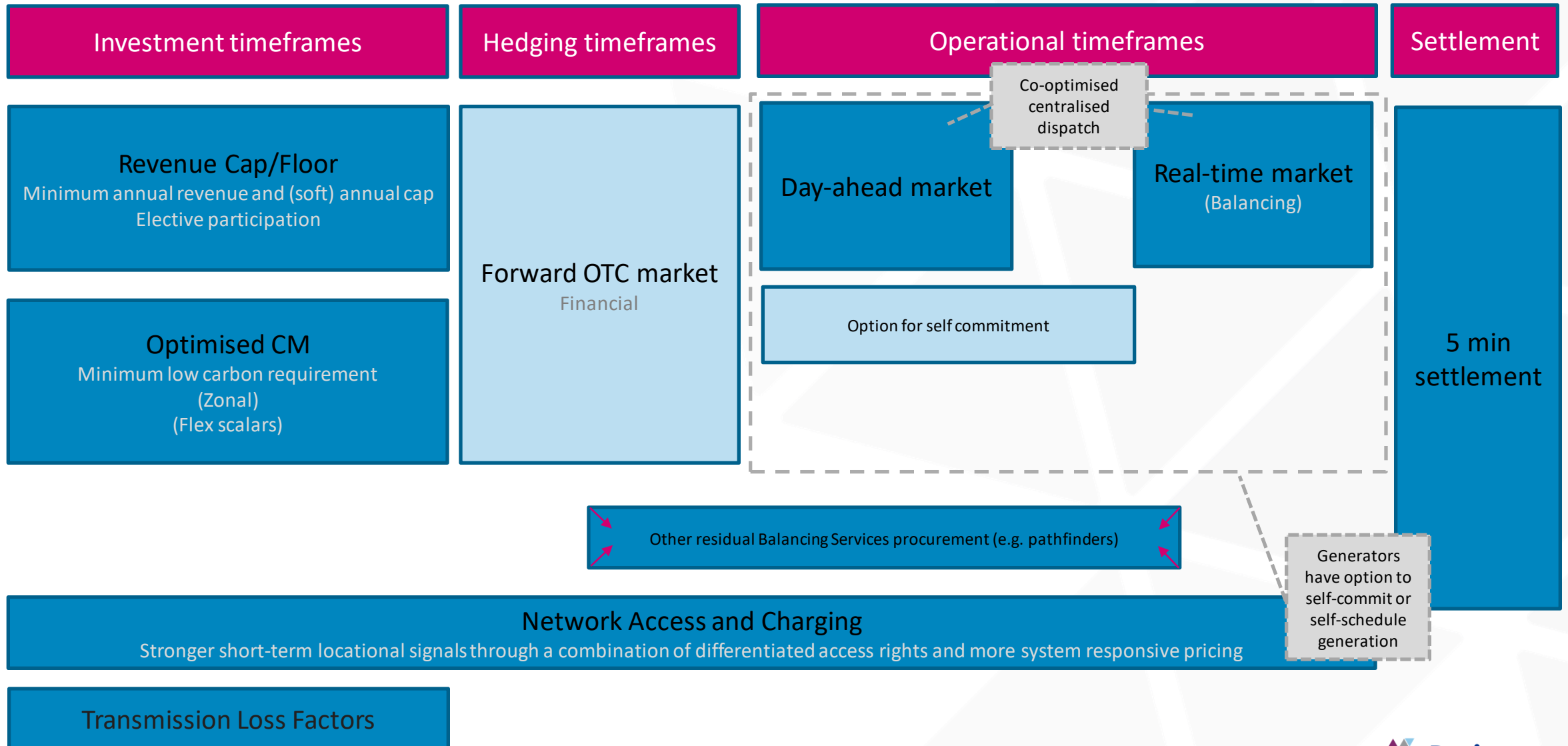
# National Pricing – Baseline

Evolution of CfDs and CM, with stronger short term locational signals through Access and Charging Reform



# National Pricing – Build

Revenue Cap/Floor and optimised CM, co-optimised centralised dispatch and stronger locational signal



# Assessment of National Pricing Packages

## Baseline

- Incremental improvement relative to Status Quo across most criteria, but stronger outcome for value for money mainly on account of increased system flexibility and less need to redispatch coming from better locational signals in CM, stronger short term signals through changes to Network Access and Charging and **Operability BAU+** options in Balancing Services.
- Neutral on consumer fairness.
- Implementation not too challenging.

## Build

- Scores more strongly than Baseline option on all criteria other than implementation
- This is mainly the result of having a better **Optimised CM**, greater price exposure for low carbon generation (through **Revenue Cap/Floor**) reducing the need for self-dispatch, and operational efficiency from **Central** dispatch.
- The inclusion of **Carbon Intensity Reporting**, helps to enhance the scoring across the competition, whole system, consumer fairness and decarbonisation criteria.
- The greatest implementation challenge comes from the inclusion of **Central** dispatch and **Co-optimisation** in this package.

## Baseline

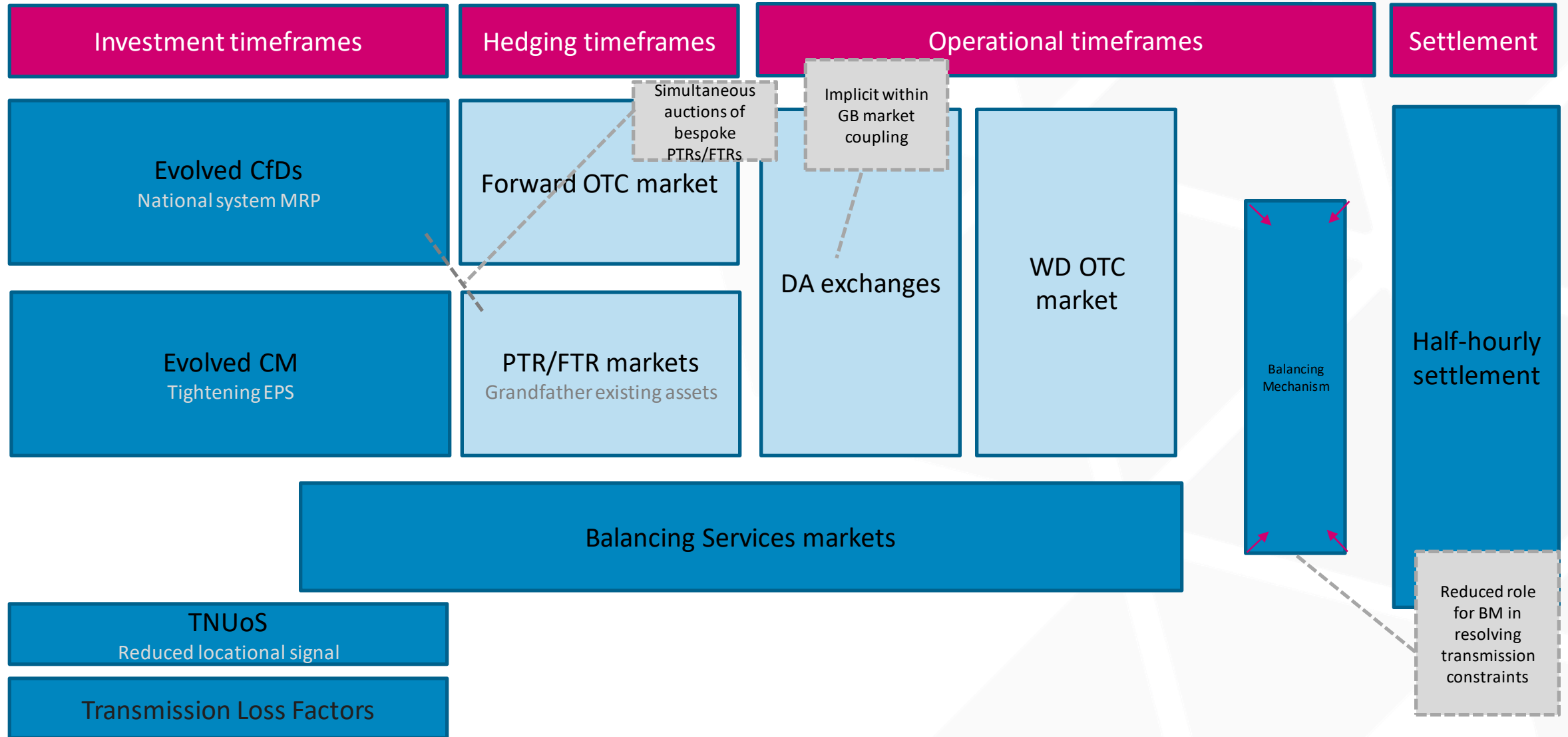
Criteria	Evolved CfD	Evolved CM	Operability BAU+	Access and Charging Reforms	Elective Participation	National	Self	Package score
Value for Money	○	●	●	●	○	○	○	●
Competition	●	○	●	○	○	○	○	●
Investor Confidence	○	○	●	○	●	○	○	●
Full chain flexibility	○	○	●	●	○	○	○	●
Whole system	○	○	●	●	●	○	○	●
Adaptability	○	●	●	○	●	○	○	●
Consumer fairness	○	○	○	○	●	○	○	○
Energy security and system operability	○	●	●	●	○	○	○	●
Decarbonisation	○	○	●	○	●	○	○	●
Implementation	○	○	○	●	●	○	○	●
Total	●	●	●	●	●	○	○	●

## Build

Criteria	Revenue Cap/Floor	Optimised CM - Zonal	Co-optimisation	Carbon Intensity Reporting	CM + Enhanced Flex	Optimised CM - Minimum Carbon	Access and Charging Reforms	Elective Participation	National	Central	Package score
Value for Money	●	●	●	○	●	●	●	○	○	●	●
Competition	●	○	●	●	●	●	○	○	○	●	●
Investor Confidence	●	○	●	○	●	○	○	●	○	●	●
Full chain flexibility	●	○	●	○	●	○	●	○	○	●	●
Whole system	●	○	●	●	●	●	●	●	○	●	●
Adaptability	●	●	●	○	●	●	○	●	○	○	●
Consumer fairness	○	○	●	●	○	○	○	●	○	○	●
Energy security and system operability	○	●	○	○	●	○	●	○	○	○	●
Decarbonisation	●	○	●	●	●	●	○	●	○	●	●
Implementation	●	●	●	●	●	●	●	●	○	●	●
Total	●	●	●	●	●	●	●	●	○	●	●

# Zonal Pricing – Baseline

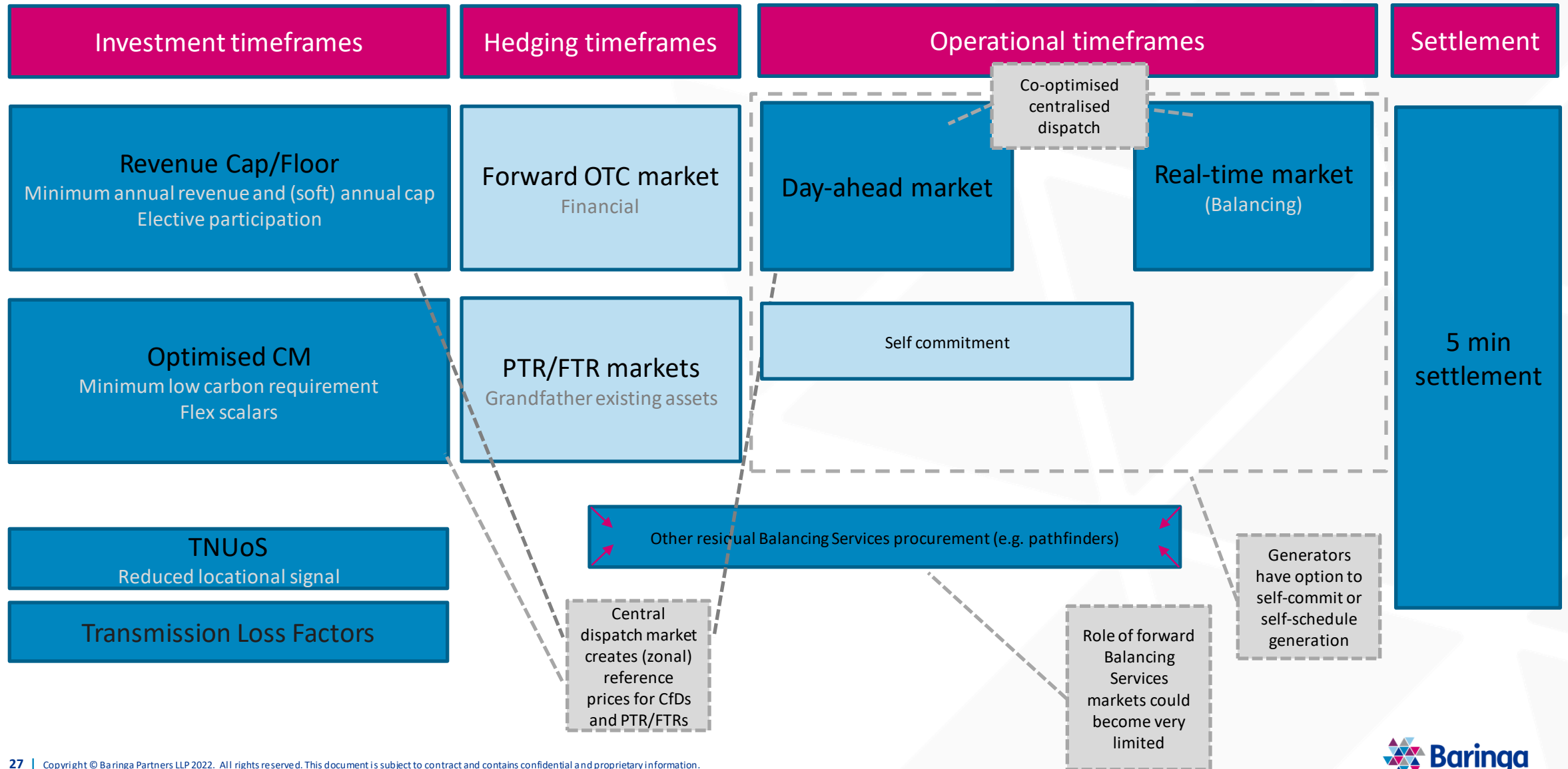
Wholesale market split into 10-12 zones; self-dispatch retained; evolution of CfD/CM for zonal pricing





# Zonal Pricing – Build

Wholesale market split with centralised dispatch; Revenue Cap/Floor and optimised CM



# Assessment of Zonal Pricing Packages

## Baseline

- Scores significantly better than Status Quo across value for money, competition, full chain flexibility and whole system.
- This is mainly resulting from the reduction in re-dispatch and improvement in system operability.
- PTRs/FTRs counter the potential negative impacts of Zonal pricing on investor confidence and consumer fairness.
- Implementation is more of a challenge than the National Baseline package given the need for participants to be balance responsible in multiple locations, plus possible issues surrounding the need to re-zone.

## Build

- The inclusion of Revenue Cap/Floor, Optimised CM and Central dispatch with Co-optimisation helps improve the outcomes relative to the Baseline package across most criteria.
- Assumed that zonal dimension is not required in Optimised CM, although this may be required if investors in new capacity do not have sufficient confidence in forward signals created by Zonal pricing.
- Implementation is more challenging than the Baseline given inclusion of Central dispatch.

## Baseline

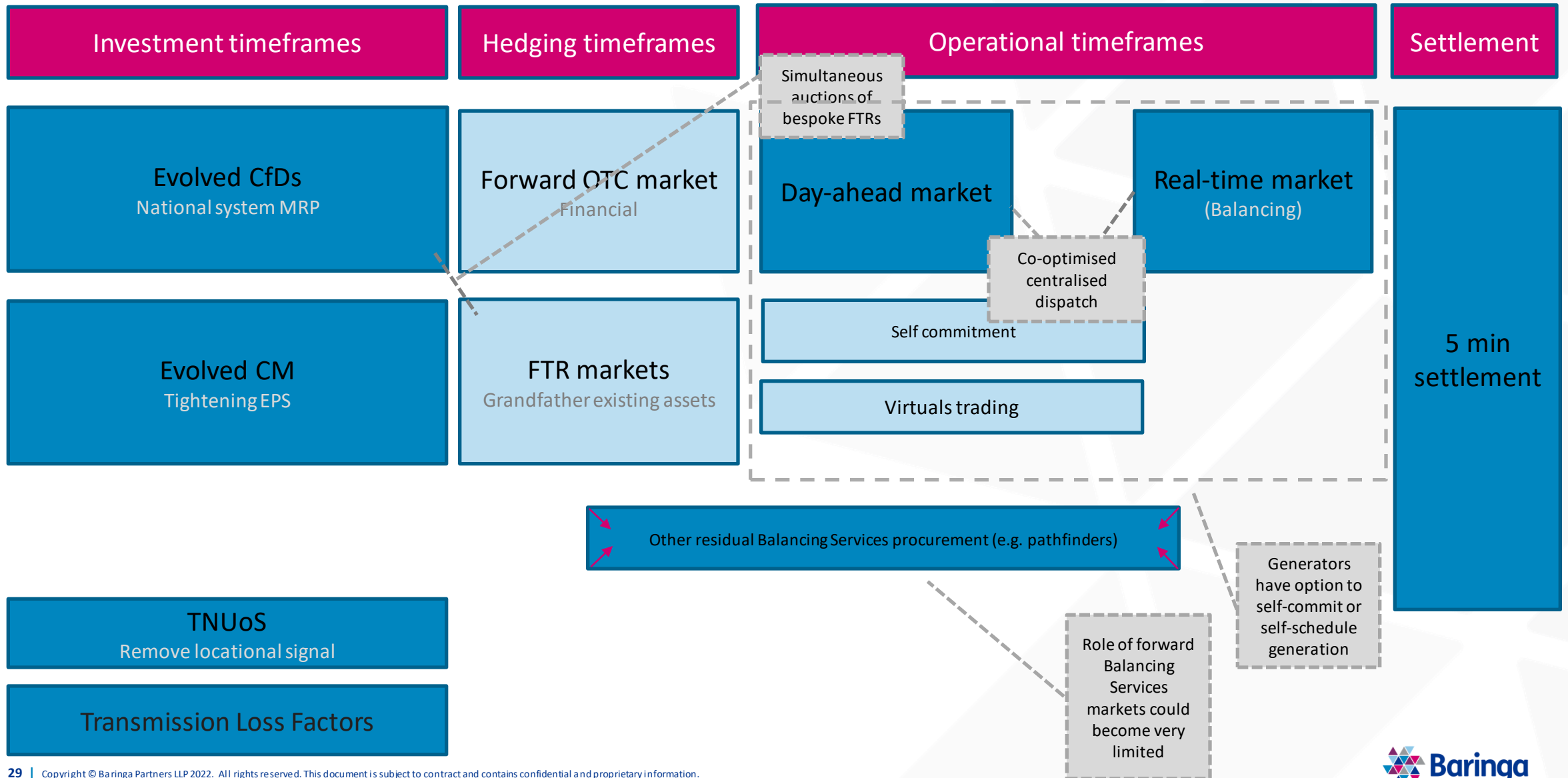
Criteria	Existing CfD	Existing CM	Operability BAU+	FTR / PTR	Elective Participation	Zonal	Self	Package score
Value for Money	○	○	🟢	🟢	○	🟢	○	🟢
Competition	○	○	🟢	🟢	○	🟢	○	🟢
Investor Confidence	○	○	🟢	🟢	🟢	🔴	○	○
Full chain flexibility	○	○	🟢	○	○	○	○	🟢
Whole system	○	○	🟢	○	🟢	🟢	○	🟢
Adaptability	○	○	🟢	○	🟢	🟢	○	🟢
Consumer fairness	○	○	○	🟢	🟢	🔴	○	○
Energy security and system operability	○	○	🟢	○	○	🟢	○	🟢
Decarbonisation	○	○	🟢	○	🟢	🟢	○	🟢
Implementation	○	○	○	🔴	🔴	🔴	○	🔴
Total	○	○	🟢	🟢	🟢	🟢	○	🟢

## Build

Criteria	Revenue Cap/Floor	Co-optimisation	Carbon Intensity Reporting	CM + Enhanced Flex	Optimised CM - Minimum Carbon	FTR / PTR	Settlement Period Reform	Elective Participation	Zonal	Central	Package score
Value for Money	🟢	🟢	○	🟢	🟢	🟢	🟢	○	🟢	🟢	🟢
Competition	🟢	🟢	🟢	🟢	🟢	🟢	🟢	○	🟢	🟢	🟢
Investor Confidence	🟢	🟢	○	🟢	○	🟢	○	🟢	🔴	🟢	🟢
Full chain flexibility	🟢	🟢	○	🟢	○	○	🟢	○	🟢	🟢	🟢
Whole system	🟢	🟢	🟢	🟢	🟢	○	🟢	🟢	🟢	🟢	🟢
Adaptability	🟢	🟢	○	🟢	🟢	○	🟢	🟢	🟢	○	🟢
Consumer fairness	○	🟢	🟢	○	○	🟢	○	🟢	🔴	○	○
Energy security and system operability	○	○	○	🟢	○	○	○	○	🟢	○	🟢
Decarbonisation	🟢	🟢	🟢	🟢	🟢	○	○	🟢	🟢	🟢	🟢
Implementation	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴
Total	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢

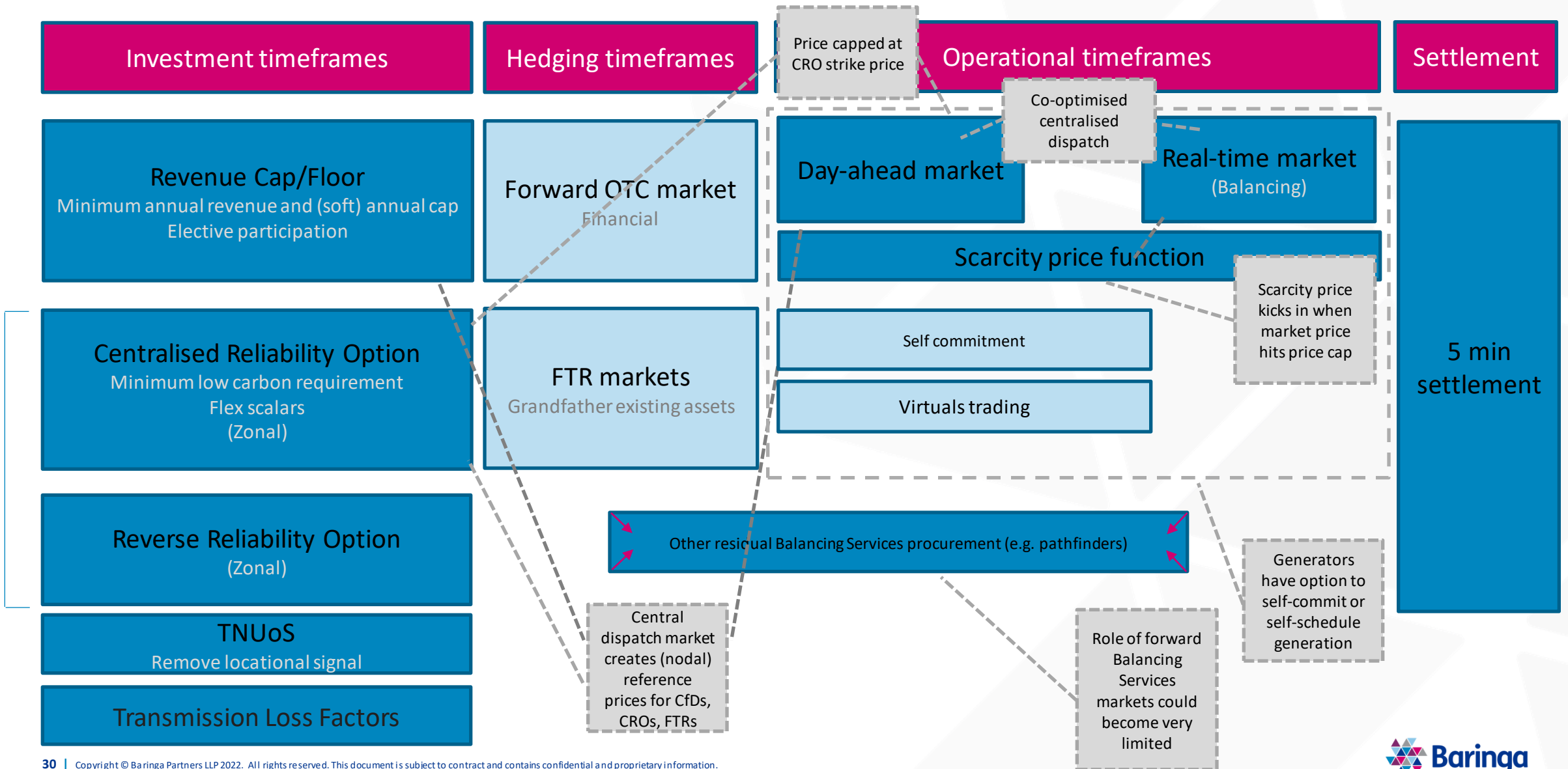
# Nodal Pricing - Baseline

Nodal pricing with centralised dispatch; evolution of CfD/CM to accommodate nodal pricing



# Nodal Pricing – Build

Nodal pricing with centralised dispatch and scarcity price function; optimised CRO for nodal pricing



# Assessment of Nodal Pricing Packages

## Baseline

- Scores significantly better than Status Quo across value for money, competition, full chain flexibility, whole system and decarbonisation.
- This is mainly resulting from the reduction in re-dispatch, **Co-optimisation** and improvement in system operability.
- It is assumed that **FTRs** effectively hedge and counter the price volatility impacts of **Nodal** pricing on investor confidence and consumer fairness.
- Deliverability is a challenge given the significant change for market participants as well as the system operator.

## Baseline

Criteria	Evolved CfD	Existing CM	Co-optimisation	FTR / PTR	Settlement Period Reform	Elective Participation	Nodal	Central	Package score
Value for Money	○	○	🟢	🟢	🟢	○	🟢	🟢	🟢
Competition	🟢	○	🟢	🟢	🟢	○	🟢	🟢	🟢
Investor Confidence	○	○	🟢	🟢	○	🟢	🔴	🟢	○
Full chain flexibility	○	○	🟢	○	🟢	○	🟢	🟢	🟢
Whole system	○	○	🟢	○	🟢	🟢	🟢	🟢	🟢
Adaptability	○	○	🟢	○	🟢	🟢	🟢	○	🟢
Consumer fairness	○	○	🟢	🟢	○	🟢	🔴	○	○
Energy security and system operability	○	○	○	○	○	○	🔴	○	🔴
Decarbonisation	○	○	🟢	○	○	🟢	🟢	🟢	🟢
Implementation	○	○	🔴	🔴	🔴	🔴	🔴	🔴	🔴
Total	🟢	○	🟢	🟢	🟢	🟢	🟢	🟢	🟢

## Build

- The inclusion of further options in this package such a Centralised and Reverse Reliability Options further strengthen scores.
- Scarcity Adder included in order to maintain strong locational dispatch signal whilst reducing possibility of exploiting market power.

## Build

- Strategic reserve strengthens energy security and provides physical back-up to financial Centralised Reliability Option.
- Implementation of Nodal pricing on critical path and hence inclusion of other options does not materially increase deliverability challenge.

Criteria	Revenue Cap/Floor	Elective Participation	CRO	Strategic Reserve	Co-optimisation	FTR / PTR	Settlement Period Reform	Scarcity Adder	RRO	CM + Enhanced Flex	Optimised CM - Minimum carbon	Elective Participation	Nodal	Central	Package score
Value for Money	🟢	○	🟢	○	🟢	🟢	🟢	🟢	🟢	🟢	🟢	○	🟢	🟢	🟢
Competition	🟢	○	🟢	🔴	🟢	🟢	🟢	🟢	🟢	🟢	🟢	○	🟢	🟢	🟢
Investor Confidence	🟢	🟢	🟢	○	🟢	🟢	○	🟢	🟢	🟢	○	🟢	🔴	🟢	🟢
Full chain flexibility	🟢	○	○	○	🟢	○	🟢	🟢	🟢	🟢	○	○	🟢	🟢	🟢
Whole system	🟢	🟢	🟢	○	🟢	○	🟢	○	🟢	🟢	🟢	🟢	🟢	🟢	🟢
Adaptability	🟢	🟢	🟢	🟢	🟢	○	🟢	🟢	○	🟢	🟢	🟢	🟢	○	🟢
Consumer fairness	○	🟢	🟢	○	🟢	🟢	○	○	○	○	○	🟢	🔴	○	🔴
Energy security and system operability	○	○	🟢	🟢	○	○	○	🟢	○	🟢	○	○	🟢	○	🟢
Decarbonisation	🟢	🟢	○	○	🟢	○	○	○	🟢	🟢	🟢	🟢	🟢	🟢	🟢
Implementation	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴
Total	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢

# Agenda

<i>Item</i>	<i>Timing</i>
Introduction and context	<b>13:30-13:40</b>
Baringa presentation:	<b>13:40-14:10</b>
a) Method and approach to package assessment	
b) Package composition and results from assessment	
Q&A session:	<b>14:10-14:35</b>
a) Clarification questions on Baringa's assessment	
b) Questions on technical coherency of packages	
Breakout: National, zonal or nodal package composition	<b>14:35-15:20</b>
a) Discussion in breakout groups	<i>14:35-15:05</i>
b) Playback to plenary	<i>15:05-15:20</i>
<b>ESO next steps, feedback and close</b>	<b>15:20-15:25</b>

## Feedback:





