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4.2 Specific topics on aggregation and baselines

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DR NC monitoring: subtopics for aggregation models

2025-2026

- Focus topic 1: **Aggregation** models

Best practices?

Aggregation models: main features	Financial transfer and financial compensation	Baselining methods	Allocated volume

• How corrections are implemented in each model per product?
• Considerations when setting up aggregation models with multiple BRPs per metering point.
	• Financial transfer:
	  • Price: calculation
	  • Settlement: process
	• Financial compensation:
	  • Costs and benefits (overcompensation?)
		• System user-specific baselining methods per product
		  • Methodology
		• Difficulties to meet baseline requirements
		  • Validation, precision
			• Measurements (incl. DMDs)

+ Cross-cutting topics

- Rebound effects
- …

BRPs: balance responsible parties

DMDs: dedicated measurement devices

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Main features of aggregation models

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Balance responsibility

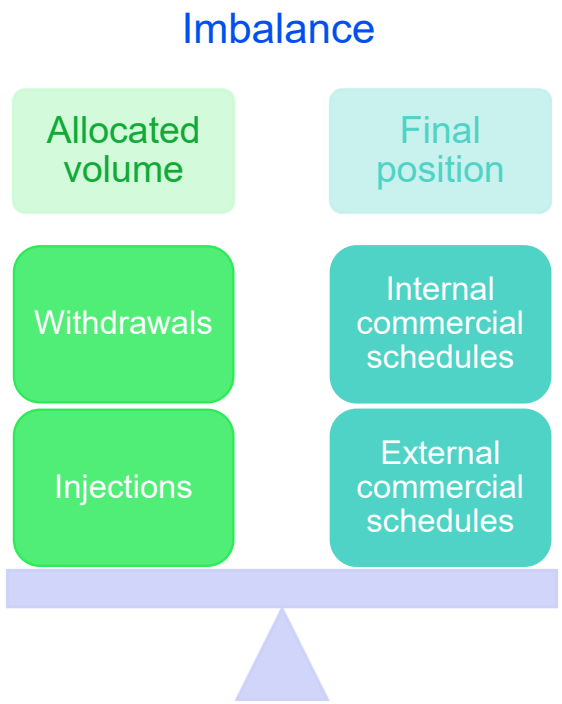
Article 5(1) of the Electricity Regulation:

*"**All market participants** shall be responsible for the imbalances they cause in the system ('balance responsibility'). To that end, market participants shall either be balance responsible parties or shall contractually delegate their responsibility to a balance responsible party of their choice."*

DA/ID | Supplier | (Balancing) SP

imbalance =

allocated volume - final position +/- imbalance adjustment



imbalance adjustment: energy activated by the system operators for balancing, local services, other purposes

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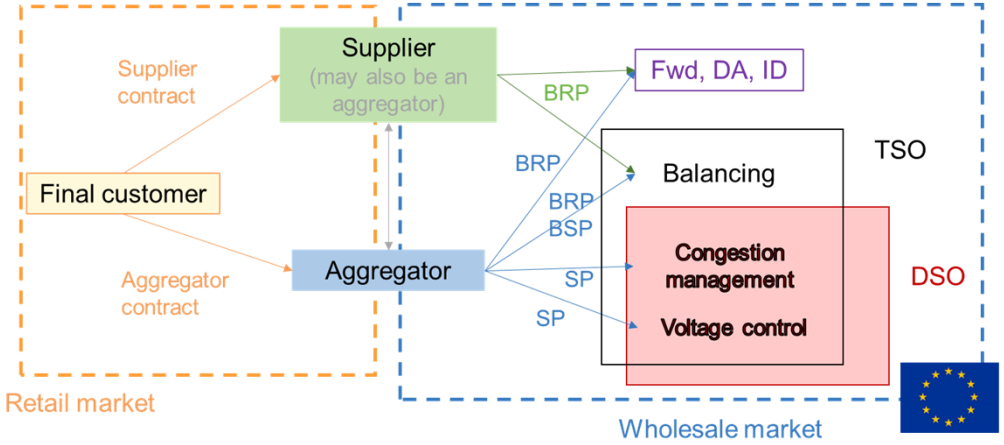
Aggregation models and balance responsibility

Market participants engaged in **aggregation**

Aggregation models	Split responsibility
	Broker/contractual
	Central settlement
	Corrected
	Uncorrected
	…



imbalance =

allocated volume - final position +/- imbalance adjustment

correction

Financial compensation

correction

Financial transfer

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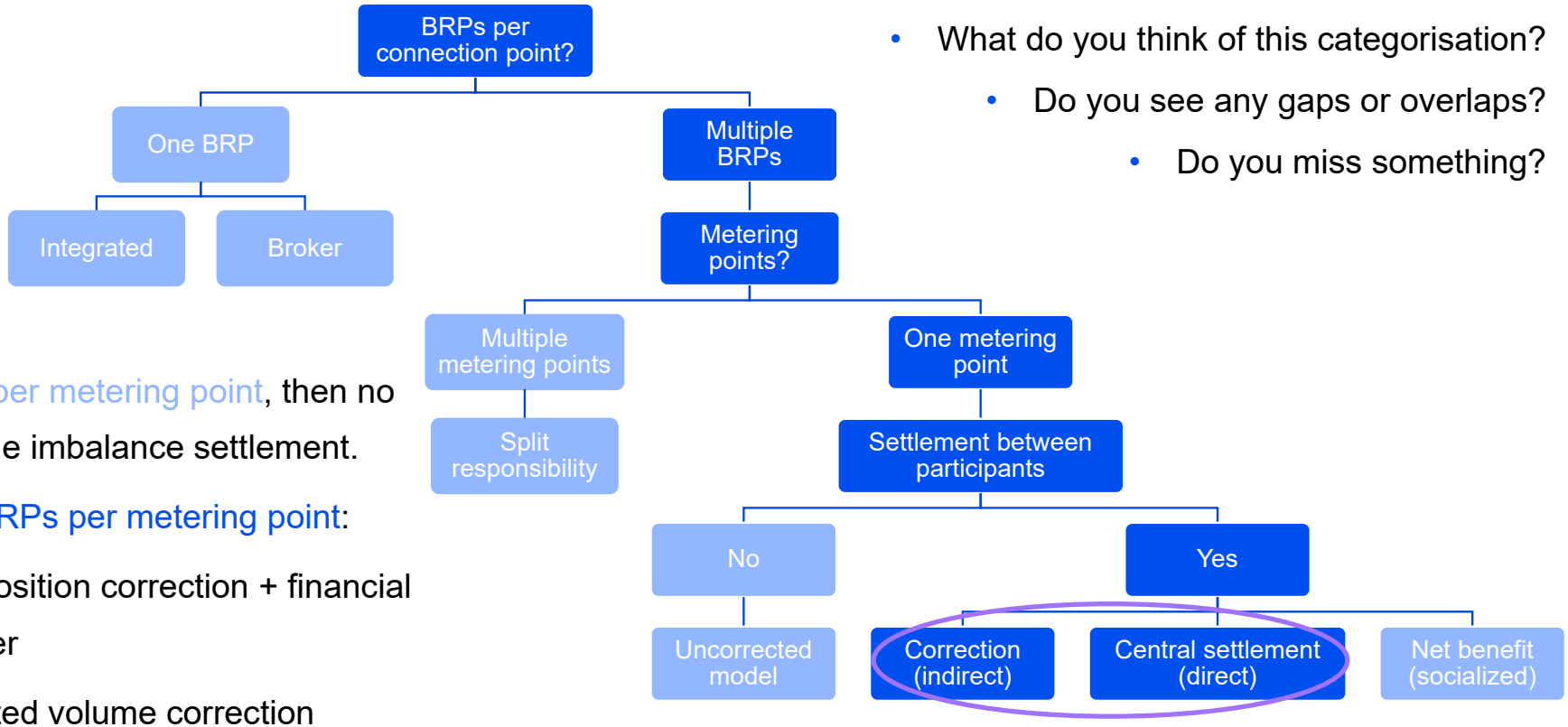
Aggregation models definition



- What do you think of this categorisation?
- Do you see any gaps or overlaps?
- Do you miss something?

1. If one BRP per metering point, then no change in the imbalance settlement.
2. If multiple BRPs per metering point:
   i. final position correction + financial transfer
   ii. allocated volume correction
   iii. no correction

Focus on these two to better capture the relation between market participants.

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Aggregation models: rebound effects

- Rebound effects is one of the topics that we have not addressed deeply so far, but we consider it important, so we would like to better understand the issues related to that.
- According to the definition in ACER Recommendation for the DR NC: *"'rebound effect' means the alteration of injection or withdrawal of electricity by a SPU or SPG in the opposite direction to the activation for the provision of a local or balancing service, which takes place before or after the activation period;"*

- Do you see any particular issues that we should cover in the report? E.g. specific aggregation models or window for identifying rebound effects?

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Financial transfer: price and settlement

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Financial transfer overview

Mapping

- Most common calculation methods per market/product and aggregation model
- Specific measures when multiple calculation methods
- Price-formula design: main purpose, parameters

Approval of the calculation method

- Evaluation
- National context in the evaluation process
- Stakeholders' involvement

Settlement

- Who calculates the financial transfer price
- Parties' involvement

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Baselining methods

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Draft Baselining Overview

Mapping

- Most common BMs/archetypes per market/product and system user/technology
- Key parameters in some BMs
- Specific measures when multiple BMs
- Specific measures for value-stacking or when multiple procuring SOs

Approval of BMs and archetypes

- Predefined requirements
- Approval process
  - ✓ Initiation
  - ✓ Evaluation
  - ✓ Stakeholders' involvement
  - ✓ Decision
- Key product features when selecting the BMs and archetypes

Ex-ante validation of the baseline

- Requirements
  - ✓ Specific requirements for some BMs and archetypes
  - ✓ Specific data requirements
- More advanced validation processes

Implementation

- Submission of the baseline
- Implementation challenges in regard to the baselining principles
- Specific measures to reduce errors

Monitoring

- Bias, manipulation and strategic behaviour
- Mitigation measures
- Dependencies with the BM archetype, market/product and submission of the baseline

BM: Baselining Method

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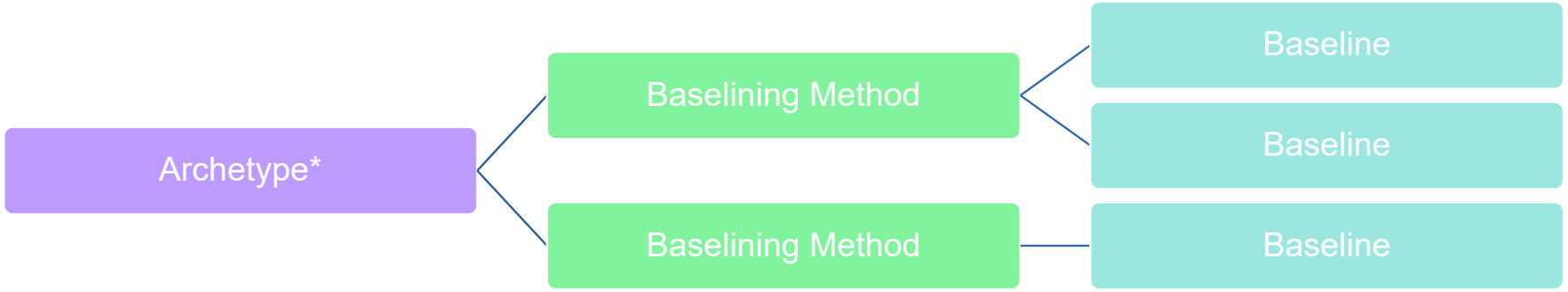
Speaking the same language…



- **Categorisation** of the baselining methods based on:
  - ✓ Type of data used
  - ✓ How the selected data is processed

**In the past we used to use "group". The literature also uses "group" or "type".*

- **Calculation** of a specific baseline (e.g., formula, algorithm, etc.)

OR

- **Set of data** constituting the baseline

(Calculation / Data description)

- **Counterfactual**: estimated electricity that a system user would have been withdrawn/injected in the absence of an activation in wholesale or local markets

(Estimated electricity per ISP)

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Overview of archetypes

Most common	Occassional	Uncommon
Historical	Calculated-based	Window Before and After (WBA)
Meter-Before Meter-After (MBMA)	Regression-based	Fixed
Declarative	Control group	Maximum baseload
		Zero baseline

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Aimed for an exhaustive list

- Meter-before, meter-after (MBMA) or Window before
- Historical, Consumption profile or Rolling without “same-day adjustment”
- Historical, Consumption profile or Rolling with “same-day adjustment”
- Historical Regression-based
- Declarative or Nomination
- Calculated-based or Non-meter data
- Control group or Peer group
- Fixed
- Window before and after (WBA)
- Maximum baseload, “Drop to” approach or Alternative approach
- Zero baseline or Generation approach

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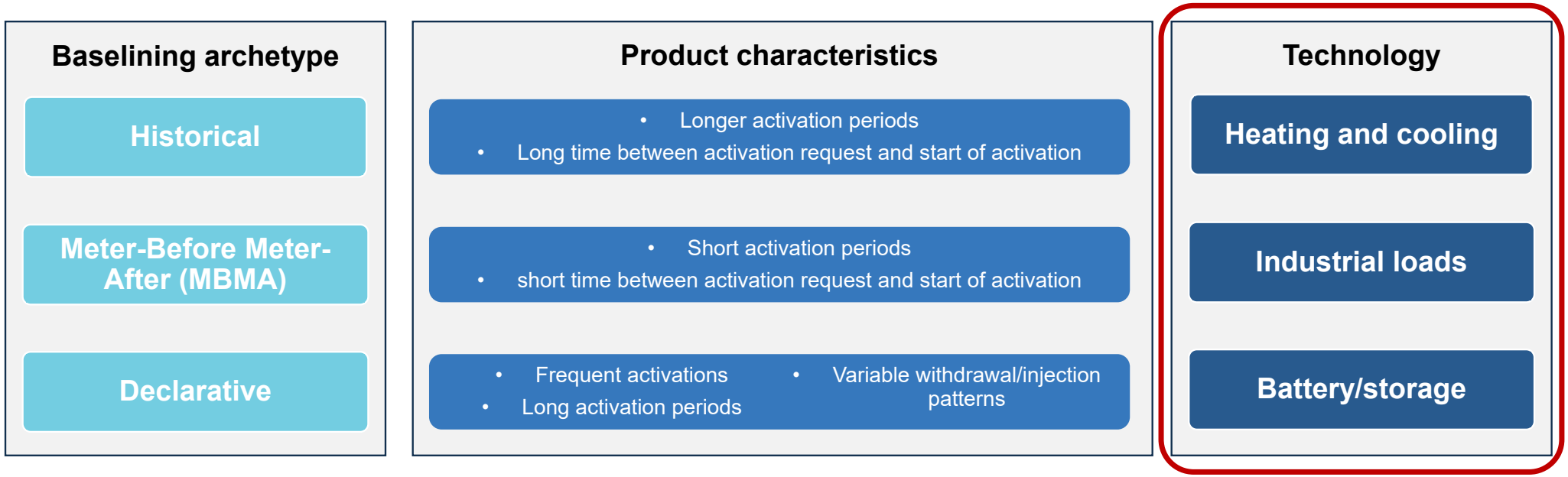
Baselining archetypes and different technologies

Is the baseline only applicable to some types of system-users or technologies? Which ones?



What would be a good way to distinguish and categorise different technologies?

Thank you for your attention

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European Union Agency for the Cooperation of Energy Regulators

info@acer.europa.eu
acer.europa.eu
@eu_acer
linkedin.com/in/EU-ACER/