

ACER



Agency for the Cooperation
of Energy Regulators

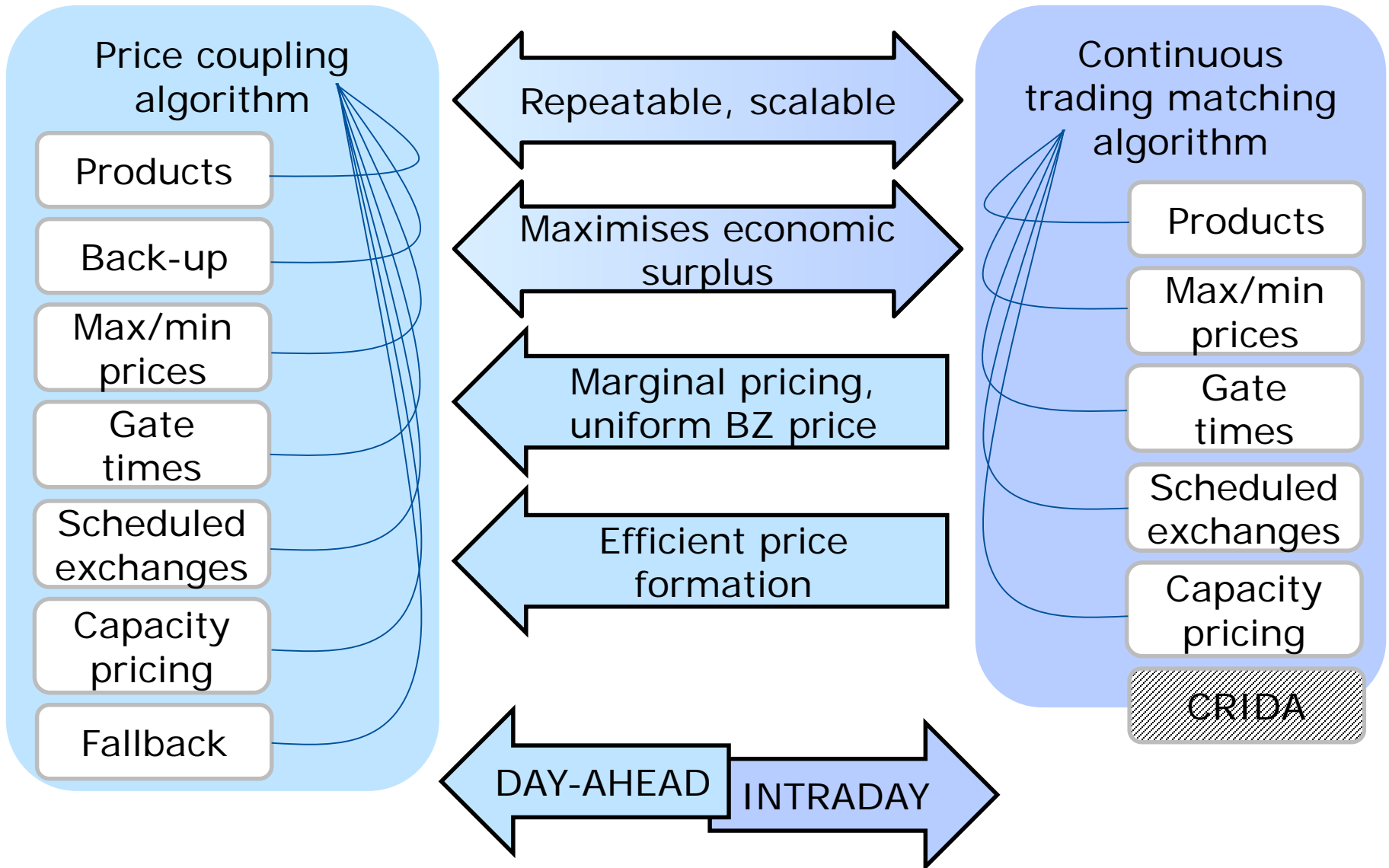
Price Coupling Algorithm & Continuous Trading Matching Algorithm

Pavel Svoboda

Rome, 21 September 2018

CACM Regulation

- **Chapter 4 – Algorithm development**
 - Article 36 – General provisions
 - Article 37 – Algorithm development
- **Chapter 5 – Single day-ahead coupling**
 - Article 38 – Objectives of the price coupling algorithm
 - Article 39 – Inputs and results of the price coupling algorithm
 - Articles 40-50 – Products, max/min prices, gate times, firmness, capacity pricing, schedules, back-up, fallback...
- **Chapter 6 – Single intraday coupling**
 - Article 51 – Objectives of the continuous trading matching algorithm
 - Article 52 – Results of the continuous trading matching algorithm
 - Articles 53-63 – Products, max-min prices, gate times, firmness, capacity pricing, schedules, CRIDAs...



Connection to other T&C or methodologies

- MCO Plan
 - NEMOs are responsible for operation and development of:
 - Price coupling algorithm (Euphemia)
 - Continuous trading matching algorithm (XBID)
 - NEMOs' other responsibilities
 - Max/min prices, back-up, clearing and settlement etc.
- Products
 - NEMOs responsible for the algorithm accommodating all products
 - Complex products in day-ahead deteriorate performance
- Max/min prices
- Back-up, fallback
- Scheduled exchanges
- Capacity pricing (preference for implicit)
- Gate times

Algorithm decision

- February 2017 – the last regulatory authority received the Algorithm proposal (including the day-ahead and intraday requirements) from all NEMOs (in cooperation with TSOs)
- August 2017 – the last regulatory authority requested an amendment from all NEMOs
- December 2017 – all NEMOs submitted the amended proposal to all regulatory authorities
- January 2018 – all regulatory authorities referred the amended proposal to the Agency for decision
- July 2018 – the Agency decided on the amended proposal

18 months
NEMOs (TSOs)
Proposal preparation
+
6 months
NRAs
Approval/amendment
+
2 months
NEMOs
Amended proposal
+
2 months
NRAs
Approval/referral
+
6 months
ACER
Decision

Article 9(6)(g)
Process & mandate

Article 9(9-10)
Process & content

Article 37-39
Content & timing

Article 9(11-12)
Process

Article 8(1) of
713/2009
+ 6 months

Discussed algorithm methodology issues

- **Quality of the proposal**
- **Scalability**
- **Repeatability**
- **Algorithm performance**
 - Deterioration prevented by corrective measures
 - Products limitation
 - Requirement limitations
 - Indicators
 - Welfare
 - Number of PRBs
 - Volumes, prices
 - Performance thresholds

Discussed algorithm methodology issues

- **Governance NEMOs/TSOs**
 - Requests for change
 - Decision by NEMOs in cooperation with TSOs
 - Issues with implementation of regulatory requests
 - Annexed Change control methodology
 - Categories of changes
- **Scheduled exchanges**
 - NEMO trading hubs are not defined by CACM
 - Scheduling area (with at least one NEMO trading hub)
 - Special case of Luxemburg

Discussed algorithm methodology issues

- **Transparency**
 - Publishing change control methodology
 - Publishing list of corrective measures
 - Algorithms public description
 - Algorithm performance report
 - Scalability report
 - Report on incidents + back-up + fallback
 - Report on R&D
 - Report on corrective measures
 - Report on volumes and prices
 - Report on decisions and requests for change

Discussed algorithm methodology issues

- **Annexes**
 - Requirements for day-ahead
 - Advanced hybrid coupling
 - Requirements for intraday
 - Change control methodology
 - Algorithm monitoring methodology
- **Language**

Thank you for your attention!