

Market-based redispatch in the Netherlands

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Why market-based redispatch?

- The Netherlands have a zonal energy-only market for electricity
- Market parties have three fundamental rights¹:
 1. Freedom of connection
 2. Freedom of trade
 3. Freedom of dispatch
- The TSO (TenneT TSO B.V.) and the DSO's have the task to ***enable physical delivery of traded electrical energy.***
- When regulatory network quality criteria are endangered, the TSO and DSO's take operational measures that can restrict the freedoms of market parties.
- One measure is redispatch, which restricts the freedom of dispatch of involved market parties.
- An ancillary services acquisition process² ensures financial compensation for the market parties providing redispatch.

Market-based redispatch enables coherence with other market segments
of the energy-only market

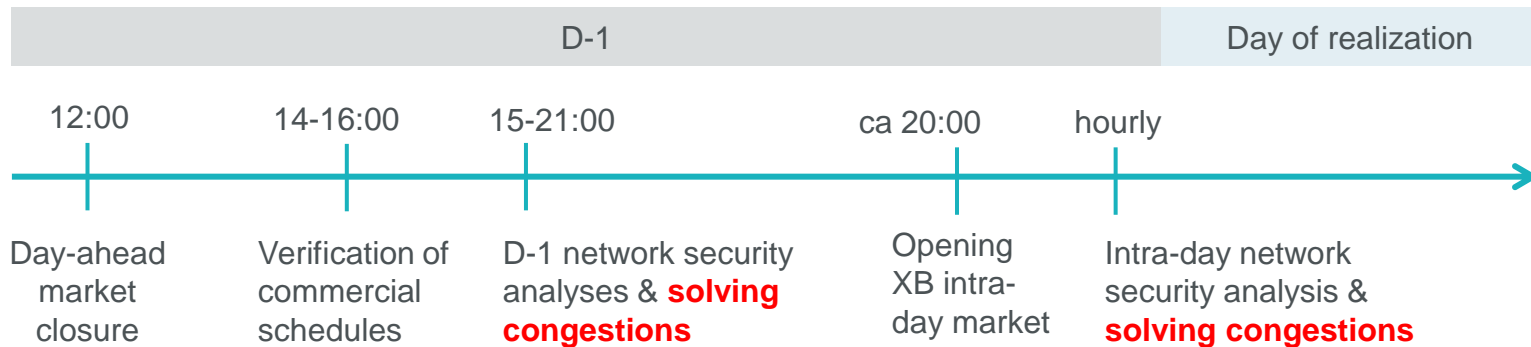
¹ See: Nobel (2016) "On Balancing Market Design", PhD Thesis, TU Eindhoven

² See: Glismann & Nobel (2017) "A framework for ancillary services design" in *International Conference on the European Energy Market 2017* February-8-2018 **Market-based redispatch in the Netherlands**



Operational process at TenneT TSO B.V.

- In contrast to balancing:
 - congestions are identified based on forecasts; and
 - redispatch is applied before real-time; and
 - there are alternatives to redispatch (e.g. cancellation of planned grid maintenance)
- Forecasts can change and therefore also the need for redispatch can change
- In case insufficient redispatch bids are available, TenneT TSO B.V. publishes a market notification with the request for additional bids of a specified quality.
- **Operational challenge:
avoidance of unnecessary redispatch vs. risk of insufficient redispatch supply**





Redispatch Product specifications

- Product name: Reserve Overige Doleinden (Reserve for other purposes)

Product specifications

Product underlying	<ul style="list-style-type: none">• Delivery of energy according to scheduled activation of TSO (firm transaction)
Product period	<ul style="list-style-type: none">• ≥ 4 PTU, depending on specified activation period in bid
Product utilization	<ul style="list-style-type: none">• Manual activation by TSO of the scheduled service via electronic message (EDINE standard)• Bids only fully activated regarding bid size (MW) but partially in time ($>$min. activation period)
Utilization speed	<ul style="list-style-type: none">• Activation at the latest 3 PTU's (i.e. 45 minutes) before PTU of delivery
Delivery location	<ul style="list-style-type: none">• Specific connection points in NL network or a BRP portfolio (only allowed for counter-actions)

Acquisition process specifications

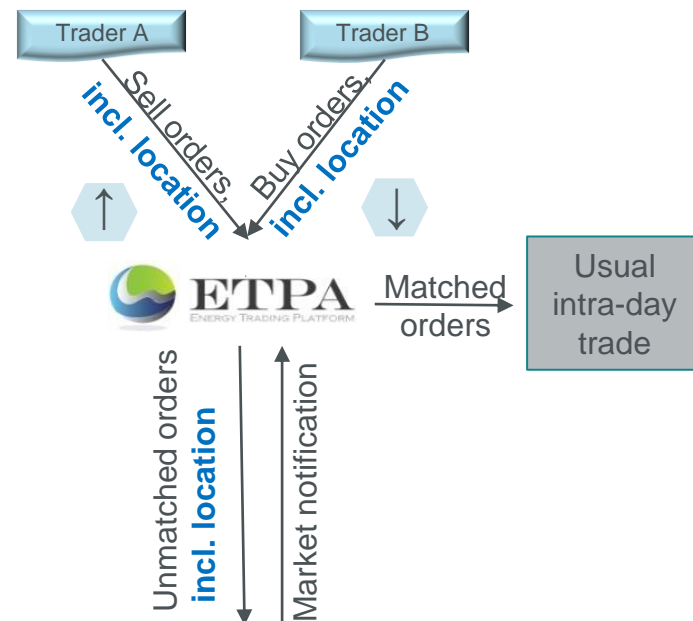
Provider accreditation	<ul style="list-style-type: none">• EDINE messaging test• Bids are sent via BRP
Acquisition method	<ul style="list-style-type: none">• Market parties voluntarily provide bids (bid obligation for units >60 MW)• Continuous single-sided auction (TSO can call a valid bid at any time and trigger a firm transaction)
Acquisition timing	<ul style="list-style-type: none">• Acquisition between D-1 15:00 and 3 PTU's before PTU of delivery
Bid requirements	<ul style="list-style-type: none">• Bids in MW and €/MWh• Minimum bid size 1 MW• Bids are provided separately for downward (energy withdraw) and upward (energy injection) redispatch• Minimum activation period ≥ 60 minutes
Pricing mechanism	<ul style="list-style-type: none">• Pay-as-bid



IDCONS pilot project

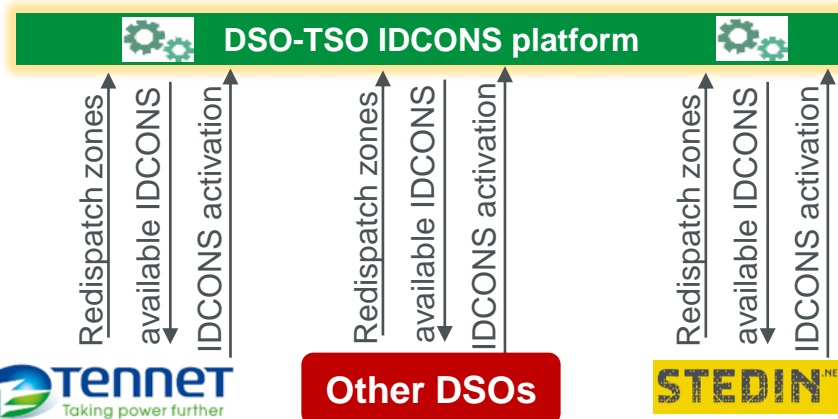
The Intra-day Congestion Spread (IDCONS) pilot project tests a new TSO-DSO congestion management instrument in the Netherlands

- Traders at ETPA can optionally add a location (EAN code) to their intra-day orders
- Suitable orders are combined to IDCONS according to network operator needs
- An activated IDCONS is a trade between two market parties, whereby the network operator pays the sell-buy price spread
- Clearing, settlement and nominations follow the usual processes at ETPA



The beauty of the concept

- ✓ Easy access for small market parties
- ✓ In-line with zonal energy-only market design
- ✓ Improved TSO-DSO coordination





Thank you for your attention

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