

USERS' GROUP



WG EMD-SO



14th October, 2022
14:00 – 17:00



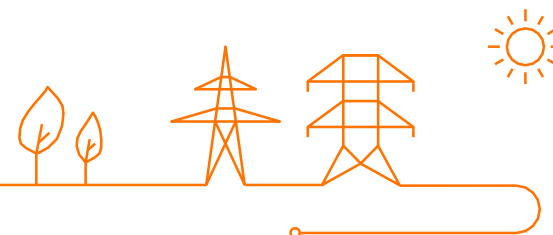
Practicalities

Wifi Code

- *Your guest account details:*
- *SSID:*
- *Username: **nathalie.verbeke@elia.be***
- *Password: **1FPv3cxf***
- *First Name: Nathalie*
- *Last Name: Verbeke*
- *Phone Number:*
- *Duration: 5 days*
- *Person being visited:*
- *If unused, this account will expire on: 10/18/2022 10:18*

Agenda WG EMD-SO 14/10/2022

–	Domain	Agenda topic	From - Till	Presenter	Time (min)
1	General	Welcome & intro	14:00 - 14:05	<i>Chairs</i>	5
2	General	Approval of MoM & status action points	14:05 - 14:10	<i>Secretary</i>	5
3	SO	Progress status of the low frequency demand disconnection Task Force	14:10 - 14:20	<i>Peter Van Meirhaeghe (Elia)</i>	10
4	SO	Winter Preparedness 2022-2023	14:20 - 14:50	<i>Cindy Bastiaensen (Elia)</i>	30
5	EMD	Revision of the Market suspension rules	14:50 - 15:20	<i>Caroline Bosschaerts (Elia)</i>	30
6	EMD	Core FB DA: status & experiences after 4 months operations	15:20 - 16:20	<i>Nico Schoutteet (CREG)</i> <i>Cyriac de Villenfagne (Elia)</i>	60
7	EMD	Emergency measures and structural market design reforms	16:20 - 16:50	<i>Benjamin Genet (Elia)</i>	30
8	General	AOB	16:50 - 16:55	<i>Secretary</i>	5
9	General	Conclusions	16:55 - 17:00	<i>Chairs/Secretary</i>	5
Total					3:00

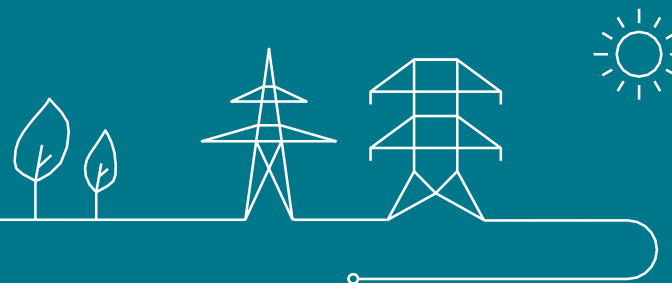


Approval of Minutes & Action points

- Approval of the Minutes of WG EMD-SO 17/06/2022
- Status of open Action points

Action	Responsible	Date Raised	Due date	Status
Elia to share insights on grid stability / harmonics in a high RES world (no urgency, keep it on the radar)	Elia	31/03/2022	no urgency	Closed - topic has been brought to TF MOG II on 24/06- material is publically available on following link
Elia to see if the Intraday statistics, can also be shared publically	Elia	31/03/2022	no exact due date	Closed – reports published on following link but source data not published
Elia to share a proposed date to LFDD TF as soon as possible	Elia	17/06/2022	June 2022	Closed – WG LFDD started, questionnaire shared to industry
Elia to bring insights on the LFDD benchmark where in EU other industrials are included in LFDD plans in a next WG EMD-SO meeting or in the LFDD TF	Elia)	17/06/2022	next WG EMD-SO or in LFDD TF	Closed – Entsoe benchmark was confidential
Black out communication: Elia to provide feedback on figures on the % that have already been completed the communication (eg % or number in MW)	Elia	17/06/2022	next WG EMD-SO (September 2022)	Closed – continuous progress, of 92 large >25 MW users: 40% done, 20% ongoing Next 100 sites will be done afterwards
Elia to present a KPI on system security in one of the next WG EMD-SO meetings	Elia	17/06/2022	Beginning 2023	Ongoing
Further follow up on the shown KPIs for Core FB MC after a few months to see if the improvements observed shortly after go live can be confirmed	Elia	17/06/2022	next WG EMD-SO (September 2022)	Closed - presented on 14/10

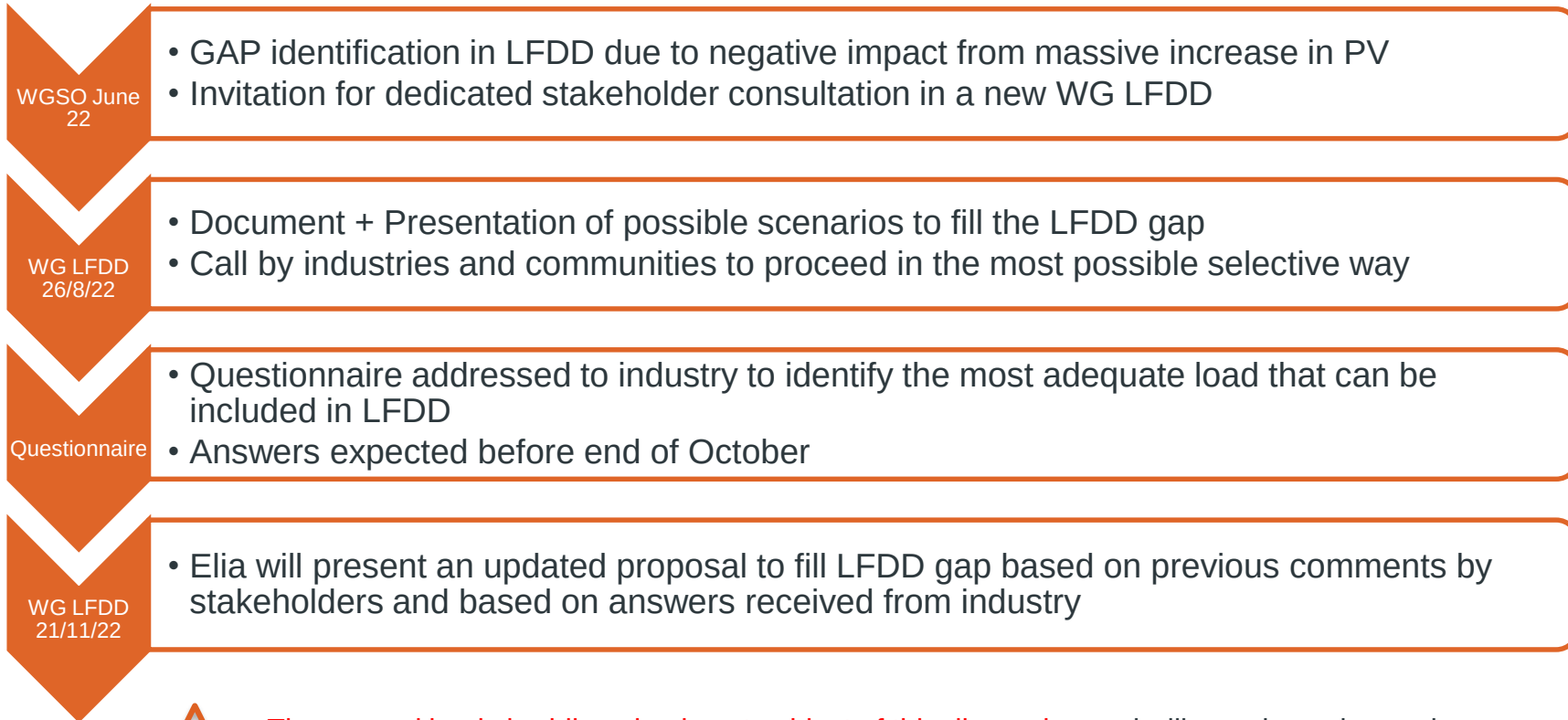
System Operations



Low frequency demand disconnection plan (status)



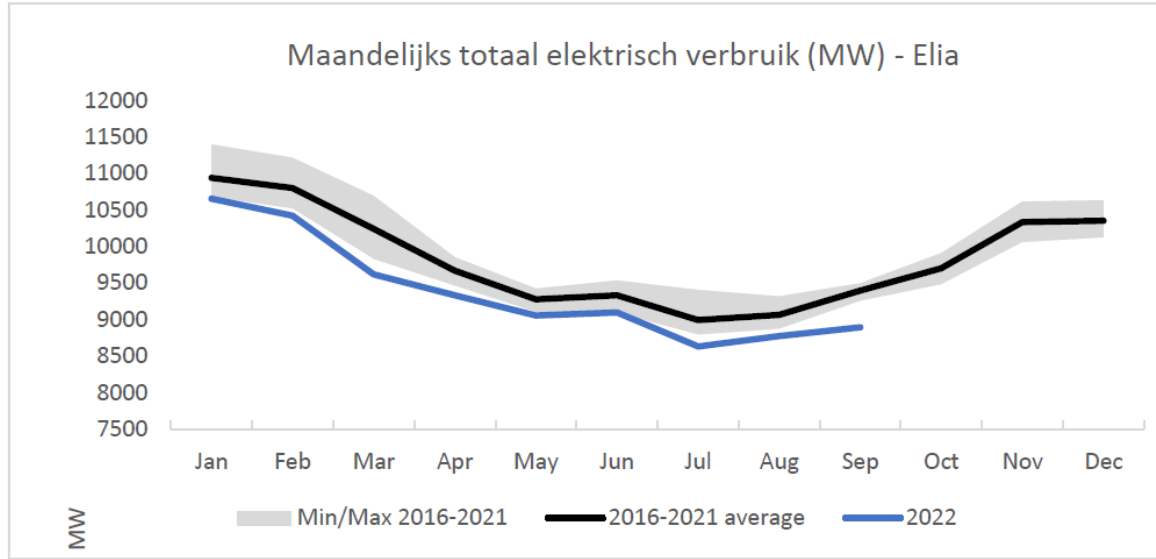
LFDD status



The manual load shedding plan is not subject of this discussion and will remain unchanged.
We are noticing an increased risk for potential misunderstandings the more we get closer to the upcoming winter

Winter Preparedness 22-23

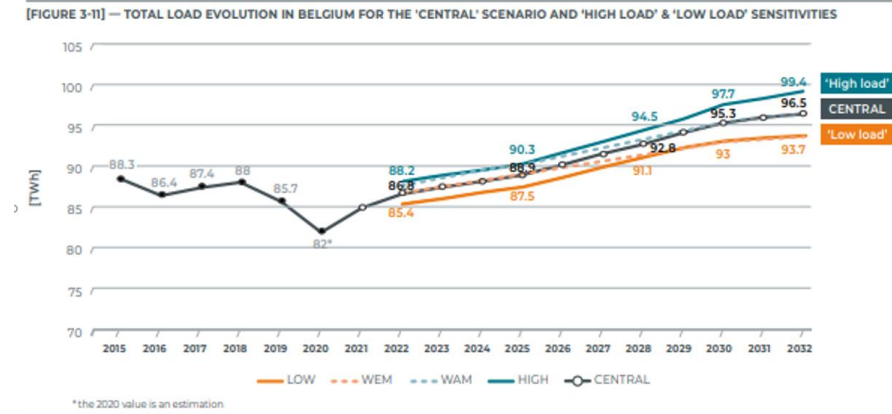
Belgian Outlook: Total Load Evolution



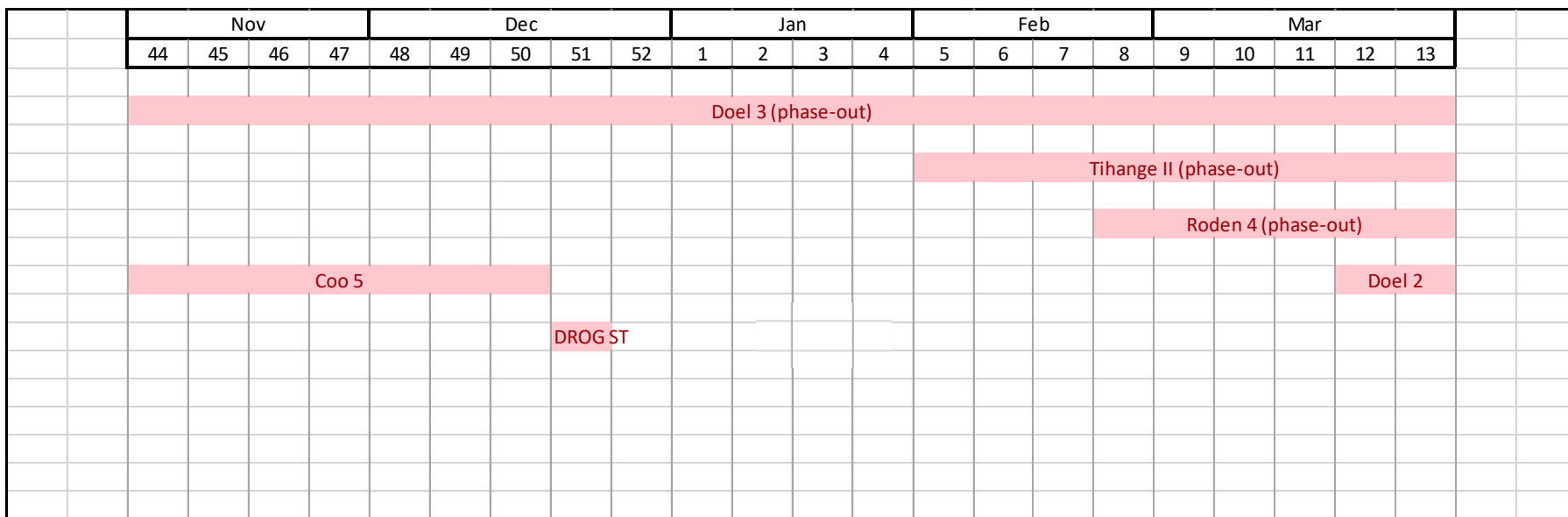
In Belgium, just like many other countries, demand reductions are seen and expected to decrease further (in line with EC action plan cfr 5-10%). Certainly at European scale this could make the difference and this will be assessed as a sensitivity in the Winter Outlook.

Comparing the total load of the current year 2022, with the minimum, average and maximum values of the period 2016-2021 (excluding 2020 due to large impact Covid).

- A reduction of less than 5% can be seen the last months
- The post-COVID rebound is probably counterbalanced by the high price effect suppressing demand
- Total load estimation for the analysis is 83.6TWh, which is lower than previous estimates (see adeqflex 22-32 study)



Belgian Outlook: Good Availability of Powerplants During the Winter

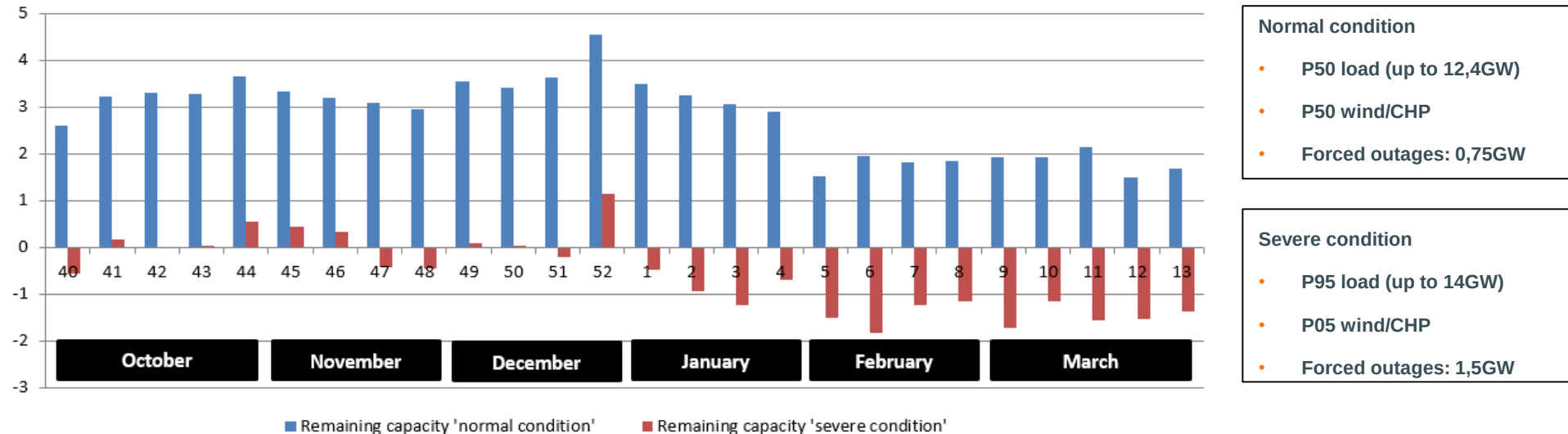


Producers seem to have optimized their revision planning rather well to ensure high availability in the winter.
This trend is also confirmed on a European scale.



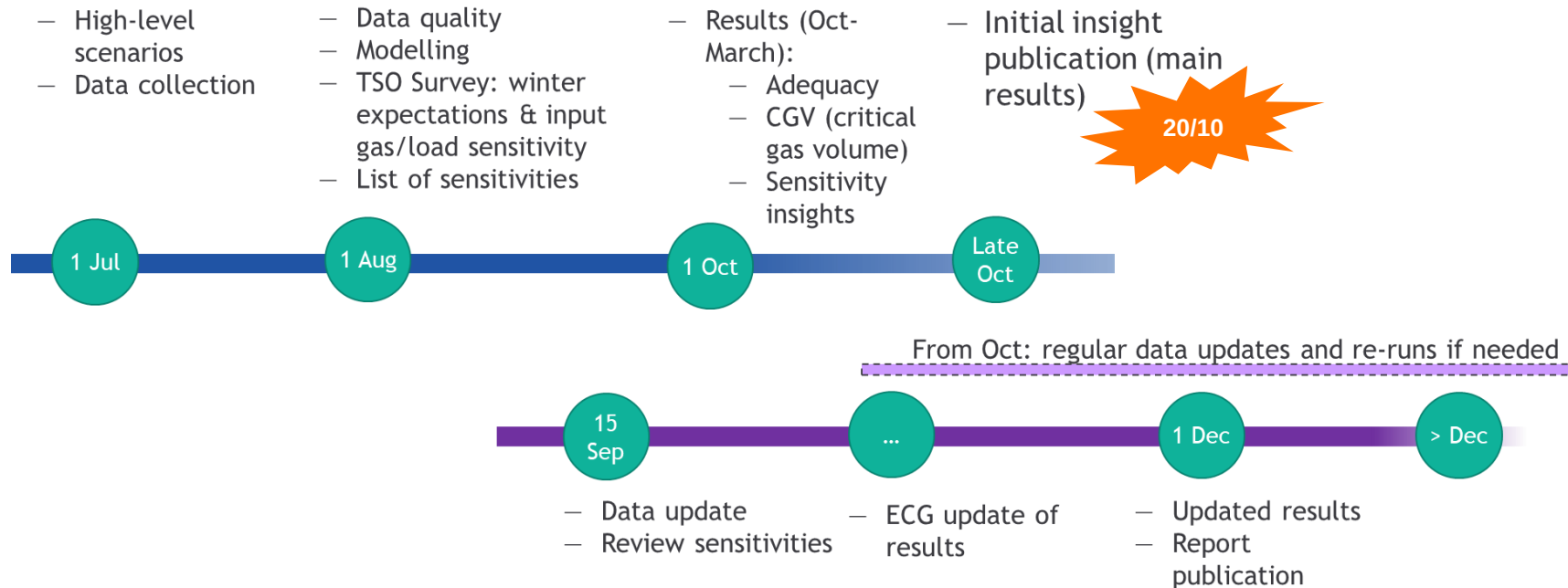
Belgian Outlook: Deterministic View on Import Capacity Need

Belgium: Remaining capacity at peak [GW]
(import required if negative)



In line with previous messages the situation for Belgium is rather comfortable. In normal conditions a lot of export potential (reduces by end of the winter due to nuclear phase-out). In severe conditions (high load combined with low wind/CHP) Belgium would only structurally rely on import to cover for additional outages. Off course, it is important to keep a close eye on all evolutions in Belgium and around.

ENTSO-E Winter Outlook 2022/2023: New Timeline and Adapted Approach



Need is raised by TSOs, EC and MSs to get early insights in the light of the multiple uncertainties the electricity system is facing (gas and coal supply, nuclear availability, hydro levels, demand increase/decrease).
Need is also raised to extend the winter period (October-March).

ENTSO-E Winter Outlook 2022/2023: Scenarios Assessed

REFERENCE CASE

Low demand

Best estimate projections for October to March

- Including confirmed national mitigation measures
- Early estimate of hydro reservoir levels
- Gas considered last in the merit order

Effect of proposed Emergency Intervention toolkit considering:

- Reduced consumption reduction: fixed 10% overall
- Peak hour mitigation: 5% demand peak reduction

Low nuclear

Prolonged unavailabilities of plants in France, Sweden, Finland

Fossil constraints

Constraints on coal in Poland, and all fossil fuel in Germany

High demand

Proportion (5%) of residential users switching heating from gas to electricity

- Assessment based on **one reference case and four sensitivities**.
- Every scenario undergoes a **probabilistic assessment** to identify adequacy risks (LOLE/ENS). In case of issues, another run is triggered considering non-market resources.
- Every scenario is assessed for **critical dependency on gas supply** at country level and weekly basis.

Operational Readiness: Several Processes to Monitor the Winter Situation

Winter outlook

- October: ENTSO-E winter outlook early insights publication (20/10)
- End of November: ENTSO-E winter outlook publication

Regular meeting

- 2 weekly ECG (Electricity Coordination Group = EC, ACER, MSs) meeting, sometimes combined with GCG
- Taskforce launched within SOC to test all procedures, share info, ... (//ENTSOG)

Weekly outlook

- STA: RCC process (rolling window 7 days) – Pan EU and regional analysis
- CGS: ad hoc process to start communication/actions with all TSOs and RCCs
- STAT: internal Elia tool with a weekly dashboard (rolling window) + detailed daily view

Unfortunately we have had several tough winters leading to very well developed scarcity procedures, internally and with external crisis partners.

Key focus for next winter is to make sure (via refresh training) that these are well known, just in case.



Market Suspension Rules

Elia new proposal & next steps

Date | First name Surname

Context

- NC E&R (Regulation 2017/2196) :

Article 36

Rules for suspension and restoration of market activities

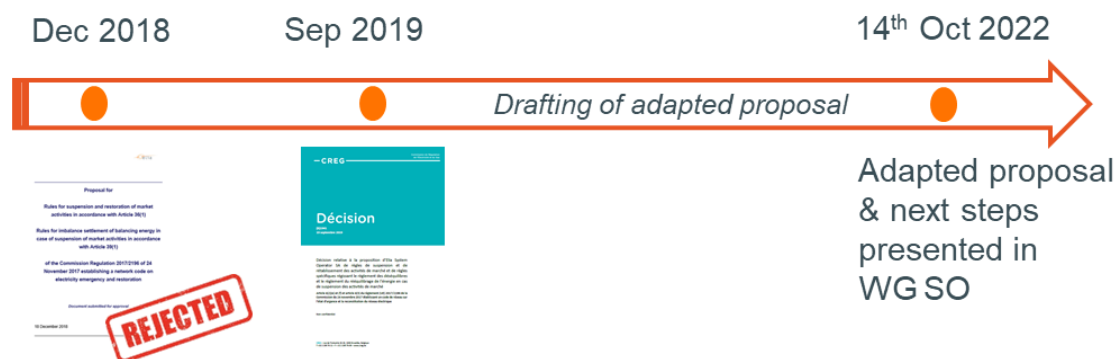
1. By 18 December 2018, each TSO shall develop a proposal for rules concerning the suspension and restoration of market activities.

Article 39

Rules for settlement in case of suspension of market activities

1. By 18 December 2018, each TSO shall develop a proposal for rules for imbalance settlement and settlement of balancing capacity and balancing energy which shall be applicable for imbalance settlement periods during which the market activities were suspended. The TSO may propose the same rules it applies for normal operations.

- A first proposal was submitted by the deadline of December 2018 which has been rejected.
- Elia presents key points on adapted proposal today in WG EMD-SO and next steps



Content of adapted proposal

The following changes were made in Elia adapted proposal:

1. CREG's remarks from decision (B)1941 were taken into account. For a few remarks, ELIA considered that it could not respond to CREG's request. When it is the case, the deviation is explicitly justified in the explanatory note.
2. The scope of the rules was clarified : these national rules were drafted to address cases of emergency, restoration and blackout states that only concern Belgium. When several TSOs are concerned by an issue, an inter-TSO coordination is necessary to efficiently manage the situation. In this case, the injunctions resulting from this inter-TSO coordination prevail on the national rules.
3. As a result of paragraph 2, the number of activities that Elia is allowed to interrupt was reduced from 11 to 6 : Elia indeed believes that the decision to stop activities related to European processes (SDAC, SIDC,...) cannot be taken by Elia alone, at national level.
4. Small modifications were proposed in the construction and application of the restoration tariff
 - The BE reference DA price is used in the formula instead of the DA EPEX spot (to accommodate the Multiple NEMO arrangement)
 - The restoration tariff applies for all injections/offtakes expect for the imports resulting from a top-down restoration strategy to which a financial compensation described in bilateral agreements between TSOs should apply



“Market” activities that may be suspended by Elia

Version 2018

- Provision of CZC for capacity allocation
- Submission by BSP of balancing capacity and energy bids
- Provision by BRP of a balanced position at the end of DA
- Provision of modifications of the position of BRP
- Provision of schedules
- Allocation of LT transmission rights
- Organization of SDAC
- Organization of SIDC
- Local Intraday transactions
- Procurement of balancing services
- Publication of Imbalance Price

Version 2022

- Submission by BSP of balancing capacity and energy bids
- Provision by BRP of a balanced position at the end of DA
- Provision of modifications of the position of BRP
- Provision of schedules
- Procurement of balancing services
- Publication of Imbalance Price

Restoration tariff applied during TSO-controlled dispatch periods

$$\text{Restoration tariff} = 73 \% * 1/3 (\text{Cal Y+2} + \text{Cal Y+1} + \text{M+1}) + 27 \% * \text{AVG (EPEX spot BE DAM-~~BE~~ Reference DA)}$$

Where

- CAL Y + 2 = the average of the daily quotations for the baseload product published by ICE INDEX two years preceding the year of the TSO controlled Dispatch period,
- CAL Y + 1 = the average of the daily quotations for the baseload product published by ICE INDEX in the course of the year preceding the year of the TSO Controlled Dispatch period,
- M + 1 = the average of the daily quotations for the baseload product published by ICE INDEX in the course of the month preceding the month of the TSO Controlled Dispatch,
- AVG (BE Reference DA) = the hourly average of the **reference DA price of the Belgian bidding zone (as calculated by Elia in accordance to the Multiple Nemo Arrangement for the Belgian bidding zone, and published on Elia website)** over the last 28 calendar days prior to the day on which the TSO Controlled Dispatch period started.

This restoration tariff is applied for all offtakes and injections during the TSO-controlled dispatch period, except for the imports resulting from the application of a top-down restoration strategy.

Next steps



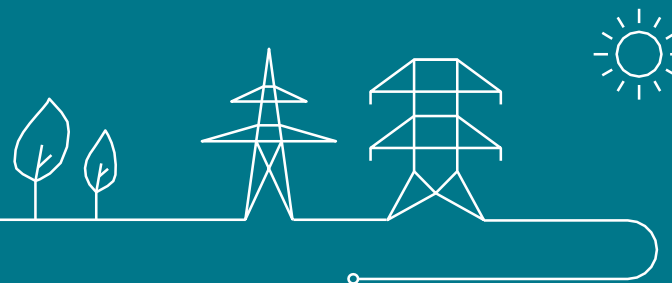
- Elia intends to start a public consultation of its adapted proposal in Q4 2022, after last alignments with CREG

Note that Elia invites the market parties to pay specific attention to the actions that would be required at their side to implement the rules and to communicate them (if any) to Elia so that Elia can take them into account in the implementation timeline of the rules

- Elia should then be able to submit its adapted proposal for CREG's approval in Q1 2023



European Market Design



Core FB DA: insights after first months of operations *(Nico Schoutteet - CREG)*



Core FB DA: insights after first months of operations (*Nico Schoutteet - CREG*)

See separate slide-set presented by CREG

Core FB DA: insights after first months of operations (Elia)



Core DA status

Focus on Belgium



Assessment of the diminution of loopflows

From North to South per MTU & per week amount of loopflows before & after optimization

Elia uses 50% of the PSTs range to reduce the loopflows in D-2.

Our optimizer achieves a LF reduction of up to 20% of Fmax on the grid element experiencing the highest relative LF. In doing so, the optimizer uses ~15% of time the available range on the North Border PSTs into its full extent.

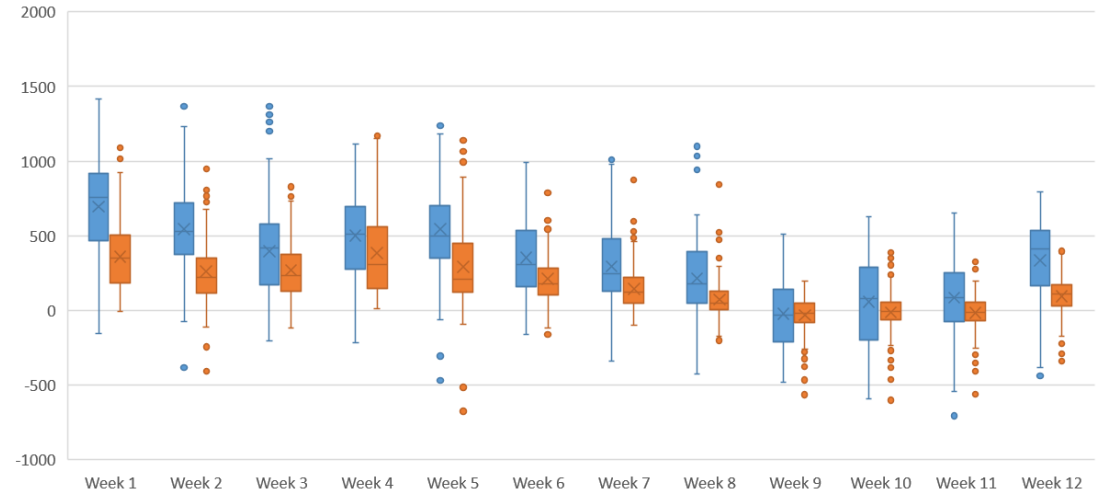
Percentile	Before Optimization	After Optimization
25%	14%	3%
50%	19%	6%
75%	26%	10%
95%	35%	18%
99%	44%	24%
	LF in % FMAX on grid element experiencing highest relative LF	

PSTs	%MTUs where 50% range fully used
Zandvliet 1	13%
Zandvliet 2	15%
Van Eyck 1	15%
Van Eyck 2	13%
Monceau	4%
Aubange	2%

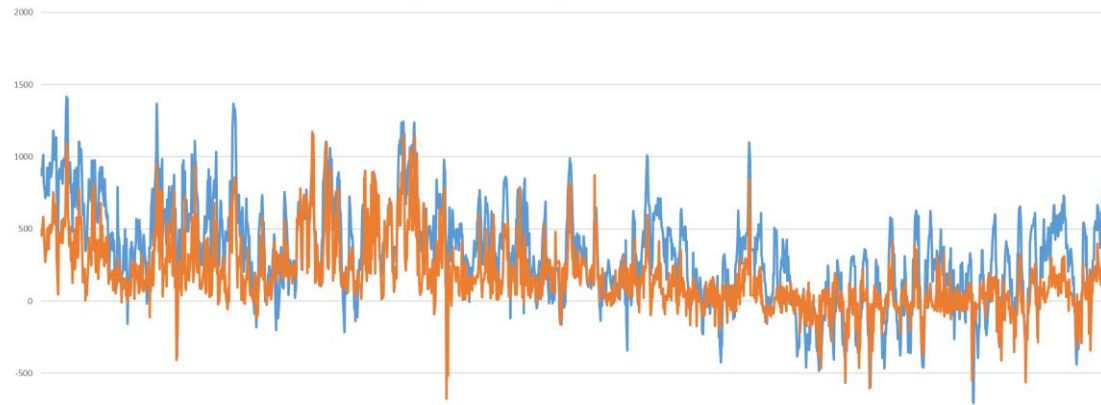
— LF before optimization
— LF after optimization

Positive value represents LF in the direction from north to south.

Reduction of loopflows in 12 Weeks

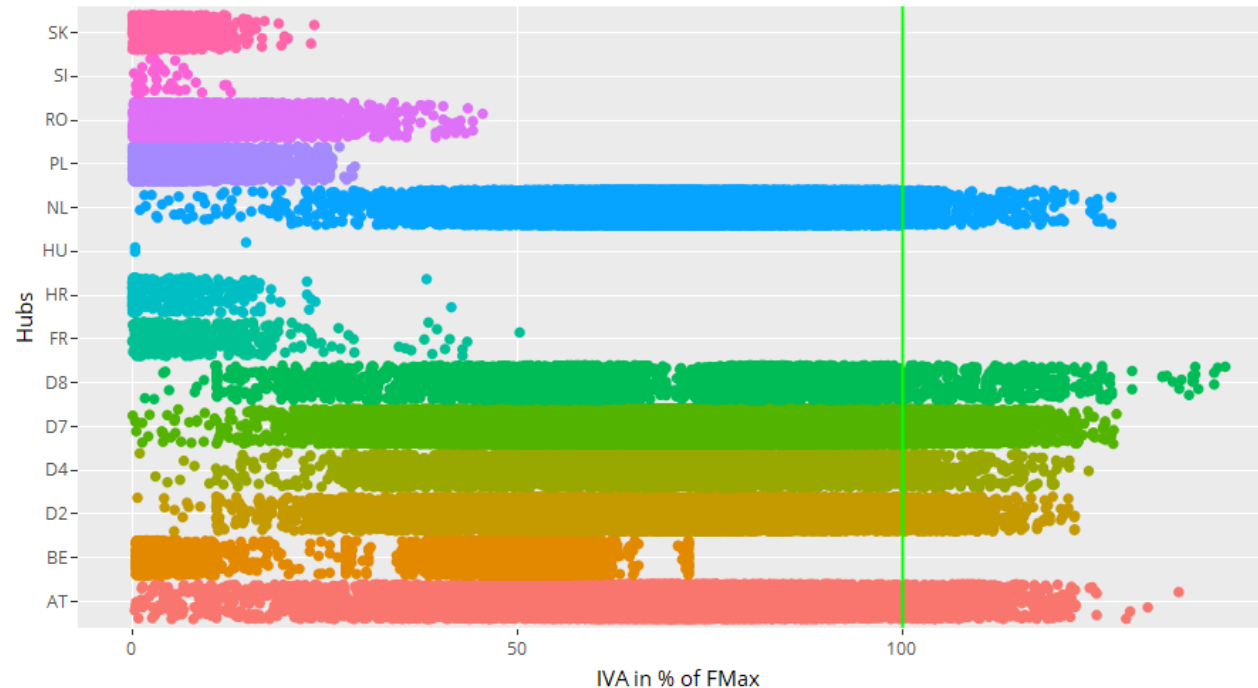


Loop flow optimization



CNECs with IVA for the month of July, August and September

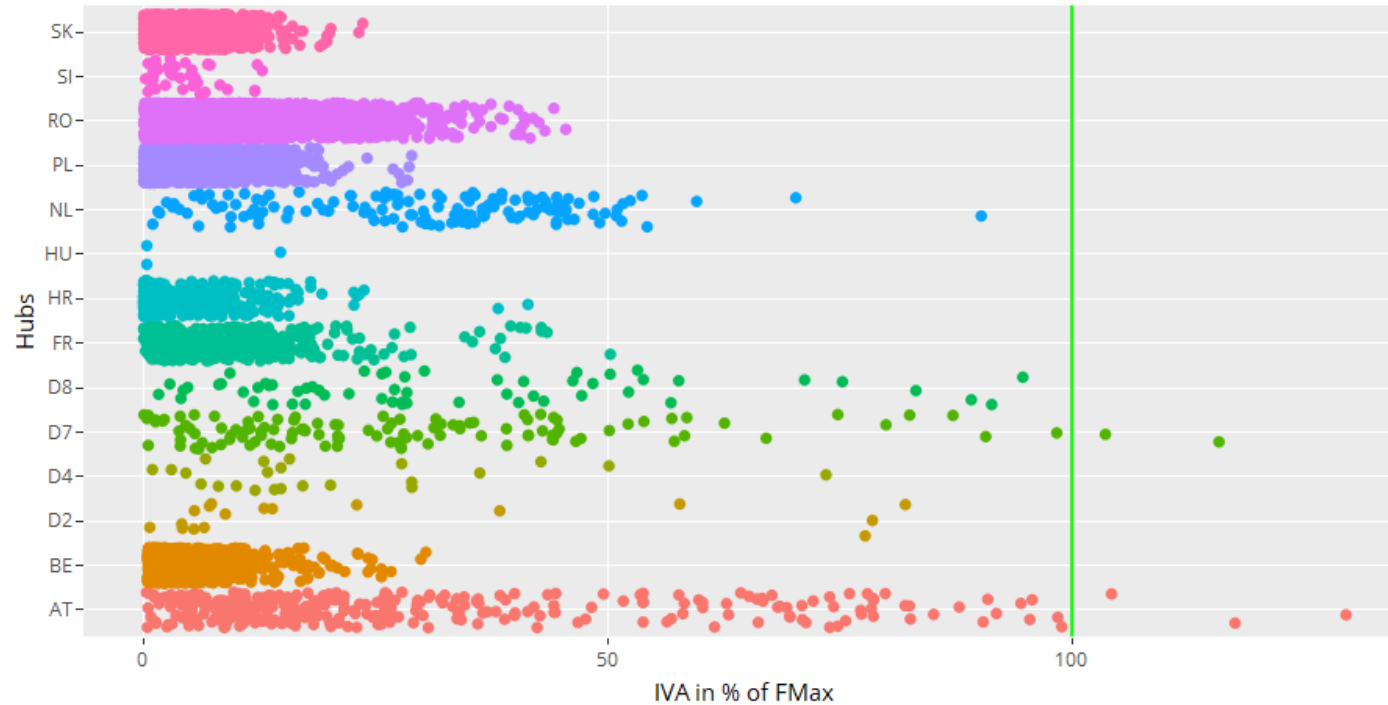
With Fallback



- During this 3 month period, Elia experienced a success rate of 99.5% of performing the individual validation without fallback.
- There were 10 MTUs spread over 5 different days for which the local validation tool exceeded the allowed run time, triggering the application of fallback. This low number of fallbacks is thanks to the spanning approach implemented in the tooling and actions of operators who are continuously trained to increase their reactivity.
- Even with fallbacks, Elia never gives less than 20% of Fmax to Core exchanges

CNECs with IVA for the month of July, August and September

Without Fallback



On average, apart from cases of fallback, the amount of IVA applied by Elia is 4% of FMax

Emergency measures and structural market design reforms



Emergency measures and structural market reforms

Emergency measures

- In its role as market facilitator, Elia is closely following the current development related to emergency measures
- Elia is not in charge of their overall design, and has only a limited support role for the Member State
 - Forecasting peak hours (10% of the hours with peak price, or peak consumption or peak non-RES generation)

Structural reforms

- A more important structural market reforms has been announced since March, targeting legislative proposal in H2 2023
 - The overall timing is likely to be accelerated but remains unclear
 - EC intends to present its (first?) ideas to council and parliament by EoY.
 - Elia sees this process as an opportunity to share proposals developed in the past years (see overview on next slide), and to complement it where needed – views welcome
-

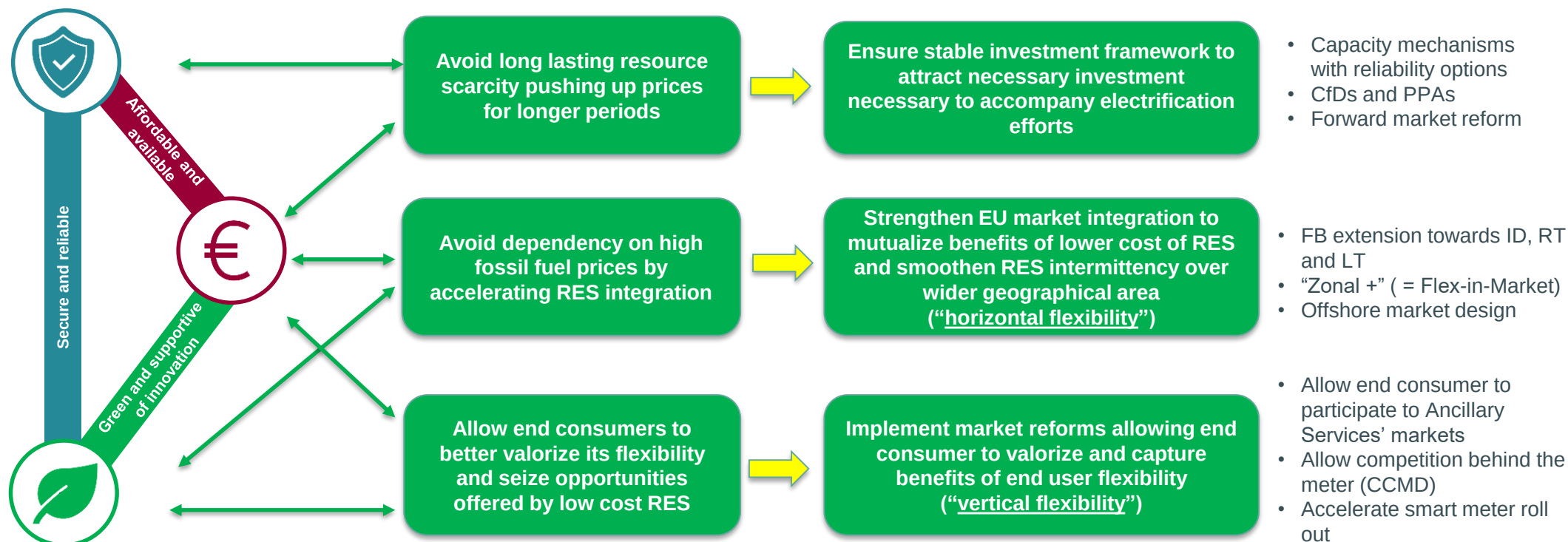
An overview on Elia Group's view on structural electricity market reforms

Energy Trilemma Objective:
Towards an affordable, sustainable
and secure Electricity System

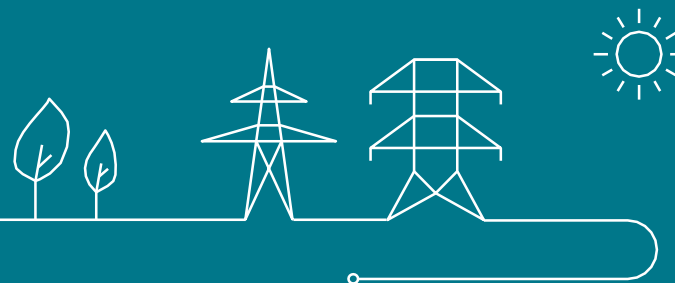
**3 key measures to reduce end users
electricity bill in an enduring way &
strengthen all Energy Trilemma objectives**

Enablers

Priority Market Reform



AOB & Conclusions



AOB

2nd Market Coupling Consultative Group meeting on 1/12/22



SAVE THE DATE

1 DECEMBER 2022

Second

Market Coupling Consultative Group meeting

Live Workshop

Registration will start soon
please follow NEMO Committee and ENTSO-E website
<https://www.nemo-committee.eu/index> <https://www.entsoe.eu/>

AOB

- **Next WG EMD-SO meeting:**
 - Date proposed by Elia during meeting 31/01/2022 slot will be uploaded on the website
- **Other AOB?**

Conclusions & next steps

Recap of main conclusions, actions & defined next steps after today's WG EMD-SO

- ...

ANNEX

