Task Force Implementation of Strategic Reserve

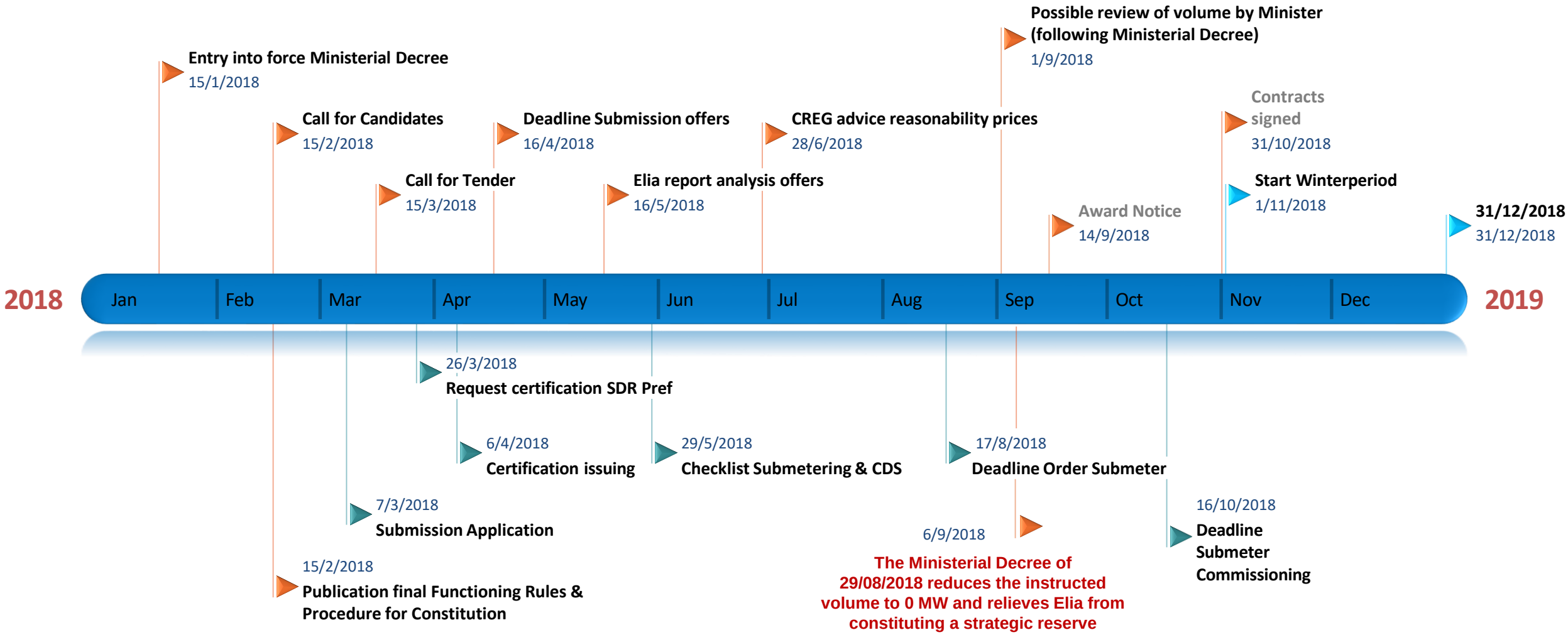
Task Force – September 25, 2018

Meeting Agenda

- **Status Tender Winter 2018/19**
- **Volume Revisions Winter 2018/19**
- **Adequacy Study 2019/20 :** Public Consultation on input data
- **SR design Winter 2019/20**
  - Emergency Generators
  - Other

Status Tender 2019

Timeline 2018 (15.02.2018)

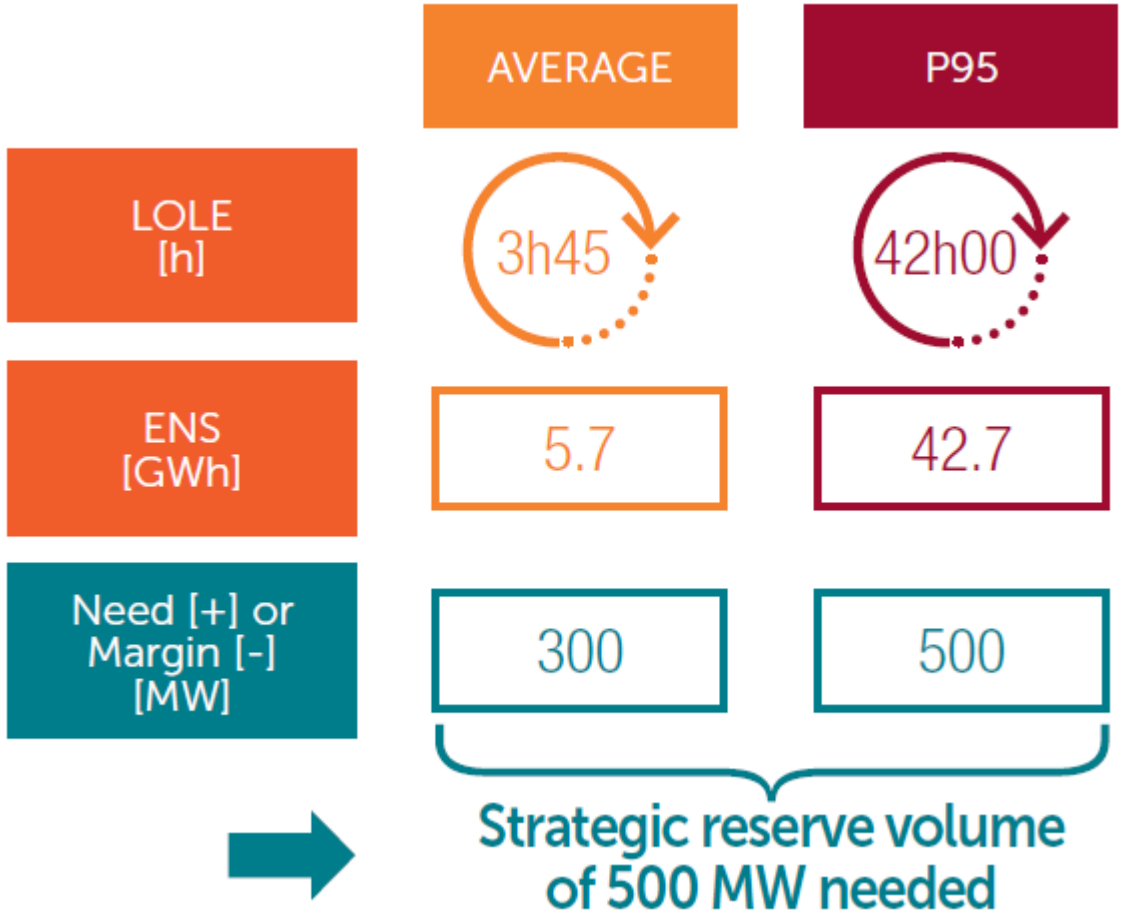


Volume Revisions Winter 2018/19

Winter 2018-19 volume assessment (30.11.2017)

Winter 18- 19

- Base Case Winter 18- 19
- 1GW NUC out in BE
- 4,5 GW NUC out in FR
- DROGENBOS CCGT



Winter 2018-19 volume assessment – update 17.08.2018

- On 15 January 2018 the Minister instructed Elia, via Ministerial Decree to contract a strategic reserve for winter 2018-2019 of 500 MW.

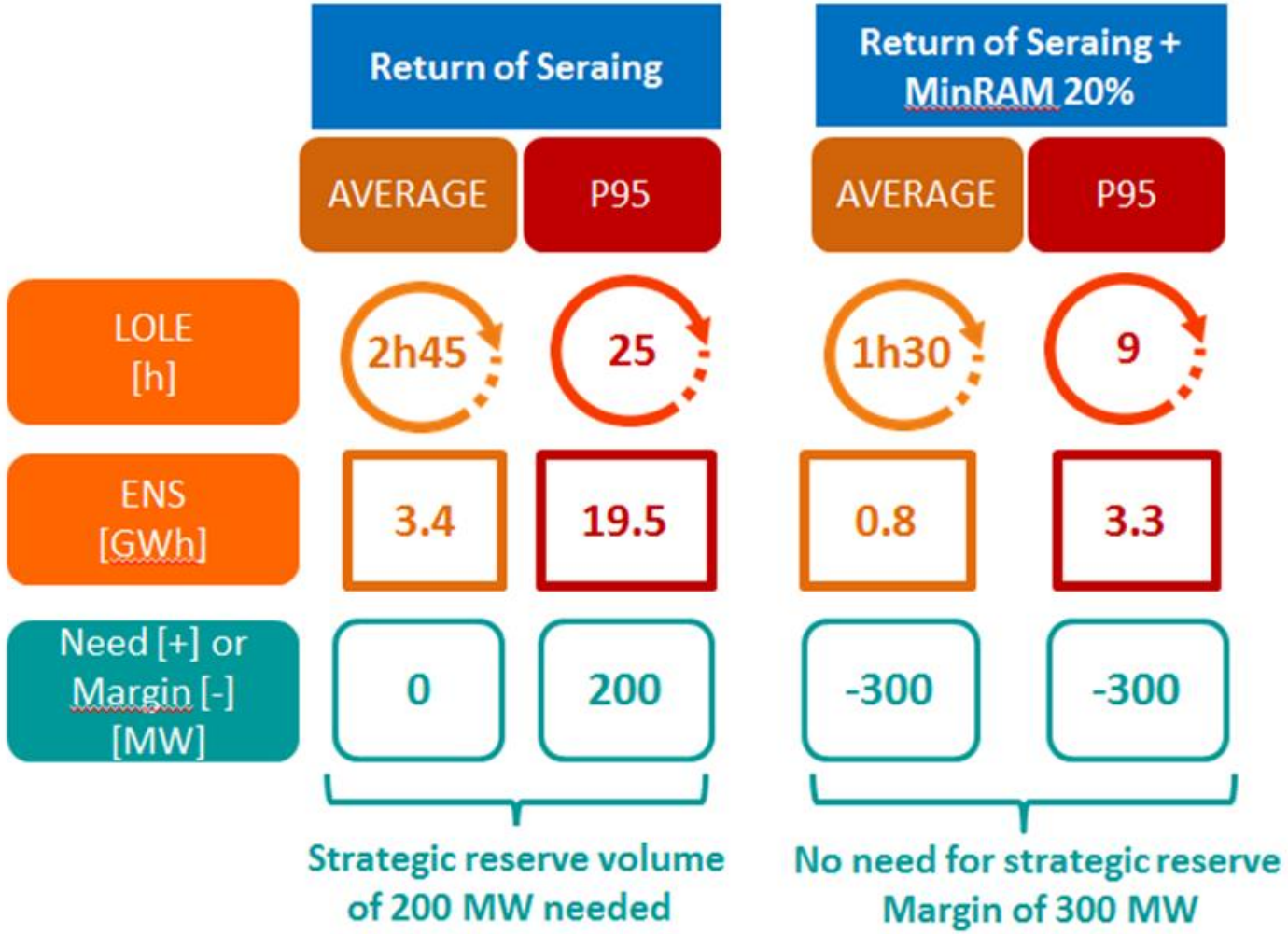
- According to this Ministerial Decree and more precisely its article 3, the Minister can decide to review the volume at the latest by 1 September 2018.

- In that respect, an official request for an update of the volume assessment was addressed to Elia by the Minister on 28 June 2018

- Update of the **Winter 18 - 19** volume assessment
  - Base Case Winter 18- 19
  - 1GW NUC out in BE + 4,5 GW NUC out in FR
  - DROGENBOS CCGT
  - + SERAING CCGT
  - + MinRAM20%

Winter 2018-19 volume assessment – update 17.08.2018

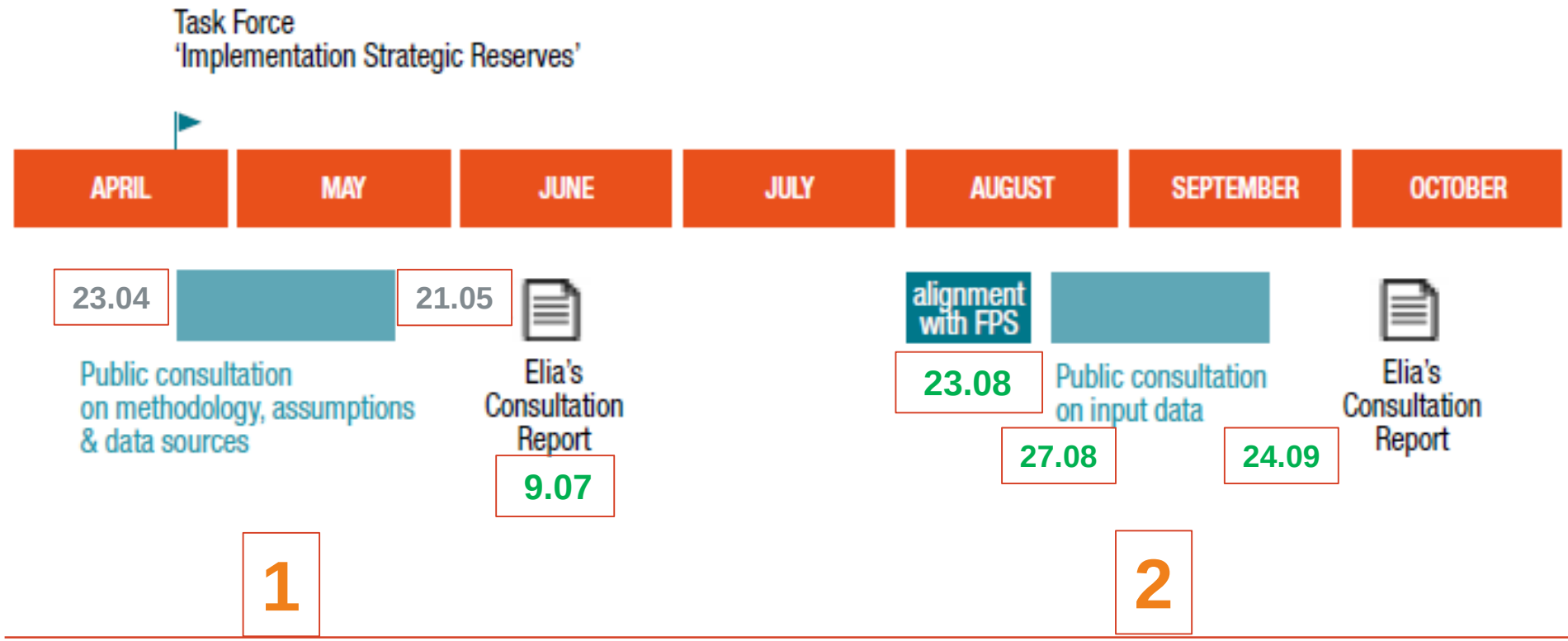
Sensitivity based on 1GW of nuclear production capacity in Belgium and 4.5 GW of nuclear production capacity in France out of service for the entire winter



Adequacy Study 2019/20
Public Consultation on input data

Volume determination: two public consultations are held

Stakeholder comments were taken into account: sufficient duration of consultations is foreseen.



5 reactions on the public consultation on input data
→ 27 August 2018 – 24 September 2018

5 answers
FEBELIEC, CREG , FEBEG
ENGIE, RESTORE

Stakeholders acknowledge the **continuous improvements** and **effort to increase transparency** by Elia

Answers can be clustered in the followig categories:

- Data
- Assumptions
- List of power plants
- Demand Growth
- Market Response
- Flow Based

Elia will publish the "Consultation Report" with a summary of the received feedback and its answers to these reactions on **Friday 05.10.2018**

SR Design Winter 2019/20

Workplan SR Design Winter 2019/20

	Topic	Trigger	Planning
1.	Application of Transfer of Energy for SDR	Modification E-Law (Art. 19)	Presentation proposal in TF 9/7 Update and Feedback TF 25/09
2.	Emergency Generators	Modification E-Law (Art. 7)	Presentation proposal in TF 9/7 Update and Feedback TF 25/09
3	Divisibility offers for SGR	Modification E-Law (Art. 7)	Presentation proposal in TF 25/09
5	Investigate exceptions to the full exclusion DPs participated or participating in AS	Request CREG (Decision FR) Market Request	Presentation proposal in TF 25/09
6	Investigate the revision design for tests (planning and penalties)	Market Request	Presentation proposal in TF 25/09
7	Improve transparency towards parameters following the Adequacy Study (activation criteria, heat map,…)	Request CREG (Decision FR)	TF November (linked to publication of the volume report)
8	Clean-up functioning rules, procedure for constitution and contracts following E-Law amendment	Modification E-Law	TF November (including concrete text proposals)

Adaptation of ToE Rules and ARP contract in order to extend ToE to SDR

⇨combined with extension of ToE to R3 reserved

Go live ToE SDR: Winter 2019-20

Go live ToE R3

1/12/2018

2018 | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2019

Today

ARP-contract

- Reorganisation of art. 11.8
- Impact in case of activation of R3 or SDR
- Additional notification for ARPsource

16/8/2018 – 6/9/2018

Public. consultation

No comments on content

19/9/2018

Submission ARP contract proposal

Expected approval before mid-Nov

ToE Rules

- Extension of ToE to R3
- Extension of ToE to SDR
- Additional notification for ARPsource
- Description of Baseline (high X of Y)

28/6/2018 - 18/7/2018

Public. consultation

Minor comments, mainly related to R3 design

30/7/2018

Submission ToE Rules proposal

17/9/2018

ToE Rules approved With some adaptations

Mainly clarifications and request to allow choice of baseline (for R3 only) per DP and not per pool as from Q1 2019

Emergency Generators: Certification

Constraints for Participation provided by Electricity Law:

1. installatie voor elektriciteitsproductie binnen een verbruikssite
2. nominale vermogen niet significant hoger is dan het verbruiksvermogen van de site in kwestie
3. uitsluitend geïnstalleerd is teneinde de elektriciteitsbevoorrading van deze site of van een deel ervan te garanderen…

Procedure of Constitution (+framework in functioning rules)

- **Candidate supplier has to specify for each delivery point the capacity in demand response, and the capacity in emergency generators**
- **Elia's certification process (described in procedure of constitution) will exclude emergency generators' capacity if:**
  - On an access point outside a consumption site
  - Generators' capacity is significant higher as maximum consumption of the site (during previous 3 years), i.e. 110%.
  - Generators operating in parallel of the system more than 5 minutes per month, cfr COMMISSION REGULATION (EU) 2016/631of 14 April 2016 establishing a network code on requirements for grid connection of generators
  - Generators which cannot generate when disconnected from the grid.
  - Generators used for activities other than securing supply of the site (e.g. ancillary service or energy markets)
- **Elia's certification process will certify a capacity for emergency generators on a delivery point lower or equal as the rated power of the corresponding generators' rated capacity defined in the technical specifications.**
  - Declaration d'honneur, technical fiche, single wire scheme,
  - The right to conduct physical check at location

Participation of Emergency Generators in SDR

Discussion Points

- **<u>Question 1</u>: does the 5' per month limit for running in parallel includes testing ?**
  - *"Generators operating in parallel of the system more than 5 minutes per month (excluding tests),*
    - Intention is to avoid the use for other reasons as security of supply (e.g. ancillary service or energy markets)
    - Elia will explicitly mention that this is without tests but will then also ask "declaration d'honneur"

- **<u>Question 2:</u> are emergency generators participating in SDR subject to Synergrid C10/11?**
    - Synergrid C10/11 defines technical requirements for decentralized production-units running in parallel with distribution system
    - FSP-DSO contract covers the procedure to be qualified as access point (C8-01 - network flexibility study)
    - C8-01 specifies that DSO will check conformity with C10/11 of the production units

    ➔ Requirements for emergency generators participating in SDR or R3 are already contractually covered

    ➔ The DSO verifies conformity in framework of R3 and SDR

Divisibility of offers

Art. 7 quinquies: […]

§3*bis* De volumes aangeboden door de deelnemers aan de procedure voor de aanleg van de strategische reserve moeten deelbaar zijn, rekening houdend met de technische karakteristieken van de aangeboden capaciteit en volgens de modaliteiten bepaald in de procedure voor de aanleg van de strategische reserve bedoeld in paragraaf 1.

- Already implemented for SDR in Functioning Rules of Winter 2018/19
- To be implemented for SGR in Functioning Rules of Winter 2019/20

High-Level SDR Bidding Principles:

For each (combination of) Delivery Point having received a maximum SDR Reference Power as a result of the Certification, the SDR Candidate can submit one or more offer(s) for a SDR Reference Power smaller or equal to such maximum SDR Reference Power :

1. Smallest Offered Volume: The smallest offered volume for each Certified Combination Number should be of a minimum volume of 1 MW and a maximum of 10 MW. Exceptions can be made for units whose production process limits the units technically to supply less than 10 MW. The necessary substantiation will be required

2. Volume Increments : When sorting the offers in terms of offered volume, the difference between 2 Capacity Bids can be at maximum 10 MW for each Certified Combination Number. Capacity Bids for a smaller volume are allowed and strongly encouraged. However, exceptions can be made for units whose production process limits the units technically to supply less than 10 MW. The necessary substantiation will be required.

3. Total Cost : The total cost (unit price × volume) of the smallest volume that can be retained resulting from a Capacity Bid, should never exceed the total cost of the smallest volume that can be retained from a Capacity Bid with a larger offered volume. In other words, the total cost for a volume should not exceed the total cost of a larger volume for each Certified Combination number.

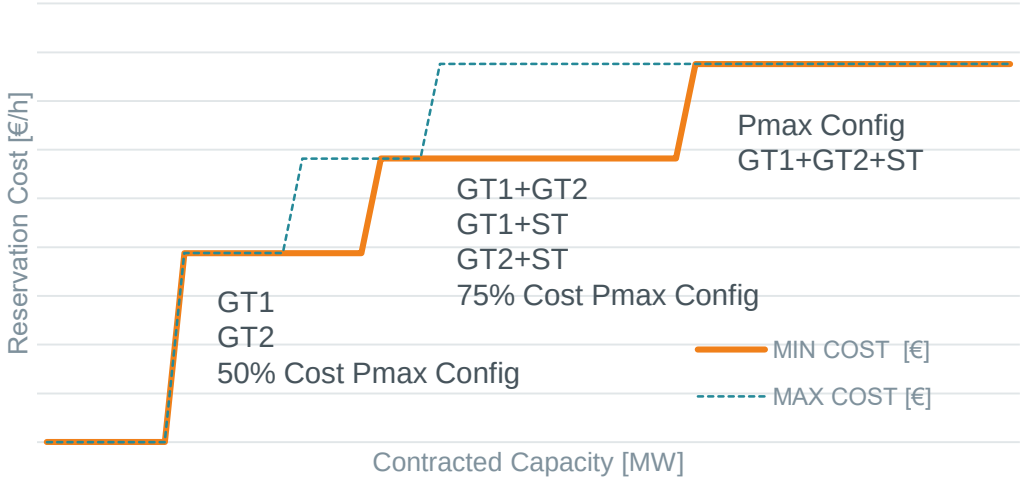
Divisibility of Offers:
Impact assessment of divisibility

- **A power plant must offer all technical configurations possible at the moment of leaving the market.**
  - ➢ A power plant does not have to offer all other technical configurations possible (when requiring modifications)

- **A divisibility towards configuration allows Elia to always select the cheapest configuration.**
  - A lower configuration is assumed to result in a lower reservation cost because it may impact the fixed O&M.

- **Further divisibility (e.g. in steps of 10 MW) does not result in further reservation cost reductions.**
  - The reservation cost is assumed to remain constant within a configuration as having no impact on fixed O&M.

Illustrative example of a power plant which can offer in different configurations.



- Fixed maintenance cost for configuration giving the maximal capacity is larger as for other configuration resulting in lower capacity
- Within a configuration, the fixed maintenance cost is assumed to be independent from the reserved capacity.

Market requests

- **Combo AS-SDR?**
  - A constructive exchange between Elia & Febeliec revealed that it is very hard to find straightforward solutions that safeguards the out-of-market character within the boundaries of the product philosophy. In contrast, it might be worthwhile for demand response providers to explore the possibilities already available. Therefore, it is proposed not to pursue this development at this stage.

- **Modifications for test conditions :**
  - **Specification of criteria for planning tests**
    - De facto, Elia already checks market conditions and the grid situation as part of a larger check on the overall situation when planning tests.
    - There seems no concrete need to further specify this in the functioning rules. It is to be avoided to provide too stringent rules because (1) the surprise effect of tests should remain and (2) the rules should not become restrictive (e.g. in assessing secure grid operation).
  - **Repeat penalties for voluntary tests of SGR**
    - Refer to decision CREG and answer Elia on the public consultation on FR for Winter 2016-17.
    - There are no new elements to reconsider this decision
      - Penalties to maintain energy program remain necessary to maintain program (and avoid unwanted impact on the market)
      - Penalties to deliver Pmin and Pmax necessary to ensure contracted capacity and service quality
      - Tests improve quality of the service (and penalties may indeed reduce incentive to test), but difficult to justify remunerating when unit is proven to be unavailable

Annex

Emergency Generators: Modification E-Law

- **Modification of the E-Law will facilitate the participation of Emergency Generators in Strategic Reserves as SDR.**
  - "Memory of Understanding" specifies in the attached explanatory note that this modification will only be implemented as from Winter 2019-20 (due to required changes to the functioning rules)
- **Current product design of SDR is determined to contract demand capacity, which can reduce the grid offtake upon activation, with specific product requirements concerning :**
  - Certification : to contract capacity which is likely available during scarcity periods (based on historic consumption)
  - Availability : to remunerate capacity which is effectively available (based on measured consumption)
  - Activation settlement : to only remunerate the activated energy (based on baselining)

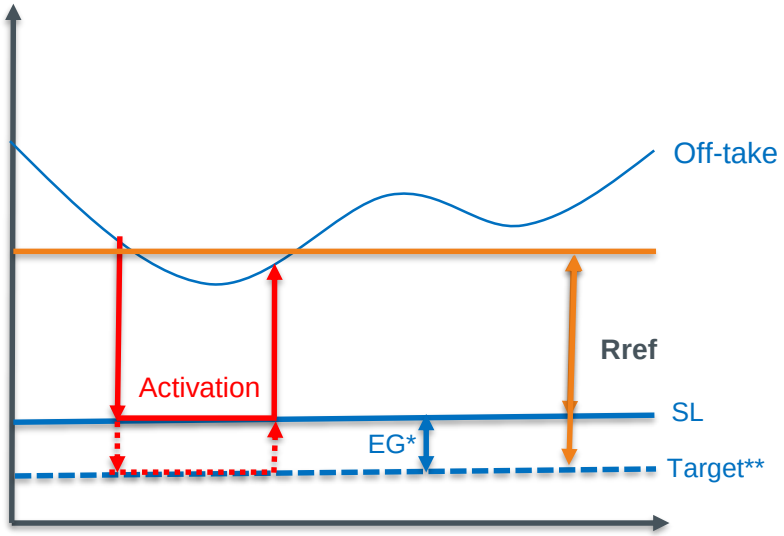
***Art.7quiquies § 2**. "Iedere speler die beschikt over vermogen gelokaliseerd in de Belgische regelzone, en die beantwoordt aan de specificaties zoals bepaald in de proceduremodaliteiten, kan deelnemen aan de procedure voor de aanleg van de strategische reserve, voor zover hij beantwoordt aan één van de volgende kenmerken :*

1° iedere transmissie- of distributienetgebruiker, individueel of op geaggregeerde wijze, via offertes van vraagzijdebeheer of door middel van noodstroomgroepen die in eilandbedrijf kunnen werken ;..."

***Art 2. 68°** "noodstroomgroep die in eilandbedrijf kan werken" : installatie voor elektriciteitsproductie binnen een verbruikssite, waarvan het nominale vermogen niet significant hoger is dan het verbruiksvermogen van de site in kwestie, en die uitsluitend geïnstalleerd is teneinde de elektriciteitsbevoorrading van deze site of van een deel ervan te garanderen wanneer de elektriciteitsbevoorrading afkomstig van het netwerk waarop het is aangesloten uitvalt voor deze site of een deel ervan"*

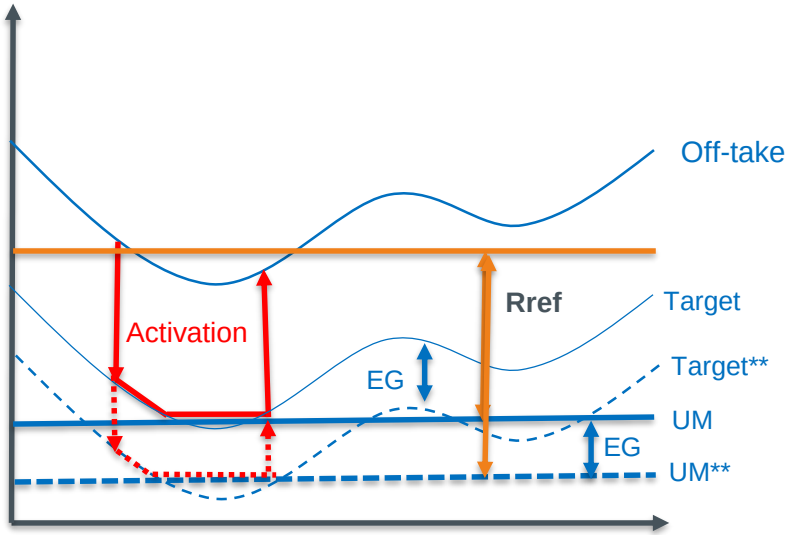
Emergency Generators: Availability

DROP-TO POOL



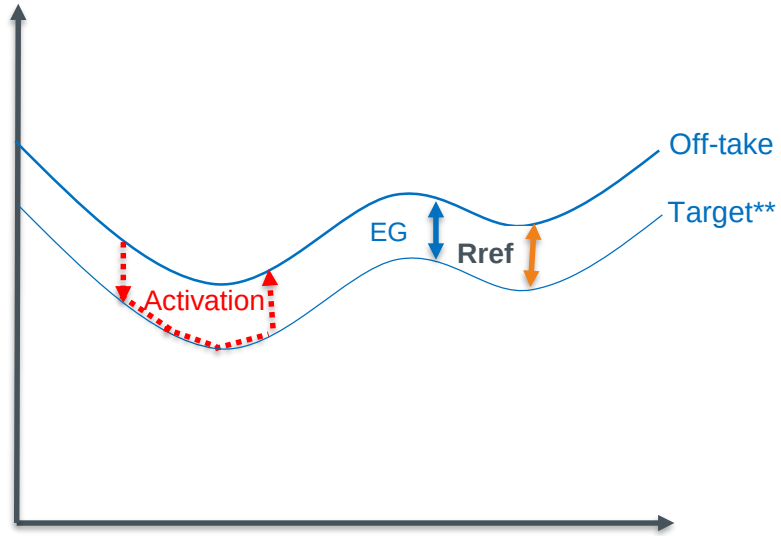
A certified capacity* of emergency generators (EG) can be added to a pool of SDR-DROP-TO increasing the Rref

DROP-BY POOL



A certified capacity* of emergency generators can be added to a pool of SDR-DROP-BY increasing the Rref

EG POOL (DROP-BY)



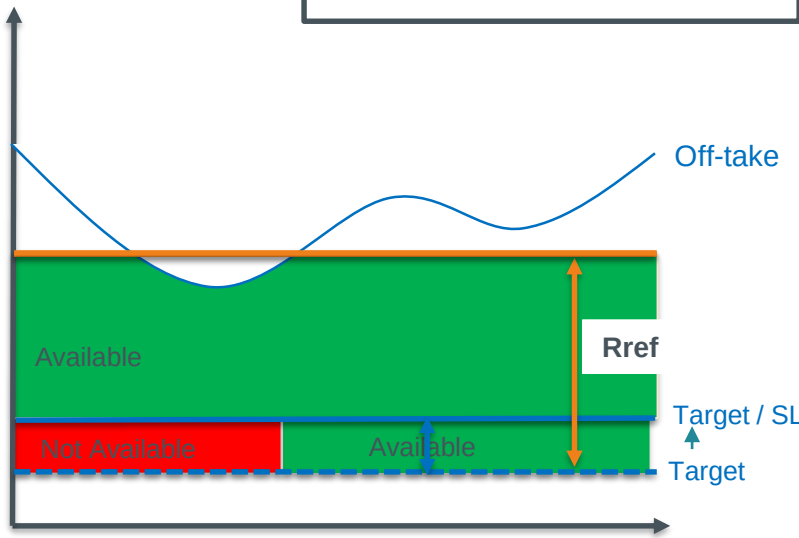
A certified capacity* of emergency generators can be offered as a seperate pool of EG where Rref is determined by the certified capacity

**Total certified capacity of emergency generators (EG) certified*
***Target is defined as the off-take level of the pool (or injection level in case of submetered EGs) to attain when activated*

Emergency Generators can be incorporated in the existing product design of SDR, without overthrowing the existing requirements.

Availability of Emergency Generators

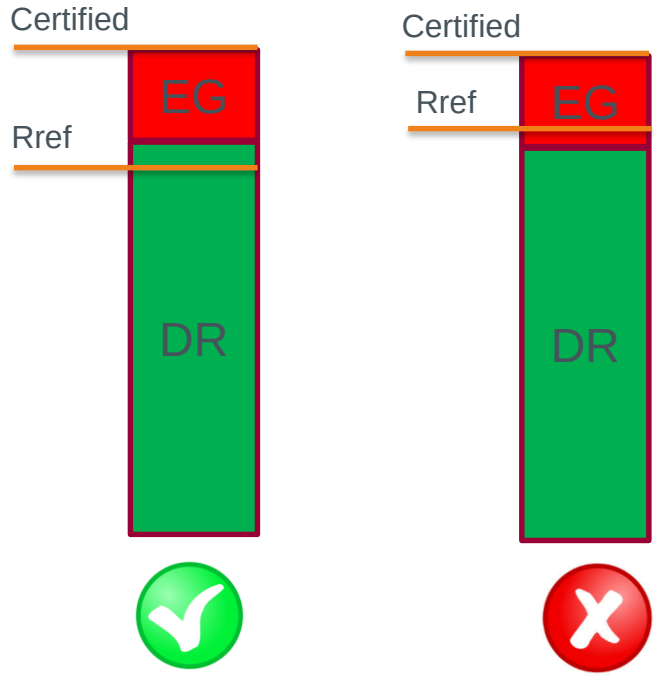
- **A SDR-supplier is remunerated following the availability of the capacity**
  - Available capacity can be lower as the Rref (reduced remuneration)
    - No incentive/obligation to consume
    - Certification ensures availability during scarcity



- **As with SGR, an SDR supplier has to announce unavailability of capacity provided with emergency generator (planned maintenance, unexpected failure)**

1. The target is temporarily corrected with the unavailable capacity
   1. Reduces the remuneration payment (cfr. green surface)
   2. Reduces the target for testing purposes (and avoids activation penalties)

2. Elia conducts a check of the Certified Capacity versus Contracted Capacity
   1. If Certified – EG > Contracted: Ok
   2. If Certified – EG < Contracted: Penalties as with SGR (missing volume*1.3 Reservation Price)



Next steps

- The proposed modification will impact :
  - Functioning Rules: Concrete text proposals will be presented where possible
  - Procedure for Constitution
  - Contracts

- Market parties are invited to provide feedback (before or during the next task force)