

# TF Implementation of Strategic Reserves for Winter 2015-16

22 October 2014



# Agenda TF ISR – 22/10/2014 (14h-17h00)



## *Location:*

Elia Headquarter, Keizerslaan 20, 1000 Brussels  
(Meeting room 00.20)

Topic	Presenter	Time
<b>Introduction</b> <ul style="list-style-type: none"><li>• <i>SR in general and implemented for winter 2014-2015</i></li><li>• <i>Purpose and scope of TF ISR</i></li><li>• <i>Internal rules &amp; practical arrangements TF ISR</i></li></ul>	Elia	15 minutes
<b>Planning</b> <i>Legal deadlines and informative planning</i>	Elia	15 minutes
<b>Implementation SR</b> <ul style="list-style-type: none"><li>• <i>Wrap up: short overview design winter 2014/2015</i></li><li>• <i>Experience feedback &amp; first overview tracks for reflection for winter 2015/2016</i></li></ul>	Elia	30 minutes
<b>BREAK</b>		15 minutes
<b>Stakeholder feedback and view on ISR</b>	Stakeholders	1 hours 45 minutes

# Agenda

**14h00**

- General introduction
- Scope TFiSR for winter 2015-16

**14h10**

- Internal rules & practical arrangements TF ISR

**14h15**

- Planning

**14h30**

- Wrap up: short overview design winter 2014/2015
- Experience feedback & overview tracks for reflection

**15h00**

- BREAK

**15h15**

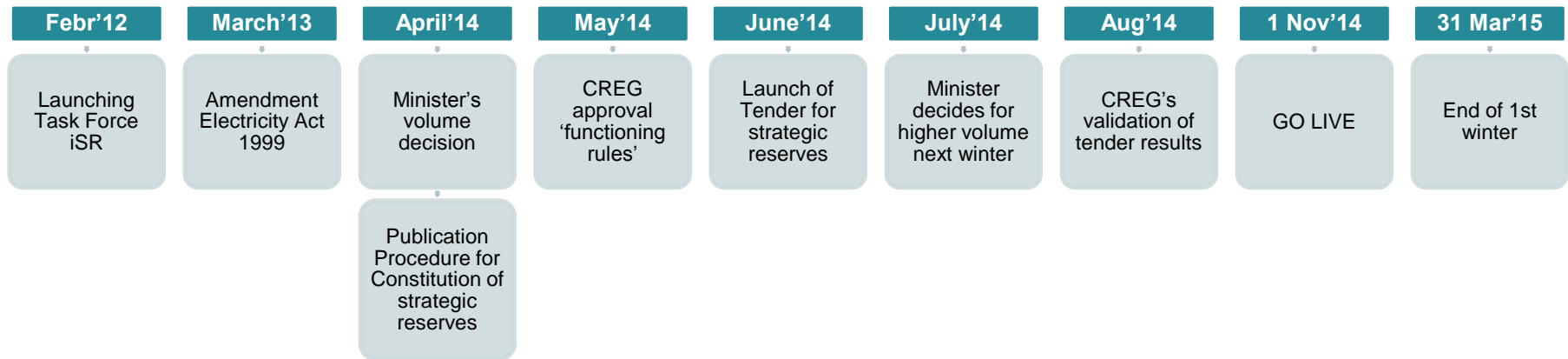
- Febeg's view on iSR for 2015-16
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- The **law of 26th March 2014** amended the federal Electricity Law of 29 April 1999, by introducing this **mechanism called “strategic reserves”** to ensure a sufficient level of security of supply during the winter periods.
  - This mechanism foresees a **new role for Elia** :
    - Yearly probabilistic analysis relative to security of supply
    - In case of decision minister and instruction to constitute a volume of strategic reserves:
      - Publication of Procedure for constitution after public consultation
      - Proposition of Functioning Rules for approval by CREG
      - Organisation of tendering, selection of offers and contracting
      - Detection of shortage periods and activation of SR
- ⇒ In February 2014, anticipating the possible implementation of Strategic Reserves for the Winter 2014-2015, Elia launched a specific Task Force dedicated to that topic in order to inform and consult market parties, specifically regarding the Procedure of Constitution (tendering rules) and the Functioning Rules of the Strategic Reserve

# Introduction



major milestones in the creation of strategic reserves for 2014-15



- In June 2014: Two products, were tendered for a total volume of, initially, 800MW as instructed by Minister:
  - **SGR**: Strategic Generation Reserves (for 3 years)
  - **SDR**: Strategic Demand Reserves (for 1 winter) in TSO grid only
  - A **minimum of 50 MW of SDR** would be contracted.
  - **No maximum of SDR**: Despite design differences in SGR and SDR products, Generation and Demand were put into direct competition thanks to a weighting factor for SDR.

⇒ Up to 850MW were offered among which 100MW SDR

- In July'14: new context on D3/T2 → a new Ministerial decree instructs to contract up to 1200MW (under condition that offers are considered reasonable by CREG).
- Finally all offers were contracted

For one offer, CREG considered the price unreasonable and volume and price conditions are imposed by a royal decree.

## ⇒ iSR Task Force for winter 2015-16

⇒ In anticipation of a potential ministerial decision to constitute strategic reserves for winter 2015-2016, Elia starts preparing – in consultation with the Task Force - the tender procedure that may be organised in the next months, using as a starting point the mechanisms set-up for winter 14-15.

### □ Goal of this task force:

- Inform market parties and stakeholders about all relevant items linked to the implementation of strategic reserves for winter 2015-16;
- Consult market parties and stakeholders, in particular about evolutions to be made to the tender procedure as well as to the market and product design.

### □ Scope:

#### IN:

- Product and market design for SR winter 2015-16.
- Experience feedback from winter 14-15 will serve as input for evolutions for winter 2015-16.

#### OUT:

- Scarcity situation winter 2014-15, Emergency plan

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## ➤ Internal rules & practical arrangements

**President:** Emeline Spire (Elia)

**Secretary:** Liesa Ottevaere (Elia)

### **Language:**

- Supporting material will be prepared in English + the meetings will be primarily held in English as well, however, participants are free to express themselves in the language of their choice (NL/FR) if English is an issue.
- Minutes: English.
- Final official documents (procedure of constitution and functioning rules): French / Dutch

### **Publications:**

- All documents will be made public via the website of the Users' Group
- Draft minutes will be made available 7 working days after each meeting, participants can comment via mail and finally minutes will be formally validated each next taskforce.

### **Stakeholder involvement:**

- During the meeting interaction is expected.
- In between meetings: reactions in writing are invited.
- All reactions in writing outside the meetings will be made publically available via the website of the Users' Group



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# Calendar for Strategic Reserves



By opposition to the implementation of SR for 2014-15, the legal framework already exists and Task Forces take place earlier in the year.

Nevertheless, the timing for implementation of SRV2 for 1/11/2015 remains very ambitious.

## Constraints

- Legal (tight) deadlines foreseen by law (art. 7bis till 7septies);
- Public consultation by Elia on Procedure of Constitution required by law;
- Public consultation by CREG on decision regarding Functioning Rules;
- European tendering procedure requires certain obligated steps and timings;
- Implementation of SRV1 is currently being finished while SRV2 has to start.

⇒ **Planning on next slide is the result of alignment between Elia, CREG and DSOs.**

## Procedure of constitution (Art. 7 quinquies)

- Eligibility criteria (art 7 quinquies)
- Description of different steps of the tendering procedure (contract notice, certification, call for tender, contracting)
- Necessary documents (bank guaranties...)
- Interactions between contracts (ARP,CIPU...)
- High level description of penalties

### REM:

- Certification SDR (e.g. agreements GU...)
- Prequalification SDR\_DSO
- Possible combination with AS

## Functioning Rules (Art. 7 sept)

### Market design

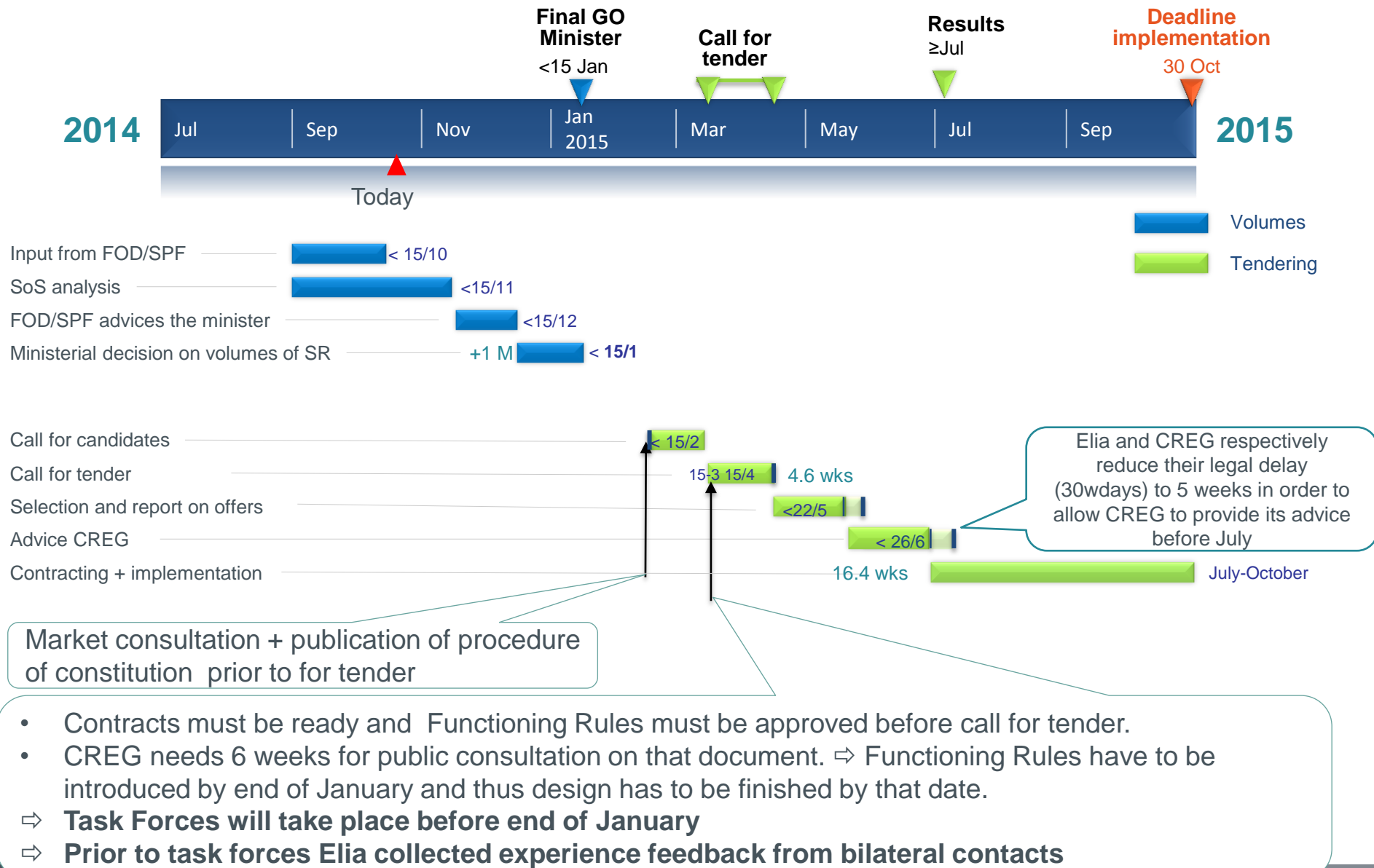
- Detection of structural shortage
- Different steps of an activation
- Market signals
- Impact on market

### Tendering rules : competition between SGR/SDR

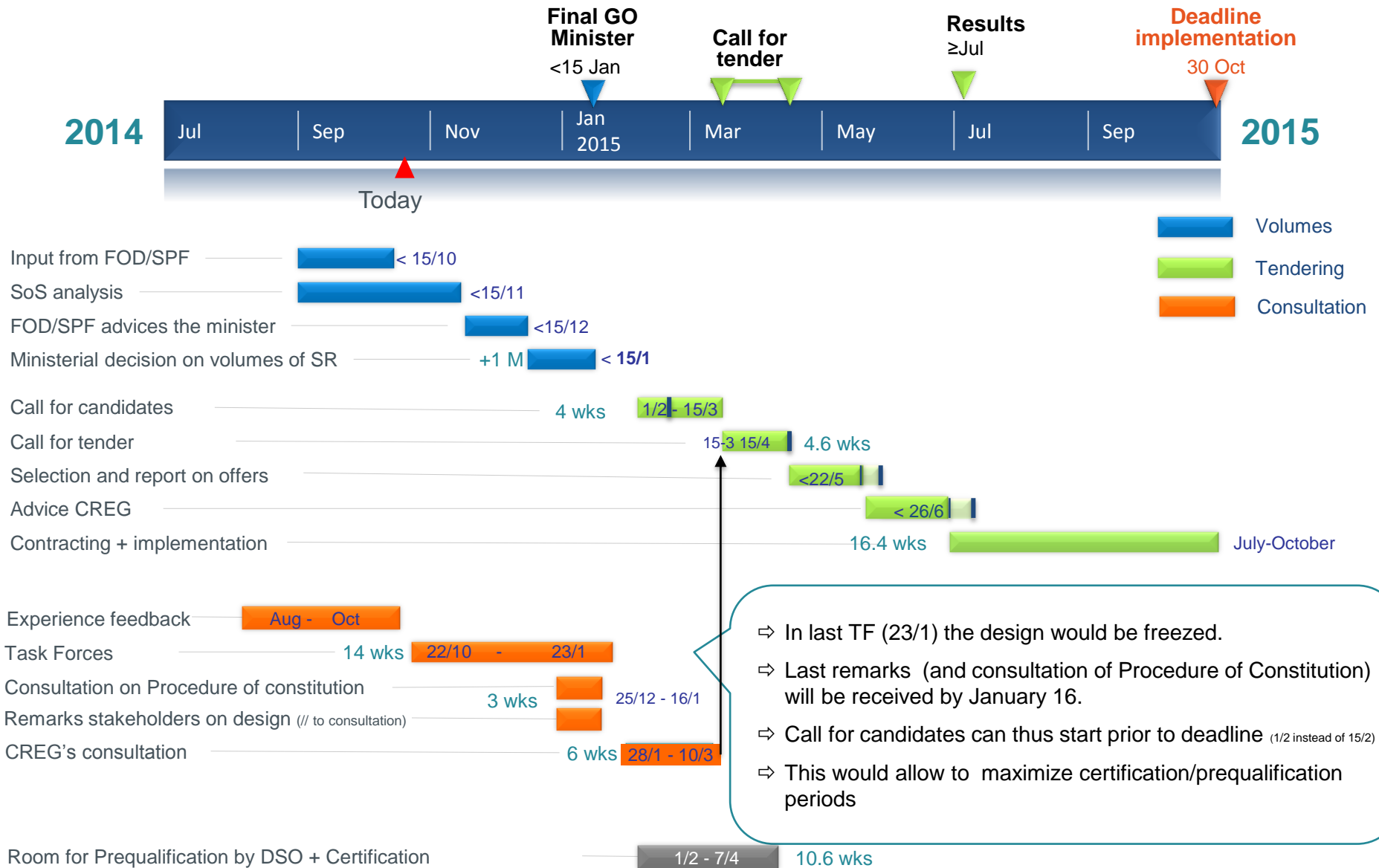
### Design SGR/SDR:

- Remuneration
- Control
- Penalties
- Tests
- For availability and activation

# Legal deadlines and impact on planning



# Planning as agreed with CREG & DSOs



# Organisation SRV2

## ↳ 4 task Forces, 1 public consultation



- 4 task forces are planned between mid-October and end of January.
- The agenda for each meeting will be distributed 5 working days before the meeting, at the latest.

<b>Task Force 1</b>	<b>22/10 pm</b>	all stakeholders are invited to present their expectations for this consultation.
<b>Task Force 2</b>	<b>20/11 am</b>	foreseen for design proposal by Elia and discussion
<b>Task Force 3</b>	<b>11/12 am</b>	foreseen for design proposal by Elia and discussion
<b>Public Consultation</b>	<b>25/12/2014 – 16/1/2015</b>	<ul style="list-style-type: none"><li>• consultation on Procedure for Constitution</li><li>• In //, stakeholders are invited to make their last remarks on the design (input for Functioning Rules)</li></ul>
<b>Task Force 4</b>	<b>23/01 am</b>	Finalized Elia proposals in last Task Force based on feedback received during public consultation. → Functioning Rules will be proposed to CREG immediately after TF 4

# Organisation SRV2

## ↳ Demand connected to Distribution Grid



### Context:

- Law (art. 7quinquies) foresees participation of Distribution Grid-connected access points
  - CREG asks (approval Functioning Rules), to examine their participation.
- ⇒ For winter 2015-16 Elia and DSOs will collaborate in order to open SDR also to assets connected to distribution Grid.

### Working organization:

- Purpose: keep differences to a minimum between SDR DSO and TSO
- Task Force iSR will host all topics related to strategic reserve
- Specific workshops of experts working group will be dedicated to topics related to the distribution grid. Their conclusions will be reported to TF iSR and consulted upon.

#### iSR TF:

- modalities for participation
- tendering process
- bidding instructions
- selection rules
- Market design
- SGR product design
- SDR design:
  - Scheduling modalities (SL-ΔP)
  - Activations characteristics
  - certification criteria

#### Experts WG:

- Prequalification modalities
- Contract with DSO
- Baseline
- Impact on BRP/supplier
- Notification to BRP
- Specific contractual modalities

input

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- SDR: Experience feedback & overview tracks for reflection
- Feedback from experts WG

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- BREAK

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# Strategic Reserves

↪ 3 Major axes of discussion



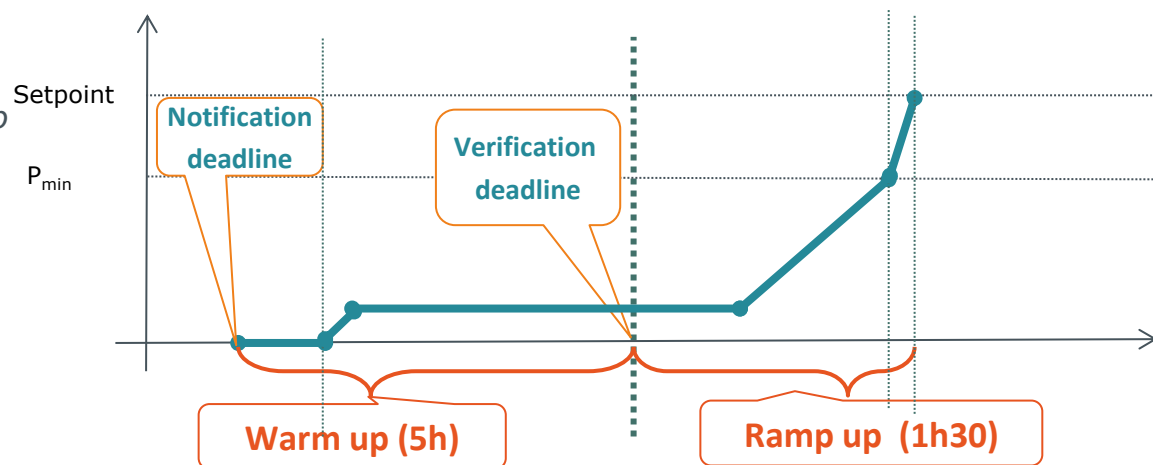
**SDR**

**SGR**

**Market  
Design**

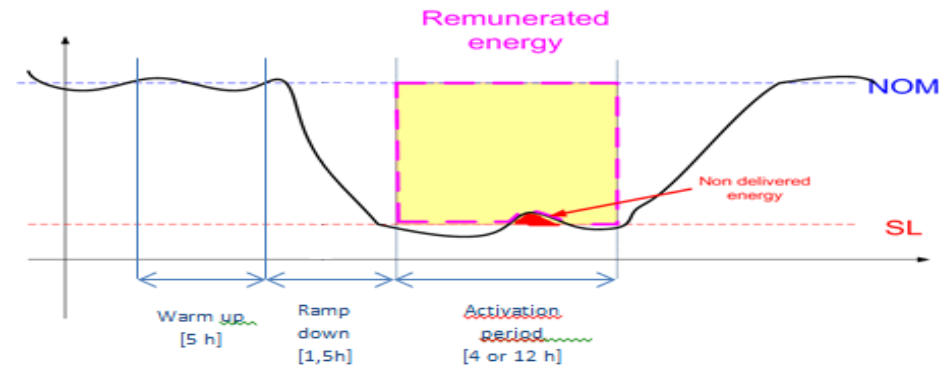
## Principles 2014-15

- **Who:** Power Plants which closure is announced or already effective (art. 7 quinquies )
- **Contractual obligations:**
  - SGR service available during the 5 months winter period(s);
  - reserved capacity remains out-of-market throughout the validity period of the contract (**36 months**) → only to be used for SR, when called upon by Elia
- **Conditions on activations** for 3 winter periods covered by contract :
  - Max # of activations = 67
  - Max cumulated duration of activations = 1000
- **Supposed to be fully available:**
  - 100% Availability unless with tolerance for technical unavoidable issues*
  - Obligation to be standby, ensure maintenance, ensure fuel, etc ...
  - 1 week max of coordinated unavailabilities
- **Activation in several steps:**
  - Stopped units need several hours to start up*



# Strategic Demand Reserve

## Principles 2014-15 (1/2)



- **TSO grid only**
- **No fixed capacity obligation:**  
*No incentive to consume and contribute to the problem but commitment to reduce consumption*
- **Fixed Shedding Limit:**  
*When activated the SDR supplier commits to reduce his total consumption to  $SL_{SDR}$  whatever the level of consumption*
- **Certification based on historical load profile in 3 winter periods**
  - Average hourly consumption  $\geq$  SDR Reference Power +  $SL_{SDR}$
  - Global offtake [average MW per hour] during 85% of the peak \* hours  $>$   $R_{ref} + SL_{SDR}$
  - Global offtake [average MW per hour] during 75% of the non-peak hours  $>$   $0,75 * (R_{ref} + SL_{SDR})$
- **Baseline for activation = DA nomination:**  
 $\Rightarrow$  Activated energy =  $NOM - (\max(P_{mes}; SL))$  (if  $> 0$ )
- **Volume SDR not taken into account for economic trigger**  
*DA Load nominations too late +  $R_{ref}$  not guaranteed)*

\* 09h00-13h00 and 17h00-21h00 of working days, during the winter periods

## Principles 2014-15 (2/2)

- **Activations are limited:**

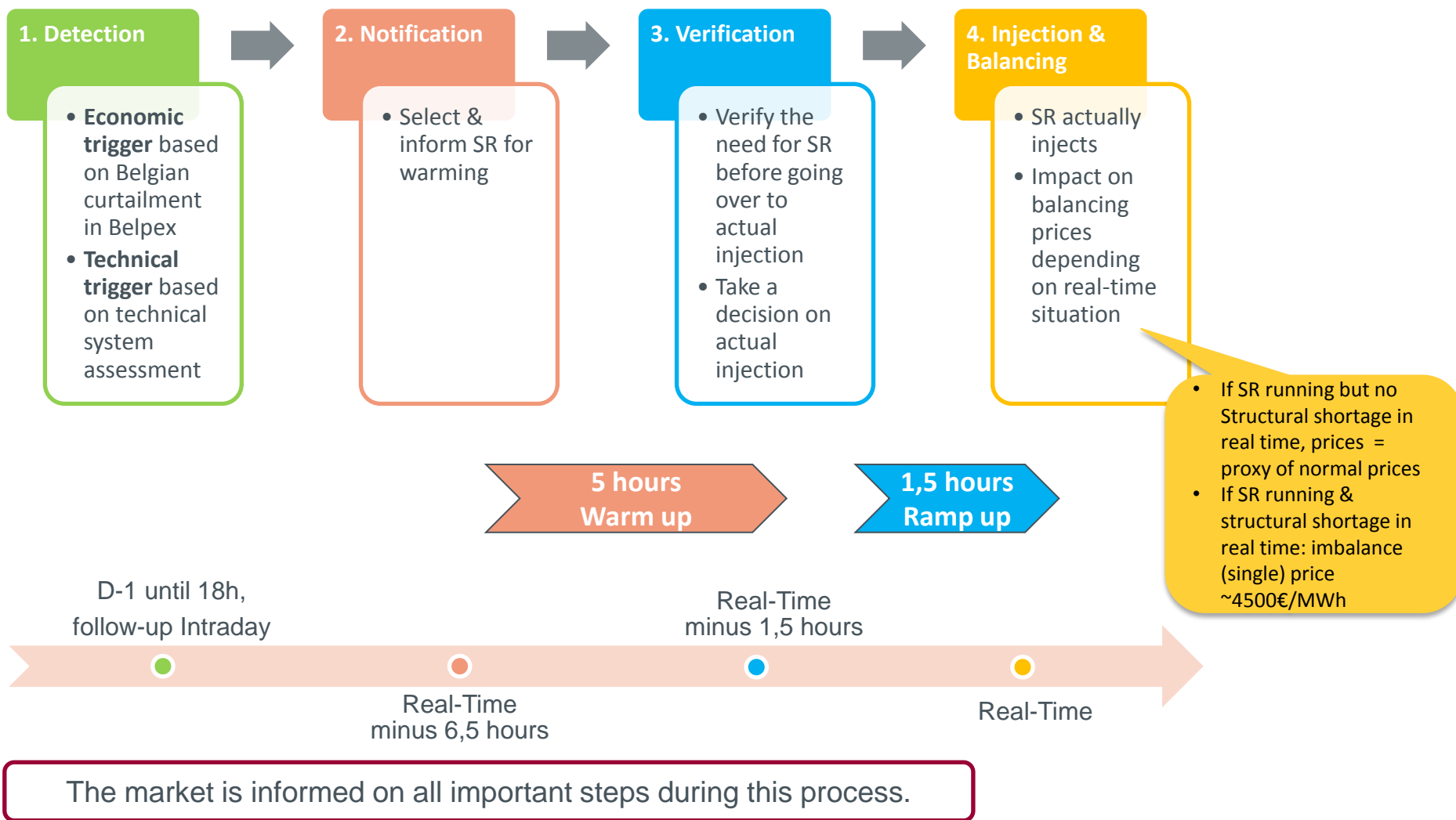
Activation Characteristics	
Reaction time	(5 +) 1,5 hours
Duration	4 / 12 hours
Number	40 / 20 times
Max. cumulated duration	130 hours
Recuperation	4 / 12 hours

\*\* under hypothesis: 800MW of SR among which 120MW of SDR peak product

- ⇒ Compromise between adequacy needs\*\* and industrial constraints
- ⇒ As finally there was no CAP on SDR volumes, a weighting factor is applied to SDR offered volumes in order to put SDR-SGR into direct competition
- When SDR is activated **BRP's perimeter neutralized** by replacing metering by nomination during ramp-down & effective delivery
- **Combination with other A.S.:**
  - ⇒ SDR and R3DP are not compatible (different impact on BRP's perimeter)
  - ⇒ SDR, ICH and R1 at a same EAN are allowed but imply also the obligatory activation of ICH volumes whenever SDR is activated.

# How do Strategic Reserve work?

## High Level market Design



### SDR

Goal: attract new flexibility based on experience feedback.

- ⇒ Capture more “useful” capacity (certification)
- ⇒ Trade off between diversity of industrial processes & simplicity
- ⇒ Keep complexity under control

### SGR

- ⇒ Fine-tuning of Product characteristics in order to reflect reality:
  - start-up characteristics
  - remuneration formulas
  - nomination instructions & precise some definitions (  $P_{max}$ - $P_{contracted}$ )
  - ...

REM: Product characteristics should not be exclusion criteria

### Market Design

Assessment of current process & market functioning based on experience during coming months.

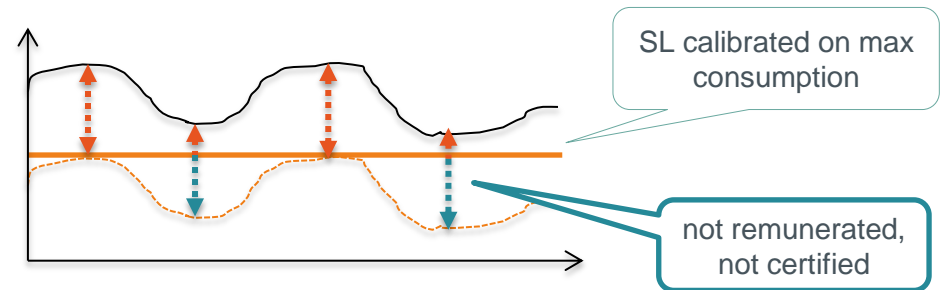
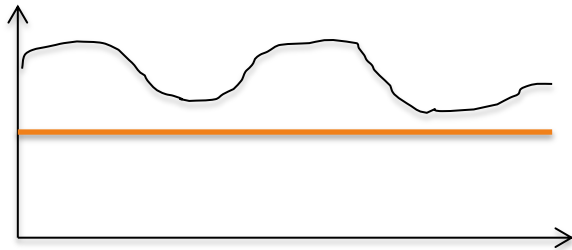
Lessons learned from winter 2014-15, or product design changes could lead to modifications.

# Strategic Demand Reserve

## ⇒ Experience Feedback & tracks for evolution (1/4)

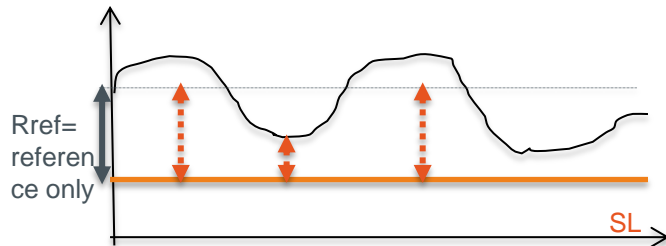
### • Fixed Scheduling limit versus DeltaP : both have fans!

- Some customers can provide a reduction of their consumption to a fixed minimum (process driven)
- Other consumers can only provide a constant reduction of consumption. Those cannot fully valorize their flexibility



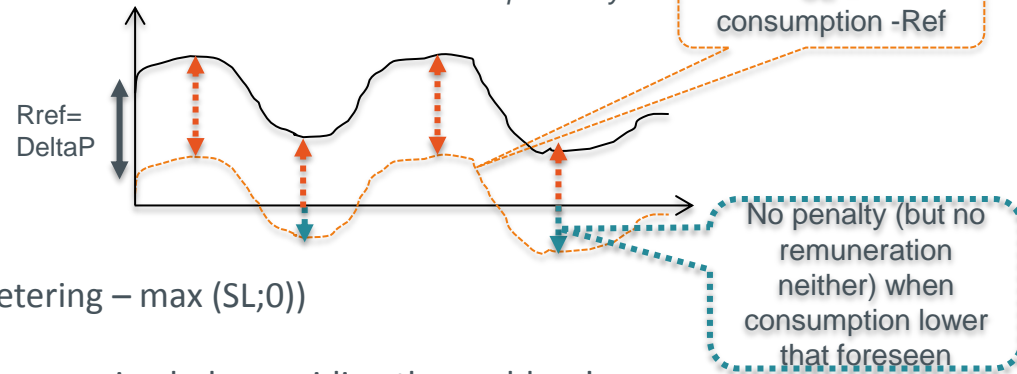
⇒ **Proposal:** Allow both options but maintain principle of no incentive to consume: *a consumer who does not consume helps the system*

Case A : fixed SL as is



- Remuneration based on Available margin :  $(\text{Metering} - \max(\text{SL}; 0))$
- No incentive to “over consume”
- No penalty if available capacity  $< R_{ref}$  as not consuming helps avoiding the problem!
- Certification shows that expected consumption is *usually*  $> R_{ref}$

Case B: variable SL : new possibility



## ↳ Experience Feedback & tracks for evolution (2/4)

- **Certification perceived as too restrictive**

- ⇒ Analysis towards an improved certification

- Trade off between volume maximization – needs
- Purpose: certify GUs with a high probability of consumption when there is a high probability to call upon SR
- Statistical method ?

- **Activations characteristics too demanding**

- 130h per winter is experienced as too much, especially if concentrated*

- ⇒ Reduce individual requirements on #h activations

- Analysis to be started (additional weekly/monthly cap ? Different prices per groups of activations?)
- Reducing specifications will have an impact on competition factor!
- No sense to develop a “base product” as there is no CAP on SDR volume?

- **Combination possibilities (Demand AS + SDR) for a same industrial site are not optimal**

- Current combination with different SL can impose to many constraints to some industrial sites*

- ⇒ Analyse sub-metering feasibility at TSO level

- what metering characteristics and specifications?
- what impact on existing product design ?



## ↳ Experience Feedback & tracks for evolution (3/4)

- **Tendering :**

- Difficulty to forecast consumption during 5 winter months for some grid users
- AS and SR tendering calendars are not compatible → volumes can be lost
- ⇒ Analyse possibilities of tendering process optimization, taking legal constraints into consideration

- **Complexity and short timings**

- Certification and prequalification processes are administratively heavy and have to be done during a limited period (< legal deadlines)
- ⇒ Analyse how (and if feasible) to facilitate administrative certification, prequalification...
- ⇒ Maximize period of prequalification and or certification (10 weeks instead of 8)
- Design stability >< needed evolutions ⇒ trade off
- ⇒ Limit # of products: similar characteristics for SDR-DSO and TSO if possible

- **SDR\_DSO** but with pragmatic approach (see next slide)

👉 feedback from experts WG of October 14th on future SDR-DSO product

- **A call for :**
  - a simple product design, with for ex. “no correction of BRP’s perimeter”
  - pragmatic solution for energy transfer (no correction ?)
  - new reference curve
  - streamlining prequalification process
  - a regulatory framework concerning the prequalification process and the link towards the connection contract.
  
- **DGOs**
  - proposed to decouple the compliancy check from the NFS thereby committing to reduce the lead time for the NFS.
  - stressed the need for a regulatory framework dealing with the roles and responsibilities of the FSP, including regulated generic FSP-DGO access contract.

## ⇒ Experience Feedback & tracks for evolution (4/4)

- **Conclusion:**

- Experience feedback received allowed Elia to already identify many tracks for evolutions
- Timing remains very short
- Complexity must be kept under control

⇒ **Need to define priorities!**

⇒ **Volume potential vs. implementation complexity will be a criterion**

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