# TF Implementation of Strategic Reserves for Winter 2015-16

23 January 2015





		9:30
•	Approval of draft minutes TF ISR 19/12/2014	
		9:45
•	Tender Design	
	<ul> <li>b) Selection of offers for attribution of SR contracts</li> <li>c) Parameter Calibration</li> </ul>	
		10:30
•	Remarks received during the consultation on the procedure of constit of strategic reserves	ution
	a) Submetering & CDS	44.00
	Break	11:00
		11:15
	b) General	
		12:00
•	Product and Market design evolutions	
		12:30



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## Approval of draft minutes TF ISR of 19/12/2014



• **One question** concerning SDR DSO: possibility for SDR to introduce hourly bids (Rref) or bids for 2 time blocks of the day?

The purpose of the SDR certification is to contract a fixed Rref that needs to satisfy less stringent criteria during off peak hours than during peak hours so this suggestion is already partly accepted. The remark has been noted and can be further analyzed for the winter 16-17.

- Elia received **three remarks** on the draft MoMs (of which the two latter after the deadline) and suggests to include the following in the final MoM:
  - 1. An addition on p.5: « Remark by GABE/Solvay: Initially, the neutralisation of the BRP perimeter was introduced for ICH to be transparent to the supplier. Is this also an issue here? Furthermore, with different models for different SDR segments, there is a risk that in some cases submeters would be installed to avoid a neutralisation-model. GABE suggests Elia to apply the same principle to all transmission grid clients, after selecting the best solution between with or without compensation."
  - 2. Clarification on p. 6: « Question/remark by Restore: SGR is allowed to submit assets that have a Allowed-ramp-up time of more than 1.5 hours, subject to Elia approval can differ for SGR, while this is not possible for SDR does not have this possibility. Why does the selection process in the tender / merit-order does not foresee an equivalence factor applied to SGR bids that have longer ramp-up times than Elia SGR specs, such as the equivalence factor that was foreseen for SDR in 2014-2015 for a penalty to take this into account? "

Answer by Elia: We can take a look at this but it is an issue of avoiding gaming and not driving up offered prices. Additionally, the tender should not be overly complex.

3. Clarification on p. 8: « Question by Restore: The approach proposed today is de-facto using the most stringent scenario out of the 500 scenarios proposed dd 03/12/2014, and therefore assumes a daily dispatch event during any spike in peak, and even in off-peak. Therefore, we do not understand the logic of modifying the required availability rates percentages (from 80% to 85% and from 70% to 75%). It would make sense to keep 80% and 70% as proposed on 03/12/2014 the percentages (85% and 75%) are back to their initial levels while another optimization method is chosen. Is it still needed to be so restrictive as it the optimization method probably already considers a severe scenario? "



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### Ministerial Decree giving instruction to Elia to contract an additional volume of SR as of 01/11/2015



- Decree entered into force on 15/01/2015 and is publically available on "Moniteur belge"
- Gives instruction to Elia to contrat **an additional volume of 2750MW** (so in addition to 750MW already contracted for the winter 2015-2016 & 2016-2017)
- The volume is to be contracted for **1 year**, except for a part of this volume, between **300**-**500MW from strategic generation reserves**, which is to be contracted for **2 years**.
- The volume of SRG needs to be composed from capacity that would have been out of market as of 1/11/2015
- The total volume might change, giving the status of the **availability of the nuclear reactors** for the winter period 2015-2016
- It is the FANC who needs to authorise the return of these units, after which Elia can be instructed (by new Decree) to contract a different volume. The final date for the FANC authoristaion is set on 30/06/2015
- Should the contracted volume as a consequence be different from the initial instructed 2750MW, there will be no new tender, as the contractualisation will be done from offers received from first organised tender.



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# Selection of offers principles

- SGR candidates are asked to provide 2 offers for each possible configuration in a power plant (ex: one CCGT(2GT, 1<sup>ST</sup>) → 7 possible configurations 2\* 1 GT, 2GT, 2GT+ST, 2\* 1GT+ST)
- Offers with same asset (ex: ST) are mutually exclusive
  - ⇒ SDR: offers for Winter period 15-16
     ⇒ SGR: offers for Winter period 15-16
     SGR 1Yr
     SGR 1 + 2Yr
- The selection among offers(1y/2y) will be the optimum economic (lowest possible total cost over the two periods) taking into account following constraints:



1 Optimisation over two years



# **Selection of offers**



Calibration of parameters

Total Cost of each offer is defines as:

 $TC = Res + (\# Act_{cold} * A1) + (\# Act_{hot} * A3) + (A2 * Act_duration)$ pour les offres SGR et SDR <u>couvrant une période hivernale</u>,

<u>ou</u>

= 2\**Res* + 2\* [(# *Act*cold \* *A*1) + (# *Act*hot \* *A*3) + (*A*2 \**Act\_duration*)] pour les offres SGR <u>couvrant deux périodes hivernales</u>

With:

- Res=reservation costs
- A1, A3= fixed activation costs (warm up)
- A2=variable activation costs
- #Actcold = 4
- #Act hot = 16
- Act\_duration = 130hours

Giffered by candidates

Based on a scenario of activation that maximises SDR

### Equivalence factor Calibration of parameters



- SDR product is designed in order to cover peak needs.
  - Note that nevertheless SDR could be used also without SGR, for instance for short duration needs in function of technico-economical activation criteria



- Up to a certain volume of Strategic reserve, the designed SDR is complementary to SGR (→ equivalence factor 1)
- For more important participation, "long duration needs" would then have to be covered by SDR activated in series → x\*MW SDR is equivalent to 1MW SGR

### Equivalence factor Calibration of parameters

100	lia	
C	LIA	

Facteur d'équivalence	
1	
0.820	
0.802	
0.758	
0.655	
0.504	•
0.374	
0.283	•
0.224	
0.196	
	Facteur d'équivalence           1           0.820           0.820           0.758           0.655           0.504           0.374           0.283           0.224           0.196

Based on fixed limits and no % as last year

- ➔ won't change if Total volume to be contracted is reduced
- Calculation based on the impact on the LOLE for each ratio SDR/total Need
- Takes into account all constraints of SDR last proposed design



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### Submetering Participation



#### On TFiSR of Dec 19th :

Elia presented feedback from discussions held in Expert Working Group Dec 10th where it was proposed by both ELIA & DNOs to "take the lessons learned from implementing and operating submetering @ELIA-grid (incl. baseling process) before facilitating submetering @DNO-grid."

- o <u>concerns of feasibility</u>: strict timing and the complexity already encountered @ELIA-grid!
- <u>concerns with respect to current agreements in place</u> for rolling out of the UMIG 6.0 processes (that are to be taken into consideration while developing submetering @DNO-grid)
- <u>concerns of implementing an enduring solution</u>: it is not recommended to have a dual structure in meter data handling whereby DNO-submetered access points would be handled by ELIA directly
- Proposal by ELIA & DSOs: take the lessons learned from implementing and operating submetering @ELIA-grid (incl. baseling process) before facilitating submetering @DNO-grid.

For winter 2015-2016, provision of SDR service with submetering is **only** allowed behind Access Points directly connected to the Elia Grid

# Submetering

#### **Technical requirements**

The minimum technical requirements are :

- Accuracy class of current transformers (CT) : 0.2S
- Accuracy class of voltage transformers (VT) : 0.2
- Accuracy class of the meter for active energy : 0.2S

See document published on the Elia website

#### Proposal:

• For new installations, required accuracy class based on technical regulation

Aansluitings- vermogen	Spanningsniveau waarop de meetinrichting aangesloten is	Mini van	maal vere de onderdel	iste nauwkeu en in de meetir	righeidsklasse nrichting	
		ТР	ті	Wh- meter	VArh- meter	
<u>&gt; 5 MVA</u>	HS	0.2	0.2	0.2	A	
$\geq$ 1 MVA tot 5 MVA	HS	0.2	0.2	С	A	
$\geq$ 250 kVA tot	HS	0.5	0.5	В	A	]
1 MVA	LS(uitzonderlijk)	nvt	0.5	В	A	
$\geq$ 100 kVA tot	HS	0.5	0.5	В	А	
250 kVA	LS	nvt	0.5	В	А	B = 1
< 100 kVA	LS zonder TI	nvt	nvt	А	А	A = 2

• For existing installations, Elia accepts current accuracy (till upgrade)

#### Disclaimer:

Elia has the right to modify the accuracy class requirements for the next contractual period



### Submetering Proof of Compliancy

Timing



A proof of submeter compliancy

- is not required prior to the Certification request deadline (31/3)
   except if submeter data are used for Certification
- in any case has to be delivered prior to commissioning



### Submetering Proof of Compliancy



• External Parties executing the proof of submeter compliance : not mandatory

**but** Elia will still require following information

- for new submeters : factory certificate, ...
- for existing submeters: documents will be requested proving precision control or calibration, ...
- other : technical characteristics TI /TP,...

These requirements will be detailed via ELIA website prior to Call For Tender

 This information is required for all submeters providing SDR-service (incl. CDS Users)



## Submetering Certification



- In absence of installed submeter < 31/3/2015 or submeter data less than one Winter period : certification value of concerned access point (Rrefi) is based on pro rata rule applied on Headmeter data.
- If submeter not installed by 1/11/2015, Rref assigned during certification is reduced with Rrefi of concerned access point (impact on availability settlement) for at least one month and concerned access point is excluded from activation

### Submetering Close Distribution Systems





- Option 4 only valid for SDR-service provided inside CDS connected to Elia grid : transfer of the validated data through the CDS operator
  - Modification of annex 14 of Access Contract needed. Awaiting such a Annex 14 modification, a temporary Collaboration Agreement is needed between ELIA and the CDS Operator before 1/4/2015 describing inter alii :
    - Metering installations (identification of meters, technical characteristics of metering equipments, equation of metering (if any), ...)
    - Metering data exchange (file format, timing, hierarchy principle, validation of metering data, liability in case of missing/ erronous/ false data,...)
    - Wipe out effect
    - Audit /controle by Elia and penalties in case of fraud
    - Etc



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#### **Definition critical Hours**

09:00-13:00h and 17:00-21:00h during Workdays of Winter Period except for Belgian public Christmas school holidays.

Remark: Only Christmas Holidays excluded?

#### **Definitions**

<u>Remark:</u> Reservation costs need to be clarified; if parameters differ from the parameters from the CIPU-contract, an explanation should be given

#### 4.1.2. Application file for SGR and SDR candidates

<u>Remark:</u> the **general conditions for application are very demanding** (legal structure, sworn statement concerning taxes obligations, non bankruptcy...)

#### 4.1.2. Application file for SGR and SDR candidates

...the proposed Power Plant(s) must comply with the Certification of SGR Power Plant(s) criteria as listed in chapter 4.2.1.

Remark: We want to point out that generators are **not always able to fulfill the technical prerequisites in due time due to contractual, technical or permit-related limitations**, due to timing issues (time between decision to grant a SR contract and delivery of service) to allow the necessary investments and uncertainty issues (uncertainty about cost recovery of investment costs)

We urge for **transparency on the criteria and guidelines** that will be used to assess the reasonable character of the prices, especially as regards investment costs.

Orange = Will be changed in final version of procedure of constitution for SR → the final procedure will be published before 15/2/2015

Did not lead to any changes. Indeed only Christmas holidays excluded.

A definition of reservation cost will be added and differences with CIPU need to be clarified

Did not lead to any changes. Elia wants to **avoid to conclude contracts with enterprises that are for example financially unhealthy**.

Except from small correction (4.2.1. instead of 4.2.1.), did not lead to any changes. Elia is not in the position to describe these criteria and guidelines and refers to the respective authorities.

#### 4.3.1. Certification of SGR Power Plant(s)

A SGR Power Plant that is awarded an SGR Contract, will not be allowed to participate in any Ancillary Services tender with the possible exception of Black Start Specifications for this participation will be detailed into the related Black Start tendering procedure in 2015.

<u>Remark:</u> The exclusion of a SGR Power Plant that is awarded a SGR contract from participation to ancillary services tenders, should **not hinder other units or demand facilities at the site (and access point) from participating to ancillary services tenders** like R3 or R3DP

#### 4.3.1. Certification of SGR Power Plant(s)

Each SGR production unit must comply with all technical requirements as specified in the Grid Code.

<u>Remark</u>: The reason for mothballing/closing of a production unit could be (partly) due to the fact that it is not economically and technically feasible to make this unit compliant with the Grid Code. In the case it is technically feasible, Elia should therefore take into account that this requirement can lead to additional investments in order to make the existing and already connected power plants fully compliant. These investments are to be remunerated by the Strategic Reserve fee. In the case it is technically not feasible, the production unit cannot participate to the tender.

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Did not lead to any changes. In case an SGR Power Plant is located on the same site as a Power Plant that is in the market, a separate access point needs to be created for the SGR Power Plant. This does not excludes the Power Plant that is in the market to participate to AS. Note: the SGR Power Plant can only submit offer for SR if it can be **operated** completely independent from the Power Plant that is still in the market

**Can be removed** since this is trivial; **compliance with the grid code is necessary** for an efficient, reliable and safe operation of the grid.

#### 4.3.2 Certification of SDR Reference Power

The maximum allowed SDR Reference Power is calculated by Elia for each certification request as the maximum value satisfying the following statistical criteria:
o Average hourly Offtake per Winter Period ≥ SDR Reference Power + Total Shedding Limit SDR (SDR DROP-TO) or Unshedddable Margin SDR (SDR DROP-BY);
o Availability Rate (Rref) per Winter Period during Critical Hours ≥ 85%;
o Availability Rate (Rref) per Winter Period during Non-Critical hours ≥ 75%.

Remark: Proposed **percentages** to determine maximum Reference Power of 85% of Critical hours and 75% of Non-Critical hours **are not in-line with the logic of the initially proposed "Monte-Carlo" based approach**. On top of that, it is highly unlikely for an event to occur during non-critical hours. Our suggestion therefore is to have **a single criteria being 80% availability** of the proposed reference power during Critical winter hours only.

#### 4.3.2 Certification of SDR Reference Power

Access Points connected to the Distribution Grid who participate in SDR DROP-BY can participate in R3 DP if the following conditions are respected:

- They do not already participate in an on-going R3 DP contract for 2015;
- It must be proven by the SDR supplier that one product remains available in case the other product is activated.

Remark: Clarification of second bullet needed.

Orange = Will be changed in final version of procedure of constitution for SR

Threshold will be changed to 80% during critical hours and 70% during non-critical hours.

Analysis of the allowed thresholds for the criteria for this certification methodology has shown that **these thresholds are acceptable with respect to Elia's needs** 

It will be clarified that SDR DROP-BY cannot participate to an ongoing R3DP contract for 2015 because the R3DP contract 2015 foresees an exclusivity clause with any other service leading to a demand decrease.

#### 4.4.2 SGR/SDR contract

- ELIA and the SGR and/or SDR suppliers will commit to do any effort to take due account of these requirements. As a result, if a legal or regulatory rule, decision, advice or requirement, issued by a competent authority that rules or regulates all or part of ELIA's activities would require a revision, amendment or termination of the SDR and/or SGR Contract, ELIA can, after consultation of the SGR and supplier(s), amend one or more of its conditions, revise or amend, or, as the case may be, terminate the Contract per registered mail, without having to indemnify the supplier for this price amendment, or revision, amendment or termination of the Contract.
- If the SDR and/or SGR Contract(s) can be continued by means of some amendments, ELIA and the SDR and/or SDR supplier will make their best efforts to find the most appropriate contractual conditions approximating the best both the initial spirit of the Contract and the requirement of the competent authority.

#### Remark: rather one-sided right from Elia to revise or amend the contract

#### 4.4.2 SGR/SDR contract

SGR Power Plant(s) must:

be located within the Belgian Control Area;

<u>Remark:</u> to ensure a level playing field between the participants to the tender, **only power** stations located on the Belgian territory should be allowed to participate. Differences in (environmental and energy) legislation or regulation, taxation, connection and access costs to the electricity grid or gas grid, etc. can distort the fair competition between the candidates. Orange = Will be changed in final version of procedure of constitution for SR

No changes.

This was also included for the procedure for winter 14-15 and is included to **enable Elia to take the necessary actions in case of an external decision (legal or regulatory) requires this.** 

Did not lead to any changes. Art. 7 quinquies clearly refers to 'vermogen gelokaliseerd in de Belgische regelzone' and not the Belgian territory. **No legal basis** to exclude Power Plant that are in the Belgian Control Area and not located on the Belgian territory.

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#### **General remarks**

- 1. We challenge the **right for a DGO to limit the DGO-netuser's grid connection & access rights** above and beyond the limits set in the existing regulated contracts, including but not limited to the connection contract. We strongly suggest that this is clarified in the procedure for constitution as the current statement is implying a much broader right for the DGO that is not warranted by the current market rules and in contradiction with the rights of the netusers.
- 2. The administrative burden put on the netusers wishing to participate in SDR (and R3DP) is already substantially higher than for the ones that choose to provide their flexibility to their supplier/BRP. Fact that the DGOs seek to deploy such NFS-process for some markets only (SDR, R3DP) and thereby de-facto for some market parties only (BSP, but not for BRP), is discriminatory and a significant element of market distortion.
- 3. The already small Belgian market for ancillary and adequacy products is too fragmented. The fact that the market for ancillary and adequacy products consists of so many products has several downsides:
  - it considerably reduces liquidity and competition;
  - it becomes a real challenge for market parties to commercially and operationally manage such a large set of products;
  - it hampers the evolution towards cross border exchange of such products.

Therefore we recommend **to limit the number of standard products** in order to increase liquidity, volumes and competition for each of the products and to avoid undue market fragmentation; this recommendation is – as regards the ancillary products - in line with the (draft) Network Code 'Electricity Balancing.

Did not lead to any changes. In the procedure, Elia only refers to the need for a DSO-approval for the inclusion of the Access Point(s), not to the limitation of this approval nor to the NFS-process. Elia **refers to the ongoing consultation By Synergrid** (until 23/1) as announced on their website <u>http://www.synergrid.be/inde</u> x.cfm?PageID=16824

This is the result of a **compromise** between standardization and product fragmentation. We have noted this remark and **confirm the intention towards standardization on the longer term**.

#### **General remarks**

- 4. Market design should be such that demand flexibility is at maximum used within the actual market. It can never be the objective to contract a gradually increasing volume of demand flexibility in the SDR. One of the drivers to set-up the SDR was to create an incentive to make additional demand flexible as the TSO pays a relatively high capacity fee to cover the investments costs to become flexible. Once this investment is done, this flexible demand should preferably be offered or used within the market. Therefore, we wonder whether the SDR should not be designed as a 'one-off product' in that sense that a consumer can only be contracted in the SDR once.
- 5. Extend the use of the 'drop by' principle to all market segments and **abolish 'drop to' principle** because:
  - the 'drop to' principle does not guarantee an impact on the system at the moment of activation as the consumption could already be lower than the shedding limit.
  - On top of that, the risk exists that the consumer is being remunerated without having reacted: he will then in some cases by rewarded for coincidentally not consuming and thus not contributing to the peak load.
  - The use of 'drop by' principle is more in line with the request to ensure a level playing field between SGR and SDR. Applying the 'drop by' implies that a consumer offering SDR should be non-price responsive in that sense that he will continue to manufacture at high prices to be able to lower his consumption by the contracted number of MW's. He will thus to a certain extent behave as if he was 'out of the market'.

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Did not lead to any changes. Art. 7 quinquies refers to the participation of 'offertes van vraagzijdebeheer'. **No legal basis** exists to only contract SDR once.

Did not lead to any changes. During previous Task Force meetings it has been explained that both the 'drop to' and 'drop by' principle target specific client segments. They **both contribute to adequacy and the same rules are applied** for both principles in terms of remuneration and penalties (no penalties for unavailability in order not to incentivize to consume).



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### **SDR 2015-16** Activation: Initial proposal





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4

min. time between 2 consecutive \* [h]

\*of effective delivery

Question raised during last task Force: Is the monthly cap applicable to calendar months or on rolling window?

Calculations (and proposal) were made with hypothesis of calendar month. But after analysis it seems that the difference is marginal.

⇒ Monthly cap on a rolling window of 30 days

# SGR 2015-16

**General Principles** 

### elia

- Conditions on activations during Winter Period, covered by contract:
  - Max # activations / Winter Period(s) of the contractual duration= X
  - Max cumulated duration / Winter Period(s) of the contractual duration = Y hours

During last TF we announced that X and Y would be precised after Minister's decision on Volume of SR to set up and contract duration

Taken into account the Volume of 2750MW on the Top of 750MW already contracted, the expected running hours (Y) and number of activations(X) for new SGR contracts and with a "P95 scenario" is:

- X= 131 activations for 1Y\_SGR contracts and 262 activations for 2Y\_SGR contracts
- Y= 699 Hours for 1Y\_SGR and 1398 Hours for 2Y\_SGR contract

Those values correspond to "P95 scenario" of the volume needs.



# Many thanks for your attention!