

# Certification of SDR Reference Power

## Call for Tender Winter 2018-2019

# Structure and content of this document

- A. Part A of this document contains an overview of the **necessary information to introduce a valid certification request** of the maximum SDR Reference Power to Elia
- B. Part B contains an **explanation on how to calculate an indicative maximum Rref** based on the description in the Procedure of Constitution of Strategic Reserve
- C. Part C contains an explanation of **how to use the SDR Certification tool** that is provided together with this document to calculate an indicative maximum Rref

## Disclaimer

Please note that this document serves as an aid for SDR candidates and if any information in this document should be contradictory or incomplete with the information that can be found in the Procedure of Constitution, the information in the Procedure of Constitution will always overrule the information in this document.

Please note that ELIA will determine the certified maximum SDR Reference Power for a certain combination of Delivery Points based on the information received in the SDR certification request. Therefore, any calculation of the max Rref other than by ELIA, needs to be considered as an indicative value.

For any additional questions, please contact [contracting\\_SR@elia.be](mailto:contracting_SR@elia.be)

A. Necessary information to introduce a valid SDR certification request

# A. Introduction of a valid SDR certification request

To introduce a valid SDR certification request, the SDR candidate should provide the following information to ELIA by sending an e-mail to [Contracting\\_SR@elia.be](mailto:Contracting_SR@elia.be) **before 26/03/2018\***:

- The **Combination of Delivery Points (= SDR Unit)** for which a certified maximum Rref is requested (certification for **maximum 20** different combinations can be requested);  
*Please note that once a certified maximum Rref is determined for a certain combination of Delivery Points, when submitting the final offer, only offers for the same combinations with an offered Rref ≤ the certified max Rref for that combination are valid. Combinations that contain the same Delivery Points will be mutually exclusive.*
- E-mail address to which the result of the certification request should be sent;
- **For each Combination of Delivery Points**, the SDR candidate must specify the type of product (SDR DROP-TO or SDR DROP-BY);
- **For each Delivery Point** within a certain Combination additional information is required depending on the type of Delivery Point:
  1. **General information** for every delivery point ([slides 5-7](#))
  2. Additional information for Delivery Points connected to the **Distribution Grid** ([slide 8](#))
  3. Additional information for Delivery Points connected to the Transmission Grid
  4. Additional information for Delivery Points **within an Industrial Site** ([slide 9](#))
  5. Additional information for Delivery Points **within a CDS** ([slide 10](#))
  6. Additional information for Delivery Points that do **not dispose of the necessary information required for the cases 3. or 4.** ([slide 11](#))

ELIA will send the result of the certification request and the certified maximum SDR Reference Power for each combination of Delivery Points that was included in the certification request and is accepted **to the e-mail address specified by the SDR Candidate** [\[...\]](#)\*

\*As stipulated in the Procedure for Constitution

# A. Introduction of a valid SDR certification request

- 1. General information for every Delivery Point** (either connected to the ELIA Grid, Distribution Grid, within an Industrial Site or within a CDS):
  - EAN code and Grid User name;
  - Shedding Limit SDR (if SDR DROP-TO); the value used will be  $\max(0; \text{SLSDR})$ ;
  - Unsheddable Margin SDR (if SDR DROP-BY); the value used will be  $\max(0; \text{UMSDR})$ ;
  - Flexible volume per Delivery Point ( $R_{\text{ref}i}$ ). The sum of the flexible volumes for all Delivery Points ( $\sum R_{\text{ref}i}$ ) must be equal to the SDR Reference Power ( $R_{\text{ref}}$ ) of an SDR Unit;
  - The signed grid user declaration confirming exclusivity regarding the participation of the grid user's Delivery Point in the SDR Candidate's SDR Unit and granting ELIA access to the Delivery Point's (past and current) metering data.

# A. Introduction of a valid SDR certification request

1. **General information for every Delivery Point** (either connected to the ELIA grid, Distribution Grid, within an Industrial Site or within a CDS):
  - Sufficient technical proof of the flexibility offered. This must at least contain following descriptions for each Delivery Point that is part of the proposed SDR Unit:
    - sworn statement of the SDR Candidate that the SDR Service at the Delivery Point will not be offered by means of emergency generators, CHPs or other production units;
    - the industrial processes for which flexibility will be offered;
    - the Delivery Point's ability to contribute to the SDR delivery, describing the electrical connection of the main facilities downstream of the Access Point and the connection of the flexible process to the site's other facilities.
    - Justified explanation if certain periods are to be excluded from past metering data;
    - Justified explanation if certain periods have to be corrected due to significant developments foreseen in the total consumption profile, such as the recent introduction of a new industrial process or the deconstruction of an old industrial process. ELIA and the SDR Candidate will consult each other in order to determine how metering data will be corrected. In case of disagreement on the correction factor to apply to the metering data, ELIA will take the final decision and will motivate it.

## A. Introduction of a valid SDR certification request

1. **General information for every Delivery Point** (either connected to the ELIA grid, Distribution Grid, within an Industrial Site or within a CDS):
  - A Delivery Point which was since November 1, 2015 part of an offer that was made in the context of a tender by the system operator for the delivery of primary, secondary or tertiary reserve power, as defined in the market rules for the compensation of quarter-hour imbalances (available at website ELIA), cannot participate in the delivery of SDR.

# A. Introduction of a valid SDR certification request

## 2. **Additional** information for Delivery Points connected to the **Distribution Grid**

- Concerned DSO
- DSO approval assigning the conditions for including the respective Access Point(s) in an offer to ELIA [...]\*. If the Access Point has been assigned an orange prequalification status (resulting from the Network Flex Study performed by the DSO), Elia will take this into account during the certification by applying the following rule :
  - The flexible volume of the Access Point is reduced taking into account the volume constraint at the planning point to which this orange Access Point is connected, in the following way:
    - Each Access Point gets the smallest flexible volume by the different parties. This step is repeated until the remaining unassigned capacity is smaller than the smallest remaining demand for capacity;
    - The remaining part of the available capacity at the planning point is divided according to the “weighted average” rule for the remaining volume
    - The following rounding rule is used to have a 1MW granularity with X an integer value:
      - $\geq X.5 \rightarrow$  round up to the next unit
      - $< X.5 \rightarrow$  round down to the previous unit
- An illustrative example is included on slide in Annex



# A. Introduction of a valid SDR certification request

## 3. **Additional** information for Delivery Points **within an Industrial Site**

- Validated submetering data of the existing submeter for the periods 1/11/2015-31/3/2016, 1/11/2016-31/3/2017 and 1/11/2017-28/2/2018 in the exact same format as the sheet 'Raw input data' in the SDR Certification tool (if no data for all three periods is available, data for the last Winter Period only is accepted). Please note that the format requires that every quarter-hour of these three periods is sent, if for certain periods no data is available, the value should be left empty for those quarter-hours.
- Valid proof of Submeter Compliance

# A. Introduction of a valid SDR certification request

## 4. **Additional** information for Delivery Points **within a CDS**

- Validated metering data of the existing metering facilities for the periods 1/11/2015-31/3/2016, 1/11/2016-31/3/2017 and 1/11/2017-28/2/2018 in the exact same format as the sheet 'Raw input data' in the SDR Certification tool. Please note that the format requires that every quarter-hour of these three periods is sent, if for certain periods no data is available, the value should be left empty for those quarter-hours.
- Valid proof of Submeter Compliance
- CDS Operator declaration

# A. Introduction of a valid SDR certification request

## 5. **Additional** information for Delivery Points that do **not dispose of the necessary information required for the cases 3. or 4.** This is the case if :

- The Submeter was installed after 26/3/2018
- No valid Proof of Submeter Compliance before 26/03/2018

Please note that in these cases, the installation of the Submeter and the provision of a valid Proof of Submeter Compliance must be provided prior to 'Commissioning'. Otherwise penalties as stipulated in the SDR Contract shall apply.

- The Submetering data is available for less than one Winter Period

In this case, if the available past metering data covers less than one Winter Period but more than six weeks within the Winter Period, SDR candidates are invited to provide this data within their request in order that ELIA can consider to take this data into account.

Otherwise, a profile is established based on (one of) the following information that needs to be provided to ELIA in the certification request:

- Relevant past data such as metering data from the process or another similar process (correctly scaled with the installed power of those processes) in the required format of the sheet 'Raw input data' of the SDR Certification tool;
- On/off values related to the process that will be metered by the Submeter multiplied by the installed power of that process x 0,75;
- By multiplying the Headmetering data at the corresponding Access Point by a pro rata ratio (= declared average Offtake of the Delivery Point over three Winter Periods divided by the average Offtake over three winter Periods at the corresponding Access Point).

B. Additional explanation to calculate an indicative value of max Rref

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## B. Additional explanation to calculate an indicative value of max Rref

This section gives additional explanation on **how to perform the calculations**, as described in the Functioning Rules and Procedure for Constitution, to determine an **indicative value** of the maximum SDR Reference Power for a Combination of Delivery Points. For this, the **SDR Certification tool** that is sent together with this document **can also be used** (more information in section C.).

**Please note that the final calculation will be performed by ELIA.**

**The following steps should be performed in order to (i) verify whether a certain Rref complies with the certification criteria and (ii) to search the maximum Rref:**

- 1. STEP 1:** Gather validated metering data for the last three Winter Periods (1/11/2015-31/3/2016, 1/11/2016-31/3/2017 and 1/11/2017-28/2/2018) and/or determine profiles as described in [section A](#) in case this is required ([slide 11](#)). Correct metering data if this can be sufficiently justified.
- 2. STEP 2:** Determine the hourly available power based on the Shedding Limit (DROP TO) or the Unsheddable Margin (DROP BY) per Delivery Point and exclude periods and metering data if this can be sufficiently justified.
- 3. STEP 3:** For a certain Rref, determine the Availability Rate during predefined periods with a required threshold tied to the probability of activation during these periods and verify whether the results comply with the required thresholds for the certification criteria.
- 4. STEP 4:** For a certain Rref we verify during hours with a high positive imbalance price/EPEX SPOT BELGIUM DAM-price the Market Response and verify whether it complies with the required threshold and adapt the Rref accordingly.

## B. Additional explanation to calculate an indicative value of max Rref

**STEP 1:** Gather validated metering data for the last three Winter Periods (1/11/2015-31/3/2016, 1/11/2016-31/3/2017 and 1/11/2017-28/2/2018) and/or determine profiles as described in [section A](#) if required ([slide 11](#)). For Delivery Points connected to the Distribution Grid, determine the metering data to be considered based on the flexible volume. Correct periods if this can be sufficiently justified.

- For the concerned combination of Delivery Points, **obtain the following data / Delivery Point:**
  1. For Delivery Points connected to the **Elia Grid**: the SDR Candidate can request the necessary Headmetering data through the grid user or from ELIA after a signed grid user declaration that grants access to this data is provided.
  2. For Delivery Points connected to the **Distribution Grid**: the SDR Candidate can consult the concerned DSO to obtain the Headmetering data. For every quarter-hour, determine the metering data to be considered for the certification:
    - If the metering data for a certain quarter-hour exceeds the sum of unsheddable margin and the flexible volume (as described on slide 7); the metering data to be considered should be capped to the sum of the unsheddable and the flexible volume;
    - Otherwise, the metering data should be considered for that quarter-hour.
  3. For Delivery Points **within an Industrial site**: the metering data as described on [slide 9](#) should be obtained
  4. For Delivery Points **within a CDS**: the metering data as described on [slide 10](#) should be obtained
  5. For Delivery Points of **case 3. or 4. for which the data as described on slide 9 or 10 respectively cannot be obtained**, a profile as described on [slide 11](#) should be set up.
- Correct Periods (quarter-hours) if this can be sufficiently justified (as described on slide 6) by altering the quarter-hourly input data (in case of Delivery Points connected to the Distribution Grid, before capping the metering data)
- Add the data (MW/qh) obtained for each Delivery Point (as in 1.,2.,3.,4. and 5.) together for each quarter-hour of the three Winter Periods + October (1/11/2015-31/3/2016, 1/11/2016-31/3/2017 and 1/11/2017-28/2/2018 ).

## B. Additional explanation to calculate an indicative value of max Rref

**STEP 2:** Determine the hourly available power based on the Shedding Limit (if DROP-TO) or the Unsheddable Margin (if DROP-BY) and exclude periods if this can be sufficiently justified

- Determine the quarter-hourly available power per Delivery Point by taking the positive difference between the average quarter-hourly offtake as obtained in STEP 1 and the Shedding Limit (if DROP-TO) or Unsheddable Margin (if DROP-BY) per Delivery Point:
  - $AvPowerDP(qh,i) = \max(0, Offtake(qh) - SL)$  for SDR DROP-TO
  - $AvPowerDP(qh,i) = \max(0, Offtake(qh) - UM)$  for SDR DROP-BY
- Determine the quarter-hourly available power per SDR-Unit ( $AvPower_{tot}(qh)$ ) by taking the summing the quarter-hourly available power of all Delivery Points in the SDR-unit.
- Determine the average hourly offtake for a certain hour ( $AvPower_{tot}(h)$ ) by taking the average of the quarter-hourly across the four quarter-hours of the concerned hour.
- Exclude Periods (hours) if this can be sufficiently justified (as described on [slide 6](#)) by deleting or not considering the obtained hourly data.

## B. Additional explanation to calculate an indicative value of max Rref

**STEP 3:** For a certain Rref, determine the Availability Rate during predefined periods with a required threshold tied to the probability of activation during these periods.

[%]	Sunday and public holidays	Saturday			Working Days					
		[0;15[	[16;21[	[22;24]	[0;5[	[6[	[7;12[	[13;16[	[17;19[	[20;24]
Hour [begin; end]	[0;24]	[0;15[	[16;21[	[22;24]	[0;5[	[6[	[7;12[	[13;16[	[17;19[	[20;24]
November	40	40	40	65	40	65	85	75	85	75
December	40	40	40	65	40	75	85	85	85	75
January	40	40	40	65	40	55	85	85	85	65
February	40	40	40	65	40	55	75	65	75	55
March	40	40	40	40	40	40	65	55	65	40
Christmas Holiday 1	40	40	40	40	40	40	40	40	40	40
Christmas Holiday 2	40	40	40	40	40	40	75	75	75	40
DAM price $\geq 150\text{€}/\text{MWh}$	85									
Applicable tariff for a positive imbalance $\geq 150\text{€}/\text{MWh}$	85									

**Christmas Holiday 1** concerns the days between 25 December and 1st January and **Christmas Holiday 2** concerns the other days of the Christmas school holidays in Belgium



## B. Additional explanation to calculate an indicative value of max Rref

**STEP 3a:** For a certain Rref, determine the Availability Rate during each period identified in slide 16, as well as the Average Available Power.

1. To determine the Availability Rate for each period ([slide 16](#)) for a certain Rref:
  - Determine the Available Volume for a certain Rref during a period by summing, either Rref for a certain hour if  $Rref < \text{the Available Power for that hour}$  as obtained in **STEP 2** or the Available Power for a certain hour if  $Rref \geq \text{the Available Power for that hour}$  as obtained in **STEP 2**, for all the non-excluded hours:
    - $AvVol_{period}(Rref) = \text{sum}(\min(Rref, AvPower_{tot}(h)))$  for all non-excluded hours of the hourly data as obtained in **STEP 2**
  - Determine the Availability Rate by dividing the obtained Available Volume for all non-excluded hours by the Rref and by the concerned amount of hours:
    - $AvRate_{period}(Rref) = AvVol_{period}(Rref) / (Rref * \text{total amount of non-excluded critical hours}) = x \%$
2. Perform the same calculations to determine the Availability Rate during each period ([slide 16](#))
3. Determine the Average Available Power per period by summing the hourly Available Power of the nhours as obtained in **STEP 2** and dividing it by the non-excluded hours of **STEP 2**:
  - $Avg AvPower = \text{sum}(AvPower(h)) / \text{all non-excluded hours} = z \text{ kW}$

## B. Additional explanation to calculate an indicative value of max Rref

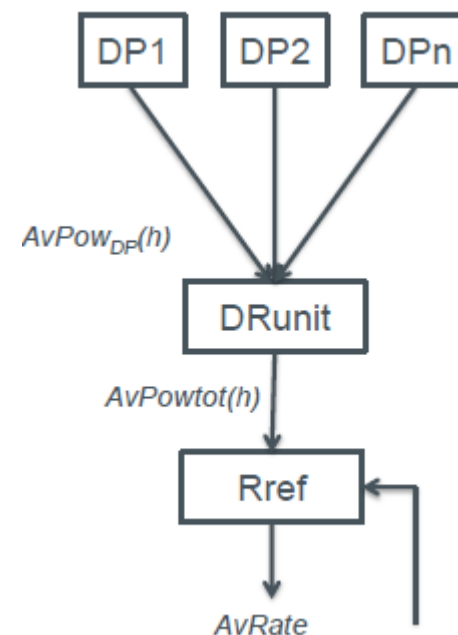
**STEP 3b:** Verify whether the results comply with the required thresholds for the certification criteria.

Verify if the Availability Rate, AvRate for the considered Rref during each period as determined in **STEP 3a** is higher than to the required %, i.e. the required threshold of the corresponding period:

$$AvRate_{periodRref} = AvVol_{periodRref} / Rrefh$$

$$AvVol_{period}(Rref) = \min(Rref, AvPow_{toth})h$$

If this is not the case for at least one period, the considered Rref is not acceptable and STEP 3 should be repeated for a smaller value of Rref.



## B. Additional explanation to calculate an indicative value of max Rref

As of 2018 all hours with a DAM price of a NEMO in Belgium higher or equal to 150 € / MWh the availability rate of Rref is higher than 85%, as well as during all hours with a rate of application for a positive imbalance higher or equal to 150 € / MWh.

This availability percentage is calculated the same way as the availability percentage of Rref,  $AvRate_{periodRref}$ , for the time periods in the table on [slide 16](#).

This is implemented by means of two periods:

1.  $AvRate_{periodDAM}$  = for which availability is expected to be higher than 85%
2.  $AvRate_{periodPositiveImbalance}$  = for which availability is expected to be higher than 85%

The calculation is implemented identically as described on slides 17-18 (STEP 3a and 3b).

## C. How to use the SDR Certification tool

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# C. How to use the SDR Certification tool

This section gives additional explanation on how to use the SDR Certification tool that is provided together with this document in order to automatically calculate the STEPs, as described in section B., to determine an indicative value of the maximum SDR Reference Power for a Combination of Delivery Points. **Please note that the final calculation will be performed by ELIA.**

**ELIA cannot be held responsible for any problems that occur with this tool: to ensure a good functioning of the tool, limit the amount of programs that are opened at the same time!  
Opening the tool may take a couple of minutes.**

In this section, it is explained how the STEPs of section B. are calculated in the SDR Certification tool and what needs to be filled in by the user.

To calculate the indicative maximum Rref open the file “[SDR\\_certification\\_18-19](#)” and follow the instructions from **STEP 1 to STEP 3:**

**STEP 1:** Gather validated metering data for the last three Winter Periods (1/10/2015-31/3/2016, 1/10/2016-31/3/2017 and 1/10/2017-28/2/2018) and/or determine profiles as described in section A if required ([slide 10](#)). Correct periods in the “[Raw Metering Data](#)”-sheet, if this can be sufficiently justified.

**STEP 2:** Exclude periods if this can be sufficiently justified. The tool determines the hourly available power based on the given Shedding Limit (if DROP-TO) or the Unsheddable Margin (if DROP-BY).

**STEP 3:** For a certain Rref, determine the Availability Rate during predefined periods with a required treshold tied to the probability of activation during these periods and verify whether the results comply with the required thresholds for the certification criteria. (done by Certification Tool)

**Notice:** During all hours with a DAM and/or a positive imbalance price  $\geq 150$  € / MWh the availability percentage of Rref is higher than 85%, which has been pre-programmed in the Certification Tool.

# C. How to use the SDR Certification tool

**STEP 1:** Gather validated metering data for the last three Winter Periods (1/11/2015-31/3/2016, 1/11/2016-31/3/2017 and 1/11/2017-28/2/2018) and/or determine profiles as described in section A if required ([slide 11](#)). For Delivery Points connected to the Distribution Grid, determine the metering data to be considered based on the flexible volume. Correct periods if this can be sufficiently justified.

For all the Delivery Points that should be considered for the different Combinations of Delivery Points, **insert the following data / Delivery Point in the sheet 'Raw input data'**:

1. For Delivery Points connected to the **ELIA Grid**: the SDR Candidate can request the necessary Headmetering data through the grid user or from ELIA after a signed grid user declaration that grants access to this data is provided.
2. For Delivery Points connected to the **Distribution Grid**: the SDR Candidate can consult the concerned DSO to obtain the Headmetering data.
3. For Delivery Points **within an Industrial site**: the metering data as described on [slide 9](#) should be obtained.
4. For Delivery Points **within a CDS**: the metering data as described on [slide 10](#) should be obtained.
5. For Delivery Points of **case 3. or 4. for which the data, as described on slide 9 or 10 respectively, cannot be obtained**, a profile as described on [slide 11](#) should be set up.

**It is important to respect the format of the sheet 'Raw input data' and fill in the data in kW for every quarter-hour of the three Winter Periods (1/11/2015-31/3/2016, 1/11/2016-31/3/2017 and 1/11/2017-28/2/2018) for every Delivery Point. Missing data (empty cells) will be considered as 0 values (unless excluded in STEP 2).**

The tool provides the possibility to insert data for a **maximum of 25 different Delivery Points**. If this should not be sufficient, please contact ELIA on [contracting\\_SR@elia.be](mailto:contracting_SR@elia.be)

Continued on the next slide...

# C. How to use the SDR Certification tool

**STEP 1:** Gather validated metering data for the last three Winter Periods (1/11/2015-31/3/2016, 1/11/2016-31/3/2017 and 1/11/2017-28/2/2018) and determine profiles as described in section A if required ([slide 11](#)). For Delivery Points connected to the Distribution Grid, determine the metering data to be considered based on the flexible volume. Correct periods if this can be sufficiently justified.

...sequel of the previous slide

- **Correct** Periods (quarter-hours) if this can be sufficiently justified (as described on [slide 6](#)) by altering the inserted data in the sheet '**Raw input data**'
- In the sheet '**Parameters**', the **desired combination of Delivery Points** can be indicated in **cells C24:C48**
- In the sheet '**Parameters**', complete the following information in the **cells D24:E48** or **cells H24:H48**, respectively, for Delivery Points **connected to the Distribution Grid** or **connected to the ELIA Grid**:
  - Unsheddable margin or Shedding Limit for each Delivery Point;
  - **Only for Delivery Points connected to the Distribution Grid**, the flexible volume/pre-qualified power of the Delivery Point needs to be completed (as described on [slide 8](#))
- The **sheet 'Input'** will automatically calculate the **sum** of the metering data for the chosen combination of Delivery points based on the provided information

# C. How to use the SDR Certification tool

**STEP 2:** Determine the hourly available power based on the Shedding Limit (if DROP-TO) or the Unsheddable Margin (if DROP-BY) and exclude periods if this can be sufficiently justified.

- Indicate the periods (quarter hours) to be **excluded** if this can be sufficiently justified (as described on slide 6) in the sheet '**Input**' by setting **column E** for the concerned quarter-hours to 1. The data for a certain hour will only be excluded if the value is set to 1 for all the quarter-hours of the hour.
- The sheet '**dataProcessing**' will automatically calculate the hourly available power once you run the certification algorithm.



# C. How to use the SDR Certification tool

**STEP 3:** For a certain Rref, determine the Availability Rate during predefined periods with a required threshold tied to the probability of activation during these periods.

[%]	Sunday and public holidays	Saturday			Working Days					
		[0;15[	[16;21[	[22;24]	[0;5[	[6[	[7;12[	[13;16[	[17;19[	[20;24]
Hour [begin; end]	[0;24]	[0;15[	[16;21[	[22;24]	[0;5[	[6[	[7;12[	[13;16[	[17;19[	[20;24]
November	40	40	40	65	40	65	85	75	85	75
December	40	40	40	65	40	75	85	85	85	75
January	40	40	40	65	40	55	85	85	85	65
February	40	40	40	65	40	55	75	65	75	55
March	40	40	40	40	40	40	65	55	65	40
Christmas Holiday 1	40	40	40	40	40	40	40	40	40	40
Christmas Holiday 2	40	40	40	40	40	40	75	75	75	40
DAM price $\geq 150\text{€}/\text{MWh}$	85									
Applicable tariff for a positive imbalance $\geq 150\text{€}/\text{MWh}$	85									

**Christmas Holiday 1** concerns the days between 25 December and 1st January and **Christmas Holiday 2** concerns the other days of the Christmas school holidays in Belgium

# C. How to use the SDR Certification tool

**STEP 3a:** For a certain Rref, determine the Availability Rate during each period identified in Slide 15, as well as the Average Available Power.

The tool will automatically vary the Rref in order to obtain an indicative value of the maximum allowed SDR Reference Power that can be certified for a certain Combination of Delivery Points. During hours where a DAM and/or a positive imbalance price are  $\geq 150$  € / MWh the availability percentage of Rref has been pre-programmed to be set higher than 85% in Certification Tool.

- After launching the calculation, the tool will ask for the desired **incremental step of the Rref**. The minimum incremental step is 100kW. Please keep in mind, lower incremental steps result in a longer calculation time!

Note: The desired incremental step of the Rref can also be inserted in [cell C50](#) in the sheet '[Parameters](#)'.

- In the sheet '[Parameters](#)', the **definition of each period** is presented in [cells L10:N23](#) (this results in the same data treatment as explained on the previous slide)
- To **launch** the calculation, press the button "**Launch SDR certification algorithm**" in the sheet '[Parameters](#)'

**STEP 3b:** Verify whether the results of STEP 3a comply with the required thresholds for the certification criteria

• In the sheet '[Results](#)', the **indicative value for the maximum SDR Reference Power** that can be certified based on the inserted data and information is indicated in [cell P1](#)


• **Note down the indicative value for the maximum SDR Reference Power that you have obtained**

• The sheet also shows **detailed results on the Availability Rate during each predefined period and the Average Available Power for different values of Rref** in [columns B, C, D and E](#). If the criteria is satisfied for the concerned Rref, the cell is green, if not, the cell is red. The row with the highest Rref value for which the three criteria are satisfied is highlighted.

• **Close** the file

# Annex

# Illustrative example of rule applied, to DSO Access Points that have been assigned an orange prequalification status



	AP 1	AP 2	AP 3	AP 4	
Initial demand of capacity	1MW	3MW	7MW	9MW	Initial capacity to be divided: 13 MW
Step1a: assigned MW	1MW	1MW	1MW	1MW	Assigned capacity step 1a = 4MW
Remaining demand per AP	0MW	2MW	6MW	8MW	Remaining capacity to be divided: 9MW
Step 1b: assigned MW		2MW	2MW	2MW	Assigned capacity step 1b = 6MW
Remaining demand per AP	0MW	0MW	4MW	6MW	Remaining capacity to be divided: 3MW
			$4/10 * 3MW = 1,2MW$ or 1MW	$6/10 * 3MW = 1,8MW$ or 2MW	
<b>Total assigned capacity</b>	<b>1MW</b>	<b>3MW</b>	<b>4MW</b>	<b>5MW</b>	<b>Remaining capacity to be divided: 0MW</b>