#### **Requirements for grid connection of generators**

#### I. General Provisions

- 1. The document has been drawn up in accordance with Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators (hereinafter Regulation 2016/631).
  - 2. In the document, the transmission system operator (hereinafter TSO), in coordination with the other countries TSOs and distribution system operators (hereinafter - DSO), has set requirements for generators according to the Regulation 2016/631.
- 3. The requirements mentioned in document do not apply to power generation modules that have received technical regulations for connecting the power generation module until the Regulation 2016/631 enters into force.
- 4. Requirements not specified in document must be observed in accordance with the Regulation 2016/631.
- 5. All definitions and abbreviations are? used in accordance with the Regulation 2016/631.
- 6. According to the Regulation 2016/631 Article 5 Paragraph 3 , the thresholds applicable to the limit values for electricity generation modules type B, C and D are set (Table 1).

Table 1

Limits for thresholds for type B, C and D power-generating modules			
nchronous area	Limit for maximum	Limit for maximum	Limit for maxim

Synchronous area	Limit for maximum	Limit for maximum	Limit for maximum
	capacity threshold	capacity threshold	capacity threshold
	from which a	from which a	from which a
	power- generating	power- generating	power- generating
	module is of type B	module is of type C	module is of type D
Baltics	0.5MW	5MW	15MW

#### II. General Requirements for type A power-generating modules in accordance with Regulation 2016/631 Article 13

7. In accordance with the Regulation 2016/631 Article 13, Paragraph 1 type A powergenerating modules shall fulfil the following requirements relating to frequency stability:

- a) In accordance with the Regulation 2016/631 Article 13, Paragraph 1 Point

   a) Sub-point ii) with regard to frequency ranges a power-generating
   module shall be capable of remaining connected to the network and
   operate within the following frequency ranges and time periods:
  - 47,5–48,5 Hz not less than 30 minutes;
  - 48,5–49,0 Hz not less than 30 minutes;
  - 49,0–51,0 Hz unlimited;
  - 51,0–51,5 Hz no less than 30 minutes.
- b) In accordance with the Regulation 2016/631 Article 13, Paragraph 1 Point
   b) regarding to the rate of change of frequency withstand capability, a power-generating module shall be capable of staying connected to the network and operate as long as loss of mains protection has not prevented

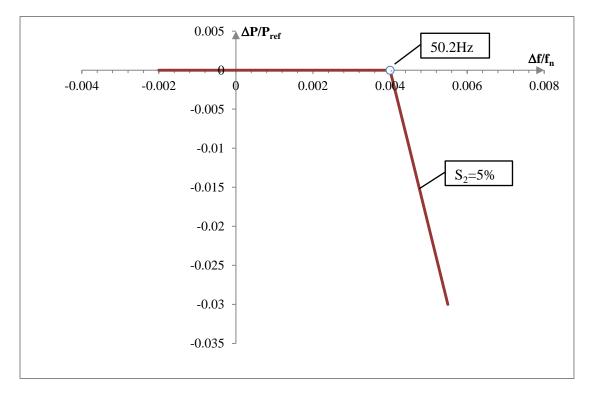
such operation. As loss of mains protection frequency deviation rate protection with setting of 2.5 Hz/sek and/or voltage shift rate protection with the setting of 8 degrees/sec should be used. Measurement interval should not be greater than 500 ms.

8. In accordance with the Regulation 2016/631 Article 13, Paragraph 2 regarding to the limited frequency sensitive mode — overfrequency (LFSM-O), the following shall apply (LFSM-O, Figure 1):

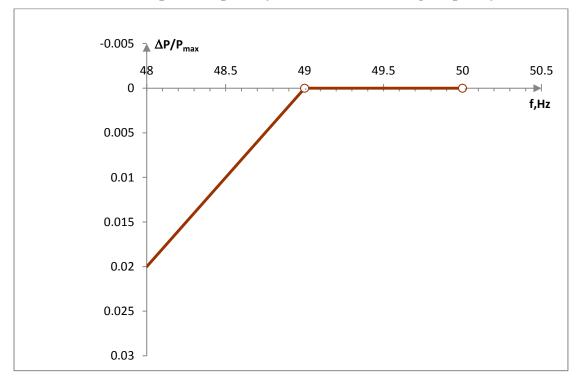
- a)  $P_{ref}$  maximum capacity of power generating module at the given moment in time;
- b) The frequency threshold is 50.2 Hz;
- c) The droop setting is 5%, with range of adjustment from 2% to 12%;
- d) In case of frequency increase the power generating modules have to be capable to activate full frequency controlled power output adjustment:
  - For synchronous power generation modules  $\leq 30$  sec;
  - For energy park modules  $\leq 20$  sec;
- e) In case of frequency increase the initial power output change reaction has to be faster than:
  - For synchronous power generation modules  $\leq 8$  sec;
  - For energy park modules  $\leq 2$  sec;

#### Figure 1

### Active power frequency response capability of power-generating modules in LFSM-O



9. In accordance with the Regulation 2016/631 Article 13, Paragraph 4 admissible maximum active power reduction with falling frequency is specified in accordance with the Regulation 2016/631 (see Figure 2). Additional requirements are not specified by TSO.



Maximum power capability reduction with falling frequency

10. In accordance with the Regulation 2016/631 Article 13, Paragraph 5 upon receiving the technical documentation of generation module, regarding the admissible active power reduction from maximum output TSO in its technical regulations shall:

- a) clearly specify the ambient conditions applicable;
- b) take account of the technical capabilities of power-generating modules.

11. In accordance with the Regulation 2016/631 Article 13, Paragraph 7 powergenerating module is permitted to connect automatically to the network (not applicable to type-D power generating modules):

- a) if network frequency has reached the value in the range from 49,8 Hz to 50,05 Hz and remains in this range at least for 60 seconds;
- b) if power-generating module can reach its active power set-point and rate of change of active power is not limited in accordance to technical capabilities of the generating module.

12. Requirements for power generating modules with rated power up to 3,68 kW connected to single phase electric transmission networks and up to 11,04 kW in three-phase electric transmission networks (micro-generation) are determined by DSO in accordance with the requirements of LVS EN 50438 and LVS CLC/TS 50549-1.

## III. Requirements for type B power-generating modules in accordance with the Regulation 2016/631 Article 14

#### **1.** General requirements for type B power-generating modules

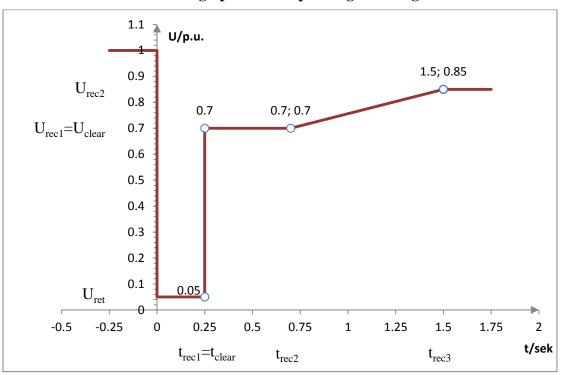
13. In accordance with the Regulation 2016/631 Article 14, Paragraph 1 type B power-generating modules shall fulfil the requirements set out in Title II of these Regulations.

14. In accordance with the Regulation 2016/631 Article 14, Paragraph 3 type B power-generating modules shall fulfil the following requirements in relation to robustness:

a) with regard to fault-ride-through capability of power-generating modules:

 i) voltage-against-time-profile at the connection point can be seen in Figure 3A and Figure 3B for fault conditions, which describes the conditions in which the power-generating module is capable of staying connected to the network and continuing to operate stably after the power system has been disturbed by secured faults on the transmission system;

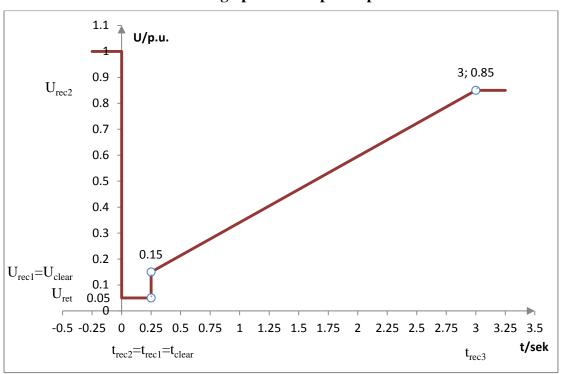
Figure	3A



Fault-ride-through profile of a power-generating module

Where in Figures 3A and 3B:

- U<sub>ret</sub> is the voltage retained at the connection point during the fault;
- t<sub>clear</sub> is the instant when the fault is cleared;
- U<sub>rec1</sub>, U<sub>rec2</sub>, t<sub>rec1</sub>, t<sub>rec2</sub> and t<sub>rec3</sub> are certain points of lower limits of voltage recovery after fault clearance.
- b) fault-ride-through capabilities in case of asymmetrical faults are the same as in case of symmetrical faults.



Fault-ride-through profile of a power park module

15. In accordance with the Regulation 2016/631 Article 14, Paragraph 4 Point a) power-generating module is capable of reconnecting to the network after an incidental disconnection caused by a network disturbance taking into account technical capabilities of the generating module after the stable system operation restoration with voltage range  $0.9 - 1.1 \text{ U}_{nom}$  and frequency range 49.0 - 50.2 Hz.

If TSO has intended the automatic reconnection, it is permissible according to requirements under Article 11 (Article 17, Paragraph 7 of the Regulation 2016/631).

16. In accordance with the Regulation 2016/631 Article 14, Paragraph 5 Point d) type B power-generating modules shall fulfil the following general system management requirements with regard to information exchange with System Operator (hereinafter - SO):

- active power received or transferred at the connection point (MW);
- reactive power received or transferred at the connection point (MVAr);
- voltage at the connection point (kV);
- current through the connection point (A);
- frequency at the connection point (Hz);
- active power produced or consumed by each power generation module (MW);
- reactive power produced or consumed by each power generation module (MVAr);
- rate of change of active power generation of the power generating unit (MW/min);
- average wind speed at the rotor wheel in 60 seconds for the wind power plants (m/s);
- voltage at the connection point of the power generation module (kV);
- maximum margin of active power (MW);
- active power set-point (MW);
- minimum margin of reactive power (MVAr);
- maximum margin of reactive power (MVAr);

- reactive power set-point (MVAr);
- power factor set-point;
- controlled voltage set-point at the connection point (kV);
- minimum value of frequency control dead-band set-point (Hz);
- maximum value of frequency control dead-band set-point (Hz);
- droop of frequency regulation (%);
- water flow through the hydro unit (m<sup>3</sup>/sec);
- water flow through the spill-gates (m<sup>3</sup>/sec);
- Upper and lower dam water level measurements (m).

### 2. Requirements for type B synchronous power-generating modules in accordance with the Regulation 2016/631 Article 17

17. In accordance with the Regulation 2016/631 Article 17, Paragraph 1 type B synchronous power-generating modules shall fulfil the requirements listed in Article II, and Article III, Paragraph 1.

18. In accordance with the Regulation 2016/631 Article 17, Paragraph 3 with regard to robustness, type B synchronous power-generating modules shall be capable of providing post-fault active power recovery in the amount of not less than 70% of the pre-fault active power generation in the time period up to 10 seconds.

### 3. Requirements for type B power park modules in accordance with the Regulation 2016/631 Article 20

19. In accordance with the Regulation 2016/631 Article 20, Paragraph 1 type B power park modules shall fulfil the requirements laid down in Article II, and Article II.1.

20. In accordance with the Regulation 2016/631 Article 20, Paragraph 3 type B power park modules shall fulfil the following additional requirements in relation to robustness:

- a) in accordance with the Regulation 2016/631 Article 20, Paragraph 3 Point
  a) with regards to the post-fault active power recovery the power park module is capable of providing and shall specify:
  - in accordance with the Regulation 2016/631 Article 20, Paragraph 3 Point a) Sub-point i) voltage amount of 90% of the nominal value at the connection point;
  - in accordance with the Regulation 2016/631 Article 20,
     Paragraph 3 Point a) Sub-point i) and iii) active power amount at least 70% of the pre-fault active power generation in the time period till 10 seconds and accuracy of ±5% of the active power.

# IV. Requirements for type C power-generating modules in accordance with the Regulation 2016/631 Article 15

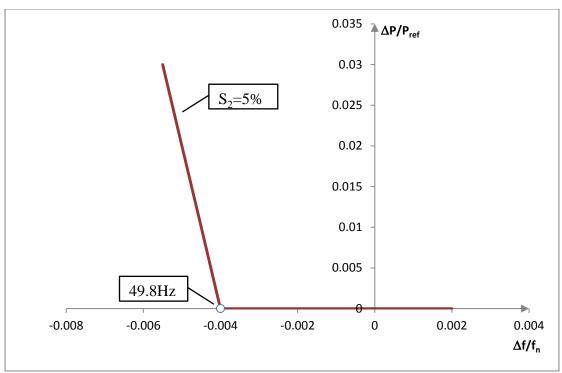
### 4. General requirements for type C power-generating modules in accordance with the Regulation 2016/631 Article 15

21. Type C power-generating modules shall fulfil the requirements laid down in Title II and Title II.1.

22. In accordance with the Regulation 2016/631 Article 15, Paragraph 2 type C power-generating modules shall fulfil the following requirements relating to frequency stability:

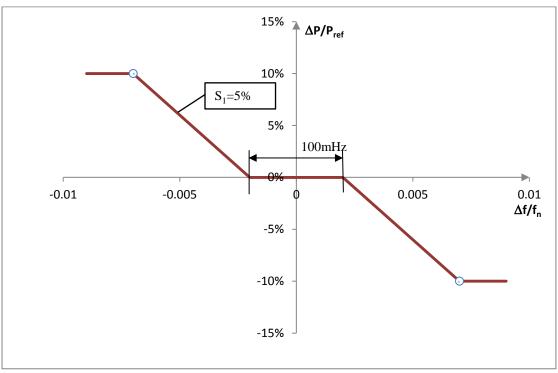
- a) In accordance with the Regulation 2016/631 Article 15, Paragraph 2 Point a) power generating module providing the frequency regulation has to reach the active power generation setpoint, given by relevant SO or relevant TSO, which is not exceeding 10% of the nominal active power of the power generation module, in 30 seconds, with the accuracy of 5% or higher.
- b) In accordance with the Regulation 2016/631 Article 15, Paragraph 2 Point
   c) with regard to limited frequency sensitive mode underfrequency (LFSM-U, Figure 4):
  - the frequency threshold is 49,8 Hz;
  - the droop setting is 5%, adjustability in the range of 2% 12 % has to be provided.
- c) In case of frequency decrease the power generating modules have to be capable to activate full frequency controlled power output adjustment:
  - for synchronous power generation modules  $\leq$  360 sec;
  - for energy park modules  $\leq 30$  sec.
- d) In case of frequency decrease the initial power output change reaction has to be faster than:
  - for synchronous power generation modules  $\leq 300$  sec;
  - $\quad \mbox{for energy park modules} \leq 5 \mbox{ sec, if the current active power of the module was 50% of $P_{nom}$ or greater. If the current active power of the module was less than 50% of $P_{nom}$, it is permissible to have longer initial reaction time, assuming that it is limited by the technical capabilities of the module only;}$
  - for other energy park modules  $\leq 10$  sec.
- e) In accordance with the Regulation 2016/631 Article 15, Paragraph 2 the following shall apply cumulatively when frequency sensitive mode ('FSM') is operating:
  - in accordance with the Regulation 2016/631 Article 15, Paragraph 2 Point d) Sub-point i) the power-generating module shall be capable of providing active power frequency response in accordance with the parameters specified within the ranges shown in Table 2 (explanations to Figure 5).

### Active power frequency response capability of power-generating modules in LFSM-U mode



#### Figure 5

### Active power frequency response capability of power-generating modules in FSM mode



Where:

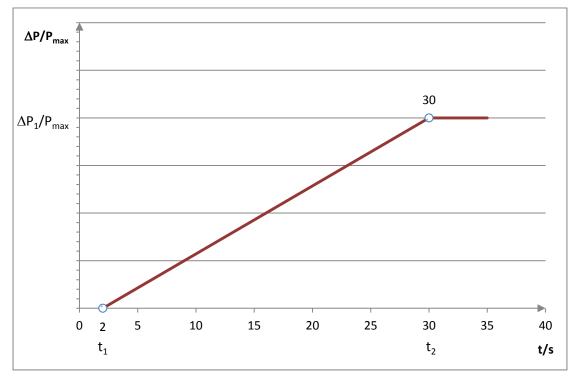
- frequency response deadband is 100 mHz;
- droop is 5%.

(Explanation for Figure 5)					
Parameters	Ranges				
Active power range related to maximum capa	10%				
	$\Delta f_i$	10mHz			
Frequency response insensitivity	$\Delta f_i/f_n$	0.02%			
Frequency response deadband	0-500mHz				
Droop s1	2-12%				

#### Parameters for active power frequency response in FSM (Explanation for Figure 5)

f) In accordance with the Regulation 2016/631 Article 15, Paragraph 2 Point
 d) Sub-point iii) in case of a frequency step change, the power-generating module shall be capable of activating full active power frequency response according to the fat line shown in Figure 6.

Figure 6



#### Active power frequency response capability

g) In accordance with the Regulation 2016/631 Article 15, Paragraph 2 Pointd) Sub-point v) the power-generating module shall be capable of providing full active power frequency response for a time period till 30 minutes.

23. In accordance with the Regulation 2016/631 Article 15, Paragraph 3 with regard to voltage stability, power-generating modules shall be capable of automatic disconnection when voltage at the connection point reaches folloving levels for the time period of at least 1 minute (not applicable to type-D units):

- a) minimum value, which is 80% of the nominal value;
- b) maximum value, which is 120% of the nominal value.

24. In accordance with the Regulation 2016/631 Article 15, Paragraph 5 powergenerating modules shall fulfil the following requirements relating to system restoration:

a) in accordance with the Regulation 2016/631 Article 15, Paragraph 5 Pointa) Sub-point iii) a power-generating module with black start capability

shall be capable of starting from shutdown without any external electrical energy supply within one (1) hour;

b) in accordance with the Regulation 2016/631 Article 15, Paragraph 5 Point
c) Sub-point iii) power-generating modules shall be capable of continuing operation following tripping to houseload, irrespective of any auxiliary connection to the external network with the minimum operation time of six (6) hours.

25. In accordance with the Regulation 2016/631 Article 15, Paragraph 6 powergenerating modules shall fulfil the following general system management requirements:

- a) in accordance with the Regulation 2016/631 Article 15, Paragraph 6 Point b) Sub-point iii) in order to detect poorly damped power oscillations dynamic behavior registration devices has to be provided (hereinafter registrator), which has to be capable to record voltages, currents, active and reactive power, frequency, speed of change of frequency, as well as recording positive and negative sequence values for voltages, currents, active and reactive power. Registrator has to have capability registering voltages, currents, active and reactive power in algebraic form (a+jb) and polar form (amplitude, angle). Registrator has to have capability to trigger the recording from outer command signals, using binary input ports and from built-in measurement and protection functions. Data transfer protocols for the registrator are defined by the manufacturer, in coordination with relevant TSO. Data storage, archiving and monitoring in real-time must be provided.
- b) In accordance with the Regulation 2016/631 Article 15, Paragraph 6 Point e) minimum value for the rate of change of active output power of the power-generating modules is defined in Table 3. Maximum value for the rate of change of active output power of the power-generating module is 200 MW/min.

Table 3

to reach the next set-point.				
Type of power generating module	Rate of change of active power output	Notes		
Gas or liquid fuel powered generating modules	8% P <sub>nom</sub> /min	60%-90% of P <sub>max</sub>		
Combined (gas and steam) power generating modules	4% P <sub>nom</sub> /min	60%-90% of P <sub>max</sub>		
Solid fuel powered generating modules	4% P <sub>nom</sub> /min	60%-90% of P <sub>max</sub>		
Photovoltaic and wind powered generating modules	8% P <sub>nom</sub> /min	60%-90% of P <sub>max</sub>		
Hydro electric power generating modules	100% P <sub>nom</sub> /min			

#### Minimum rate of change of active power outputs for power generating modules to reach the next set-point.

### 5. Requirements for type C synchronous power-generating modules in accordance with the Regulation 2016/631 Article 18

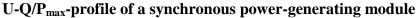
26. In accordance with the Regulation 2016/631 Article 18, Paragraph 1 type C synchronous power-generating modules shall fulfil the requirements laid down in Article II, Article III Paragraph 1, Article III Paragraph 2 and Article IV Paragraph 4 of these Requirements.

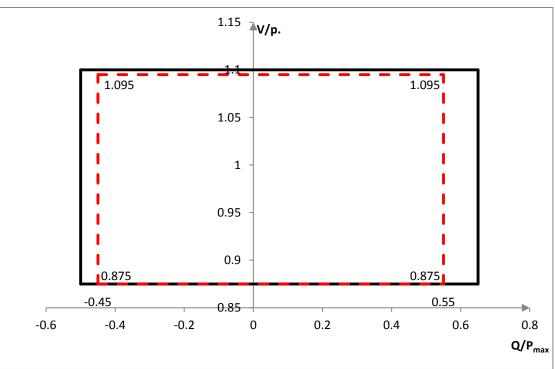
27. In accordance with the Regulation 2016/631 Article 18, Paragraph 2 type C synchronous power-generating modules shall fulfil the following additional requirements in relation to voltage stability:

- a) In accordance with the Regulation 2016/631 Article 18, Paragraph 2 Point

   a) on the connection point compensation of reactive power, produced by
   power generating module must be ensured up to 0 MVAr.
- b) In accordance with the Regulation 2016/631 Article 18, Paragraph 2 Point b) Sub-point ii) the U-Q/P<sub>max</sub> profile of the power generating module is shown in Figure 7.

Figure 7





c) In accordance with the Regulation 2016/631 Article 18, Paragraph 2 Point b) Sub-point iv) the synchronous power-generating modules shall be capable of operating at every possible operating point in the P-Q-capability diagram, reaching the operating point within its U-Q/P<sub>max</sub> profile in appropriate timescales to reach target values.

#### 6. Requirements for type C power park modules in accordance with the Regulation 2016/631 Article 21

28. In accordance with the Regulation 2016/631 Article 21, Paragraph 1 type C power park modules shall fulfil the requirements listed in Title II, Title III Paragraph 1, Title III Paragraph 3 and Title IV Paragraph 4.

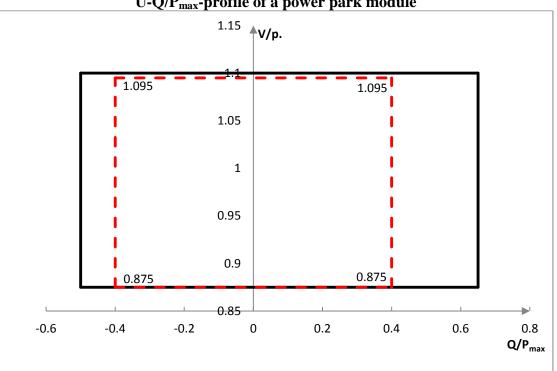
29. In accordance with the Regulation 2016/631 Article 21, Paragraph 2 type C power park modules shall fulfil the following additional requirements in relation to frequency stability:

- a) in accordance with the Regulation 2016/631 Article 21, Paragraph 2 Point
  a) power park modules have to be capable of providing synthetic inertia during very fast frequency deviations;
- b) in accordance with the Regulation 2016/631 Article 21, Paragraph 2 Point b) the operating principles of control systems installed to provide synthetic inertia and the relevant performance capability shall be coordinated with the relevant TSO.

30. In accordance with the Regulation 2016/631 Article 21, Paragraph 3 type C power park modules shall fulfil the following additional requirements in relation to voltage stability:

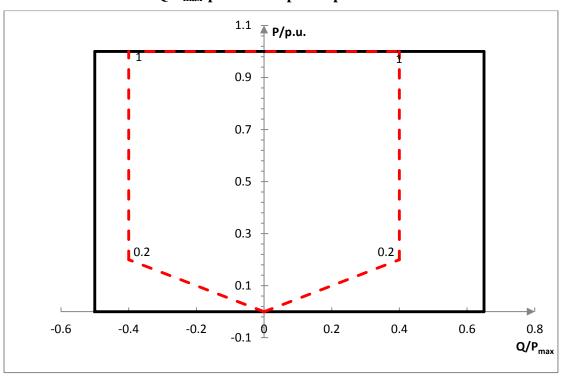
- a) in accordance with the Regulation 2016/631 Article 21, Paragraph 3 Point
   a) on the connection point compensation of reactive power, produced by power generating module must be ensured up to 0 MVAr;
- b) in accordance with the Regulation 2016/631 Article 21, Paragraph 3 Point
   b) Sub-point ii) the U-Q/P<sub>max</sub> profile of the power generating module is shown in Figure 8;

Figure 8



c) in accordance with the Regulation 2016/631 Article 21, Paragraph 3 Point
 c) Sub-point ii) the P-Q/P<sub>max</sub> – profile of the power generating module is shown in Figure 9;

U-Q/P<sub>max</sub>-profile of a power park module



#### P-Q/P<sub>max</sub>-profile of a power park module

- d) in accordance with the Regulation 2016/631 Article 21, Paragraph 3 Pointd) with regard to reactive power control modes:
  - in accordance with the Regulation 2016/631 Article 21, Paragraph 3 Point d) Sub-point iv) following a voltage step change, the power park module shall be capable of achieving 90 % of the change in reactive power output within 3 seconds, and must stabilised at the value specified by the slope of voltage decrease within 60 seconds, with a steady-state reactive tolerance no greater than 5 % of the maximum reactive power;
  - in accordance with the Regulation 2016/631 Article 21, Paragraph 3 Point d) Sub-point vi) target value of the power factor is 0.93, tolerance of the target power factor is 5% expressed through the tolerance of its corresponding reactive power, and the period of time to achieve the target power factor following a sudden change of active power output is 60 seconds.
- e) in accordance with the Regulation 2016/631 Article 21, Paragraph 3 Point
   e) reactive power contribution has priority during faults for which fault-ride-through capability is required.

#### V. Requirements for type D power park modules in accordance with the Regulation 2016/631 Articles 16, 19, 22 and 33

### 7. General requirements for type D power-generating modules in accordance with the Regulation 2016/631 Article 16

31. In accordance with the Regulation 2016/631, Article 16, Paragraph 1 type D power-generating modules shall fulfil the requirements set out in Title II, Except Title II Article 11, Title III Article 1, Title IV Article 4, except Title IV Article 23.

32. In accordance with the Regulation 2016/631, Article 16, Paragraph 3 type D power-generating modules shall fulfil the following requirements in relation to robustness:

a) In accordance with the Regulation 2016/631, Article 16, Paragraph 3 Pointa) Sub-point i) voltage and time rate profile at the connection point regarding to character of the fault is shown in Figures 10 and 11.

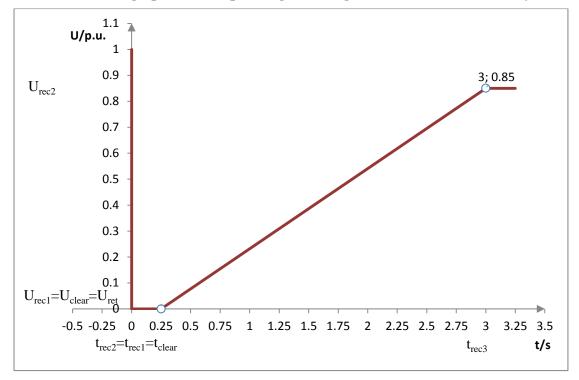
Where, in Figures 10 and 11:

- U<sub>ret</sub> is the voltage retained at the connection point during the fault;
- t<sub>clear</sub> is the point in time, when fault is cleared;
- $U_{rec1}$ ,  $U_{rec2}$ ,  $t_{rec1}$ ,  $t_{rec2}$  and  $t_{rec3}$  specify certain points of lower limits of voltage recovery after fault clearance.
- b) In accordance with the Regulation 2016/631 Article 16, Paragraph 3 Point
   c) fault-ride-through capabilities in case of asymmetrical faults shall be the same as in case of symmetrical faults.

Figure 10

<sup>1.1</sup> **↓**U/p.u. 1.5; 0.85 0.9 U<sub>rec2</sub> 0.8 0.7 0.6 0.7; 0.5 U<sub>rec1</sub> 0.5 0.4 0.3 0.45; 0.25 U<sub>clear</sub> 0.2 0.1 U<sub>ret</sub> A 0.25 0.5 -0.5 -0.25 0 0.75 1 1.25 1.5 1.75 2 t/s t<sub>clear</sub> t<sub>rec1</sub> t<sub>rec3</sub> t<sub>rec2</sub>

Fault-ride-through profile of a power-generating module in transmission system



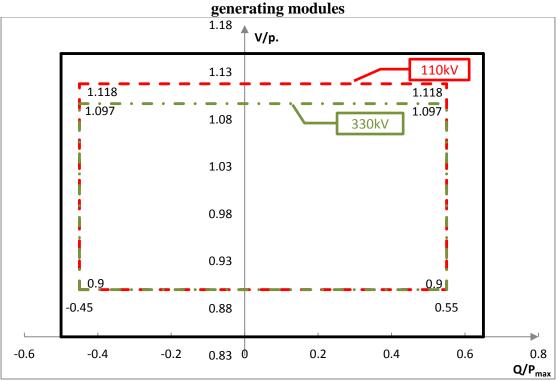
Fault-ride-through profile of a power-generating module in transmission system

### 8. Requirements for type D synchronous power-generating modules in accordance with the Regulation 2016/631 Article 19

33. In accordance with the Regulation 2016/631 Article 19, Paragraph 1 type D synchronous power-generating modules shall fulfil the requirements laid down in Title II, except for Title II Article 11, Title III Article 1, Title III Article 2, Title IV Article 4, except Title IV Article 23, Title IV Article 5 and Title V Article 7.

34. In accordance with the Regulation 2016/631 Article 18, Paragraph 2 Point b) Subpoint ii) and Article 16, Paragraph 2 Point a) Sub-point i) regarding to voltage stability synchronous power-generating modules has to conform to following requirements:

- a) in accordance with the Regulation 2016/631 Article 18, Paragraph 2 Point
  b) Sub-point ii) and Article 16, Paragraph 2 Point a) Sub-point i) and Table
  6.1 the U-Q/P<sub>max</sub> profile for 110 kV voltage is shown in Figure 12;
- b) in accordance with the Regulation 2016/631 Article 18, Paragraph 2 Point
  b) Sub-point ii) and Article 16, Paragraph 2 Point a) Sub-point i) and Table
  6.2 the U-Q/P<sub>max</sub> profile for 330 kV voltage is shown in Figure 12.



U-Q/P<sub>max</sub> profile for 330 kV and 110 kV voltages for synchronous powergenerating modules

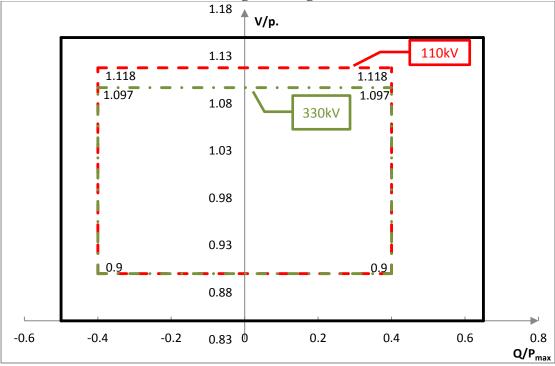
#### 9. Requirements for type D power park modules in accordance with the Regulation 2016/631 Article 22

35. In accordance with the Regulation 2016/631 Article 22, Paragraph 1 type D power park modules shall fulfil the requirements listed in Title II, except for Title II Article 11, Title III Article 1, Title III Article 3, Title IV Article 4, except for Title IV Article 23, Title IV Article 6 and Title V Article 7.

36. In accordance with the Regulation 2016/631 Article 21, Paragraph 3 Point b) Subpoint ii) and Article 16, Paragraph 2 Point a) Sub-point i) regarding to voltage stability power park modules has to conform to following requirements:

- a) in accordance with the Regulation 2016/631 Article 21, Paragraph 3 Point b) Sub-point ii) and Article 16, Paragraph 2 Point a) Sub-point i) and Table 6.1 the U-Q/P<sub>max</sub> profile for 110 kV voltage is shown in the Figure 13;
- b) in accordance with the Regulation 2016/631 Article 21, Paragraph 3 Point
  b) Sub-point ii) and Article 16, Paragraph 2 Point a) Sub-point i) and Table
  6.2 the U-Q/P<sub>max</sub> profile for 330 kV voltage is shown in the Figure 13.





# VI. Requirements for offshore generating modules in accordance with the Regulation 2016/631 Articles 23, 24, 25, 26, 27 and 38

37. Generators have to conform to the requirements, published in the Regulation 2016/631.

38. In accordance with the Regulation 2016/631 Article 25, Paragraph 5 regarding to voltage stability, offshore power park modules additionally has to conform to following requirements:

- a) in accordance with the Regulation 2016/631 Article 21, Paragraph 3 Point b) Sub-point ii), Article 25, Paragraph 1 and Article 25 Paragraph 5 the U- $Q/P_{max}$  profile for 110 kV voltage is shown in Figure 13;
- b) in accordance with the Regulation 2016/631 Article 21, Paragraph 3 Point b) Sub-point ii), Article 25, Paragraph 1 and Article 25 Paragraph 5 the U- $Q/P_{max}$  profile for 330 kV voltage is shown in Figure 13.

#### VII. Compliance testing and Commissioning

39. Compliance testing has to be performed in accordance with the requirements of Regulation 2016/631. Additional requirements are not specified by the SO. Eligibility tests and its performance are defined by the Decision No 1/4 of the Board of the Public Utilities Commission of 26 June 2013 "Grid Code"

40. Commissioning has to be performed in accordance with the requirements of the Regulation 2016/631. Additional requirements are not specified by the SO. Commissioning has to be performed according to Decision No 1/4 of the Board of the Public Utilities Commission of 26 June 2013 "Grid Code" and according to the

Decision No 1/6 of the Board of the Public Utilities Commission of 22 February 2012 "System connection regulations for energy producers".

#### VIII. Concluding questions

41. According to the Regulation 2016/631 Article 7 Paragraph 7 TSO is entitled to submit changes of requirements to the Public Utilities Commission.

42. TSO has to review these requirements for all power generation modules (including existing ones) that affect frequency stability in case of power transmission system synchronization area in Latvia is changed. All necessary changes to these requirements TSO has to submit to Public Utilities Commission for approval.