

ENTSO-E responses to VGB important items from 7/3/2018 SO ESC

ENTSO-E

System Operation European Stakeholder Committee

VGB generic questions

VGB	ENTSO-E response
<p>Status HVDC installation</p> <p>Art. 2.1.f defines a HVDC installation as a significant grid user (SGU). But compared to a generator or a consumer, a HVDC installation is not subjected to several requirements</p> <p>What is the intention of this Guideline?</p>	<p>Requirements for SGUs are applicable for HVDC systems</p>
<p>Small PGM installed at an industrial site > 110 kV</p> <p>According to the RfG code, small PGMs (e.g. a photovoltaic panel of 100 W) installed in a consumer's installation, connected at 110 kV or more, are class D PGMs and are subjected to this GL SO.</p> <p>This does not sound logic for small PGMs.</p> <p>Has ENTSOE a strategy to solve this problem?</p>	<p>As a general rule, requirements for SGUs are applicable for such type D PGMs.</p> <p>In case installed at industrial site, connected to CDSO or a private network, the applicability is decided on national level.</p> <p>The topic is covered under RfG amendment discussions</p>

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<p>Operational rules for storage / batteries</p> <p>According to Art 3.2.d of the RfG code, storage devices (except pump storage) are not subjected to the RfG code. => Not within the scope of GL SO according to Art. 2.1.a => Batteries (and other storage devices) are excluded from this GL SO.</p> <p>What is the intention of ENTSOE? Are such exclusions appropriate?</p>	<p>Storage units are not explicitly covered by SO GL scope of application (SOGL, Article 2). NC RfG and DCC: Storage devices are not part of RfG and DCC (Article 3.2.d, except for pump-storage) Since RfG explicitly excludes storage, it does not seem necessary to explain/argue whether the current definitions can be applied to storage. If RfG was amended to include storage, it would however be necessary to revise these definitions. Based on expected number of units and size of storage systems in the near future and different functional applications of storage systems, storage systems have cross-border relevance.</p> <p><i>This is only an initial position subject to further investigation and confirmation. Topic discussed in EG STORAGE under GC ESC</i></p>

VGB important items

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Art.18.4.b : Why is the status of black-out applied after three minutes of absence of voltage in the control area?	The 2 nd attempt for auto-reclosure of circuit breakers is not later than 3 minutes
Art. 21.1.a and 22.1.i allow TSOs to open an interconnector in case of emergency. Shall generators and consumers be compensated?	Compensation schemes are not in the scope of SO GL, it is defined on national level
Art. 22.1.c.iv allows TSO to block automatic voltage control. Who will compensate the damage when IEC standards are not respected?	Compensation schemes are not in the scope of SO GL, it is defined on national level

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Art. 22.1.j allows to activate a manually controlled load shedding. Is this done according to an existing agreement with the consumer?	This is not regulated with SO GL, subject to national decision
Art. 23.4 imposes remedial actions when the system is NOT in normal or alert state. This is a subject for the E&R code instead the GL SO?	The coordination of remedial actions is covered by SO GL. In NC ER are defined the requirements for coordinating the measures of system defence and restoration plans
Art. 24.1.e imposes the TSOs to facilitate cross-border operations. How to interpret this obligation in case of emergency (Art. 21.1.a and 22.1.i)?	Article 24.1 lists the means, tools and facilities for which each TSO shall ensure the availability, reliability and redundancy, this includes the tools and communication means necessary for TSOs to facilitate cross-border market operations. This is not the same as the obligation to facilitate cross-border operations. In case of emergency, the rules for suspension and restoration of market activities defined on national level in accordance with NC ER apply

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Art. 25.2 requires to take into account the frequency limits of SGU in normal and alert situations. But nothing is said about submission of those limits (see Art. 28.3). What about the rights of DSOs (≠ SGU)?	In general, application of SOGL requirements is done wrt capabilities of existing SGUs. If necessary, a TSO can ask a SGU to clarify them
Art. 28.1 imposes to submit the applicable voltage ranges of existing SGU before 14/12/2017. This is supposed at 50 Hz only. Correct?	It's up to the SGU to provide these capabilities taking into account whether they change in different frequency ranges.
Art. 31.3 imposes max. and min. limits for short-circuit currents. A deviation of the limits is only allowed during switching operations. The min. value has to be respected at all times. Correct?	Art 31 (3) requests TSO to prevent from deviations on min/max limits. This is applicable in general.

VGB important items

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Art. 33 : To add at the contingency analysis : successive voltage dips due to lightning can provoke the tripping of PGMs (Cfr. black-out in Australia)	Plenty of other technical dynamic scenarios could be described (eg: effect of ULTC). The Article shall remain general.
Art. 37 describes a “special protection scheme”. What is such scheme?	According to the definition in an early version of SO GL ‘special protection scheme’ means the set of coordinated and automatic measures designed to provide for fast reaction to disturbances and to avoid the propagation of disturbances in the transmission system (the definition was removed during comitology)
Art. 45.1.k imposes to determine the cost of remedial actions. How? How do we have to interpret “market based mechanisms”?	Costs of remedial actions have to be provided ex-ante according to Art 78(1). Elements needed for receiving these costs have to be defined at national level
Art. 54.4 allows tests at any time referring to Art.41.2 of RfG allowing only tests according to a “repeat plan”. We suppose that RfG prevails for ALL PGMs.	<i>Response under development</i>

VGB important items

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Art. 95 (outage planning) : the allocation of costs detected at incompatibilities is unclear. Who shall bear those costs?	In application of national rules
Art. 98.4.a allows a TSO to force an “unavailable status” into a “available status”. This is not always possible. E.g : refuelling of a nuclear PGM.	The provision concerns year-ahead availability plans, alternative availability plans resolving the outage incompatibility in this timeframe are generally feasible
Art.102.1 imposes a procedure for forced outages. Why? This is an element of the contingency analysis made by the TSO. What is the intention of this article?	This procedure was requested by stakeholders to address very specific situations, including cases where several units/elements are subject to stop urgently
Art. 102.3 : “When undertaking the procedure, the TSO shall respect, to the extent possible, the technical limits of the relevant assets.” Meaning???	Eg taking into account a potential obligation for nuclear PGM to stop.

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Art. 119.1.c : Ramping restrictions for PGMs : more information and values are needed to analyse the impact of this article.	This is in the scope of synchronous area operational agreements, then (potentially) control block agreement: they are both submitted for consultation, where the impact would be more precisely addressed
Art.152.8-13 & 16 allows a TSO to modify the active power of generators and consumers to grant sufficient reserves (FRR, RR, FRCE). Is this done according market rules or agreements with SGU?	It shall be done in compliance with national rules/agreements
Art.156.9 imposes that FCR is continuously available. This does not apply when a PGM does already supply FCR in normal state or alert state. Correct?	It means that FCR providing units/groups with LER shall fulfil this requirement when being contracted to provide FCR. Additional explanations are available in the scope of explanatory documents provided together with CBA for LER units providing FCR

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Art. 156.13.b requires the recovery of the energy reservoir for FCR within 2 hours after the end of the alert state. Questions : ≠ emergency state? / = with active markets ? / what without markets? / single event or several events? Details are missing.	SO GL covers the rules for normal and alert state. Market suspension is not foreseen for normal and alert state.
Art. 157.2.a describes the dimensioning of FCR based on historical data. This should be based on a “lessons learned” approach. Cfr. Incident 4/11/2006.	Article 156 is about FRR dimensioning (not FCR). According to article 153.2 FCR per synchronous area shall cover at least the reference incident
Art. 157.2.j & k imposes sufficient FRR during 99% of the time. Meaning that during 86 hours per year, a black out is realistic. Why not 99,9% instead of 99%?	It is not likely that the reduction of FRR capacity would cause a LFC block imbalance resulting in a blackout. Supporting document of LFCR part of SO GL provides comprehensive explanations on reserve dimensioning

Minor items 1/3

UNDER DEVELOPMENT

- Art. 2 : A DSO is not a SGU according to recital 3. Correct???
- Art. 3 : “load-frequency-control” is not defined (see Def. 12: 13: 140)
- Art. 3.71 : ‘availability status’ means the capability of a power generating module, grid element or demand facility to provide a service for a given time period, regardless of whether or not it is in operation. More explanation needed for the terms “available” and “in operation”.
- Art. 7 : ACER cannot propose amendments. Why??
- Art. 8.1 : Is a TSO legally obliged to inform stakeholders by other means than the internet? What is the legal status of an “hidden” internet publication?
- Art. 27.5 (voltage ranges for DSO < 110 kV) : what with DSO at 110 kV or more?
- Art. 35 allows a TSO to consider the N-1 criterion as sufficient. This is not allowed for SEVESO plants and nuclear PGMs. Contradiction between Art.40.3 (generation/ consumption) and Art. 40.4 (injections / withdrawals)??

Minor items 2/3

UNDER DEVELOPMENT

- Art. 52.3 : The min. and max. power to be curtailed is NOT a real-time data.
- Art.109.3 : At un-sufficient reactive power, the regulator is not informed. Why? To compare to Art. 105.3 for active power : the regulator is informed.
- Art. 110.4 : No definition of a shipping agent. Unknown role.
- Art.114 : the information in the ENTSOE operational planning data environment is of paramount commercial value for traders. How will ENTSOE prevent leakages?
- Art.119 : LFC block, LFC area, outage coordination area and monitoring area are new terms. Could those be explained and visualised in a list or a map?
- Art.127.8.b requires a public consultation for a modification of the frequency quality parameters. What is the role of the ESC?
- Art.128.1 : the terms Level 1 FRCE range and Level 2 FRCE range are not clear.

Minor items 3/3

UNDER DEVELOPMENT

- Art. 133 : A TSO has to collect data to define the frequency quality parameters. Who will have access to those parameters.? Will they be published? (Idem 134.4)
- Art. 135 allows a TSO to request data from generators and consumers related to imbalances. What is the purpose of this? Imbalance is a notion at portfolio level.
- Art. 137.4 (ramping rates for generators and demand) : What is the added value if the modifications are within a LFC block / a single synchronous area? This provision can provoke additional unbalances if too restricting.
- Art. 138 describes measures in case the frequency quality is not respected. The proposed mitigation is with the existing quality parameters. Correct?
- Art. 154.3 specifies that a TSO can impose additional requirements for FCR. Are other criteria than geographical ones possible?
- Art.185.1 & 5 impose to notify ENTSOE about modified frequency quality parameters. Is this according Art. 6 (approval process) and Art. 11 (public consultation).