

	Topic	Question	Answer	Date
15	Root loci	<p>Referring to memo "Impedance loci harmonic impedance at 66 kV connection point, location 'Hollandse Kust Zuid' and quote: "The modelled 380 kV onshore grid for the year 2025 is used."</p> <p>Does this include the filter as foreseen in Borssele?</p>	<p>In the harmonic calculations of root loci for HKZ the connection of the offshore grid in Borssele is included as part of the transmission network, including the local filters.</p>	12-11-18
14	Grid Code	<p>Regarding the TenneT/Netherlands grid code (offshore) I am particularly keen to know baseline and changes on typical grid issues as LVRT, post fault behaviour, OVRT, PQ-U, harmonics etc..</p>	<p>The current Dutch grid code has a section with the requirements for the connection of offshore power park modules (PPMs). You can find the grid code at http://wetten.overheid.nl/BWBR0037940/2018-06-13</p> <p>Unfortunately the code is in Dutch, if you would like to have an official English translation you should contact Netbeheer Nederland, the association of the electricity and gas grid operators (www.netbeheernederland.nl<http://www.netbeheernederland.nl>).</p> <p>Chapter 2.6 of the Dutch grid code contains the "Requirements for the connection of an offshore power park module at the offshore grid". There you find requirements regarding fault ride through, PQ-U, frequency and voltage, etc.</p>	12-11-18
13	CTA_Annexes_HK Z (K-I).pdf	<p>Annex 6 § 3.1 Access to the platform</p> <p>It is understood that in order for the Connected Party to be able to enter/access the 66kV SWG, one accompaniment from TenneT is</p>	<p>It could be discussed in future if, with sufficient training for instance, unaccompanied visits would be allowed by TenneT.</p>	12-11-18

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		<p>mandatory at all times. Is TenneT considering in the future changing this rule? Let's say the Connected Party Nominated person for an electrical installation could be accredited / qualified recognized by TenneT, would be possible in a later period for TenneT to reconsider this rule by allowing emergency operation on the SWG in close collaboration with TenneT onshore Control Room? Or during maintenance / testing period, works (maneuvers on the 66kV SWG cable feeder bays) to be done only by Connected Party personnel with no assistance/physical presence of TenneT personnel?</p>		
12	CTA_Annexes_HK Z (K-I).pdf	<p>§6 Protection Please confirm our understanding, the Connected Party is responsible of 66kV cable protection system calculation which will be formally communicated to TenneT and TenneT will be responsible of protection setting into the IED, commissioning/testing it and operating the protection relays?</p>	Please refer to Annex 3, section 6 on Protection.	12-11-18
11	Compliance Studies	<p>Reference is made to Bijlage 5_1 Compliance Wind Farms V4 081116.pdf §1 Scope Could you please make reference or provide the exact web location of the following document: "Wind Farm Connection Requirements-General Version 5.9, hereafter called 'TenneT requirements (TR)'?"</p>	This document ""Wind Farm Connection Requirements-General Version 5.9" is superseded and no longer applicable. The wording in the Annexes has been updated with the relevant references to Requirements for Generators or the Dutch Grid Code.	12-11-18
10	Compliance Studies	Reference is made to Bijlage 5_1 Compliance Wind Farms V4 081116.pdf	This is correct.	12-11-18

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		<p>§3.2.3 Software Model</p> <p>As the Point of Common Coupling of the OWF and TSO is defined at the 66kV SWG, Inter Array Cable connection, the model that will be used/modeled by the Connected Party, shall demonstrate its compliance at this point? No other part of the TSO offshore assets, offshore Tfo, reactors, export cable and onshore assets are required to be modeled?</p>		
9	Availability of the grid	Is any yearly planned maintenance on the grid foreseen which could impact the export of the produced energy of the wind turbines? If so, how many hours would this be?	The compensation regulation allows for five working days maintenance per year without compensation for the Connected Parties.	12-11-18
8	Availability of the grid	It has been noticed that no diesel generator for backfeeding the wind turbines is available on the offshore substation. It is mentioned that beyond 5 days of unavailability of the grid, the compensation mechanism on the lost energy production will come into force. However, will any compensation be foreseen for potential damages to the wind turbines which will need to survive without power supply? E.g. damage to a blade due to not functioning of the yawing mechanism of the wind turbine	If the grid is not available (just as with late delivery), the obligation of TenneT to compensate for any consequential damage may exist in certain cases. The wind farm will always have to demonstrate a causal relationship between the consequential damage and the unavailability of the grid. Financing costs are, for example, never seen as consequential damage, but property damage to the wind farm itself could be covered. This has been set out in further detail in the decision on compensation : https://zoek.officielebekendmakingen.nl/stb-2016-118.html .	12-11-18
7	Grid Code	<p>Please confirm which is the latest applicable Offshore Grid Code? Is it "Requirements for Offshore Grid Connections in the Grid of TenneT TSO Gmb version 21/12/2012"? or "tennet-NAR2015eng.pdf" as well?</p> <p>Lastly, it is understood that TenneT is working on a new version/requirement? Would these new requirements have adverse consequences for the Connected Party?</p>	<p>The Grid Code is a document published by ACM, the Dutch regulator. It is available via https://www.acm.nl/nl/onderwerpen/energie/de-energiemarkt/codes-energie/wat-zijn-de-codes-energie</p> <p>A change proposal of offshore grid requirements related to reactive power in the Grid Code has been submitted to ACM. The change proposal is available via TenneT's website:</p>	12-11-18

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			https://www.tennet.eu/our-grid/offshore-projects-netherlands/net-op-zee-hollandse-kust-zuid/	
6	Ministrial Order for permitting offshore wind energy	Scoring criterion: the quality of the design for the wind farm (Section 24(2)(b) of the Act): "Implementation agreement" is mentioned. Does this have the same meaning as "Realisation Agreement"?	Please verify with RVO.	12-11-18
5	20171215 Q&A Hollandse Kust Zuid	"In addition to the national regulation (Besluit van 23 maart 2016, houdende regels met betrekking tot de schadevergoeding bij niet-beschikbaarheid van het net op zee) and the Ministerial ruling (Regeling schadevergoeding net op zee van 22 maart 2016) on compensation in case of delay and/or unavailability of the offshore grid; an assessment framework ("Beoordelingskader") for claims will be elaborated prior to the commissioning of the first offshore grid connection by TenneT, in cooperation with the ministries, ACM and consulting offshore wind farms." Is this "beoordelingskader" already available?	TenneT expects a draft assessment framework will be available for consultation in Q1 2019.	12-11-18
4	RVO: Hollandse Kust (zuid) Wind Farm Zone Sites III & IV	Would it be possible to share a schedule on the development of the Beta platform? What date is it expected to be available for array cable pull-in, backfeed and power export?	In this stage, TenneT is only inclined to confirm the delivery date as stated in the Development Framework by the ministry: HKZ Beta will be ready by 31 March 2022. During the project realisation, a more detailed planning will be shared with the OWF. For its basic planning however, the OWF should consider the delivery date as the first possible date to enter the platform. If during project realisation windows occur to enhance the efficient execution of the projects, this will be discussed between TenneT and the OWF.	12-11-18
3	Connection Transmission Agreement and	What do you expect will be the main differences of the CTA & REA between HKZ I & II and HKZ III & IV?	No structural changes are to be expected, only updates related to clarifying of wording or some progressing insights.	12-11-18

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	Realization Agreement			
2	Connection Transmission Agreement and Realization Agreement	When can we expect an update of these documents, specific for HKZ III & IV?	Based on the expectation the wind tender will open in December, TenneT will publish all documents in November via the website https://www.tennet.eu/our-grid/offshore-projects-netherlands/net-op-zee-hollandse-kust-zuid/	12-11-18
1	Early Connection Transsmission Agreement and Realization Agreement	"Could you please explain the practical process / requirements for the Connected Party to apply for the CTA? What preliminary or minimum documentations are required by TenneT?"	Once the winner is known, TenneT will invite the OWF for a kick off to explain the process. The model agreements provide good indication of required information by the OWF. This documentation can be found at the website mentioned under (2).	12-11-18