

STAKE HOLDER CONSULTATION PROCESS OFFSHORE GRID NL	
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QUALITY CONTROL	
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1. Consultation feedback

The topic of the standardised voltage level of infield cables connecting to the offshore TenneT platform has been discussed with stakeholders on numerous occasions. It was a topic of discussion of the first two Expert Meetings (27.11.2014 and 29.01.2015) and several Bi-lateral meetings with potential bidders for the offshore wind subsidy. Substantiated with the external DNV-GL report and the TenneT position paper on the topic it has been discussed again during the Expert Meeting of 18.03.2015. Finally it has been discussed once more at the Expert Meeting of 15-16.04.2015, based on the updated TenneT position paper on the topic (v2) and the additional Memo of DNV-GL with respect to the additional questions raised after the steering committee of 24.03.2015.

The feedback received after the latest TenneT position paper can be summarised as follows (Appendix B provides a full overview of all feedback received and the actions taken with respect to this feedback):

- **Consensus.** There is a general consensus that the application of 66 kV as the medium voltage level for the infield cables is technically feasible, both with respect to the electrical equipment and with respect to the potential impact on turbine structure, foundation and cable installation.
➤ Mitigation/Follow-up: N/A.
- **Consensus.** The indicated expected cable length reductions (in going from 33 to 66 kV) are confirmed by the attendees of the Expert Meeting. It is also confirmed by the attendees that by far the majority of developers considers only layouts where the maximum number of turbines is attached to every string.
➤ Mitigation/Follow-up: N/A.
- **Consensus.** Cost impact ranges provide a good overview of potential cost impact, in terms of cost savings (cable length reduction) and cost increases (equipment). By including an overall worst and best case, additional uncertainties in the market with respect to the new technology is considered to be covered sufficiently.
➤ Mitigation/Follow-up: N/A.
- **Consensus.** There is a general consensus supporting the conclusion of the position paper that it can be expected that a competitive market will be available for the supply of 66 kV cables, in time (at tender open by end 2015) and with the appropriate guarantees and certificates.
➤ Mitigation/Follow-up: N/A.
- **Consensus.** There is a general consensus supporting the conclusion of the position paper that it can be expected that a competitive market will be available for the turbines at 66 kV level, in time (at tender open by end 2015) and with the appropriate guarantees and certificates.
➤ Mitigation/Follow-up: N/A.
- **Mixed opinion.** Some parties express some concern that the range of capacities of turbines that will be available at 66 kV may be limited especially on the lower side of the spectrum. This concern is not shared by all. In addition it is recognised that hard facts with respect to this topic are nearly impossible to get out of the market, as turbine suppliers consider this vital to the negotiation position.

In addition indications are that the smallest capacities of turbines will not be permitted within the permitting constraints for the site.

➤ Mitigation/Follow-up: N/A.

2. Feedback follow-up and next steps

Based on the internal evaluation, external reports and collected feedback during the stakeholder engagement process the following has been decided:

TenneT's position on 'T1 Voltage Level':

TenneT intends to standardise the connection voltage level of the inter-array systems to the TenneT offshore transformer platform at 66 kV for all five platforms to be realised by TenneT up to 2023.

is ready for final decision making by the appropriate body and will not come back in the stakeholder consultation process