REA Members Briefing on National Grid draft guidance on Co-location of projects on the Transmission network

National Grid have published draft guidance on co-located energy storage and generation sites on the transmission system. The guidance is welcome but highlights the need for a grid charging review for co-located transmission-connected assets.

Link to draft guidance

Clarification on Embedded generators & Split grid connections spun off to third parties:

The draft guidance does not apply directly to Large embedded generators (although the same principles apply), or to medium and small scale embedded generators (for which guidance is being developed separately via the Open Networks project).

For sites wanting to split existing grid connections and pass some of this to a third party (eg a storage developer), the draft guidance states that *"whilst there are arrangements in CUSC to transfer agreements to third parties…then this must be done via the Electricity System Operator". So "capacity cannot simply be transferred to a parallel connection and any new connecting party must submit a new Connection Application. With regard to a consolidated connection a share of the … Capacity contracted could be allocated to the new connecting 'unit' within the Power Station or alternatively additional Transmission Entry Capacity could be requested".*

Draft Guidance:

The draft guidance clarifies and summarises the existing processes and arrangements for renewable and non-renewable generation projects looking to 'co-locate' energy storage on-site.

The draft guidance highlights how co-located sites are treated at the moment in terms of their connection, charging regime and compliance requirements. It also seeks to highlight where changes will occur in the future.

The guidance distinguishes between projects where the two units have separate connections directly to the Transmission network ('Parallel connections'), and those where the storage unit is connected 'behind' an existing connection for a unit ('Consolidated connections').

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The document splits the relevant issues into three categories: connecting, complying with relevant regulations, and use of system charges, for new and consolidated connections.

Applicable network Charging
Note: there is another National Grid document on the current treatment of transmission connected storage assets, with regards to charging, available here: https://www.nationalgrid.com/sites/default/files/documents/Guidance%20on%20how%20transmission%20connected%20storage%20is%20currently%20charged%20today.pdf

Projects seeking new connections would have to comply with the existing use of system charges regime, see guidance above (as set out in the applicable grid codes and noting that Ofgem are consulting on introducing a new licence definition for energy storage projects).

For consolidated connections, the draft guidance is less clear and requires clarification- while different stations sharing the same 'charging characteristics' would be subject to the same requirements as above, it explicitly flags up that where new assets at a shared grid connection point feature different characteristics to those existing assets (ie a generating plant and storage site), the existing charging regime may not fit with this situation and will require reform – they say more will be communicated to industry in due course.

The REA will of course monitor and feed into developments here.

Connecting assets
For a new ('parallel') connection, a new application will be required to the Transmission System Operator, at a new Connection Point.

For 'Consolidated' (using an existing connection point) connections, an application to amend the existing connection agreement will be needed.

Regulatory Compliance
A new connection would require compliance with all existing requirements- Grid Code CP.5 to CP.7[1]- for Bilateral Connection Agreement assets to become operational.

Shared connections will require more consideration as both units would need to be Grid Code compliant both individually and combined. If a generating unit and an energy storage unit at the consolidated connection, each would be expected to have their own BM Unit, so therefore be capable of being separately controlled and instructed.
If adding a new unit to an existing power station, then Grid Code CP.8 will need to be followed instead.

Related Guidance under development:
Draft Guidance on connecting storage at FiT and RO accredited sites
Who: Ofgem

[1] 2 http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/The-Grid-code/

Status: Consultation closed, response awaited (late Spring 2018?)
Consultation proposals: https://www.ofgem.gov.uk/publications-and-updates/guidance-generators-co-location-electricity-storage-facilities-renewable-generation-supported-under-renewables-obligation-or-feed-tariff-schemes

Guidance for co-located small and medium sized embedded plants
Who: Open Networks project (National Grid and Ofgem secretariat)
Status: Process underway

Guidance for co-located projects on the Distribution networks
Who: Open Networks and DNOs
Status: Process underway

Proposals on transmission connected grid charging for co-located storage and generation projects
Who: National Grid ESO
Status: Unclear, very early stages

REA View:
This is useful guidance from National Grid in that any information on this important issue is welcome in the face of current policy-related uncertainties for developers in this space. It has also highlighted that there may need to be changes to the way the use of the transmission system is charged for at co-located sites, as the existing arrangements are in need of review and don't necessarily fit future projects- action needs to be taken here urgently to clarify the situation.

We think that energy storage located on-site at renewables projects is a key market for future energy storage deployment. A recent report from the All-Party Parliamentary Group on Energy Storage and REA estimated in the medium scenario, dependent on the pace of policy change, the UK could see over 5GW of deployment onsite onshore wind and solar farms.

This guidance should be used in conjunction with the forthcoming finalised Ofgem guidance on co-location at FiT and RO-accredited sites, and existing arrangements for CfD projects.
It would be helpful to have further clarifying documents from the DNO companies as it is at distribution level that most such schemes will connect- this is under progression as part of the Smart System and Flexibility Plan, through the Open Networks project.

Further information/Comments:

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