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Agarwal <shilpa@cercind.gov.in>
Sent: Wed, 19 Oct 2022 14:25:01 +0530 (IST)
Subject: Comments on draft IEGC regulations 2022

Dear Ms. Shilpa,

Please find attached our comments on the draft IEGC 2022 regulations. We will be happy to provide further information/clarification on the mentioned comments. If required, we can provide study analysis for our comments as additional inputs to strengthen IEGC 2022 .

Kind Regards

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Comments on draft IEGC 2022

Chapter 02 Resource planning code:

Statement: It is stated that “*Distribution Licensees will estimate demand forecast by 31st July every year for next 5 years.*”

STU will now combine the forecasted demand from various distribution licensees to estimate the demand for the entire state by August 30th every year for the next 5 years.”

Comment:

While the agencies responsible for providing the above stated inputs are broadly identified, however, in our opinion, there should be a broader framework for resource planning studies and expected outputs identified in IEGC 2022. Moreover, there is no mention on accountability of forecast accuracy. Since the state level inputs are expected to be utilized for National level resource planning and related matters, a common framework of resource planning studies, and some minimum accuracy on 5 year forecasts should be indicated in IEGC 2022.

Chapter 03 Connection codes:

Statement: “*Data collection is desired for smooth functioning of Power System*”. For this, data collection and its adequacy are mentioned.

Comments:

1. Agency/stakeholder responsible for data collection with its roles and responsibilities are apparently not covered in draft.
2. Mention of broader guidelines to be followed for data collection and its extent is missing in the draft.

Chapter 06 Operation Codes:

Comments:

- While application/criteria of RoCoF is mentioned in the draft, however, we believe that the broader approach of RoCoF measurement and more importantly the time window considered in measuring RoCoF values are critical for effective and uniform adoption of RoCoF limits across the grid.
- Indian grid code requires RE plants to comply with LVRT for a single voltage dip. However, it is pretty much possible that there can be recurrent voltage events experienced in the grid. South Australian grid witnessed blackout in 2016 primarily due to unexpected response of wind power plants to recurrent faults. Therefore, in the interest of overall grid stability, it is recommended that LVRT compliance against recurrent faults should be considered in IEGC 2022.
- While LVRT requirement of RE plants issued by CEA in 2019 has in our opinion rightly revised the LVRT requirement to reactive power priority during LVRT period, it is still ambiguous about how much reactive power injection should a RE plant prioritise during a voltage dip at PCC. Grid code regulation across the developed RE rich countries clearly specify reactive current requirement with respect to the retained voltage at PCC. Therefore, it is recommended that a clear requirement of reactive current injection priority during LVRT period should be specified, as current LVRT requirements provides a room for different/multiple interpretations as far as reactive power injection requirement is concerned.

NB: We at IIT Bombay will be happy to provide any further clarification/information if required, and can provide study analysis to back up the above mentioned suggestions.

Kind Regards

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