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Development of dispatching monitoring and control technology based on PMU data SC C2 Power System Operation and Control PS1 Q1.4

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What should be the visibility requirements to fully enable us to manage the grid?

- the proliferation of DER into the power system leads to a change in dynamic characteristics and a decrease in inertia;
- it leads to an increase in frequency deviations and the rate of frequency change (RoCoF) for power imbalance events;
- the variations in frequency of certain aggregated regions are also important to determine inter-area oscillations;
- as the power system evolves to accommodate larger contributions of converter-interfaced generation (CIG) the need for cleaner frequency measurements increases;

What should be the visibility requirements to fully enable us to manage the grid?

- if we are talking about the task of controlling the operating mode of the power system, then to monitor the parameters of the mode, it is enough to install a PMU on each feeder connecting the wind farm to the power system;
- also huge important task is development of technologies for:
 - monitoring the system inertia of the power system,
 - monitoring changes in the characteristics of the elements of the power system.