

GC0134 - Proposal to change CC.6.5

Removing the telephony requirement for small or aggregated units as
part of Wider Access to the Balancing Market



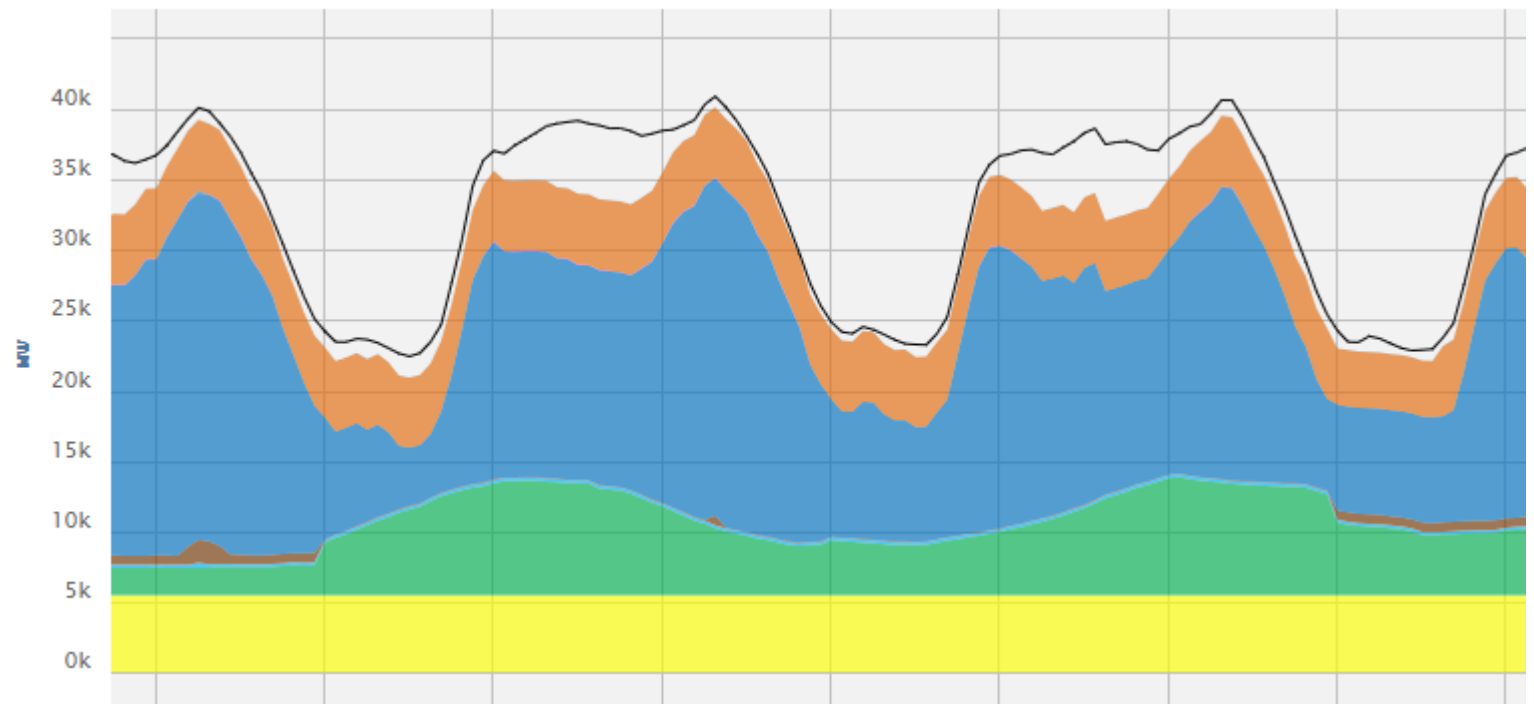
Background

- Wider Access to the Balancing Market has gone live as of Dec 2019.
- This will allow participation of aggregated units being managed by Virtual Lead Parties (VLPs) with Secondary Balancing Market Units (BMUs) or licensed Suppliers under Additional BMUs. (CMP295, P344 and GC0097 are related)
- Rather than the traditional Electronic Data Transfer/Electronic Data Logging (EDT/EDL) method of communication, participants will be able to use a Web based Application Programming Interface (API) to submit bids and receive instructions in a similar format to EDT/EDL.
- This has the potential to bring numerous new units into the Balancing Market (BM) allowing a greater level of visibility and control for the Electricity System Operator (ESO) that they otherwise would not have.



Background (Cont.)

- To emphasise the last point, the capacity of distributed generation is at times significant but uncertain as illustrated by the blank space between expected demand (black line) and the expected interconnector capacity (orange area).
- Wider Access could help address this uncertainty so long as barriers to entry are lowered, allowing numerous small units to provide their operational data and response.

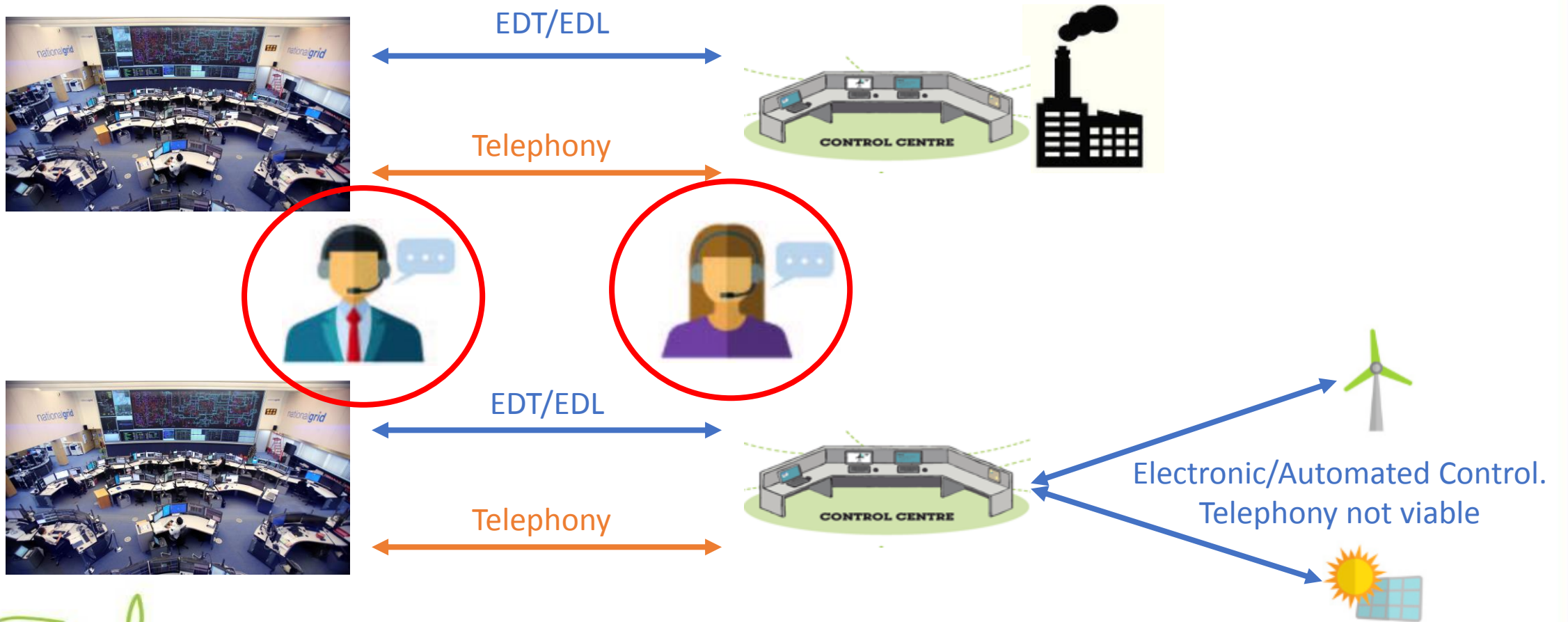


Defect

- Grid Code CC.6.5 stipulates the communication requirements between a control point in the BM and the Electricity National Control Centre (ENCC).
- The requirements around control/system telephony being operated 24/7 are a sensible precaution with regards to large power stations but could be considered onerous and impractical when applied to small aggregators.
- Small aggregators have limited resource and the material impact on the ENCC is also very low per individual unit. Manually phoning plant of ~5MW seems an inefficient use of ENCC resources.
- The function of telephony as a back up is incomplete in aggregated systems



System Architecture –VPPs are different



Concerns

- Back up - Control Telephony continues to work in a power cut, what back up options are there without it?
- Communication – There is more to managing power generation than data. ENCC controllers may wish to discuss aspects of a plants operation that are not apparent from the data alone.
- Growth – Aggregators may be small and immaterial now, but how do we futureproof any changes for when they are a substantial part of balancing
- Level playing field + arbitrary segregation – Need to avoid disadvantaging other parties or creating distortions through arbitrary boundaries.



Benefits

- Greater visibility and control of the network for the ESO, therefore greater system security.
- Opportunity to replace manual telephony with automation.
- Increase in automation will bring efficiency and reduce costs to consumers, especially when applied to smaller BMUs.
- Wider Access is the perfect opportunity to test and trial automation on small units that will not have a material impact if the communications fail.



Options

- 1. No change** – Wider Access to BM less successful if barriers remain. Large volume of small distributed flexibility remains outside of ESO control. Telephony that is implemented is under-utilised to justify its cost.
- 2. No telephony required for wider access participants** – increase in flexibility under ESO control, but control largely limited to automated processes. No back up, acceptable at first but aggregation eventually becomes material.



Options (Cont.)

3. Contract out of hours phone operation – Use system telephony during office hours, 3rd party has direct control of portfolio out of hours. Contractually more complex. Threat to competition with larger parties providing the 'keys' to BM and undermines Wider Access objectives.

4. Set a materiality threshold for telephony – e.g. sub 50MWs will help small aggregators become established before being required. Creates an arbitrary boundary between similar participants that may cause distortions or sub-optimal behaviour.



Options (Cont.)

- 5. Timed exemption from telephony** – Wider Access participants are able to join the BM without telephony but must implement it within a period of time. Allows new entrants to enter and grow but creates an issue for small users wishing to remain independent of larger aggregators.
- 6. Wider Access exemption** – All participants who enter through Wider Access are exempt from telephony as part of a broader transition to automated dispatch. Linked with Project TERRE and the Libre dispatch method. May need to include a trial period of small BMUs to understand the impact.



Summary

- ENCC stands to gain from Wider Access.
- Aggregated assets are inherently different to traditional power stations and should be treated differently.
- Telephony to the VPP control point only covers part of the communication chain.
- Communication between personnel does not need to be lost entirely, but 24/7 is challenging.
- Small units up to 100MW and as low as 1MW have limited impact on the network individually so there is less need to provide a back up and it's not efficient for the ENCC to be phoning small units in an emergency.
- Provides an opportunity to develop robust automation at a small scale without presenting a risk to the grid.

