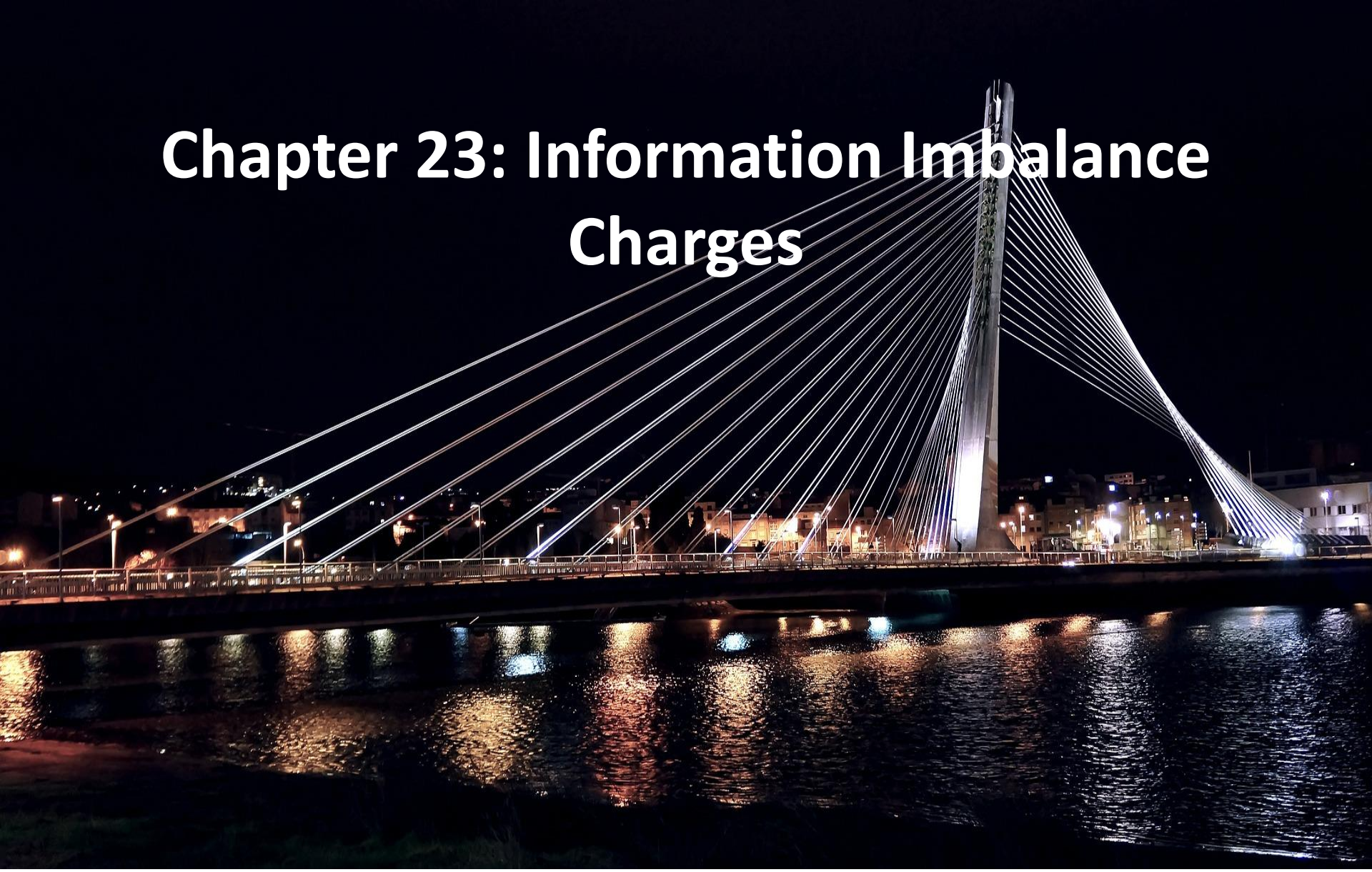
Chapter 23: Information Imbalance Charges



EIRGRID semo Single Electricity Market Operator SONI

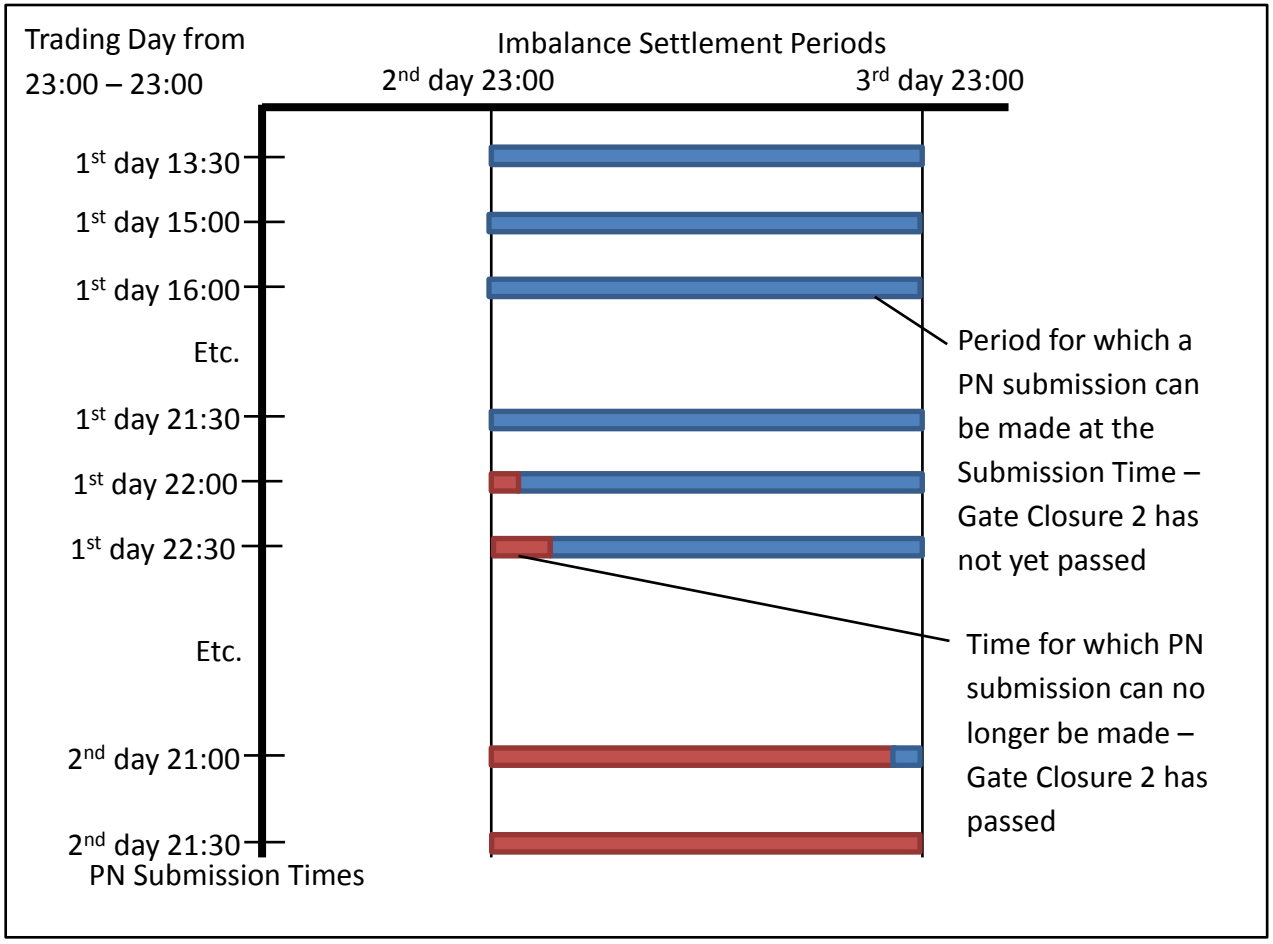
Information Imbalance Charge

- The Information Imbalance Charge is one which is intended to incentivise certain behaviour in how participants submit their Physical Notifications over time:
  - The intention is to incentivise participants to submit PNs throughout the day which most accurately reflect their final intended running (their FPNs);
  - This is on the basis that the PNs are the start point of SO scheduling, and depending on the timing of the submission and timing of SO scheduling and dispatch decisions, large changes in PN data could result in higher cost actions needing to be taken than what could have been taken if the accurate information was known in time.
- It considers the difference in the volume of PNs submitted over time vs the FPN for a given Imbalance Settlement Period, and if the volume of change is above a certain tolerance a charge can be applied;
- It will not apply for I-SEM go-live:
  - The RAs can decide to switch the functionality on at some point in the future if they see market power or efficiency issues arising from the submission of Physical Notifications over time.

Information Imbalance Charge

- The diagram on the following slide illustrates how different Imbalance Settlement Periods have different numbers of half-hour periods after Gate Closure 1 at 13:30 TD-1, and Gate Closure 2 for the Imbalance Settlement Period;
- The final Imbalance Settlement Periods in a Trading Day have the most amount of periods in which PNs can be submitted and resubmitted, while the first Imbalance Settlement Periods in a Trading Day have the least;
- A quantity is calculated for every Imbalance Settlement Period and every PN Submission Period, looking at the differences in PN submitted for an Imbalance Settlement Period in that half-hour PN Submission Period, and the Final Physical Notification for that Imbalance Settlement Period;
- Parameters can then be used to determine how large a tolerance is appropriate for changes between PN and FPN quantities in each PN Submission Period, and the weighting that the difference in PN and FPN quantities for each PN Submission Period should have in the final Information Imbalance Quantity.

Information Imbalance Charge



Information Imbalance Charge

- Each Imbalance Settlement Period has:
  - Previous PN Submission Periods (β) where PNs could be submitted or resubmitted for that Imbalance Settlement Period; and
  - The FPN which is the last PN submitted prior to Gate Closure 2 for that Imbalance Settlement Period.
- Integrated Imbalance Settlement Period MWh values are created for the FPN and the PN prevailing for that Imbalance Settlement Period at the end of each PN Submission Period;
- A difference in these quantities greater than the tolerance for that period is considered an Information Imbalance Quantity to the extent that a weighting factor determines differences in quantities in this period should have a charge applied;
- The Information Imbalance Quantity (QII) is calculated as follows:

$$QII_{u\gamma} = \sum_{\beta \; relevant \; to \; \gamma} Max\left(\left|QPN_{u\beta\gamma} - QFPN_{u\gamma}\right| - TOLII_{u\beta\gamma}, 0\right) \times WFQII_{u\beta\gamma}$$

- The Information Imbalance Price (PII) parameter will have a value of zero for I-SEM go-live;
- The Information Imbalance Charge (CII):

$$CII_{u\gamma} = PII_{u\gamma} \times QIILF_{u\gamma}$$