

Real-time Intertie Offer Guarantee Offset Process and EDAC

OPG would like to thank you for the opportunity to comment on the proposed changes to the Real-Time Intertie Offer Guarantee Offset Process in EDAC relating to the use of the constrained schedule in Day-Ahead and Real-Time. OPG has reviewed the materials and arguments put forth. OPG believes that the use of the constrained schedule as put forth is not appropriate as it contradicts the rationale used in qualifying import-export transactions as “implied wheel-through”, and compromises the financial guarantees required for traders’ participation in EDAC and in real-time.

Background

In the IESO administered markets, imports and exports undertaken by a market participant in the same hour are deemed “implied wheel-through” transactions, and the export quantity is used to disqualify or “offset” imports from receiving an Intertie Offer Guarantee (IOG). The process, termed “IOG Offset”, is used to discount the combined payments of both the Day-Ahead and the Real-Time IOGs. For implementation in the Enhanced Day Ahead Commitment (EDAC), the IESO has determined that the offset process will change and be carried out against the constraint schedules of both Day-Ahead and Real-Time imports and exports. This change from the current use of Real-Time unconstrained schedules captures trades that were not previously part of the offset process in DACP, namely “constrained-on” transactions.

Implied Linked Wheel-Through Transactions

In the Ontario Market, a “linked wheel” transaction occurs when a market participant simultaneously imports electricity into the province and exports the same quantity out of it. The IESO has argued that the resultant outcome is considered to be of no overall benefit to the province and should not receive the price guarantees of non linked-wheel imports.

The IESO developed the concept of “implied wheel-through” to also include stand alone imports that happen to have a corresponding export quantity scheduled by the same market participant. Despite each leg being independently bid by the participant based on surrounding market conditions including those in Ontario, and cleared by the IESO based on its algorithm, the IESO deems the outcome to be an “implied” wheel if the two exists in the same hour.

However, in many cases the implied connection between the two legs is not valid as unlike the treatment of linked-wheel transactions, the IESO has a free option to curtail the export and maintain receipt of the import. In such situations, the market benefits at the expense of the importer. It is also important to note that the IESO run market is the only market that applies the concept of “implied wheel-through” transactions.

EDAC

Citing “reliability benefits”, DACP was designed to ensure that imports scheduled in the Day-Ahead timeframe were delivered in Real-Time to serve Ontario demand. Under EDAC, a Day-Ahead import transaction can be offset Day-Ahead due to constrained exports - a part of the EDAC run. Furthermore, “day-ahead import transactions that are not offset day ahead can be offset in the real-time due to real-time constrained export schedules”.¹ As exports are now part of the equation in the day-ahead process and with further system changes’ occurring between Day-Ahead and Real-Time, OPG believes that Day-Ahead committed imports should not be part of the real-time offset process.

In real-time, the use of “constrained-on” export schedules in the offset process is not appropriate because it contradicts the motivation used in designating independent import/export transactions as “implied wheel-through”, namely the absence of apparent benefit to the Ontario system. The constrained run takes into account transmission limitations within the system and dispatches generators and interties to solve these at the least cost to the market. Both import and export transactions are benefiting the market by solving constraints on the system, potentially in response to conditions specific to the physical location of the intertie. Given the individual contribution of the two distinct transactions, the concepts of an “implied” wheel is ill fitting to the constrained solution. For example, a participant may offer an import at the Ontario/Michigan interface while at the same time bid an export at the Minnesota/Ontario interface. Considering the case where the import clears both the unconstrained and constrained runs (the Real-Time constrained schedule (Dispatch Schedule) and unconstrained schedule (Market Schedule) match), the export may only clear the constrained one - solving a system constraint. The proposed EDAC offset process will eliminate the IOG associated with the import volume that matches the “constrained-on” export volume. Clearly, in this example the participant is penalized for helping the market economically solve the constrained run.

The implied link between Day-Ahead import and Real-Time exports is further compromised when considering the significant system changes that may occur between Day-Ahead and Real-Time. With an import satisfying system conditions in the Day-Ahead timeframe, a Real-Time constrained export may be solving for an altogether different set of constraints. The availability of the import in Real-Time addresses the IESO’s need for reliability and should not receive a lower guarantee on account of an export that is responding to the real time needs of the system. More importantly, the divergence of constrained and unconstrained schedules is addressed through a separate payment calculation – Congestion Management Settlement Credit (CMSC). CMSCs ensure that participants are brought back to their constrained schedule and are excluded from the IOG payment in EDAC.

Given the proposed implementation, the EDAC process introduces a risk of reduced payment due to constraints occurring in Real-Time and thereby lacking the financial guarantees to incentivize participation. Furthermore, given the risk of inadequate compensation participants may choose not to engage in export transactions to the overall detriment of the market.

¹ EDAC Settlements Detailed Design Equations and Charge Types

Lastly, the current practice of including “constrained-off” export transactions in the DACP offset process by strictly looking at the unconstrained schedule does not make sense. Excluding them from the EDAC offset process is appropriate as settlement should be in accordance with CMSC calculations; however, the inclusion of “constrained-off” exports creates a new set of problems as described above.

Recommendations

In order to truly reflect the apparent lack of benefit to the system caused by the simultaneous import and export of energy, it is recommended that in Real-Time the IESO only include exports that are present in both the Dispatch schedule (constrained) and the Market schedule (unconstrained). In other words, the IESO should exclude “constrained-on/off” transactions from the IOG offset process and should modify the settlement process accordingly.

Further, we also recommend that imports committed through the Day-Ahead process should only be offset with exports committed in the Day-Ahead process and should not form part of the Real-Time offset process.