

Part 4 – Submissions in Support of Exemption Application

Company Description

Dofasco is a full integrated steel maker, located in Hamilton, Ontario. In the Steelmaking Facilities, Dofasco has a twin shell electric arc furnace (EAF), that started up in 1996.

Dofasco would like to make the EAF a dispatchable load. In order to do this, the EAF would require an exemption.

System Benefits

The reliability and efficiency of the Ontario electric power system will be enhanced the more it encourages demand side bidding and load dispatchability. Reliability is enhanced by giving the system operators additional tools (loads) to maintain system balance. Efficiency is enhanced by adding new competitors to the system, as well as allowing lower cost dispatch solutions.

Under the current rules, Dofasco's EAF would not qualify as a dispatchable load. The proposed exemption will accomplish the following:

- ü Enhance system reliability
- ü Enhance system efficiency and lower costs for all
- ü Allow variable loads to participate as dispatchable loads without creating an unreasonable burden on the IMO control room personnel
- ü Allow operation similar to that recognized for many years by Ontario Hydro as interruptible or DDS type loads

Qualification for Exemption

In order to accomplish the above, certain criteria need to be met by loads wishing to receive the exemption. The Dofasco's twin shell EAF's load profile is available for dispatch well over 75% of a typical dispatch hour, and no one zero MW cycle typically lasts longer than 4 dispatch intervals.

Bidding Strategy

Dofasco's EAF will make its energy and operating reserve bids based on the average consumption of the process while running (average of the non-zero time periods).

Operating Strategy

The following comments apply only to periods when Dofasco's EAF has submitted bids for the Operating Reserve market:

- If EAF is at zero load when dispatched to zero, it will accept the dispatch instruction and will remain at zero until dispatched above zero.
- If EAF is either at full or zero consumption and is dispatched to a level other than full or zero consumption, there are two possibilities:
 1. If the dispatch instruction is to 50% of its bid or more, EAF will accept the dispatch instruction and will dispatch to or remain at full consumption.
 2. If the dispatch instruction is to less than 50% of its bid, EAF will accept the dispatch instruction and will dispatch to or remain at zero consumption.
- If EAF is at zero load and is dispatched to full consumption and cannot comply within the five-minute interval because of operating characteristics, it will respond that it cannot comply. The facility will remain at zero consumption until the next dispatch interval and then the next dispatch instruction can be considered.

Outages

Normal operations lead to occasional equipment outages of up to four dispatch intervals. These will not be reported. Longer outages will be reported by phone.

When Dofasco's EAF is bidding in the OR market, all unplanned outages of over four dispatch intervals will be reported via telephone. Planned delays will be reported on Form 1360 and a change of bid to \$2000/MW.

Compliance

Provided that Dofasco's EAF complies with the above conditions, it will not be subject to action for non-compliance.

Exemption

Dofasco's EAF will qualify for the 10 minute non sync operating reserve market.

Other Issues

Costs

Dofasco believes that the granting of this exemption will impose no costs on the IMO or other Market Participants. To the contrary, Dofasco believes that costs will go down for other Market Participants as more efficient dispatch solutions are enabled.

Impact on IMO-Controlled Grid and IMO-Administered Markets

The granting of this exemption would enhance the ability of the IMO to maintain the reliability of the IMO-controlled grid.

This exemption will have no impact on grid access.

This exemption will enhance the ability of the IMO to operate the IMO-administered markets in an efficient, competitive, and reliable manner.

This exemption will not create undue preference to any Market Participant.

If this exemption is refused, it will deprive the IMO of legitimate tools to maintain system reliability and efficiency.

Impact on Dofasco

If this exemption is denied, it will deprive Dofasco of Operating Reserve income. It will, therefore, deprive Dofasco of any incentive to control its load in a manner such as to support the system.

Previous Exemption granted to another Market Participant

A similar exemption (3 intervals and participation in the 10 minute non sync operating reserve) was granted to IVAC Rolling Mills which operates a single shell EAF. Twin shell EAFs operate at a higher utilization rate than single shell EAFs, this is accomplished by not having to take time to tap and charge the first bucket.

Facilities

As indicated above, Dofasco's twin shell EAF covered by this application was put into service in 1996. At that time, the controllable portion of the load was contracted as surplus power with Ontario Hydro. This gave the Ontario Hydro system operators the flexibility to dispatch this load to zero when required to maintain system reliability. The waiver application, including the requirement to dispatch only “on” or “off”, merely tries to replicate the earlier regime in the new market.