

Persistent Dragging by Steam Units

Generation Issues Task Force 04/15/04



Background:

- ➤ Issue is excessive dragging during high load season that can result in:
 - Operations difficulty requiring OOM GT and steam dispatch
 - Depressed prices
- ➤ Some changes implemented in SCD prior to Summer '03 that addressed Operations issues caused by GT dragging.
- > Further legacy changes were not pursued with original SMD deployment planned prior to summer '04
- ➤ With SMD delay, discussions were resumed with GITF to determine if additional opportunities existed to further address the steam unit issues prior to summer '04



Background:

- ➤ Staff met with plant managers and operators and analyzed historical performance.
- > Primary cause is generator behavior:
 - Failure to move up to basepoint due to:
 - ▶ Units waiting for basepoints to show a trend up, which never comes as accumulated economic basepoints are not sent to units.
 - ▶ Operational issues such as environmental, economic, mechanical and they fail to notify ISO of a derate when unable to move
 - Late start of scheduled ramp periods
 - Legacy provides plant operator only a 5 minute horizon
 - Dragging is worse during summer peak periods
 - ▶ Analysis of the early part of this year showed instances of this to be infrequent and not problematic.



Scheduling and Pricing Options

- > Price Setting Issue
 - Real-time SCD price setting is based on ideal accumulated basepoints
 - The actual physical dispatch is based on unit actual operating level
 - Dragging therefore causes prices to be lower than they would be absent dragging.
- > ISO is not recommending price correction measures to compensate for dragging by generators.
 - All would require some changes to SCD operation
 - All would require error prone manual operation by dispatchers or complex price correction after the fact comparable to ex-post pricing.
- > Problem is behavioral not a software or rules flaw
 - Available software corrective measures are not assured to work reliably
 - Will potentially cause more problems than they correct



Preventive Plan to Minimize Dragging - Summer '04

> System Operations

- Produce a real-time process that will consistently monitor for and prevent or correct problem dragging
- > Operations and Market Service management
 - Monitor for dragging on a daily basis and contact problem performers
- Market Services and MMU
 - Contact suppliers who were frequently dragging in summer '03 and review means to prevent recurrence in '04
- > Conduct technical conference for plant operators (in NYC) to discuss key aspects of dragging problem and their role in prevention.
- > Procedures to accomplish all of the above to be in place or completed by the end of May '04.