NYISO METERING TASK FORCE

Report to the NYISO Business Issues Committee February 2006

Background: On July 27, 2005 the NYISO Business Issues Committee (BIC) charged the Metering Task Force (MTF) of the Billing and Accounting Working Group (BAWG) with the following assignment:

BIC Motion #4 (July 27, 2005 meeting):

- "2. It is further moved that the Billing and Accounting WG along with the Meter TF and NYISO staff, work to develop a transition plan for bringing the Revenue Metering into compliance with the standards incorporated in the RMR Manual, in accordance with, and consistent with, the NYISO-TO Agreement. A draft plan should be presented to BIC for its consideration within six months.
- 3. Nothing in this revised motion anticipates a particular schedule of metering changes."

I. Executive Summary

The MTF has reviewed the status of meter equipment for generators and ties, as related to the Revenue Meter Requirements Manual (RMRM). The manual establishes standards for two types of equipment at each location, the instrument transformers (PTs / CTs) and the meter devices (for collection & reporting). The recommendations below are specific to one type of equipment or the other.

The MTF submits the following recommendations to the BAWG:

- First, uUpgrade all meters that do not meet the specifications of the RMRM.
 New meters should provide local interval storage and remote communications
 functionalities as recommended by the manual. are not considered to be
 Revenue Grade Meters with "modern" Revenue Meters including the manual's
 requirement for Interval Storage and remote communication capability.
- 2. While not required by the current manual, existing Existing metering systems that meet the requirements of the current manual revenue quality standards should also be required to but do not have Interval interval Storage storage and Remote remote data Communication communication capabilities, will be required to provide these capabilities or their its equivalents.
- 3. NYISO staff shall work with the MTF to create monthly metering systems performance scorecards to ensure continued monitoring / maintaining accuracy

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of metering equipment and processes, and provide the BAWG with a semiannual report on issues and plans for resolution.

- 4. Wholesale upgrades to revenue quality instrument transformers at non compliant locations may not be cost justified. As explained herein MTF has prepared sample data indicating the amount of error introduced by the existing "relay quality" PTs and CTs. Alternatives should be considered, including prioritizing upgrades and new technologies for error correction.
 - a. Where additional cost benefit analysis is required, input and participation from other groups is necessary. Upgrade costs for equipment and installation would be significant, with additional cost impact for extended outages.
 - b. Cost recovery mechanisms must be investigated and included in any plan that recommends upgrade of the measurement equipment.

5.Further review of issues related to meter installations for external ties should be assigned to an appropriate group. In some cases, there are non-compliant external ties under the responsibility of organizations external to the NYISO. The areas of cost recovery and authority to require upgrade for these installations needs to be addressed. Along with the above recommendations, the MTF identified two issues - cost recovery and authority over external tie meters. These two issues are critical to meeting the BIC goal of bringing all revenue metering systems to full compliance with the RMR Manual. However, neither the MTF nor the BAWG has the expertise of or jurisdiction over these two issues. Assistance from other NYISO committees or working groups is required.

Some of these recommendations / activities are out of the scope and expertise of the MTF and the BAWG. Assistance from other NYISO committees / working groups will be required to further the BIC goal of bringing all revenue metering systems into compliance with the RMR Manual.

Supporting documentation for the conclusions and recommendations are detailed in the sections below.

II. Working Group Activities and Analysis

Scope of Work

- i. Meter authorities update their meter inventory lists. NYISO to "mask" meter locations for working group activities.
- ii. Review lists and identify meter locations that are not currently in compliance with the RMR Manual standards.
- iii. Calculate performance statistics for all meter locations based on flow and true-up data; estimate the market impact of an assumed random 5% error rate
- iv. Prioritize meter locations in the order of highest to lowest (top 25%, second 25%, third 25% and bottom 25%) based on typical flow data
- v. Identify measurement locations in need of upgrade

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