Implementation of Price Responsive Load Under the Current NYISO Market Structure

Background - The NYISO has two energy markets (Day Ahead and Real Time) that are financially settled. The ISO's Day Ahead Market (DAM) settlement with Direct Customers (DC) and Load Serving Entities (LSEs) is based on hourly energy purchases scheduled by the DC / LSE in the DAM. The Real Time (RT) settlement is based on the difference between the DAM purchases and hourly energy usage as reported by the Transmission Owner when the end-use metering is available. Under the PSC retail access rules most *[perhaps all – I'm not sure about RGE]* utilities use interval data when available as the basis for determining a customer's hourly energy usage and rely on load shapes for customers without interval data. In addition, the retail access rules allow for customers to upgrade meters to capture interval data so even current monthly metered customers could be settled on an hourly basis by paying for an interval meter.

Response to Day Ahead Market prices – If an LSE can identify in advance both the price point (strike price) at which a customer is willing to reduce electricity usage and the amount of reduction available, the LSE can submit a Price Capped Load Bid at the customer's strike price. This enables the LSE to automatically reduce its DAM purchase whenever it was cost effective for the customer to change behavior. After the DAM prices are posted, the LSE will know whether the Price Capped Load Bid was effective and be able to notify the end use customer which hours of the following day they should change behavior. This day-ahead notification is very attractive to customers as they can hold over staff and / or reprogram their building management systems to effect the price responsive behavior. Note that if the customer is unable to change behavior, the LSE will be responsible for purchasing the additional power in the RT market.

Response to Real Time Market prices – Theoretically, a customer can also react to prices in Real Time. Since the actual usage is the basis for the RT settlement (albeit on a multi-month lag), this would enable their LSE to reduce its RT purchases or sell excess energy back into the RT market. However, the RT prices are determines and posted every SCD interval (typically every 5-6 minutes) and few customers have the operational flexibility to change behavior on such short notice.