Elements of Design in Local Market Power Screens

Ricardo Galarza\textsuperscript{1}, Ibrahim Mqasqas\textsuperscript{2}, James C. David\textsuperscript{3}

Abstract

The presence of congestion in power systems creates new challenges for detecting local market power. Indexes based on pure economics rarely apply under congestion. When transmission constraints limit the transfer of energy into an area (or load pocket), energy suppliers inside the load pocket face less competition (and have a greater concentration) than they would during unconstrained periods. Transmission constraints come and go and with them come and go the instances where market supply is concentrated in the hands of a few suppliers. This dynamic environment calls for market power screens using tests that can recognize and adapt to the current situation, whether constrained by transmission or unconstrained. This paper explores and proposes element of design and methodologies to be used for building local market power screens, considering that both market conditions and transmission network conditions could lead to market power. When appropriate, the paper describes currently used tests, indicating pros and cons.

\textsuperscript{1} Ricardo J. Galarza is with PSM Consulting, Guilderland NY (email:rgalarza@psm-consulting.com)
\textsuperscript{2} Ibrahim Mqasqas is with NYISO, Rensselaer, NY
\textsuperscript{3} James C. David is with NYISO, Rensselaer, NY