Manual 21
“Rules and Procedures for Determination of Generating Capability”
Periodic Review

Jerry Bell
Resource Adequacy Planning

Market & Reliability Committee
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M21 Revisions

• Revisions proposed as result of periodic review:
  – Revisions needed to clean-up outdated language and ensure language follows current processes
  – Minor revisions needed to correct grammar, spelling, punctuation, consistency of terms, and document references
• Revisions needed to clarify some of the terms and rules for testing
• *Italicized text denotes wording changes/additions to manual that delineate rules more explicitly*
• **Bolded text denotes additions or changes to the manual**
Section 1.3
Occasions Requiring a Test

• Verification Tests are required
  – Summer (June, July, August)
  – Winter (December, January, February)
  – For any CAPMOD increase
    • Can use a recent verification test (*no greater than 12 months old*)
    • *If no recent test proves the increased capability, a new test is required within 30 days of the CAPMOD effective date*
  
  – **Acceptance Test** (where a summer/winter verification test was sufficient)
    • **Must be conducted prior to the unit’s initial participation in the PJM Capacity Markets (prior to the initial CAPMOD effective date)**

• Earlier verification test submittal deadlines (**9/20 and 3/20**) instead of (**9/30 and 3/31**)
Section 1.3
Capacity Interconnection Rights

- Installed Capacity (ICAP) is limited by Capacity Interconnection Rights (CIRs)
- If CIRs were issued on a revenue meter basis
  - Testing must occur simultaneously on all units behind the revenue meter
- CIRs will be retained if:
  - the largest Corrected Net Test Capacity of the most recent three years’ summer verification tests meets or exceeds the CIR level of the generating unit
  - Otherwise, the CIRs will be lowered by the shortfall
- Any increases to CIRs can only be attained by initiating an Interconnection Request and executing an ISA (or WMPA)
• If Net Capability is limited by water or fuel availability
  – *Net Capability should be based on streamflow or fuel availability (RAA, Schedule 9.C)*

• Added section for storage (non-hydro)
  – One hour verification test
    • Keep in mind, during performance assessment hours the Maximum Run Time parameter will be implemented for a minimum of 24 hours for all technology classifications

• Split the hydro section into two sections
  – Pumped storage
  – Run of River
• Summer conditions shall reflect the 50% probability of occurrence (approximated by the mean) of ambient site conditions coincident with the last 15 years’ summer PJM peaks. Site conditions shall be based on plant records or local weather bureau records *coincident with the dates and times of the last 15 years’ summer PJM peaks*, updated no less than every five years.

• If generating unit’s performance is affected by summer conditions, test of those generating units should be corrected for the following parameters (where applicable):
  
  – *Ambient temperature*
  – *Ambient relative humidity*
  – *Temperature of condenser intake water*
  – *Temperature of once-through or open cooling systems*
  – *Performance of cooling towers*
  – *Combustion air inlet cooling*
Appendix B
Calculating Capacity Values for Wind and Solar Capacity Resources

• Removed the word Intermittent and replaced it with Wind and Solar
  – Manual 18 delineates intermittent units as:
    • Wind
    • Solar
    • Run of river hydro (no pooling, storage or dispatch capability)
    • Storage
    • Landfill gas units

• Removed the explicit wind and solar class averages from the manual
  – Posted on the PJM Resource Adequacy Reports webpage
    • Calculation procedures