

# Run-of-River Hydro

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*Draft – for discussion purposes only*

# Hydro Resources

- ◆ *New York has many Run-of River Resources including those on the following river systems:*
  - *Hudson*
  - *Saranac*
  - *Raquette*
  - *Etc.*
  
- ◆ For these: water is not as dependable a fuel as it is for conventional or pumped storage hydro resources

# In General

- ◆ Conventional and Pumped Storage Resources can predictably deliver energy up to their Installed Capacity/DMNC and can be reliably dispatched to provide 90-100% of that value all summer long
  
- ◆ Limited-Control Run-of-River Resources (LCRoR)
  - *A Generator above 1 MW in size that has demonstrated to the satisfaction of the ISO that its Energy production depends directly on river flows over which it has limited control and that such dependence precludes accurate prediction of the facility's real-time output.*

# Summer 2006 Statistics

- ◆ Extensive Analysis for 2006 Summer
- ◆ New York Run of River hydro units had a greater aggregated unforced capacity value than appeared as aggregate energy during peak periods:
  - *Installed Capacity Claimed – 932 MW*
  - *Unforced Capacity Value – 851 MW*
    - Based on self-reported GADS data
  - *Average 12 noon to 8 pm production – 629 MW*
  - *Average 2 pm to 6 pm production - 641 MW*
- ◆ Since Unforced Capacity represents the amount of capacity available when the unit is in Demand, this comparison indicates a significant discrepancy between current UCAP measurement and energy available during the periods of higher demand

# Proposal

- ◆ Value Unforced Capacity for Run of River hydro Resources in the same way Unforced Capacity for Intermittent Resources is valued:
  - The amount of Unforced Capacity that each Intermittent Power Resource is authorized to supply in the NYCA shall be based on the NYISO's calculation of the amount of capacity that the Intermittent Power Resource can reliably provide during system peak Load hours in accordance with ISO Procedures.

# Proposed Procedure

- ◆ Unforced Capacity from an Intermittent Power Resource or (in-state) Run of River Hydro Resource for the summer capability period shall be based on the average production during the 14:00 to 18:00 hours period for the months of June, July and August during the Prior Equivalent Capability Period. Unforced Capacity from an Intermittent Power or Run of River Hydro Resource for the winter Capability Period shall be based on the average production during the 16:00 to 20:00 hours period for the months of December, January, and February during the immediately Prior Equivalent like Capability Period.

# Next Steps

- ◆ Proposed Tariff and Manual language will be presented at the next Installed Capacity WG meeting – June 17
- ◆ Proposed Tariff language will be presented for a vote at the July BIC meeting with accompanying Manual language
- ◆ If agreed to by BIC, Tariff language will be presented to the MC for approval in August
- ◆ Proposed effective date: May 1, 2009



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