

# High Intermittent Renewable Resources

Recommendations	Action Item	Due Date
<p>It is recommended that the increased IRM and UCAP values required to meet reliability standards in the high renewables case in this analysis be further examined in order to determine the impact of EFORD assumptions and other factors, and refine the model, as required.</p>	<p>On-going effort to examine how UCAP ratings for renewable resources are calculated – the NYISO will review its updated “Tailored Availability Metric” calculations with ICS. Currently underway.</p> <p>Initiating an effort to review the Tan45 shifting process to understand the effect of process changes on results. Scope being developed for 2021 whitepaper.</p> <p>Perform a sensitivity on the HR case that eliminates all transmission constraints. Run to be performed in 2020.</p>	<p>2020-2021</p>
<p>This study should be performed periodically as a function of experience with intermittent resources and plans for future developments. Additionally, the analysis should be refined as clean energy plans are further developed that include electrification of the entire economy, aggressive energy efficiency and higher customer load response, transmission expansion and reinforcements, and increases in renewable resources and energy storage and modeling of those resources.</p>	<p>On-going effort depending on timing of ESR model and lessons learned from RNA, CARIS, and Climate Change studies currently evaluating 70/30 system.</p>	<p>2021</p>

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<p>The State also has plans for substantial Energy Storage Resources (ESR) that was not evaluated as part of this study. As MARS capability of modeling storage resources is improved, modeling of ESR should be added to future studies.</p>	<p>RNA Team working on developing Energy Storage Model.</p> <p>ICS will review the Energy Storage Model developed by the RNA Study Team and propose a recommendation.</p>	<p>July 2020</p> <p>May 2020</p>
<p>This study was performed using non-coincident annual generation shapes for FTM PV, onshore wind, and offshore wind. As more annual generation data is developed, these resource shapes should be aligned so that the study can evaluate the reliability risk of coincident periods of low renewable generation.</p>	<p>This is covered in the Modeling Correlation of on-shore wind, solar, off-shore wind, run-of-river and landfill white paper.</p>	<p>2021</p>