MMU Comments on the 2022 Reliability Needs Assessment

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Introduction

- The 2022 RNA finds the NY bulk power system satisfies reliability requirements through 2032 in the base case.
  - ✓ But margins are expected to be tight in NYC, and violations emerge under many scenarios, especially extreme weather.
- Tariff requires MMU to comment on the need for market design changes to help satisfy reliability needs.
- Full MMU memo is posted with this meeting's materials.
  - ✓ Our comments focus on **NYISO winter reliability** and **transmission security in the ICAP market**.

NYISO Winter Reliability

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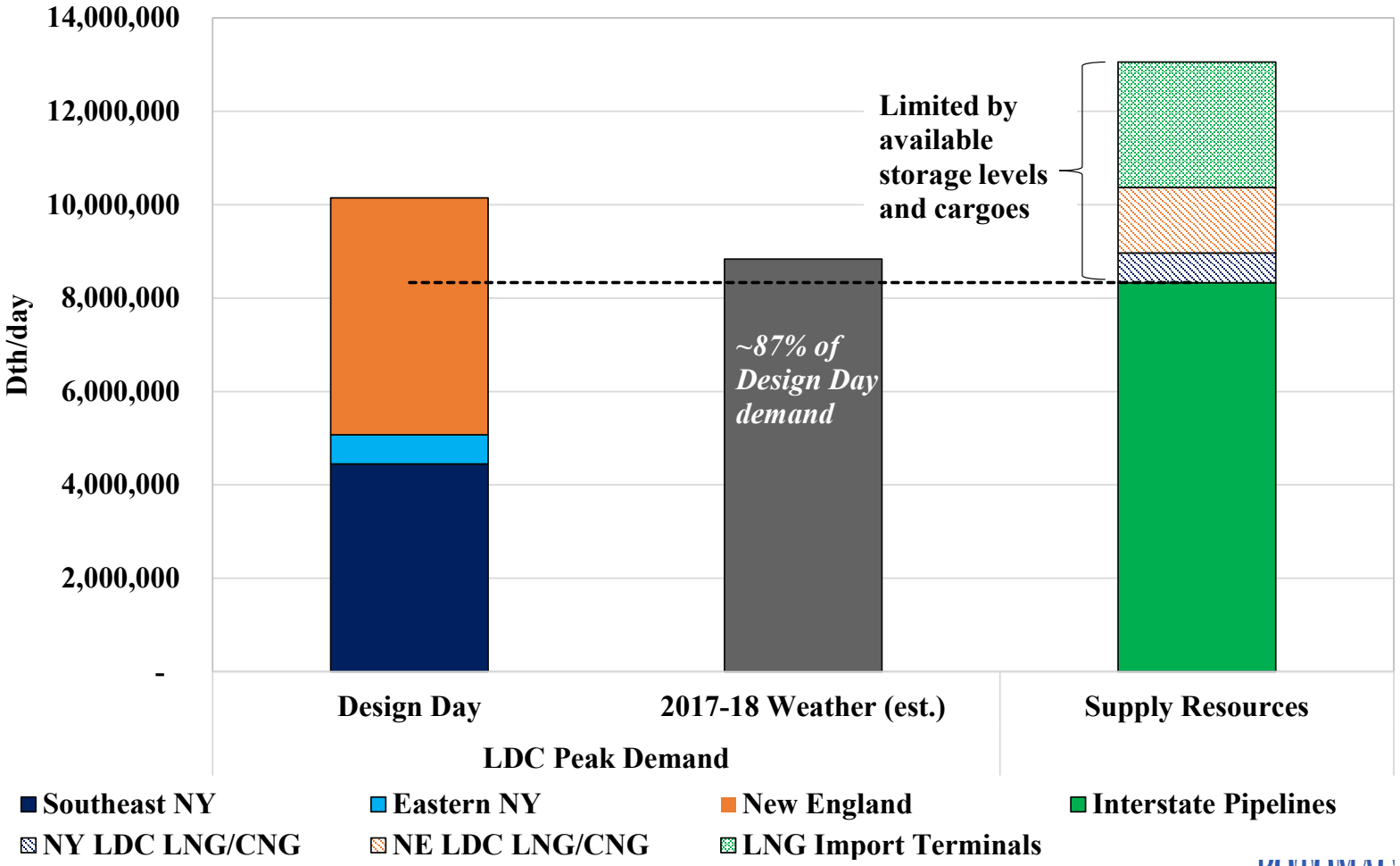
RNA Analysis of Winter Reliability

- The RNA includes winter gas shortage sensitivities.
  - ✓ Assumes 6.3 GW non-firm gas unavailable statewide.
  - ✓ No RA violation. Statewide security margin could be violated under extreme cold by early 2030s.
- Additional issues affecting winter reliability **not** in RNA analysis:
  - ✓ Assistance from ISO-NE likely unavailable.
  - ✓ Some 'dual fuel' capacity is functionally gas-only.
  - ✓ Oil inventories of dual fuel units are limited.
  - ✓ Eastern NY (zones F-K) is tighter than rest of state.
- The following slides evaluate winter supply availability.

LDC Winter Peak Demand Exceeds Pipeline Capability



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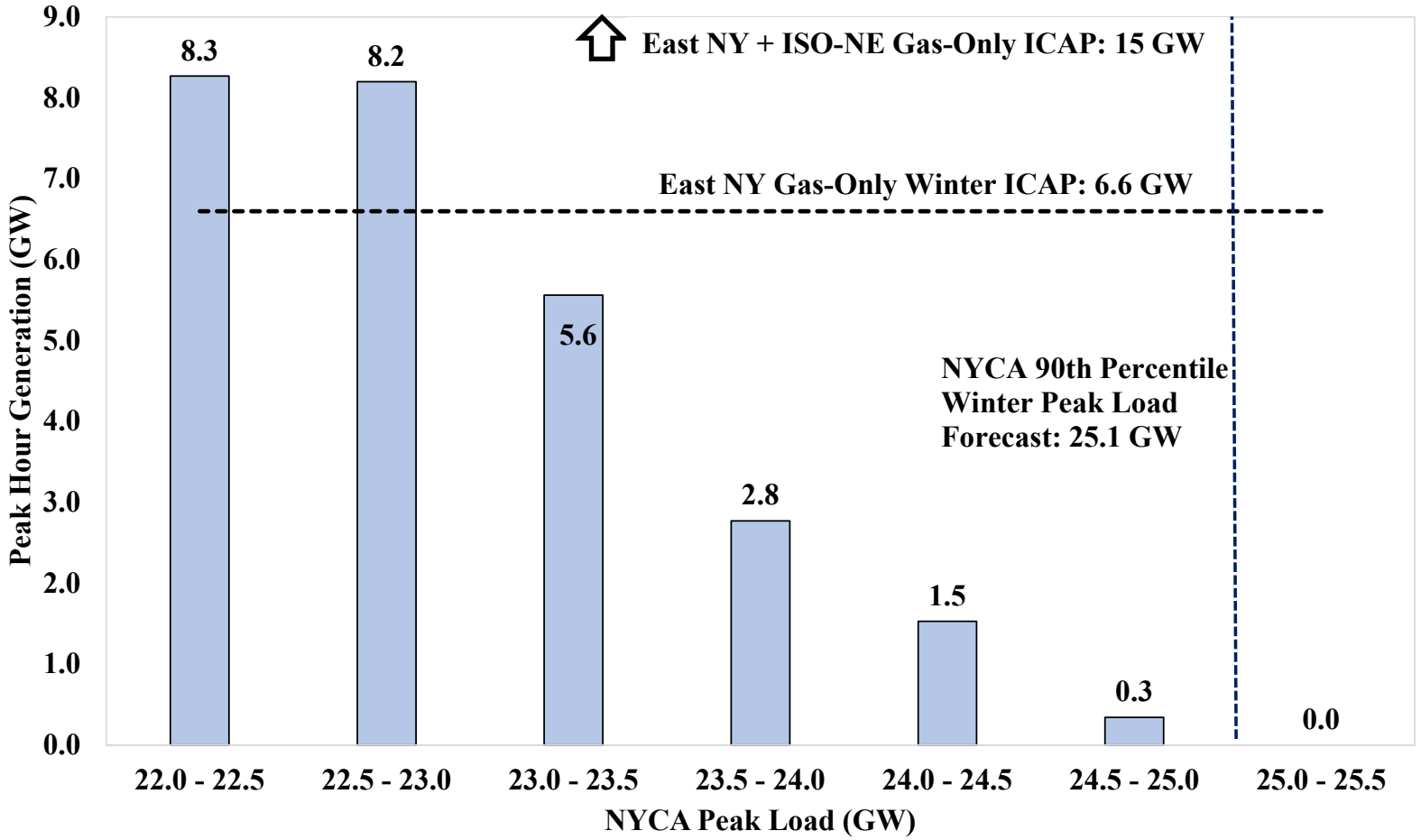
East NY + ISO-NE Gas Generation
Net of LNG on Constrained Days



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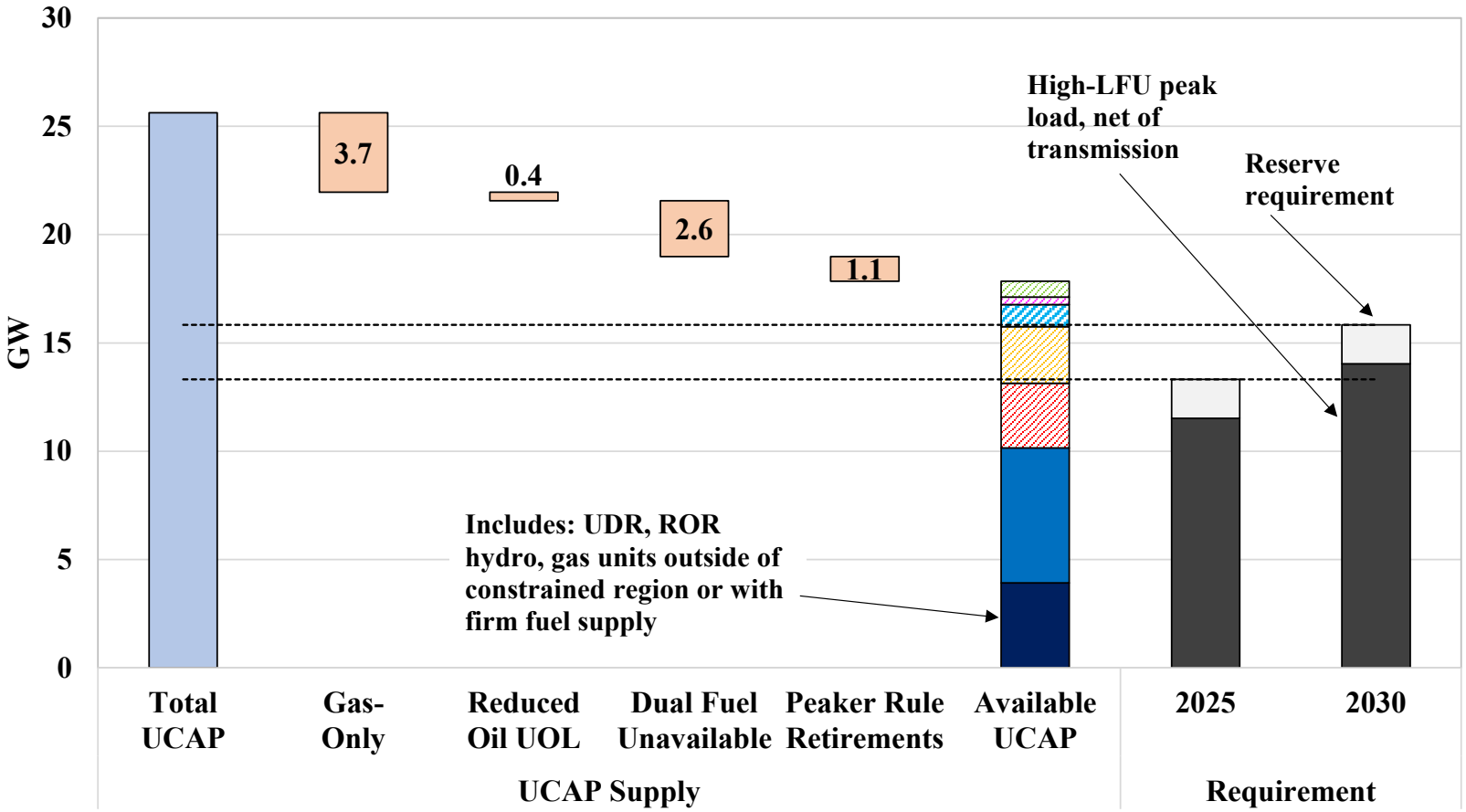
Winter Peak Supply vs. Demand
Eastern NY

Reserve margins in eastern NY highly dependent on oil units with limited tanks.



Market Design Issues for Winter Reliability

1. **Non-firm gas generators are over-accredited.**
   - ✓ Recommendation: model winter availability of non-firm resources in NYISO and neighbors in MARS.
2. **Seasonal capacity prices don't reflect reliability.**
   - ✓ Recommendation: translate ICAP demand curves to monthly/seasonal values based on reliability risk.
3. **Existing capacity zones don't reflect key winter constraints.**
   - ✓ Recommendation: Create F-K locality or adopt C-LMP.

Transmission Security in the ICAP Market

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Misalignment between Transmission Security and Capacity Market

- Some resources modeled more conservatively in transmission security (Tx Sec) than resource adequacy analysis.
  - ✓RNA finds reliability margins are tighter in Tx Sec analysis in some areas, especially NYC.
- This will lead LCRs to be set based on TSLs.
  - ✓Increases consumer costs because resources earn capacity payments while causing LCR to increase.
- **Recommendation**: discount capacity payments to resources that don't contribute to Tx Sec when TSLs are binding.

Resource Types Discounted in Transmission Security Analysis

- **Special Case Resources (SCRs)**
  - ✓ Assumed to provide no value in transmission security analysis. Capacity added back to TSL.
- **Large-contingency resources**
  - ✓ Largest two generator/line resources assumed unavailable in N-1-1 or N-1-1-0 Tx Sec analysis.
  - ✓ Example: 1,250 MW CHPE line only adds net 718 MW to NYC margin because of its large size.
- Discounting capacity payments to these resources to reflect their reliability value would provide better incentives for investment.