

# Updated Proposed 2016 IRM Topology

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*Original Presentation to TPAS: June 1, 2015*

*Updated at ICS request : July 13, 2015*

**KCC**

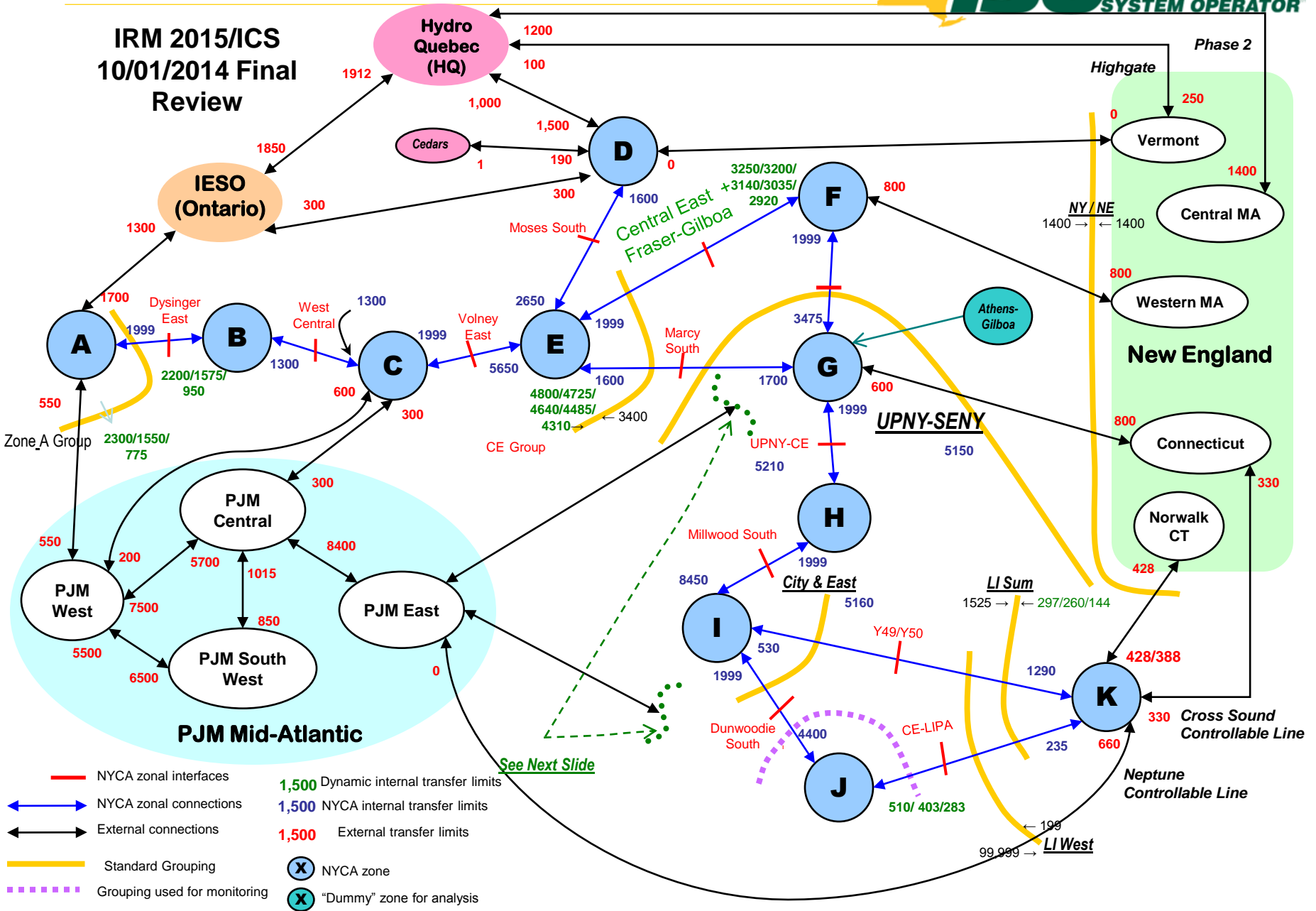
# MARS Topology Development

- ◆ Begin with 2015 IRM study topology, update for TOTS
- ◆ Reviewed most recently completed NYISO studies for consistency
  - 2014 Comprehensive Reliability Plan
  - 2015 Summer Operating Study
  - 2014 Area Transmission Review
- ◆ Reviewed most recently completed neighboring system studies for consistency
- ◆ Slides 3&4 from 2015 IRM report provided for reference
- ◆ Slides 5-10 present updated topology

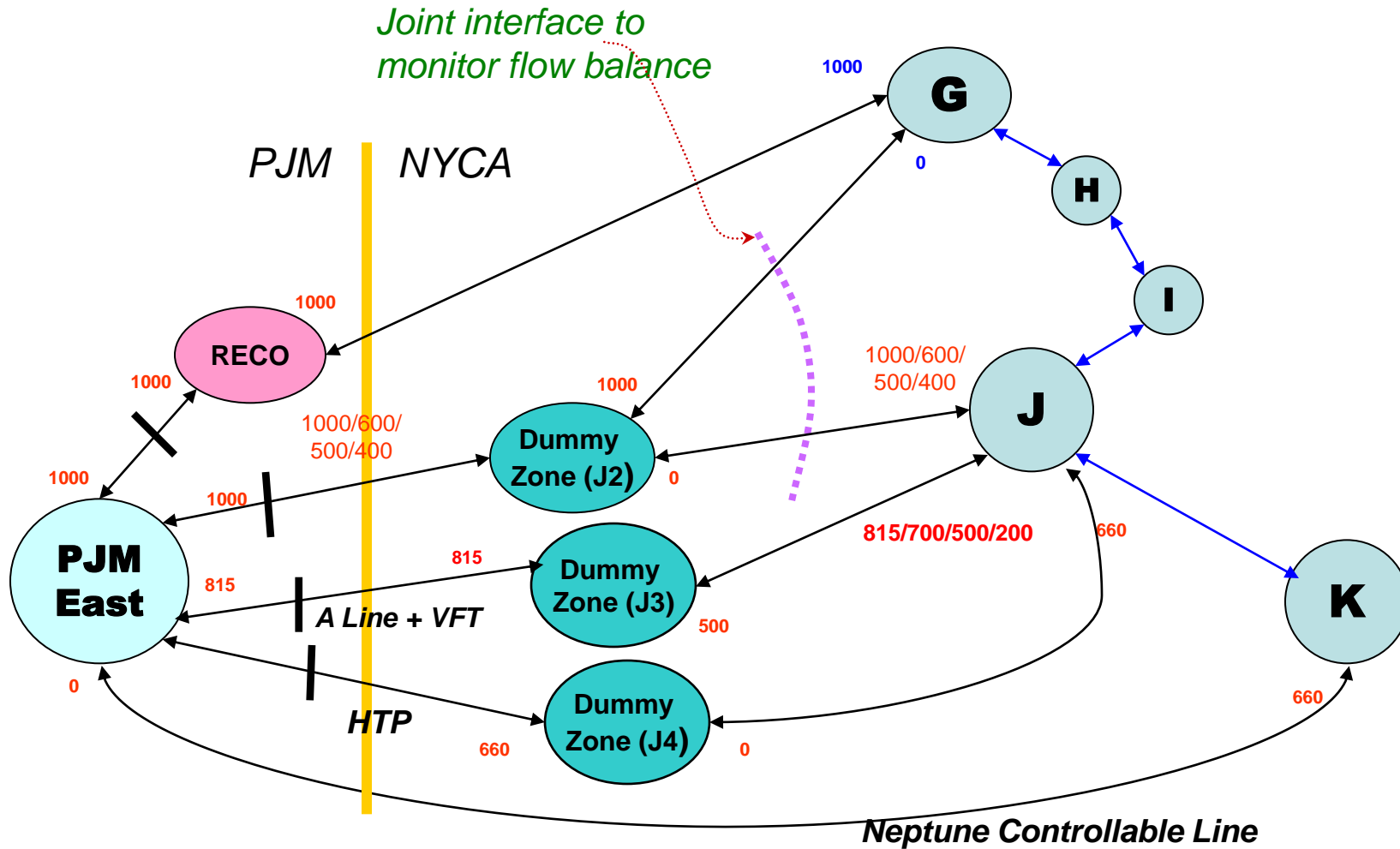
# Transmission System Representation for Year 2015 - Summer Emergency Ratings in MW



IRM 2015/ICS  
10/01/2014 Final  
Review



# PJM-SENY MARS Model

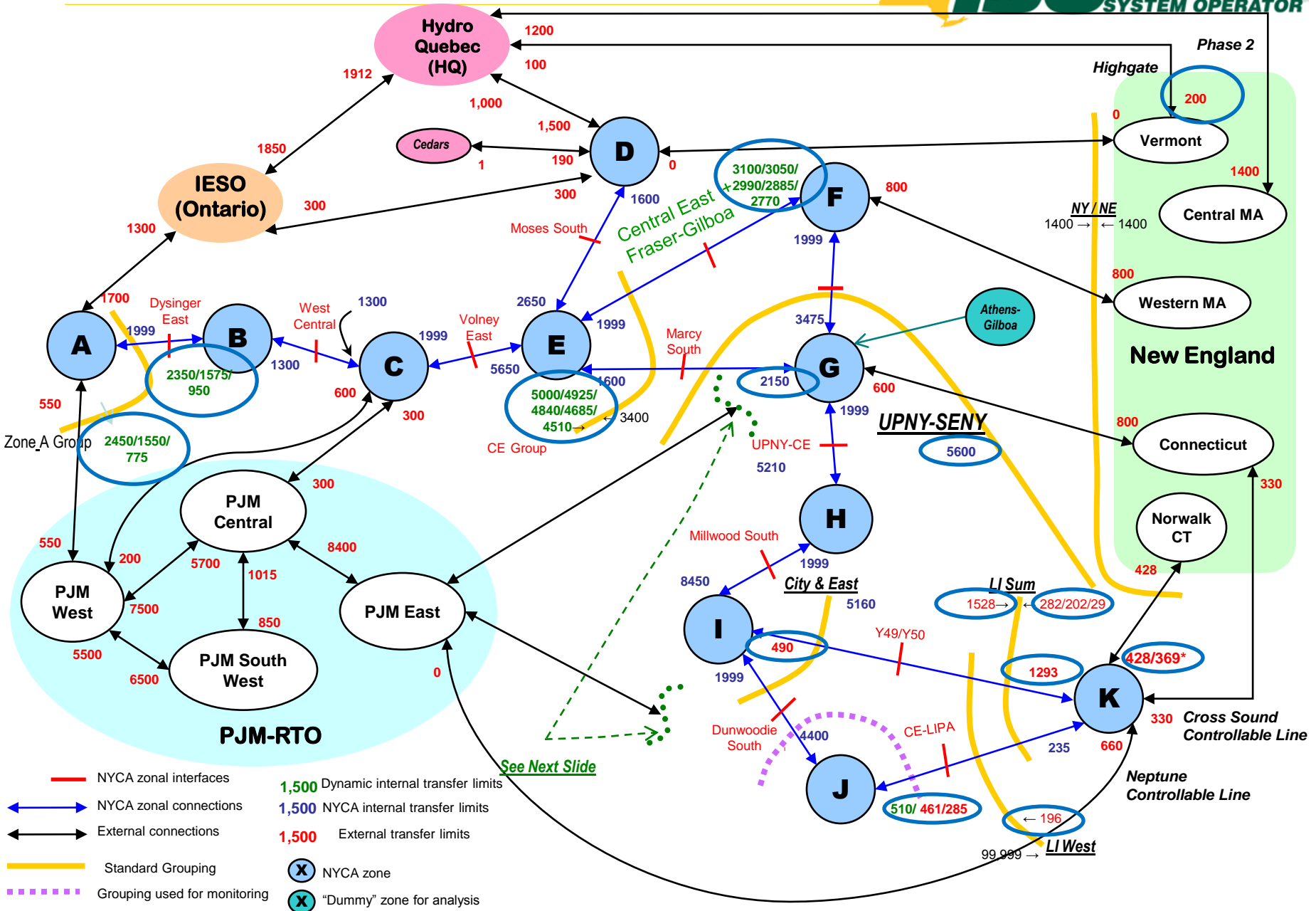


$(PJM\ East\ to\ RECO) + (PJM\ East\ to\ J2) + (PJM\ East\ to\ J3) + (PJM\ East\ to\ J4) = 3075$

# Updates for 2016 IRM

- ◆ **Begin with 2015 IRM topology and incorporate TOTS updates derived in the 2014 RNA/CRP**
  - *Central East Group*
  - *Marcy South*
  - *Central East + Fraser – Gilboa*
  - *UPNY-SENY*
  - *J3 – J (Staten Island Unbottling)*
- ◆ **Dysinger East unit nomogram changed from five to three levels as Dunkirk assumed not available till September 2016**
- ◆ **Upper limit of three level nomogram increased by 150 MW**
- ◆ **LIPA limits were updated**

# Transmission System Representation for Year 2016 - Summer Emergency Ratings (MW)



See Next Slide

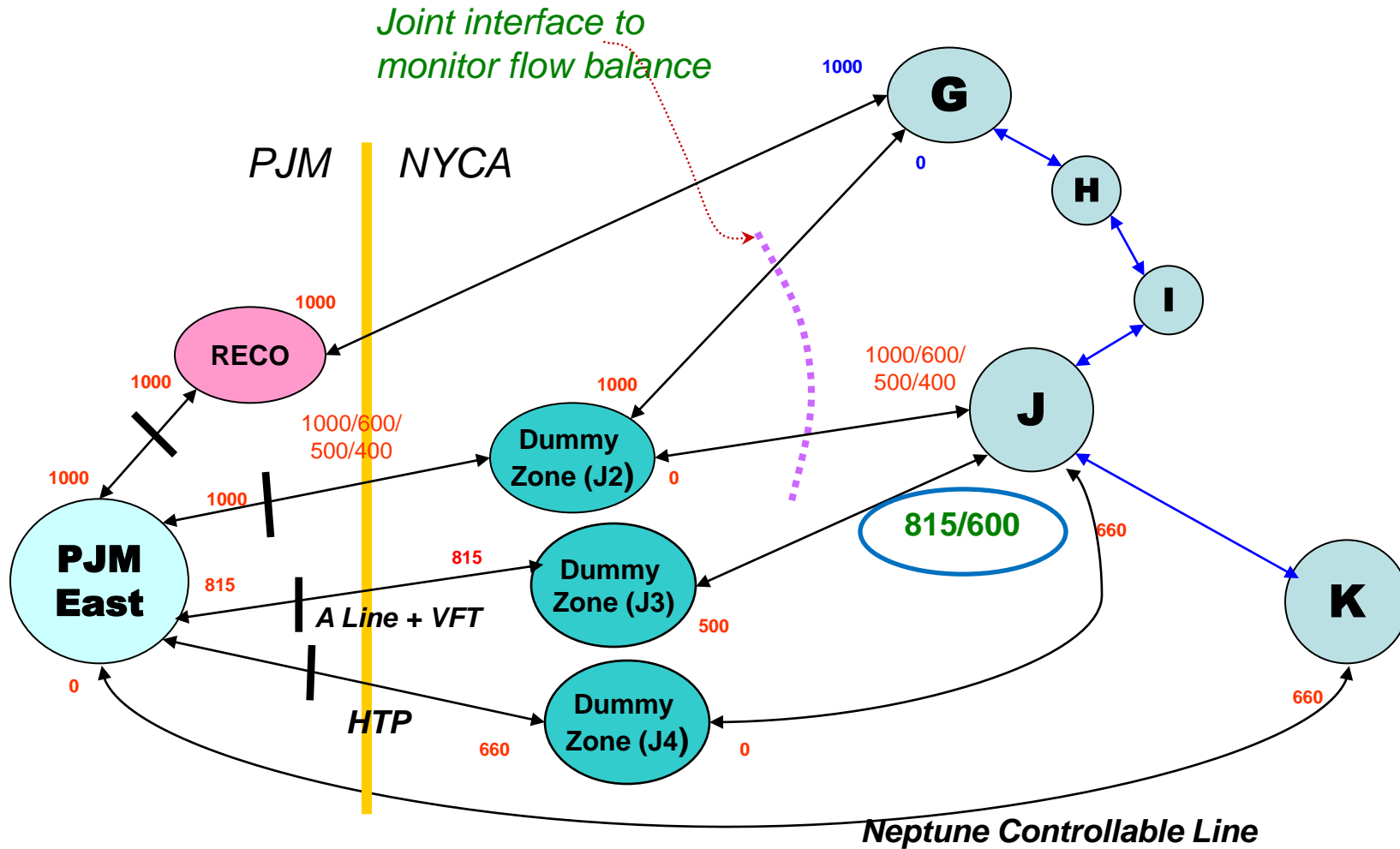
# IRM MARS Topology – Unit Sensitivities

Year	Interface	Oswego Complex Units*				
		All available	Any 1 out	Any 2 out	Any 3 out	Any 4 (or more) out
2016	Central East MARS	3100	3050	2990	2885	2770
	CE Group	5000	4925	4840	4685	4510

\* 9 Mile Point 1, 9 Mile Point 2, Fitzpatrick, Oswego 5, Oswego 6, Independence (Modeled as one unit in MARS)

Year	Interface	Huntley Unit Status		
		Both Available	Either 1 Out	Both Out
2016	Dysinger East	2350	1525	900
	Zone A Group	2450	1525	750

\* Huntley 67 and Huntley 68 status, All Dunkirk units out in base case



$(PJM\ East\ to\ RECO) + (PJM\ East\ to\ J2) + (PJM\ East\ to\ J3) + (PJM\ East\ to\ J4) = 3075\ MW$



# IRM MARS Topology – Unit Sensitivities

Year	Interface	Barrett Steam units (1 and 2)		
		Both available	Any 1 out	Both out
2016	LI Sum	282	202	29
	CE-LIPA (towards Zone J)	510	461	285

Year	Interface	Staten Island Units*	
		All available	Any out
2016	Dummy Zone J3 to J	600	815

\* Arthur Kill 2, Arthur Kill 3, Linden Cogen (Modeled as 2 units in MARS)

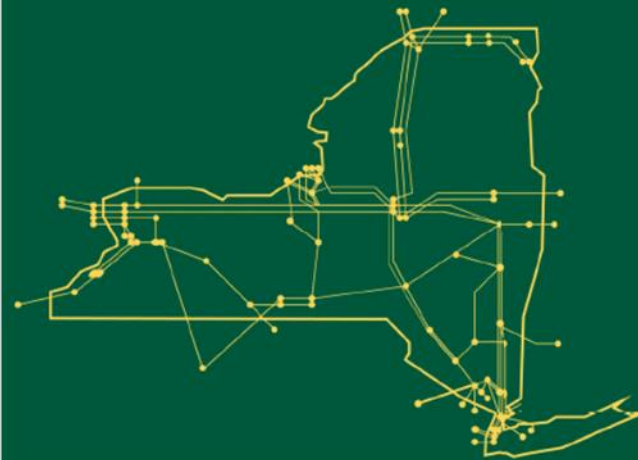
# IRM MARS Topology – Unit Sensitivities

Year	Interface	PSEG units*			
		All available	any 1 out	Any 2 out	All out
2016	Dummy Zone J2 to J	1000	600	500	400
	PJM East to Dummy Zone J2	1000	600	500	400

\* Hudson 2, Bergen 2 CC, Linden 2 CC (PJM)

Year	Interface	Northport Units	
		All available	Any out
2016	Norwalk CT to K (NNC)	369	428

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