ECONOMIC PLANNING: IMPLEMENTATION ISSUES

Prepared By

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ESPWG Meeting

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Albany, NY

Draft – for discussion purposes only

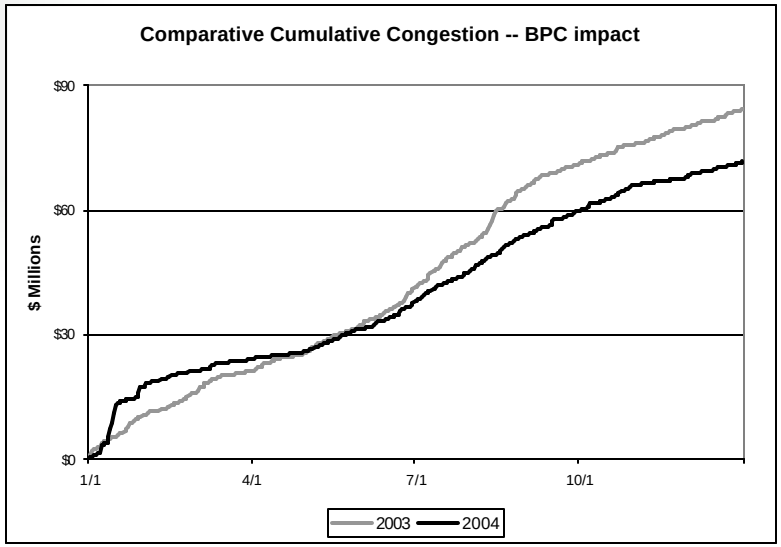
Approved NYISO "Strawman"

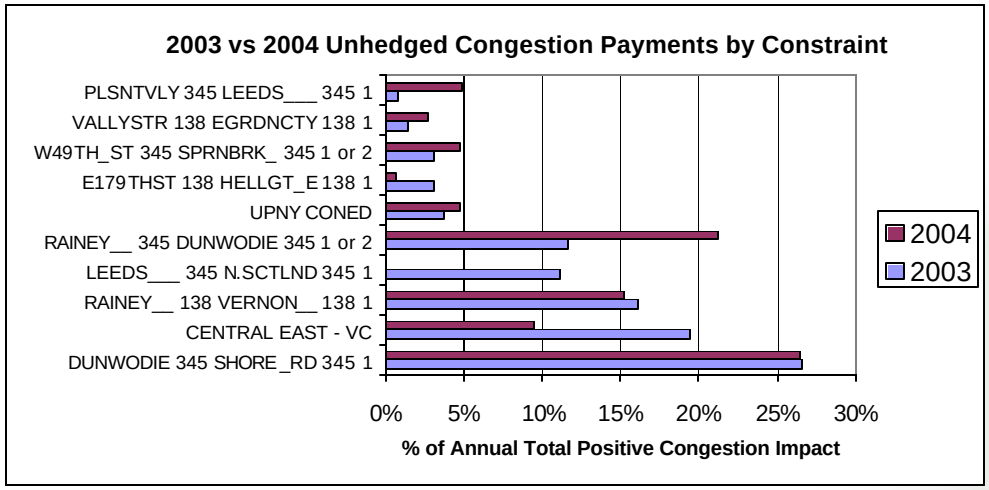
- **Expanded reporting of historic congestion**
  - *Postings on NYISO website*
    - Implemented in April 2005
  - *Track historic congestion by key constraints*
    - Ongoing
  - ***Identification of "unusual events"***
    - Need to finalize screening methodology
    - Refer to PowerGem proposal
  - ***Perform "what if" analysis***
    - Need to develop methodology
  - *Report on other economic parameters*
    - ICAP, ancillary services, losses
    - Develop methodology/tools/assumptions

Perform “What-if” Analysis

- **How to determine which constraints to analyze?**
  - *Track historic unhedged congestion payments by constraint*
  - *Analyze top #? constraints most binding during 2003-2004*
  - *Analyze constraints causing X% of total congestion during 2003/2004*
- **By either method the following constraints appear:**
  - *Dunwoodie to Shore Road 345KV*
  - *Rainey to Dunwoodie 345KV*
  - *Rainey to Vernon 138kV*
  - *Central East – VC*
- **Should cross-check with “unusual days” analysis**

2003 & 2004 Summary





Not all Constraints Shown. 95% of 2003, 90% 0f 2004

2003 Totals
Unhedged Congestion Impact by Constraint
(Price Increasing Impact only)

Monitored Facility	% of Total	Cum % of Total
DUNWODIE 345 SHORE_RD 345 1	26.5%	26.5%
CENTRAL EAST - VC	19.5%	46.0%
RAINEY__ 138 VERNON__ 138 1	16.1%	62.1%
LEEDS___ 345 N.SCTLND 345 1	11.2%	73.3%
RAINEY__ 345 DUNWODIE 345 1	8.0%	81.3%
RAINEY__ 345 DUNWODIE 345 2	3.7%	85.0%
UPNY CONED	3.6%	88.6%
E179THST 138 HELLGT_E 138 1	3.1%	91.7%
W49TH_ST 345 SPRNBRK_ 345 1	1.7%	93.4%
VALLYSTR 138 EGRDNCTY 138 1	1.4%	94.8%
W49TH_ST 345 SPRNBRK_ 345 2	1.4%	96.1%
PLSNTVLY 345 LEEDS___ 345 1	0.8%	96.9%
JAMAICA_ 138 VALLYSTR 138 1	0.5%	97.5%
FRESHKLS 138 WILLWBRK 138 1	0.5%	98.0%
VERNON__ 138 KENTAVE_ 138 1	0.3%	98.3%
ROSLYN__ 138 EGRDNCTY 138 1	0.2%	98.5%
HELLGATE 138 E179THST 138 1	0.2%	98.7%
BUCHAN_N 345 EASTVIEW 345 1	0.2%	98.9%
NEWBRDGE 138 EGRDNCTY 138 1	0.2%	99.0%

2004 Totals
Unhedged Congestion Impact by Constraint

Monitored Facility	**%**	Cum %
DUNWODIE 345 SHORE_RD 345 1	26.4%	26.4%
RAINEY__ 345 DUNWODIE 345 1 or 2	21.2%	47.7%
RAINEY__ 138 VERNON__ 138 1	15.2%	62.9%
CENTRAL EAST - VC	9.5%	72.4%
PLSNTVLY 345 LEEDS___ 345 1	4.9%	77.3%
W49TH_ST 345 SPRNBRK_ 345 1 or 2	4.8%	82.0%
UPNY CONED	4.8%	86.8%
VALLYSTR 138 EGRDNCTY 138 1	2.7%	89.5%
SHORE_RD 345 SHORE_RD 138 1	2.0%	91.5%
E13THSTA 345 W49TH_ST 345 1	1.3%	92.8%
VERNON__ 138 KENTAVE_ 138 1	1.1%	93.9%
SPRNBR49 345 EGRDNCTY 345 1	0.9%	94.9%
FRESHKLS 138 WILLWBRK 138 1	0.7%	95.5%
E179THST 138 HELLGT_E 138 1	0.6%	96.1%
HUDS_AVE 138 JAMAICA_ 138 2	0.6%	96.7%
QUENBRDG 138 VERNON__ 138 1	0.5%	97.2%
LEEDS___ 345 ATHENS__ 345 1	0.5%	97.8%
PLSNTVLY 345 ATHENS__ 345 1	0.5%	98.2%
SPR/DUN-SOUTH	0.4%	98.6%
NE - NY	0.3%	98.9%
MILLWOOD 345 EASTVIEW 345 1	0.2%	99.1%
LEEDS___ 345 N.SCTLND 345 1	0.0%	99.1%
JAMAICA_ 138 VALLYSTR 138 1	0.0%	99.1%

Chronic Congestion May Be Viewed As:

- *All Monitored Elements that contributed to the top X% of unhedged congestion payments in 2004*

99% of Total 2004 Congestion	95% of Total 2004 Congestion	80% of Total 2004 Congestion	%
DUNWODIE 345 SHORE_RD 345 1	DUNWODIE 345 SHORE_RD 345 1	DUNWODIE 345 SHORE_RD 345 1	26.4%
RAINEY 345 DUNWODIE 345 1 or 2	RAINEY 345 DUNWODIE 345 1 or 2	RAINEY 345 DUNWODIE 345 1 or 2	21.2%
RAINEY 138 VERNON 138 1	RAINEY 138 VERNON 138 1	RAINEY 138 VERNON 138 1	15.2%
CENTRAL EAST - VC	CENTRAL EAST - VC	CENTRAL EAST - VC	9.5%
PLSNTVLY 345 LEEDS___345 1	PLSNTVLY 345 LEEDS___345 1	PLSNTVLY 345 LEEDS___345 1	4.9%
W49TH_ST 345 SPRNBRK_345 1 or 2	W49TH_ST 345 SPRNBRK_345 1 or 2		4.8%
UPNY CONED	UPNY CONED		4.8%
VALLYSTR 138 EGRDNCTY 138 1	VALLYSTR 138 EGRDNCTY 138 1		2.7%
SHORE_RD 345 SHORE_RD 138 1	SHORE_RD 345 SHORE_RD 138 1		2.0%
E13THSTA 345 W49TH_ST 345 1	E13THSTA 345 W49TH_ST 345 1		1.3%
VERNON 138 KENTAVE_138 1	VERNON 138 KENTAVE_138 1		1.1%
SPRNBR49 345 EGRDNCTY 345 1	SPRNBR49 345 EGRDNCTY 345 1		0.9%
FRESHKLS 138 WILLWBRK 138 1			0.7%
E179THST 138 HELLGT_E 138 1			0.6%
HUDS_AVE 138 JAMAICA_138 2			0.6%
QUENBRDG 138 VERNON 138 1			0.5%
LEEDS 345 ATHENS 345 1			0.5%
PLSNTVLY 345 ATHENS 345 1			0.5%
SPR/DUN-SOUTH			0.4%
NE - NY			0.3%

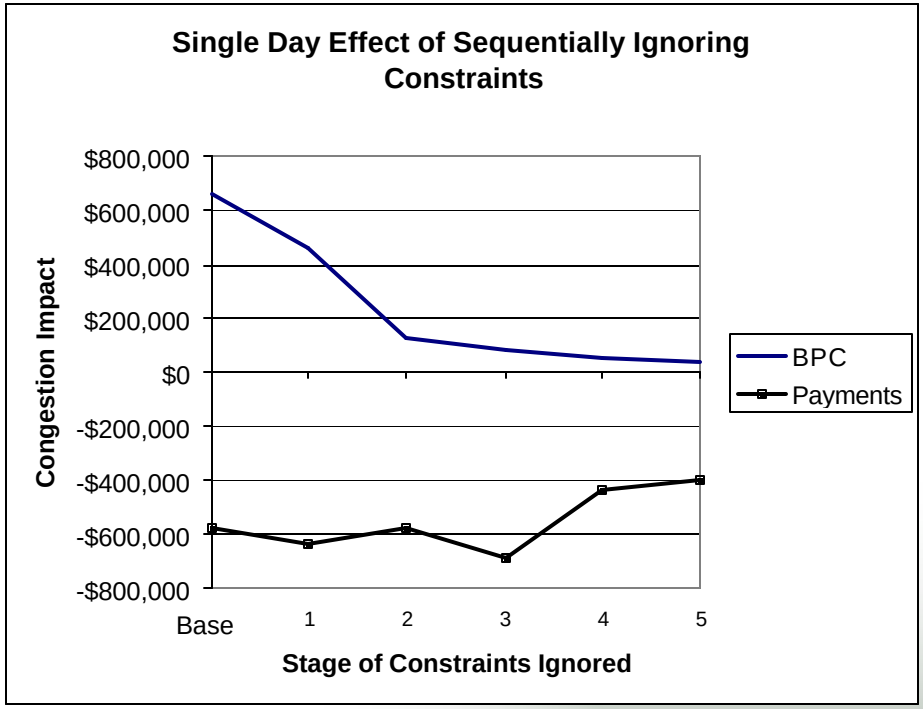
Other Issues

- **Analyze all hours or sample hours/days?**
  - *How many hours/days to select*
  - *Establish criteria for the selection*
  - *Hours/days producing X% of annual congestion cost*
  - *Calculate BPC savings for sample days*
  - *How to extend sample day results to annual congestion savings?*
  - *Consider degree of effort/time/cost*

- **Identification of next binding constraint**
  - *See following example*

“Release Constraints in Sequence” Test

Scenario (Constraints Ignored for Next Scenario)	Monitored Element	Contingency
Base	DUNWODIE 345 SHORE_RD 345 1	Base Case
	RAINEY__345 DUNWODIE 345 1	SCB: SPBK (RS-4): M52_99941
1	DUNWODIE 345 SHORE_RD 345 1	BUS: NORTHPORT_681_UNIT 3
	DUNWODIE 345 SHORE_RD 345 1	BUS: NORTHPORT_677_UNIT 2
	RAINEY__345 DUNWODIE 345 1	Base Case
	W49TH_ST 345 SPRNBRK_345 2	SCB: SPBK (RS-4): M52_99941
	E179THST 138 HELLGT_E 138 1	Base Case
2	RAINEY__345 DUNWODIE 345 1	DUNWODIE345_SHORE_RD345_Y50___
	ROSLYN__138 EGRDNCTY 138 1	SHORE_RD138_GLENWD__138B365___
	W49TH_ST 345 SPRNBRK_345 1	Base Case
	VALLYSTR 138 EGRDNCTY 138 1	BUS: LAKSUCSS_368_903
3	CARLPLCE 138 EGRDNCTY 138 1	SHORE_RD138_GLENWD__138A366-1_
	W49TH_ST 345 SPRNBRK_345 1	SPRNBRK_345_W49TH_ST345_M51___
	VALLYSTR 138 EGRDNCTY 138 1	Base Case
4	GLENWDGT 138 ROSLYN__138 1	SHORE_RD138_GLENWD__138B365
	VALLYSTR 138 EGRDNCTY 138 1	BUS: E F BARRET_292_459_BA
	SPR/DUN-SOUTH	Base Case
5	JAMAICA_138 LAKSUCSS 138 1	DUNWODIE345_SHORE_RD345_Y50___
	W49TH_ST 345 SPRNBRK_345 1	SCB: DUNW(7): W75_72
	GLENWD__138 SHORE_RD 138 1	SHORE_RD138_GLENWD__138B365___



Assumes No Network Impedance or Connection Change