

# Proposed Resolution of the Near-term VSS Issues



*NYISO Market Structures Working Group*  
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# From the MC Resolution 10/04

- **Maintain current rate of \$3919/MVAr-yr for 2005 compensation year**
- **Review of compensation basis**
  - *Capability basis (MVAr)*
  - *Cost basis (\$\$\$)*
- **MSWG to report recommendations end of 1<sup>st</sup> Q 2005**
  - *Tariff revisions to implement mid-year 2005 for 2006*
  - *Ancillary Services manual revisions to implement clarifications and revise testing procedure need to be in place early in Summer 2005 capability period*

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# Separating the Issues

- **Determination of compensation basis (MVA<sub>r</sub>)**
  - *Change basis from gross-lag, to net-lag*
- **Clarify testing procedure and requirements**
  - *Scheduling/performing and reporting test data*
- **Determination of compensation rate (\$\$)**
  - *Develop method to calculate the Total Cost of VSS to reflect capacity changes and/or inflation*

# Consensus Recommendation

## *“NET Lagging MVAr Capability”*

- **Gross vs. Net Reactive capability**
  - *Net capability is a better indication of the contribution to the system and consistent with ICAP and energy (MW) metering/settlement*
- **Reactive lagging MVAr capability**
  - *Demonstrated lagging capability by test*
  - *Suppliers will still be required to test and supply leading capability*

# Clarify Testing Requirements

- All VSS participants to conduct lagging MVAR test during Summer period
- Participants must submit supporting data electronically using NYISO form
  - *Include reporting of 5min readings for all quantities*
  - *MW, MVAR, gross and net during test hour(s)*
- Testing conducted during 2005 is Compensation basis for 2006 payments to suppliers
- Update Ancillary Services Manual and TB's (91, 103) accordingly for S'05 testing



# Determination of Reactive Resources VSS “Compensation Basis”

## ■ Existing (Gross-lag)

- *Based on 2004 testing*
- *15842MVA<sub>r</sub>*

## ■ Proposed (Net-lagging)

- *Estimated capability based on 2004 testing*
- *15,184MVA<sub>r</sub>*
- *Includes 2005 capacity additions*
- *test data represents approx. 60% installed*

# Update VSS “Compensation Rate”

- **Current rate was determined in 2001**
- **Update methodology used in the 2001 analysis (NYISO filing of 12/01 to FERC)**
  - *Update costs associated with generation additions and retirements*
  - *Apply factor for inflation (3%)*

# VSS Rate Calculation (review)

- From the 12/2001 FERC filing

- *2002 Total Cost for VSS* **\$61M**
- *“system average power factor”* **92%**
- *Calculated Reactive Resources* **15573MVA<sub>r</sub>**
- *Rate for 2002 compensation year*  
**\$3919/MVA<sub>r</sub>-year**



# Total Cost for VSS

## Current method – constant rate \$3919

Comp.year	2004 Actual	2005	2006 projected
MW capacity	37172	38663	39851
Tested capacity	32695	34088	
average pF		0.907	
MVAr capacity	15180	15827	16654
Rate \$/MVAr	\$3,919	\$3,919	\$3,919
Total Cost VSS	\$59,490,420	\$62,026,013	\$65,267,026

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# Total Cost for VSS – Est. 2006 for different Compensation Basis Constant rate \$3919

	<b>Gross Lagging</b>	<b>Net Lagging</b>	<b>Net Range</b>
MW Capacity	39851	39851	39851
average pF	0.907	0.921	0.921, 0.968
MVAr capacity	16654	15174	20382
Rate \$/MVAr	\$3,919	\$3,919	\$3,919
Total Cost VSS	<b>\$65,267,026</b>	<b>\$59,466,906</b>	<b>\$79,877,058</b>

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# VSS Rate Calculation (updated)

- Using the 12/2001 FERC filing methodology
  - Calculate the system average power factor based on most recent test year data reported (2004)
  - Update the Total Cost for VSS for generation additions and retirements since 2002
  - (in parallel) calculate Total Cost for VSS adjusted for inflation

# Constant Total Cost for VSS Est. 2006 Compensation Rate

	<b>Gross Lagging</b>	<b>Net Lagging</b>	<b>Net Range</b>
MW Capacity	39851	39851	39851
average pF	0.907	0.921	0.921, 0.968
MVAr capacity	16654	15174	20382
Total Cost VSS	\$66,556,389	\$66,556,389	\$66,556,389
Rate \$/MVAr	<b>\$3,996</b>	<b>\$4,386</b>	<b>\$3,265</b>

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# Updated Total Cost for VSS Est. 2006 Compensation Rate

*Same as preceding table with Total Cost for VSS adjusted for inflation.*

	<b>Gross Lagging</b>	<b>Net Lagging</b>	<b>Net Range</b>
MW Capacity	39851	39851	39851
average pF	0.907	0.921	0.921, 0.968
MVAr capacity	16654	15174	20382
Total Cost VSS	\$76,157,404	\$76,157,404	\$76,157,404
Rate \$/MVAr	<b>\$4,573</b>	<b>\$5,019</b>	<b>\$3,737</b>

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# “Deliverables”

- Need to implement testing procedure changes immediately so all providers can plan to perform testing during S'05 for 2005
- Decision to change compensation basis to Net-lagging MVAr capability
- Preparation for filing of 2006 RS 2
- Status Report to BIC 4/20/2005
- Compliance Filing to FERC due 4/30/2005

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# Longer-term Issues

- **Develop a schedule to address longer-term VSS issues identified by NYISO Staff**
  - *Compensation for non-generator resources*
  - *Compensation for FACTS-type devices*
  - *Interconnection Requirements*
  - *Two-tier voltage support service*
  - *Six-year Test Requirement*
- **Recommend priorities/responsibilities**

