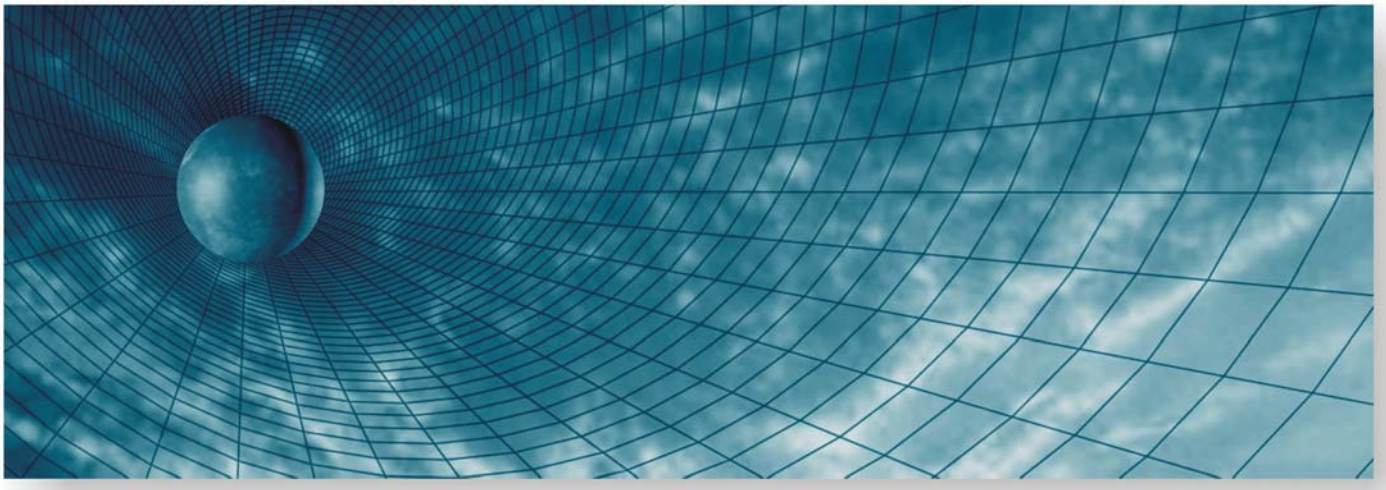
Presentation to

NYISO BSP Subcommittee

Regarding

Status Report on the Schedule 1 Evaluation Project

March 19, 2004



R·J·Rudden® ASSOCIATES

OUTLINE

I. Review of Prior Meetings

II. Review of Service Category Changes

III. Revised Management Services & Billing Treatment

IV. Revised Cost Allocations to Service Categories

V. Billing Unit Recommendations

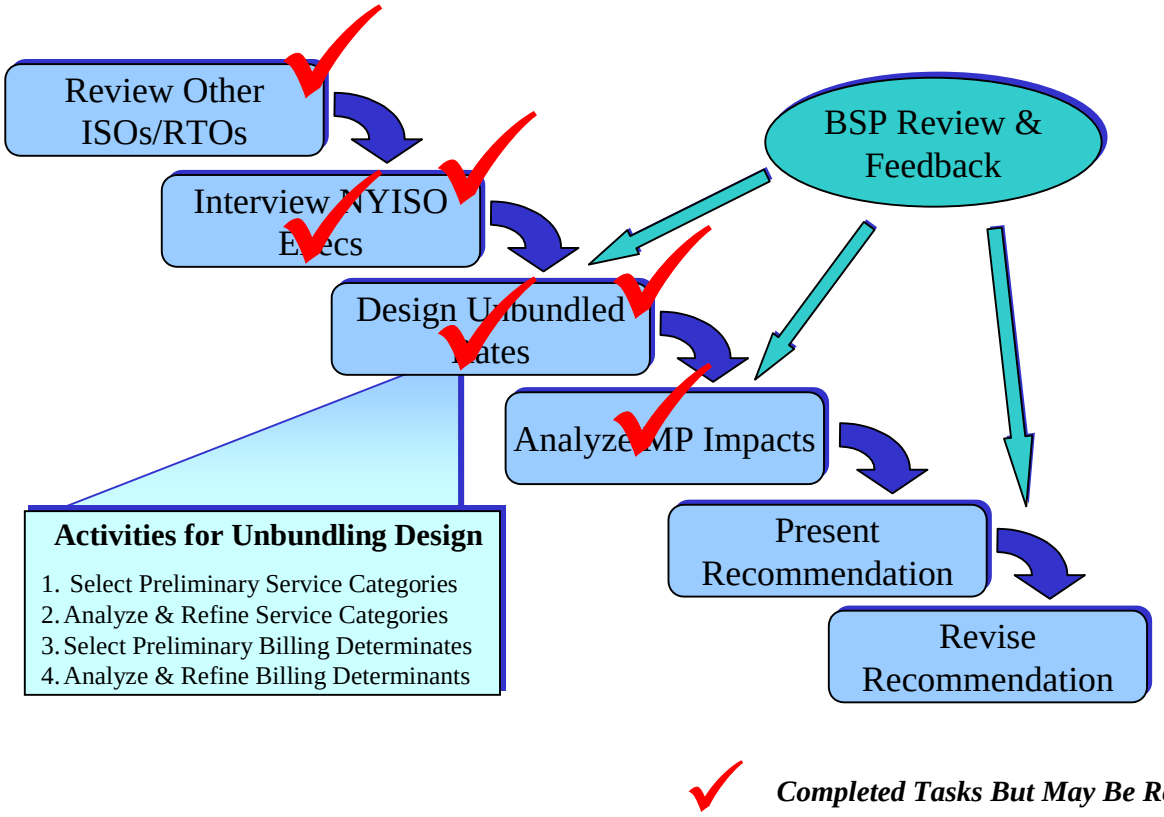
VI. Billing Unit Results

VII. Implementation Issues

VIII. Next Steps

SECTION I
REVIEW OF PRIOR MEETINGS

PROJECT METHODOLOGY



✓ ***Completed Tasks But May Be Revisited***

PRELIMINARY SERVICE CATEGORIES

1. System Reliability
    - Ensure reliable transmission system operations including activities that do not change with specific energy flows
2. Real-Time Operations
    - Manage energy flows & congestion management, including activities that do change with specific energy flows
3. Energy/Ancillary Services Markets
    - Conduct and administer Energy and Ancillary Service markets, including financial and pricing aspects
4. Capacity Planning
    - Studies, communications and planning to determine capacity requirements and ensure sufficient capacity
5. Capacity Markets
    - All activities necessary to conduct and administer the ICAP market
6. TCC Market
    - All activities necessary to conduct and administer the TCC market
7. Billing
    - Computing bills and providing billing information to customers
8. Management Services
    - All administrative and management activities that cannot be directly assigned to another Category
9. Annual Membership/Governance
    - Communications, meetings and maintenance of Members' accounts and perform all other activities related only to their roles as Members
10. Customer-Specific
    - Perform training, analysis or other activities for the benefit of a specific customer. This category would be directly billed to MPs and would not be part of the cost allocation design.
11. Customer Support
    - Provide customer service, information and communications with Market Participants for topics other than the Billing activities

PRELIMINARY SERVICE CATEGORY ALLOCATIONS

The following summary table was presented at the February 17, 2004 BSP Subcommittee meeting. Revised data, reflecting changes since the February meeting, is presented later in this report.

	System Reliability	Real-Time Operations	Energy & Ancillary Services Markets	Capacity Planning	Capacity Markets	TCC Markets	Billing	Management Services	Annual Membership / Governance	Customer Specific	Customer Support
Total Category Percent Pre-Allocation	3%	17%	21%	0%	3%	1%	9%	43%	1%	1%	2%
Category Percent Post-Allocation	6%	29%	34%	1%	5%	2%	16%	-	1%	1%	5%

SECTION II
REVIEW OF SERVICE CATEGORY CHANGES

CHANGES TO SERVICE CATEGORIES

Rudden made the following changes to the Service categories to address comments expressed at the February 17, 2004 BSP meeting and further analysis:

A. Credit activities were reassigned directly to the market-based Service Categories - Energy and Ancillary Services Markets, Capacity Markets and TCCs.

B. A new Service Category was identified, Management Services Type 2 (MS2), for costs that require special allocation. Term Loan Principal and Interest and FERC Fees were re-assigned from Management Services to MS2.

C. A new Service Category was identified, Billing Projects, to separate costs in the 2004 Budget from ongoing Billing and Customer Service costs.

D. The Capacity Planning Service Category was merged into System Reliability.

E. The Customer Support Service Category was merged into the renamed Billing and Customer Service.

F. The Annual Membership/Governance Service Category was merged into Management Services.

With these changes, the revised Service Categories include:

1. System Reliability
2. Real-Time Operations
4. Energy/Ancillary Services Markets
5. Capacity Markets
6. TCC Markets
7. Billing & Customer Service
8. Management Services Type 1
9. Customer-Specific
10. Customer Support
11. Management Services Type 2
12. Billing Projects

SECTION III
REVISED MANAGEMENT SERVICES & BILLING TREATMENT

MANAGEMENT SERVICES

A. Items Included in Management Services

Management Services is defined as "Activities that support the activities required for all of the Service Categories, and activities that cannot be assigned or allocated to another Service Category." These costs have been grouped into three types - Labor Costs, Outside Costs and Financing and Other Costs.

B. Allocation of Management Services Costs

As stated above, Management Services costs comprise "Activities that support the activities required for all of the Service Categories, and activities that cannot be assigned or allocated to another Service Category."

Type 1: Management Services - Costs that "support the activities required for all of the Service Categories"

Management Services costs that "support the activities required for all of the Service Categories" are similar to Administrative & General (A&G) costs in a typical utility cost of service study.

Recommendation: Management Services costs that "support the activities required for all of the Service Categories" should be allocated in the same proportion as the directly assigned or allocated costs, excluding Corporate costs.

Type 2: Management Services - Costs that "cannot be assigned or allocated to another Service Category"

The following were identified as Type 2 Management Services costs, for which alternative treatment (i.e., different than the Type 1 treatment) can be considered: Term Loan Interest and Principal, which represent costs incurred in prior years and FERC Fees

These items total $20.6 million (including an allocation Type 1 Management Services costs), or approximately 26.1% of total Management Services costs.

Recommendation: Management Services costs that "cannot be assigned or allocated to another Service Category" should be recovered allocated as follows:

- Term Loan – 50% to Load, 50% to Generation, based on the present method used at NYISO for the start-up costs represented by the Term Loan.
- FERC Fees – 100% to load based on historical precedent and cost causation.

MANAGEMENT SERVICES COSTS

DESCRIPTION	AMOUNT ($000)	%
TYPE 1 COSTS		
Labor Costs		
Direct Activities - Entire Departments	6,279	11.0%
Direct Activities - Portions of Departments	2,547	4.5%
Allocated Activities	6,101	10.7%
A Projects	963	1.7%
System Disturbance	795	1.4%
BOD and BIC / MS / BAWG Committees	550	1.0%
Total Labor Costs	17,236	30.3%
Outside Costs		
IT Costs - SW, HW, Consultants, Maintenance, Telecom	18,651	32.8%
Market Services Costs - Consultants	2,093	3.7%
Insurance - Property & liability, D&O, Self Insured, Brokerage	1,709	3.0%
Auditing and Other Finance Costs	2,038	3.6%
External legal services and Regulatory consulting (Mgmt Svc portion)	5,617	9.8%
Facilities Costs	3,350	5.9%
Human Resources, Communications, Executive, Market Monitoring Unit, Other	2,644	4.6%
Board of Directors Costs	950	1.7%
Total Outside Costs	37,052	65.1%
Financing and Other Costs		
2003 Budget Facility – Interest and Principal	925	1.6%
Hardware Financings – Interest and Principal	1,069	1.9%
Banking Fees	611	1.1%
Total Financing and Other Costs	2,605	4.6%
Total Management Services Type 1 Costs	**56,894**	**100.0%**
TYPE 2 COSTS		
Financing and Other Costs		
Term Loan payments – Interest and Principal	12,060	55.5%
FERC Fees	8,000	36.8%
Total Management Services Type 2 Costs	**20,060**	**100.0%**
Total Management Services	**76,953**	**100.0%**

BILLING AND CUSTOMER SERVICE

A. Items Included in Billing and Customer Service

Billing and Customer Services is defined as "Obtaining and processing data related to grid accounting, bill computation and settlement. Providing related info to customers." A large portion of Billing and Customer Service in the 2004 Budget represent Billing Projects. The Billing Projects costs may not continue in the future, and also relate primarily to market-based Service Categories (Energy & Ancillary Services Markets, Capacity Markets, TCCs). Therefore, these Billing Projects costs were separated for consideration for different treatment.

B. Allocation of Billing & Customer Service Costs

Customarily, Billing and Customer Service costs are allocated in large part based on the number of bills rendered. However, when rates are designed, it is customary that only a portion of the allocated cost is recovered on a customer charge basis to avoid creating a burden on low-usage customers. Billing and Customer Service costs that exceed customer charges are recovered in other components of the rate, for example, volumetric and demand portions of the rate. Therefore, Billing and Customer Service can be allocated among the other Service Categories, and included when the rates for those Service Categories are determined.

Ongoing Billing and Customer Service Costs reflect activities that relate to the following Service Categories:

- Real-Time Operations
- Energy and Ancillary Services Markets
- Capacity Markets
- TCCs

Recommendation: Billing & Customer Service costs should be allocated among the four Market Service Categories identified above in proportion to the costs, excluding Corporate costs, allocated to each Service Category, excluding their respective allocations of Management Services costs.

BILLING PROJECTS

The Billing Projects costs in the 2004 Budget represent projects that relate primarily to the Energy & Ancillary Services Markets Service Categories, and that may not continue in the future. These costs were allocated to the Energy & Ancillary Services Markets Service Category.

BILLING AND CUSTOMER SERVICE COSTS ($000)

Activity Description	Total Billing and Customer Service Costs	Billing Projects	Ongoing Billing and Customer Service Costs
LABOR COSTS			
A Projects	875	-	875
Direct Activities - Billing	3,769	2,681	1,089
Direct Activities - Customer Service	432	-	432
Allocated Activities	3,666	1,929	1,737
Total Labor Costs	8,743	4,609	4,133
OUTSIDE COSTS			
Outside Project Costs	3,000	3,000	-
Financing Costs	4,286	3,071	1,215
Insurance Costs	858	390	468
Allocated Costs	288	41	247
Total Outside Costs	8,432	6,502	1,930
Total Labor & Outside Costs	17,175	11,111	6,063

NOTE: Excludes allocation of Management Services Costs

SECTION IV
REVISED COST ALLOCATIONS TO SERVICE CATEGORIES

The table below shows the revised cost allocations after the changes discussed above were made.

REVISED COST ALLOCATIONS

Group	Total	System Reliability	Real-Time Operations	Energy & Ancillary Services Markets	Capacity Markets	TCC Markets	Billing and Customer Service	Manage-ment Services Type 1	Manage-ment Services Type 2	Billing Projects
Finance & Compliance	100%	2%	10%	26%	3%	2%	17%	33%	0%	7%
Market Monitoring & Business Planning	100%	4%	2%	80%	1%	0%	0%	13%	0%	0%
Communications	100%	0%	2%	2%	0%	0%	0%	96%	0%	0%
Operations & Reliability	100%	10%	72%	10%	0%	0%	0%	8%	0%	0%
Market Services	100%	3%	4%	16%	15%	9%	1%	50%	2%	0%
Executive	100%	0%	0%	0%	0%	0%	0%	97%	3%	0%
Legal / Regulatory	100%	1%	2%	2%	1%	1%	3%	83%	7%	0%
Planning	100%	61%	1%	2%	1%	0%	4%	31%	0%	0%
Information Technology	100%	0%	25%	27%	1%	0%	2%	35%	0%	10%
Administration & Compliance	100%	1%	5%	6%	2%	0%	1%	78%	0%	7%
Human Resources	100%	0%	0%	0%	0%	0%	0%	99%	1%	0%
Corporate	100%	5%	9%	14%	3%	0%	3%	9%	49%	8%
Share Before Allocation	100%	4%	17%	21%	3%	1%	4%	33%	13%	7%
Total Share After Allocation	100%	5%	30%	47%	4%	2%	-	-	13%	-
Costs Before Allocation ($000)	$168,482	$5,814	$27,775	$34,975	$4,314	$1,477	$6,063	$55,916	$21,037	$11,111
Total Costs After Allocation ($000)	$168,482	$8,476	$49,790	$78,678	$7,112	$2,689	-	-	$21,737	-

Note: Excludes Customer-specific costs, which are recovered directly from customers for services performed by the NYISO.

SECTION V
BILLING UNITS RECOMMENDATIONS

OVERVIEW

In assigning Billing Units for a Service Category, the rate design must consider two major aspects:

A. *Economics*- Billing Units should be assigned to a Service Category on the basis of cost causation or on the basis of benefits received. Recovering costs based on the number of schedules submitted is an example of recovery based on cost causation, and recovering costs based on the MWh of energy actually withdrawn is an example of recovery based on benefits received.

B. *Implementation* - Other factors to consider in assigning Billing Units to Service Categories include the following issues associated with implementing the rate design:
   - Materiality
   - Price certainty and minimizing the potential for over/under recovery
   - Minimize impact on market behavior and on NYISO operations
   - Practicality

BILLING UNIT ASSIGNMENT

1. System Reliability Service Category

   Recommendation: 100% to load based on actual MWh (NYCA and non-NYCA withdrawals, exports and wheel-throughs, including bilaterals, excluding virtual), reflecting cost causation and benefits received, as well as the relative ease of implementation.

   Reasoning: System Reliability is provided for the purpose of serving load. Although a reliable transmission system benefits suppliers, ensuring that suppliers can get their energy to market is not the primary goal of reliability. NYISO's planning efforts for reliability, and accepted measures of reliability, all focus on ensuring load is served. MWh offers a superior billing unit than other possibilities using coincident or non-coincident peak usage. Unlike capital expenditures for transmission systems, which closely align with system peaks, the activities and costs of NYISO are focused on reliability at all hours, not just the peak periods.

2. Real-Time Operations (RTO) Service Category

   Recommendation: 100% to load based on actual MWh (NYCA and non-NYCA withdrawals, exports and wheel-throughs, including bilaterals, excluding virtual), reflecting cost causation and benefits received, as well as the relative ease of implementation.

Reasoning: RTO activities are concerned only with the physical aspects of managing energy flows. Together with System Reliability, it is similar to the service that had been provided by the New York Power Pool. The fundamental objective in these activities is to maintain service to the loads on the system. The nature and scope of RTO activities would not change if the Power Markets were eliminated, and does not change based on the amount of bilateral transactions compared to market transactions. For the same reasons as stated for the System Reliability Service Category, MWh is the best choice of billing units.

3. Energy And Ancillary Service Markets Service Category

Recommendation: 50% to load based on MWh of actual withdrawals and virtual load contracted, and 50% to supply based on MWh of actual injections and virtual supply contracted, excluding bilaterals and wheel-throughs.

Reasoning: The existence of competitive markets, and the efficient operation of the markets, benefits both load and suppliers, including those who participate in the virtual markets. Bilateral and wheel-through transactions do not cause EASM costs to be incurred, and any benefits they receive from EASM are incidental. It would be desirable to assign cost responsibility based on participation both in the Energy markets, and the Ancillary Service markets. However, it was not possible to segregate the costs in this Service Category into Energy markets and Ancillary Service markets.

Allocation - Load

The only practical option for Billing Units for the share of EASM costs assigned to load was Actual MWh withdrawn plus Virtual Load MWh contracted by load. System Peak and NCP are related neither to costs nor to benefits of this Service Category. Actual MWh withdrawn plus Virtual Load MWh contracted closely reflect the benefits received from the EASM Service Category.

Allocation - Supply

The options considered for Billing Units for the share of EASM costs assigned to supply included Actual MWh injected and Virtual Supply MWh contracted, Scheduled MWh from Supply, Number of Schedules Submitted and Number of Schedules Accepted. Using Number of Schedules as Billing Units could discourage or disadvantage small suppliers by leading to a high per-transaction cost. In addition, it could cause suppliers to submit a small number of large-size schedules, which could reduce operational flexibility for NYISO. Finally, estimating the Number of Schedules is difficult, and could lead to unacceptably high price uncertainty and over/under recovery.

4. Capacity Markets Service Category

Recommendation: Capacity Markets costs should be recovered based on Dollars Transacted in the strip and monthly auctions and the deficiency portions of spot auctions, using a rate based on

the estimated total Dollars Transacted during the year, applied to the dollar value of each transaction, with 50% to the ICAP purchaser and 50% to the ICAP seller.

Reasoning: Since the costs in this category only include the costs of conducting and administering the ICAP markets, and not the related planning costs, only ICAP market participants should pay for this service. LSEs that self-supply ICAP, and suppliers that do not sell ICAP, do not cause the costs to be incurred and receive no benefits from the markets, and should not be assigned any cost responsibility. Recovering the costs of this category on a per MW or a per MW-month could be a significant portion of the transaction value for some transactions, which could change market participant behavior as well as reduce the liquidity of the markets. The only Billing Units that would not create significant transaction costs (compared to the value of the transaction) are Dollars Transacted. While it is difficult to estimate Dollars Transacted, the same is true of estimating other Billing Units that might be considered, such as MW-months Purchased, MW-months Bid, MW Purchased, MW Bid, Number of Bids, Number of Accepted Bids and Number of Customers.

5. TCC Markets Service Category

Recommendation: TCC Markets costs should be combined with Real-Time Operations and recovered on the same basis.

Reasoning: Conducting the TCC Markets is a separate activity, but it is difficult to assign cost causation, because the contracts vary in term, and the transmission rights that are re-offered upon the expiration of the contracts arose from prior auctions. In addition, the volume and total dollar amount of activity varies widely each year. Finally, TCC Markets is a small Service Category, and implementing a separate Billing Unit would not be cost-justified. Therefore, it is recommended that TCC Markets Service Category costs be recovered on the same basis as Real-Time Operations.

6. Management Services Type 2 Service Category

Recommendation: The cost recovery methods discussed below should be used for this category.

Term Loan Principal and Interest: The Term Loan represents the start-up costs incurred by NYISO. It is currently recovered 50% from Load based on Actual MWh Withdrawn, and 50% from Suppliers based on Actual MWh Injected Generation. It is recommended that the present method of cost recovery be continued. The Term Loan is scheduled to be repaid in 2004.

FERC Fees: The FERC's jurisdiction over NYISO is primarily a function of NYISO's role as a transmission provider, and its jurisdiction over markets is primarily to ensure that competitive markets exist for the energy users. Therefore, FERC Fees should be

recovered 100% from Load based on Actual MWh Withdrawn. This treatment is consistent with historical precedent and to practices at PJM and Cal ISO.

SECTION VI
BILLING UNIT RESULTS

COSTS AND BILLING UNITS BY SERVICE CATEGORY

	Total	System Reliability	Real-Time Operations	Energy And Ancillary Services Markets	Capacity Markets	TCC Markets	Management Services Type 2
Total Costs ($000)	$168,482	$8,557	$50,381	$79,576	$7,188	$2,720	$20,060
Share of Total	100.0%	5.1%	29.9%	47.2%	4.3%	1.6%	11.9%
Billing Units		100% Load - MWh Actual Withdrawals Incl. Bilaterals, Excluding Virtual Load	100% Load - MWh Actual Withdrawals Incl. Bilaterals, Excluding Virtual Load	50% Load- MWh Purchases, 50% Supply- MWh Sales, Transacted in NYISO Energy Markets, Including Virtual Load and Supply, Excluding. Bilaterals	Surcharge Based on Dollars Transacted in NYISO Capacity Markets, 50% Purchaser and 50% Seller	Same as Real-Time Operation	FERC Fees- 100% MWh Actual Load; Term Loan and Other - 50% MWh Actual Load / 50% MWh Actual Supply
Load - Actual incl. Bilateral	44.92%	100%	100%			100.0%	69.94%
Supply- Actual incl. Bilateral	3.58%						30.06%
Load - Market incl. Virtual	23.62%			50%			
Supply - Market incl. Virtual	23.62%			50%			
ICAP - Purchaser	2.13%				50%		
ICAP - Seller	2.13%				50%		
Total	100.00%						

COSTS AND BILLING UNITS BY SERVICE CATEGORY AND BY RESPONSIBLE GROUP

	Total	System Reliability	Real-Time Operations	Energy And Ancillary Services Markets	Capacity Markets	TCC Markets	Management Services Type 2
Dollars To Recover ($000)							
Load- Actual incl. Bilateral	$75,688	$8,557	$50,381			$2,720	$14,030
Supply- Actual incl. Bilateral	$6,030						$6,030
Load- Market incl. Virtual	$39,788			$39,788			
Supply- Market incl. Virtual	$39,788			$39,788			
ICAP- Purchaser	$3,594				$3,594		
ICAP- Seller	$3,594				$3,594		
Total Costs ($000)	**$168,482**	**$8,557**	**$50,381**	**$79,576**	**$7,188**	**$2,720**	**$20,060**
Billing Units							
Load- Actual incl. Bilateral	MWh	160,780,644	160,780,644			160,780,644	160,780,644
Supply- Actual incl. Bilateral	MWh						168,987,866
Load- Market incl. Virtual	MWh			102,098,235			
Supply- Market incl. Virtual	MWh			102,098,235			
ICAP Purchaser / Seller	$000 Transacted				$693,139		

BILLING RATES BY SERVICE CATEGORY AND BY RESPONSIBLE GROUP

		Total	System Reliability	Real-Time Operation	Energy And Ancillary Services Markets	Capacity Markets	TCC Market	Management Services Type 2
Load- Actual incl. Bilateral	$ / MWh Withdrawn	$0.4708	$0.0532	$0.3134			$0.0169	$0.0873
Supply- Actual incl. Bilateral	$ / MWh Injected	$0.0357						$0.0357
Load- Market incl. Virtual	$ / MWh Transacted - Purchased	$0.3897			$0.3897			
Supply- Market incl. Virtual	$ / MWh Transacted - Sold	$0.3897			$0.3897			
ICAP Purchaser	% Surcharge - Purchased	0.518%				0.518%		
ICAP Seller	% Surcharge - Sold	0.518%				0.518%		

PROPOSED AND CURRENT TOTAL RATES FOR LOAD AND SUPPLY

		Proposed		Current	
		$ 000		$ 000	
Load:					
Present Bundled				$132,959	
Actual Withdrawals incl. Bilateral- System Reliability		$8,557			
Actual Withdrawals incl. Bilateral- Real-Time Operations		$50,381			
Actual Withdrawals incl. Bilateral- TCC Markets		$2,720			
Actual Withdrawals incl. Bilateral- Mgmt Services Type 2		$14,030		$6,030	
Energy Market Purchases incl. Virtual		$39,788			
ICAP Purchases		$3,594			
Total for Load		$119,070	70.67%	$138,989	82.49%
Actual MWh Withdrawals incl. Bilaterals	MWh	160,780,644		160,780,644	
Total Rate for Load using current definition	$ / MWh	$0.7406		$0.8645	
Supply:					
Present Bundled				$23,463	
Actual Injections incl. Bilateral- Mgmt Services Type 2		$6,030		$6,030	
Energy Market Sales incl. Virtual		$39,788			
ICAP Suppliers		$3,594			
Total for Supply		$49,412	29.33%	$29,493	17.51%
Actual MWh Injections incl. Bilaterals	MWh	168,987,866		168,987,866	
Total Rate for Supply using current definition	$ / MWh	$0.2924		$0.1745	

SECTION VII
IMPLEMENTATION ISSUES

- OATT and MST vs. Combining all charges in the OATT
- Annual vs. Monthly Rate-Setting
- True-Ups - Annual vs. Monthly vs. Retrospective
- True-Ups - Actual By Category vs. Allocated By Category vs. Pooled
- Start Date for Unbundled Rates
- Future Years - Redo Study vs. Update Costs

SECTION VIII
NEXT STEPS

- Address comments from this meeting
- Review individual MP impacts
- Analyze implementation issues and form recommendations
- Create draft report to communicate study