

MISO TECHNICAL CONFERENCE

NOVEMBER 14, 2014



**Preliminary Estimate of
MISO Savings
(Agenda Item 9)**

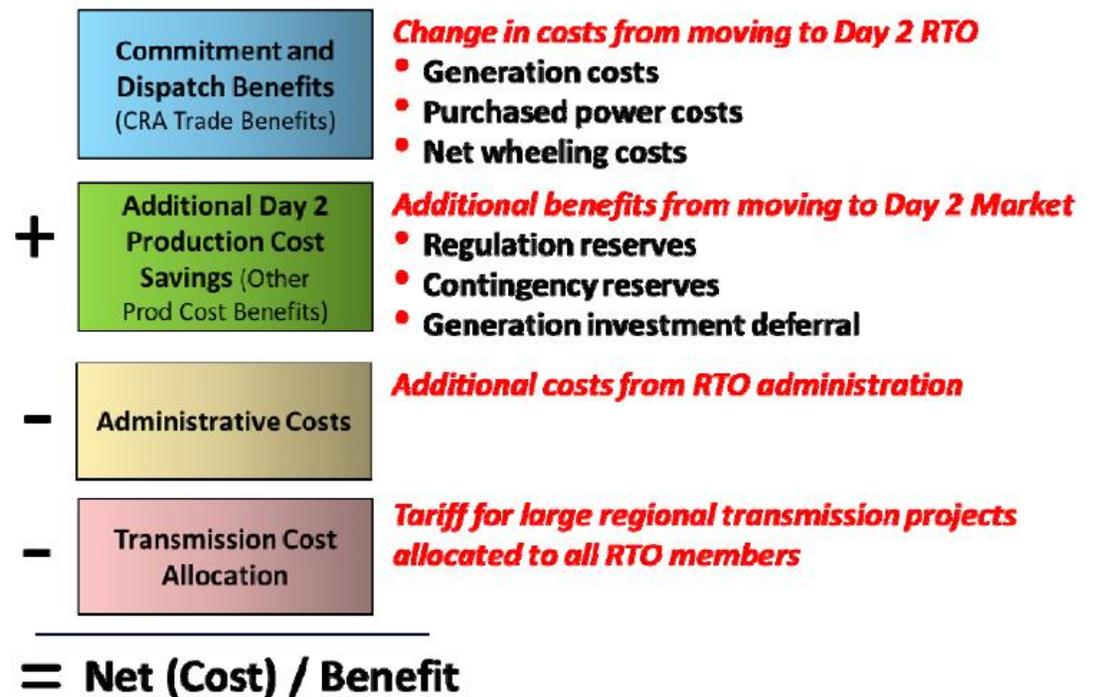
Summary

- In an Evaluation Report submitted to the LPSC on May 12, 2011, ELL and EGSL summarized the results of a comprehensive cost/benefit analysis of the Entergy OpCos joining MISO
 - This cost/benefit analysis was offered in support of the Companies' October 2011 application to the LPSC seeking to join MISO
- The Companies' participation in MISO has been relatively brief (12/19/13-present), and for that reason, the results of the MISO benefits assessment presented here are preliminary and subject to change
- The preliminary assessment indicates that the Companies' customers are experiencing meaningful benefits from MISO membership, consistent with or better than the benefits projected in the May 12, 2011 Evaluation Report
- This preliminary conclusion is subject to important considerations as noted on slide 11

Recap of the cost/benefit analysis underlying the May 12, 2011 Evaluation Report

- The May 12, 2011 Evaluation Report estimated the net cost/benefit of MISO participation by projecting incremental energy and capacity-related benefits and then subtracting projected incremental administrative costs and allocated transmission costs

- The portion of the projected production cost savings attributable to a more efficient commitment/dispatch of resources was based on an independent, stakeholder-vetted production cost analysis performed by Charles River Associates.



Proposed approach for estimating energy-related savings in MISO

- 1) Focus on the delivered cost to supply the non-baseload portion of energy needs
 - The baseload delivered costs are virtually the same pre-MISO and post-MISO and they account for a similar share of energy needs¹
- 2) Normalize non-baseload costs for pre-MISO and post-MISO natural gas price differences
 - Calculate the implied heat rate of delivered non-baseload energy used to serve each OpCo's needs pre-MISO and post-MISO
- 3) Quantify savings by:
 - Comparing the average implied heat rate experienced in MISO versus the average for a comparable period before joining MISO²
 - Multiplying the difference in the average implied heat rates by the gas prices experienced in MISO³

¹ The pre-MISO and post-MISO baseload costs are \$18.5/MWH and \$18.3/MWH, respectively. The pre-MISO and post-MISO baseload share of energy needs are 35.5% and 34.4%, respectively.

² For example, the Dec-13 thru Aug-14 period (in MISO) vs the Dec thru Aug periods over the previous three years (before joining MISO).

³ Gas prices experienced in MISO are used because what is being measured are the production costs in MISO relative to what such costs *would have been* had the OpCos not joined MISO.

Illustration of approach used for estimating energy-related savings in MISO

- The example below is illustrative; actual estimates are presented later

ILLUSTRATIVE		BEFORE JOINING MISO				IN MISO
Item	Units	Dec-10 thru Aug-11	Dec-11 thru Aug-12	Dec-12 thru Aug-13	Average	Dec-13 thru Aug-14
A	Cost	\$MM	1,600	1,200	1,920	2,000
B	Energy	TWH	40	40	40	40
C	MWH Cost (A/C)	\$/MWH	40	30	48	50
D	Gas Price	\$/MMBTU	3.8	2.7	4.5	5.0
E	Implied Heat Rate (C/D * 1,000)	BTU/KWH	10,500	11,000	10,750	10,000

CHANGE IN IMPLIED HEAT RATE OF NON-BASELOAD RESOURCES =



**DECREASE OF
(750)
BTU/KWH**



ESTIMATED SAVINGS IN ENERGY-RELATED COSTS DUE TO MISO MEMBERSHIP =
 (750 BTU/KWH * \$5/MMBTU GAS = \$3.75/MWH * 40 TWH = \$150 MM)

\$150 MM

ANNUALIZED =

\$200 MM

(\$150 MM * 12 MONTHS / 9 MONTHS = \$200 MM)

Fuel Adjustment Clause (FAC) data

- The proposed approach for estimating energy-related savings in MISO utilizes the detailed fuel accounting data that underlies each OpCo's actual fuel adjustment charges
 - The actual costs and MWH of non-baseload resources are extracted from this dataset¹
- Some adjustments to FAC energy-related data are necessary:
 - All RPCE charges/credits are excluded until values for the MISO period have been established
 - MISO charges/credits for uplift, ancillary, congestion are included by raising or lowering the implied heat rate of non-baseload energy on a pro-rata basis²
 - Revisions to prior periods are recognized in the appropriate month³

1 Each OpCo's monthly fuel adjustment charge can include three main components: (1) an estimate of current month charges, (2) the actual charges incurred in the prior month, and (3) a reversal of the prior month estimate. For purposes of the proposed savings estimate, only the actual charges (incurred in the prior month) are used.

2 For example, if an OpCo is allocated a net congestion credit equal to 10% of its monthly non-baseload purchase costs, the approach used to estimate energy-related savings lowers the implied heat rate of the OpCo's monthly non-baseload purchase costs by 10%

3 When the data is available to do so.

Preliminary estimate of ELL's and EGSL's energy-related savings in MISO

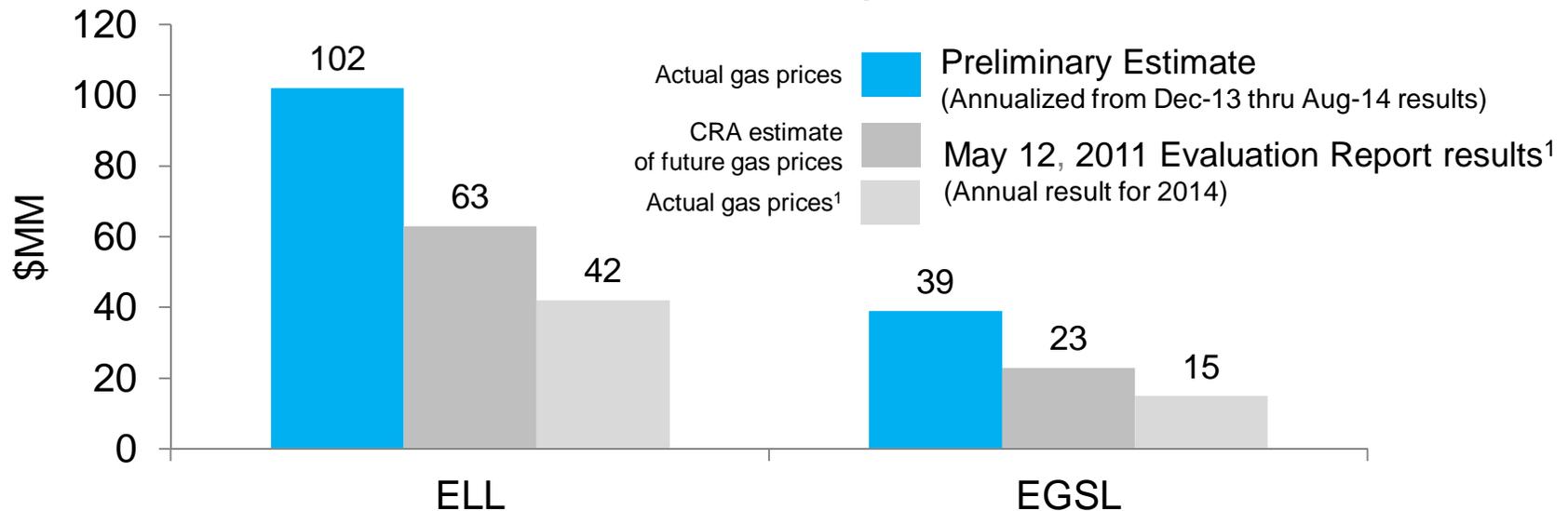
OPCO	IMPLIED HEAT RATE BEFORE MISO (BTU/KWH FOR DEC ¹ - AUG PERIOD OVER PAST 3 YRS)	IMPLIED HEAT RATE IN MISO² (BTU/KWH FOR DEC-13 ¹ - AUG-14 PERIOD)	INCREASE (DECREASE) IN IMPLIED HEAT RATE (BTU/KWH FOR DEC ¹ - AUG PERIOD)	ESTIMATED ENERGY-RELATED SAVINGS (\$MM FOR DEC ¹ - AUG PERIOD)	ESTIMATED ENERGY-RELATED SAVINGS (\$MM ANNUALIZED)
ELL	10,572	9,519	(1,053)	\$76	\$102
EGSL	9,998	9,515	(483)	\$29	\$39
TOTAL	10,311	9,517	(793)	\$105	\$141

¹ ELL and EGSL joined MISO on December 19, 2013. The FAC data are monthly and cannot be separated into partial months. As a result, the values above are based on FAC data for the full month of December.

² The "in MISO" implied heat rate includes the impact of MISO administrative costs allocated to each OpCo.

Comparison of preliminary estimate to results in May 12, 2011 Evaluation Report

- The preliminary savings estimate includes the same energy-related items as those identified in the May 12th Evaluation Report (see page 3):
 - Production costs, purchased power costs, wheeling costs, regulation and contingency reserve costs
- Both estimates below also include the impact of MISO admin costs



¹ The Henry Hub gas price forecasted by Charles River Associates (“CRA”) and used in the analysis underlying the May 12, 2011 Evaluation Report was approx. \$6.50/MMBTU in 2014. The Henry Hub gas price underlying the preliminary savings estimate is almost 30% lower at \$4.55/MMBTU. Sensitivity analysis developed by CRA indicated that an 11% decrease in gas prices resulted in a 20% decrease in trade benefits. If, by conservative extension, it is assumed that a 30% decrease in gas prices would have resulted in a 30% decrease in the CRA trade benefits, the original results corresponding to the May 12, 2011 Evaluation Report decrease as shown.

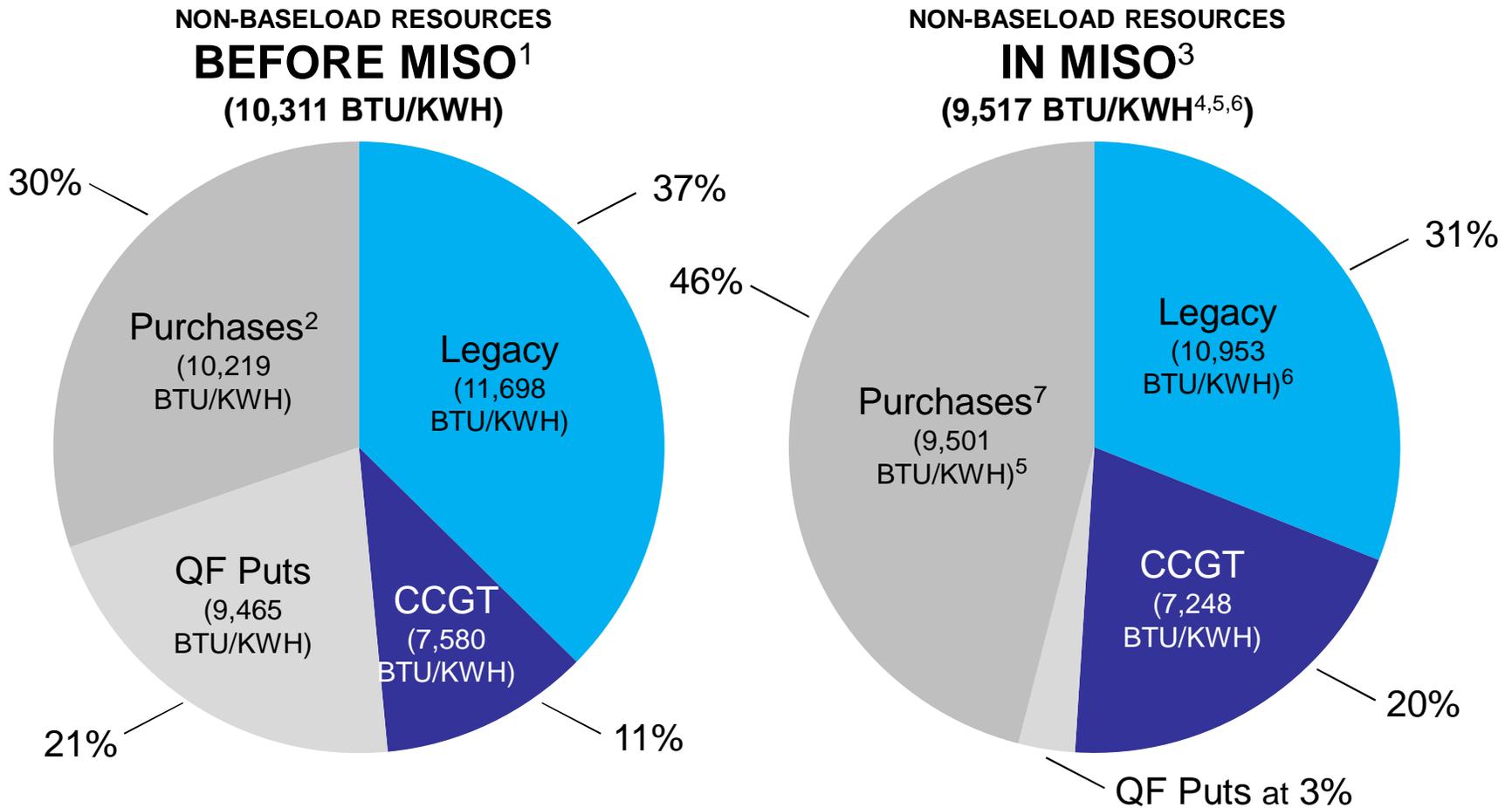
Additional savings in MISO

- SPO estimates that the ESA OpCos would have had to acquire approximately 1,058 MW of additional capacity resources had they not joined MISO
- The avoided cost of these MW represent additional savings associated with joining MISO
 - ELL and EGSL's share of these savings, which is based on their responsibility ratio among the ESA OpCos, is 598 MW¹
- This is the same capacity-related savings item as identified in the May 12th, 2011 Evaluation Report (see page 3)
 - The current avoided MW estimate is slightly larger than that estimated in the May 12, 2011 Evaluation Report²

¹ At the July 29, 2014 Technical Conference, it was noted that ELL's and EGSL's capacity needs have decreased by 254MW as a result of MISO participation. The 254MW value represents ELL and EGSL's decrease outside of the ESA; the 598MW value includes ESA effects.

² The May 12, 2011 Evaluation Report included approximately 1,018 MW of avoided capacity for the ESA OpCos. These benefits were referred to as "Load Diversity Benefits" in the May 12, 2011 Evaluation Report. ELL and EGSL's share of this amount was 552 MW.

Key components of ELL and EGSL's estimated energy-related savings in MISO



1 Average of Dec – Aug period over past 3 years.
 2 Purchases from others, including QFs.
 3 Dec-13 thru Aug-14 period.
 4 Includes MISO administrative costs.

5 Includes net congestion charges/credits from MISO.
 6 Includes net uplift charges/credits from MISO.
 7 Purchases from market participants, including QFs.

Important Considerations

- The preliminary assessment reveals that the Companies' customers are experiencing meaningful benefits from MISO membership, consistent with or better than the benefits projected in the May 12, 2011 Evaluation Report
- The methodology and results presented in these slides are preliminary and subject to change
- While the preliminary results show meaningful benefits, the Companies have not participated in MISO for a sufficient period to undertake a definitive assessment of the benefits realized from MISO membership
 - The estimate of benefits presented for the eight and a half month period¹ reflects the Companies' diligent efforts to respond to requests for such information
 - Eight and half months of MISO participation provides a limited basis on which to draw conclusions regarding the annual benefits of MISO participation²
- The Companies will continue to evaluate the methodology used to evaluate benefits
 - The current methodology reflects the Companies' diligent efforts thus far to develop a reasonable approach to measure costs and benefits
 - To the extent the Companies determine that improvements or refinements to the methodology are needed, the results of the analysis may change

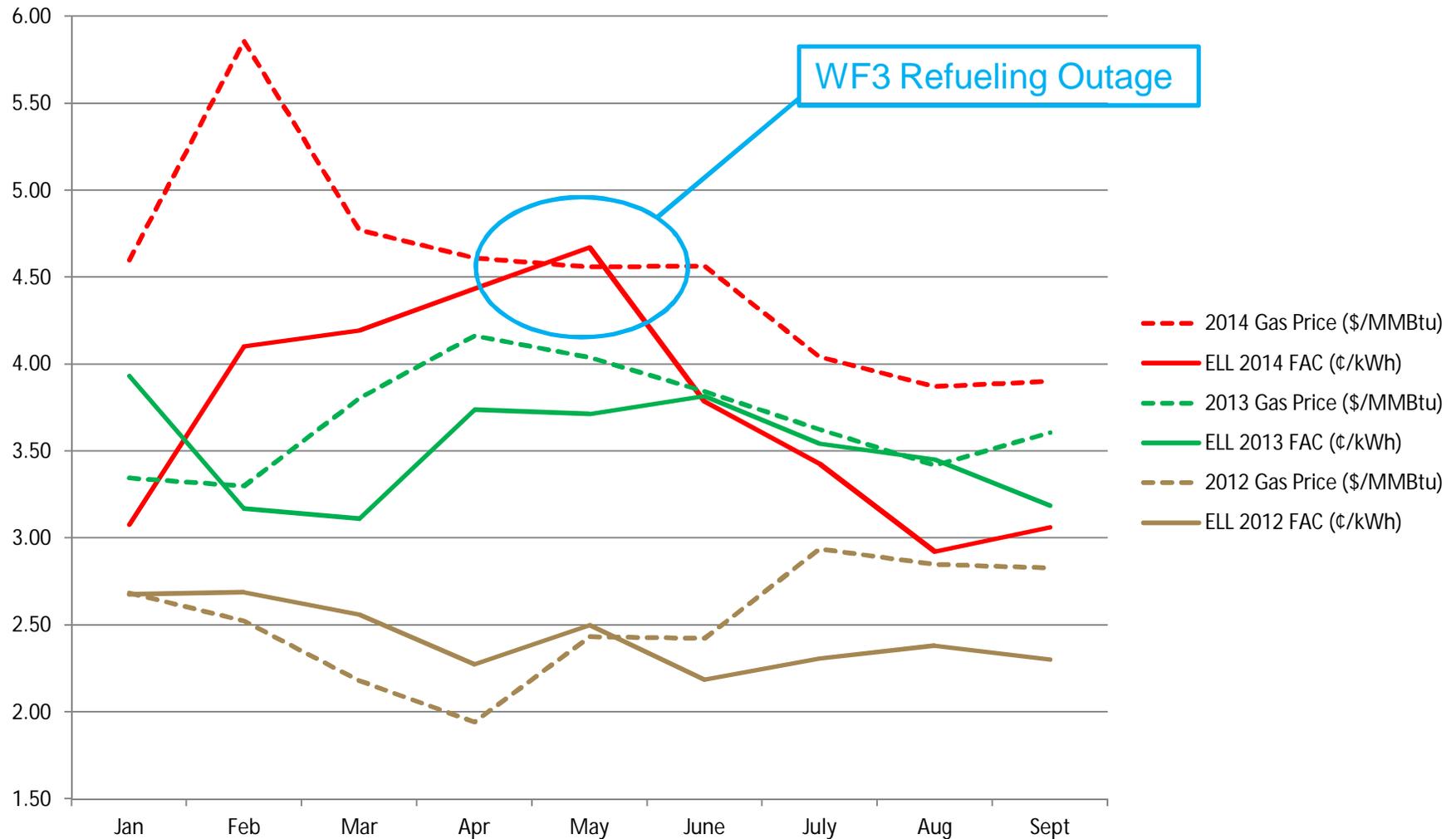
¹ December 19, 2013 through August 31, 2014.

² For example, it includes five and a half months of partial-year FTR auction results and only three months of actual FTR auction results. The Companies believe that the actual FTR auction results are more indicative of annual results and future periods.

Agenda Item 1:
FAC Comparison

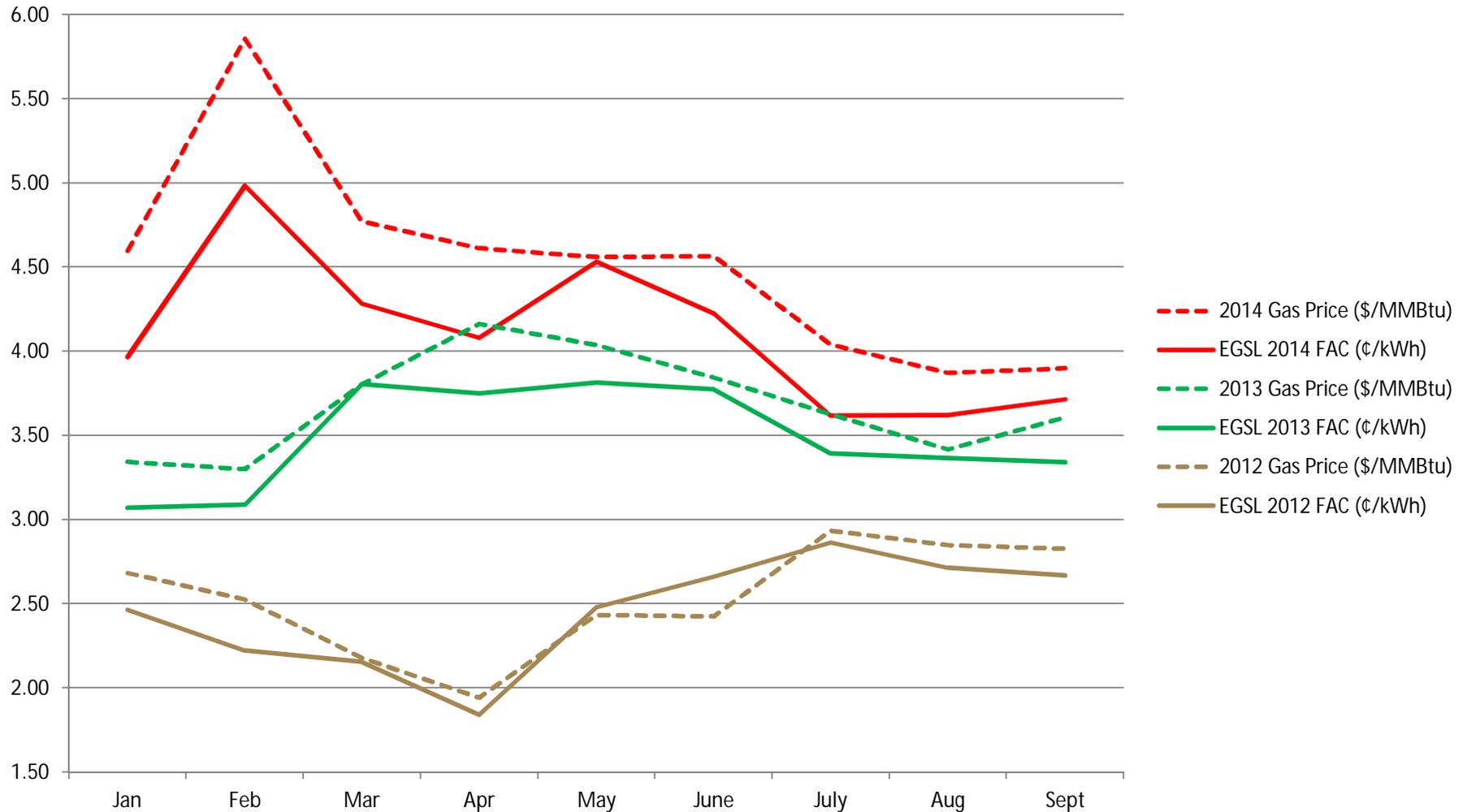
ELL JANUARY-SEPTEMBER FAC CHARGES FOR LAST THREE YEARS

- Since MISO integration the gap between gas prices and FAC charges has widened



EGSL JANUARY-SEPTEMBER FAC CHARGES FOR LAST THREE YEARS

- Since MISO integration the gap between gas prices and FAC charges has widened



COMPARISON OF FAC CHARGES

- FAC charges have been affected by the increase in gas prices in 2014 (nine month average increased by 23.1%).

	2014			2013		
	ELL Avg. FAC (¢/kWh)	EGSL Avg. FAC (¢/kWh)	Average Henry Hub Gas Price (\$/MMBtu)	ELL Avg. FAC (¢/kWh)	EGSL Avg. FAC (¢/kWh)	Average Henry Hub Gas Price (\$/MMBtu)
Jan	3.08	3.97	4.60	3.93	3.07	3.34
Feb	4.10	4.98	5.86	3.17	3.09	3.30
Mar	4.19	4.28	4.77	3.11	3.80	3.80
Apr	4.43	4.08	4.61	3.74	3.75	4.16
May	4.67	4.53	4.56	3.71	3.81	4.04
June	3.79	4.22	4.57	3.82	3.77	3.84
July	3.43	3.62	4.04	3.54	3.39	3.63
Aug	2.92	3.62	3.87	3.45	3.37	3.42
Sept	3.06	3.72	3.90	3.19	3.34	3.61

LMPs COMPARED TO THE FAC CHARGE

- To show that customer costs do not equal LMPs, we compared:
 - Average Generator bus LMPs received by EGSL and ELL generation
 - Average Load zone LMPs paid by EGSL and ELL
 - Actual Fuel Adjustment Clause charges for the same periods
- FAC charges are predominately less than the LMPs:

	EGSL			ELL		
	Generator Bus LMPs	Avg. Load Zone LMP	Avg. FAC Charge	Generator Bus LMPs	Avg. Load Zone LMP	Avg. FAC Charge
Jan. 2014	47.03	47.30	39.68	42.85	45.37	30.76
Feb. 2014	53.61	56.09	49.84	52.45	55.02	41.01
Mar. 2014	43.46	46.63	42.84	43.53	48.07	41.94
Apr. 2014	48.32	49.92	40.81	44.89	47.21	44.33
May 2014	59.96	56.45	45.31	41.78	45.91	46.70
June 2014	48.37	49.37	42.24	40.28	43.76	37.87
July 2014	37.63	38.50	36.17	38.16	38.66	34.27
Aug. 2014	37.48	37.65	36.18	36.79	37.33	29.22
Sept. 2014	35.10	38.83	37.15	36.33	39.58	30.63

*Generator Bus LMP is the average LMP price paid to the Companies' generators in both day ahead and real time.
 LMPs in this table reflect the average of all LMPs during the time period.
 FAC figures shown reflect the month in which costs are incurred, not the month in which costs are billed.*

Agenda Items 2 and 4:

MISO Cost Recovery Mechanism (MCRM)
&
Recovery of Deferrals

MCRM OVERVIEW

- As approved in the Companies' MISO integration proceeding and the subsequent rate cases, the MCRM provides for recovery through the FRP of the following items:
 - MISO market administration charges
 - MISO transmission revenues and charges
 - MISO Implementation Deferral (amortization and carrying costs)
 - MISO Integration Deferral (amortization and carrying costs)
- The MCRM also includes an offset for OATT revenues and ICT costs that are currently included in base rates.
- The MCRM is not currently in rates as cost of the MCRM will begin to be recovered in December of this year when the new FRP rates take effect.

IMPLEMENTATION DEFERRAL

- Implementation Deferral
 - The total balance of the Implementation Deferral at ELL is \$18,117,619 plus carrying costs, which will be collected based on a three-year amortization beginning in December 2014.
 - The total balance of the Implementation Deferral at EGSL is \$13,275,829 plus carrying costs, which will be collected based on a three-year amortization beginning in December 2014.

Agenda Item 5:
MISO Reporting

MISO REPORTING

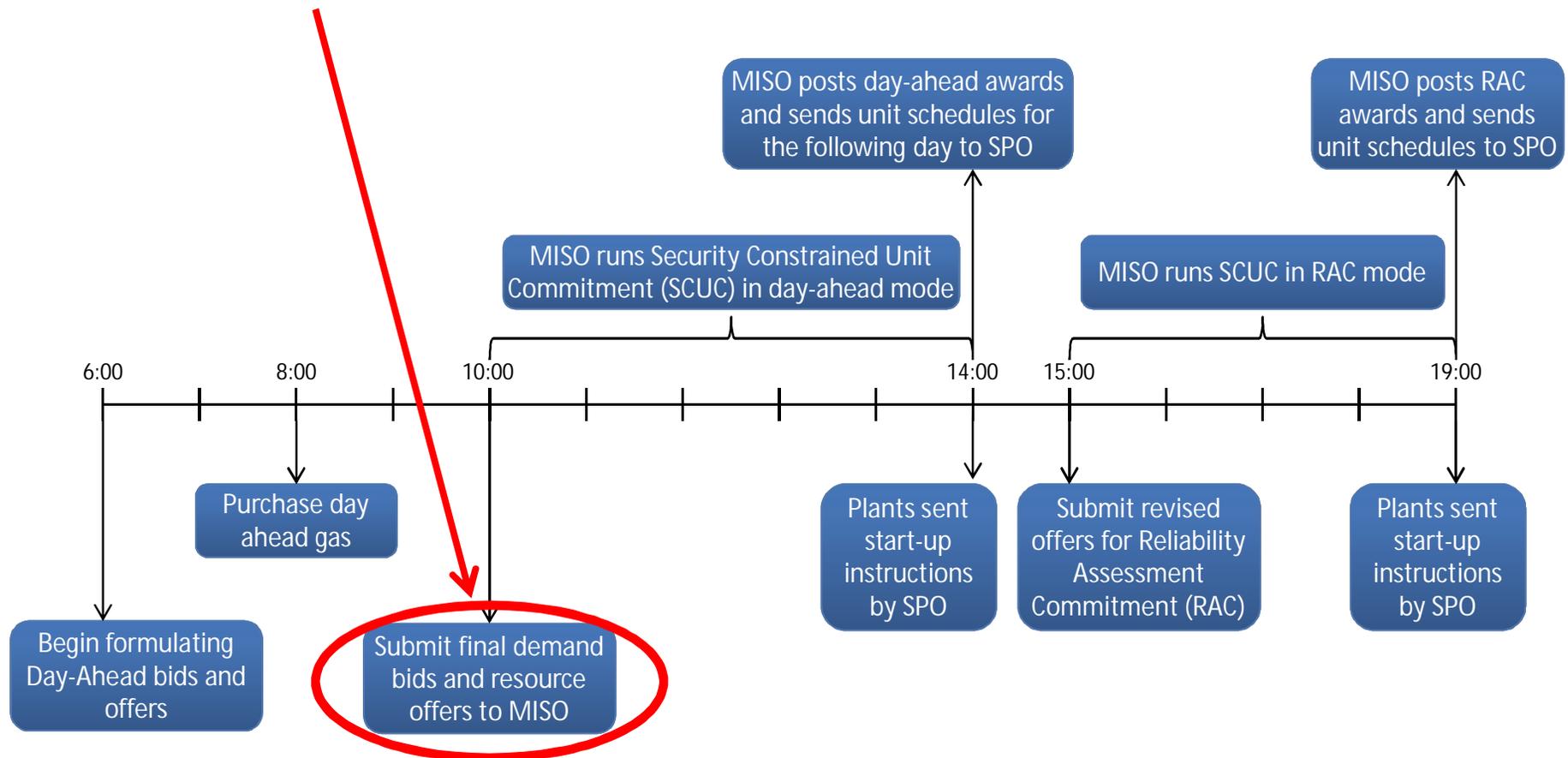
- LPSC Order No. U-32675 (MISO Implementation Proceeding) provides for ELL's and EGSL's MISO-related reporting requirements:
 - September 30, 2013: First Pre-Integration Report
 - March 31, 2014: Second Pre-Integration Report
 - September 30, 2014: Post-Integration Report
- Companies propose to continue submitting post-integration reports on this schedule moving forward and to hold technical conferences such as this following those reports.
- Order No. U-32675 also called for the Companies and Staff to discuss the framework of a benefits analysis in the first quarter of 2015.
 - The Companies are presenting a proposed benefits analysis here and will work with Staff to further develop that analysis if necessary, while accepting input from interested stakeholders.

Agenda Items 6, 7, and 8:

MISO Operations

BIDDING PRINCIPLES, PRACTICES, AND PROTOCOLS

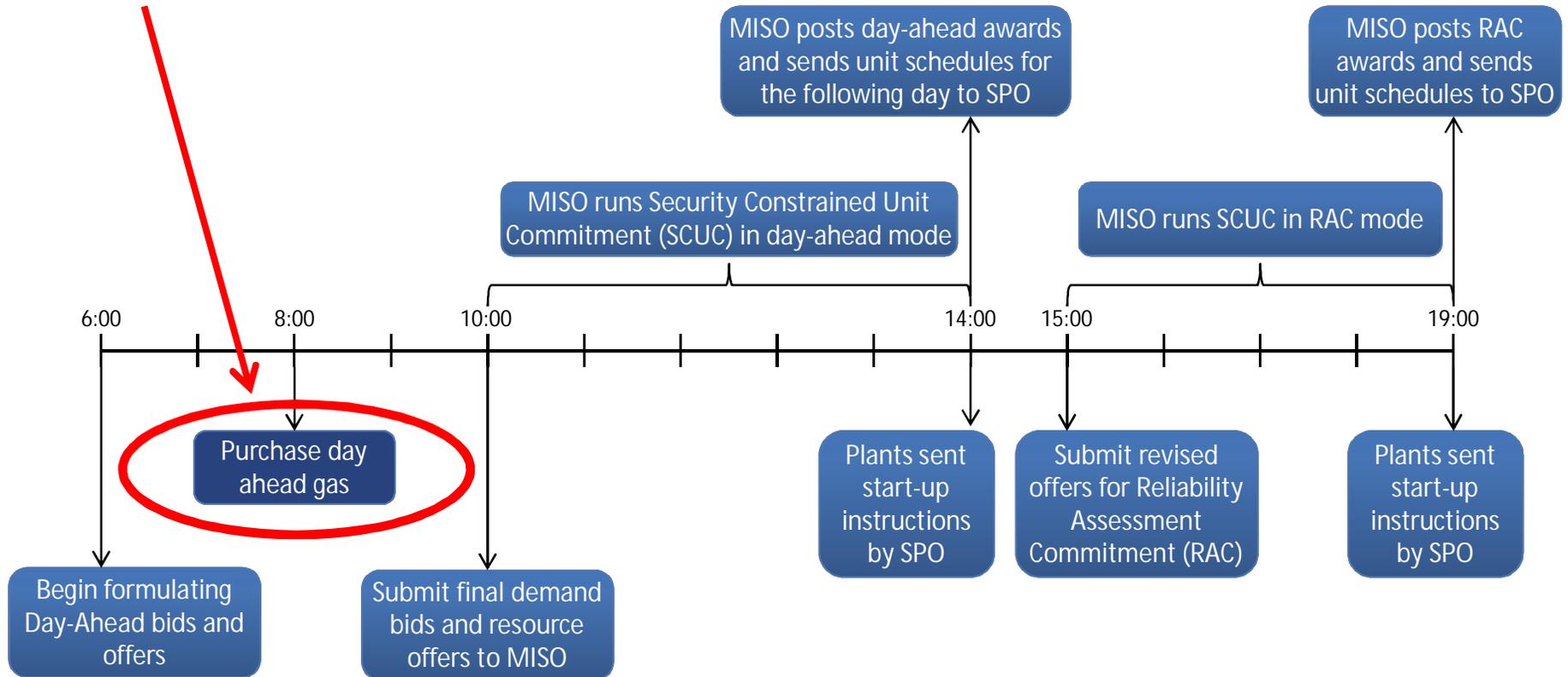
- Units are offered in based on cost or self-scheduled (mainly baseload).



Times are Central Prevailing Time (CPT)

GAS SUPPLY POST-INTEGRATION

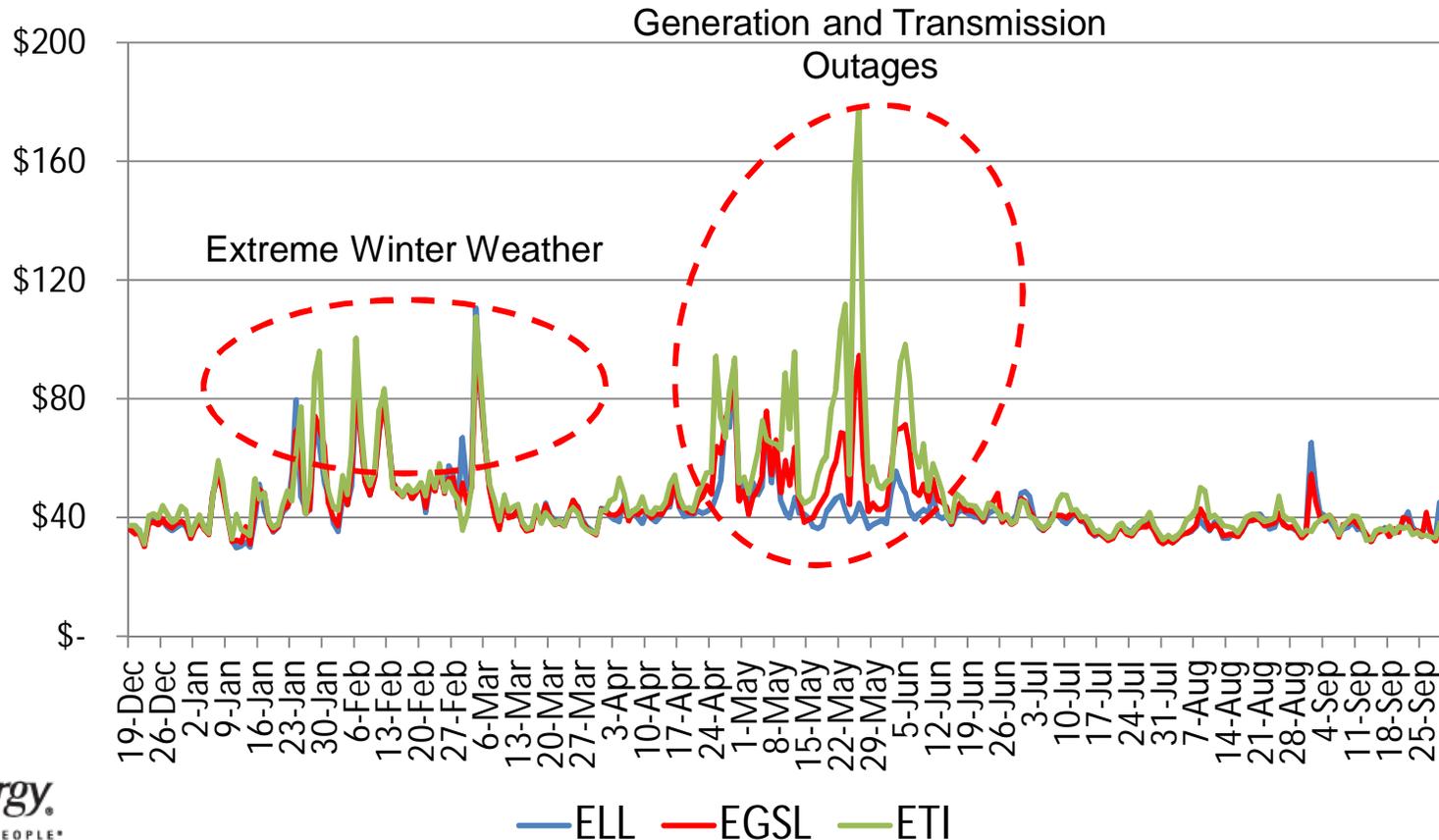
- The Entergy gas generation fleet has not had supply disruption issues since entering into MISO.



Times are Central Prevailing Time (CPT)

DAY-AHEAD LOAD ZONE LMPs

- Although some episodes of relatively high pricing occurred after MISO integration, since June 2014 prices have been stable
- For the most part, these episodes were associated with stressed operating conditions
 - Extreme winter weather in MISO South
 - Significant generation and transmission outages in WOTAB



Agenda Item 10:
Impacts of Counterflow ARR

COUNTERFLOW ASSIGNMENTS TO ELL AND EGSL

- ELL and EGSL both received an assignment of counterflow ARR in the annual ARR allocation process – approximately 700 MW on average across the eight delivery periods.
 - The assignment of counterflow ARRs was not unanticipated, and the amount assigned is roughly consistent with the Companies' expectations.
- ELL and EGSL plan to seek relief from counterflow obligations.
 - ELL and EGSL plan to request termination of counterflow ARRs in the upcoming annual ARR allocation process; such termination requests will be granted by MISO subject to simultaneous feasibility that may be made possible by, for instance, transmission upgrades.
 - ELL and EGSL plan to give notice to MISO if a unit that is the source of a counterflow ARR retires or is the source of a contract that expires; MISO will terminate the counterflow ARR entitlements and associated counterflow ARRs five years after notice of such retirement or contract expiration is provided.
- Although the counterflow ARRs/FTRs impose charges on the Companies, those charges are offset by congestion revenues from the units to which the counterflow ARRs are assigned.
- The portfolio of FTRs allocated to the System Agreement Companies in the Annual ARR Allocation Process for the MISO year of June 1, 2014 through May 31, 2015 has provided an effective hedge against the congestion charges incurred to deliver owned and contracted generation to load from June 1, 2014 through September 30, 2014.

Agenda Item 13:

MISO Transmission Planning and MTEP Update

BENEFITS FOR CUSTOMERS RESULTING FROM MTEP PROCESS

- ELL and EGSL actively participated in MISO’s MTEP 14 planning process:
 - Developed and submitted to MISO the Companies’ transmission reliability plan
 - Proposed numerous candidate economic projects for MISO evaluation and consideration

- MISO’s “shortlist” of candidate economic projects Included 230 kV projects in Louisiana that appeared to provide substantial net benefits to the Companies’ customers (identified as PC_W below).
 - The Companies undertook additional analysis of these projects to determine their effect on the Companies’ cost of service
 - Both MISO’s analysis and the Companies’ analysis showed that the projects are expected to provide substantial benefits -- far in excess of the project costs.
 - Based on the results of these analyses, the Companies notified MISO of their commitment to fund these projects.
 - MISO has recommended these projects for inclusion in approved Appendix A for MTEP14.

ID	Description	Project Cost (\$ millions)	Benefit to Cost Ratio	Funding Entity
PC_W	Richardson - Iberville 230kV & Bagatelle – Sorrento 230kV cut-in to Panama 230kV & Coly 500/230kV Transformer & Upgrade Wilton – Romeville 230kV	56.3	6.4	Entergy LA / Entergy GS

BENEFITS FOR CUSTOMERS RESULTING FROM MTEP PROCESS

- The MISO Day 2 Market mechanisms are a key driver of the benefits for these projects.
 - Prior to MISO, the Companies' customers could not realize savings associated with making efficient merchant gas generation deliverable unless a bilateral contract was in place with that generation.
 - In the MISO Day 2 Market, the Companies' customers are able to realize benefits from such projects irrespective of any bilateral contract.
 - As long as the generator is able to deliver more energy, the Day 2 Market assures that the Companies' customers will receive the benefits.
- In transmission studies conducted prior to MISO integration, projects similar to these provided insufficient economic benefits to ELL/EGSL customers to warrant inclusion in the transmission plan.
- As a result of the MISO Day 2 Market in the Entergy Region, these projects now show substantial net benefits and are moving forward toward approval in MTEP14.
- The Companies will continue to participate actively in the MTEP process, including the VLR Study, in an effort to identify projects that provide economic benefits to ELL/EGSL customers.

Agenda Item 16:

QF Issues

QF PARTICIPATION IN MISO MARKETS

- PURPA Section 210(m) Filing

- On Sept. 29, 2014, the Entergy OpCos made a filing with FERC asking to be relieved of their obligation to accept unscheduled deliveries of energy (QF puts) from QFs with a net capacity larger than 20 MW.
- FERC is required to rule on the Application within 90 days; however, FERC recently issued a deficiency notice, directing the OpCos to supplement their original filing with some additional information within 30 days.
 - Once the OpCos supplement their Application with that additional information, the 90-day period will re-start.
 - Thus, a ruling is expected in the 1st Quarter 2015.
- A number of QFs have filed protests to the filing, raising a variety of issues.

QF PPAs

- ELL and EGSL currently have contracts with certain Over 20 MW QFs pursuant to which the Companies purchase as-available energy delivered by QFs pursuant to PURPA .
 - For Over 20 MW QFs with such contracts in place, the existing contracts will remain in place and effective until such contracts are terminated.
- Fully reserving their rights to terminate in accordance with the contract terms, the Companies currently plan to issue notices of contract termination such that the termination would take effect no earlier than June 1, 2015.
 - While no obligation exists to permit a transition period, this will allow a reasonable opportunity for those QFs that have not already become MISO Market Participants to complete the process and required steps.