Format for Fuel Cost Allowance Submissions

Background

The Commission's May 12, 2004 Order Addressing Fuel Cost Allowance Issues, ("Fuel Cost Order")[1] clarified issues pertaining to the fuel cost allowance filings of sellers into spot energy markets operated by the California Independent System Operator ("ISO)" and California Power Exchange ("PX"). In addition, the Fuel Cost Order directs sellers to have their fuel cost allowance claims verified by an independent auditor, and then submitted directly to the ISO.[2] The Fuel Cost Order goes on to direct sellers to clearly identify within their fuel cost allowance claims a list of specific items, including:

i. Fuel purchases ranked by term from shortest to longest that indicates price, term, date and quantity for each transaction;

ii. Marginal heat rate by unit (to be the same as that used by the ISO);

iii. MW-hours by unit sold to the ISO/PX over the applicable interval (to be the same as that used by the ISO);

iv. Average daily fuel cost per MMBtu, a demonstration of how this calculation was derived based on the fuel supply stack, and supporting work papers; and

v. Overall fuel cost allowance amount, on a monthly basis, to offset the refund owed by each generator.

The Fuel Cost Order further specified that all calculations must be provided in a usable electronic spreadsheet format.

On September 2, the Commission issued an Order On Auditor Selection And Request For Waiver And Clarifying Audit Issues ("Audit Order")[3] requiring that:

> … the CAISO should make available within 10 days of the issuance of this order, either by posting on its website or making generally available to all generators who filed fuel cost allowance claims, the required format for the generators' fuel cost allowance submissions.

Pursuant to these orders, the ISO is providing the following more detailed description of the required format for the generators' fuel cost allowance submissions.

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[1] *Order Addressing Fuel Cost Allowance Issues*, 107 FERC ¶ 61,166 (2004), herein referred to as "Fuel Cost Order".

[2] Fuel Cost Order at P 1.

[3] *Order On Auditor Selection And Request For Waiver And Clarifying Audit Is*sues, 108 FERC ¶ 61,219 (2004)," herein referred to as "Audit Order".

Sales of Energy in PX Day Ahead Market

Table 1 provides a description of specific data and calculations that should be provided for fuel cost allowance submission for sales in the PX Day Ahead market in accordance with the methodology and data requirements outlined in the Fuel Cost Order.

As indicated in the Fuel Cost Order, fuel cost allowance submissions must clearly identify:

> MW-hours by unit sold to the ISO/PX over the applicable interval (to be the same as that used by the ISO); [4]

For PX Day Ahead market sales, the applicable interval used by the ISO is *hourly,* so that all fuel cost allowance submissions must show all calculations for each unit on an hourly basis

As indicated in the Fuel Cost Order, fuel cost allowance submissions must also clearly identify:

> Marginal heat rate by unit (to be the same as that used by the ISO); [5]

Heat rates used for each unit by the ISO in calculation of final MMCPs in these proceedings are the non-monotonic incremental heat rates at the unit's acknowledged operating target (AOT), as directed in the Commission's December 12, 2002 Order "December 12 Refund Order").[6] Calculations of the AOT in for the refund proceedings were made for each unit on a 10-minute interval basis. For purposes of calculating marginal heat rates for sales in the hourly PX market, each unit's hourly non-monotonic heat rates made be calculated based on either: (1) the unit's average of non-monotonic heat rates for each 10-minute interval used by ISO in calculating MMCP, or (2) the unit's non-monotonic heat rates at the average AOT over the six 10-minute intervals for each hour.

Since only spot market sales that were actually mitigated are eligible for inclusion in the gas cost allowance calculations[7], any sales made through the Block Forward Market (BFM), which were excluded from mitigation in refund calculations, must also be excluded from the total amount of sales made by a generator in the PX Day Ahead market included in fuel cost allowance calculations.

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[4] Fuel Cost Order at P 76, item (iii).

[5] Fuel Cost Order at P 76, item (ii).

[6] *Certification of Proposed Findings on California Refund Liability, Docket Nos. EL00-95-045, et a*l. (December 12, 2002). The Fuel Cost Order at Paragraph 51 also specifies that "the incremental heat rates are most appropriate for use in the fuel cost allowance calculations."

[7] Fuel Cost Order at P 37.

The Fuel Cost Order also directed the ISO to devise a methodology for allocating fuel cost allowance costs to buyers of spot market energy.[8] The ISO's compliance filing made pursuant to this directive provided a methodology based on the understanding that fuel cost allowances will be calculated based on generator's total *net* sales of energy in the spot markets during each time interval (i.e. gross sales attributed to the generator's portfolio thermal unit, less any purchases made by the generator during the same time interval in the PX and ISO spot markets. Thus, the cost allocation methodology proposed by the ISO also provides that fuel cost allowances be allocated be based on net purchases of spot market energy during each time period.[9] Further discussion of the rationale and issues of basing fuel cost allowance calculations and allocations on net versus gross sales is being provided in the ISO's response to comments on the ISO's proposed methodology due to be filed with the Commission on September 14, 2004.

Sales of Instructed Energy in ISO Market

Table 2 provides a description of specific data and calculations that should be provided for any fuel cost allowance submission for sales of Instructed Energy in the in the ISO Real Time Market, in accordance with the methodology and data requirements outlined in the Fuel Cost Order.

As indicated in the Fuel Cost Order, fuel cost allowance submissions must clearly identify:

> MW-hours by unit sold to the ISO/PX over the applicable interval (to be the same as that used by the ISO); [10]

For the ISO real time energy markets, the applicable interval used by the ISO is each *10-minute interval* within each hour.

As indicated in the Fuel Cost Order, fuel cost allowance submissions must also clearly identify:

> Marginal heat rate by unit (to be the same as that used by the ISO); [11]

Heat rates for each unit used by the ISO in calculation of final MMCPs in these proceedings are the non-monotonic incremental heat rates at the unit's AOT, as directed in the Presiding Judge's December 12 Refund Order, and confirmed in the Commission's March 26 Order.[12]

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[8] Fuel Cost Order at P 60.

[9] Compliance Filing of California Independent System Operator Concerning the Allocation of Fuel Cost Allowance, filed August 17, 2004, herein after referred to as "Cost Allocation Filing'.

[10] Fuel Cost Order at P 76, item (iii).

[11] Fuel Cost Order at P 76, item (ii).

[12] *Certification of Proposed Findings on California Refund Liability, Docket Nos. EL00-95-045, et a*l. (December 12, 2002). Order on Proposed Findings on Refund Liability, 102 FERC ¶ 61,317 (2003) at P

As noted in Table 2, during the "soft cap" period starting Dec. 8, 2000, the final settlement quantity and price for sales of Instructed Energy over the $250/$150 soft caps must be calculated by combining final Billable Quantities and Billable Prices for both 401 and 481 chares types. In testimony during refund proceedings, generators have indicated they are able to perform this calculation based on ISO settlement records. However, the ISO stands ready to provide these data to the Commission and to generators upon request in order to facilitate completion and verification of Fuel Cost Allowance submissions.

Just as the Commission has required for calculation of average daily fuel costs, any fuel cost allowance submission for sales of Instructed energy sales in the ISO real time market should also include "a demonstration of how this calculation was derived" and "supporting work papers".[13]

Sales of Uninstructed Energy in ISO Market

Tables 3 and 4 provide a description of specific data and calculations that should be provided to the ISO for any fuel cost allowance submission for sales of Uninstructed Energy (UE) in the in the ISO Real Time Market in accordance with the methodology and data requirements outlined in the Fuel Cost Order.

The format of Tables 3 and 4 reflect the fact that the ISO settlement system pays or charges each participant for UE based on whether the net deviation between scheduled and metered data for the participant's entire portfolio of supply and demand schedules is positive or negative. For example, if a generator has 12 MW of positive uninstructed energy from one unit, but 10 MW of negative uninstructed energy from another unit, the ISO settlement system treats this as a net sale of 2 MW of uninstructed energy to the ISO system. Thus, using this example, the format of Tables 3 and 4 require the generator to identify 2 MW of uninstructed energy from one or more specific units that had a positive deviation from their schedule, and calculate the fuel required to produce this 2 MW based on the incremental heat rates of these units.

As indicated in the Fuel Cost Order, fuel cost allowance submissions must clearly identify:

> MW-hours by unit sold to the ISO/PX over the applicable interval (to be the same as that used by the ISO); [14]

For sales of uninstructed energy in the ISO's real time energy markets, the applicable interval used by the ISO is each *10-minute interval* within each hour.

5B. The Fuel Cost Order at Paragraph 51 also specifies that "the incremental heat rates are most appropriate for use in the fuel cost allowance calculations."

[13] Fuel Cost Order at P 76, item (iv).

[14] Fuel Cost Order at P 76, item (iii).

As indicated in the Fuel Cost Order, fuel cost allowance submissions must also clearly identify:

> Marginal heat rate by unit (to be the same as that used by the ISO); [15]

Heat rates for each unit used by the ISO in calculation of final MMCPs in these proceedings are the non-monotonic incremental heat rates at the unit's AOT, as directed in the Commission's December 12 Refund Order.[16]

Just as the Commission has required for calculation of average daily fuel costs, any fuel cost allowance submission for sales of Uninstructed Energy in the ISO Real Time Market should also include "a demonstration of how this calculation was derived" and "supporting work papers".[17]

[15] Fuel Cost Order at P 76, item (ii).

[16] *FERC Certification of Proposed Findings on California Refund Liability in Docket Nos. EL00-95-045, et a*l. issued December 12, 2002. The Fuel Cost Order at 51 also specifies that "the incremental heat rates are most appropriate for use in the fuel cost allowance calculations."

[17] Fuel Cost Order at P 76, item (iv).

Table 1. Format for Fuel Cost Allowance Submissions for Mitigated PX Energy Sales

Col. Ref	Variable	Description
A	Opr_dt	Operation Date
B	Opr_hr	Operating Hour (hour ending)
C	PX_ID	Participant ID used in PX settlement records (Short_Name)
D	Unit_ID	ISO unit identification code
E	DA_MW	Final Day Ahead Energy schedule for unit for hour
F	QTY	Quantity (MWh) of generator's PX sales during hour attributed to unit
G	PRICE	Price ($/MWh) for PX sales attributed to unit in hour
H	REV	Revenues from transaction prior to price mitigation (F x G)
I	MMCP	Mitigated Market Price (Hourly)
J	QTY_M	Quantity of participant's PX sales during hour attributed to unit in hour subject to price mitigation (F if I < G; otherwise 0)
K	REV_M	Revenues from transaction after price mitigation (F x Min(G, I))
L	IHR	Incremental heat rate for unit during hour for mitigated sales (MMBTU/MW)
M	FUEL	Calculated incremental fuel input (consumption) for mitigated sales of unit during hour (J x L)
N	FUEL_PRC	Avg. daily cost ($/MMBTU) for fuel input (consumption) for mitigated spot market sales by generator during operating day.
O	FUEL_CST	Total cost ($) for fuel input (consumption) for mitigated sales of unit during hour. (M x N)
P	FCA	Fuel Cost Allowance (0 if O < K ; otherwise Min (O – K, H – K)

Notes:

[1.F] Should not exceed units Day Ahead energy schedule for hour. The sum of Table 1, Column F for all units identified as providing a portion of total sales of PX energy from a generator's portfolio should add up to total sales of PX energy from a generator's portfolio during hours that is attributable to total amount of energy scheduled in Hour Ahead market by a generator's thermal units (taking into account PX sales met by other supply sources, such as inter-SC trades from other suppliers, imports and purchases from PX during same hour).

[1.L] Marginal heat rates used by ISO = Non-monotonic incremental heat rate of unit at AOT, as defined in calculations of MMCP. Hourly non-monotonic heat rates may be calculated based on average of non-monotonic heat rates for each 10-minute interval used by ISO in calculating MMCP, or non-monotonic heat rate at average AOT for hour.

[1.N] As confirmed by the independent auditor based on generator's fuel purchase data, and total fuel consumption associated with spot market sales in PX and ISO that were mitigated (i.e. had a transaction price < MMCP) during operating day. Total fuel consumption for mitigated spot market sales during each operating day used in auditors calculation must equal sum of FUEL columns for each generating unit reported in Tables 1, 2 and 4 (representing unit-level data for sales of PX, ISO Instructed Energy and ISO Uninstructed Energy, respectively, during each hour/10-minute interval of operating day).

Table 2. Format for Fuel Cost Allowance Submissions for Mitigated ISO Instructed Energy (IE) Sales

Col. Ref.	Variable	Description
A	Opr_dt	Operation Date (TRADING DATE in ISO Settlement records)
B	Opr_hr	Operating Hour (TRADING HOUR in ISO Settlement records)
C	Rt_Int	10-minute interval, 1-6 (TRADING INT in ISO Settlement records)
D	SC_ID	Participant ID for transaction from ISO settlement records (Short Name for SC corresponding to numerical Business Associate ID).
E	Unit_ID	ISO unit identification code (LOCATION ID in ISO Settlement records)
F	E_TYPE	Energy type (SP=Spin, NS=Non-spin, SE=Supplemental energy, OOM=out-of-market)
G	CHRG_TYPE	401 = instructed energy priced at or below the (soft) price cap, 481 = instructed energy priced above the (soft) price cap
H	QTY	Quantity (MWh) of Instructed Energy sold through transaction during interval from unit (from BILLABLE QUANTITY in ISO Settlement records)
I	PRICE	Price ($/MWh) for Instructed Energy (IE) sold through transaction during interval from unit (from PRICE in ISO Settlement records)
J	REV	Revenues from transaction prior to price mitigation (H x I).
K	MMCP	Mitigated Market Price (for 10-minute interval)
L	QTY_M	Quantity of participant's UE sales from transaction during 10-minute interval subject to price mitigation (H if K < I; otherwise 0)
M	REV_M	Revenues from transaction after price mitigation (H x Min (I, K))
N	IHR	Incremental heat rate for unit during 10-minute interval for mitigated sales (MMBTU/MW)
O	FUEL	Calculated incremental fuel input (consumption) for mitigated sales of unit during interval (L x N)
P	FUEL_PRC	Avg. daily cost ($/MMBTU) for fuel input (consumption) for mitigated spot market sales by generator during operating day.
Q	FUEL_CST	Total cost ($) for fuel input (consumption) for mitigated sales of unit during interval (O x P)
R	FCA	Fuel Cost Allowance (0 if Q < M ; otherwise Min (Q – M, J – M)

Notes:

[1.G] During the "soft cap " period starting Dec. 8, 2000, the final settlement quantity and price for sales of Instructed Energy over the $250/$150 soft caps must be calculated by combining final Billable Quantities and Billable Prices for both 401 and 481 chares types. In testimony during refund proceedings, generators have indicated they are able to perform this calculation based on ISO settlement records. However, the ISO stands ready to provide these data to the Commission and generators upon request in order to facilitate completion and verification of fuel cost allowance submissions.

Table 3. Format for Fuel Cost Allowance Submissions for Mitigated ISO Uninstructed Energy (UE) Sales (SC Portfolio Level)

Col. Ref	Variable	Description
A	Opr_dt	Operation Date (TRADING DATE in ISO Settlement records)
B	Opr_hr	Operating Hour (TRADING HOUR in ISO Settlement records)
C	Rt_Int	10-minute interval 1-6 (TRADING INT in ISO Settlement records)
D	SC_ID	Participant ID for transaction from ISO settlement records (Short Name for SC corresponding to numerical Business Associate ID).
E	Region_ID	Region ID from ISO uninstructed energy settlement records used to indicate whether uninstructed energy for each was settled by netting each SCs portfolio on a system-wide or zonal basis (in hours of real time congestion). If real time congestion, 1= NP15 and 2=SP15. If no congestion, 1= uniform system prices/charges.
F	E_TYPE	UE = Uninstructed energy
G	CHRG_TYPE	407 = Uninstructed energy
H	QTY	Quantity (MWh) of Uninstructed Energy sold through transaction during interval by SC in ISO system or in zone (if real time energy market split zonally). From BILL_QTY for SC during interval in SS_SETTLEMENT_DETAILS table.
I	PRICE	Price ($/MWh) for Uninstructed Energy (UE) sold through transaction during interval by SC (from PRICE in ISO Settlement records)
J	REV	Revenues from transaction prior to price mitigation (H x I).
K	MMCP	Mitigated Market Price (for 10-minute interval)
L	QTY_M	Quantity of participant's UE sales from transaction during interval subject to price mitigation (H if K < I; otherwise 0)
M	REV_M	Revenues from transaction after price mitigation (H x Min(I, K))
N	FUEL	Calculated incremental fuel input (consumption) for mitigated sales of UE from SC's portfolio during interval. Sum of Column I in Table 4 for all units identified as providing a portion of SCs total UE sales during interval.
O	FUEL_PRC	Avg. daily cost ($/MMBTU) for fuel input (consumption) for mitigated spot market sales by generator during operating day.
P	FUEL_CST	Total cost ($) for fuel input (consumption) for mitigated sales of unit during interval (N x O)
Q	FCA	Fuel Cost Allowance (0 if P < M ; otherwise Min (P – M, J – M)

Notes:

[3.G] Sum of Table 4, Column G for all units identified as providing a portion of total sales of uninstructed energy from generators portfolio should add up to total sales of uninstructed energy from a generator's portfolio during interval as reported in Table 3, Column H.

[4.I] Sum of Table 4, Column I for all units identified as providing a portion of total sales of uninstructed energy from a generator's portfolio should add up to total fuel input/consumption associated with total uninstructed energy from a generator's portfolio during interval as reported in Table 3, Column N.

Table 4. Format for Fuel Cost Allowance Submissions for Mitigated ISO Uninstructed Energy (UE) Sales (Unit Level)

Col. Ref.	Variable	Description
A	Opr_dt	Operation Date (TRADING DATE in ISO Settlement records)
B	Opr_hr	Operating Hour (TRADING HOUR in ISO Settlement records)
C	Rt_Int	10-minute interval (TRADING INT in ISO Settlement records)
D	SC_ID	Participant ID for transaction from ISO settlement records (Short Name for SC corresponding to numerical Business Associate ID).
E	Unit_ID	ISO unit identification code (LOCATION ID in ISO Settlement records)
F	ZONE_ID	ISO Congestion zone in which resource is located (NP15,SP15,ZP26).
G	UE	Uninstructed energy (MWh) from unit for interval from ISO settlement data (SS_UNINSTR_ENERGY_DETAILS table provided with ISO settlement data).
H	IHR	Incremental heat rate for unit during interval for mitigated sales (MMBTU/MW)
I	FUEL	Calculation of incremental fuel input (consumption) for portion of SC's mitigated uninstructed energy sales attributed to unit during interval (G x H)

Notes:

[4.G] Sum of Table 4, Column G for all units identified as providing a portion of total sales of uninstructed energy from a generator's portfolio should add up to total sales of uninstructed energy from generators portfolio during interval as reported in Table 3, Column H.

[4.I] Sum of Table 4, Column I for all units identified as providing a portion of total sales of uninstructed energy from a generator's portfolio should add up to total fuel input/consumption associated with total uninstructed energy from a generator's portfolio during interval as reported in Table 3, Column N.

Illustrative Example of Fuel Cost Allowance Submission for Mitigated PX Energy Sales

Exhibit 1 illustrates the basic format required for the generators' fuel cost allowance submissions based on the general methodology and information requirements outlined in the Fuel Cost Order.[18] This simplified example represents a hypothetical fuel cost allowance submission for sales by a generator in the PX Day Ahead spot market. Previous sections of this document provide a more detailed description of the specific data items to be provided for all hourly sales in the PX market, as well as sales of instructed and uninstructed the ISO's real time imbalance market for each 10-minute interval.

Column A and B of Exhibit 1 show initial sales quantities and prices (i.e. prior to price mitigation) in the PX market for a hypothetical generating unit over each hour of one operating day. As shown in Figure 1, the supplier has sold the following:

- 100 MW at $50 during eight off-peak hours (1-6 and 23-24)
- 200 MW at $100 for eight peak hours (7 to 11 and 19-22)
- 500 MW at $250 for eight super peak hours (12 to 18)

After developing a list of initial spot market transaction prices and quantities, the next step in calculating fuel cost allowances in accordance with the Fuel Cost Order is to determine hours in which sales were mitigated, and to screen out all spot market sales that were not mitigated from any further fuel cost allowance calculations. As shown in Columns C and D, sales during the 8 off-peak hours (1-6 and 23-24) of this example were not subject to price mitigation and are therefore screened out of further fuel cost allowance calculations.

The next step in the methodology for calculating fuel cost allowances in accordance with the Fuel Cost Order is to determine the gas input or consumption associated with spot market sales that were mitigated. As shown in Exhibit 1, this is done by multiplying the total quantity of the spot market energy transaction that was mitigated (Column D) by the unit's incremental heat rate for producing that spot market energy (Column F) in order to derive the total gas input or consumption associated with spot market sales that were mitigated.

Because gas purchases are made on a daily basis or longer, the Fuel Cost Order requires the average cost of gas per MMBtu or price paid by the generator to be calculated on a daily basis, and confirmed by an independent auditor, based on the generator's gas purchase data and the total daily gas consumption associated with spot market sales that were mitigated. As shown in Exhibit 1, the gas incremental

[18] NOTE: Due to simplifications used in this example, the column identifiers (A-J) used in this example do not correspond to column identifiers (A-O) of the format required for actual Fuel Cost Allowance submissions for sales in the PX market.

consumption of the unit in this example associated with spot market sales that were mitigated is 51,200 MMBtu (see daily total for Column G). As shown in Column H, this example assumes that the average daily cost of gas per MMBtu on this day, as confirmed by the auditor, equals $9 per MMBtu.[19]

The average daily gas price calculated should then be applied on an hourly basis to mitigated sales in the PX to determine any gas cost allowance the generator is eligible to recover. This step involves comparing the total revenues received for each mitigated transaction after price mitigation (Column E) to the total gas costs associated with each mitigated spot market transaction (Column I). [20] If revenues after price mitigation for any individual transaction (Column E) do not allow the generator to recover the gas costs associated with these mitigated spot market transaction (Column I), then the generator is eligible to recover this difference through the gas allowance (Column J). In this example, the generator is eligible to receive a gas allowance for the 200 MW sold during each eight peak hours (7 to 11 and 19-22), but is not eligible for a gas cost allowance for sales during the super peak hours (12 to 18). During these super peak hours, the revenues received for these sales after price mitigation still allowed the generator to recover gas costs associated with these sales, so that there is no fuel cost allowance during these hours.

In addition, the Fuel Cost Order indicates that the total compensation paid for any transaction (after price mitigation) *plus* any Fuel Cost Allowance cannot exceed the initial transaction price prior to mitigation.[21] Thus, the formula for calculation of the Fuel Cost Allowance for PX sales provided in Table 1 Column 0 includes a limitation that the Fuel Cost Adjustment for any transaction not exceed the difference between the initial transaction price and the mitigated transaction price. This limitation is not relevant in this example, but is included in the formulas for calculation of the Fuel Cost Allowance for each spot market energy transaction as set forth above in Tables 1, 2 and 3.

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[19] As indicated in the Fuel Cost Order, in addition to providing the average daily fuel cost per MMBtu used in this example, fuel cost allowance submissions must include a listing of all "fuel purchases ranked by term from shortest to longest that indicates price, term, date and quantity for each transaction" and "a demonstration of how this calculation was derived based on the fuel supply stack, and supporting work papers". (Fuel Cost Order at P 76, items (i) and (iv)).

[20] Fuel Cost Order at P 37, indicating that one of the criteria that must be met to show that a transaction is eligible for inclusion in any fuel cost allowance whether "the fuel that was burned was more or less expensive than the MMCP".

[21] Fuel Cost Order at PP 55and 56, indicating that the Commission granted the proposed CA Parties' proposed condition that "fuel cost allowances should not result in generators recovering more than the pre-mitigated amount."

Exhibit 1. Illustrative Calculation of Fuel Cost Allowance
Calculation for PX Sales from Unit

	A	B	C	D	E	F	G	H	I	J
Hour	MWh	Price	MMCP	Mitigated Sales	Revenues After Mitigation	Incremental Heat Rate	Gas Input (MMBtu)	Avg. Gas Cost ($/MMBtu)	Total Gas Cost	Gas Allowance
1	100	$50	$60	0	n/a	n/a	0	$9	n/a	n/a
2	100	$50	$60	0	n/a	n/a	0	$9	n/a	n/a
3	100	$50	$60	0	n/a	n/a	0	$9	n/a	n/a
4	100	$50	$60	0	n/a	n/a	0	$9	n/a	n/a
5	100	$50	$60	0	n/a	n/a	0	$9	n/a	n/a
6	100	$50	$60	0	n/a	n/a	0	$9	n/a	n/a
7	200	$100	$75	200	$15,000	9,000	1,800	$9	$16,200	$1,200
8	200	$100	$75	200	$15,000	9,000	1,800	$9	$16,200	$1,200
9	200	$100	$75	200	$15,000	9,000	1,800	$9	$16,200	$1,200
10	200	$100	$75	200	$15,000	9,000	1,800	$9	$16,200	$1,200
11	200	$100	$75	200	$15,000	9,000	1,800	$9	$16,200	$1,200
12	500	$250	$100	500	$50,000	10,000	5,000	$9	$45,000	$0
13	500	$250	$100	500	$50,000	10,000	5,000	$9	$45,000	$0
14	500	$250	$100	500	$50,000	10,000	5,000	$9	$45,000	$0
15	500	$250	$100	500	$50,000	10,000	5,000	$9	$45,000	$0
16	500	$250	$100	500	$50,000	10,000	5,000	$9	$45,000	$0
17	500	$250	$100	500	$50,000	10,000	5,000	$9	$45,000	$0
18	500	$250	$100	500	$50,000	10,000	5,000	$9	$45,000	$0
19	200	$100	$75	200	$15,000	9,000	1,800	$9	$16,200	$1,200
20	200	$100	$75	200	$15,000	9,000	1,800	$9	$16,200	$1,200
21	200	$100	$75	200	$15,000	9,000	1,800	$9	$16,200	$1,200
22	200	$100	$75	200	$15,000	9,000	1,800	$9	$16,200	$1,200
23	100	$50	$60	0	n/a	n/a	0	$9	n/a	n/a
24	100	$50	$60	0	n/a	n/a	0	$9	n/a	n/a
Total	6,100			5,300	$485,000		51,200			$10,800

Column	Notes
A	Total MWh sales from unit
B	Original transaction price (MCP or bid price for sales above softcap)
C	Mitgated Market Price
D	Mitigated sales quantity from unit (A if C > B ; otherwise 0)
E	Revenues from mitigated sales after price mitigation (D x Minimum(B,C))
F	Incremental heat rate of unit for energy produced for mitigated sales
G	Incremental gas input (consumption) for mitigated sales (D x F)
H	Avgerage cost of gas during day per Mbtu (i.e. avg. price), as calculated by auditor based on generator's gas purchase data and quantity of gas burned for mitigated sales during day (Sum of Column G or 49,400 MMBtu)
I	Total gas costs for mitigated spot market sales (G x H)
J	Gas Allowance (I - E, if I > E ; otherwise 0)