

**Appendix A**  
**Hourly DAM Settlements**  
**Base Case Prices**  
**Make-Whole Approach**

**Table A-1  
Hourly DAM Settlement – All Lines In**

DAM Price Scenario: Base

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$50.00	\$9,500.00	
Green LSE	105	\$32.50	\$3,412.50	
Red LSE	125	\$50.00	\$6,250.00	
<b>Total</b>	<b>420</b>		<b>\$19,162.50</b>	
<b>Payments to Generators</b>				
West Coal	\$25.00	150		\$3,750.00
West Gen	\$25.00	2.5		\$62.50
North Gen	\$20.00	25		\$500.00
South Gen	\$32.50	100		\$3,250.00
South Gas	\$32.50	0		\$0.00
East Gas #1	\$50.00	142.5		\$7,125.00
East Gas #2	\$50.00	0		\$0.00
<b>Total</b>		<b>420</b>		<b>\$14,687.50</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	100	\$25.00	\$32.50	\$7.50	\$750.00
B (D)	O (N)	2.5	\$25.00	\$32.50	\$7.50	\$18.75
P (N)	V (X)	17.5	\$32.50	\$50.00	\$17.50	\$306.25
Q (N)	V (X)	80	\$32.50	\$50.00	\$17.50	\$1,400.00
A (D)	W (X)	50	\$25.00	\$50.00	\$25.00	\$1,250.00
L (M)	W (X)	25	\$20.00	\$50.00	\$30.00	\$750.00
<b>Total</b>						<b>\$4,475.00</b>

TO Make Whole Charges	
None	\$0.00

**Table A-2  
Hourly DAM Settlement – M-X Out**

DAM Price Scenario: Base

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$70.00	\$13,300.00	
Green LSE	105	\$32.50	\$3,412.50	
Red LSE	125	\$70.00	\$8,750.00	
<b>Total</b>	<b>420</b>		<b>\$25,462.50</b>	
<b>Payments to Generators</b>				
West Coal	\$20.00	100		\$2,000.00
West Gen	\$20.00	0		\$0.00
North Gen	\$7.50	25		\$187.50
South Gen	\$32.50	80		\$2,600.00
South Gas	\$32.50	0		\$0.00
East Gas #1	\$70.00	150		\$10,500.00
East Gas #2	\$70.00	65		\$4,550.00
<b>Total</b>		<b>420</b>		<b>\$19,837.50</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	100	\$20.00	\$32.50	\$12.50	\$1,250.00
B(D)	O (N)	2.5	\$20.00	\$32.50	\$12.50	\$31.25
P(N)	V (X)	17.5	\$32.50	\$70.00	\$37.50	\$656.25
Q(N)	V (X)	80	\$32.50	\$70.00	\$37.50	\$3,000.00
A(D)	W (X)	50	\$20.00	\$70.00	\$50.00	\$2,500.00
L(M)	W (X)	25	\$7.50	\$70.00	\$62.50	\$1,562.50
<b>Total</b>						<b>\$9,000.00</b>

TO Make Whole Charges	
M-X Out (Blue)	\$3,375.00

**Table A-3  
Hourly DAM Settlement – D-N Out**

DAM Price Scenario: Base

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$70.00	\$13,300.00	
Green LSE	105	\$50.00	\$5,250.00	
Red LSE	125	\$70.00	\$8,750.00	
<b>Total</b>	<b>420</b>		<b>\$27,300.00</b>	
<b>Payments to Generators</b>				
West Coal	\$20.00	90		\$1,800.00
West Gen	\$20.00	0		\$0.00
North Gen	\$30.00	25		\$750.00
South Gen	\$50.00	105		\$5,250.00
South Gas	\$50.00	40		\$2,000.00
East Gas #1	\$70.00	150		\$10,500.00
East Gas #2	\$70.00	10		\$700.00
<b>Total</b>		<b>420</b>		<b>\$21,000.00</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	100	\$20.00	\$50.00	\$30.00	\$3,000.00
B(D)	O (N)	2.5	\$20.00	\$50.00	\$30.00	\$75.00
P(N)	V (X)	17.5	\$50.00	\$70.00	\$20.00	\$350.00
Q(N)	V (X)	80	\$50.00	\$70.00	\$20.00	\$1,600.00
A(D)	W (X)	50	\$20.00	\$70.00	\$50.00	\$2,500.00
L(M)	W (X)	25	\$30.00	\$70.00	\$40.00	\$1,000.00
<b>Total</b>						<b>\$8,525.00</b>

TO Make Whole Charges	
D-N Out (Green)	\$2,225.00

**Table A-4  
Hourly DAM Settlement – N-X Out**

DAM Price Scenario: Base

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$70.00	\$13,300.00	
Green LSE	105	\$32.50	\$3,412.50	
Red LSE	125	\$70.00	\$8,750.00	
<b>Total</b>	<b>420</b>		<b>\$25,462.50</b>	
<b>Payments to Generators</b>				
West Coal	\$20.00	115		\$2,300.00
West Gen	\$20.00	0		\$0.00
North Gen	\$20.00	25		\$500.00
South Gen	\$32.50	55		\$1,787.50
South Gas	\$32.50	0		\$0.00
East Gas #1	\$70.00	150		\$10,500.00
East Gas #2	\$70.00	75		\$5,250.00
<b>Total</b>		<b>420</b>		<b>\$20,337.50</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	100	\$20.00	\$32.50	\$12.50	\$1,250.00
B (D)	O (N)	2.5	\$20.00	\$32.50	\$12.50	\$31.25
P (N)	V (X)	17.5	\$32.50	\$70.00	\$37.50	\$656.25
Q (N)	V (X)	80	\$32.50	\$70.00	\$37.50	\$3,000.00
A (D)	W (X)	50	\$20.00	\$70.00	\$50.00	\$2,500.00
L (M)	W (X)	25	\$20.00	\$70.00	\$50.00	\$1,250.00
<b>Total</b>						<b>\$8,687.50</b>

TO Make Whole Charges	
N-X Out (Red)	\$3,562.50

**Appendix B**  
**DAM Settlements**  
**Base Case Prices**  
**Shortfall Reduction Procedure**

**Table B-1  
Hourly DAM Settlement – All Lines In  
with Shortfall Reduction**

DAM Price Scenario: Base

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$50.00	\$9,500.00	
Green LSE	105	\$32.50	\$3,412.50	
Red LSE	125	\$50.00	\$6,250.00	
<b>Total</b>	<b>420</b>		<b>\$19,162.50</b>	
<b>Payments to Generators</b>				
West Coal	\$25.00	150		\$3,750.00
West Gen	\$25.00	2.5		\$62.50
North Gen	\$20.00	25		\$500.00
South Gen	\$32.50	100		\$3,250.00
South Gas	\$32.50	0		\$0.00
East Gas #1	\$50.00	142.5		\$7,125.00
East Gas #2	\$50.00	0		\$0.00
<b>Total</b>		<b>420</b>		<b>\$14,687.50</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	96	\$25.00	\$32.50	\$7.50	\$720.00
A (D)	V (X)	0.875	\$25.00	\$50.00	\$25.00	\$21.88
B (D)	V (X)	1.25	\$25.00	\$50.00	\$25.00	\$31.25
P (N)	V (X)	14.25	\$32.50	\$50.00	\$17.50	\$249.38
Q (N)	V (X)	76	\$32.50	\$50.00	\$17.50	\$1,330.00
A (D)*	W (X)	50	\$25.00	\$50.00	\$25.00	\$1,250.00
L (M)*	W (X)	25	\$20.00	\$50.00	\$30.00	\$750.00
<b>Total</b>						<b>\$4,352.50</b>

\* Grandfathered TCC

Congestion Settlement for 5% ETCNL						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
P(N)	V (X)	3.25	\$32.50	\$50.00	\$17.50	\$56.88
A (D)	V (X)	1.875	\$25.00	\$50.00	\$25.00	\$46.88
B (D)	O (N)	1.25	\$25.00	\$32.50	\$7.50	\$9.38
A (D)	O (N)	1.25	\$25.00	\$32.50	\$7.50	\$9.38
Q (N)	O (N)	4	\$32.50	\$32.50	\$0.00	\$0.00
<b>Total</b>						<b>\$122.50</b>

TO Make Whole Charges	
None	\$0.00

**Table B-2  
Hourly DAM Settlement – M-X Out  
with Shortfall Reduction**

DAM Price Scenario: Base

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$70.00	\$13,300.00	
Green LSE	105	\$32.50	\$3,412.50	
Red LSE	125	\$70.00	\$8,750.00	
<b>Total</b>	<b>420</b>		<b>\$25,462.50</b>	
<b>Payments to Generators</b>				
West Coal	\$20.00	100		\$2,000.00
West Gen	\$20.00	0		\$0.00
North Gen	\$7.50	25		\$187.50
South Gen	\$32.50	80		\$2,600.00
South Gas	\$32.50	0		\$0.00
East Gas #1	\$70.00	150		\$10,500.00
East Gas #2	\$70.00	65		\$4,550.00
<b>Total</b>		<b>420</b>		<b>\$19,837.50</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	96	\$20.00	\$32.50	\$12.50	\$1,200.00
A (D)	V (X)	0.875	\$20.00	\$70.00	\$50.00	\$43.75
B (D)	V (X)	1.25	\$20.00	\$70.00	\$50.00	\$62.50
P (N)	V (X)	14.25	\$32.50	\$70.00	\$37.50	\$534.38
Q (N)	V (X)	76	\$32.50	\$70.00	\$37.50	\$2,850.00
A (D)*	W (X)	50	\$20.00	\$70.00	\$50.00	\$2,500.00
L (M)*	W (X)	25	\$7.50	\$70.00	\$62.50	\$1,562.50
<b>Total</b>						<b>\$8,753.13</b>

\* Grandfathered TCC

Congestion Settlement for 5% ETCNL						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
P(N)	V (X)	3.25	\$32.50	\$70.00	\$37.50	\$121.88
A (D)	V (X)	1.875	\$20.00	\$70.00	\$50.00	\$93.75
B (D)	O (N)	1.25	\$20.00	\$32.50	\$12.50	\$15.63
A (D)	O (N)	1.25	\$20.00	\$32.50	\$12.50	\$15.63
Q (N)	O (N)	4	\$32.50	\$32.50	\$0.00	\$0.00
<b>Total</b>						<b>\$246.88</b>

TO Make Whole Charges	
M-X Out (Blue)	\$3,375.00



**Table B-3  
Hourly DAM Settlement – D-N Out  
with Shortfall Reduction**

DAM Price Scenario: Base

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$70.00	\$13,300.00	
Green LSE	105	\$50.00	\$5,250.00	
Red LSE	125	\$70.00	\$8,750.00	
<b>Total</b>	<b>420</b>		<b>\$27,300.00</b>	
<b>Payments to Generators</b>				
West Coal	\$20.00	90		\$1,800.00
West Gen	\$20.00	0		\$0.00
North Gen	\$30.00	25		\$750.00
South Gen	\$50.00	105		\$5,250.00
South Gas	\$50.00	40		\$2,000.00
East Gas #1	\$70.00	150		\$10,500.00
East Gas #2	\$70.00	10		\$700.00
<b>Total</b>		<b>420</b>		<b>\$21,000.00</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	96	\$20.00	\$50.00	\$30.00	\$2,880.00
A (D)	V (X)	0.875	\$20.00	\$70.00	\$50.00	\$43.75
B (D)	V (X)	1.25	\$20.00	\$70.00	\$50.00	\$62.50
P (N)	V (X)	14.25	\$50.00	\$70.00	\$20.00	\$285.00
Q (N)	V (X)	76	\$50.00	\$70.00	\$20.00	\$1,520.00
A (D)*	W (X)	50	\$20.00	\$70.00	\$50.00	\$2,500.00
L (M)*	W (X)	25	\$30.00	\$70.00	\$40.00	\$1,000.00
<b>Total</b>						<b>\$8,291.25</b>

\* Grandfathered TCC

Congestion Settlement for 5% ETCNL						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
P(N)	V (X)	3.25	\$50.00	\$70.00	\$20.00	\$65.00
A (D)	V (X)	1.875	\$20.00	\$70.00	\$50.00	\$93.75
B (D)	O (N)	1.25	\$20.00	\$50.00	\$30.00	\$37.50
A (D)	O (N)	1.25	\$20.00	\$50.00	\$30.00	\$37.50
Q (N)	O (N)	4	\$50.00	\$50.00	\$0.00	\$0.00
<b>Total</b>						<b>\$233.75</b>

TO Make Whole Charges	
D-N Out (Green)	\$2,225.00

**Hourly Table B-4  
DAM Settlement – N-X Out  
with Shortfall Reduction**

DAM Price Scenario: Base

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$70.00	\$13,300.00	
Green LSE	105	\$32.50	\$3,412.50	
Red LSE	125	\$70.00	\$8,750.00	
<b>Total</b>	<b>420</b>		<b>\$25,462.50</b>	
<b>Payments to Generators</b>				
West Coal	\$20.00	115		\$2,300.00
West Gen	\$20.00	0		\$0.00
North Gen	\$20.00	25		\$500.00
South Gen	\$32.50	55		\$1,787.50
South Gas	\$32.50	0		\$0.00
East Gas #1	\$70.00	150		\$10,500.00
East Gas #2	\$70.00	75		\$5,250.00
<b>Total</b>		<b>420</b>		<b>\$20,337.50</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	96	\$20.00	\$32.50	\$12.50	\$1,200.00
A (D)	V (X)	0.875	\$20.00	\$70.00	\$50.00	\$43.75
B (D)	V (X)	1.25	\$20.00	\$70.00	\$50.00	\$62.50
P (N)	V (X)	14.25	\$32.50	\$70.00	\$37.50	\$534.38
Q (N)	V (X)	76	\$32.50	\$70.00	\$37.50	\$2,850.00
A (D)*	W (X)	50	\$20.00	\$70.00	\$50.00	\$2,500.00
L (M)*	W (X)	25	\$20.00	\$70.00	\$50.00	\$1,250.00
<b>Total</b>						<b>\$8,440.63</b>

\* Grandfathered TCC

Congestion Settlement for 5% ETCNL						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
P(N)	V (X)	3.25	\$32.50	\$70.00	\$37.50	\$121.88
A (D)	V (X)	1.875	\$20.00	\$70.00	\$50.00	\$93.75
B (D)	O (N)	1.25	\$20.00	\$32.50	\$12.50	\$15.63
A (D)	O (N)	1.25	\$20.00	\$32.50	\$12.50	\$15.63
Q (N)	O (N)	4	\$32.50	\$32.50	\$0.00	\$0.00
<b>Total</b>						<b>\$246.88</b>

TO Make Whole Charges	
N-X Out (Red)	\$3,562.50

## **Appendix C**

### **DAM Settlements High Gas Prices Make-Whole Approach**

**Table C-1  
Hourly DAM Settlement – All Lines In**

DAM Price Scenario: High Gas

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$90.00	\$17,100.00	
Green LSE	105	\$50.00	\$5,250.00	
Red LSE	125	\$90.00	\$11,250.00	
<b>Total</b>	<b>420</b>		<b>\$33,600.00</b>	
<b>Payments to Generators</b>				
West Coal	\$25.00	150		\$3,750.00
West Gen	\$25.00	2.5		\$62.50
North Gen	\$17.50	25		\$437.50
South Gen	\$50.00	100		\$5,000.00
South Gas	\$50.00	0		\$0.00
East Gas #1	\$90.00	142.5		\$12,825.00
East Gas #2	\$90.00	0		\$0.00
<b>Total</b>		<b>420</b>		<b>\$22,075.00</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	100	\$25.00	\$50.00	\$25.00	\$2,500.00
B(D)	O (N)	2.5	\$25.00	\$50.00	\$25.00	\$62.50
P(N)	V (X)	17.5	\$50.00	\$90.00	\$40.00	\$700.00
Q(N)	V (X)	80	\$50.00	\$90.00	\$40.00	\$3,200.00
A(D)	W (X)	50	\$25.00	\$90.00	\$65.00	\$3,250.00
L(M)	W (X)	25	\$17.50	\$90.00	\$72.50	\$1,812.50
<b>Total</b>						<b>\$11,525.00</b>

TO Make Whole Charges	
None	\$0.00

**Table C-2  
Hourly DAM Settlement – M-X Out**

DAM Price Scenario: High Gas

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$100.00	\$19,000.00	
Green LSE	105	\$50.00	\$5,250.00	
Red LSE	125	\$100.00	\$12,500.00	
<b>Total</b>	<b>420</b>		<b>\$36,750.00</b>	
<b>Payments to Generators</b>				
West Coal	\$20.00	110		\$2,200.00
West Gen	\$20.00	0		\$0.00
North Gen	\$0.00	20		\$0.00
South Gen	\$50.00	75		\$3,750.00
South Gas	\$50.00	0		\$0.00
East Gas #1	\$100.00	150		\$15,000.00
East Gas #2	\$100.00	65		\$6,500.00
<b>Total</b>		<b>420</b>		<b>\$27,450.00</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	100	\$20.00	\$50.00	\$30.00	\$3,000.00
B(D)	O (N)	2.5	\$20.00	\$50.00	\$30.00	\$75.00
P(N)	V (X)	17.5	\$50.00	\$100.00	\$50.00	\$875.00
Q(N)	V (X)	80	\$50.00	\$100.00	\$50.00	\$4,000.00
A(D)	W (X)	50	\$20.00	\$100.00	\$80.00	\$4,000.00
L(M)	W (X)	25	\$0.00	\$100.00	\$100.00	\$2,500.00
<b>Total</b>						<b>\$14,450.00</b>

TO Make Whole Charges	
M-X Out (Blue)	\$5,150.00

**Table C-3  
Hourly DAM Settlement – D-N Out**

DAM Price Scenario: High Gas

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$100.00	\$19,000.00	
Green LSE	105	\$90.00	\$9,450.00	
Red LSE	125	\$100.00	\$12,500.00	
<b>Total</b>	<b>420</b>		<b>\$40,950.00</b>	
<b>Payments to Generators</b>				
West Coal	\$20.00	90		\$1,800.00
West Gen	\$20.00	0		\$0.00
North Gen	\$80.00	25		\$2,000.00
South Gen	\$90.00	105		\$9,450.00
South Gas	\$90.00	40		\$3,600.00
East Gas #1	\$100.00	150		\$15,000.00
East Gas #2	\$100.00	10		\$1,000.00
<b>Total</b>		<b>420</b>		<b>\$32,850.00</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	100	\$20.00	\$90.00	\$70.00	\$7,000.00
B (D)	O (N)	2.5	\$20.00	\$90.00	\$70.00	\$175.00
P (N)	V (X)	17.5	\$90.00	\$100.00	\$10.00	\$175.00
Q (N)	V (X)	80	\$90.00	\$100.00	\$10.00	\$800.00
A (D)	W (X)	50	\$20.00	\$100.00	\$80.00	\$4,000.00
L (M)	W (X)	25	\$80.00	\$100.00	\$20.00	\$500.00
<b>Total</b>						<b>\$12,650.00</b>

TO Make Whole Charges	
D-N Out (Green)	\$4,550.00

**Table C-4  
Hourly DAM Settlement – N-X Out**

DAM Price Scenario: High Gas

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$100.00	\$19,000.00	
Green LSE	105	\$50.00	\$5,250.00	
Red LSE	125	\$100.00	\$12,500.00	
<b>Total</b>	<b>420</b>		<b>\$36,750.00</b>	
<b>Payments to Generators</b>				
West Coal	\$20.00	115		\$2,300.00
West Gen	\$20.00	0		\$0.00
North Gen	\$20.00	25		\$500.00
South Gen	\$50.00	55		\$2,750.00
South Gas	\$50.00	0		\$0.00
East Gas #1	\$100.00	150		\$15,000.00
East Gas #2	\$100.00	75		\$7,500.00
<b>Total</b>		<b>420</b>		<b>\$28,050.00</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	100	\$20.00	\$50.00	\$30.00	\$3,000.00
B (D)	O (N)	2.5	\$20.00	\$50.00	\$30.00	\$75.00
P (N)	V (X)	17.5	\$50.00	\$100.00	\$50.00	\$875.00
Q (N)	V (X)	80	\$50.00	\$100.00	\$50.00	\$4,000.00
A (D)	W (X)	50	\$20.00	\$100.00	\$80.00	\$4,000.00
L (M)	W (X)	25	\$20.00	\$100.00	\$80.00	\$2,000.00
<b>Total</b>						<b>\$13,950.00</b>

TO Make Whole Charges	
N-X Out (Red)	\$5,250.00

**Appendix D**  
**DAM Settlements**  
**High Gas Prices**  
**Shortfall Reduction Procedure**



**Table D-2  
Hourly DAM Settlement – All Lines In  
with Shortfall Reduction**

DAM Price Scenario: High Gas  
TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$90.00	\$17,100.00	
Green LSE	105	\$50.00	\$5,250.00	
Red LSE	125	\$90.00	\$11,250.00	
<b>Total</b>	<b>420</b>		<b>\$33,600.00</b>	
<b>Payments to Generators</b>				
West Coal	\$25.00	150		\$3,750.00
West Gen	\$25.00	2.5		\$62.50
North Gen	\$17.50	25		\$437.50
South Gen	\$50.00	100		\$5,000.00
South Gas	\$50.00	0		\$0.00
East Gas #1	\$90.00	142.5		\$12,825.00
East Gas #2	\$90.00	0		\$0.00
<b>Total</b>		<b>420</b>		<b>\$22,075.00</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	96	\$25.00	\$50.00	\$25.00	\$2,400.00
A (D)	V (X)	0.875	\$25.00	\$90.00	\$65.00	\$56.88
B (D)	V (X)	1.25	\$25.00	\$90.00	\$65.00	\$81.25
P (N)	V (X)	14.25	\$50.00	\$90.00	\$40.00	\$570.00
Q (N)	V (X)	76	\$50.00	\$90.00	\$40.00	\$3,040.00
A (D)*	W (X)	50	\$25.00	\$90.00	\$65.00	\$3,250.00
L (M)*	W (X)	25	\$17.50	\$90.00	\$72.50	\$1,812.50
<b>Total</b>						<b>\$11,210.63</b>

\* Grandfathered TCC

Congestion Settlement for 5% ETCNL						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
P(N)	V (X)	3.25	\$50.00	\$90.00	\$40.00	\$130.00
A (D)	V (X)	1.875	\$25.00	\$90.00	\$65.00	\$121.88
B (D)	O (N)	1.25	\$25.00	\$50.00	\$25.00	\$31.25
A (D)	O (N)	1.25	\$25.00	\$50.00	\$25.00	\$31.25
Q (N)	O (N)	4	\$50.00	\$50.00	\$0.00	\$0.00
<b>Total</b>						<b>\$314.38</b>

TO Make Whole Charges	
None	\$0.00

**Table D-2  
Hourly DAM Settlement – M-X Out  
with Shortfall Reduction**

DAM Price Scenario: High Gas

TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$100.00	\$19,000.00	
Green LSE	105	\$50.00	\$5,250.00	
Red LSE	125	\$100.00	\$12,500.00	
<b>Total</b>	<b>420</b>		<b>\$36,750.00</b>	
<b>Payments to Generators</b>				
West Coal	\$20.00	110		\$2,200.00
West Gen	\$20.00	0		\$0.00
North Gen	\$0.00	20		\$0.00
South Gen	\$50.00	75		\$3,750.00
South Gas	\$50.00	0		\$0.00
East Gas #1	\$100.00	150		\$15,000.00
East Gas #2	\$100.00	65		\$6,500.00
<b>Total</b>		<b>420</b>		<b>\$27,450.00</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	96	\$20.00	\$50.00	\$30.00	\$2,880.00
A (D)	V (X)	0.875	\$20.00	\$100.00	\$80.00	\$70.00
B (D)	V (X)	1.25	\$20.00	\$100.00	\$80.00	\$100.00
P (N)	V (X)	14.25	\$50.00	\$100.00	\$50.00	\$712.50
Q (N)	V (X)	76	\$50.00	\$100.00	\$50.00	\$3,800.00
A (D)*	W (X)	50	\$20.00	\$100.00	\$80.00	\$4,000.00
L (M)*	W (X)	25	\$0.00	\$100.00	\$100.00	\$2,500.00
<b>Total</b>						<b>\$14,062.50</b>

\* Grandfathered TCC

Congestion Settlement for 5% ETCNL						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
P(N)	V (X)	3.25	\$50.00	\$100.00	\$50.00	\$162.50
A (D)	V (X)	1.875	\$20.00	\$100.00	\$80.00	\$150.00
B (D)	O (N)	1.25	\$20.00	\$50.00	\$30.00	\$37.50
A (D)	O (N)	1.25	\$20.00	\$50.00	\$30.00	\$37.50
Q (N)	O (N)	4	\$50.00	\$50.00	\$0.00	\$0.00
<b>Total</b>						<b>\$387.50</b>

TO Make Whole Charges	
M-X Out (Blue)	\$5,150.00

**Table D-3  
Hourly DAM Settlement – D-N Out  
with Shortfall Reduction**

DAM Price Scenario: High Gas  
TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$100.00	\$19,000.00	
Green LSE	105	\$90.00	\$9,450.00	
Red LSE	125	\$100.00	\$12,500.00	
<b>Total</b>	<b>420</b>		<b>\$40,950.00</b>	
<b>Payments to Generators</b>				
West Coal	\$20.00	90		\$1,800.00
West Gen	\$20.00	0		\$0.00
North Gen	\$80.00	25		\$2,000.00
South Gen	\$90.00	105		\$9,450.00
South Gas	\$90.00	40		\$3,600.00
East Gas #1	\$100.00	150		\$15,000.00
East Gas #2	\$100.00	10		\$1,000.00
<b>Total</b>		<b>420</b>		<b>\$32,850.00</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	96	\$20.00	\$90.00	\$70.00	\$6,720.00
A (D)	V (X)	0.875	\$20.00	\$100.00	\$80.00	\$70.00
B (D)	V (X)	1.25	\$20.00	\$100.00	\$80.00	\$100.00
P (N)	V (X)	14.25	\$90.00	\$100.00	\$10.00	\$142.50
Q (N)	V (X)	76	\$90.00	\$100.00	\$10.00	\$760.00
A (D)*	W (X)	50	\$20.00	\$100.00	\$80.00	\$4,000.00
L (M)*	W (X)	25	\$80.00	\$100.00	\$20.00	\$500.00
<b>Total</b>						<b>\$12,292.50</b>

\* Grandfathered TCC

Congestion Settlement for 5% ETCNL						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
P(N)	V (X)	3.25	\$90.00	\$100.00	\$10.00	\$32.50
A (D)	V (X)	1.875	\$20.00	\$100.00	\$80.00	\$150.00
B (D)	O (N)	1.25	\$20.00	\$90.00	\$70.00	\$87.50
A (D)	O (N)	1.25	\$20.00	\$90.00	\$70.00	\$87.50
Q (N)	O (N)	4	\$90.00	\$90.00	\$0.00	\$0.00
<b>Total</b>						<b>\$357.50</b>

TO Make Whole Charges	
D-N Out (Green)	\$4,550.00

**Table D-4  
Hourly DAM Settlement – N-X Out  
with Shortfall Reduction**

DAM Price Scenario: High Gas  
TCC Scenario: Symmetric Outages, Base Expected Gas Prices

ISO Costs and Revenues				
Transaction	MWh	LBMP (\$/MWh)	Revenue (\$)	Cost (\$)
<b>Payments by Energy Customers</b>				
Blue LSE	190	\$100.00	\$19,000.00	
Green LSE	105	\$50.00	\$5,250.00	
Red LSE	125	\$100.00	\$12,500.00	
<b>Total</b>	<b>420</b>		<b>\$36,750.00</b>	
<b>Payments to Generators</b>				
West Coal	\$20.00	115		\$2,300.00
West Gen	\$20.00	0		\$0.00
North Gen	\$20.00	25		\$500.00
South Gen	\$50.00	55		\$2,750.00
South Gas	\$50.00	0		\$0.00
East Gas #1	\$100.00	150		\$15,000.00
East Gas #2	\$100.00	75		\$7,500.00
<b>Total</b>		<b>420</b>		<b>\$28,050.00</b>

Congestion Settlement For TCCs						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
A(D)	O (N)	96	\$20.00	\$50.00	\$30.00	\$2,880.00
A (D)	V (X)	0.875	\$20.00	\$100.00	\$80.00	\$70.00
B (D)	V (X)	1.25	\$20.00	\$100.00	\$80.00	\$100.00
P (N)	V (X)	14.25	\$50.00	\$100.00	\$50.00	\$712.50
Q (N)	V (X)	76	\$50.00	\$100.00	\$50.00	\$3,800.00
A (D)*	W (X)	50	\$20.00	\$100.00	\$80.00	\$4,000.00
L (M)*	W (X)	25	\$20.00	\$100.00	\$80.00	\$2,000.00
<b>Total</b>						<b>\$13,562.50</b>

\* Grandfathered TCC

Congestion Settlement for 5% ETCNL						
Inject Node	Withdrawal Node	TCC MW	Inject LBMP (\$/MWh)	Withdrawal LBMP (\$/MWh)	Congestion (\$/MWh)	TCC Payments
P(N)	V (X)	3.25	\$50.00	\$100.00	\$50.00	\$162.50
A (D)	V (X)	1.875	\$20.00	\$100.00	\$80.00	\$150.00
B (D)	O (N)	1.25	\$20.00	\$50.00	\$30.00	\$37.50
A (D)	O (N)	1.25	\$20.00	\$50.00	\$30.00	\$37.50
Q (N)	O (N)	4	\$50.00	\$50.00	\$0.00	\$0.00
<b>Total</b>						<b>\$387.50</b>

TO Make Whole Charges	
N-X Out (Red)	\$5,250.00

## **Appendix E**

### **High/Low Green Outages -- Base Case Prices**

**Table E-1**  
**Capability Period TSC Credits – Base Gas Cost Case**  
**All ETCNL Valued in Auction**  
**Low Green Outages**

Second Asymmetric Outages, Base Cost Gas Prices

	Blue (5%)	Red (5%)	Green (2.5%)	Total
Grandfathered Rights Payments	\$5,000,000.00			\$5,000,000.00
Auction Revenues	\$0.00	\$10,168,200.00	\$1,971,000.00	\$12,139,200.00
Make Whole Deductions	(\$729,000.00)	(\$769,500.00)	(\$240,300.00)	(\$1,738,800.00)
DAM Residual	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Net TSC	\$4,271,000.00	\$9,398,700.00	\$1,730,700.00	\$15,400,400.00

See Tables 10, 13, 14, 15, 16, 17 and 18.

**Table E-2**  
**Capability Period TSC Impacts – Base Gas Cost Case**  
**Shortfall Reduction -- Low Green Outages**

95% Sold, Asymmetric Outages, Base Case Gas Prices

	Blue (5%)	Red (5%)	Green (2.5%)	Total
Grandfathered Rights Payments	\$5,000,000.00			\$5,000,000.00
Auction Revenues	\$0.00	\$9,659,790.00	\$1,872,450.00	\$11,532,240.00
Make Whole Deductions	\$729,000.00	\$769,500.00	\$240,300.00	\$1,738,800.00
DAM ETCNL Value	\$0.00	\$498,345.83	\$96,599.17	\$594,945.00
DAM Residual	\$0.00	\$0.00	\$0.00	\$0.00
Net TSC Credit	\$4,271,000.00	\$9,388,635.83	\$1,728,749.17	\$15,388,385.00

See Tables 10 (95%), 20, 21, 22 and 23.

**Table E-3**  
**Capability Period TSC Credits – Base Gas Cost Case**  
**All ETCNL Valued in Auction**  
**High Green Outages**

	Blue (5%)	Red (5%)	Green (7.5%)	Total
Grandfathered Rights Payments	\$5,000,000.00			\$5,000,000.00
Auction Revenues	\$0.00	\$10,168,200.00	\$1,971,000.00	\$12,139,200.00
Make Whole Deductions	(\$729,000.00)	(\$769,500.00)	(\$720,900.00)	(\$2,219,400.00)
DAM Residual	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Net TSC	\$4,271,000.00	\$9,398,700.00	\$1,250,100.00	\$14,919,800.00

See Tables 10, 13, 14, 15, 16, 17 and 18.



**Table E-4**  
**Capability Period TSC Impacts – Base Gas Cost Case**  
**Shortfall Reduction -- High Green Outages**

95% Sold, Asymmetric Outages, Base Case Gas Prices

	Blue (5%)	Red (5%)	Green (7.5%)	Total
Grandfathered Rights Payments	\$5,000,000.00			\$5,000,000.00
Auction Revenues	\$0.00	\$9,659,790.00	\$1,872,450.00	\$11,532,240.00
Make Whole Deductions	\$729,000.00	\$769,500.00	\$720,900.00	\$2,219,400.00
DAM ETCNL Value	\$0.00	\$518,474.17	\$100,500.83	\$618,975.00
DAM Residual	\$0.00	\$0.00	\$0.00	\$0.00
Net TSC Credit	\$4,271,000.00	\$9,408,764.17	\$1,252,050.83	\$14,931,815.00

See Tables 10 (95%), 20, 21, 22 and 23.

## **Appendix F**

### **High/Low Green Outages –High Gas Prices**

**Table F-1**  
**Capability Period TSC Credits – High Gas Cost Case**  
**All ETCNL Valued in Auction**  
**Low Green Outages**

	Blue (5%)	Red (5%)	Green (2.5%)	Total
Grandfathered Rights Payments	\$5,000,000.00			\$5,000,000.00
Auction Revenues	\$0.00	\$10,168,200.00	\$1,971,000.00	\$12,139,200.00
Make Whole Deductions	(\$1,112,400.00)	(\$1,134,000.00)	(\$491,400.00)	(\$2,737,800.00)
DAM Residual	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Net TSC	\$3,887,600.00	\$9,034,200.00	\$1,479,600.00	\$14,401,400.00

See Tables 10, 30, and 31.

**Table F-2**  
**Capability Period TSC Impacts – High Gas Cost Case**  
**Shortfall Reduction –Low Green Outages**

	Blue (5%)	Red (5%)	Green (2.5%)	Total
Grandfathered Rights Payments	\$5,000,000.00			\$5,000,000.00
Auction Revenues	\$0.00	\$9,659,790.00	\$1,872,450.00	\$11,532,240.00
Make Whole Deductions	(\$1,112,400.00)	(\$1,134,000.00)	(\$491,400.00)	(\$2,737,800.00)
DAM ETCNL Value	\$0.00	\$1,167,952.11	\$226,395.39	\$1,394,347.50
DAM Residual	\$0.00	\$0.00	\$0.00	\$0.00
Net TSC Credit	\$3,887,600.00	\$9,693,742.11	\$1,607,445.39	\$15,188,787.50

See Tables 10 (95%), 33 and 34.

**Table F-3**  
**Capability Period TSC Credits – High Gas Cost Case**  
**All ETCNL Valued in Auction**  
**High Green Outages**

	Blue (5%)	Red (5%)	Green (7.5%)	Total
Grandfathered Rights Payments	\$5,000,000.00			\$5,000,000.00
Auction Revenues	\$0.00	\$10,168,200.00	\$1,971,000.00	\$12,139,200.00
Make Whole Deductions	(\$1,112,400.00)	(\$1,134,000.00)	(\$1,474,200.00)	(\$3,720,600.00)
DAM Residual	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Net TSC	\$3,887,600.00	\$9,034,200.00	\$496,800.00	\$13,418,600.00

See Tables 10, 30 and 31.

**Table F-4**  
**Capability Period TSC Impacts – High Gas Cost Case**  
**Shortfall Reduction –High Green Outages**

	Blue (5%)	Red (5%)	Green (7.5%)	Total
Grandfathered Rights Payments	\$5,000,000.00			\$5,000,000.00
Auction Revenues	\$0.00	\$9,659,790.00	\$1,872,450.00	\$11,532,240.00
Make Whole Deductions	(\$1,112,400.00)	(\$1,134,000.00)	(\$1,474,200.00)	(\$3,720,600.00)
DAM ETCNL Value	\$0.00	\$1,175,754.67	\$227,907.83	\$1,403,662.50
DAM Residual	\$0.00	\$0.00	\$0.00	\$0.00
Net TSC Credit	\$3,887,600.00	\$9,701,544.67	\$626,157.83	\$14,215,302.50

See Tables 10 (95%), 33 and 34.