Member Information Reporting Application (MIRA)

MIC October 8, 2014 Joe Bowring



Member Information Reporting Application (MIRA)

- Functionality being replaced or enhanced:
 - Fuel Policy document and editable fuel policy data
 - Power Plant Operations Report (Monthly Plant Report, like EIA-923)
 - Power Plant Operations Report (Unit-based performance metrics)
 - User-friendly administration
 - Self-service password reset
 - CAM-based account creation



Member Information Reporting Application (MIRA)

- Data export/import via XLS/XLSX/XML
- Future platform for hosting RPM/ACR application





CODA Data Migration

- The following data will be migrated from existing CODA:
 - PJM CAMs will have "Account Manager" accounts created in MIRA
 - CODA user accounts will have to be updated by CAMs
 - Data
 - Prior Monthly PPOR data, where possible

 Fuel policies must be updated and resubmitted by market participants



User Administration

- Self service password reset based on unique user email address.
- PJM Customer Account Manager (CAM) can create accounts and assign module access (Fuel Policy, PPOR-Monthly, PPOR-Continuous) to users at the company level.
- Permissions assigned to users for multiple competing companies will be reviewed by the MMU.







MIRA Implementation Timing (Approximate)

Milestone	Approximate Date
PPOR-M, PPOR-C upload template formats available	October 10
Training Webinar	October 17
Sandbox Implementation	October 17
Data Migration	October 24
Production Implementation	October 31
Reporting Requirement resumes	November 14



New Input Screens: Fuel Policy Editing

 Market Participant uploads Fuel Policy documents, and manages "Save-Submit-Review-Approve" workflow

	Fuel Policy Name		Policy ID Number \$	Status 🗢				Act	ions			
0	Demo 2 Fuel Policy		001190	Submitted	18	1	-	4	▲	8	ā	0
D	Demo 3 Fuel Policy		001191	Saved	65	-	+	2	A	Û	0	6
0	Demo Fuel Policy		001181	Archived	8		*	2	A		8	q
>	Demo Fuel Policy - Coal Plant		001182	Archived	15	-	÷	4	A	-	.0	R
0	Demo Fuel Policy 5		001192	Submitted	15	-	÷	.0	A	-	0	6
File Name FP #5 document Downlo			File			1	Actio	15				
		FP #5	Download	PDF	a:	(00)						
	document 2	Download	TXT	R.	-							

 MMU reviews and approves (or rejects) submitted fuel policies prior to Market Participant assigning fuel policy to unit.



New Input Screens: Fuel Policy Management - File Tab

- Market Participant assigns approved Fuel Policy to existing units on "File" tab.
- Fuel policy association with a unit cannot be changed for 365 days

			(1 of 1)	14 <4 1 P2 P1		
	Unit Nam	ie 🗢	Unit Id 🗢	Fuel Policy Name	Expiration Date	Actions
3	CERIE_ERIE_1		CERIE_ERIE_1			a 5 +
100	LEBROCK_STG001		LEBROCK_STG001	test with file	06/04/2015	8 5 +
1	Cost File	Deliver ID Marro		Dete		
	Cost File Fuel Policy Name	Policy ID Num	iber Expirati	on Date	Files	Actions
	I	Policy ID Num 001185	ober Expiration 06/04/2015	on Date Download		
	Fuel Policy Name					

8

New Input Screens: Fuel Policy Management – Cost Tab

 Market Participant reports unit specific cost drivers on Cost tab. These may change more frequently than the Fuel Policy itself.

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ľ	Cost File			
	Inventoried Cost: Energy Source:		FIFO (First In, First Out)	
			BIT	
		Fuel Index:	Stm C App Big Sandy/Kanawha 12500B 1.5lbS Rai	
	SO ₂ Allowance price i	ndex source:	SO2 Emission Allowance Credits - Annual	
	CO2 Allowance price index source: NOx Allowance price index source: Hg Allowance price index source: unit SO2 emission rate: unit CO2 emission rate: unit NOx emission rate: unit Hg emission rate: unit Hg emission rate: Unit Hg emission rate:		CO2 Certified Emission Reduction Spot Mkt.	
			NOx Emission Allowance Credits - CSAPR Annual	
			Hg Regional Greenhouse Gas Initiative Allowance	
			3.00 tons/MWh	
			4.00 tons/MWh	
			5.00 tons/MWh	
			0.01 tons/MWh	
			345.00 \$/MBtu	
	Pumping Efficiency:		0.990000000	
	Nuclear Fuel Cost:			



New Input Screens: PPOR Monthly Plant Data – Fuel Deliveries

Fu	iel Supplier Name 🗘	Contract Type 🗢	Contract Expiration Date \$	Actions
Den	no Delivery	C - Contract Purchase	12/31/2014	
Recei	ipt			
Energ	y Source:	BIT		•
Fuel I	ndex:	Stm C App Big Sar	ndy/Kanawha 12500B 1.2lbS Rail C	SX FO 🔻
Quant	tity Purchased:	1,234,567,890		
Cost	per Unit			
Total	Delivered Cost:	1,234,567,890.12		
Comn	nodity Cost:	1,234,567,890.12		
Quali	ty of Fuel as Received			
Heat	Content:	12.345		
Sulfur	Content:	12.34 %		
Ash C	Content:	12.34 %		
Mercu	ury Content:	123.456 ppm		
Fuel 1	Transportation			
Natura	al Gas:	F - Firm		-
Predo	ominant Mode:	PL - Pipeline		•
Secor	ndary Mode:	RR - Rail		•
Coal	Mine Information			
Coal I	Mine State:	PA - Pennsylvania		-
Coal I	Mine MSHA ID:	1234567		
Coal I	Mine Type	U - Underground		-
Coal I	Mine Name:	Name of Coal Mine	e Here	
Coal I	Mine County:	County Name Here		





New Input Screens: PPOR Monthly Plant Data – Fuel Consumption

Prime Mover Cod	le ≎	Boiler ID 🗢	Boiler Status ≎	Actions
CT - Combined-Cycle Combust	ion Turbine Part	1234567890	OP - Operating	8 5 8
Consumption				
Energy Source:	NG		•	
Other Energy Source Name:	Text can be e	entered here to clarify		
Quantity Consumed:	1,234,567,89	0		
Type of Physical Units:	Mcf		-	
Quality of Fuel Consumed				
Average Heat Content:	12.345			
Sulfur Content:	12.34 %			
Ash Content:	12.34 %			



New Input Screens: PPOR Monthly Plant Data – Fuel Stocks

Calculations					
Type of Physical Units:	short tons				
Previous Month's Ending Stocks:	1,234 • • •				
Current Month's Receipts:	1,234,000,000				
Current Month's Consumption:	1,234 0				
Ending Stocks:	1,233,000,000				
Adjustment to Stocks:	123				
Balance:	1,234,560,000				
Explanations					
Adjustment Explanation:	Enter explanation here Red column presents expected values, based on data entered in prior month and other screens. planation:				
Balance Explanation:	Enter explanation here				

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New Input Screens: PPOR Unit Data: Cost Drivers

Fuel Amounts	
Start Fuel - Hot:	123,456,789.1234 mmBtu
Start Fuel - Intermediate:	123,456,789.1234 mmBtu
Start Fuel - Cold:	123,456,789.1234 mmBtu
Shutdown Fuel - Hot:	123,456,789.1234 mmBtu
Station Service During Start - Hot:	123,456,789.1234 MWh
Station Service During Start - Intermediate:	123,456,789.1234 MWh
Station Service During Start - Cold:	123,456,789.1234 MWh
Station Service Rate:	123,456,789.1234 \$\$/MWh
Costs	
Start VOM - Hot:	123,456,789.1234 \$\$/Start
Start VOM - Intermediate:	123,456,789.1234 \$\$/Start
Start VOM - Cold:	123,456,789.1234 \$\$/Start
Start Additional Labor Costs - Hot On Peak:	123,456,789.1234 \$\$
Start Additional Labor Costs - Hot Off Peak:	123,456,789.1234 \$\$
Start Additional Labor Costs - Intermediate On Peak:	123,456,789.1234 \$\$
Start Additional Labor Costs - Intermediate Off Peak:	123,456,789.1234 \$\$
Start Additional Labor Costs - Cold On Peak:	123,456,789.1234 \$\$
Start Additional Labor Costs - Cold Off Peak:	123,456,789.1234 \$\$
Supplemental Additional Labor Cost:	123,456,789.1234 \$\$
Condensing Operation Start Cost (CTs):	123,456,789.1234 \$\$
Condensing Operation VOM:	123,456,789.1234 \$\$/hr
Condensing Load:	12.3456 MW
No Load Costs	
Minimum Economic Capacity Limit Heat Input:	123,456,789.1234 mmBtu
No Load VOM:	123,456,789.1234
No Load VOM Units:	\$\$/mmBtu



Monitoring Analytics

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New Input Screens: PPOR Unit Data: Heat Rate: Data Points or Polynomial

Performance Factor: 1.11111111	Curve Type: Polynomial Equation 👻
Polynomial Equation Data Points	250,000 MBtu/h
Coefficient a: 1.000000000 Coefficient b: -2.000000000	200,000 MBtu/h
Coefficient c: 3.000000000	150,000 MBtu/h
	100,000 MBtu/h
	50,000 MBtu/h
	0 MBtu/h 0 MWh 100 MWh 200 MWh 300 MWh 400 MWh
Performance Factor: 1.11111111	Curve Type: Data Points
Performance Factor: 1.11111111 Polynomial Equation Data Points	Curve Type: Data Points 100,000 MBtu/h
Polynomial Equation Data Points No Load Heat Input: 8.1234567890 MBtu/h	
Polynomial Equation Data Points No Load Heat Input: 8.1234567890 MBtu/h + Add Data Point	100,000 MBtu/h
Polynomial Equation Data Points No Load Heat Input: 8.1234567890 MBtu/h	100,000 MBtu/h 80,000 MBtu/h
Polynomial Equation Data Points No Load Heat Input: 8.1234567890 MBtu/h + Add Data Point	100,000 MBtu/h 80,000 MBtu/h 60,000 MBtu/h 40,000 MBtu/h
Polynomial Equation Data Points No Load Heat Input: 8.1234567890 MBtu/h + Add Data Point Heat Input Net Output Actions 10,000.000000000 MBtu/h	100,000 MBtu/h 80,000 MBtu/h 60,000 MBtu/h



New Input Screens: PPOR Unit Data: VOM

	Energy Source ≎	Last Update Date 🗢	Actions
0	BIT	10/01/2014 10:39:47	
Ene	ergy Offer Curve VOM:	1,234,567,890.12 \$/MWh	
Tot	al Variable Maintenance:	1,234,567,890.12 \$	
Ма	intenance Period:	1.23 Years	

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