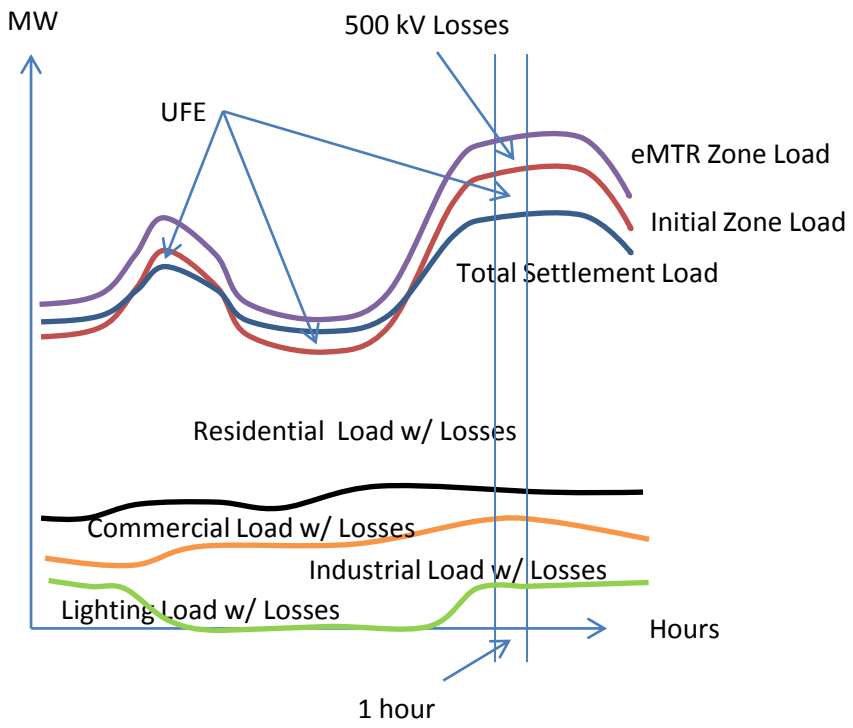
PHI - Data Aggregation

- Settlement
  - Allocate entire zone load (hourly) to suppliers, including PoLR/Default Suppliers
  - Day After / 60-Day Reconciliation
  - Daily Capacity/ Transmission uploads
  - Annual Capacity and Transmission tickets

- Bottom up approach



PHI – Data Aggregation

- Interval metered NEM customers
  - Net generation greater than 1 MW (90% of hours as gen)
    - Pursue set up in **eMeter**
  - Net generation less than 1 MW
    - **eSchedule** Approach
      - Allow load to “go negative”
        - » In aggregate, reduces supplier’s load responsibilities
        - » If a supplier’s aggregated load is negative in a given hour, it is set to 0.0
- Non-Interval metered NEM customers
    - **eSchedule** Approach
      - Load is allowed to only go to 0.0 (system limitations)
      - Excess generation is carried forward to next billing month

PHI – Data Aggregation

- Issues
  - eSchedule accounts for the net generation, but…
    - Supplier receives the benefit of the reduced load responsibility but isn't responsible to pay the customer for that generation.
    - No direct revenue stream to pay customers
    - Negative load is not supported by PJM
      - Not accounted-for in the Zone Load calculations
  - eMeter accounts for the net generation properly, but…
    - Too many small NEM customers to set up in eMeter
    - Commissions expect EDC to pay more than LMP for the generation (avoided cost, etc.)

Settlements

Potential remedies for possible NEMSTF recommendations:

- Pnodes in PJM Bus Models for NEMs greater than 1 MW that are hourly metered
- Modify PJM Bus Models to allow aggregation of excess injections that are hourly metered, but less than 1 MW
- Set up aggregates in PJM eMTR to “cash out” excess injections that are hourly metered, but less than 1 MW
- Assimilate within “End-of-the-Month” PJM Meter Correction process a financial settlement for excess injections that are not hourly metered, but are carried forward as credits to NEM customer on retail basis

LMP Bus Model

From the selection below you may download a list of busses included in the PJM Locational Marginal Pricing model. The busses are listed by bus type (load or generation) and by PJM transmission zone. The list is provided in response to requests from the PJM Market Operations Committee.

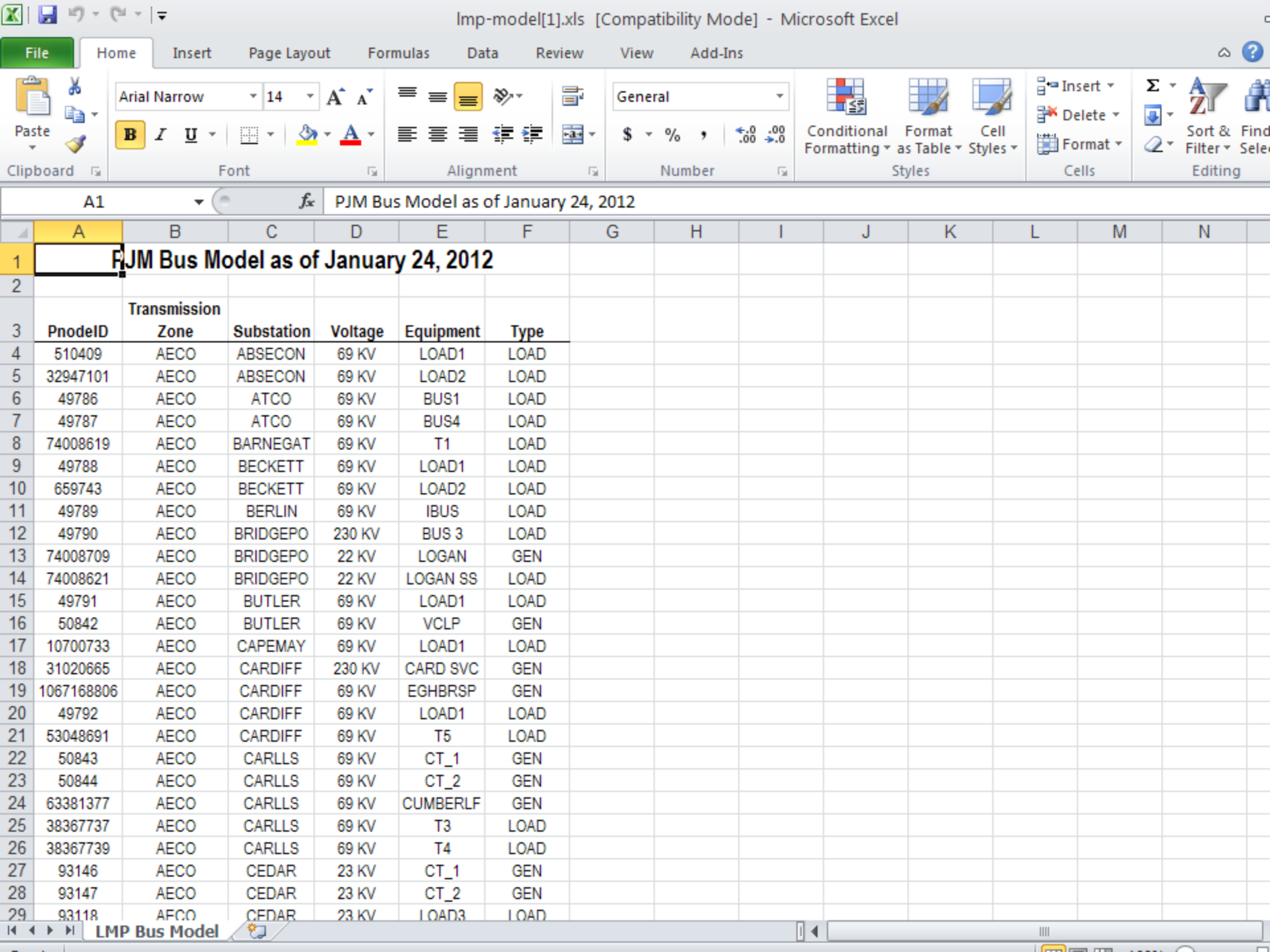
Each PJM bus that is listed has three eight-character identifiers. The first identifier is the substation name, the second is the voltage level and the third is the equipment name. A fourth column identifies bus type, whether generation or load.

The file contains information about all buses in the PJM network model and is arranged in alphabetical order.

PJM Locational Marginal Pricing Model (XLS) - Updated 01.24.2012

RELATED INFORMATION
Frequently Asked Questions
Manuals
Industry Resources
eTools
WEB LMP Data Map

RECENT DOCUMENTS
JAN 24 PJM Locational Marginal Pricing Model 2012 Posted 52 days ago
JAN 18 PJM Contingency List 2012 Posted 58 days ago
JAN 3 LMP Aggregate Definitions 2012 Posted 73 days ago
JAN 3 LMP Hub Definitions 2012 Posted 73 days ago



lmp-model[1].xls [Compatibility Mode] - Microsoft Excel

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Arial Narrow 14 General

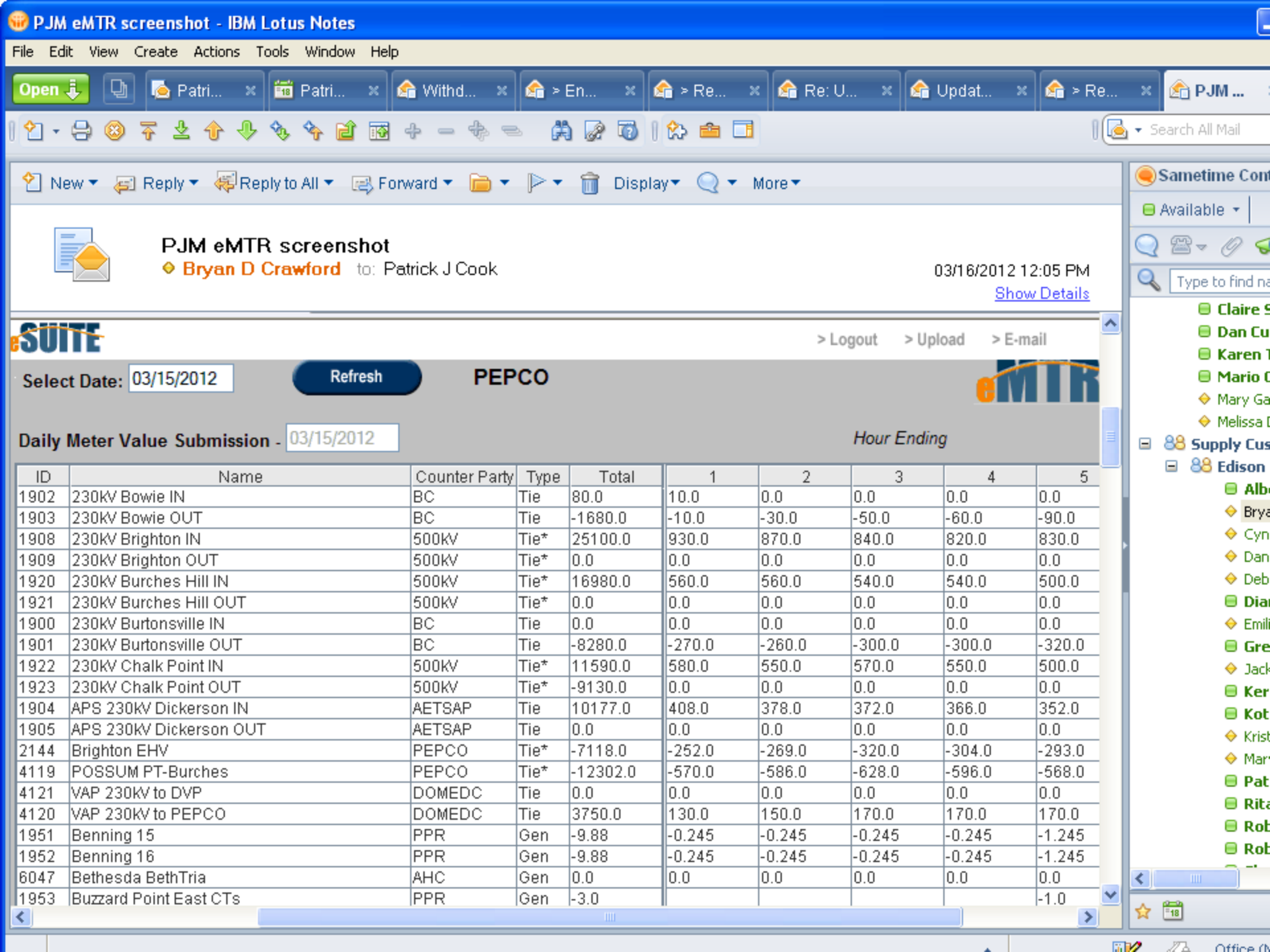
Paste Clipboard Font Alignment Number Conditional Formatting Format as Table Cell Styles Styles Insert Delete Format Cells Sort & Filter Editing

A1 PJM Bus Model as of January 24, 2012

PJM Bus Model as of January 24, 2012

PnodeID	Transmission Zone	Substation	Voltage	Equipment	Type
510409	AECO	ABSECON	69 KV	LOAD1	LOAD
32947101	AECO	ABSECON	69 KV	LOAD2	LOAD
49786	AECO	ATCO	69 KV	BUS1	LOAD
49787	AECO	ATCO	69 KV	BUS4	LOAD
74008619	AECO	BARNEGAT	69 KV	T1	LOAD
49788	AECO	BECKETT	69 KV	LOAD1	LOAD
659743	AECO	BECKETT	69 KV	LOAD2	LOAD
49789	AECO	BERLIN	69 KV	IBUS	LOAD
49790	AECO	BRIDGEPO	230 KV	BUS 3	LOAD
74008709	AECO	BRIDGEPO	22 KV	LOGAN	GEN
74008621	AECO	BRIDGEPO	22 KV	LOGAN SS	LOAD
49791	AECO	BUTLER	69 KV	LOAD1	LOAD
50842	AECO	BUTLER	69 KV	VCLP	GEN
10700733	AECO	CAPEMAY	69 KV	LOAD1	LOAD
31020665	AECO	CARDIFF	230 KV	CARD SVC	GEN
1067168806	AECO	CARDIFF	69 KV	EGHBRSP	GEN
49792	AECO	CARDIFF	69 KV	LOAD1	LOAD
53048691	AECO	CARDIFF	69 KV	T5	LOAD
50843	AECO	CARLLS	69 KV	CT_1	GEN
50844	AECO	CARLLS	69 KV	CT_2	GEN
63381377	AECO	CARLLS	69 KV	CUMBERLF	GEN
38367737	AECO	CARLLS	69 KV	T3	LOAD
38367739	AECO	CARLLS	69 KV	T4	LOAD
93146	AECO	CEDAR	23 KV	CT_1	GEN
93147	AECO	CEDAR	23 KV	CT_2	GEN
93118	AECO	CEDAR	23 KV	LOAD3	LOAD

LMP Bus Model



ID	Name	Counter Party	Type	Total	1	2	3	4	5
1902	230KV Bowie IN	BC	Tie	80.0	10.0	0.0	0.0	0.0	0.0
1903	230KV Bowie OUT	BC	Tie	-1680.0	-10.0	-30.0	-50.0	-60.0	-90.0
1908	230KV Brighton IN	500KV	Tie*	25100.0	930.0	870.0	840.0	820.0	830.0
1909	230KV Brighton OUT	500KV	Tie*	0.0	0.0	0.0	0.0	0.0	0.0
1920	230KV Burches Hill IN	500KV	Tie*	16980.0	560.0	560.0	540.0	540.0	500.0
1921	230KV Burches Hill OUT	500KV	Tie*	0.0	0.0	0.0	0.0	0.0	0.0
1900	230KV Burtonsville IN	BC	Tie	0.0	0.0	0.0	0.0	0.0	0.0
1901	230KV Burtonsville OUT	BC	Tie	-8280.0	-270.0	-260.0	-300.0	-300.0	-320.0
1922	230KV Chalk Point IN	500KV	Tie*	11590.0	580.0	550.0	570.0	550.0	500.0
1923	230KV Chalk Point OUT	500KV	Tie*	-9130.0	0.0	0.0	0.0	0.0	0.0
1904	APS 230KV Dickerson IN	AETSAP	Tie	10177.0	408.0	378.0	372.0	366.0	352.0
1905	APS 230KV Dickerson OUT	AETSAP	Tie	0.0	0.0	0.0	0.0	0.0	0.0
2144	Brighton EHV	PEPCO	Tie*	-7118.0	-252.0	-269.0	-320.0	-304.0	-293.0
4119	POSSUM PT-Burches	PEPCO	Tie*	-12302.0	-570.0	-586.0	-628.0	-596.0	-568.0
4121	VAP 230KV to DVP	DOMEDC	Tie	0.0	0.0	0.0	0.0	0.0	0.0
4120	VAP 230KV to PEPCO	DOMEDC	Tie	3750.0	130.0	150.0	170.0	170.0	170.0
1951	Benning 15	PPR	Gen	-9.88	-0.245	-0.245	-0.245	-0.245	-1.245
1952	Benning 16	PPR	Gen	-9.88	-0.245	-0.245	-0.245	-0.245	-1.245
6047	Bethesda BethTria	AHC	Gen	0.0	0.0	0.0	0.0	0.0	0.0
1953	Buzzard Point East CTs	PPR	Gen	-3.0					-1.0

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M2

Pepco - PJM Meter Correction Charge Summary Repc Feb-12

org_id	month	year	counter _ party	total _ correction	participant _ correction _ share	rate	charge
10	2	2012	500 kV	20	20	30.039	0.000
10	2	2012	AETSAP	1	1	30.039	0.000
10	2	2012	Benning 15	-10.544	-10.544	32.197	0.000
10	2	2012	Benning 16	-5.544	-5.544	31.845	0.000
10	2	2012	Buzzard Point West CTs	-4	-4	31.049	0.000
10	2	2012	Dickerson 2	-4.78	-4.78	36.763	0.000
10	2	2012	Dickerson 3	-5.23	-5.23	36.927	0.000
10	2	2012	Morgantown 1	0.04	0.04	33.142	0.000
10	2	2012	Morgantown 2	-0.79	-0.79	33.471	0.000
10	2	2012	Morgantown CT 1	-0.1	-0.1	32.313	0.000
10	2	2012	Potomac 4	0.2	0.2	35.270	0.000
			Totals	(9.748)	(9.748)		$ -

charge	MWhs	Rate	CHECK
0	769.29	$ 26.95	$ 20,732.
0	(1,369.40)	$ 30.04	$ (41,136.
0			
0			
$ -	(600.11)	$ 56.99	$ (20,404.
	Rounding differences:		0
$$			($20,404.
#REF!			

Check-Pepco PJM Bill

Pepco - PJM Meter Correction Allocation Charge Summary Repor Feb-12

org_id	month	year	type	edc	total _ correction _ mw	total _ meter error_correction _ charge ($)	pjm _ east _ load (MWh)	total _ pjm _ east _ load (MWh)	pjm _ region _ load (MWh)	total _ pjm _ region _ load (MWh)
10	2	2012	500 kV Gen		6897.828	$ 185,876.92	2391799.679	21445930.3		
10	2	2012	500 kV Tie		-12278.653	$(368,838.40)	2391799.679	21445930.3		
10	2	2012	Inadvertent		-2	$ (60.08)			0	61471022.7
10	2	2012	Meter Correction Allocat	PEPCO		$ (20,804.70)			0	2391799.68
			Totals		(5,382.825)					

MWs

Sheet1 Sheet2 Sheet3