First Quarter 2012 Earnings

May 10, 2012

Safe Harbor Statement

GenOn™

Forward-Looking Statements

This presentation contains statements, estimates or projections that are “forward-looking statements” as defined under U.S. federal securities laws. In some cases, one can identify forward-looking statements by words such as “will,” “expect,” “estimate,” “think,” “forecast,” “guidance,” “outlook,” “plan,” “lead,” “project” or comparable words. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from our historical experience and our present expectations or projections.

These risks include, but are not limited to:

- (i) legislative and regulatory initiatives or changes affecting the electric industry;
- (ii) changes in, or changes in the application of, environmental or other laws and regulations;
- (iii) failure of our generating facilities to perform as expected, including outages for unscheduled maintenance or repair;
- (iv) changes in market conditions or the entry of additional competition in our markets; and
- (v) those factors contained in our periodic reports filed with the SEC, including in the “Risk Factors” section of our most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q.

The forward-looking information in this document is given as of the date of the particular statement and we assume no duty to update this information. Our filings and other important information are also available on the Investor Relations page of our web site at www.genon.com.

Non-GAAP Financial Information

The following presentation includes “non-GAAP financial measures” as defined in Regulation G under the Securities Exchange Act of 1934, as amended. Reconciliations of these measures to the most directly comparable GAAP measures are contained in the appendix. This presentation is available in the Investor Relations section of our web site at www.genon.com. Certain factors that could affect GAAP financial measures are not accessible on a forward-looking basis, but could be material to future reported earnings and cash flow.

Edward R. Muller

Chairman and CEO

First Quarter 2012 Earnings

May 10, 2012

GenOn is Operating Well

- Marsh Landing is on schedule and on budget
- Generation fleet is running well
  - *Total Margin Capture Factor (TMCF) at 93% for Q1*
  - *Safety performance is very good*
    - *Zero lost time incidents in Q1*
    - *6 reportable incidents in Q1*
  - *Environmental performance is very good*
    - *4 incidents in Q1*

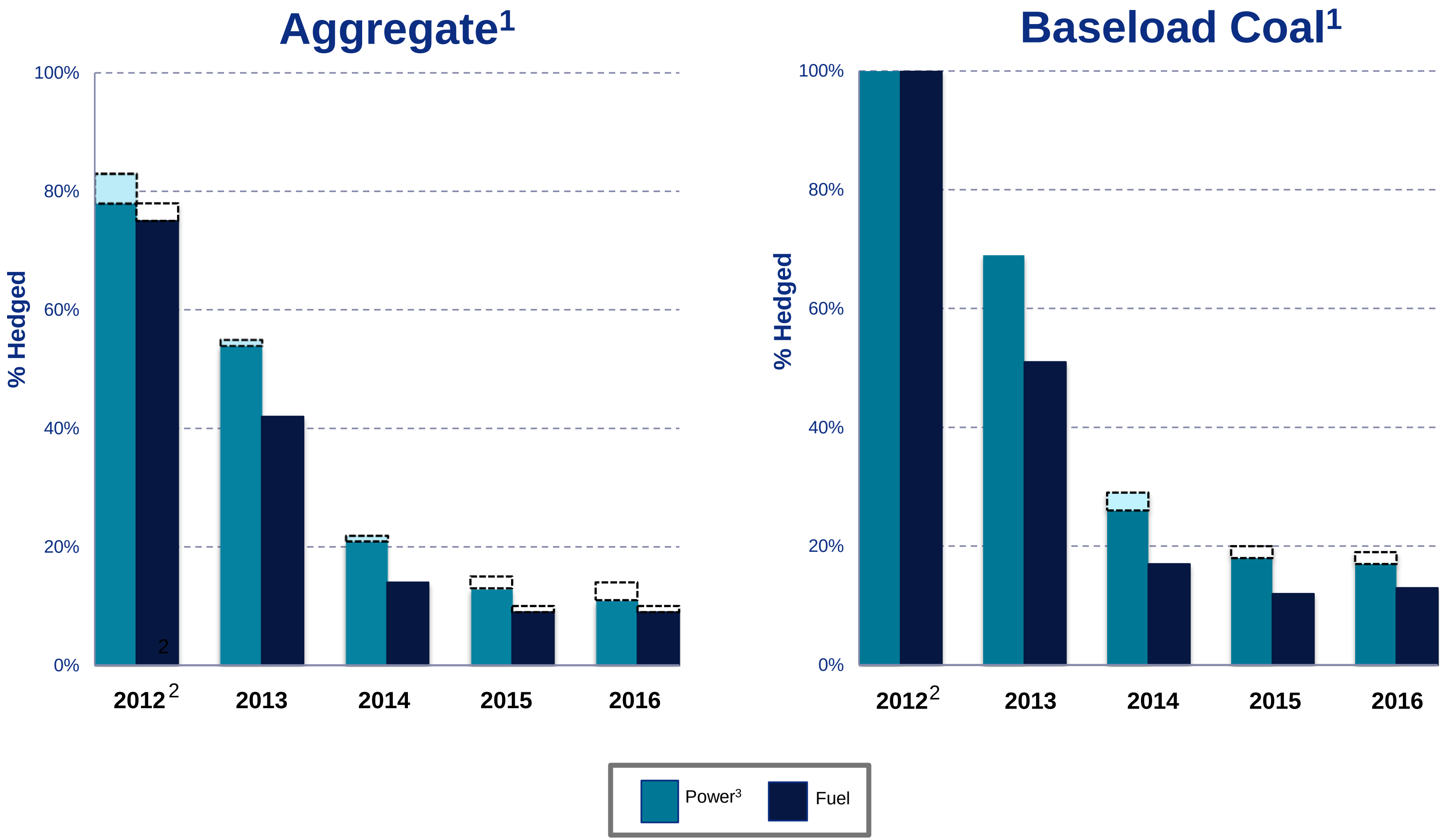
Guidance Update

(Forward curves as of April 9, 2012)

($ millions)	2012E		2013E	
	Current guidance	Previous guidance	Current guidance	Previous guidance
Adjusted EBITDA	$ 446	$ 440	$ 669	$ 665

Hedge Levels

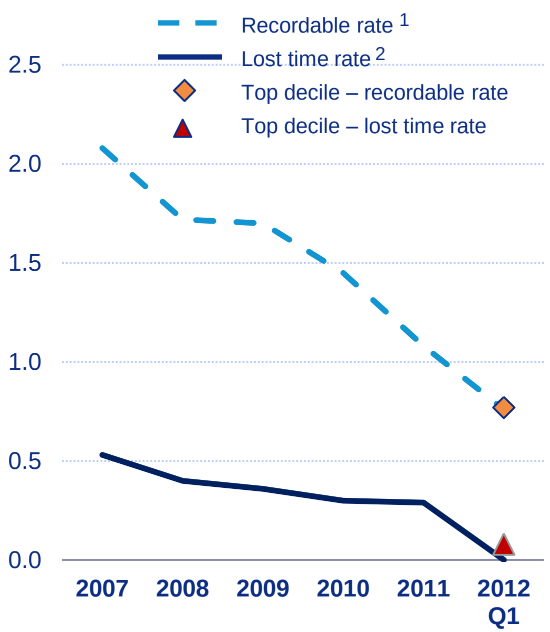
Based on expected generation as of April 9, 2012



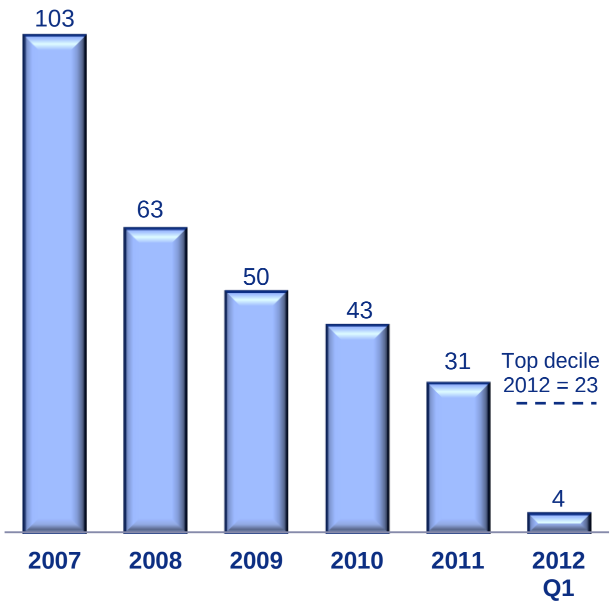
1. Shaded boxes represent net additions since January 24, 2012; empty boxes represent net decreases since January 24, 2012.
2. 2012 represents balance of year (May – December).
3. Power hedges include hedges with both power and natural gas.

Performance Metrics

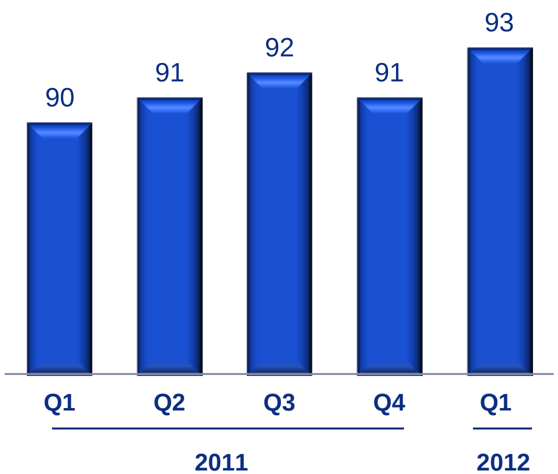
Safety
Incident Rates



Environmental
Incidents



Operations
TMCF[3]



Top decile performance in first quarter

Fleet is operating well

1. Recordable rate is the number of OSHA recordable incidents per 100 employees.
2. Lost time rate is the number of OSHA lost time injuries per 100 employees.
3. TMCF is the actual gross margin earned compared to the total gross margin that could have been earned.

Unit Deactivations

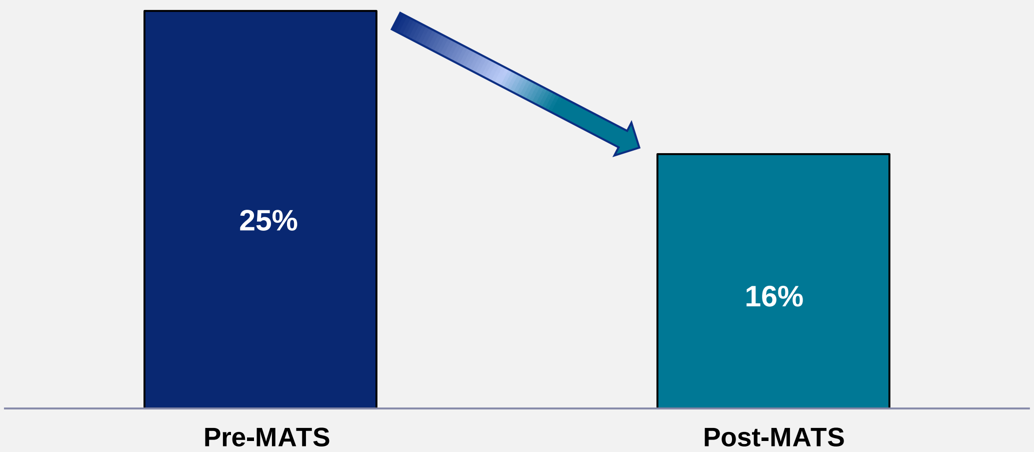
Plant	Location	MWs	Original Planned Deactivation Date	Driver
Elrama 1- 4	PA	460	June 1, 2012	MATS and market conditions
Niles 1 & 2	OH	217	June 1, 2012	
Portland	PA	401	January 7, 2015	Cumulative effect of various environmental regulations
Avon Lake	OH	732	April 16, 2015	MATS
New Castle	PA	330	April 16, 2015	MATS
Shawville	PA	597	April 16, 2015	Cumulative effect of various environmental regulations
Titus	PA	243	April 16, 2015	MATS
Glen Gardner	NJ	160	May 1, 2015	NJ High Energy Demand Day (HEDD) regulations
Total		**3,140**		

RMR Arrangements				
Unit	**Location**	**MWs**	**End Date**	
Elrama 4	PA	171	October 1, 2012	RMR filings to be made with FERC
Niles 1	OH	109	October 1, 2012	

Impact of Environmental Rules

Supply and demand tightening as a result of industry deactivations in PJM

Total PJM Reserve Margin 2015E[1]



We expect higher earnings from price increases resulting from industry retirements will more than offset reduced earnings from GenOn unit deactivations

1. Pre-MATS estimated reserve margin is prior to and Post-MATS is after the 15.5 GW of total announced and projected retirements in the PJM ISO GO (Generator-Owner) Response to EPA Rules Preliminary Summary Update dated March 26, 2012. Post-MATS also includes retirements related to NJ High Energy Demand Day NO_X limits and only known additions that are not likely sensitive to price.

J. William Holden

Executive Vice President and CFO

First Quarter 2012 Earnings

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Financial Results

($ millions)	1Q		
	2012	2011	Variance
Energy[1]	$ 22	$ 169	$ (147)
Contracted and capacity	178	235	(57)
Realized value of hedges	164	80	84
Adjusted gross margin[1]	**$ 364**	**$ 484**	**$ (120)**
Adjusted operating and other expenses	(263)	(279)	16
Adjusted EBITDA	**$ 101**	**$ 205**	**$ (104)**

- Energy – reduced generation volumes because of contracting dark spreads in Eastern & Western PJM partially offset by improved spark spreads
- Contracted and capacity – lower PJM capacity prices
- Adjusted operating and other expenses – merger synergies

1. Excludes (a) unrealized gains and losses, (b) lower of cost or market inventory adjustments, net and (c) advance settlement of out-of-market contract obligation.

Debt and Liquidity

GenOn

($ millions)		March 31, 2012
Amortizing term loan due 2017	$	690
Senior unsecured notes due 2014 - 2020		2,525
GenOn Americas Generation senior notes due 2021 and 2031		850
GenOn Marsh Landing project finance due 2017 and 2023		152
Capital leases due 2012 - 2015		18
Total debt[1]	**$**	**4,235**
Cash and cash equivalents	$	1,705
Less: reserved		(12)
Available cash and cash equivalents	$	1,693
Revolver and letters of credit available[2]		532
Total available liquidity[2]	**$**	**2,225**
Funds on deposit:		
Cash collateral for energy trading and marketing	$	171
Cash collateral for other operating activities[3]		59
Cash collateral for surety bonds		34
GenOn Mid-Atlantic restricted cash[4]		166
Marsh Landing development project cash collateral		114
Environmental compliance deposits		35
Other		14
Total funds on deposit	**$**	**593**

1. Excludes unamortized debt discounts and adjustments to fair value of debt of $(60) million.
2. Excludes availability under GenOn Marsh Landing credit facility.
3. Includes $32 million related to the Potomac River escrow.
4. Cash reserved for liens related to contract litigation on scrubbers built to comply with the Maryland Healthy Air Act.

Guidance

(Forward curves as of April 9, 2012)

($ millions)	2012E	2013E
Adjusted gross margin[1]	$ 1,557	$ 1,775
Adjusted operating and other expenses[2]	(1,111)	(1,106)
Adjusted EBITDA	**$ 446**	**$ 669**
Cash interest, net[3]	(356)	(363)
Income taxes paid, net	-	(2)
Working capital and other changes	(203)	(24)
Adjusted net cash provided by (used in) operating activities	$ (113)	$ 280
Capital expenditures to be paid from cash[4]	(199)	(294)
Adjusted free cash flow (deficit)	$ (312)	$ (14)
Marsh Landing working capital and equity contributions	(45)	(71)
Payments of Merger-related costs	24	3
Adjusted free cash flow deficit excluding MD HAA capital expenditures, Marsh Landing and merger-related costs	$ (333)	$ (82)

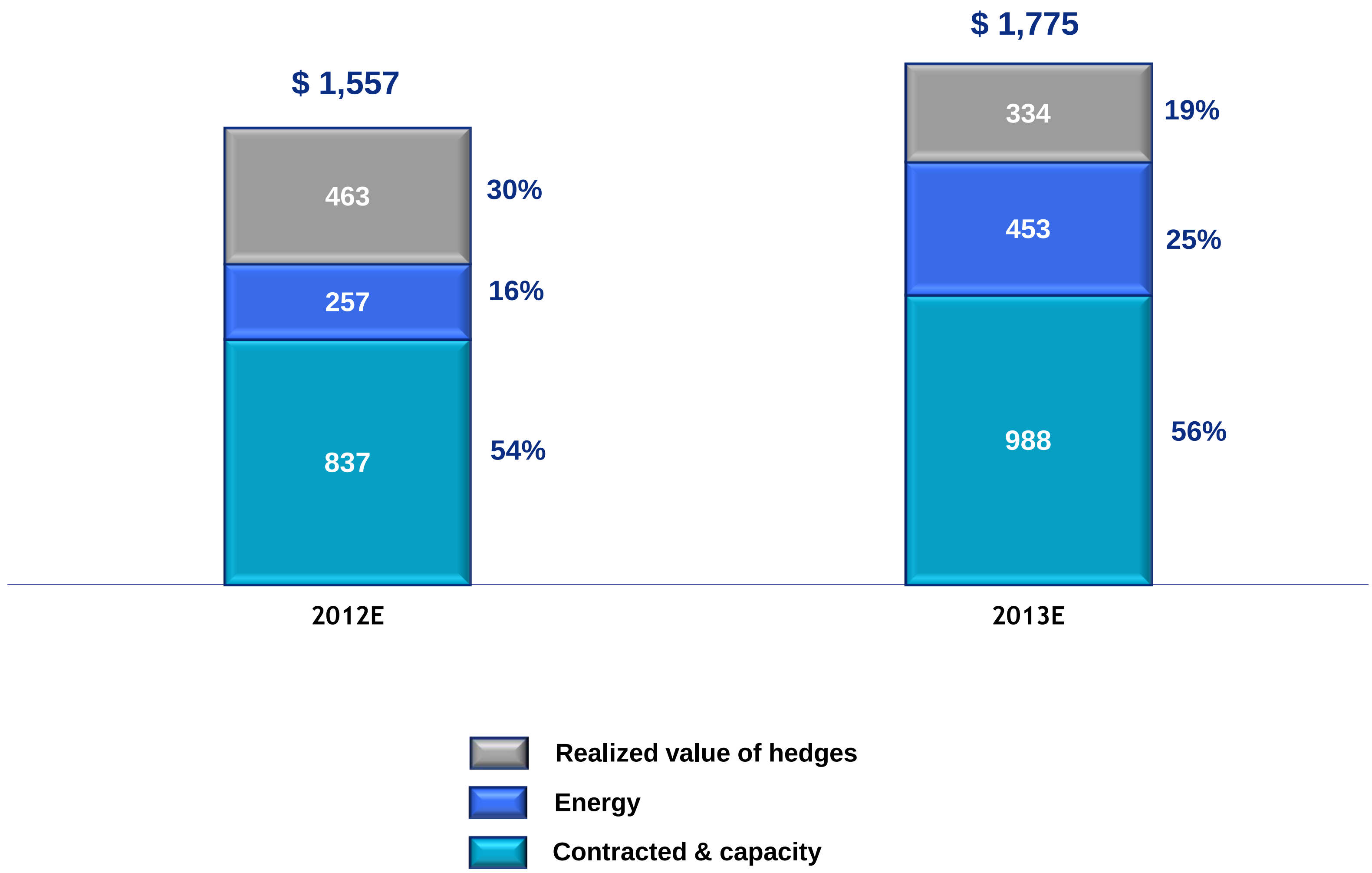
Hedged adjusted gross margin	$ 1,377	$ 1,400
Adjusted operating and other expenses[2]	(1,111)	(1,106)
Hedged adjusted EBITDA	$ 266	$ 294

1. Excludes (a) unrealized gains/losses; (b) lower of cost or market inventory adjustments, net; and (c) advance settlement of out-of-market contract obligation.
2. Includes $35 million and $96 million of annual operating lease expense for REMA and GenOn Mid-Atlantic, respectively.
3. Excludes capitalized interest from Marsh Landing.
4. Excludes (a) those capitalized expenditures for Marsh Landing, which will be funded by project financings and (b) capitalized expenditures for Maryland Healthy Air Act, which will be paid from funds on deposit.

Adjusted Gross Margin Comparison

(Forward curves as of April 9, 2012)

($ millions)



Guidance Comparison – Adjusted EBITDA

($ millions)

	2012E	2013E
Previous guidance[1]	**$ 440**	**$ 665**
Contracted and capacity	(1)	2
Energy		
Market price and generation changes	(15)	53
Energy Marketing	(18)	(1)
Realized value of hedges	24	(47)
Operating and other expenses	16	(3)
Current guidance[2]	**$ 446**	**$ 669**

1. Previous guidance based on forward curves as of January 24, 2012.
2. Current guidance based on forward curves as of April 9, 2012.

Guidance Sensitivities

(Forward curves as of April 9, 2012)

GenOn

Impact on Adjusted EBITDA ($ millions)	2012E	2013E
Adjusted EBITDA	**$ 446**	**$ 669**
Sensitivities		
Natural gas[1] ($1/mmBtu change in average NYMEX price)	**$ 47**	**$ 151**
NYMEX[2] $/mmBtu	$ 2.52	$ 3.48
Power [3] (500 Btu/kWh heat rate change)	**$ 12**	**$ 47**
Market Implied Heat Rate (MIHR)[2], 7X24, Btu/kWh:		
PEPCO	13,185	10,881
PJM W	11,906	9,907
AEP - Dayton Hub	11,392	9,797

1. Assumes MIHR and generation volumes are held constant.
2. 2012 represents May – December.
3. Assumes fuel price and generation volumes are held constant.

Capital Expenditures

($ millions)	2012E	2013E
Maintenance	$ 101	$ 142
Environmental		
Maryland Healthy Air Act	83	-
Other[1]	64	124
Construction		
Marsh Landing	342	69
Other	20	-
Other	14	10
Total Capital Expenditures[2]	**$ 624**	**$ 345**
Funds on deposit for MD Healthy Air Act	(83)	-
Project financings for Marsh Landing	(342)	(51)
Capital expenditures to be paid from cash	**$ 199**	**$ 294**

Expected normalized maintenance capital expenditures ~$115 million/year decreasing to ~$110 million/year after deactivations

1. $36 million and $89 million related to MATS, HEDD and water regulations in 2012 and 2013, respectively.
2. Includes capitalized interest only related to Marsh Landing.

Summary

- Expect to deactivate 3,140 MWs because forecasted returns on investments necessary to comply with environmental regulations are insufficient
- Expect investments of ~$611 - $750 million over the next 10 years for major environmental controls
- 19,490 MWs of generating capacity after 2015

We expect higher earnings from price increases resulting from industry retirements will more than offset reduced earnings from GenOn unit deactivations

Appendix

First Quarter 2012 Earnings

May 10, 2012

Guidance Assumptions

Forward curves as of April 9, 2012	2012E (May – December) mmMWh[1]	2012E (May – December) Market Price	2013E mmMWh	2013E Market Price
Eastern PJM				
Delivered gas price ($/mmbtu)		$ 2.74		$ 3.79
Delivered coal price ($/ton)		$ 81.06		$ 91.15
Pepco ($/MWh)				
On Peak	4.86	$ 43.87	6.66	$ 49.06
Off Peak	3.66	$ 29.39	5.42	$ 34.49
Total Eastern PJM	**8.52**		**12.08**	
% hedged	*100%*		*88%*	
Western PJM/MISO				
Delivered gas price ($/mmbtu)		$ 2.74		$ 3.79
Delivered coal price ($/ton)[2]		$ 72.33		$ 78.02
AD Hub ($/MWh)				
On Peak	3.74	$ 34.95	6.18	$ 39.69
Off Peak	3.23	$ 24.49	5.77	$ 28.85
PJM W ($/MWh)				
On Peak	2.43	$ 39.27	3.83	$ 44.41
Off Peak	1.67	$ 26.83	2.80	$ 31.63
Total Western PJM/MISO	**11.07**		**18.58**	
% hedged	*78%*		*38%*	
California	**1.65**		**0.37**	
Other	**1.33**		**1.20**	
Total expected generation	**22.57**		**32.23**	
% hedged	*83%*		*55%*	
Baseload coal expected generation	**14.78**		**25.46**	
% hedged	*100%*		*69%*	
Power hedged vs market[3]		**+$18.93/MWh**		**+$22.38/MWh**
Fuel hedged vs market[4]		**-5.45/MWh**		**-3.56/MWh**
Total impact of hedged vs market[3,4]		**+13.48/MWh**		**+18.82/MWh**

1. Year to date generation totaled 5.7 mmMWh through March 31, 2012, 1.6 mmMWh estimated for April 2012.
2. Excludes Seward.
3. Power hedges include hedges with both power and natural gas.
4. Includes market value of coal, oil and gas hedges with hedge value allocated per MWh of power hedged.

Hedge Details

Forward curves as of April 9, 2012

$ millions	Balance of 2012E[1]	2013E	2014E	2015E	2016E
Power[2]	$ 352	$398	$ 298	$ 76	$ 39
Fuel	(100)	(64)	(7)	4	2
Realized value of hedges	**$ 252**	**$ 334**	**$ 291**	**$ 80**	**$ 41**

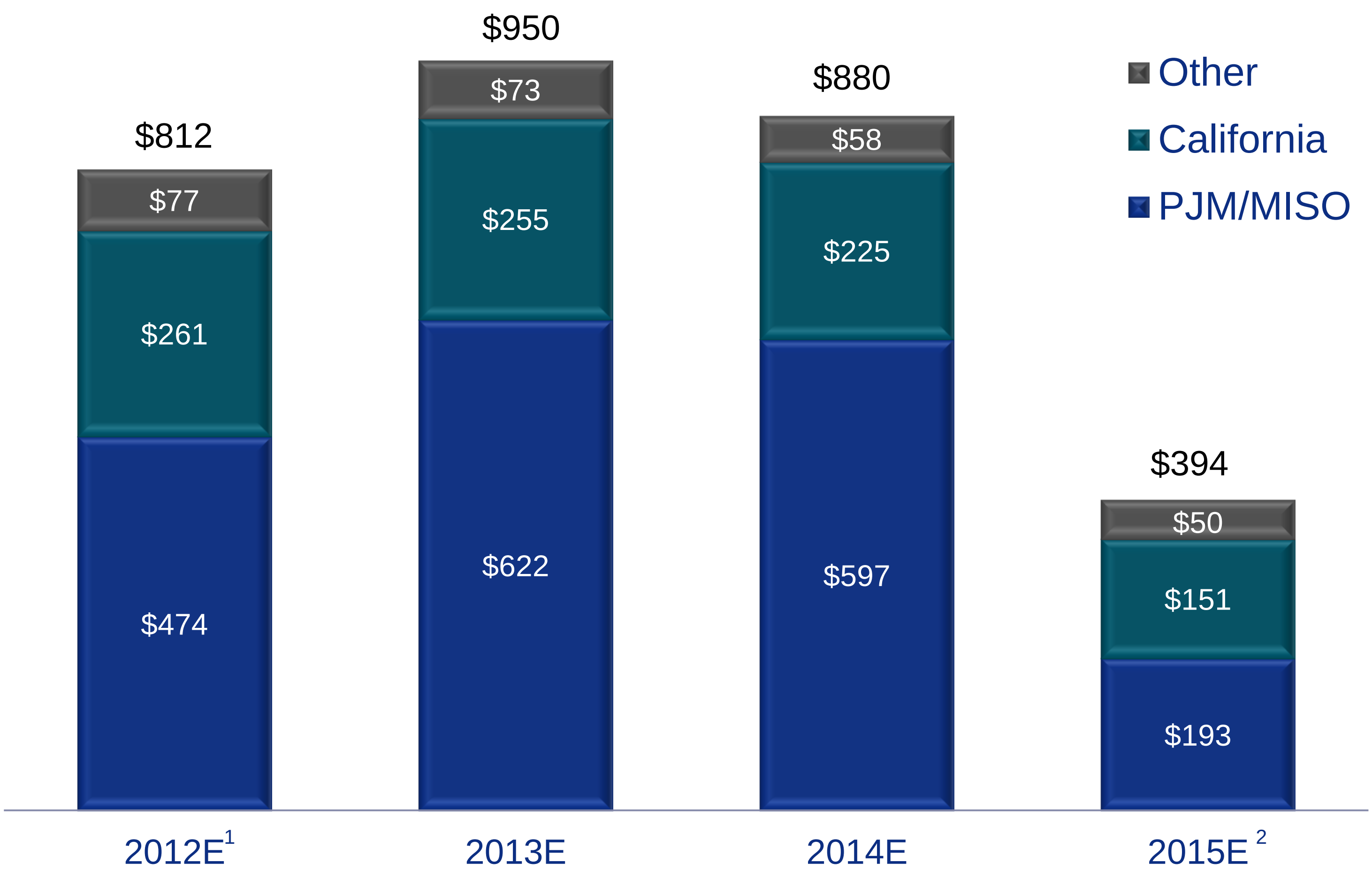
	Balance of 2012E[1]	2013E	2014E	2015E	2016E
Power[2]: mmMWh equivalents sold	18.7	17.8	8.3	4.3	3.5
Coal[3]: Average contract price ($/mmBtu) hedged (before delivery)	$ 2.88	$ 2.78	$ 2.55	$ 2.55	$ 2.55

1. 2012 represents May – December.
2. Power hedges include hedges for both power and natural gas.
3. Excludes Seward.

Fixed Contracted and Capacity

($ millions)

As of April 9, 2012

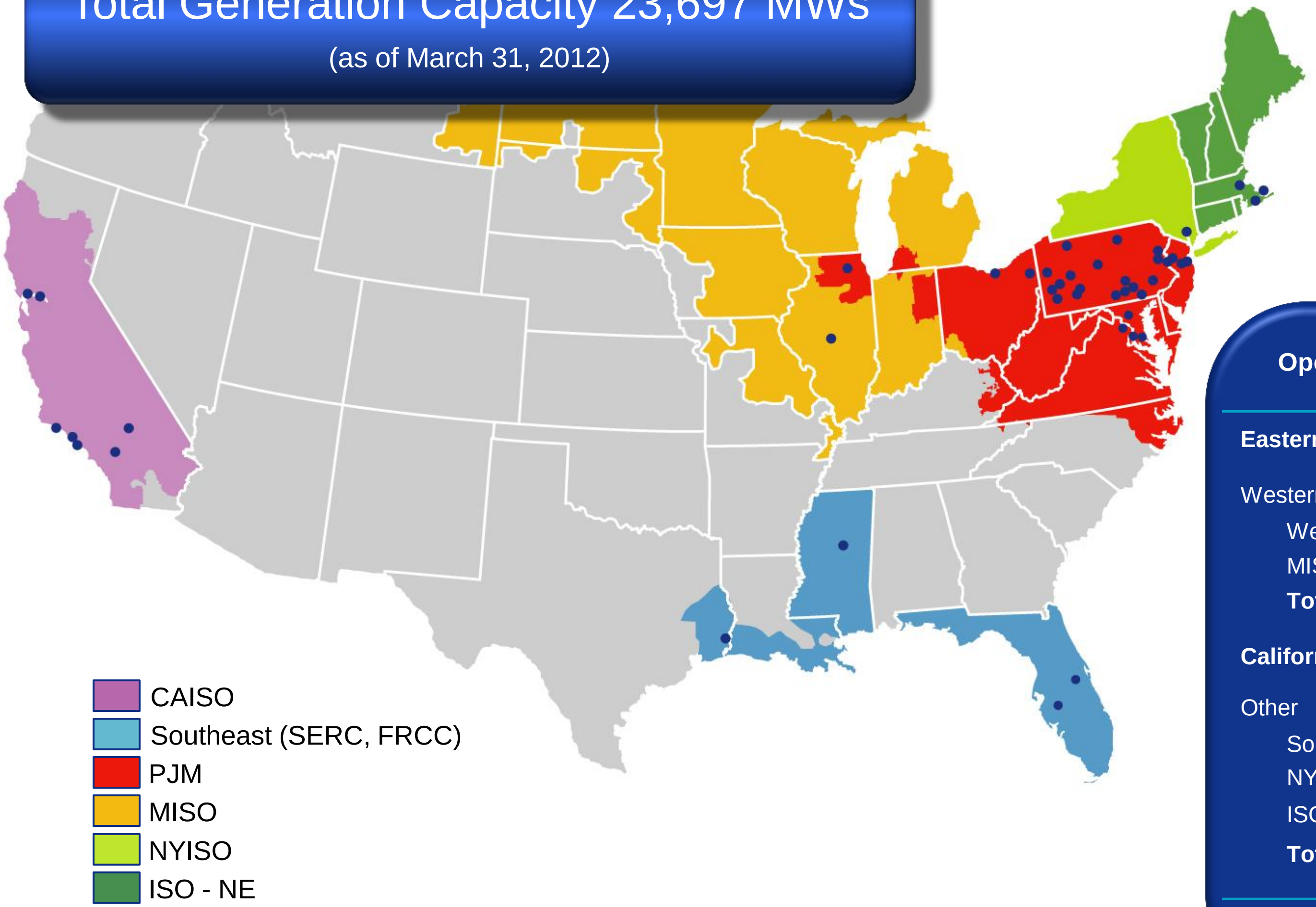


1. Includes actual results through March 2012.
2. Includes cleared capacity auction results for PJM through May 2015 and New England through December 2015.

Generation Portfolio

Total Generation Capacity 23,697 MWs

(as of March 31, 2012)



Operating Segment / Market		Net Capacity (MW)
Eastern PJM		**6,341**
Western PJM/MISO		
Western PJM	7,139	
MISO	344	
Total Western PJM/ MISO		**7,483**
California		**5,391**
Other		
Southeast	1,947	
NYISO	1,139	
ISO - NE	1,396	
Total Other		**4,482**
Total		**23,697**

Generation

	Net MWh Generated	
	1Q 2012	1Q 2011
Baseload[1]		
Western PJM/MISO	3,835,840	5,008,870
Eastern PJM	1,232,116	3,511,278
California	-	-
Other	340,581	377,322
Total Baseload	**5,408,537**	**8,897,470**
Intermediate[1]		
Western PJM/MISO	422	(2,023)
Eastern PJM	220,485	18,024
California	17,747	33,220
Other	4,723	18,283
Total Intermediate	**243,377**	**67,504**
Peaking[1]		
Western PJM/MISO	(7,242)	(1,199)
Eastern PJM	9,849	17,178
California	-	(208)
Other	31,398	11,329
Total Peaking	**34,005**	**27,100**
Total GenOn	**5,685,919**	**8,992,074**

1. Classification based on design capability.

Expected Changes in Generation Fleet

GenOn

Plant	Location	MWs	Original Planned Deactivation Date	Driver
Units to be deactivated				
Elrama[1]	PA	460	June 2012	MATS and market conditions
Niles[1]	OH	217	June 2012	
Portland	PA	401	January 2015	Cumulative effect of various environmental regulations
Avon Lake	OH	732	April 2015	MATS
New Castle	PA	330	April 2015	MATS
Shawville	PA	597	April 2015	Cumulative effect of various environmental regulations
Titus	PA	243	April 2015	MATS
Glen Gardner	NJ	160	May 2015	NJ High Energy Demand Day (HEDD) regulations
Subtotal		**3,140**		
Other fleet reductions				
Vandolah	FL	630	May 2012	Tolling agreement expires
Potomac River	VA	482	October 2012	Retiring based on agreement with the City of Alexandria, VA
Contra Costa	CA	674	May 2013	Expected to retire upon expiration of PPA
Total reductions		**4,926**		
Fleet addition				
Marsh Landing	CA	719	Mid-2013	Under construction – on schedule and on budget

19,490 MWs of generating capacity after 2015

1. Elrama unit 4 (171 MW) and Niles unit 1 (109 MW) will operate under RMR arrangements until October 1, 2012. RMR filings to be made with FERC.

Expected Environmental Investments

- Expect investments of ~$611 - $750 million in major controls over the next 10 years to meet current and anticipated environmental rules

Plant	Location	Control Technology	Expected Timing	Driver	Investments ($ millions)
Kendall	MA	Backpressure steam turbine + air-cooled condenser	2012 - 2014	Water regulations	$32 - $35
Gilbert **Sayreville** **Werner**	NJ	SCR	2012 - 2015	New Jersey HEDD regulations	$129 - $151
Conemaugh	PA	Scrubber upgrade + SCR	2011 – 2015	MATS	$92[1]
Mandalay **Ormond Beach**	CA	Variable speed pumps	2018 - 2019	Water regulations	$17 - $20
Chalk Point - Unit 2 **Dickerson**	MD	SCR	2018 - 2021	More stringent $PM_{2.5}$ and Ozone NAAQS	$341 - $452

1. Based on GenOn leased percentage.

Debt Structure

($ millions)

As of March 31, 2012

SEC filers

Operating entities

Borrowers and guarantors of GenOn Energy secured revolving credit facility & term loan

GenOn Energy, Inc.[1]

Unsecured notes 7.625% due 2014	$575
$788 revolver due 2015[2]	-
Unsecured notes 7.875% due 2017	725
Amortizing term loan due 2017[2]	690
Unsecured notes 9.5% due 2018	675
Unsecured notes 9.875% due 2020	550

GenOn Marsh Landing (project financing)

$150 Senior secured facility due 2017	$ -
$155 Senior secured amortizing term loan due 2017	47
$345 Senior secured amortizing term loan due 2023	105

GenOn Americas Generation[1]

Senior Notes 8.5% due 2021	$450
Senior Notes 9.125% due 2031	400

REMA

Operating leases[3]

Other PJM/MISO, Southern California and Southeast

GenOn Mid-Atlantic

$17 capital lease

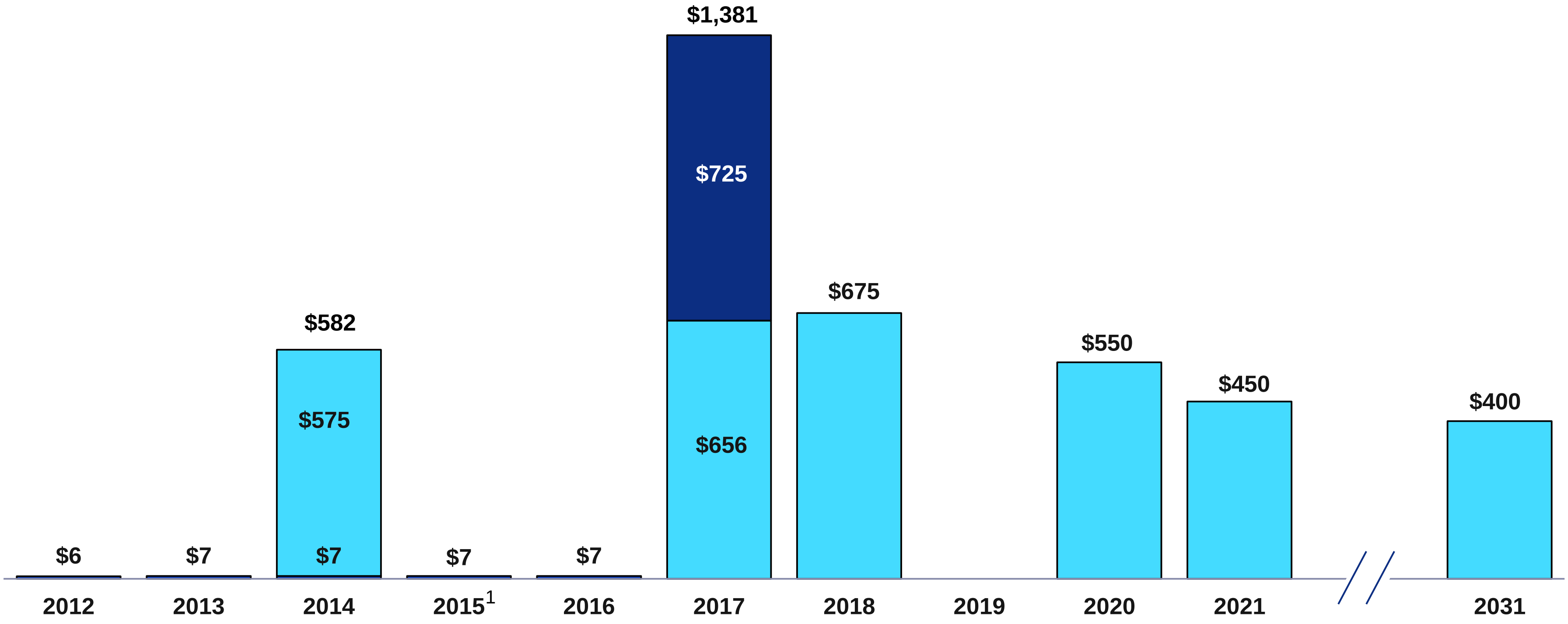
Operating leases[3]

New York, New England and Northern California Generating Assets

1. Excludes $(60) million unamortized debt discounts and adjustments to fair value of debt and $1 million corporate capital lease.
2. GenOn Americas (a direct subsidiary of GenOn Energy) and GenOn Energy are co-borrowers of the credit facility debt.
3. The present values of lease payments for GenOn Mid-Atlantic and REMA operating leases are $903 million and $458 million, respectively.

Debt Maturity Schedule

($ millions)
As of March 31, 2012
Excludes GenOn Marsh Landing non-recourse project financing and capital leases



1. $788 million revolving credit facility matures in 2015, however no balance is outstanding.

Organizational Structure

As of March 31, 2012

GenOn Energy, Inc.
(23,697 MWs)

GenOn Marsh Landing
(719 MWs)[1]

- Marsh Landing

GenOn Americas Generation

GenOn Mid-Atlantic
(5,209 MWs)

- Chalk Point
- Dickerson
- Morgantown
- Potomac River

New York, New England and Northern California
(4,520 MWs)

- Bowline
- Canal
- Contra Costa
- Kendall
- Martha's Vineyard
- Pittsburg

REMA
(3,419 MWs)

- Blossburg
- Conemaugh
- Gilbert
- Glen Gardner
- Hamilton
- Hunterstown CT
- Keystone
- Mountain
- Orrtanna
- Portland
- Sayreville
- Shawnee
- Shawville
- Titus
- Tolna
- Warren
- Werner

Other PJM/MISO, Southern California and Southeast
(10,549 MWs)

- Aurora
- Avon Lake
- Brunot Island
- Cheswick
- Choctaw
- Coolwater
- Ellwood
- Elrama
- Etiwanda
- Hunterstown CCGT
- Mandalay
- New Castle
- Niles
- Ormond Beach
- Osceola
- Sabine
- Seward
- Shelby
- Vandolah

1. Under construction, expected to be complete mid-2013; therefore, not included in total MWs.

Federal NOL

- Confirmed former RRI Energy did not experience an ownership change as a result of the merger or following the merger through December 31, 2011

- GenOn's federal NOLs at December 31, 2011 are approximately $2.6 billion
  - *Unlimited NOLs*
    - *$1.7 billion of GenOn and former RRI NOLs available to offset future taxable income*
  - *Limited NOLs*
    - *$0.6 billion former Mirant NOLs, and*
    - *$0.3 billion of GenOn's post merger NOLs that arise from former Mirant pre-merger built in losses*
    - *Limited NOLs are available to use against $54 million of taxable income annually beginning December 2015 (5 years from the merger date)*

- Expect to pay, at most, federal Alternative Minimum Tax and some state tax on taxable income over the next 5 years

Reg G: Adjusted Net Income/Loss to Adjusted EBITDA and Adjusted Gross Margin

($ millions)	1Q 2011	1Q 2012	2012E[1]	2013E[1]
Net Loss	**$ (111)**	**$ (32)**	**$ (661)**	**$(498)**
Unrealized (gains) losses	79	(100)	317	396
Merger-related costs	23	2	9	2
Loss on early extinguishment of debt	24	-	-	-
Lower of cost or market inventory adjustments, net	(8)	41	41	-
Major litigation costs, net of recoveries	-	2	5	-
Costs to deactivate generating facilities	-	35	61	5
Advance settlement of out-of-market contract obligation	-	(20)	(20)	-
Reversal of Potomac River settlement obligation	-	-	(32)	-
Gain on sales of assets	-	(6)	(6)	-
Other, net	-	2	4	2
Adjusted Net Income (Loss)	**$ 7**	**$ (76)**	**$ (282)**	**$ (93)**
Provision (benefit) for income taxes	3	-	-	-
Interest expense, net	109	89	366	378
Depreciation and amortization	86	88	362	384
Adjusted EBITDA	**$ 205**	**$ 101**	**$ 446**	**$ 669**
Adjusted operating and other expenses	279	263	1,111	1,106
Adjusted Gross Margin	**$ 484**	**$ 364**	**$ 1,557**	**$1,775**
Unrealized gains (losses)	(79)	100	(317)	(396)
Lower of cost or market inventory adjustments, net	8	(41)	(41)	-
Advance settlement of out-of-market contract obligation	-	20	20	-
Gross Margin	**$ 413**	**$ 443**	**$ 1,219**	**$ 1,379**

1. Certain factors that could affect GAAP financial measures are not accessible on a forward-looking basis, but could be material to future reported earnings and cash flow.

Reg G: Operations and maintenance to adjusted operating and other expenses

GenOn

($ millions)	1Q		2012E[1]	2013E[1]
	2011	2012		
Operations and maintenance	**$ 305**	**$ 308**	**$ 1,163**	**$ 1,120**
Gain on sales of assets, net	(1)	(8)	(6)	-
Other, net	22	(2)	(5)	(5)
Operating and other expenses	**$ 326**	**$ 298**	**$ 1,152**	**$ 1,115**
Merger-related costs	(23)	(2)	(9)	(2)
Costs to deactivate generating facilities	-	(35)	(61)	(5)
Loss on early extinguishment of debt	(24)	-	-	-
Gain on sales of assets	-	6	6	-
Reversal of Potomac River settlement obligation	-	-	32	-
Major litigation costs, net of recoveries	-	(2)	(5)	-
Other, net	-	(2)	(4)	(2)
Adjusted operating and other expenses	**$ 279**	**$ 263**	**$ 1,111**	**$1,106**

1. Certain factors that could affect GAAP financial measures are not accessible on a forward-looking basis, but could be material to future reported earnings and cash flow.

Reg G: Cash Flow from Operations to Adjusted EBITDA Guidance

GenOn

($ millions)	2012E[1]	2013E[1]
Net cash provided by (used in) operating activities[2]	**$ (110)**	**$ 283**
Capitalized interest[3]	(3)	(3)
Adjusted net cash provided by (used in) operating activities	**$ (113)**	**$ 280**
Cash interest, net[3]	356	363
Income taxes paid, net	-	2
Working capital and other changes	203	24
Adjusted EBITDA	**$ 446**	**$ 669**

1. Certain factors that could affect GAAP financial measures are not accessible on a forward-looking basis, but could be material to future reported earnings and cash flow.
2. Represents the most directly comparable GAAP measure for our liquidity measures. See Guidance slide for a reconciliation of adjusted free cash flow (deficit) and adjusted free cash flow deficit excluding MD HAA cap ex, Marsh Landing and merger-related costs to Adjusted EBITDA.
3. Excludes capitalized interest from Marsh Landing.