



# Annual Review – Moody's

June 2013

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# 1. Company Overview

# Introduction to KOSPO



<b>Company Name</b>	<b>Korea Southern Power Co., Ltd. (“KOSPO”)</b>
<b>Establishment Date</b>	<b>April 2, 2001 (Spun off from KEPCO)</b>
<b>Ownership</b>	<b>100% owned by KEPCO (51% owned by the Korean government)</b>
<b>Assets</b>	<b>KRW 7,081 bn (as of 1Q 2013)</b>
<b>Sales</b>	<b>KRW 6,975 bn (2012) / KRW 1,895 bn (1Q 2013)</b>
<b>Generation Capacity</b>	<b>9,200 MW (as of 1Q 2013)</b>
<b>Power Generation</b>	<b>63,393 GWh (2012) / 17,370 GWh (as of 1Q 2013)</b>
<b>Credit Rating</b>	<b>A1 (Stable) by Moody’s / A+ (Stable) by S&amp;P / A+ (Positive) by Fitch</b>

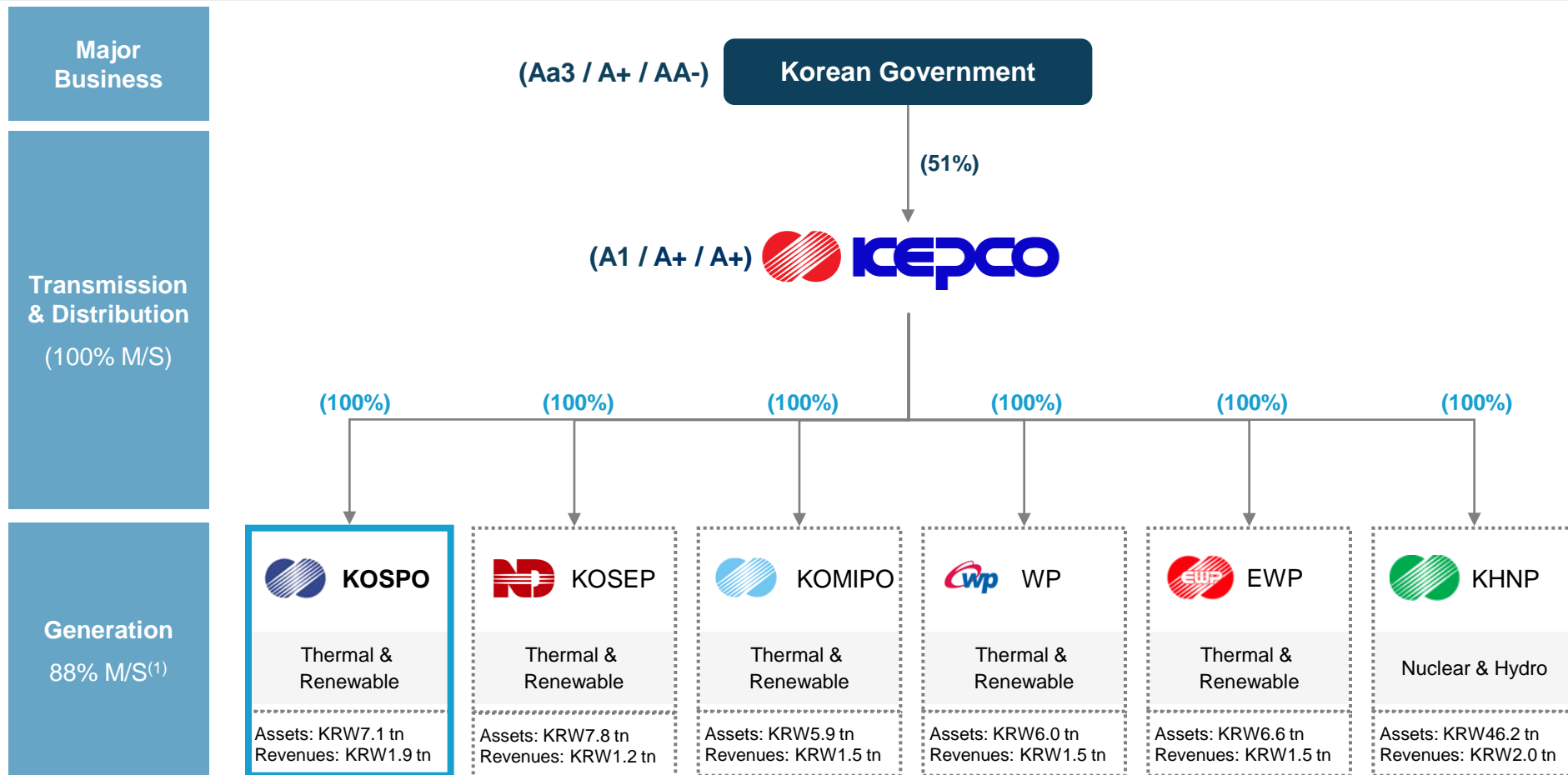
**KOSPO is the largest thermal power generation company (“Genco”) in Korea in terms of total generation capacity and sales volume & revenue.**

Note : As of March 31, 2013 and consolidated unless otherwise specified



# Introduction to KOSPO (cont'd) – Ownership Structure

KOSPO is one of six wholly-owned electricity generation subsidiaries of Korea Electric Power Corporation (“KEPCO”). These subsidiaries generate substantially all of the electricity in Korea.



Note :

(1) Generation mix in Korea for 1Q 2013: 91.1% or 127,520GWh was generated by 6 Gencos & KEPCO and 8.9% or 11,336GWh by Independent Power Producers.

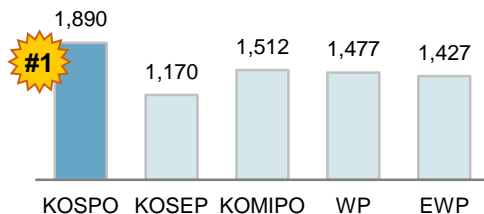
(2) All assets and revenue figures as of 1Q 2013 / Consolidated K-IFRS



# KOSPO – Competitiveness in Korean Power Market

## 1 No.1 Sales Position in the Korea Power Market

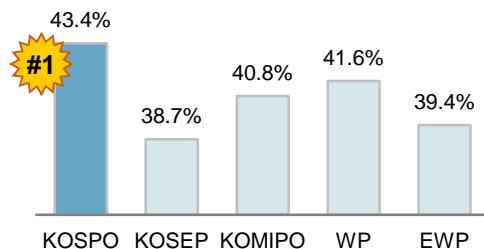
Electricity Sales (KRW bn) – 1Q 2013



- No. 1 electricity sales (KRW 1,890bn) among all thermal Gencos in Korea
- KOSPO is expected to benefit from its market position amidst growing demand for electricity

## 2 No.1 Thermal Efficiency and Highest Proportion of LNG

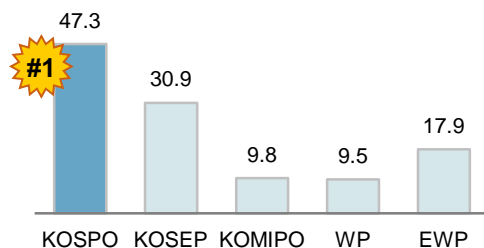
Thermal Efficiency – 1Q 2013



- LNG - high unit sales price applicable
- Geographical proximity to metropolitan areas leading to sales advantages
- Enhanced efficiency supported by state-of-the-art facilities

## 3 No. 1 Position in the Renewable Energy Developments

Total Installed Capacity - Renewable Energy (MW)



- Leader in wind power generation business
- High potential for the future growth
- Well positioned to meet Renewable Portfolio Standard (RPS) guidelines and growing environmental awareness

Note : As of March 31, 2013 unless otherwise specified

Source : Company Filing, The Monthly Report on Major Electric Power Statistics, KEPCO, as of March 31 2013



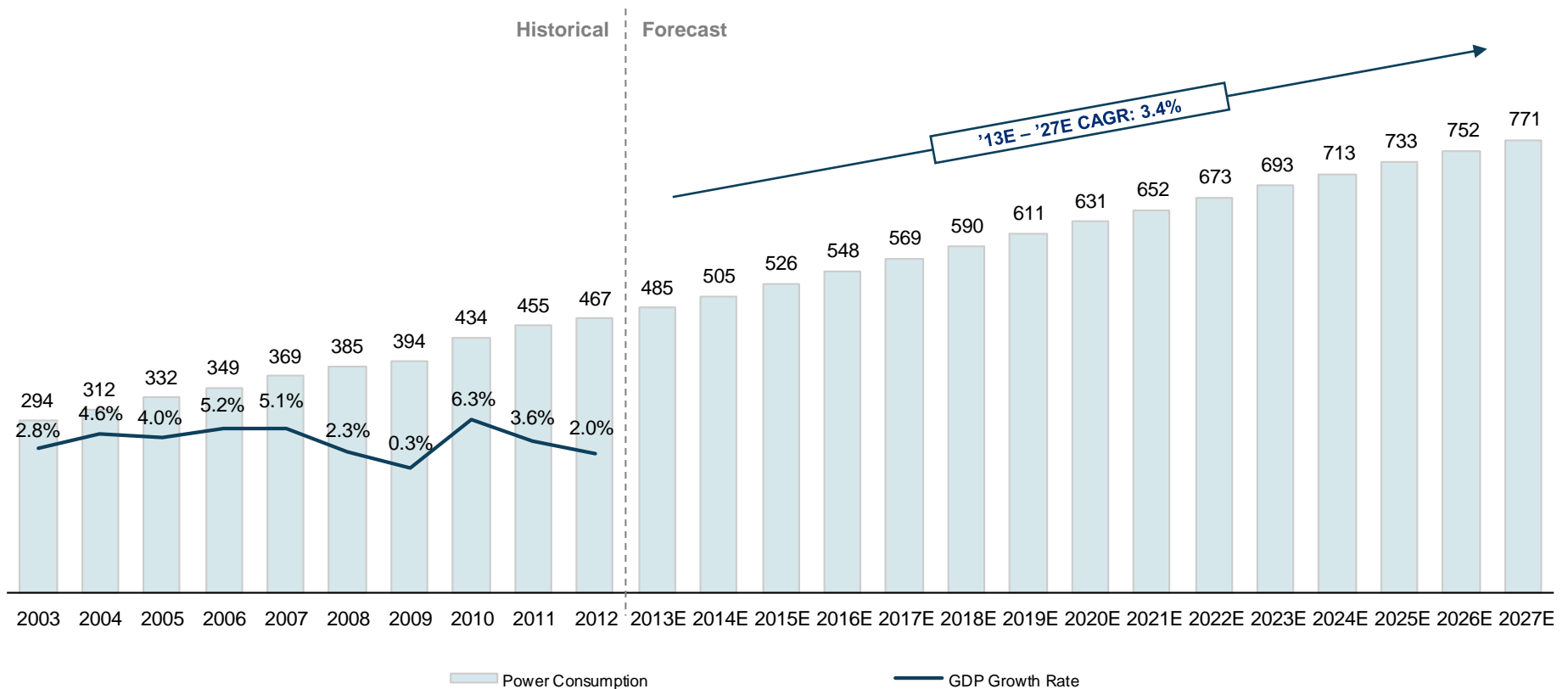
## **2. Electricity Industry Overview and Business Environment**

# Nationwide Power Consumption Forecast

Supported by Korea's solid economic growth, power consumption has continued to grow and is expected to continue its current growth at 3.4% CAGR from 2013 to 2027.

## Historical Power Consumption and Demand Forecast

(Unit: TWh / %)



Source: KEPCO, Electric Power Statistics Information System, "Electricity Supply and Demand Basic Plan #6", published by the Ministry of Knowledge Economy ("MKE"), February 2013



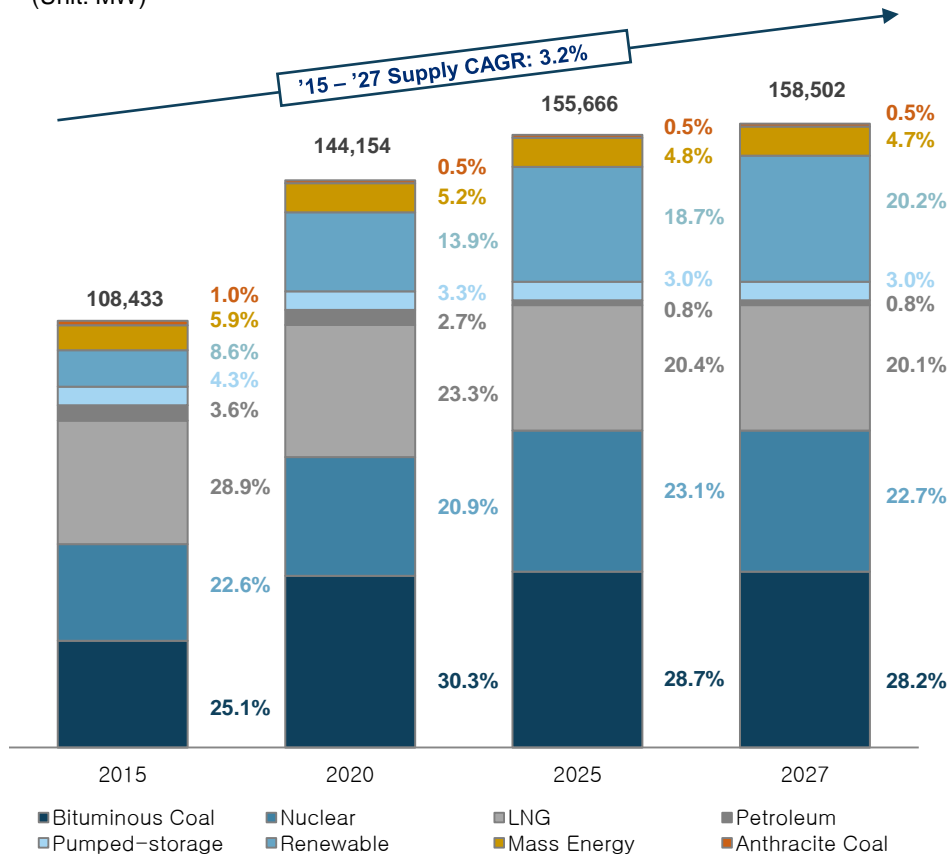


# Domestic Power Supply & Reserve Rate Forecast

Power reserve rate is expected to show a general recovery until 2020 on the back of growth in electricity supply.

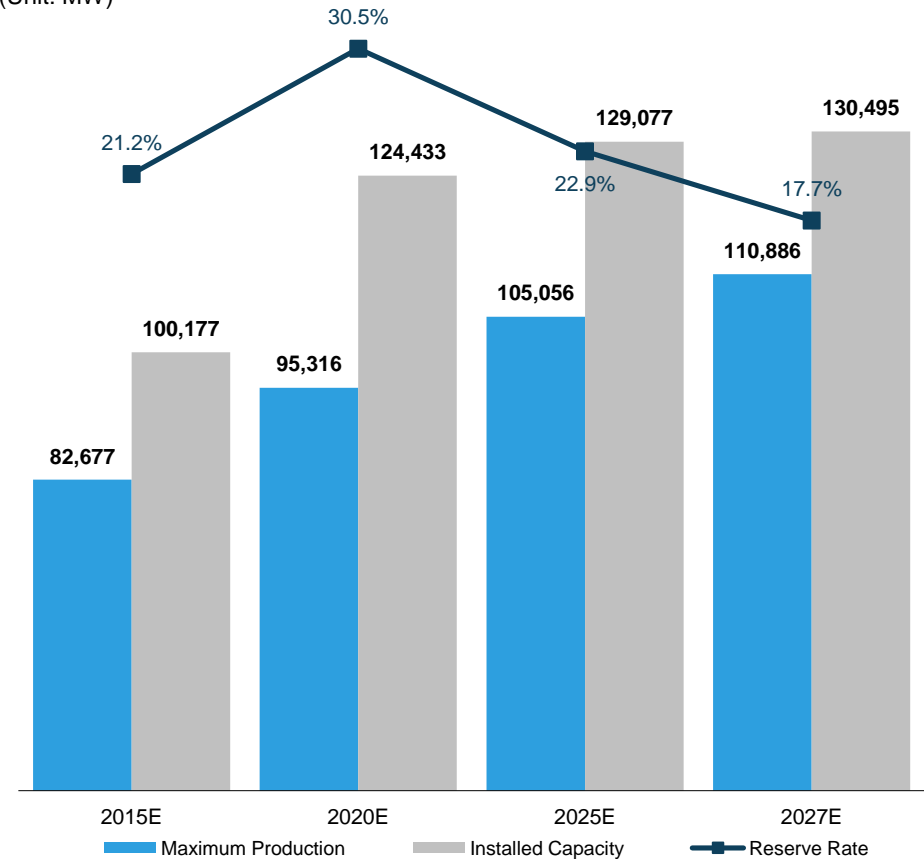
## Electricity Capacity Forecast by Fuel Type

(Unit: MW)



## Reserve Rate Trend

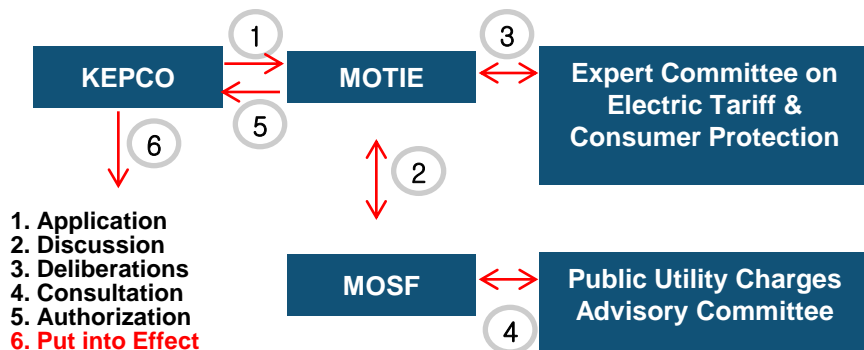
(Unit: MW)



Source: "Electricity Supply and Demand Basic Plan #6", published by the Ministry of Knowledge Economy ("MKE"), February 2013

# Regulatory Structure Overview

## Tariff Adjustment Flow

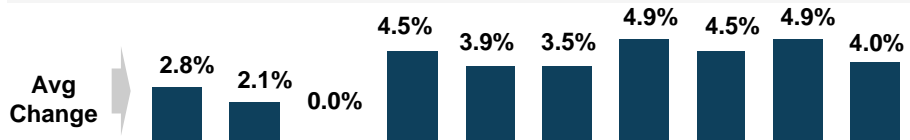


## RPS – Renewable Portfolio Standard

Implementation	<ul style="list-style-type: none"> <li>Implemented from 2012 by KEMCO (Korea Energy Management Corporation)</li> <li>Mandatory supply of renewable energy calculated accordingly to the standard supply of each generator</li> </ul>
Change of conditions	<ul style="list-style-type: none"> <li>Mandatory generation amount increased from 822 to 834GWh for 2012</li> <li>Generation companies are mandated to purchase at least 16MW of solar power annually</li> <li>Initial implementation of mandatory solar energy generation has been shortened (5 → 4years)</li> </ul>

## Historical Electricity Tariff Adjustment Rate

Effective Dec 05 Jan 07 Jan 08 Nov 08 Jun 09 Aug 10 Aug 11 Dec 11 Aug 12 Jan 13



Residential	2.4%	0.0%	0.0%	0.0%	0.0%	2.0%	2.0%	0.0%	2.7%	2.0%
Commercial	2.8%	0.0%	-3.2%	3.0%	2.3%	0.0%	4.4%	4.5%	4.4%	4.6%
Industrial	3.3%	4.2%	1.0%	8.1%	6.5%	5.8%	6.1%	6.5%	6.0%	4.4%

## Mandatory Renewable Supply of KOSPO

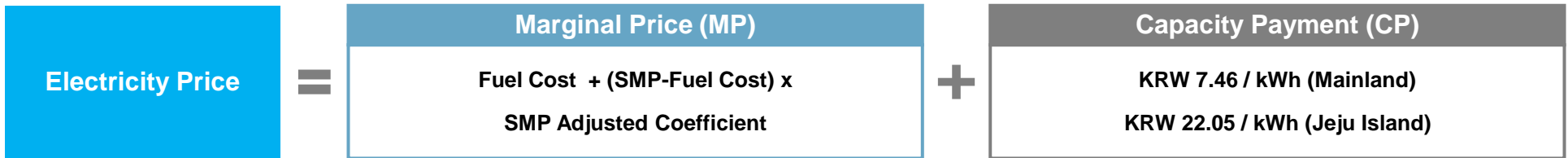
	2012	2013	2014	2015	2016	2018	2020	2022
Mandatory Proportion (%)	1.40	1.96	2.80	3.65	4.61	7.81	11.14	14.76
Mandatory Amount (GWh)	834	1,138	1,520	1,921	2,201	4,099	5,616	7,082



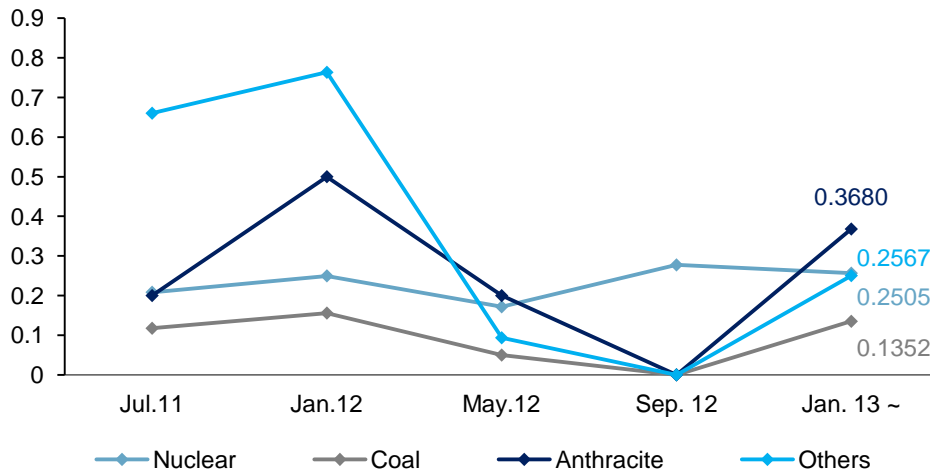
# Electricity Pricing Mechanism

- Under the Cost-based Pool System, the price of electricity in Korea has two principal components, Marginal Price (fuel price of generating electricity) and the Capacity Payment (fixed cost of generating electricity).
- Under this system, KOSPO is able to pass through increase in fuel cost to KEPCO.

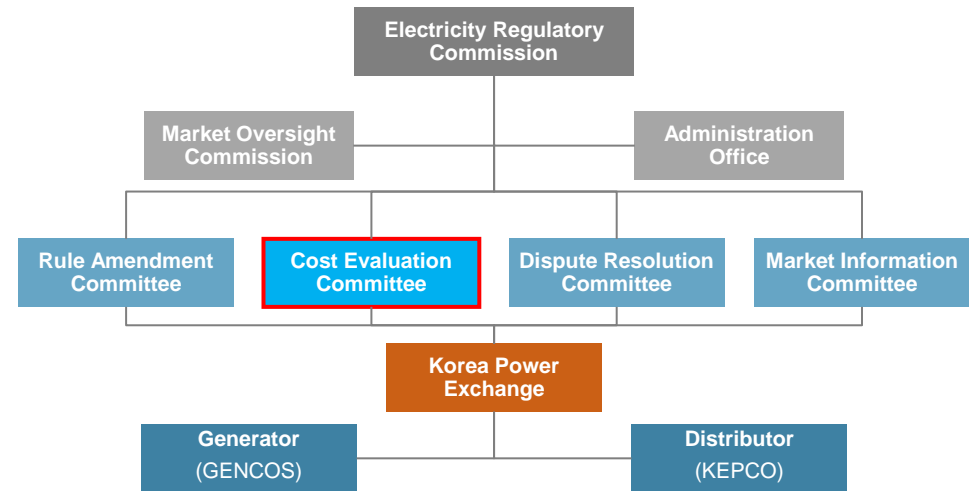
## Electricity Pricing Mechanism



## Coefficient Adjustment Trend<sup>(1)</sup>



## Power Market Regulatory Framework



Note: SMP (System Marginal Price) - The marginal price of electricity at a given hour at which the projected demand for electricity and the projected supply of electricity for such hour intersect

(1) Heavy Water Reactor (HWR) coefficient for nuclear in Sep 12






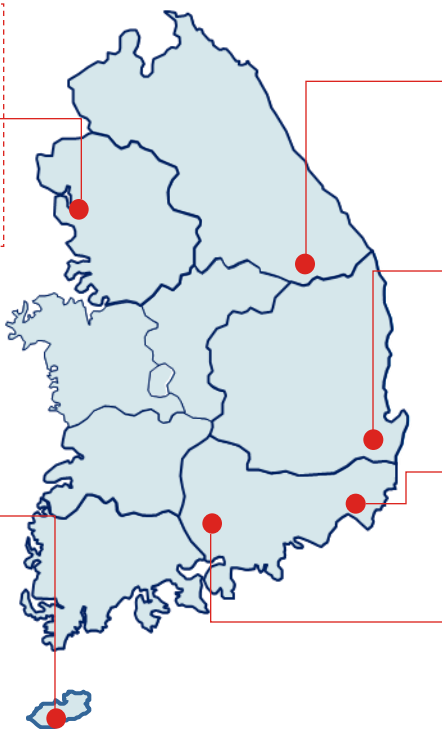
### **3. Business/Operations Update**

# KOSPO's Generation Capacity Portfolio

### ShinIncheon C/C




- Fuel Type: LNG
- Capacity: 1,800MW




### Youngwol C/C

(Commercial Operation Nov. 2010)




- Fuel Type: LNG
- Capacity: 848MW

### Youngnam T/P




- Fuel Type: B.C
- Capacity: 400MW

### Busan C/C




- Fuel Type: LNG
- Capacity: 1,800 MW

### Hadong T/P



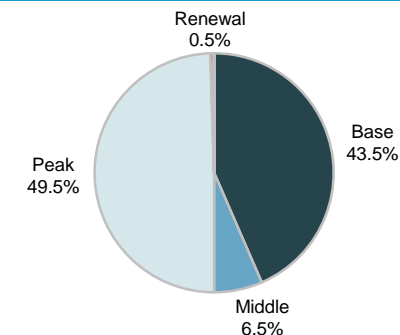
- Fuel Type: Coal
- Capacity: 4,000MW

### Nam Jeju T/P, D/P

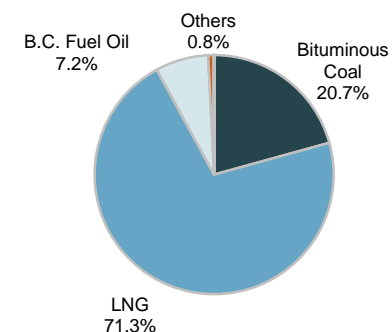


- Fuel Type: B.C
- Capacity: 200MW

## Electricity Generation by Load



## Fuel Mix



Plant Name	Base	Middle		Peak				Renewal			Total
	Hadong	Youngnam	Nam-Jeju	Shin-Incheon	Busan	Youngwol	Hanlim	Wind Power	Solar Power	Hydro Power	
Capacity (MW)	4,000	400	200	G/T: 1,200 S/T: 600	G/T: 1,200 S/T: 600	G/T: 549 S/T: 299	G/T: 70 S/T: 35	41	6	0.06	
<b>Total</b>	<b>4,000</b>	<b>600</b>		<b>4,553</b>				<b>47</b>			<b>9,200</b>

Source: The Monthly Report on Major Electric Power Statistics, KEPCO, as of March 2013

# Plant Construction Plan

## Base / Middle Power

### Samcheok #1, #2

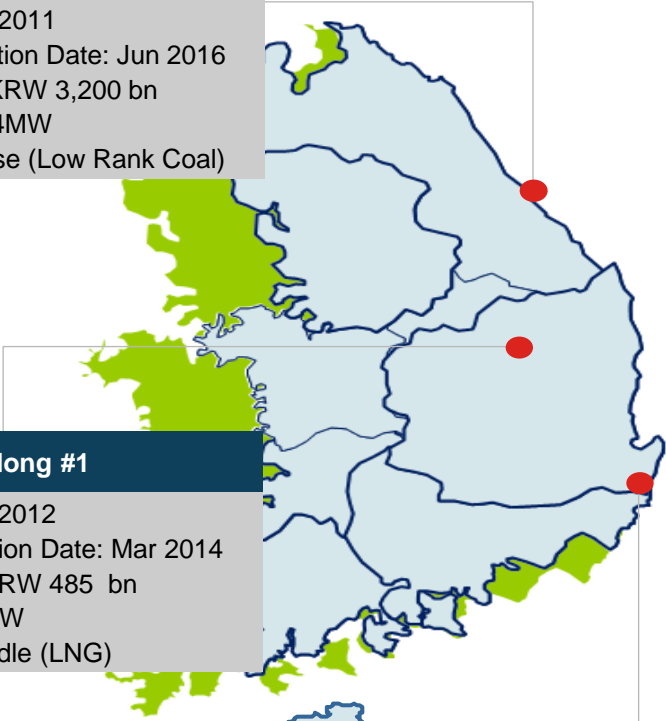
- Start Date: Jun2011
- Target Completion Date: Jun 2016
- Total Capex: KRW 3,200 bn
- Capacity: 2,044MW
- Load Type: Base (Low Rank Coal)

### Andong #1

- Start Date: Apr 2012
- Target Completion Date: Mar 2014
- Total Capex: KRW 485 bn
- Capacity: 417MW
- Load Type: Middle (LNG)

### Youngnam #1

- Start Date: Jul 2014
- Target Completion Date: Jul 2016
- Total Capex: KRW 344 bn
- Capacity: 400MW
- Load Type: Middle (LNG)

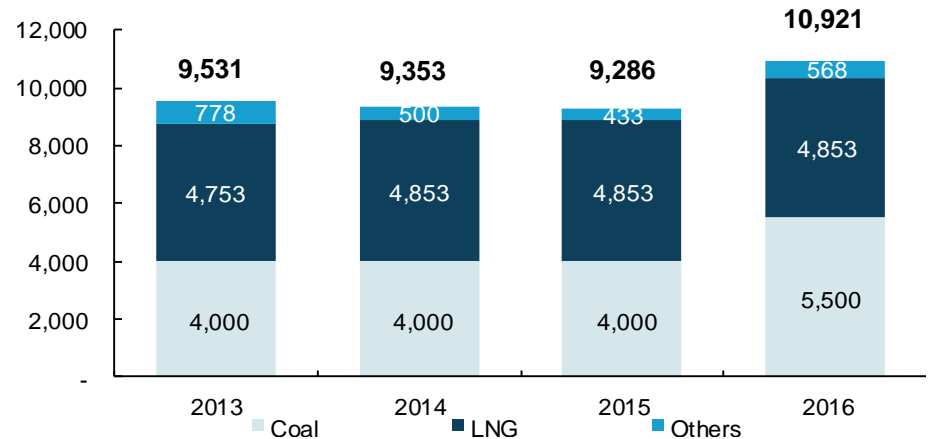


## Planned Capex by year

Unit: KRW (bn)

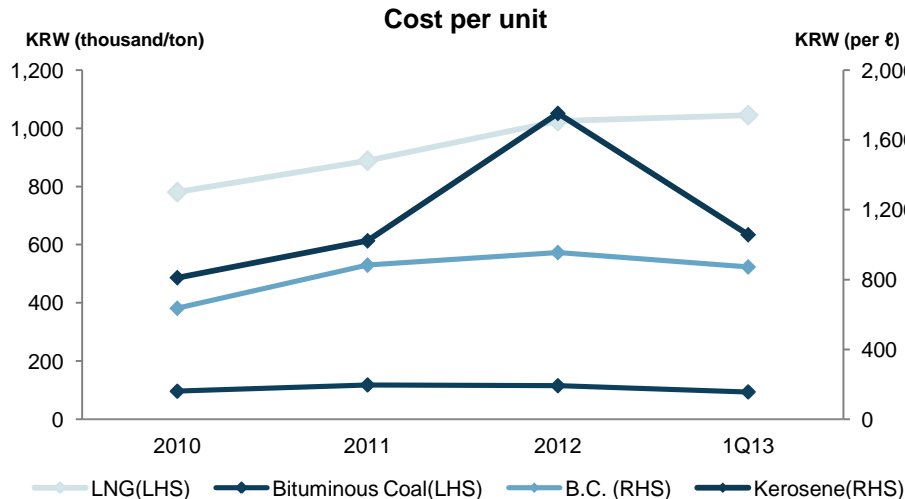
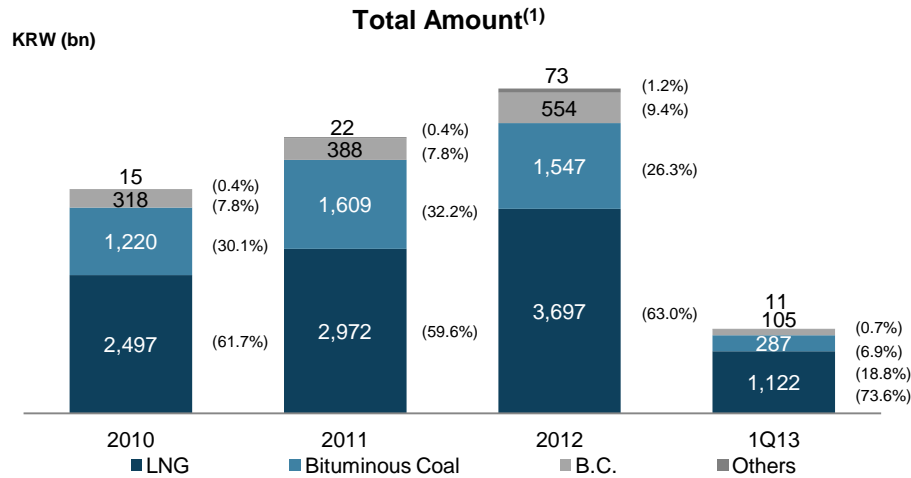
	2013	2014	2015	2016	Total
<b>Samcheok #1, #2</b>	962.4	972.7	287.3	67.5	2,289.9
<b>Youngnam #1</b>	5.3	50.3	251.7	37.0	344.3
<b>Andong #1</b>	301.2	0	0	0	301.2
<b>Total</b>	1,268.9	10,230	5,390	1,045	2,935.4

## Capacity Projection



# Fuel Cost Management

## Fuel Mix



Source: Company  
Note: (1) Total fuel purchase amount

## Fuel Cost Management Strategy

### Diversified Fuel Source

- 8 Overseas countries (Indonesia, Australia, South Africa, Russia, China, the U.S., Canada and Colombia)

### Long-term Supply Contract

Term : 80%, Spot : 20%

### Procurement Strategy

- Developing low calorie coal procurement
- Investing overseas coal mines (e.g. Indonesia, the U.S., etc)
- Exclusive supply of LNG by KOGAS in consideration for termination to increase price competitiveness

### Managing price fluctuations

- BC oil, Kerosene: Hedging contracts such as futures are considered if necessary to hedge price risks
- Bituminous Coal : Long-term and short-term contracts are balanced accordingly to price movements. Risk management via hedging contracts such as futures are also considered when necessary

## Bituminous Coal Long-term Contract by Country (1H 2013)

Country	Volume (MT / Year)	% Proportion
Australia	5.87	48.1%
Indonesia	4.51	37.0%
Russia	0.72	5.9%
USA	0.56	4.6%
South Africa	0.28	2.3%
Canada	0.26	2.1%
<b>Grand Total</b>	<b>12.20</b>	<b>100%</b>

# Overseas Resources Development

1

## Indonesia – Bituminous Coal

Acquisition of new shares of PT Kedap Sayaaq, an Indonesian company having coal mines in Indonesia



- **Reserves:** Low-calorie and more eco-friendly bituminous coal reserves
- **Investment:** USD 16.6mn
- **Production Capacity:** 6 million tons per annum with a total of c. 200 million tons
- **Progress:** will invest 50% in 3Q 2013, 50% in 4Q 2013

2

## Indonesia – Palm Pellets

Investment in a joint venture which is expected to produce c.100,000 tons of palm pellets per annum

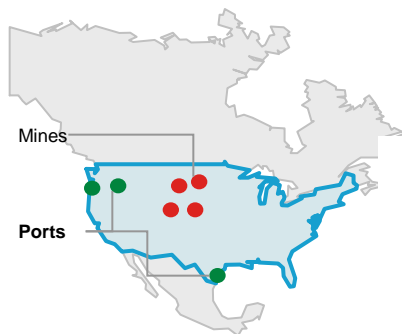


- **Reserves:** New biomass fuel made from palm oil mill waste which does not generate fossil carbon
- **Investment:** KRW 1.5bn
- **Production Capacity:** c.100,000 tons per annum (expected)
- **Progress:** Completed as of Jun 2012

3

## United States – Coal

Participated in pre-IPO of Ambre Energy, an Australian mining company owning coal mines and coal-export terminals in the U.S.

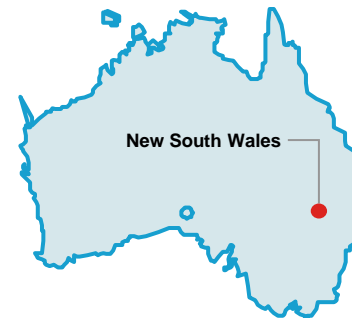


- **Reserves:** To provide a more predictable and stable fuel supply while diversifying the fuel source
- **Investment:** KRW 7.5bn
- **Production Capacity:** Total 500 million tons of coal reserves
- **Progress:** Completed as of Jun 2012

4

## Australia – Coal

Coal procurement through joint acquisition of 10% stake in Felix



- **Reserves:** 600 million tons of coal reserve
- **Investment:** KRW7.4 bn
- **Production Capacity:** 12 million tons per annum with a total of c. 300 million tons
- **Progress:** Initiated coal production in May 2010



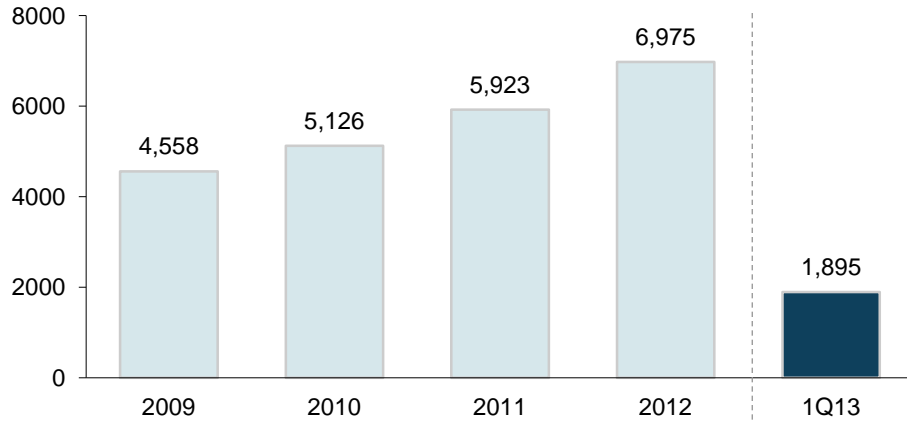


## 4. Financial Performance

# Profitability

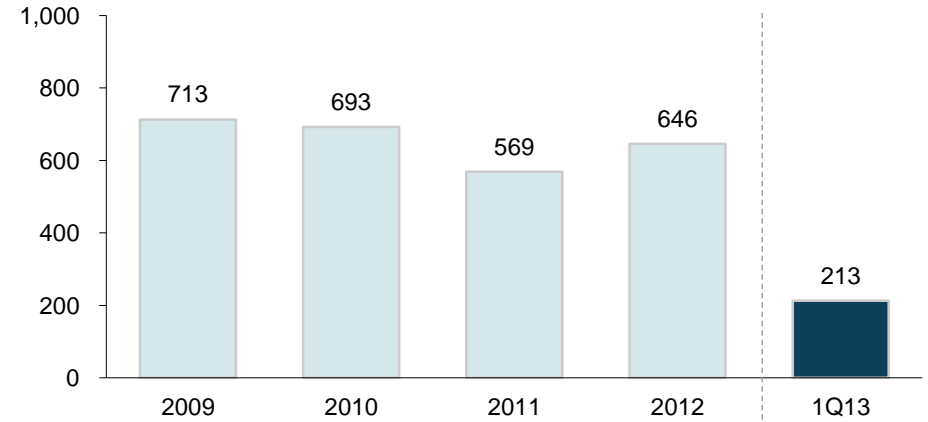
## Revenue

(Unit: KRW bn)



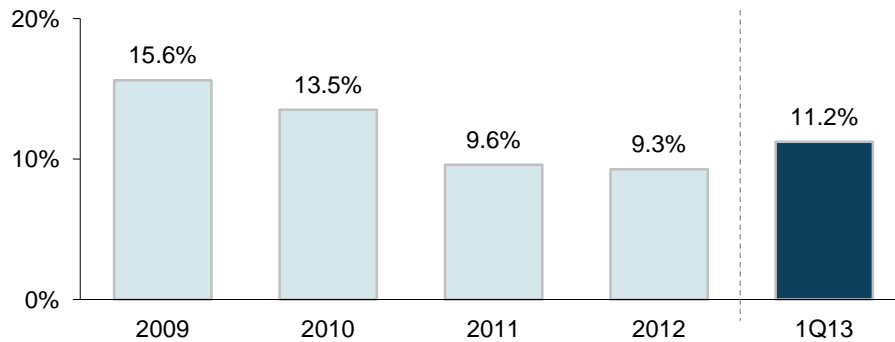
## EBITDA

(Unit: KRW bn)



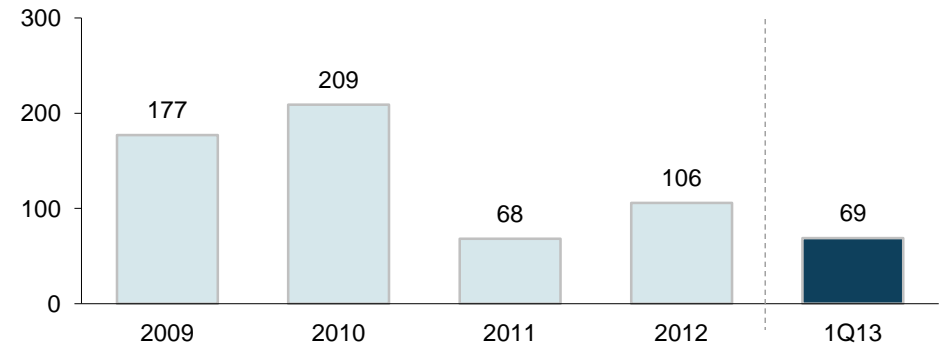
## EBITDA Margin

(Unit: %)



## Net Profit

(Unit: KRW bn)

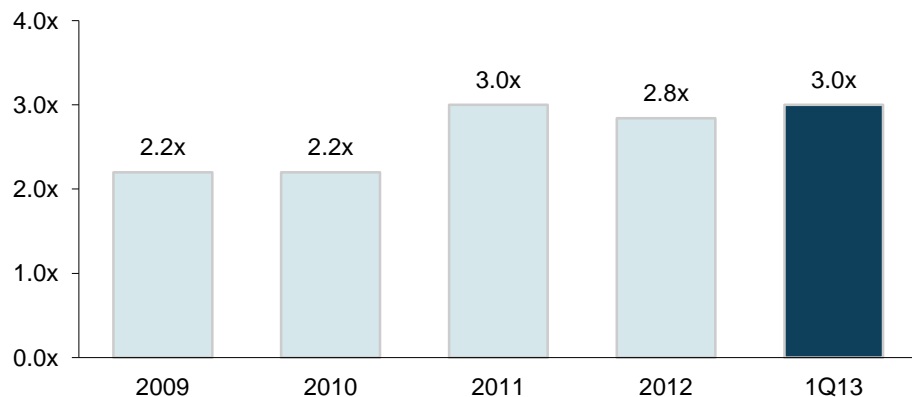


Source: Company Filing (Unconsolidated K-GAAP for 2009, K-IFRS for 2010 and thereafter)

# Key Credit Metrics

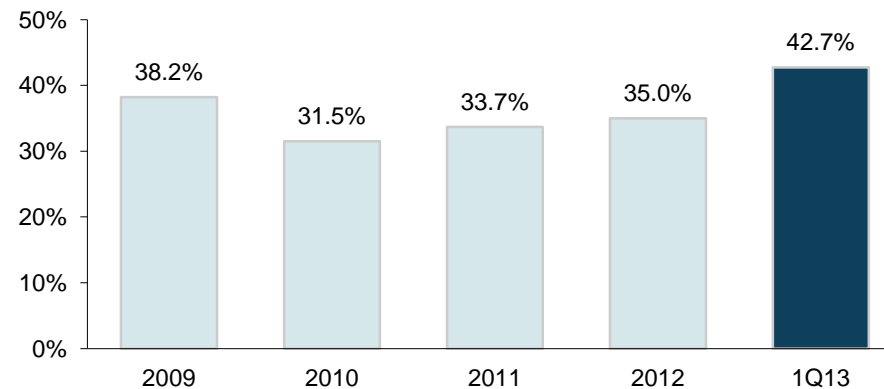
## Debt / EBITDA<sup>(1)</sup>

(Unit: Multiple, KRW bn)



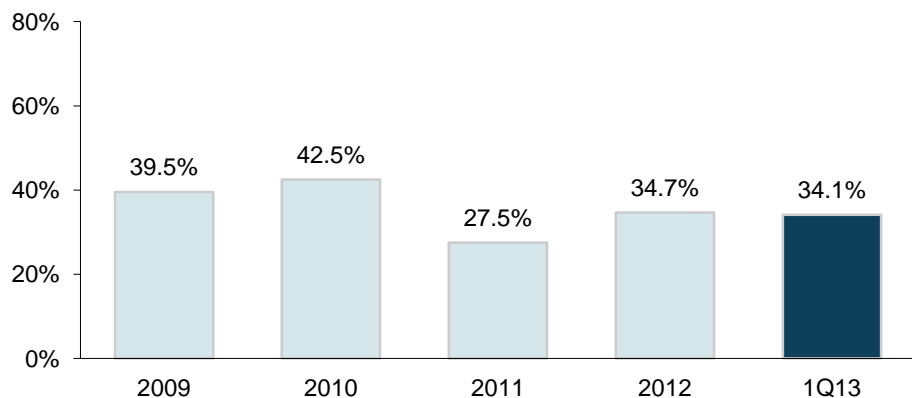
## Debt / Capitalization<sup>(2)</sup>

(Unit: %)



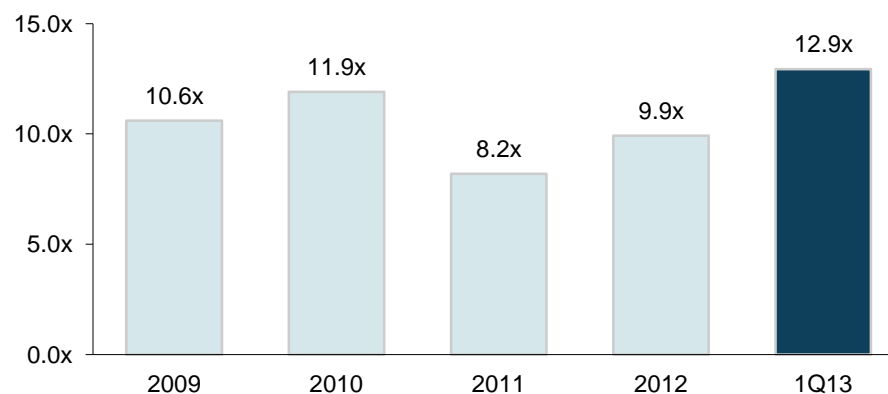
## FFO / Debt<sup>(1)</sup>

(Unit: %)



## EBITDA / Interest Expense

(Unit: Multiple)



Source: Company Filing (Unconsolidated K-GAAP for 2009, K-IFRS for 2010 and thereafter)

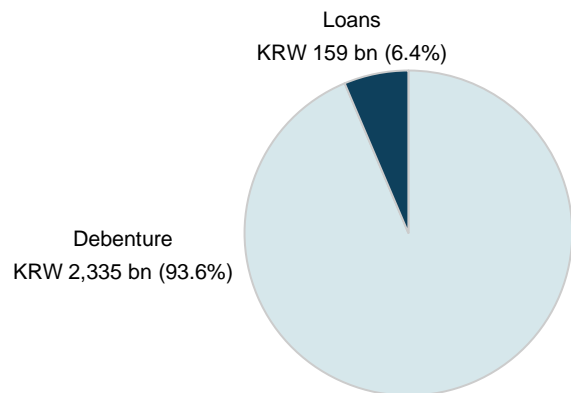
Note: (1) EBITDA and FFO annualized by multiplying 4

(2) Debt/Capitalization = Total Debt / (Total Debt + Total Equity)

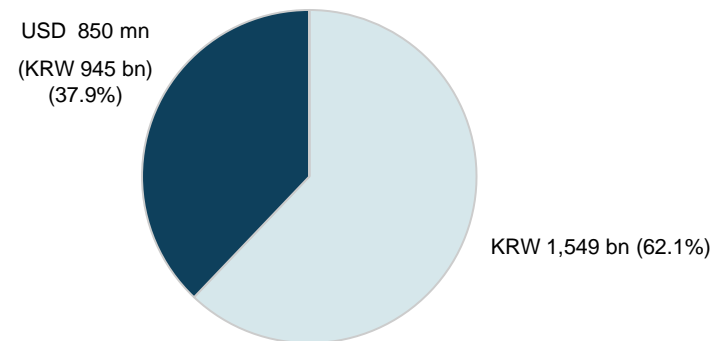


# Debt Profile

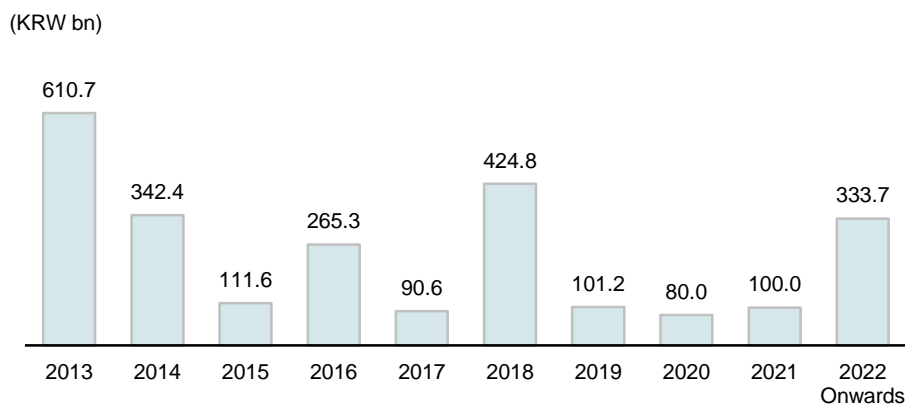
## Breakdown by Instrument Type



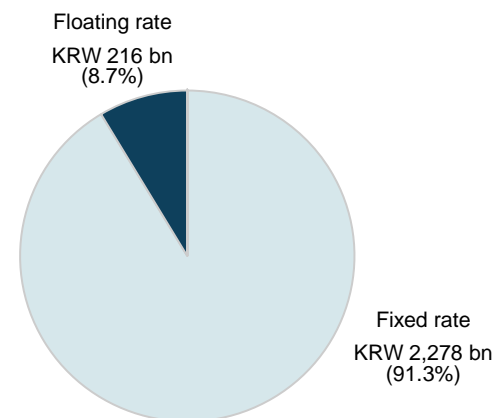
## Breakdown by Currency



## Maturity Profile



## Breakdown by Interest Rate<sup>(1)</sup>



Source: Company Filing as of 31 March, 2013

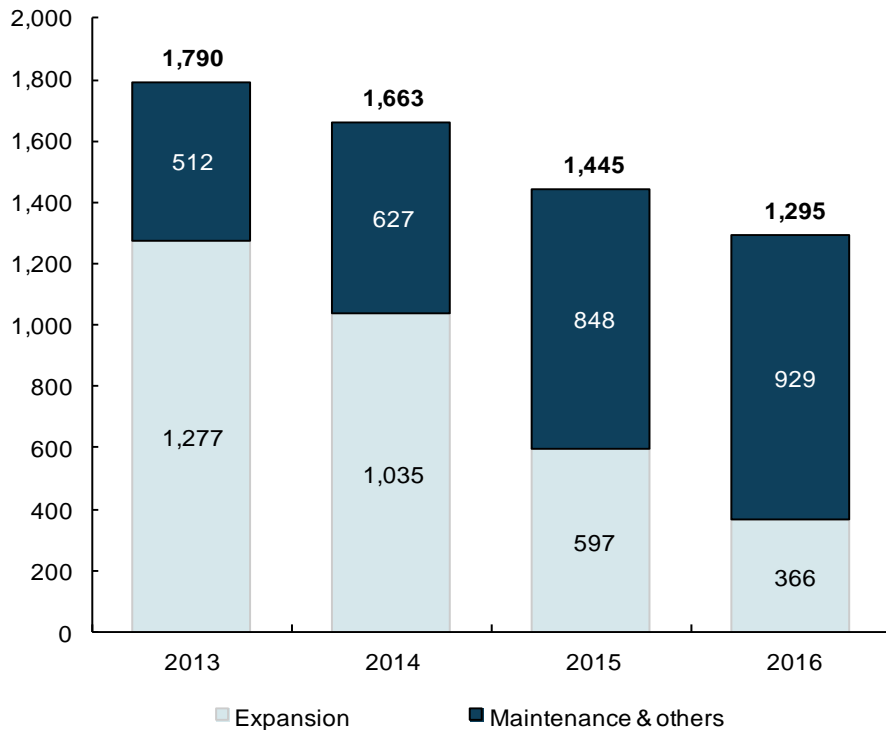
Note: (1) % breakdown at nominal value

# Capital Expenditure Plan

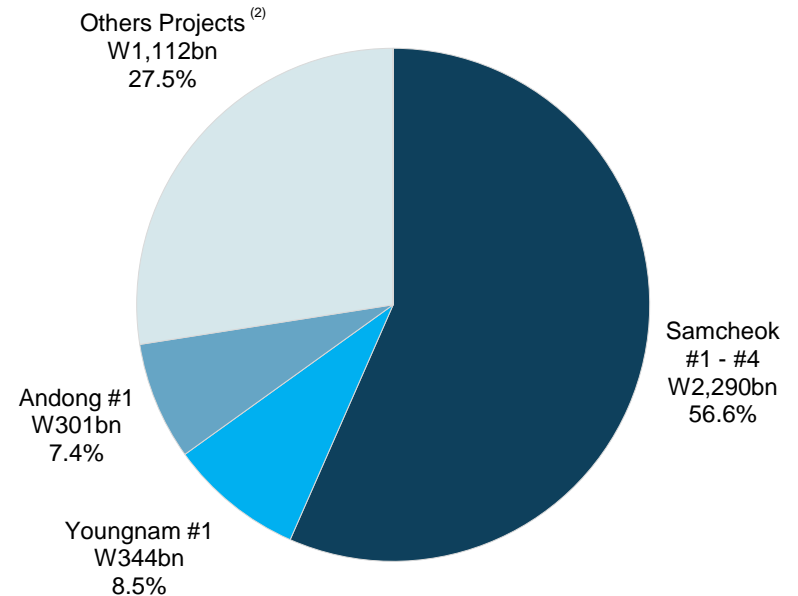
CAPEX will peak out in 2013-15 due to the additional plant construction at Samcheok. Although KOSPO is committed to construct power plants in accordance to the capacity expansion plan, it remains flexible to other investments, subject to financial conditions.

## CAPEX Projection

(KRW Bn)



## CAPEX Breakdown by Project<sup>(1)</sup>



Source: KOSPO's long-term financial projection

(1) Only includes expansionary CAPEX (excluding interest during construction)

(2) Includes other renewable projects and partnership projects



# Financial Forecast – Key Assumptions

## Macro Economic and Electricity Sales Forecast

	2013(E)	2014(E)	2015(E)	2016(E)
<b>Macro Economic Factors</b>				
Inflation (%)	3.0	3.0	3.0	3.0
GDP Growth (%)	4.3	3.9	4.2	4.1
KRW / USD Exchange Rate	1,130.0	1,130.0	1,130.0	1,130.0
KRW Interest Rate	5.0	5.0	5.0	5.0
Oil Price (US\$/Barrel)	110.0	110.0	110.0	110.0
Coal Price (US\$/Ton)	115.0	115.0	115.0	115.0
<b>KOSPO &amp; Operating Statistics</b>				
KOSPO Electricity Sales (GWh)	48,862	45,761	53,178	54,130
SMP (KRW/kWh)	141.9	146.9	151.9	156.9
KOSPO Capacity (MW)	9,531	9,353	9,286	10,921

Source: KOSPO's long-term financial projection.



# Financial Forecast – Financial Statement

Unit: KRW bn	2013(E)	2014(E)	2015(E)	2016(E)
<b>Income Statement</b>				
Revenue	6,992	7,063	7,507	7,598
Operating Profit	378	459	734	814
EBITDA	842	954	1,279	1,500
EBITDA Margin (%)	12.0%	13.5%	17.0%	19.7%
Interest Expense <sup>(1)</sup>	68	86	76	148
Net Income	241	288	505	562
<b>Balance Sheet</b>				
Cash & Cash Equivalent	56	57	60	61
Property, Plant & Equipment	6,402	7,392	7,943	8,126
Total Asset	7,944	8,879	9,603	10,667
Total Debt	3,153	4,018	4,671	4,942
Total Shareholders' Equity	3,675	3,891	4,310	4,720
<b>Cash Flow from Operation</b>				
Funds from Operation	718	796	1,063	1,261
Working Capital	-50	77	-182	-89
Cash Flow from Operation	667	872	880	1,172
CAPEX	1,632	1,480	1,091	867
Free Cash Flow	-965	-608	-211	305
Dividend	34	72	87	151

Note: (1) excludes capitalized interest  
Source: KOSPO's long-term financial projection.





## Appendix



# Income Statement

Unit: KRW bn	2008	2009	2010	2011	2012	1Q12	1Q13
Sales	4,615	4,557	5,126	5,923	6,975	2,123	1,895
Cost of Sales	4,744	4,220	4,770	5,705	6,716	1,793	1,785
Gross Profit	-129	336	356	218	259	330	109
SG&A <sup>(1)</sup>	44	33	40	48	60	12	15
<b>Operating Income</b>	<b>-173</b>	<b>304</b>	<b>316</b>	<b>169</b>	<b>199</b>	<b>318</b>	<b>95</b>
EBITDA	156	713	693	569	646	430	213
Other Income/loss	-26	-69	-45	-69	-43	-8	-11
<b>Income before tax</b>	<b>-199</b>	<b>235</b>	<b>271</b>	<b>100</b>	<b>156</b>	<b>310</b>	<b>84</b>
Tax Expense	-53	62	56	32	50	81	15
<b>Net Income</b>	<b>-146</b>	<b>177</b>	<b>209</b>	<b>68</b>	<b>106</b>	<b>229</b>	<b>69</b>

Note: Based on Unconsolidated K-GAAP for 2008-2009, K-IFRS for 2010 and thereafter

(1) SG&A + Other Income–Other Expense under K-IFRS

# Balance Sheet

Unit: KRW bn	2008	2009	2010	2011	2012	1Q13
Current Assets	848	676	984	921	1,114	1,715
Cash & Equivalents	81	17	215	65	202	871
Other Current Asset	767	659	769	855	912	844
Non-current Asset	3,837	4,003	4,985	5,129	5,336	5,367
Non-current Financial Asset	18	26	74	80	27	37
PPE	3,458	3,693	4,847	4,942	5,149	5,153
Intangible Asset	117	110	8	24	33	33
Other Non-Current Asset	244	174	56	83	127	144
<b>Total Assets</b>	<b>4,658</b>	<b>4,679</b>	<b>5,969</b>	<b>6,050</b>	<b>6,449</b>	<b>7,081</b>
Current Liabilities	590	719	1,087	736	1,463	1,449
Current Debt	22	291	456	132	627	714
Other Current Liabilities	568	428	631	604	836	735
Non-current Liabilities	1,757	1,451	1,505	1,952	1,576	2,204
Non-current Debt	1,559	1,258	1,100	1,579	1,207	1,843
Other L/T Liabilities	198	193	406	373	369	361
<b>Total Liabilities</b>	<b>2,347</b>	<b>2,170</b>	<b>2,592</b>	<b>2,689</b>	<b>3,039</b>	<b>3,654</b>
<b>Total Equity</b>	<b>2,339</b>	<b>2,509</b>	<b>3,377</b>	<b>3,362</b>	<b>3,410</b>	<b>3,427</b>

Note: Based on Unconsolidated K-GAAP for 2008-2009, K-IFRS for 2010 and thereafter

# Cash Flow Statement

Unit: KRW bn	2008	2009	2010	2011	2012	1Q12	1Q13
<b>CF from Operating Activities</b>	<b>-13</b>	<b>567</b>	<b>758</b>	<b>252</b>	<b>755</b>	<b>361</b>	<b>118</b>
Net income	-146	177	209	68	106	229	69
Non-cash income & expenses	347	435	506	515	580	213	165
Changes in Assets and Liabilities	-213	-44	97	-219	119	-61	-100
<b>CF from Investing Activities</b>	<b>-409</b>	<b>-651</b>	<b>-524</b>	<b>-529</b>	<b>-738</b>	<b>-130</b>	<b>-139</b>
Capex	-400	-652	-513	-497	-671	-128	-115
<b>CF from Financing Activities</b>	<b>419</b>	<b>21</b>	<b>-39</b>	<b>128</b>	<b>120</b>	<b>-32</b>	<b>689</b>
Dividend Paid	-91	-	-53	-56	-47	-	-
Other Financing Activities (Net)	510	21	14	184	73	-32	689
Changes in Cash Equiv <sup>(1)</sup>	-3	-63	197	-149	137	199	669
Cash and Cash Equiv. at Beginning of Period	84	81	18	215	65	65	202
Cash and Cash Equiv. at End of Period	81	17	215	65	202	263	871

Note: Based on Unconsolidated K-GAAP for 2008-2009, K-IFRS for 2010 and thereafter  
 (1) Excluding impact from exchange rate changes

# Committed Bank Facilities

Category	Bank	Committed Facility	Maturity
Foreign Currency Committed Facility	RBS	50,000,000	2014-05-15
	KEB	40,000,000	2014-03-26
	Mizuho	100,000,000	2013-10-14
	SMBC	50,000,000	2013-06-04
	KDB	50,000,000	2013-10-18
	DBS	100,000,000	2013-10-18
	Santander	50,000,000	2014-02-22
	Deutsche	50,000,000	2014-04-02
<b>Sub-total (USD)</b>		<b>440,000,000</b>	
KRW Committed Facility	Shinhan Bank	100,000,000,000	2014-05-08
	Korea Exchange Bank	25,000,000,000	2014-04-30
	Nonghyup Bank	50,000,000,000	2014-04-16
<b>Sub-total (KRW)</b>		<b>175,000,000,000</b>	
<b>Total (KRW)</b>		<b>659,000,000,000</b>	

# Thank You