



# Disclaimer

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**This presentation material is prepared for investors' reference, based on data that have not been filed with the financial supervisory commission.**

**Actual business performance may not necessarily be consistent with the projections herein, as a result of unexpected changes in the market environment and other conditions.**

**The financial information in this document are consolidated earnings results based on K-IFRS.**

# I . Results & Outlook

# 3Q 2017 Total Results

**Sales 591bwn (YoY 67bwn increased), Operating Profit 55bwn (YoY 25bwn increased)**  
**Electric Infra and Automation led to the performance increase**

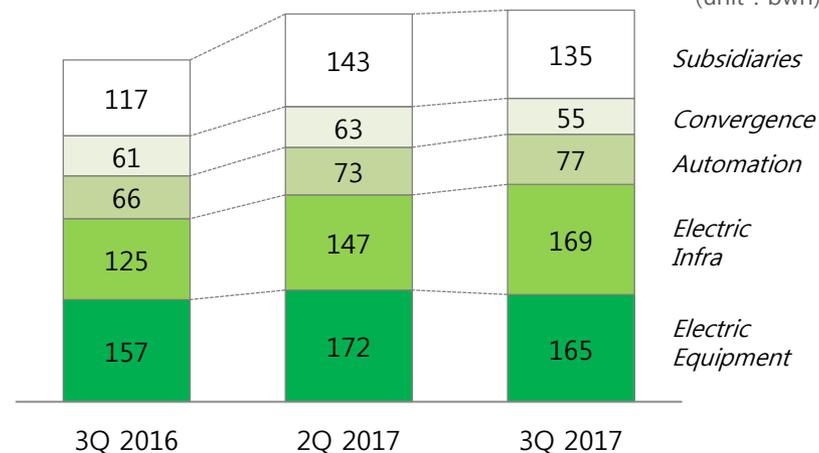
## Income Statement

(unit : bwn)

Segment	3Q 2016	2Q 2017	3Q 2017	YoY	QoQ
Sales	524	588	591	67	3
Operating Profit	30	44	55	25	12
Profit before tax	28	43	50	22	7
Net income	22	33	38	16	5

## Sales Breakdown by Business

(unit : bwn)



\* Subsidiaries includes LS Metal, LS Sauter, LS Mecapion, LSIS Wuxi and LSIS Dalian

\*\* Convergence Business includes Trans SOC, Solar, Smart-Grid and EV components.

\*\*\* Sales of subsidiaries are before the consolidated adjustments.

# 3Q 2017 Financial Position

Total assets 2,299bwn (YoY 77bwn increased, QoQ 4bwn decreased)

Total liabilities 1,167bwn (YoY 18bwn decreased, QoQ 44bwn decreased)

Total liabilities/Equity dropped 11%p(YoY, 114%→103%), Net Debts ratio posted 28%

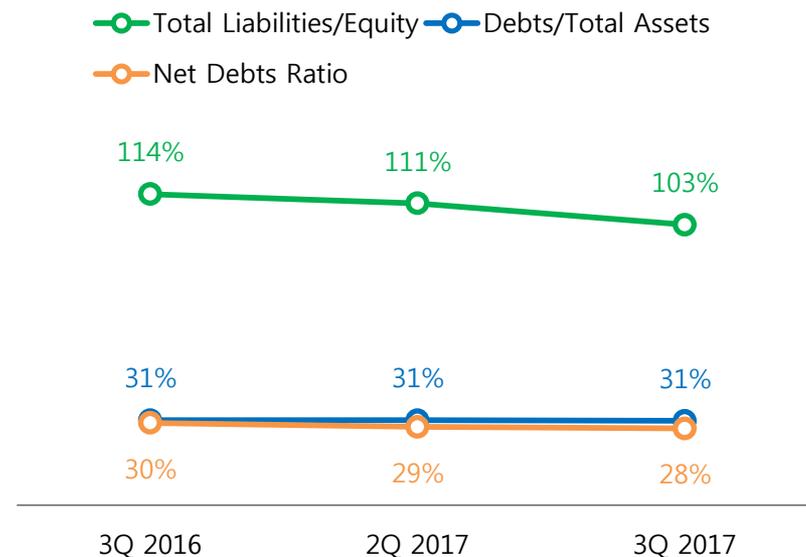
## Financial Statement

(unit : bwn)

Segment	3Q 2016	2Q 2017	3Q 2017	YoY	QoQ
Total Assets	2,222	2,303	2,299	77	△4
Current Assets	1,388	1,465	1,469	81	4
Cash & cash equivalent	381	405	393	12	△12
Total Liabilities	1,185	1,211	1,167	△18	△44
Debts	695	719	712	18	△7
Net Debts	314	315	319	6	5
Equity	1,037	1,092	1,132	95	40

## Financial Ratios

(unit : %)

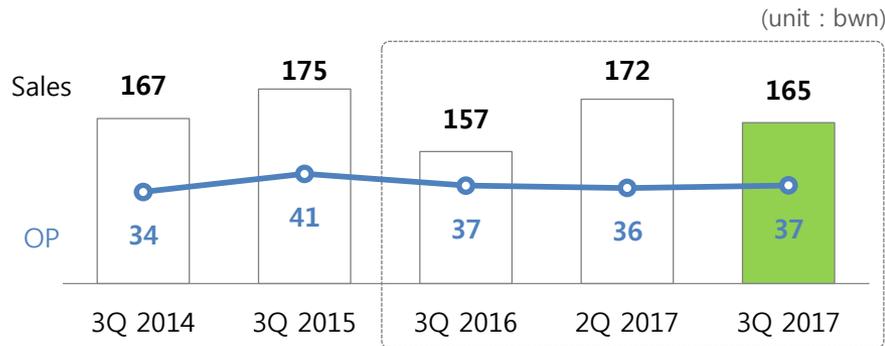


# Business Results & Outlook

**Electric Equipment - Performance improved by upward trend in IT mkt**

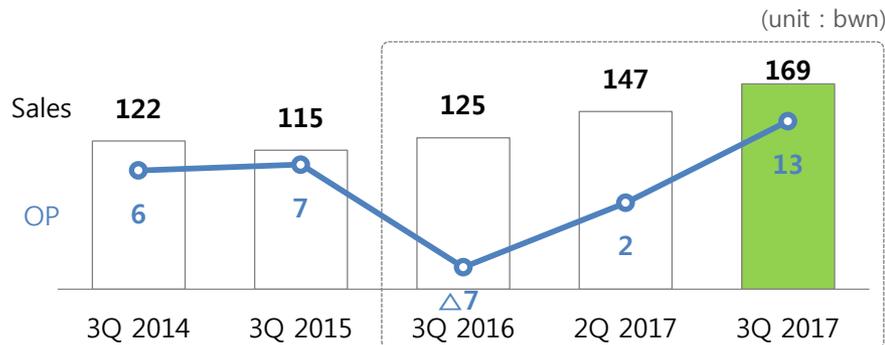
**Electric Infra – Sales grew by YoY 35% due to favorable domestic demand**

## Electric Equipment



- Sales increased YoY 5.2%, OP increased YoY 0.1%
- Performance improved by upward in IT mkt
- For the 4<sup>th</sup> quarter,
  - Continuing to enter new market in domestic
  - Expansion into SEAsia mkt by direct sales and distribution channel development

## Electric Infra



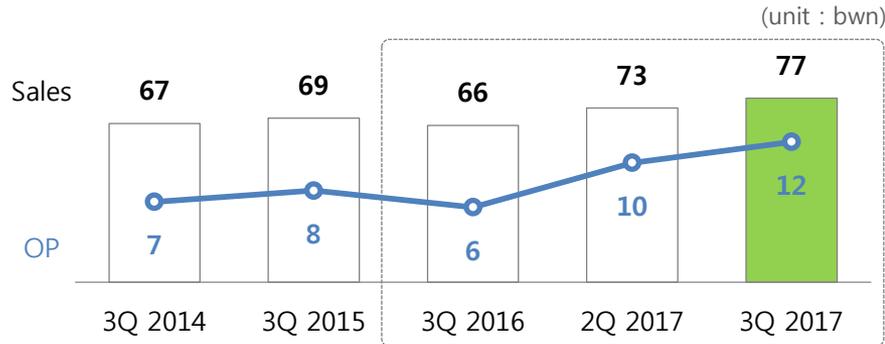
- Sales increased YoY 35.5%, OP increased YoY 287%
- Domestic improved by favorable demand
- Boosted profitability due to the product mix changes and lucrative HVTR projects.
- For the 4<sup>th</sup> quarter, Domestic performance keep improving by favorable demand
- Expect to win a new HVDC contract in domestic mkt

# Business Results & Outlook

**Automation – Performance improved by upward trend in IT mkt**

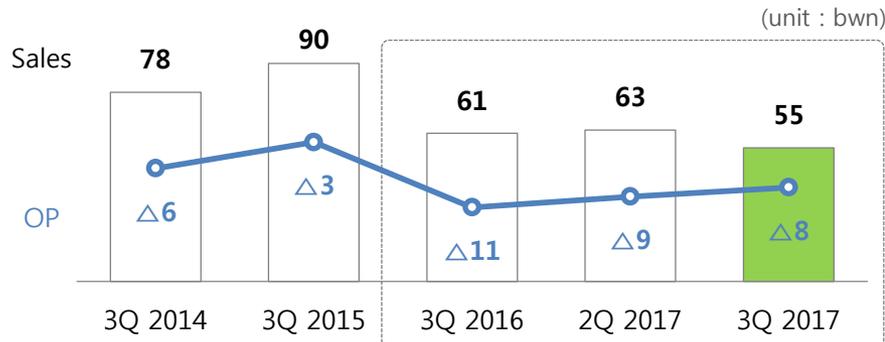
**Convergence- Railway system and Green car improved in overseas mkt**

## Automation



- Sales increased YoY 17.4%, OP increased YoY 87.9%
  - Performance improved by upward in IT mkt
  - Boosted profitability due to the product mix changes
- For the 4<sup>th</sup> quarter,
  - Performance keep improving by favorable demand in IT mkt
  - Strengthen direct sales to conglomerates

## Convergence Business

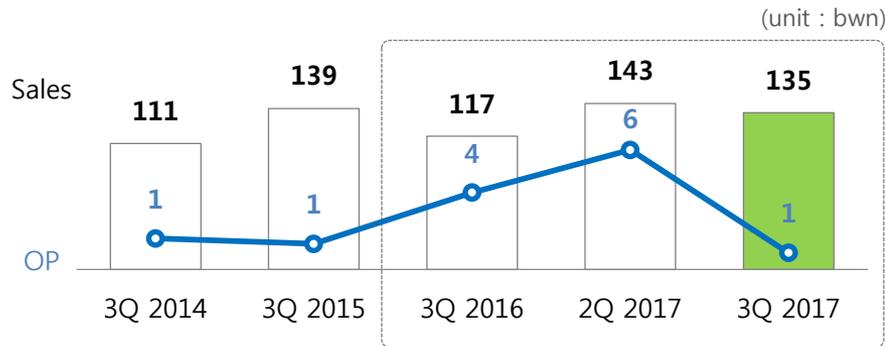


- Sales decreased YoY 9.9%, OP continuous loss
  - Oversea volume improvement in Railway system and Green Car recovered weak performance in Solar
- For the 4<sup>th</sup> quarter,
  - Expand floating PV business & Japanese Solar EPC mkt
  - Expand Railway System in domestic & overseas mkt

# Business Results & Outlook

LS Metals and Korean Subsidiaries led to led to the performance increase

## Subsidiaries



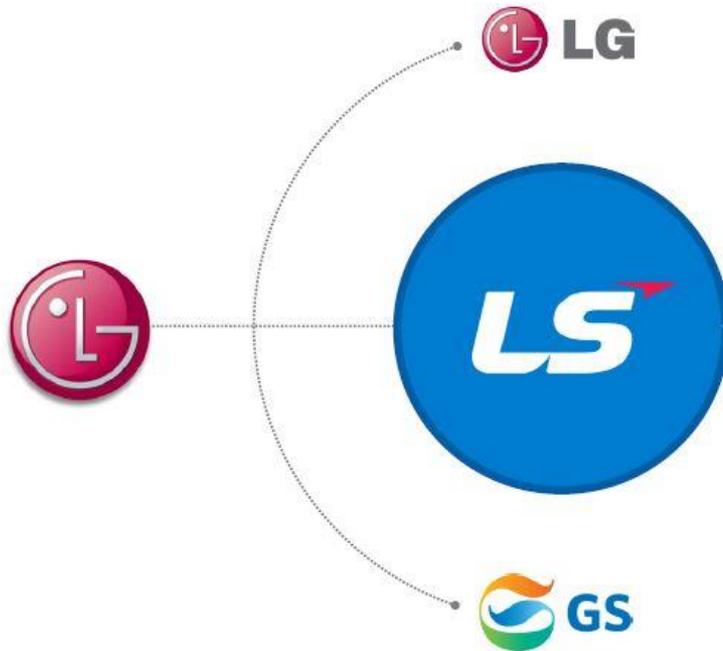
- Sales increased YoY 16.0%, OP YoY 78.4% decreased
  - LS Metals improved due to favorable demand in construction mkt and copper price increase
  - LS Mecapion improved due to favorable demand
  - Wuxi performance decreased due to weak renewable mkt condition in China
- For the 4<sup>th</sup> quarter,
  - LS Metals & LS Mecapion performance keep improving by continuing favorable demand
  - Wuxi performance improvement by securing large Customer base and better renewable mkt condition

## II. Company & Business Introduction

## Growing into a World's Best from the Nation's First!

Leading company in the industrial electric, electronics, materials and energy field following its separation from LG in 2003

### LS History



Greater value together!

**LS**partnership®



LS is a faithful and reliable business partner  
Collaboration with LS people leads to greater success

## Leader in Power Solutions, Automation & Green Business

The Leading Company in the Power Distribution & Automation Industry

The first to build a Smart Grid, Green Village and Green Factory

Founded	1974
Sales	2,214billion(KRW)
Employees	3,555
Headquarters	LS Tower, Gyeonggi-do, Korea
Plants	Total 7 Plants
Overseas subsidiaries	China, Vietnam, Japan, etc.
Overseas branches	USA, Europe, Russia, Vietnam, etc.

(As of 2016)



### 1. A History of Challenging the Future (1970's ~ 2007)

**1970's** '74 Jul. Established Goldstar Instrument & Electrical Co., Ltd

**1980's** '87 Mar. Established Goldstar Industrial Systems Co., Ltd.



**2007** Feb. Opened Marketing Subsidiary in Dubai

**2005** Mar. Renamed from LG to LS Industrial Systems  
Sep. Constructed the Electric & Automation equipment factory in Wuxi, China

**2003** Nov. Disaffiliated from LG Group, joined LS Group

**2001** Jun. Constructed Dalian factory

**2000** Sep. Established high-voltage testing agency

**1990's** '94 Jul. Listed Goldstar Industrial Systems on the Korea Stock Exchange

'95 Feb. Renamed from Goldstar to LG Industrial Systems (LGIS)

'95 Sep. LGIS merged Goldstar I&E & Goldstar Mechanical & Electrical

'99 Apr. LGIS merged LG Metal

'99 Aug. Sold copper smelting, Vending Machine, Elevator & Escalator unit

### 2. Shifting the strategy to growth paradigm (2007 ~ 2012)

- 2008**
- Apr. Relocated its headquarters to Anyang LS Tower
  - Sep. Received the Korea Best Company Award (Electricity & Cable industry category)
  - Oct. LS Industrial Systems(currently LSIS) Opened R&D Center in Shanghai, China



- 2012**
- May. completed a EV Relay factory in Cheongju, Korea
  - Jun. Awarded the Best Korean Company Grand Award
  - Dec. Selected as one of the Top 100 Global Innovators by Thompson Reuters
  - Dec. US and Chinese patent acquired for smart meter technology

- 2011**
- Oct. Completed the Busan HVDC Plant
  - Nov. Included in the Fortune Korea's 500 Fastest Growing Companies
  - Nov. Selected as one of the Top 100 Global Innovators by Thompson Reuters



- 2009**
- Mar. Published the Green Business Vision
  - Oct. Share in Mecapion acquired
  - Oct. European sales corporation established



- 2010**
- Jan. LS Power Semitech J/V established
  - Feb. LS Sauter established
  - Apr. LS Metal spun off from LSIS and newly established LS Metal
  - Apr. Construction of Busan plant completed
  - May. LS Hogae Electric established in China
  - May. LS Industrial Systems(currently LSIS) got the largest number of Green Certification as the first company in Korea
  - Jul. LS Industrial Systems(currently LSIS) opened R&D Center in Beijing, China

### 3. Challenging for the future of Smart Energy (2013 ~ 2016)

- 2013**
- Apr. Awarded the Great Place to Work Award for 2 consecutive years
  - May. MOU with China's Dongfang Group for developing green automobile parts
  - May. Concluded contract for the transfer of HVDC technology, and partnered with KAPES and Alstom
  - Jun. Awarded the Best Korean Company Grand Award
  - Oct. Selected as one of the Top 100 Global Innovators by Thompson Reuters
  - Nov. Awarded the 39<sup>th</sup> Korea National Quality Grand Award
  - Dec. Won the 500 million Trade Tower Award

- 2015**
- Jan. Declared value-based management
  - Mar. Newly constructed R&D campus in Anyang



- 2014**
- Jan. Launched new strategic automation product lines for A&D
  - May. LSIS Vice Chairman Ja-kyun Koo Received Gold Tower Order of Industrial Service Merit
  - May. Won the World's Largest Order for Smart Grid Project in Iraq
  - Jun. Awarded the Best Korean Company Grand Award for 7 consecutive years
  - Jul. Marked the 40<sup>th</sup> anniversary of the foundation
  - Nov. Selected as one of the Top 100 Global Innovators by Thompson Reuters

- 2016**
- Jan. Selected as one of the Top 100 Global Innovators by Thompson Reuters
  - Mar. R&D campus achieved the first BEMS certification
  - Jun. Awarded the Best Korean Company Grand Award
  - Sep. R&D campus equipped ESS for emergency electric power supply

**We guarantee all our customers a safe and affluent life and a happy future by supplying them with convenient smart energy.**

### Mission

**FUTURING SMART ENERGY**

### Vision 2020



### Strategy

- Boosting Our Market Position as a Power Solutions Provider
- Leading New Markets through Convergence and Combination
- Expansion of Global Markets
- Securing Operational Excellence

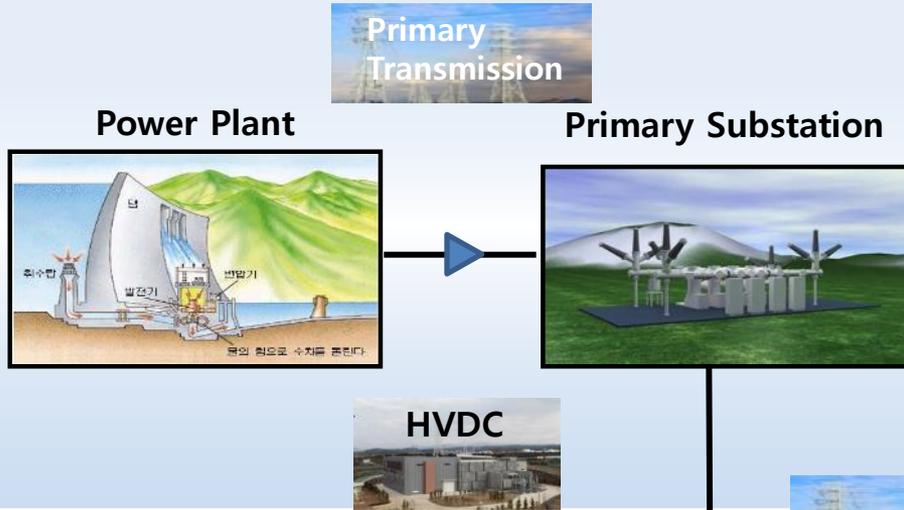
### Core Value



# Business Introduction

## Leading Provider of Total Electric Power, Automation & Green Business Solutions

### Electric Infra Business



**Ultra-high voltage power transmission & distribution system equipment such as gas insulated switchgear (GIS)**

#### < Main Products >

- Gas Insulated Switchgear (GIS)
- Power Transformers
- Remote Monitoring & Diagnosis Equipment
- HVDC

### Electric Equipment Business

#### Factory/Building/Household



#### Substation



Top low and medium voltage electrical equipment for electricity users

#### <Main Products>

- Switchgear (SWGR)
- Vacuum Circuit Breakers (VCB)
- Air Circuit Breakers (ACB)
- Molded Case Circuit Breakers (MCCB)
- Magnetic Contactors (MC)0

# Business Introduction

## Automation Business

Factory / Building  
(FA/PA)



Discrete Automation



Process Automation



Building Automation

From simple automation control to large-scale manufacturing facilities and process control, LSIS provides the optimal solutions to diverse industrial fields.

< Main Products >

- Variable Frequency Drive
- PLC (Programmable Logic Controller)
- HMI (Human Machine Interface)
- Servo Drive & Motor
- DCS (Distributed Control System)
- RTU (Remote Terminal Unit)

## Convergence Business



Smart Grid



Green Car Solution



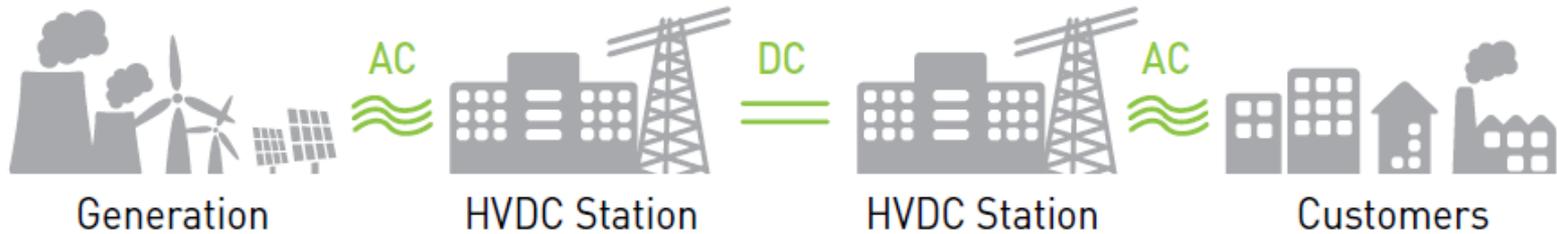
Photovoltaic System



Railway System

# HVDC

**HVDC system converts AC to DC to transmit long distance and then converts back again to AC to connect with the AC grid with very low loss**



## Long Distance Transmission with Lower Cost

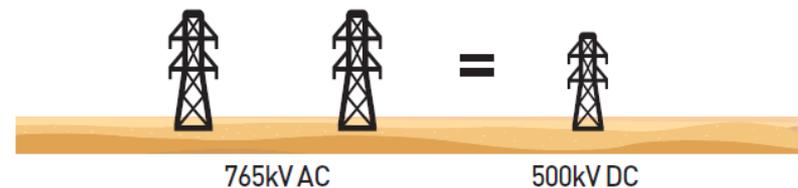
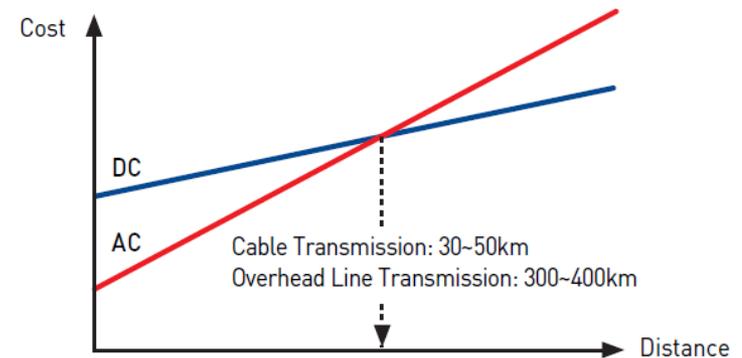
HVDC is the only option for the overhead transmission longer than 300km or submarine/underground 40km thanks to DC characteristics.

## Eco-friendly Transmission

HVDC system has lower environmental impact because it requires fewer overhead lines comparing to AC system. The technology is also the key component in the future energy system based on renewable energy sources.

## Optimal Grid Management

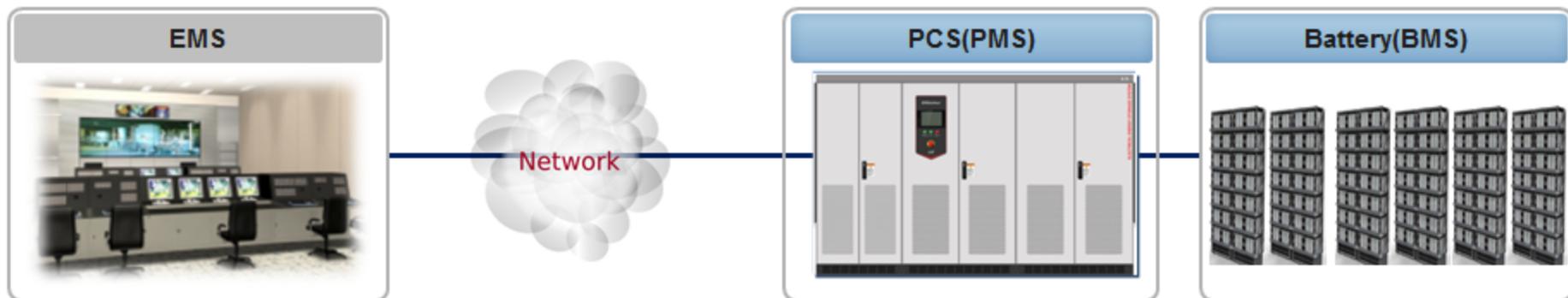
HVDC can directly interconnect load centers with huge energy sources efficiently. Therefore, negative impact on the grid is minimized. HVDC also improves the performance of AC grid by means of additional controllability.



# ESS Applications

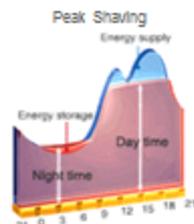
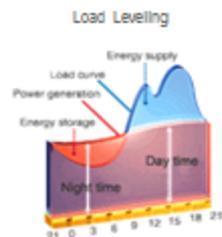
**ESS(Energy Storage System) includes PCS(Power Conversion System) and battery, and make an efficient way of use electricity power**

## Concept of ESS



## Function of ESS

➤ Peak Shaving, Load Leveling



➤ Renewable Energy Smoothing



➤ Frequency Regulation



• EMS : Energy Management System

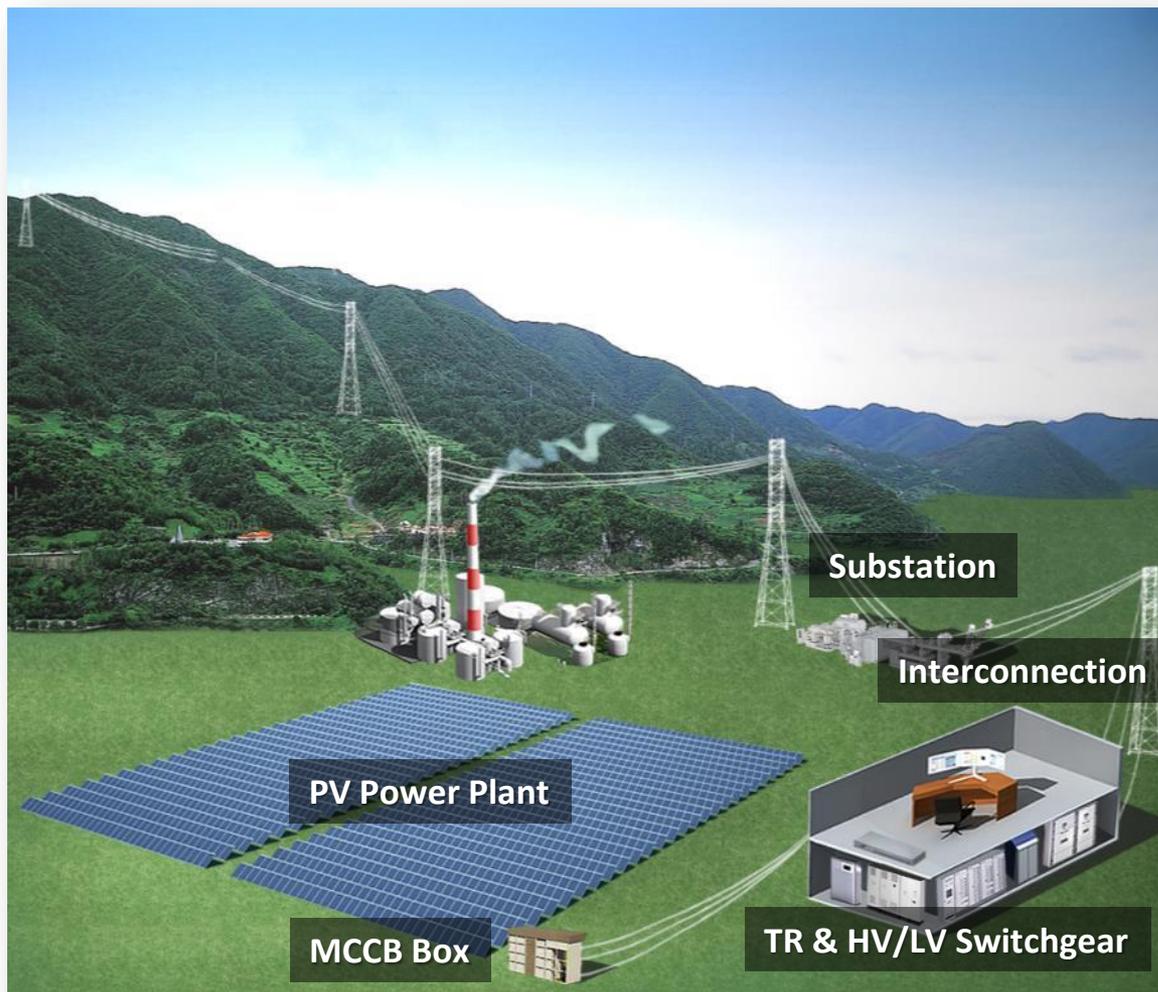
• PCS : Power Conditioning System

• PMS : Power Management System

• BMS : Battery Management System

# PV Power Plant

We provide total solution for PV Power Plant. In addition to PV products, we can provide customers with all kinds of electric power equipment manufactured by LSIS.



## System Components



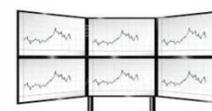
**PV Power System**  
- Module  
- Inverter  
- Balance of System



- HV Switchgear  
- MV Switchgear  
- LV Switchgear



**Transformer**



**Monitoring(SCADA)**

# III. Appendix

# Appendix 1. Condensed Statement

## Income statement

(unit : bwn, %)

Segment	3Q 2016	2Q 2017	3Q 2017	QoQ	YoY
Sales	524	588	591	△15.7%	11.7%
Cost of Sales	△430	△479	△470	△18.3%	13.8%
Gross Profit	94	109	122	△1.9%	3.4%
(%)	(18.0%)	(18.6%)	(20.6%)	-	-
SG&A	△64	△66	△66	△13.0%	3.7%
Operating Profit	30	44	55	30.0%	2.8%
(%)	(5.7%)	(7.4%)	(9.4%)	-	-
Non-OP and Loss	△2	△1	△5	420.4%	16.6%
Profit before tax	28	43	50	△12.7%	△4.5%
Net Income	22	33	38	△11.1%	12.6%
(%)	(4.1%)	(5.6%)	(6.4%)	-	-
EBITDA Margin	10.3%	11.6%	12.7%	-	-

## Statement of Financial position

(unit : bwn, %)

Segment	3Q 2016	2Q 2017	3Q 2017	QoQ	YoY
<b>Total Assets</b>	<b>2,222</b>	<b>2,303</b>	<b>2,299</b>	<b>△1%</b>	<b>△1%</b>
Current Assets	1,388	1,465	1,469	△2%	△1%
Cash&Cash Equivalents	381	405	393	8%	△5%
Inventories	166	162	170	7%	△7%
Other Current Assets	841	897	906	△7%	1%
Non-Current Assets	833	838	830	0%	0%
Tangible Assets	615	592	586	△2%	△5%
Intangible Assets	131	123	116	△3%	△7%
Other Non-Current Assets	87	123	128	16%	53%
<b>Total Liabilities</b>	<b>1,185</b>	<b>1,211</b>	<b>1,167</b>	<b>△1%</b>	<b>△5%</b>
Current Liabilities	570	658	614	△2%	1%
Short-term borrowings	129	185	184	1%	△11%
Non-Current Liabilities	615	553	553	1%	△12%
Long-term borrowings	566	534	529	△0%	△8%
<b>Equity</b>	<b>1,037</b>	<b>1,092</b>	<b>1,132</b>	<b>△1%</b>	<b>5%</b>
<b>Current Ratio</b>	244%	223%	239%	17%	△4%
<b>Equity/Total Assets</b>	47%	47%	49%	2%	3%
<b>Total Liabilities/Equity</b>	114%	111%	103%	△8%	△11%
<b>Net debts Ratio</b>	30%	29%	28%	△1%	△2%

## Statements of Cash Flows

(unit : bwn)

Segment	'16.3Q	'17.3Q	YoY
<b>Cash and cash equivalents at the beginning of year</b>	<b>286</b>	<b>340</b>	<b>54</b>
<b>Cash Flows From Operating Activities</b>	<b>245</b>	<b>103</b>	<b>△142</b>
<b>Cash Flows From Investing Activities</b>	<b>△77</b>	<b>△57</b>	<b>20</b>
Capex	△31	△33	△2
R&D	△9	△8	1
Others	△37	△16	21
<b>Cash Flows From Financing Activities</b>	<b>△72</b>	<b>7</b>	<b>79</b>
Effect of exchange rate changes on cash and cash equivalents	△1	△0	1
<b>Cash and cash equivalents</b>	<b>381</b>	<b>393</b>	<b>12</b>

# Appendix 2. Results for the past 3 years

## HQ

(unit : bwn)

Segment			14					15					16					17			Y-o-Y (3Q)	
			1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q		
HQ	Electric Equipment	Sales	Domestic	103	111	113	110	437	105	107	108	109	429	95	101	102	101	399	115	111	109	7%
			Overseas	52	51	53	63	219	58	62	67	62	249	61	62	55	57	235	59	61	56	2%
		Total	155	162	167	173	656	164	168	175	172	678	157	163	157	157	634	173	172	165	5%	
	Operating Profit			28	27	34	30	120	31	35	41	32	139	36	36	37	33	142	40	36	37	0%
	Electric Infra	Sales	Domestic	100	89	79	111	379	79	107	100	98	384	64	82	105	141	392	90	106	131	25%
			Overseas	39	44	43	34	160	12	16	15	33	75	36	33	20	46	134	41	40	38	93%
		Total	139	133	122	145	539	91	122	115	130	459	100	114	125	187	526	130	147	169	35%	
	Operating Profit			11	△2	6	9	24	△2	△0	7	2	7	△5	0	△7	8	△4	0	2	13	287%
	Automation	Sales	Domestic	45	48	47	56	195	47	43	48	49	187	46	48	47	45	186	48	49	51	9%
			Overseas	20	21	20	23	84	21	22	21	25	89	26	23	19	20	88	24	24	26	39%
		Total	65	68	67	79	279	68	65	69	74	276	72	71	66	65	274	72	73	77	17%	
	Operating Profit			6	6	7	4	24	4	4	8	4	19	9	6	6	6	27	8	10	12	88%
	Convergence Business	Sales	Domestic	48	61	64	88	261	45	83	67	76	271	38	46	30	56	171	26	36	31	3%
			Overseas	31	32	14	16	93	11	7	23	28	69	17	17	31	42	107	23	26	24	△23%
		Total	78	93	78	104	354	56	89	90	105	340	56	63	61	98	278	48	63	55	△10%	
	Operating Profit			△9	△4	△6	6	△13	△11	△0	△3	△3	△18	△10	△15	△11	△31	△67	△14	△9	△8	23%
	Subtotal	Sales	Domestic	296	309	303	365	1,272	277	339	323	332	1,271	244	277	284	343	1,148	278	303	322	13%
			Overseas	142	147	131	136	555	102	106	126	149	482	141	134	125	164	564	146	151	145	16%
Total		437	457	434	501	1,828	379	445	449	481	1,753	385	411	409	507	1,712	425	454	467	14%		
Operating Profit			36	27	42	50	155	22	38	53	35	148	29	27	25	16	97	34	38	53	111%	

# Appendix 2. Results for the past 3 years

## Subsidiaries

(unit : bwn)

Segment		14					15					16					17			Y-o-Y (3Q)		
		1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q			
Subsidiaries	LS Metal	Sales	Domestic	32	41	32	30	134	24	28	26	26	104	25	28	33	40	126	34	37	41	26%
			Overseas	52	43	31	43	169	47	39	44	39	168	45	36	29	37	147	49	39	37	28%
		Total	84	84	63	72	303	71	67	70	64	272	70	64	62	77	273	83	76	79	27%	
	Subsidiaries (Korea)	Operating Profit	△1	0	△0	1	0	△3	△2	△5	1	△9	1	1	△1	△0	0	0	△0	△1	△7%	
		Sales	14	15	12	17	58	15	14	11	17	56	10	11	13	25	58	16	22	19	43%	
	Subsidiaries (China)	Operating Profit	△0	△0	△1	△0	△1	1	1	0	△0	2	△0	△0	1	2	2	1	3	2	245%	
		Sales	28	31	36	42	138	31	43	58	49	180	49	53	42	44	188	39	45	38	△9%	
	Subtotal	Operating Profit	△0	1	2	1	5	0	2	6	4	13	5	5	4	2	16	1	3	0	△99%	
		Sales	126	130	111	132	499	116	124	139	130	508	129	128	117	146	519	138	143	135	16%	
		Operating Profit	△1	1	1	2	3	△2	2	1	5	6	5	5	4	4	18	2	6	1	△78%	

## Consolidated

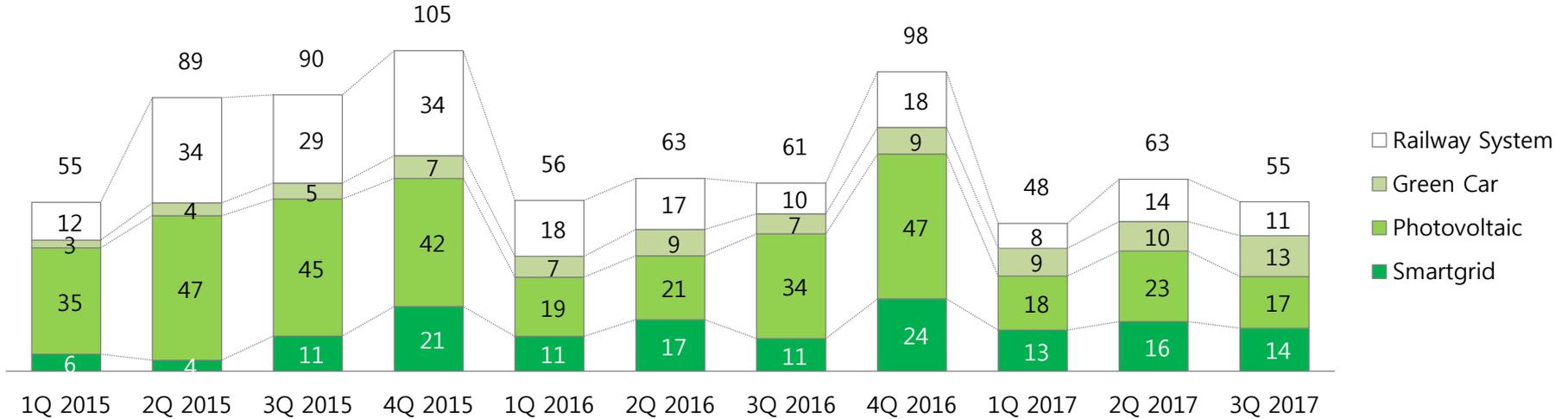
(unit : bwn)

Segment		14					15					16					17			Y-o-Y (3Q)
		1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	
Consolidation adjustment for Sales		△5	△7	△9	△16	△36	△10	△16	△15	△19	△60	△12	△14	△2	10	△18	△3	△9	△11	△404%
Consolidation adjustment for OP		1	2	1	1	4	△1	1	△0	1	1	0	0	1	8	9	0	△0	1	3%
Total Sales		558	580	536	616	2,291	485	552	573	592	2,202	501	525	524	663	2,214	559	588	591	13%
Total Operating Profit		36	31	43	52	162	19	41	54	41	154	35	32	30	28	124	36	44	55	84%

# Appendix 3. Sales details for Convergence & Subsidiaries

## Convergence

(unit : bwn)



## Subsidiaries

(unit : bwn)

