# **FUTURING SMART ENERGY**

### 2Q 2017 Review & Outlook

LSIS

## Disclaimer

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

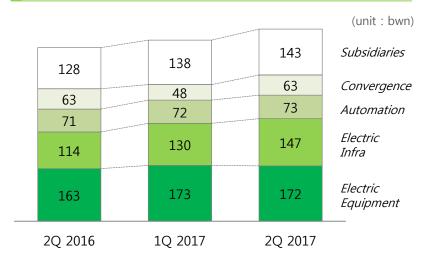
### 2Q 2017 Total Results

Income Statement

Sales 588bwn (YoY 63bwn increased), Operating Profit 44bwn (YoY 12bwn increased) Electric Equipment and Electric Infra led to the performance increase

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				(	(unit : bwn)
Segment	2Q 2016	1Q 2017	2Q 2017	YoY	QoQ
Sales	525	559	588	63	29
Operating Profit	32	36	44	12	8
Profit before tax	26	22	43	17	21
Net income	20	19	33	13	14

#### Sales Breakdown by Business



\* 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.



### 2Q 2017 Financial Position

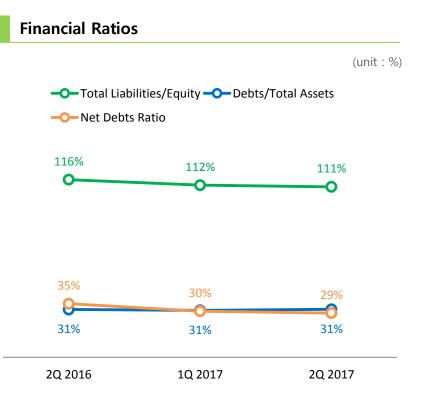
Total assets 2,303bwn (YoY 103bwn increased, QoQ 65bwn increased)

Total liabilities 1,211bwn (YoY 31bwn increased, QoQ 29bwn increased)

Total liabilities/Equity dropped 5%p(YoY, 116%→111%), Net Debts ratio posted 29%

#### **Financial Statement**

				(	unit : bwn)
Segment	2Q 2016	1Q 2017	2Q 2017	YoY	QoQ
Total Assets	2,200	2,238	2,303	103	65
Current Assets	1,356	1,392	1,465	108	73
Cash & cash equivalent	330	367	405	75	38
Total Liabilities	1,180	1,182	1,211	31	29
Debts	685	684	719	34	35
Net Debts	356	317	315	∆41	∆3
Equity	1,020	1,056	1,092	72	36



### **Business Results & Outlook**

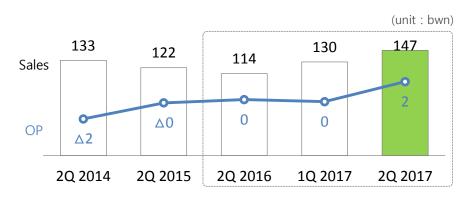
Electric Equipment - Performance improved by upward trend in IT mkt Electric Infra – Sales grew by YoY 28% due to favorable domestic demand

#### **Electric Equipment**



- Sales increased YoY 5.3%, OP increased YoY 0.4%
- Performance improved by upward in IT mkt
- For the 2<sup>nd</sup> half,
- Continuing to enter new market in domestic
- Expansion into SEAsia mkt by distribution channel development

#### **Electric Infra**

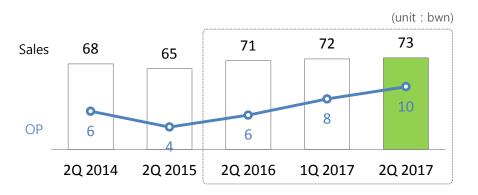


- Sales increased YoY 28.3%, OP increased YoY 832%
- Domestic improved by favorable demand
- Boosted profitability due to the product mix changes
- For the 2<sup>nd</sup> half, Domestic performance keep improving by favorable demand

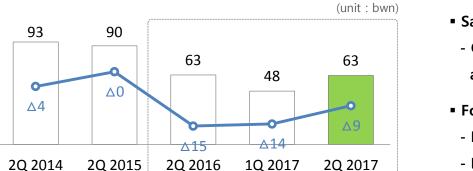
#### Automation – The most profitable quarter since 2013

Convergence- Sales keeps level with the last year due to the good performance in overseas mkt

#### Automation



- Sales increased YoY 3.1%, OP increased YoY 82.5%
- Performance improved by upward in IT mkt
- Boosted profitability due to the product mix changes
- For the 2<sup>nd</sup> half,
  - Performance keep improving by favorable demand in IT mkt
  - Strengthen direct sales to conglomerates



- Sales decreased YoY 0.5%, OP continuous loss
  Oversea volume improvement in Railway system and Solar recovered weak domestic performance
- For the 2<sup>nd</sup> half,
  - Expand floating PV business & Japanese Solar EPC mkt
- Expand Railway System in domestic & overseas mkt

#### Convergence Business

Sales

OP



### **Business Results & Outlook**

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

#### Subsidiaries



- Sales increased YoY 11.5%, OP YoY 5.7% increased
- LS Metals improved due to favorable demand and copper price increase
- LS Mecapion improved due to favorable demand
- Wuxi performance decreased due to weak renewable mkt condition in China
- For the 2<sup>nd</sup> half,
- LS Metals & LS Mecapion performance keep improving

by continuing favorable demand

- Wuxi performance improvement by securing large

Customer base and better renewable mkt condition

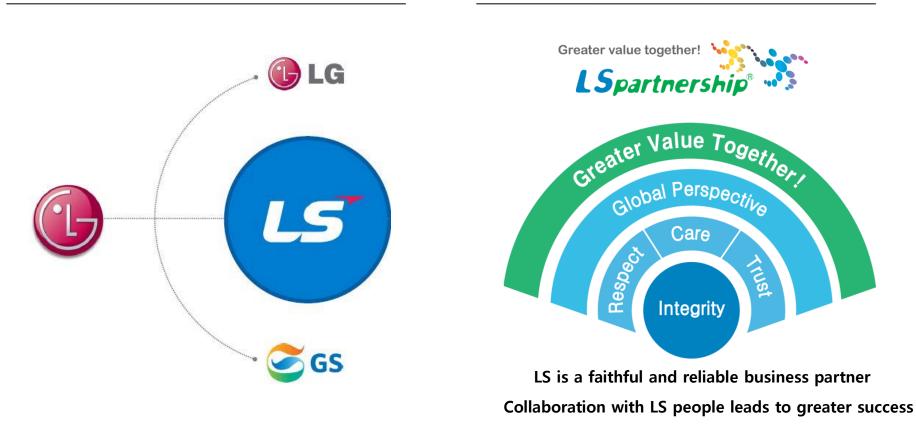


# **II.** Company & Business Introduction

### 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

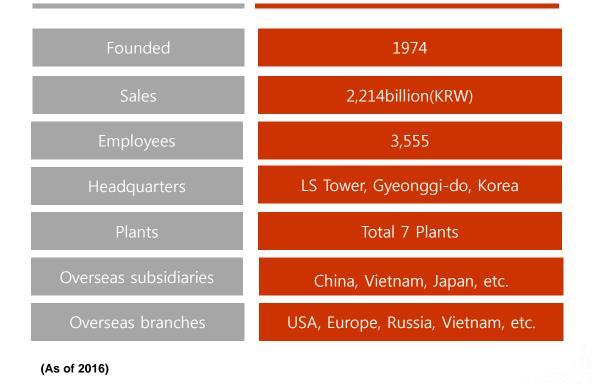
#### LS History





### 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







### 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)



- 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)

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

#### **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 39th Korea National Quality Grand Award
- Dec. Won the 500 million Trade Tower Award





- **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

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



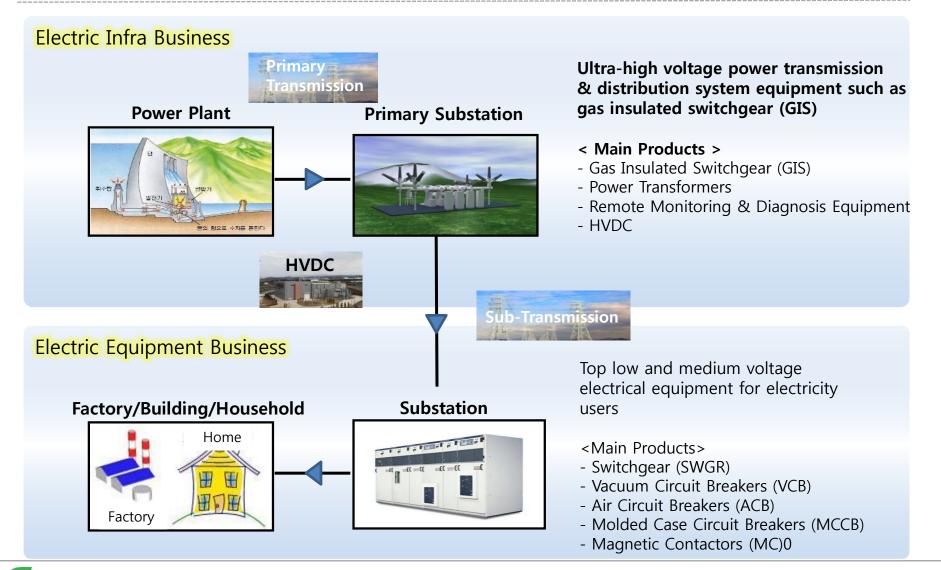
**J**UTURING **S**MART **E**NERGY

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



LS

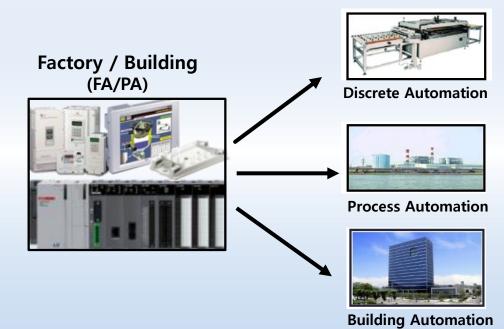
### Leading Provider of Total Electric Power, Automation & Green Business Solutions





### **Business Introduction**

### Automation Business



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** 



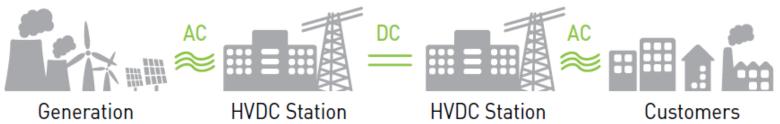
**Railway System** 



### HVDC

HVDC system converts AC to DC to transmit long distance and then converts back again to

Connect with the AC grid with very low loss



#### Long Distance Transmission with Lower Cost

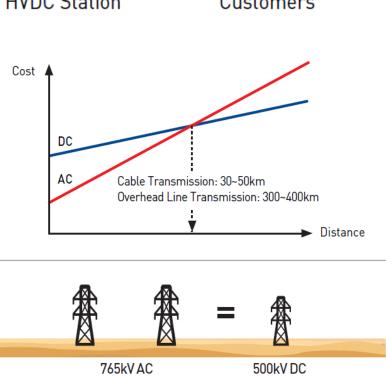
HVDC is the only option for the overhead transmission longer than 300km or submarine/underground 40km thanks to DC characteristics.

#### **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**

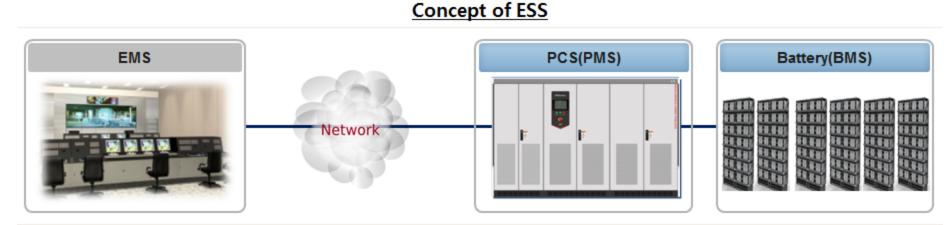
HVDC can directly interconnect load centers with huge energy sources efficiently. Therefore, negative impact on the grid is minimized. HVDC also improves the performance of AC grid by means of additional controllability.



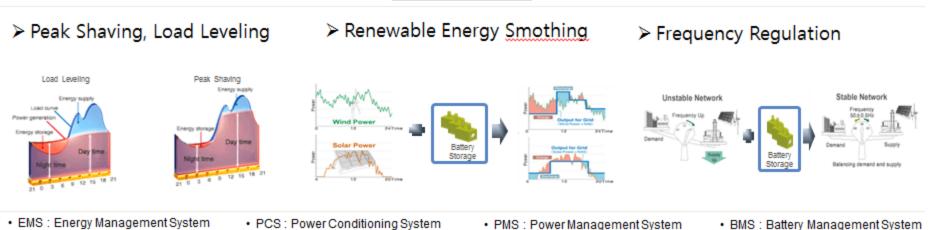


### **ESS Applications**

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



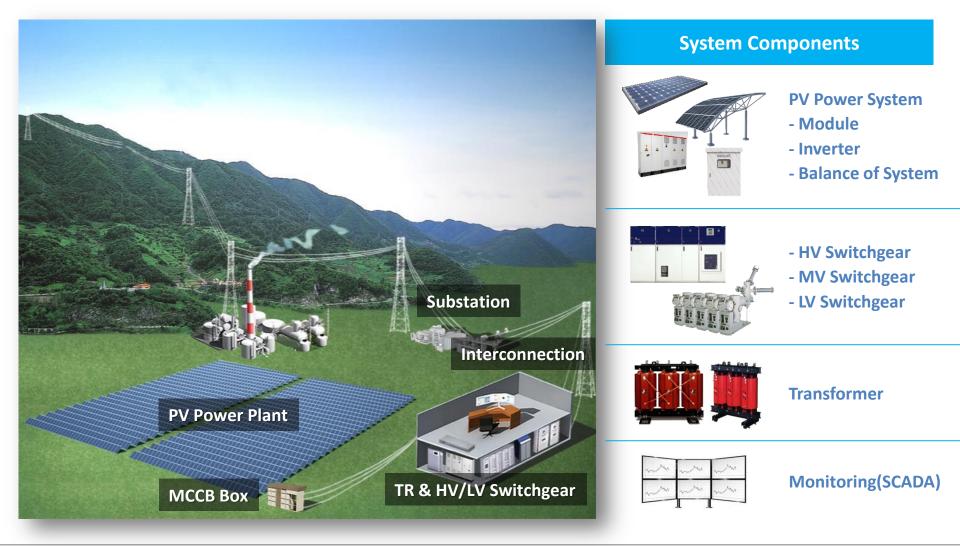
Function of ESS





### **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.







Income state	ment			(unit :	bwn, %)
Segment	2Q 2016	1Q 2017	2Q 2017	QoQ	YoY
Sales	525	559	588	△15.7%	11.7%
Cost of Sales	∆415	∆455	∆479	△18.3%	13.8%
Gross Profit	110	105	109	△1.9%	3.4%
(%)	(21.0%)	(18.7%)	(18.6%)	-	-
SG&A	∆78	△69	∆66	△13.0%	3.7%
Operating Profit	32	36	44	30.0%	2.8%
(%)	(6.1%)	(6.4%)	(7.4%)	-	-
Non-OP and Loss	∆6	∆14	∆1	420.4%	16.6%
Profit before tax	26	22	43	△12.7%	∆4.5%
Net Income	20	19	33	△11.1%	12.6%
(%)	(3.8%)	(3.5%)	(5.6%)	-	-
EBITDA Margin	10.1%	8.4%	11.6%	-	-

#### **Statement of Financial position**

Statement of Thi		positio		(unit :	(unit : bwn, %)				
Segment	2Q 2016	1Q 2017	2Q 2017	QoQ	YoY				
Total Assets	2,200	2,238	2,303	∆ <b>1%</b>	∆ <b>1%</b>				
Current Assets	1,356	1,392	1,465	∆2%	∆1%				
Cash&Cash Equivalents	330	367	405	8%	∆5%				
Inventories	166	158	162	7%	∆7%				
Other Current Assets	860	867	897	∆7%	1%				
Non-Current Assets	844	846	838	0%	0%				
Tangible Assets	624	601	592	∆2%	∆5%				
Intangible Assets	132	126	123	∆3%	∆7%				
Other Non-Current Assets	87	120	123	16%	53%				
Total Liabilities	1,180	1,182	1,211	∆ <b>1%</b>	<b>∆5%</b>				
Current Liabilities	669	664	658	∆2%	1%				
Short-term borrowings	218	179	185	1%	∆11%				
Non-Current Liabilities	511	519	553	1%	∆12%				
Long-term borrowings	468	505	534	∆0%	∆8%				
Equity	1,020	1,056	1,092	∆ <b>1%</b>	5%				
Current Ratio	203%	210%	223%	13%	20%				
Equity/Total Assets	46%	47%	47%	0%	1%				
Total Liabilities/Equity	116%	112%	111%	∆1%	∆5%				
Net debts Ratio	35%	30%	29%	∆1%	△6%				

#### **Statements of Cash Flows**

Statements of Cash Hows		(	unit : bwn)
Segment	'16.2Q	'17.2Q	YoY
Cash and cash equivalents at the beginning of year	286	340	54
Cash Flows From Operating Activities	194	101	<b>∆93</b>
Cash Flows From Investing Activities	<b>∆66</b>	∆30	36
Сарех	△25	△21	4
R&D	∆6	∆7	riangle 1
Others	∆36	∆3	33
Cash Flows From Financing Activities	<b>∆84</b>	∆4	80
Effect of exchange rate changes on cash and cash equivalents	0	riangle 1	riangle 1
Cash and cash equivalents	330	405	75

#### HQ

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(unit : bwn)

Segment				14							15				16			1	Y-o-Y		
	Segme			1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	(2Q)
			Domestic	103	111	113	110	437	105	107	108	109	429	95	101	102	101	399	115	111	10%
	Electric	Sales	Overseas	52	51	53	63	219	58	62	67	62	249	61	62	55	57	235	59	61	△2%
	Equipment		Total	155	162	167	173	656	164	168	175	172	678	157	163	157	157	634	173	172	5%
		Opera	ting Profit	28	27	34	30	120	31	35	41	32	139	36	36	37	33	142	40	36	0%
			Domestic	100	89	79	111	379	79	107	100	98	384	64	82	105	141	392	90	106	30%
	Electric Infra	Sales	Overseas	39	44	43	34	160	12	16	15	33	75	36	33	20	46	134	41	40	23%
		Total		139	133	122	145	539	91	122	115	130	459	100	114	125	187	526	130	147	28%
		Operating Profit		11	∆2	6	9	24	∆2	∆0	7	2	7	⊿5	0	∆7	8	∆4	0	2	832%
	Automation		Domestic	45	48	47	56	195	47	43	48	49	187	46	48	47	45	186	48	49	3%
HQ		Sales	Overseas	20	21	20	23	84	21	22	21	25	89	26	23	19	20	88	24	24	4%
			Total	65	68	67	79	279	68	65	69	74	276	72	71	66	65	274	72	73	3%
		Operating Profit		6	6	7	4	24	4	4	8	4	19	9	6	6	6	27	8	10	82%
			Domestic	48	61	64	88	261	45	83	67	76	271	38	46	30	56	171	26	36	∆22%
	Convergence	Sales	Overseas	31	32	14	16	93	11	7	23	28	69	17	17	31	42	107	23	26	60%
	Business		Total	78	93	78	104	354	56	89	90	105	340	56	63	61	98	278	48	63	∆1%
		Opera	ting Profit	∆9	∆4	∆6	6	∆13	△11	∆0	∆3	∆3	△18	△10	△15	△11	∆31	△67	∆14	⊿9	37%
			Domestic	296	309	303	365	1,272	277	339	323	332	1,271	244	277	284	343	1,148	278	303	9%
	Subtotal	Sales	Overseas	142	147	131	136	555	102	106	126	149	482	141	134	125	164	564	146	151	13%
	Subtotal		Total	437	457	434	501	1,828	379	445	449	481	1,753	385	411	409	507	1,712	425	454	10%
		Opera	ting Profit	36	27	42	50	155	22	38	53	35	148	29	27	25	16	97	34	38	45%

#### **Subsidiaries**

(unit : bwn)

	Segme	nt				14			15							16			1	Y-o-Y	
	Segme			1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	(2Q)
			Domestic	32	41	32	30	134	24	28	26	26	104	25	28	33	40	126	34	37	32%
	LS	Sales O	Overseas	52	43	31	43	169	47	39	44	39	168	45	36	29	37	147	49	39	7%
	Metal		Total	84	84	63	72	303	71	67	70	64	272	70	64	62	77	273	83	76	18%
		Operating Profit		riangle 1	0	∆0	1	0	∆3	∆2	∆5	1	∆9	1	1	riangle 1	riangle 0	0	0	⊿0	△160%
Subsidi	Subsidiaries	9	Sales	14	15	12	17	58	15	14	11	17	56	10	11	13	25	58	16	22	104%
aries	(Korea)	Operating Profit		∆0	∆0	∆1	∆0	1	1	1	0	∆0	2	⊿0		1	2	2	1	3	850%
	Subsidiaries	9	Sales	28	31	36	42	138	31	43	58	49	180	49	53	42	44	188	39	45	△15%
	(China)	Opera	ting Profit	∆0	1	2	1	5	0	2	6	4	13	5	5	4	2	16	1	3	∆44%
	Subtotal		Sales	126	130	111	132	499	116	124	139	130	508	129	128	117	146	519	138	143	11%
	Subtotal	Opera	ting Profit	riangle 1	1	1	2	3	∆2	2	1	5	6	5	5	4	4	18	2	6	6%

#### Consolidated

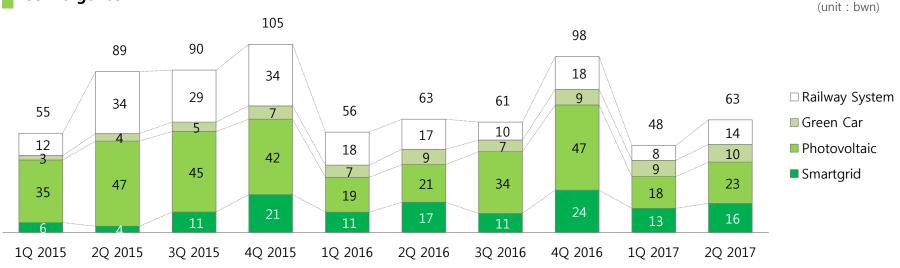
(unit : bwn)

Segment			14				15			16						17		
Segment	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	(2Q)
Consolidation adjustment for Sales	∆5	∆7	∆9	△16	∆36	△10	△16	△15	△19	△60	∆12	∆14	∆2	10	△18	$\triangle 3$	⊿9	37%
Consolidation adjustment for OP	1	2	1	1	4	riangle 1	1	∆0	1	1	0	0	1	8	9	0	⊿0	△1,217%
Total Sales	558	580	536	616	2,291	485	552	573	592	2,202	501	525	524	663	2,214	559	588	12%
Total Operating Profit	36	31	43	52	162	19	41	54	41	154	35	32	30	28	124	36	44	37%



### **Appendix 3. Sales details for Convergence & Subsidiaries**

Convergence



#### Subsidiaries

(unit : bwn)

