

# **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

# **4Q 2020 Total Results**

Sales 610bwn (YoY 89bwn decreased), Operating Profit 33bwn (YoY 11bwn decreased) Sales and Operating profit decrease by Electric Infra Segment

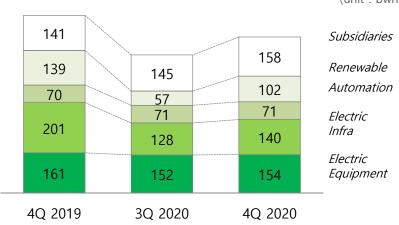
#### **Income Statement**

(unit: bwn)

Segment	4Q 2019	3Q 2020	4Q 2020	YoY	QoQ
Sales	699	559	610	△89	52
Operating Profit	43	22	33	△11	11
Profit before tax	22	29	34	13	5
Net income	13	19	21	8	2

#### Sales Breakdown by Business





<sup>\*</sup> Subsidiaries includes LS Metal, LS Sauter, LS Mecapion, LSIS Wuxi, LSIS Dalian and LS-Vietnam





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

<sup>\*\*\*</sup> Sales of subsidiaries are before the consolidated adjustments.

# **3Q 2020 Financial Position**

Total assets 2,540bwn (YoY 2bwn increased)

Total Liabilities/Equity Ratios 80%, Debts/Total Assets Ratios 23% (stable financial structure)

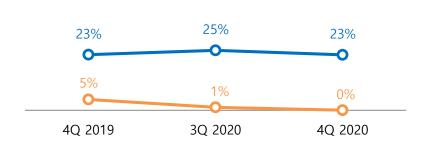
**Financial Ratios** 

#### **Financial Statement**

(unit: bwn)

Segment	4Q 2019	3Q 2020	4Q 2020	YoY	QoQ
Total Assets	2,538	2,549	2,540	2	△9
Current Assets	1,667	1,673	1,650	△17	△23
Cash & cash equivalent	535	629	683	149	54
Total Liabilities	1,175	1,153	1,127	△49	△26
Debts	596	646	595	△1	△51
Net Debts	62	17	△88	△150	△105
Equity	1,363	1,396	1,413	51	17

# One Total Liabilities/Equity Debts/Total Assets Net Debts Ratio 86% 83% 80%

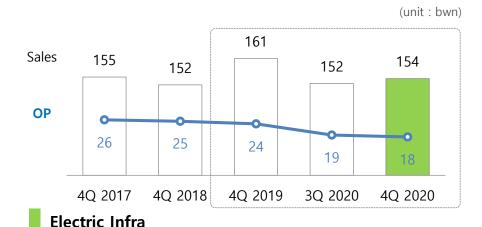




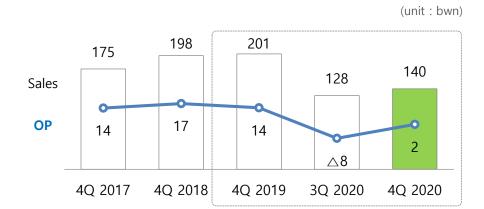
# **Business Results & Outlook**

Electric Equipment – Sales decreased in Overseas mkt (South East Asia)
Electric Infra – Sales decreased due to Domestic and Oversea mkt (Major Company)

#### **Electric Equipment**



- Sales decreased YoY 4%, OP decreased YoY 26%
  - Sales decreased Overseas mkt
  - OP decreased due to Sales decreased and Currency effect
- Sales recovered in Global mkt (1th Quarter)
- Boosted sales in Vietnam mkt



- Sales decreased YoY 30%, OP decreased YoY 86%
- Domestic and Oversea sales decreased in Major Company
- Expecting Investment in KEPCO and Battery business



# **Business Results & Outlook**

Automation – Sales increased in Domestic mkt (Machinery mkt )

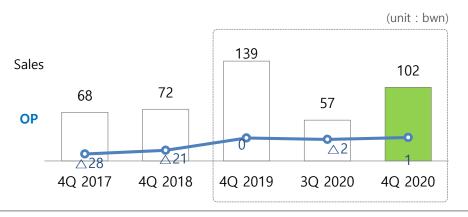
Renewable - Sales decreased in Smart-Grid(ESS)/Solar, Sales increased in Railway System

#### **Automation**



- Sales increased YoY 1%, OP increased YoY 21%
- Sales increase in Domestic mkt (Machinery)
- Sales decreased in Overseas
- Sales Boost in New mkt(Semiconductor/Car)

#### **Renewable Business**



- Sales decreased YoY 26%, OP increased YoY 308%
  - Sales increased Smart-Grid (ESS)
  - Profit increased by EV
- Sales Boost in Solar/EV components Business





# **Business Results & Outlook**

LS Mecapoin – Sales/Profit increased
Sales/Profit increased in China Business

#### **Subsidiaries**



- Sales increased YoY 12%, OP increased YoY 302%
  - LS Metals sales increased
  - Sales recovered in China business
- Sales Boost in LS Metals Vina
- Sales Boost in LS Mecapion





# 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

Founded	1974
Sales	2,403billion(KRW)
Employees	3,256
Headquarters	LS Tower, Gyeonggi-do, Korea
Plants	Total 8 Plants
Overseas subsidiaries	China, Vietnam, Japan, etc.
Overseas branches	USA, Europe, Russia, Vietnam, etc.

(As of 2017)





# 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

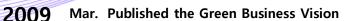


2011 Oct. Completed the Busan HVDC Plant

Nov. Included in the Fortune Korea's 500 Fastest Growing Companies

Nov. Selected as one of the Top 100 Global Innovators

by Thompson Reuters



Oct. Share in Mecapion acquired

Oct. European sales corporation established





2010 Jan. LS Power Semithech 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 ~ 2015)

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









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 40th anniversary of the foundation

Sep. Ranked number one in the Korean Standard – Quality Excellence Index for 2 consecutive years

Nov. Selected as one of the Top 100 Global Innovators by Thompson Reuters





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

2016

Mar. Anyang R&D Campus acquired BEMS certification for the first time in Korea.

Sep. Selected as the best business in automobiles interms of KS-QEI for four years in a row.

Sep. Anyang R&D Campus certified as the first business that established ESS (Emergency Support





2017

Feb. Named one of the world's top 100 businesses in paten: applications in Europe.

Jun. Named Best Business in Korea for ten consecutive years.
Sep. Won a prize from the Minister of Trade, Industry, and
Energy as a praiseworthy business in strategic items.
Oct. Finished the work for the construction of the largest

(28MW) PV plant in Chitose, Hokkaido, Japan.

Dec. Finished the work for the construction of a 3MW floating PV plant on Cheongpungho lake, the largest of its kind in

16 한국품질만족 S-QEI 1위 기업 인증 +



2018

Jan. Selected as one of the world's top 100 innovative businesses.

Apr. Finished the work for the construction of MW ESS-linked PV plant at the Hwamyeong Water Treatment Plant in Busan.

Dec. Acquires ESS Unit of North America's ESS Leader Parker-Hannifin

2019

Feb. Selected as one of the world's top 100 innovative businesses.

Jun. Finished the work for the construction of 18MW Megasolar plant in Hanamizuki, Japan.

2020

Jun. Turkey sales corporation established.

LS ELECTRIC



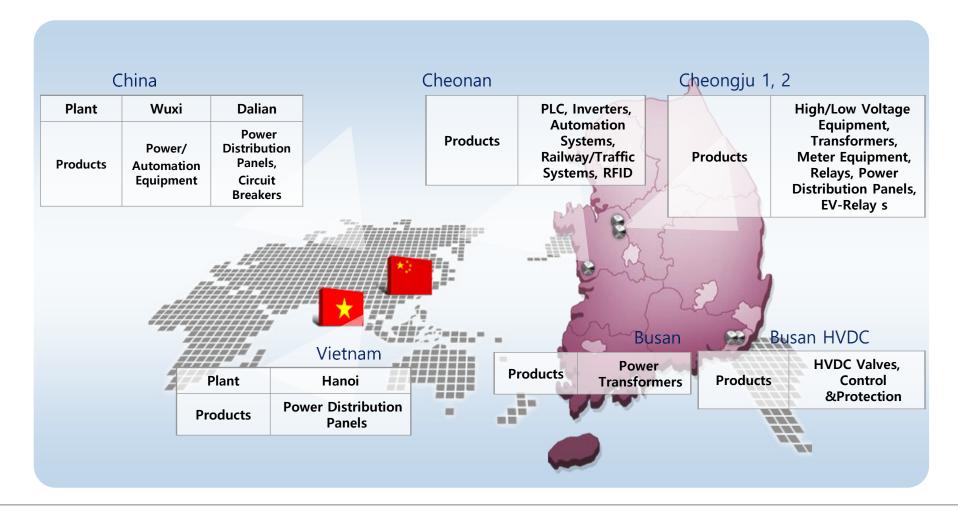
# Strengthening the Business Portfolio through M&As





# We manufacture high-quality products in nine plants around the world

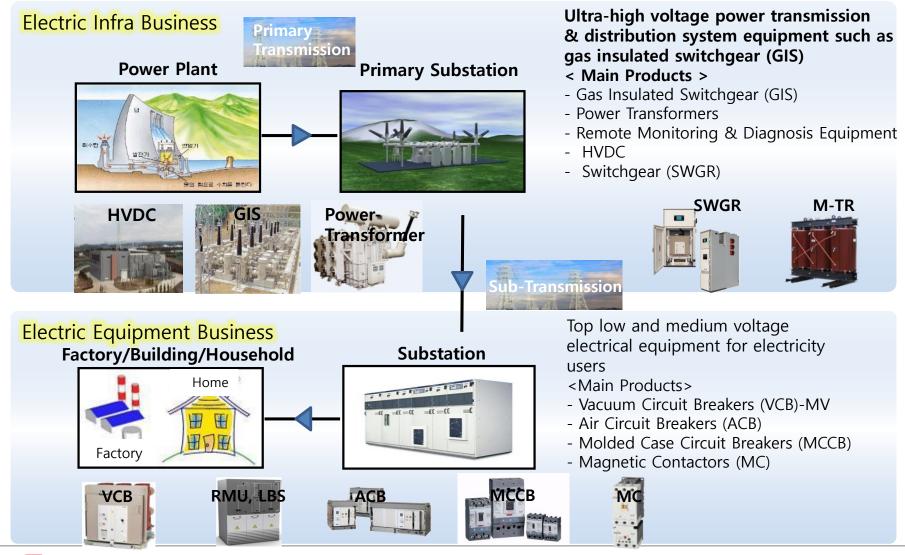
- Domestic: 5 Plants (Cheongju 1 & 2, Cheonan, Busan, Busan HVDC)
- Overseas: 3 Plants (China: Dalian, Wuxi / Vietnam: Hanoi)





### **Business Introduction**

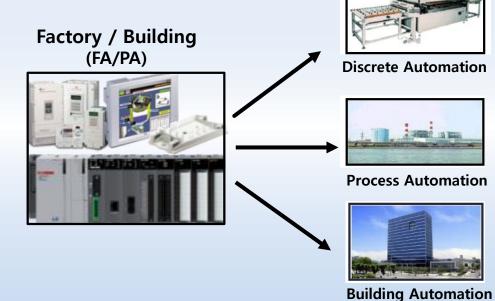
#### Leading Provider of Total Electric Power, Automation & Green Business Solutions





## **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)

#### Renewable Business



**Smart Grid** 



**Green Car Solution** 



**Photovoltaic System** 



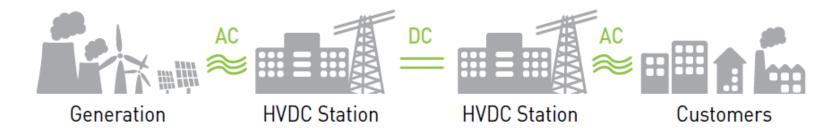
**Railway System** 





## **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

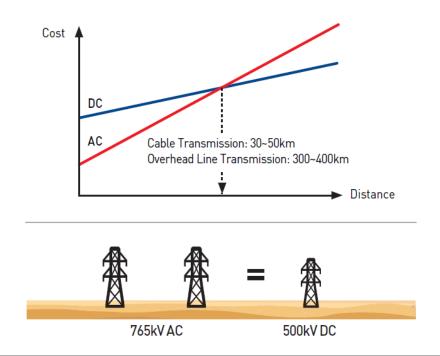
HVDC is the only option for the overhead transmission longer than 300km or submarine/underground 40km thanks to DC characteristics

#### **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.

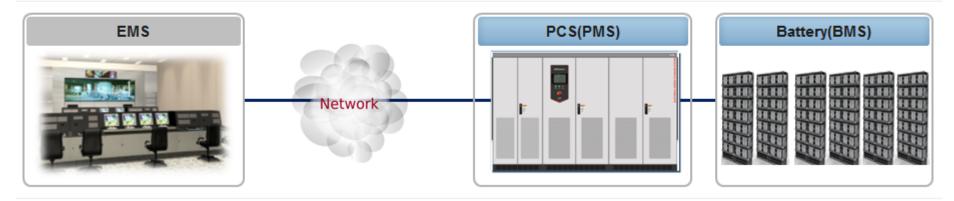




# **ESS Applications**

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

#### Concept of ESS

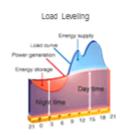


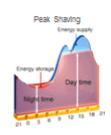
#### **Function of ESS**

Peak Shaving, Load Leveling

> Renewable Energy Smothing

> Frequency Regulation









· EMS: Energy Management System

· PCS: Power Conditioning System

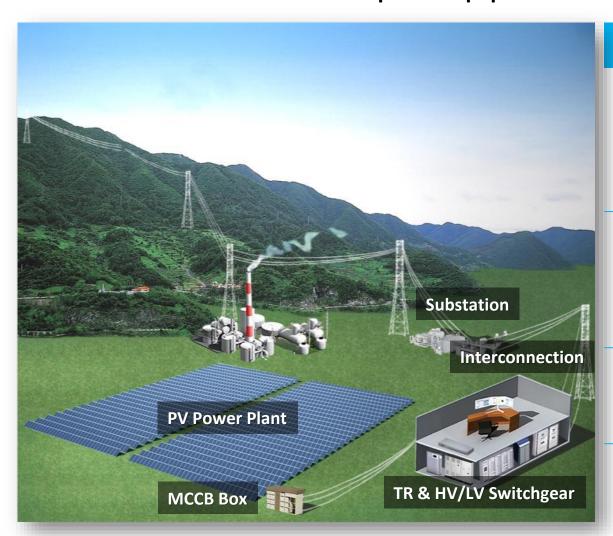
· PMS: Power Management System

· 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 LS ELECTRIC.



#### **System Components**



**PV Power System** 

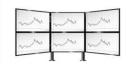
- Module
- Inverter
- Balance of System



- HV Switchgear
- MV Switchgear
- LV Switchgear



**Transformer** 



Monitoring(SCADA)





# III. Appendix

# **Appendix 1. Condensed Statement**

#### **Income statement**

(unit: bwn, %)

Segment	4Q 2019	3Q 2020	4Q 2020	YoY	QoQ
Sales	699	559	610	△12.7%	9.2%
Cost of Sales	△576	△459	△503	△12.6%	9.6%
Gross Profit	123	99	107	△13.4%	7.7%
(%)	(17.6%)	(17.8%)	(17.5%)	-	-
SG&A	△80	△77	△74	△7.4%	△4.1%
Operating Profit	43	22	33	△24.5%	49.7%
(%)	(6.2%)	(3.9%)	(5.3%)	-	-
Non-OP and Loss	△22	7	2	△107.9%	△76.0%
Profit before tax	22	29	34	58.4%	18.9%
Net Income	13	19	21	64.8%	12.4%
(%)	(1.8%)	(3.4%)	(3.5%)	-	-
EBITDA Margin	7.0%	8.8%	8.5%	-	-

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

(unit : bwn)

Segment	'19.4Q	'20.4Q	YoY
Cash and cash equivalents at the beginning of year	456	535	79
Cash Flows From Operating Activities	216	289	73
Cash Flows From Investing Activities	△79	△84	△6
Capex	△60	△73	△14
R&D	△8	△5	2
Others	△11	△6	5
Cash Flows From Financing Activities	△58	△55	3
Effect of exchange rate changes on cash and cash equivalents	△1	△0	0
Cash and cash equivalents	535	683	149

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

(unit: bwn, %)

Segment	4Q 2019	3Q 2020	4Q 2020	QoQ	YoY
Total Assets	2,538	2,549	2,540	0%	△0%
Current Assets	1,667	1,673	1,650	△1%	△1%
Cash&Cash Equivalents	535	629	683	28%	9%
Inventories	196	182	177	△10%	△3%
Other Current Assets	936	862	790	△16%	△8%
Non-Current Assets	871	876	891	2%	2%
Tangible Assets	554	554	557	1%	1%
Intangible Assets	114	106	104	△8%	△2%
Other Non-Current Assets	204	216	229	12%	6%
Total Liabilities	1,175	1,153	1,127	<b>△4</b> %	<b>△2%</b>
Current Liabilities	754	617	644	△15%	4%
Short-term borrowings	197	147	136	∆31%	△7%
Non-Current Liabilities	422	537	483	14%	△10%
Long-term borrowings	399	499	459	15%	△8%
Equity	1,363	1,396	1,413	4%	1%
Current Ratio	221%	271%	256%	16%	△6%
Equity/Total Assets	54%	55%	56%	4%	2%
Total Liabilities/Equity	86%	83%	80%	△8%	△3%
Net debts Ratio	5%	1%	△6%	△238%	△608%



# Appendix 2. Results for the past 4 years



(unit: bwn)

	Coame	n+				17					18					19					20			Y-o-Y
	Segme	ent.		1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	(4Q)
			Domestic	115	111	109	100	435	111	107	106	95	419	109	103	105	102	418	108	107	103	103	421	2%
	Electric	Sales	Overseas	59	61	56	55	230	52	56	50	57	215	52	68	64	60	244	60	61	49	51	222	△15%
	Equipment		Total	173	172	165	155	665	163	163	156	152	634	161	171	169	161	662	169	168	152	154	643	△4%
		Opera	ting Profit	40	36	37	26	139	34	32	30	25	121	31	35	34	24	125	32	31	19	18	100	△26%
			Domestic	90	106	131	120	447	134	115	107	161	516	90	115	113	169	487	118	134	110	115	476	△32%
	Electric	Sales	Overseas	41	40	38	55	174	30	44	23	37	134	30	39	35	32	136	40	33	19	26	117	△20%
	Infra		Total	130	147	169	175	621	164	159	130	198	650	120	154	148	201	623	158	167	128	140	593	△30%
		Opera	ting Profit	0	2	13	14	29	14	10	4	17	45	1	0	△1	14	13	5	8	△8	2	8	△86%
			Domestic	48	49	51	44	193	54	56	48	49	207	44	47	47	51	188	49	52	55	55	210	8%
HQ	Automation	Sales	Overseas	24	24	26	20	94	26	21	21	18	86	21	21	19	20	81	22	18	16	16	72	△19%
i i Q	ratomation		Total	72	73	77	64	287	80	<i>78</i>	69	67	293	65	68	66	70	269	71	70	71	71	282	1%
		Opera	ting Profit	8	10	12	6	36	11	12	9	9	40	5	6	7	5	23	6	7	6	7	26	21%
			Domestic	26	36	31	52	145	32	90	68	56	246	25	24	33	118	199	101	68	42	73	285	△38%
	Renewable	Sales	Overseas	23	26	24	15	89	16	27	23	16	82	16	16	5	21	57	12	△3	14	29	52	40%
	Business		Total	48	63	55	68	234	48	117	91	72	328	40	39	38	139	256	113	65	57	102	337	△26%
		Opera	ting Profit	△14	△9	△8	△28	△ 60	△8	1	△3	△21	△31	△9	△5	6	0	△6	△3	△17	△2	1	△21	308%
			Domestic	278	303	322	317	1,220	330	369	328	360	1,388	267	289	298	439	1,293	376	360	310	346	1,392	△21%
	Subtotal	Sales	Overseas	146	151	145	145	587	124	148	117	128	518	118	144	123	132	517	134	109	98	122	463	△8%
	Sastotal		Total	425	454	467	461	1,807	455	517	445	489	1,905	386	432	421	571	1,810	510	469	408	468	1,855	△18%
		Opera	ting Profit	34	38	53	18	143	50	55	39	30	175	28	36	46	44	155	41	30	15	28	113	△36%





# Appendix 2. Results for the past 4 years

#### **Subsidiaries**

(unit: bwn)

	Coamo	nt				17					18					19					20			Y-o-Y
	Segme	iiit		1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	(4Q)
			Domestic	34	37	41	43	156	39	41	33	40	153	43	43	42	45	174	37	40	44	40	161	△11%
	LS	Sales	Overseas	49	39	37	43	167	48	38	38	46	169	31	38	25	29	123	46	40	37	42	166	47%
	Metal		Total	83	76	79	85	323	87	79	71	85	322	<i>75</i>	81	68	74	297	83	80	82	82	326	11%
		Opera	ting Profit	0	△0	△1	1	△0	△0	△0	1	1	2	△2	2	△0	1	1	0	2	0	△1	2	△181%
	Subsidiaries	S	ales	16	22	19	16	72	15	15	17	13	59	10	15	9	13	46	16	18	14	16	63	20%
Subsidi	(Korea)	Opera	ting Profit	1	3	2	1	7	2	2	1	△0	4	△1	△1	△1	△1	△4	0	1	1	1	3	192%
aries	Subsidiaries	S	ales	39	45	38	48	170	39	82	63	41	225	57	61	57	44	220	34	44	42	52	173	19%
	(China)	Opera	ting Profit	1	3	0	3	6	1	10	8	△2	16	5	9	5	1	20	1	4	5	3	14	417%
	Subsidiaries	S	ales	0	0	0	0	0	4	6	6	13	29	6	10	5	10	30	4	7	8	7	26	△25%
	(Vietnam)	Opera	ting Profit	0	0	0	0	0	0	0	0	1	1	0	0	△1	0	1	△1	0	0	△0	△1	△232%
	Subtotal	S	ales	138	143	135	149	565	145	182	156	152	636	147	167	139	141	594	137	149	145	158	588	12%
	Sublotai	Opera	ting Profit	2	6	1	4	13	3	12	10	△1	23	3	10	3	1	17	1	8	7	3	19	302%

#### Consolidated

(unit : bwn)

Segment			17					18					19					20			Y-o-Y
Segment	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	(4Q)
Consolidation adjustment for Sales	△3	△9	△11	△5	△29	△8	△39	1	△ 10	△56	△ 14	△18	△11	△13	△57	△11	△20	6	△ 15	△40	△21%
Consolidation adjustment for OP	0	△0	1	1	3	2	△2	4	3	7	△2	△3	3	△1	△3	△2	1	0	2	1	213%
Total Sales	559	588	591	605	2,344	592	661	602	630	2,485	519	581	548	699	2,347	636	598	559	610	2,403	△13%
Total Operating Profit	36	44	55	23	158	55	65	53	32	205	29	43	53	43	169	40	39	22	33	134	△25%





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

