

Q4 2013 results



Q4'13 Results (1)

Income Statement Units: Wbn

	Q4 2012	Q3 2013	Q4 2013	Y-o-Y	Q-o-Q		-1 -
Sales	602	532	673	12%	26%	Sales 	ОР
Cost of goods sold	505	427	556	10%	30%	600	
GP	97	105	117	21%	11%		
SG&A	73	63	70	△4%	11%	400	50
OP	26	42	47	80%	12%		40
Pre-tax profit	20	59	46	131%	△22%		- 30
NP	10	46	32	230%	△31%	12 4Q	13 3Q 13 4Q

* % of sales by segment

	Power equip	T&D	Automation	Traffic SOC	LS Metal	etc
2012	28%	28%	14%	3%	18%	8%
2013	28%	29%	13%	5%	17%	9%
YoY Change	0%	1%	△1%	2%	△1%	1%

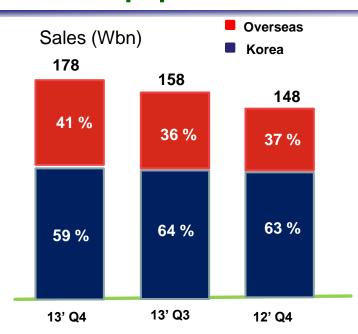


Q4'13 Results (2)

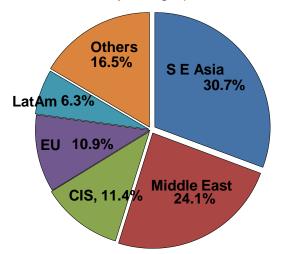
Balance Sheet (Units: Wbn)

	2011	2012	2013	YoY			
Assets	1,769	2,020	2,101	81	4%	<u>Liabilities/E</u>	quity
Tangible Assets	921	1,157	1,237	80	7%	4.440/	_,
Intangible Assets	848	863	864	1	0%	141%	127%
Liabilities	993	1,183	1,174	△8	△1%	Net Debt/E	
Tangible Liabilities	514	604	522	△83	△14%		
Intangible Liabilities	479	579	653	74	13%	55%	55%
Stockholders Equity	777	838	927	89	11%	<u>ROE</u>	
Debt/Equity Ratio	128%	141%	127%	△15%			12.3 %
Cash & Cash equiv	125	176	191	15	13%	11.6%	
Net Debt	418	463	509	47	10%	End of 2012	End of 2013

Electric Equipment – Q4 Results & Market Outlook



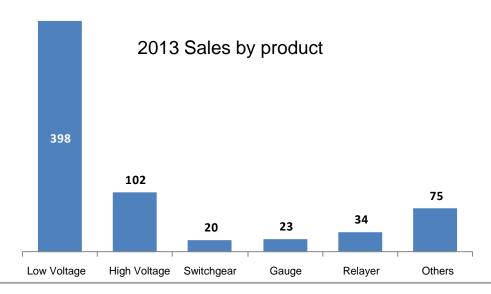
2013 Sales by Geographic Location



- · Korea: stable earnings growth due to existing high market share
- Smart Grid: 20%YoY top-line growth from Iraq DCC, K-EMS, etc
- Korea
- -Sales of high-end products & new products more than offsetting economic slowdown
- Abroad
- 35%YoY sales growth from Iraq DCC project (W22bn)
- Increased ASP to offset appreciating KRW & expanded distribution network

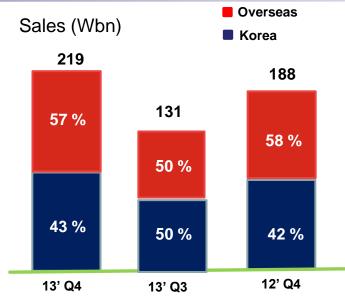
1Q14 Outlook

- Conservative outlook due to continued sluggish economic activity in Korea & US QE tapering
- Looking to expand T&D sales in the Middle East (esp Saudi Arabia) as we were able to secure Iraq DCC project
- Looking to expand Smart Meter project sales in Iraq, Uzbekistan, Poland, etc



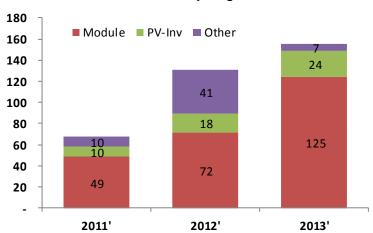


T&D (Power System) – Q4 Results & Market Outlook



*note: includes solar business

Solar Business sales by segment



- 4Q sales +67%QoQ due to seasonality factors & spill-over effect from 3Q
- Able to offset sluggish Korea market by winning projects abroad

Korea

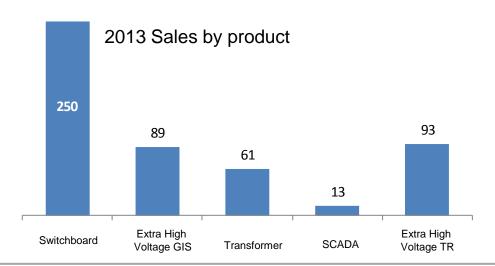
+16%YoY sales increase as we were able to secure large scaled projects despite sluggish construction sector

Abroad

- Profitability gradually improving due to Iraq project
- Top-line improved from Japan's solar business, but due to depreciating JPY profitability was lower than expected

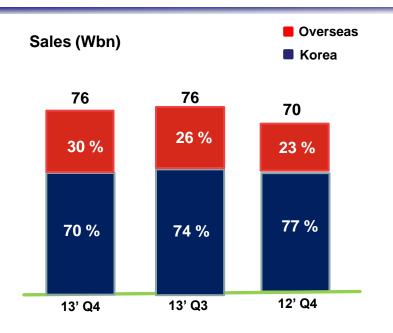
1Q14 Outlook

- Power generators & transmissions installment projects to grow
- Aiming to increase sales by being more aggressive in Europe & expanding distribution network in Japan's solar industry
- Would like to participate in substation projects in Korea, Iraq, Rest of the World (GCC, Asia, Africa, etc)





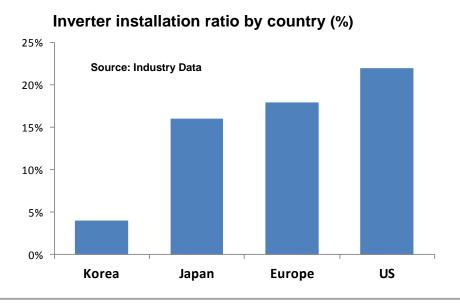
Automation – Q4 Results & Market Outlook

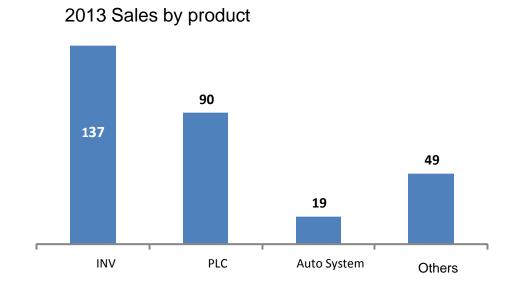


- Slow earnings growth as capex plans are unclear from sluggish economy
- Most of this was offset by increased sales of high voltage inverters in Korea & increasing demand for "energy saving" items
- Korea: Systems sector sales was lower than expected due to sluggish demand in water treatment projects. However, this was mostly offset by high voltage inverter sales
- Abroad: weakness in Iran & Egypt due to political unrest

1Q outlook

- We forecast sluggish economy in Korea to continue but the increasing demand for energy should help increase our sales for high voltage inverters. We are focusing on increasing our competitiveness in this product
- Trying to strengthen distribution & after service network abroad

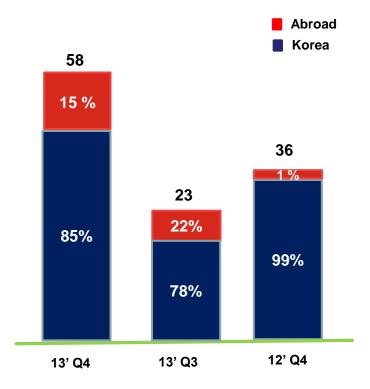






Traffic SOC – Q4 Results & Market Outlook

Sales (Wbn)



- 1) Sales increased +170%YoY due to Korea high-speed railway (KTX), Bangladesh projects
- 2) 3Q sales was carried forward
- 3) 2013 Korea high-speed railway project added W57bn in sales, Bangladesh W23bn
- 4) 1Q14 outlook
 - Looking for opportunities in Taiwan, Singapore, Thailand
 - Would like to participate in railway projects in Korea & abroad
 - → Korea: Incheon Airport, Suseo to Pyeongtaek high-speed railway
 - → Singapore/Thailand/Taiwan/Indonesia subway projects

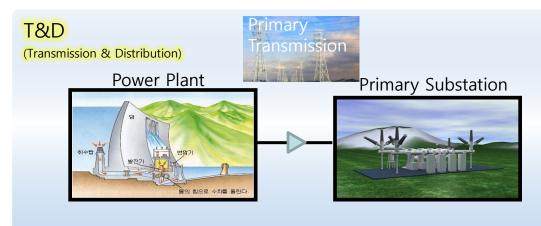
Order Backlog

Segment		2011 end	2012 end	2013 end
Transmission	Korea	162	199	249
& Distribution	Abroad	258	300	276
Traffic SOC	Korea	171	302	276
	Abroad	21	40	12
Other	-	194	246	233
Total	-	807	1,087	1,046



Business portfolio

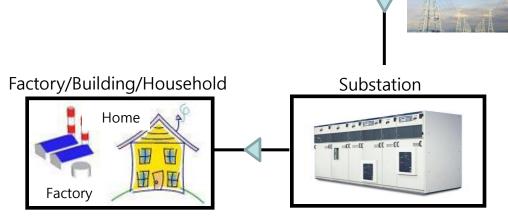
Leading Electric Power, Automation & Green Business Total Solution Provider



Ultra-high voltage power transmission & distribution system equipment like gas insulated switchgear (GIS) and gas circuit breakers (GCB)

<Main Product>

- Gas Insulated Switchgear (GIS)
- Transformer
- Remote Monitoring & Diagnosis Equipment
- Power Distribution Panels & Switchgears
- Railway System



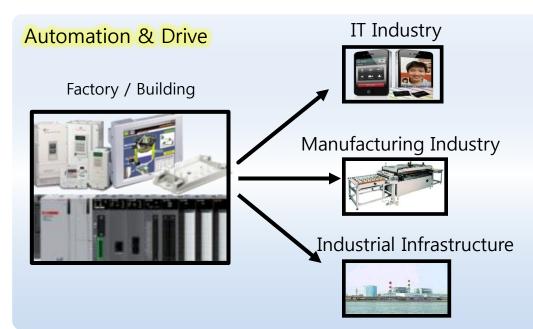
Top low and medium voltage Electric equipment for electricity users

- <Main Products>
- Vacuum Circuit Breaker
- Air Circuit Breaker
- Molded Case Circuit Breaker (MCCB)
- Contactors



Sub-Transmission

Business portfolio



Automation systems, which integrate core hardware and software technologies as well as technological services, provide optimum total solutions in a wide range of industrial workplaces

- <Main Product>
- Inverter (Motor Drive)
- PLC (Programmable Logic Controller)
- HMI (Human Machine Interface)
- Automation System (Distributed Control System)
- Power Semiconductor











Smart Grid

Photovoltaic System

Industrial IT

HVDC System

Green Car Solution



Products portfolio –Electric Equipment

Electric Equipment















- Low voltage
 - Air Circuit Breakers(ACB)
 - Molded Case Circuit Breakers (MCCB)
 - Miniature Circuit Breakers (MCB)
 - Magnetic Contactors (MC)
 - Electronic Motor Protection Relay(EMPR)
- High Voltage
 - Ring Main Unit(RMU), Load Break Switch(LBS)
 - Vacuum Circuit Breakers (VCB)
 - Vacuum Interrupter(VI)
 - Power Fuses
- ❖ Measurement / Relay
 - Smart Meter, Electronic Watt-Hour Meter
 - Digital Protection Relay & Meter

RMU, LBS **VCB ACB MCCB MCB** MC & TOR **MMS**

- 12/17.5/24kV
- 630A
- 21kA (3s)
- IEC62271-1~200
- AC 7.2~40.5kV
- Up to 4,000A
- Up to 50kA
- IEC 62271-100
- AC 690V
- Up to
- 6,300A
- Up to 150kA
- IEC 60947-2
- AC 690V
- Up to 1600A
- Up to 150kA
- IEC 60947-2
- AC 400V
- Up to 125A
- Up to 10kA
- IEC 60898
- AC 690V
- Up to 800A
- UL 508 IEC 60947-4
- AC 690V
- Up to 100A
- Up to 100kA
- UL 508

IEC 60947-2/4



Products portfolio –T & D



- Ultra High Voltage Equipment
 - Gas Insulated Switchgear
 - Gas Circuit Breaker
- Transformer
 - Mold Transformer
 - Cast Resin Transformer
 - Oil Immersed Transformer
- Power Distribution Panel
 - Gas Insulated Switchgear
 - Air Insulated Switchgear
 - Motor Control Center
- Diagnostic Equipment
 - Diagnosis & Overhaul,
 - Power Monitoring System, Rationalization
 - Power Quality Monitoring Solution
- Busway
 - Susol Busway, GH-P Type

Gas Insulated Switchgear



- 362kV
- Up to 8,000A
- Up to 63kA
- 245kV
- Up to 4,000A
- Up to 50kA
- 72.5~170kV
- Up to 4,000A
- Up to 50kA

Transformer



- 72~550kV
- Up to 800MVA
- IEC 60076 / ANSI(IEEE) C57



- 3.3~36kV
- Up to
- 20MVA

Switchgear/Busway



• 7.2~36kV

• 630~3150A

• up to 170kV

• IEC 62271-200

KERI & KEMA

Certified



- 630 ~5000A
- 80 kA / 1s
- ASTA
- Certified

• 600V

- Up to 1000 V
- 630~6000A (AI)
- 630~7500A (Cu)
- 220 kA / 1 s (Cu 4000A)



Products portfolio –Automation

Automation & Drive













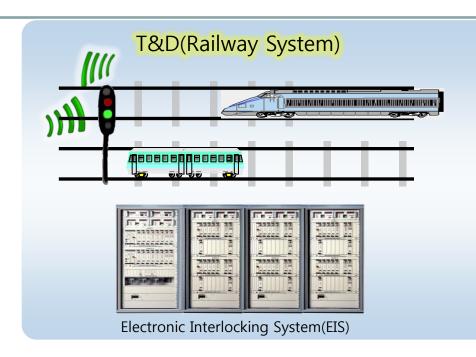
- PLC (Programmable Logic Controller)
- + HMI (Human Machine Interface)
- Servo Motor/Drive
- * AC Drive
- * MV Drive
- Power Semiconductor

Serial Communication

Drive Solution Automation Solution Power Semiconductor AC Drive PSC module MV Drive PLC HMI Servo Standard EtherCAT • 200/400V 0.1~800kW • 2/4/6/10kV • Redundancy & • 5~15" Touch Screen • IGBT Module • 65,536 Colors V/F, Sensorless, 200~11,000kvA Performance Network MOSFET Module Vector Control V/F, Sensorless, • Offline Program Accurate Control Distributed I/O Diode Module • Energy Saving Simulation • Full-Closed Vector Control • Ladder & • Ethernet / Energy Saving IEC Language



Products portfolio –Trans. SOC



- ❖ AF Track Circuit
 - Analog Audio Frequency Track Circuit
 - Digital Audio Frequency Track Circuit
- CTC
 - Centralised Traffic Control(CTC)
- Traction Power System
 - Scott Transformer, DC Switchgear & DC Rectifier, GIS
- Signalling System
 - Communication Based Train Control(CBTC)
 - Electronic Interlocking System(EIS)
 - Automatic Train Protection(ATP)
- * ATC
 - Automatic Train Control System(ATC)
 - Automatic Train Operation(ATO)

AF Track Circuit

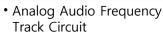
CTC

Traction Power System

Signalling System

ATC





• Digital Audio Frequency Track Circuit



Centralised Traffic Control



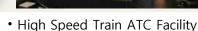
 Scott Transformer (154kV/55kV)

- DC Switchgear
- DC Rectifier(1,500V / 750V)
- High Voltage Transformer (154kV/22.9kV)
- GIS (170kV, 72.5kV)
- Low Voltage Switchgear



• CBTC System

- EIS
- ATP



- Korail maintenance train ATC
- Uigh speed mainline signaline
- High speed mainline signaling system
- ATC Ground Control System
- ATC Ground Control S/W
- ATC/ATO Train Control S/W

