Growth Strategy to Enhance Corporate Value

- Receiving of Joint Investment from The Innovation Network of Corporation of Japan and 8 Other Companies -

Renesas Electronics Corporation
December 10, 2012
Yasushi Akao, President
Today’s Agenda

1. Overview and Aim of Capital Increase through Third-party Allotment to INCJ (Innovation Network of Corporation of Japan) and 8 Other Companies

2. Strategy to Enhance Competitive Strength for Future Growth
Revised FY13/3 Consolidated Financial Forecasts

Lowered full-year sales forecasts as factors including prolonged debt worries in Europe, further market slowdown in China and other emerging economies as well as increased uncertainty of Japan-China relations might impact on demand.

Maintain full-year income forecasts unchanged from the previous forecasts despite sales decrease by streamlining production and further expense reduction measures.

<table>
<thead>
<tr>
<th>FY2012/3</th>
<th>FY2013/3</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>1H Actual</td>
</tr>
<tr>
<td>Net Sales</td>
<td>450.5</td>
</tr>
<tr>
<td>Semiconductor Sales</td>
<td>402.2</td>
</tr>
<tr>
<td>Operating Income (Loss)</td>
<td>-29.2</td>
</tr>
<tr>
<td>Ordinary Income (Loss)</td>
<td>-33.3</td>
</tr>
<tr>
<td>Net Income (Loss)</td>
<td>-42.0</td>
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</tbody>
</table>

1 US$= 81 yen 78 yen 79 yen 80 yen 81 yen 80 yen 78 yen -
1 Euro= 115 yen 104 yen 109 yen 102 yen 105 yen 103 yen 100 yen -

*As of August 2
Capital Increase through Third-party Allotment to INCJ and 8 Other Companies
Objectives of the Capital Increase

- Build on the measures already taken to strengthen our earnings base and strengthen competitive strength for future growth

- Secure funds for growth through third-party allotment

- Enhance competitive strength for future growth

- Implementing structural reforms
  - Business portfolio optimizing
  - Production structural reforms
  - Reduction in human resources

- Building stronger financial position
  - New funding (¥97 billion)
  - Long-term refinancing (¥161.1 billion)
# Overview of the Capital Increase

Renesas will procure ¥150 billion in capital increase through third-party allotment, underwritten by INCJ and a consortium of 8 other companies.

## Structure

<table>
<thead>
<tr>
<th>Consortium (8 companies)</th>
<th>(¥)</th>
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<tbody>
<tr>
<td>TOYOTA</td>
<td>(¥5)</td>
</tr>
<tr>
<td>NISSAN</td>
<td>(¥3)</td>
</tr>
<tr>
<td>KEIHIN</td>
<td>(¥1)</td>
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<tr>
<td>DENSO</td>
<td>(¥1)</td>
</tr>
<tr>
<td>Canon</td>
<td>(¥0.5)</td>
</tr>
<tr>
<td>Nikon</td>
<td>(¥0.5)</td>
</tr>
<tr>
<td>Panasonic</td>
<td>(¥0.5)</td>
</tr>
<tr>
<td>YASKAWA</td>
<td>(¥0.15)</td>
</tr>
</tbody>
</table>

Unit: ¥ billion

- ¥138.35 billion capital - Management support
- ¥11.65 billion capital

## Outline

<table>
<thead>
<tr>
<th>Method</th>
<th>Third-Party allotment</th>
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<tbody>
<tr>
<td>Type of share</td>
<td>Common shares</td>
</tr>
<tr>
<td>Number of shares to be newly issued</td>
<td>1.25 billion shares</td>
</tr>
<tr>
<td>Issue price</td>
<td>¥120 per share</td>
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<tr>
<td>Amount to be procured</td>
<td>¥150 billion</td>
</tr>
<tr>
<td>Issue period</td>
<td>February 22, 2013 through September 30, 2013</td>
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</tbody>
</table>

**Other**

Conditions:
1) Approval at extraordinary meeting of shareholders
2) Valid securities filing in line with of the FIEA*
3) Approval from competition authorities

*Financial Instruments and Exchange Act
Shareholder Composition after Execution of Third-party Allotment (% of Voting Rights)

- The INCJ will become a major shareholder, the largest with more than two-thirds of voting rights after the third-party allotment, while the 8 companies will collectively have 5.82% voting rights.
- The voting rights of the current three largest shareholders (NEC, Hitachi, Mitsubishi Electric) will each be under 10%, removing their current classification as major shareholders under the Financial Instruments & Exchange Act.

* NEC (35.46%), Hitachi (30.62%), Mitsubishi Electric (25.05%)
*1) NEC (8.87%), Hitachi (7.66%), Mitsubishi Electric (6.27%)
*2) Toyota (2.50%), Nissan (1.50%), Keihin (0.50%), Denso (0.50%), Canon (0.25%), Nikon (0.25%), Panasonic (0.25%), Yaskawa Electric (0.07%)
Overview of Need to Raise Funds, and Reason for Choosing this Scheme

- The need to invest in growth is increasing in order to secure a financial base that can withstand severe, non-cyclical changes in the market, and for R&D, capex, M&A to drive earnings recovery.

- Methods considered to secure our financial foundation and growth capital included additional borrowing, public offering, a rights offering, and capital increase through third-party allotment.

- Various proposals for third-party allotments from Japan and abroad were received and compared.

- The proposal from INCJ, which was premised on building a consortium of our customers, was considered comprehensively, and viewed favorably for being able to secure swiftly a large amount of funding rapidly, in a lump sum, with potential for synergies with the third-party allotment subscribers.

- The capital increase by third-party allotment proposal, led by INCJ, was selected as the best scheme to increase our corporate and shareholder value from a mid-and-long-term perspective.
## Invest in Growth Areas (Use of Funds)

### ¥150 Billion Capital Increase through Third-party Allotment

Enhance Competitive Strength for Future Growth

<table>
<thead>
<tr>
<th>Strengthen core competencies</th>
<th>Strengthen semiconductor solution provision capabilities</th>
<th>Increase resistance to rapid market changes</th>
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<tr>
<td><strong>R&amp;D</strong>  ¥40 billion</td>
<td><strong>Automotive semi. solution</strong>  ¥40 billion</td>
<td><strong>Rebuild management base</strong>  ¥10 billion</td>
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<td><strong>Industrial semi. solution</strong>  ¥40 billion</td>
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<td>Strengthen power semiconductor module technology</td>
<td>Improve business evaluation system</td>
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<td>M&amp;A to enhance analog IP line-up</td>
<td>Enhance BCP*</td>
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*Business Continuity Plan*
Strategy for Enhancing Competitive Strength for Future Growth
Three Pillars for Future Growth

1. Strengthen Core Competencies
2. Strengthen semiconductor solution provision capabilities
3. Increase resistance to rapid market changes

Become a platform leader in a Smart Society, combining MCU and A&P semiconductors
Future Vision of Business Model

Product supplier

- Analog (sensing)
- MCU (controlling)
- Power (driving)

Kit solution supplier

Business model offering kit solutions centering on MCUs

- A
- M
- P
- IP
- IP
- IP

Platform supplier

Business model offering platform centering on MCUs

- A
- M
- P
- IP
- IP
- IP

Total solutions incorporating software

- Strengthen line-up to accelerate providing kit solutions

Improve competitiveness through R&D and capex for individual products

Smart Society

Society
Our Concept of “Kit Solution”

- Offer “kit solutions” combining Analog (sensing) + MCU (controlling) + Power (driving) which are optimized for each system.
Our Concept of “Platform”

- Offer “platforms” optimized for each system, building the total system based on “kit solutions” combining software, etc.

Image of platform controlled by MCU

A
Analog

M
MCU

P
Power

Software (OS, soft IPs, device drivers, tools)

Analog IP  Sensor IP  Memory/leading-edge IP  Multi-core Communication IP  Module*1  Mechatoronical Integration*2

*1) A block of components having a certain function as a piece of system
*2) Enhancement of functions combining mechatronics and electronics
1. Strengthen Core Competencies

**Strengthen core competencies**

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- Analog & power semiconductors
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- Capex for production at 90nm

**Enhance Competitive Strength for Future Growth**

- Strengthen semiconductor solution provision capabilities
- Increase resistance to rapid market changes
- Improve business evaluation system
- Enhance BCP
- Improve equipment resistance to seismic activity
- Build "multi-fab" network

**Strategy for Enhancing Competitive Strength for Future Growth**

1. Strengthen Core Competencies
Maintain Dominance in MCU Market

Firmly maintain dominant global No.1 position in the MCU market with leading-edge technology

Global Automotive MCU Share: 42% No.1
Global General-purpose MCU Share: 27% No.1

*MCU market for applications excluding automotive

Source: IHS iSuppli Competitive Landscaping Tool (CLT)
Create New Markets with MCUs

Convergence of controlling (MCU) and IT (MPU/SoC) is accelerated for a Smart Society

-1990s  2000s  2010s-

**MCU**

Progress in MCUs (controlling)
- Motor control
- Inverter control, etc

Era of controlling & IT Convergence

**MPU**

Progress in SoCs (IT)
- Network
- Cloud computing, etc

Progress in MPUs (IT)

Smart Society

A society requiring finer process nodes and faster performance

- Automotive
- Industrial
- Communication
- Healthcare
- Home
Enhance Competitiveness of Core Competence (MCU)

Leader in MCU’s finer process nodes
- Develop and invest for leading-edge process technology (40/28nm)
- Prepare required technology for convergence of controlling & IT to realize a Smart Society
  - Address to the explosion of software processing
  - Address to increasingly complex control hardware

Extensive line-ups of peripheral functions
- Build massive IP library
  - Top MCU supplier
    - Extensive control-related IP
  - Top foundry
    - Extensive IT-related IP

Image of an MCU

Dominant No. 1 position
Push MCUs to New Heights with Enhanced Core Competencies

Past  Present  Smart Society

Global No.1 MCU share (All applications, all product groups)

A society requiring security/safe, eco-friendliness and convenience/comfort

- Higher Safety
- Higher Reliability
- Lower Power
- Higher Performance
- Higher Integration

40nm: Established technology first in the world

28nm: Develop next-generation technology

- Large-capacity embedded memory (SG-MONOS)
- Multi-core
- Lower Power
- Higher Reliability
- Promote Collaboration

150nm  90nm

Example of automotive:
- Automatic driving
- New safety system
- Drastic cut in CO2
- Explosion of software
- Large-capacity embedded memory
- Fail-safe test
Enhance Competitiveness of Analog Products

- Drive market by pursuing finer process nodes and larger wafers for automotive analog products

**Finer process nodes**
- Capex for equipment for 90nm process
  - Achieve higher integration in digital area (digital rich)

- Meet demand for functional safety as automobiles become more electronic
- Enhance analog functionality amid diversification of automotive sensors

**Larger wafers**
- Capex for 300mm production line

- Improve cost competitiveness
Enhance Competitiveness of Power Devices

Expand potential market with enhanced product competitiveness by applying new materials to high-voltage power devices and modularization.

New Materials (Beyond the Silicon)

- Accelerate development of next-generation materials (SiC, GaN)
- Strengthen product competitiveness with enhanced higher-efficiency

Modularization

- Enhance power device module technology
- Expand potential market with IGBT modularization

<table>
<thead>
<tr>
<th>Competitor</th>
<th>High-volt. Power</th>
<th>Module Package</th>
<th>PFC Control IC</th>
<th>Insulation Element (Coupler)</th>
<th>MCU</th>
</tr>
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<tr>
<td>Company B</td>
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<tr>
<td>Company C</td>
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<td>Renesas</td>
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Source: Marketing Eye Co., LTD
## Strategy for Enhancing Competitive Strength for Future Growth

### 2. Strengthen Semiconductor Solution Provision Capabilities

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- Industrial semi. solution
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Renesas’ Solutions to Accelerate a Smart Society

Semiconductor innovations with enhanced solution provision capabilities contribute to social innovations

Smart Society

- Next-generation cars, smart grid, eco housing, etc

System

- EV/HEV, motor control, green appliance, smart meter, sensor network, etc

Semiconductor

- Low-power MCU, analog & power, etc

Offer solutions optimized for each system

- Automotive
  - Automotive MCU, Motor MCU
  - Smart analog, Secure MCU

- Industrial
  - Automotive analog, LED driver, Battery control IC

- Communication
  - Low-volt. MOS IGBT, SIC, photocouplers

- Healthcare
  - Industrial ASIC LTE modem, Car navigation SoC

*Market share is based on Renesas estimates
Enhance Automotive Semiconductor Provision Capabilities

**Stronger proposals**

- Enhance line-ups of sensor technology and analog IP
- Strengthen mechatronical integration technology*1

- Use M&A to acquire technology and businesses
  - timely business development

**Leader in leading-edge technology with R&D investment**

- R&D investment to achieve the practical use of ADAS*2
- Secure development resources to enhance advanced technical strength

- Lead industry toward the practical use with our strengths in quality and reliability

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*1) Enhancement of functions combining mechatronics and electronics  
*2) Advanced Driver Assistance System
Enhance Industrial Semiconductor Provision Capabilities

**Stronger proposals**

- Enhance module technology
- Enhance embedded OS technology

- Expand platform business domain

**Stronger marketing including logistics**

- Collaboration and M&A with independent design house in emerging countries
- Enhance e-commerce system and customer service

- Increase sales in emerging and other growing markets
Platform Business Case-1: Inverter Motor

Offer platforms for inverter motors which are optimized for energy saving, combining power devices and software with MCUs competitive in inverter control.

**Product**
- Pursue electrical spec of devices
- Inverter motor control
- MCU
- Improve drive efficiency
- Power Device
  - IGBT
  - Power MOSFET
  - Photocoupler

**Kit Solution**
- Pursue optimum power/thermal efficiency
- IP

**Platform**
- Pursue maximum power/thermal efficiency as the total system, corresponding to individual system with MCU assist
- Software
  - IP

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*Market share is based on Renesas estimates  *IGBT: Insulated Gate Bipolar Transistor, PFC: Power Factor Correction
Platform Business Case-2 : Smart Meter

- Offer platforms to combine optimum semiconductors based on MCUs with software corresponding to individual communication protocol/needs in the world.
- Realize a “Smart Home”, “Smart Grid” with convergence of control and communication (IT).

Product

Platform

- Software
- MCU
- SoC
- DSP
- S/W Modem (DSP)
- A&P
- IP

<Control/Communication> <Drive>

Meter Control <Controlling> <Communication>

<Driving>

Global PLC modem evaluation board

*PLC: Power Line Communication

Smart Grid

Electric Power Company

Thermal Power Plant

Hydroelectric Power Plant

Wind Power Plant

Solar Power Plant

Smart Home

Power Storage

Substation

Hydroelectric Power Plant

Wind Power Plant

Solar Power Plant

Smart Meter

Global PLC modem evaluation board

*PLC: Power Line Communication
Aim to be a Platform Supplier

Evolution of MCU (Core Competence)

Drive market growth as a platform leader in a Smart Society
Strategy for Enhancing Competitive Strength for Future Growth

3. Increase resistance to rapid market changes

Enhance Competitive Strength for Future Growth

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Increase resistance to rapid market changes

Rebuild management base

- ¥10 billion
- Improve business evaluation system
- Enhance BCP*
- Improve equipment resistance to seismic activity
- Build “multi-fab” network
Build and Enhance Further Stable Product Supply Network

- Enhance secure, safe and stable product supply network by establishing multi-fab concept including major foundries even for mainstream production nodes of 90/40nm

Renesas’ Concept of Multi-fab

Development investment

After Enhanced

Outsource (Foundry)

Customer

Outsource (Foundry)

Outsource (Foundry)
Summary
Summary

✓ Enhance competitive strength for future growth by utilizing funds gained through third-party allotment, in addition to measures to date in order to strengthen earnings base

✓ Establish kit solutions and platform solutions based on MCUs with enhanced core competence, along with A&P semiconductors

✓ Pursue improvement in sales and profit by stably offering high value-added solutions for a Smart Society