Mitsui Energy Segment

December 2015

Mitsui & Co., Ltd.
Energy Business Unit I & Energy Business Unit II
Mitsui’s Energy Segment

**Consolidated Net Income**
※Consolidated Net Income attributable to Mitsui & Co., Ltd.
FYE 3/13: US-GAAP
FYE 3/14 – 3/16: IFRS

<table>
<thead>
<tr>
<th>Year</th>
<th>Energy</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FYE 3/13</td>
<td>164.8</td>
<td>307.9</td>
<td>472.7</td>
</tr>
<tr>
<td>FYE 3/14</td>
<td>188.4</td>
<td>350.1</td>
<td>538.5</td>
</tr>
<tr>
<td>FYE 3/15</td>
<td>119.7</td>
<td>306.5</td>
<td>426.2</td>
</tr>
<tr>
<td>FYE 3/16</td>
<td>49.0</td>
<td>240.0</td>
<td>289.0</td>
</tr>
</tbody>
</table>

**EBITDA**
※At each Fiscal Year Ending (March 31st)
FYE 3/14 – 3/16: IFRS

<table>
<thead>
<tr>
<th>Year</th>
<th>Energy</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FYE 3/14</td>
<td>416.1</td>
<td>819.6</td>
<td>1,235.7</td>
</tr>
<tr>
<td>FYE 3/15</td>
<td>439.8</td>
<td>788.3</td>
<td>1,228.1</td>
</tr>
<tr>
<td>FYE 3/16</td>
<td>819.6</td>
<td>660.0</td>
<td>1,479.6</td>
</tr>
</tbody>
</table>

**Gross Asset**
※At each Fiscal Year Ending (March 31st)
FYE 3/14 – 3/17: IFRS

<table>
<thead>
<tr>
<th>Year</th>
<th>Energy</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FYE 3/13</td>
<td>2.15</td>
<td>10.3</td>
<td>12.4</td>
</tr>
<tr>
<td>FYE 3/14</td>
<td>2.48</td>
<td>11.5</td>
<td>13.9</td>
</tr>
<tr>
<td>FYE 3/15</td>
<td>2.61</td>
<td>12.2</td>
<td>14.8</td>
</tr>
<tr>
<td>FYE 3/16</td>
<td>13.0</td>
<td>13.0</td>
<td>26.0</td>
</tr>
</tbody>
</table>

**Investment**
※At each Fiscal Year Ending (March 31st)
FYE 3/12 – 3/14: US-GAAP
FYE 3/15 – 3/17: IFRS

<table>
<thead>
<tr>
<th>Year</th>
<th>Energy</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FYE 3/12</td>
<td>0.20</td>
<td>650.0</td>
<td>650.2</td>
</tr>
<tr>
<td>FYE 3/13</td>
<td>0.335</td>
<td>960.0</td>
<td>960.335</td>
</tr>
<tr>
<td>FYE 3/14</td>
<td>0.340</td>
<td>1010.0</td>
<td>1010.340</td>
</tr>
<tr>
<td>FYE 3/15</td>
<td>0.195</td>
<td>715.0</td>
<td>715.195</td>
</tr>
<tr>
<td>FYE 3/15-3/17</td>
<td>0.660</td>
<td>1,500*</td>
<td>1,560*</td>
</tr>
</tbody>
</table>

*including investment in existing and new project

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Agenda

1. Mitsui’s Energy Segment

2. Mitsui Energy Segment Overview

3. Strategy in Each Business Field

4. Project Description
## Business Fields and Activities

<table>
<thead>
<tr>
<th>Business Fields</th>
<th>Activities</th>
<th>Major Subsidiaries and Affiliates</th>
</tr>
</thead>
</table>
| Oil & Gas Upstream (E&P)     | Oil & Natural Gas Exploration, Development, Production                      | MOECO
|                              |                                                                             | Mitsui E&P Australia (MEPAU)                                           |
|                              |                                                                             | Mitsui E&P Middle East (MEPME)                                         |
|                              |                                                                             | Mitsui E&P USA (MEPUSA)                                                |
|                              |                                                                             | Mitsui E&P Texas (MEPTX)                                               |
|                              |                                                                             | Mitsui E&P UK (MEPUK)                                                 |
|                              |                                                                             | Mitsui E&P Italy (MEPIT)                                               |
| Coal Trading & Marketing     | Thermal Coal Marketing and Trading                                          | Mitsui Energy Trading Singapore (METS)                                 |
|                              |                                                                             | ENEOS Globe                                                            |
| Oil Trading & Marketing      | Import & Export Crude Oil/Petroleum Products, Intermediate Trading, Domestic Petroleum Products /LPG Distribution | MMGS                                                                   |
| Nuclear Fuel                 | Nuclear Fuel Business                                                      | Mitsui & Co. LNG Investment USA (MITUSA)                               |
| Gas Trading & Marketing      | Trading and Marketing of Pipeline Gas in US                                 | Mitsui & Co. LNG Investment (MITLI)                                    |
|                              |                                                                             | Mitsui Gas Development Qatar (MGDQ)                                    |
| LNG                          | Invest & Develop LNG Project, LNG Trading, Commercialization of New Natural Gas Resources | Mitsui Sakhalin Holdings Qatar (MSH)                                   |
|                              |                                                                             | Japan Australia LNG (MIMI)                                              |
| Environmental & Next-generation Energy | Next-generation Energy, Bio Fuel, etc.                                    | Mitsui E&P Mozambique Area I (MEPMOZ)                                  |

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Organization of Energy Business Unit I & II

Energy Business Unit I

- **Business Supporting Units**
  - Planning & Administrative Div. (Energy)
  - Financial Management & Advisory Div. I

- **Strategic Planning Dept./Business Promotion Dept.**
  - Human Resources & General Affairs Dept.

- **E&P Div.**
  - Oil/Gas E&P

- **Shale Gas Div.**
  - Shale Oil/Shale Gas-related Business

- **Petroleum Business Div.**
  - Importing & Exporting Crude Oil/Petroleum Products, Intermediate Trading, Domestic Petroleum Products / LPG Distribution

- **Utility Fuels Div.**
  - Fuel Oil/Thermal Coal Trading & Marketing Nuclear Fuel Business

Energy Business Unit II

- **Natural Gas Div. I**
  - Americas, LNG Liquefaction/Marketing Commercialization of Natural Gas Resources

- **Natural Gas Div. II**
  - Europe, Middle East, Africa

- **Natural Gas Div. III**
  - Asia, Australia, Gas Downstream Business

- **Natural Gas Div. IV**
  - Far East, Russia, Environmental Energy & New Energy Business

- **Mozambique Projects Div.**
  - Mozambique

- **Domestic Offices/Energy Dept.**
  - (Hokkaido, Tohoku, Hokuriku, Chubu, Kansai, Shikoku, Chugoku, Kyushu)
Agenda

1. Mitsui’s Energy Segment

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Business Environment - Outlook for primary energy demand

- World primary energy demand continues to grow with economic expansion and population increase in developing countries (e.g., China, India).
- Fossil fuel loses 6% share in primary energy demand by 2040 (Oil ▲5%, Coal ▲4%, Gas +3%), however still remains to be a major source of primary energy accounting for 75%.

Source: IEA World Energy Outlook2015 (New Policies Scenario)
LNG demand in Japan and Far East, which have been a driver of LNG market, is expected to decrease gradually for the following factors; restart of nuclear power, energy efficiency improvement, introduction of renewable energy, etc.

World’s LNG demand will continue to increase to be driven by the demand increase in China, India, Middle East, South East Asia with the robust growth of economy and population.

Source: A Mitsui presumption based on consultancy group’s information
Our Vision

① Contribute to profit & cash flow through sustainable cash generation capabilities
② Constitute a well-balanced upstream & LNG asset portfolio with adequate size and cost-competitiveness
③ Integrate our advanced functions from upstream to downstream
④ Horizontal and vertical expansion of value chain as a business platform connecting other business fields

Initiatives toward achieving our vision

Upstream
- Generation of Cash and Profit
  - Continuous replacement of reserves and assets
  - Optimization & betterment of portfolio
  - Enhancement of proactive effort by taking advantage of knowledge and experience

Midstream
- Commercialization / Value Addition and Conversion
  - Development of new models for commercialization of natural gas
  - Maximization of value of upstream assets in the US
  - Development of value chain businesses in the Americas

Downstream
- Further Growth of Sales Capability and Outlet
  - Enhancement of sales capabilities and demand creation

Generation
- Preparations of Non-fossil Fuel business
  - Promotion of non-fossil fuel businesses
E&P Strategy - Diversify Portfolios and Create Higher Value

- Mitsui’s reserves & production volume is at the top of the Japanese trading houses and second among all Japanese companies following INPEX
- Establish a well-balanced portfolio in terms of the developing areas, products, and development phases
- Betterment of portfolio and enhancement of value creation capabilities through proactive involvement in developing our businesses

As of Dec, 2015
E&P Strategy ②

Promote a well balanced portfolio in developing areas, products, and development phases

Mitsui’s E&P Portfolio Strategy

① Exploration & Development Phases

Asia

Thailand: Block L10/43, G7/50, G8/50
Viet Nam: Blocks B&48/95, 52/97
Cambodia: Block A
Indonesia: Merangin I, Tuna, West Papua 1/3
Myanmar: M3, AD-9, AD-11, MD-5

Oceania

Australia: Laverda and 29 other permits
Meridian CBM
New Zealand: PEP50119, PEP54863

Europe/America

Mozambique: Area1
Oman: Block 3, 4, 9, 27

② Production Phase

FYE 3/15 Production volume
(Mitsui’s net, without gas for LNG)

By Region

Asia 38%
North America 38%
Middle East 11%
Europe 3%
Oceania 10%

By Production

Oil & Condensate 37%
Natural gas 63%

Exploration drilling performance

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of drilling wells</td>
<td>22</td>
<td>29</td>
<td>35</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>POS (%)</td>
<td>55</td>
<td>59</td>
<td>43</td>
<td>78</td>
<td>67</td>
</tr>
<tr>
<td>Pure finding cost ($/BOE)</td>
<td>0.25</td>
<td>1.66</td>
<td>0.33</td>
<td>0.49</td>
<td>—*</td>
</tr>
</tbody>
</table>

*Under evaluation as of March 2015

Blue = exploration phase, Black = Development phase
LNG Business Strategy ① – Establish a Diverse Portfolio –

Increase the portfolio value by diversifying supply areas & enhancing cost-competitiveness

- Since participating in the Abu Dhabi LNG project in the 1970s, Mitsui has entered into the whole spectrum of the LNG value chain production, transportation, and marketing. Mitsui has invested in 8 LNG projects, all of which are in production with efficient management and stable operation.

- In addition to the existing projects, Mitsui is currently promoting new core projects:
  - Mozambique has a competitive edge given the cost-competitiveness arising from the high quality gas reserves and accessibility to both the Asian and European market.
  - Browse to promote commercialization of remote gas fields using a brand new technology (Floating LNG) in Australia, which has an established track record as an LNG exporter.
  - Cameron to develop an LNG supply source with the U.S. gas index and create our own LNG trade flow.

---

**LNG Projects**

- **QatarGas 1**: 7.5%, 9.6 mtpa
- **ADGAS**: 15%, 5.6 mtpa
- **Equatorial Guinea**: 8.5%, 3.7 mtpa
- **Oman**: 2.8%, 7.1 mtpa
- **Mozambique**: 8.3%, 16 mtpa
  - *20% 12 mtpa, Train2 (planned)
  - *MEPMOZ
- **NWS**: 7.2% 12 mtpa, Train3 (planned)
  - About 22 Mbbbl/D (FY 2014)
- **Sakhalin II**: 12.5%, 9.6 mtpa
  - About 115 Mbbbl/D (FY 2014)
  - Expansion (Train3): 12.5%, 5.0 mtpa (Planned)
- **Tangguh**: 2.3%, 7.6 mtpa
  - Expansion (Train3): 2.3%, 3.8 mtpa (Planned)
- **Browse**: 7.2% 12 mtpa, Train3 (planned)
  - About 22 Mbbbl/D (FY 2014)
- **Cameron**: 16.6% 12 mtpa, Train3
  - Mitsui: 4 mtpa (Under construction)
  - Expansion (Train4/5): 16.6%, 8 mtpa (Planned)

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Oil Production
LNG Projects
LNG Projects (Planned/Under construction)
LNG Business Strategy ② – Enhance LNG Trading Function –

Provide high added value required by customer
(Diversification of supply area and price index, and supply flexibility)

- Establish a stable LNG supply base to Japan and other Asian countries by forming a regionally diverse portfolio, including North America, Asia Pacific, the Middle East, Russia, and Africa
- Offer various price formulae linked with the price of crude oil and natural gas in Europe and America by taking advantage of the LNG supply base all over the world.
- Provide supply flexibility leveraged by Mitsui’s own LNG trade flow, which is driven by creating LNG demand in Asia or South America and exploring new customers in Europe or Middle East Asia

Cargoes of Mitsui’s LNG Trading
Total 134 cargoes

- **Mozambique LNG Project**
  - Equity Share: *20%
  - Annual Production: 12 mtpa (Expansion plan undergoing)

- **Browse LNG Project**
  - Equity Share: 7.2%
  - Annual Production: 12 mtpa (MIMI’s share: Approx. 1.7 mtpa)

- **Cameron LNG Project**
  - Annual Production: 12 mtpa
  - Export amount (for Mitsui): 4 mtpa (Expansion plan undergoing)

- Procuring 8 LNG vessels for Cameron project thru time-charter contract.

*MEPMOZ

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Oil Trading Business Strategy

Expand global trading business by utilizing METS as a core platform

Strengthen earning power with competitive procurement of crude oil and petroleum products and expansion of strategic outlets.

- Enhance sales power in Asia (especially in China, India, and Southeast Asia), and expand business to European market.
- Gather and export crude oil/condensate and fuel oil produced in the US.
- Expand global trading platform by the acquisition and utilization of strategic assets such as storage tanks and vessels.

**Crude oil interests in the Middle East**
- Long term procurement of oil through project participation and with long term off-take finance contracts in Oman/Abu Dhabi/Qatar.

**Crude oil interests in Europe**
- Long term procurement of oil through project participation in the North Sea/Russia/Italy, etc.

**Crude oil interests in Australia**
- Procurement of oil through project participation

**Enhancement of Mitsui’s presence in the Japanese market**
- Supply fuel oil to Japanese electric power companies.
- Investment in Tonen General and ENEOS Globe, etc.

**Growth of sales capability in Asia**
- Strengthen ties with refineries in the region.
- Secure outlets

**Strengthen business in America**
- Maximize synergy with the shale oil projects which Mitsui develops.
- Strengthen our bargaining power for condensate, fuel oil, etc.

METS: Mitsui Energy Trading Singapore Pte Ltd
WPI: Westport Petroleum Inc.
Thermal Coal Trading Business Strategy

Create new value levered by thermal coal trading business in Japan and other Asian countries

- Enhance market presence as a coal trader and build new partnerships with Japanese utilities
- Expand business in the Asian market (third-country trade, etc.)
- Promote trading function

※Coal mine projects are handled by the Mineral & Metal Resources Business Unit.
Oil & Gas equity Share Output, Reserves, Liquefaction Capacity

**Output/Reserve***
*Only project after FID*

- Oil Reserves
- Gas Reserves

**Liquefaction Capacity**

- Browse Sakhalin II (Expansion)
- Mozambique Cameron

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Mitsui Oil Exploration Co., Ltd. (MOECO), Mitsui’s subsidiary, has participated in a joint geothermal energy development study in Amemasudake, Hokkaido Prefecture, and the Oyasu, Akita prefecture, from December 2012. From May 2013, MOECO has participated in a joint geothermal energy exploration project at Matsuo Hachimantai, Iwate prefecture, and from September 2013, commenced a joint study on geothermal energy development at Bandaisan in Bandai Asahi National Park in Fukushima prefecture. MOECO will continue further studies to assess feasibility of the said projects.

Mitsui is jointly constructing generation facilities in Tomakomai City (Hokkaido prefecture) in order to produce electricity for sale at a fixed price under the Feed-in Tariff Scheme for Renewable Energy. The facility will be fueled by wood chips produced entirely from unused timber from forests in Hokkaido. This business will encourage the maintenance of forest environments while stimulating the development of forestry in Hokkaido and contributing to job creation and regional revitalization.

- Shareholders: Mitsui &Co., Ltd. 40%
  Sumitomo Forestry Co., Ltd. 20%
  Hokkaido Gas Co., Ltd. 20%
  IWAKURA CORPORATION 20%

- Generating Capacity: 5.1MW
  (sending end output)

- Beginning of Operation: Dec. 2016 (Plan)

Investment in LanzaTech, a company developing technology to convert waste carbon into fuels and chemical products by gas fermentation utilizing its proprietary microbes. LanzaTech is currently working with ArcelorMittal on constructing an ethanol plant utilizing LanzaTech’s technology, aiming to start production in mid-2017.

- Shareholders:
  Khosla Ventures
  Petronas Technology Ventures
  Primetals Technologies
  Mitsui & Co., Ltd.

Mitsui Oil Exploration Co., Ltd. (MOECO), Mitsui’s subsidiary, has participated in a joint geothermal energy development study in Amemasudake, Hokkaido Prefecture, and the Oyasu, Akita prefecture, from December 2012. From May 2013, MOECO has participated in a joint geothermal energy exploration project at Matsuo Hachimantai, Iwate prefecture, and from September 2013, commenced a joint study on geothermal energy exploration project at Matsuo Hachimantai, Iwate prefecture, and from September 2013, commenced a joint study on geothermal energy development at Bandaisan in Bandai Asahi National Park in Fukushima prefecture. MOECO will continue further studies to assess feasibility of the said projects.

LanzaTech

- Shareholders:
  Khosla Ventures
  Petronas Technology Ventures
  Primetals Technologies
  Mitsui & Co., Ltd.

Wood Biomass Power Generation Company

The Callide Oxyfuel Project is a joint public-private collaboration initiative by Japan and Australia that aims to establish systems to generate electricity in coal-fired power stations with near zero emissions of CO2 and other atmospheric pollutants, such as SOx, NOx and mercury. A demonstration of the oxyfuel combustion system as part of an integrated oxyfuel combustion and CO2 capture process was successfully completed at the end of February 2015.

- Promoter: Oxyfuel Technologies Pty Ltd
- Participant: CS Energy, Australian Coal Association, Glencore, Schlumberger, J-POWER, IHI, Mitsui & Co., Ltd., JCOAL (technical support)

Carbon Capture in Coal Fired Power Stations

- Promoter: Oxyfuel Technologies Pty Ltd
- Participant: CS Energy, Australian Coal Association, Glencore, Schlumberger, J-POWER, IHI, Mitsui & Co., Ltd., JCOAL (technical support)
Agenda

1. Mitsui’s Energy Segment

2. Mitsui Energy Segment Overview

3. Strategy in Each Business Field

4. Project Description
Tempa Rossa

Project Overview

- FID: July 2012
- First Production (Planned): End of 2017
- Production (Crude Oil, Planned): Approx. 50,000 BD
- Shareholders:
  - Total (Operator) 50%
  - Shell 25%
  - MEPIT 25%

Notes

- The onshore oil field in Basilicata, a region in southern Italy.
- Now under construction towards the start of production.
- Secure long-term, cost competitive oil reserves, and replace Mitsui’s oil production that will diminish in the long run.
Mozambique LNG Project

Project Overview

- Liquefaction Capacity: 6 mtpa × 2 trains (Phase 1) ⇒ Possible expansion up to 10 trains.
- Shareholder composition:
  - Anadarko (Operator) 26.5%
  - Mitsui E&P Mozambique 20.0%
  - ONGC (India) Sole ownership 10.0%
  - Co-owned with Oil India 10.0%
  - ENH (Mozambique NOC) 15.0%
  - Bharat (India) 10.0%
  - PTTEP (Thailand) 8.5%
- Development area: Rovuma Basin Offshore Area 1, Mozambique

Notes

- EPC: In May 2015, a consortium consisted of CB&I, Chiyoda, and Saipem was selected as EPC contractor.
- Legal: The Decree law which provides fiscal stability to enable large-scale LNG project investment was enacted by the Mozambican government.
- Sales: Key sales and purchase conditions were agreed for more than 8 mtpa.
- Various preparation works for development have progressed steadily and are in the final stage towards development phase. Aim to start production in 2019/2020 and achieve FID as soon as possible.
Browse LNG Project

**Project Overview**

- FID: 2016 second half (Planned)
- Start of operation: After 2020
- LNG production capacity: 12 mtpa (3 trains)
- Operator: Woodside
- Shareholder composition:
  - Woodside: 30.7%
  - Shell: 27.0%
  - BP: 17.3%
  - MIMI Browse: 14.4%
    (Mitsui/Mitsubishi JV)
  - PetroChina: 10.6%
- In Sep. 2012, MIMI acquired working interest from Woodside to participate in the project.

**Notes**

- Development utilizing Shell’s proprietary floating LNG technology.
- In July 2015, FEED started.
- In Aug. 2015, acquired environmental permission from the Ministry of the Environment of Australia.
Cameron LNG Project

Project Overview

- Start of commercial operation: 2018 (Planned)
- Mitsui reserved capacity: 4 mtpa
- Total tolling capacity: 4 mtpa x 3 trains
- Shareholder composition (Cameron LNG):
  - Sempra LNG 50.2%
  - Mitsui 16.6%
  - Mitsubishi-NYK JV 16.6%
  - ENGIE 16.6%
- Scheme:
  Mitsui will supply feed gas to liquefaction facility and sell LNG produced by Cameron LNG.

Notes

- In Mar. 2014, executed EPC contract with Chiyoda and CB&I JV.
- In June 2014, received FERC order.
- In Sep. 2014, received final DOE export license for non-FTA countries.
- In July 2015, received additional export license for FTA countries (Train 4/5, each 4 mtpa).
- Engineering, procurement, and construction work are in progress aiming to start production in 2018.
**US Shale Related Business**

**ITC (Petroleum Products terminal)**
- Capacity: 12.8 mil bbl
- Ownership: Mitsui 100%
- Expansion is scheduled to be completed in July 2016.
- ※Capacity (after expansion): 14.7 mil bbl

**Natural Gas Pipeline**
- Length: about 100 km
- Ownership: Mitsui 30%, PEMEX 35%, Kinder Morgan 35%
- Start of operation: Sep. 2014

**Eagle Ford**
- Eagle Ford Shale + Pearsall Shale
- Pearsall Shale
- Project Area
- Production (peak) net to MEPTX: 26~32 thousand BOE/D

**Marcellus**
- Production (peak) net to MEPUSA: 360~460 mmcf/d (60~77 thousand BOE/D)

**MMGS, Inc.**
- Foundation: Mar. 2011
- 1. Marketing of equity gas (Marcellus)
- 2. Supply and sell gas in U.S.
- 3. Support for gas related business in the U.S.

**Cameron LNG**
- Capacity: 12 mil tons/Y (Mitsui’s capacity: 4 mil tons/Y)
- Start: 2018 (planned)

**Methanol Production**
- Output: 1.3 mil tons/Y
- Shareholders: Mitsui 50%, Celanese 50%
- Start: Oct. 2015

**Methyl Methacrylate (MMA) Monomer**
- Capacity: 250K tons/Y (planned)
- Shareholders: Mitsui and Mitsubishi Rayon
- Start: unsettled

※Intercontinental Terminals Company

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