NEDO’s Activities for Kyoto Mechanisms Credit Acquisition Programme

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NEDO European Office

New Energy and Industrial Technology Development Organization
1. Outline of NEDO
History of NEDO

1980: Established (New Energy Development Organization)
1988: Added industrial technology R&D
(New Energy and Industrial Technology Development Organization)
1990: Added global environment R&D
1993: Added promotion of new energy and energy conservation
2000: Added support for private companies to strengthen International competitiveness
2003: Re-organized as an “Incorporated Administrative Agency”
2006: Added Kyoto Credits acquisition
About NEDO

NEDO is an incorporated administrative agency under Japan’s Ministry of Economy, Trade and Industry (METI)

Headquarters
Kawasaki City, Japan

Personnel
Approximately 1,000

Budget (April 2009 to March 2010)
Approximately 234.7 billion yen in FY2008
(= 1.7 billion euro)

*Exchange rate: ¥138 = €1
NEDO’s Main Activities

• R&D of industrial, energy and environmental technologies
  ★ Industrial technology
  ★ Energy technology
  ★ Environmental technology

• Support for dissemination of new energy and energy conservation technologies

• Acquisition of Kyoto Mechanisms credits
Outline of NEDO’s Activities and FY2009 Budget

R&D total: 144.7 billion yen*1

Exploration of Technology Seeds
4.4 billion yen*2

National Projects
136.2 billion yen*2*3

Promotion of Practical Application and Commercialization
13.8 billion yen*2

Energy Field
Nanotechnology and Materials Field
Robot and Machinery Systems Field
IT Field:
Aircraft and Space Field
Biotechnology Field
Environment Field

Introduction and Dissemination
34.1 billion yen

Energy Conservation Technology
New Energy Technology

Acquisition of Kyoto Mechanisms Credits
43.3 billion yen

CDM
JI
GIS

Coal Resource Development 4.3 billion yen

Total: 234.7 billion yen*1

Notes
Budget allocation is as of the budget request to the government.
National projects are categorized in accordance with Innovation Programs (a comprehensive package of measures established by METI for achieving policy targets).
*1: Total amount after subtracting all duplications.
*2: Budget amounts for “Exploration of Technology Seeds,” “National Projects” and “Promotion of Practical Application and Commercialization” include duplications.
*3: Total amount after subtracting duplications among technology fields.
2. Kyoto Mechanisms
1. Authorized to Acquire Credits on Behalf of Japanese Government through Active Use of Kyoto Mechanisms

**Government**
- Budgetary arrangements authorized by METI and MOE

**NEDO**
- New Energy and Industrial Technology Development Organization
  - Entrustment contract
  - Credit delivery
  - Credit delivery
  - Payment for credits at the time of delivery
  - Up-front payment if conditions are met at the time contract is signed

**Project implementers and other parties**
- Examples of project areas:
  > Energy conservation
  > Biomass power generation
  > HFC decomposition

**METI**: Ministry of Economy, Trade and Industry
**MOE**: Ministry of the Environment
Japanese emissions for 2007 (provisional data) were 9% above base year, meaning a reduction of 9.6% is needed to meet 6% reduction commitment under the Kyoto Protocol. (Assuming a utilization factor of 84.2% at nuclear power plants, emissions must be reduced 4.6%).

2. Greenhouse Gas Emissions in Japan

Assuming nuclear power plant utilization factor of 84.2%, a 4.6% reduction is required.
**Types of Credit Acquisition Projects in NEDO**

- **Direct acquisition (Type A)**
  Conclude Emission Reduction Purchase Agreements (ERPAs) (Acquisition Agreements) with private businesses and other organizations as a project participant.

- **In-Direct acquisition (Type B)**
  Conclude ERPAs (Transfer Agreements) and other agreements with private businesses and other organizations who have acquired credits through ERPAs (Acquisition Agreements).

- **Acquisition through the GIS**
  The Japanese Government concludes Assigned Amount Unit (AAU) Purchase Agreements with the governments of Annex B Countries* under the Kyoto Protocol based on memorandums and other documents exchanged between the governments.

* Annex B Countries are countries with greenhouse gas emission reduction targets under Annex B of the Kyoto Protocol.
### Mechanisms of Credits Acquisition

#### Comparison of Acquisition Methods

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
<th>Acquisition amount</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A</td>
<td>Low</td>
<td>Small</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shift to small scale projects (less than hundreds of thousands of tons)</td>
<td>Multiple: project risks, country risks, CDM EB review risks, and others.</td>
</tr>
<tr>
<td>Type B</td>
<td>High</td>
<td>Varies</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If multiple projects are bundled, volume could be significant.</td>
<td>If accompanied by a guarantee from a reputable entity</td>
</tr>
<tr>
<td>GIS</td>
<td>Low</td>
<td>Large</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Large-scale potential</td>
<td>Multiple: greening risks, country risks, and others</td>
</tr>
</tbody>
</table>

- Possible to acquire credits at a low cost as a project participant.
- Cost influenced by many factors. Depend on market price and evaluation by experts.
- Depends on negotiations but potential for low cost.
4. GIS Negotiation Status

Japanese Government/NEDO

- Memorandum (signed Dec. 2007)
  Guidelines (under negotiation)
  AAU delivery agreement (under negotiation)

- Memorandum (signed July 2008)
  Guidelines (signed Mar. 18, 2009)
  AAU delivery agreement (signed Mar. 18, 2009)

- Memorandum (signed Sep. 2008)
  Guideline (signed Mar. 24, 2009)
  AAU delivery agreement (signed Mar. 30, 2009)

- Joint statement (signed Oct. 2008)
  Guidelines (under negotiation)
  AAU delivery agreement (under negotiation)

 Hungary

 Ukraine

 Czech Republic

 Poland

 Other countries

Signings ceremony in Prague, Czech Republic
(Czech Minister of the Environment, Martin Bursík, and Executive Director of NEDO, Yasuhiro Shimizu)

Signings ceremony in Kiev, Ukraine
(Prime Minister of Ukraine, Yulia Tymoshenko, and Chairman of NEDO, Seiji Murata)
Contents of work (Acquisition through the GIS: Efforts toward steady implementation of greening in host countries)

GIS Host Country (Ukraine/Czech Republic)
- Select investment projects
- Implement projects and monitoring
- Prepare annual reports*
  Submit an annual report for the respective year up to 2012 in the following year

*In addition, host countries must submit a final report by the end of October 2013.

Environmental projects (example)
- Project A
- Project B
- Project C

Audit
Audit by a third party (auditing corporation, etc.)

On-site check, etc.
Approval for projects
Submission of annual reports
Approval
<table>
<thead>
<tr>
<th>FY</th>
<th>Contractor</th>
<th>Contracted Credit Quantity (1,000t-CO2e)</th>
<th>Host Country</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>Marubeni Corporation (Japan)</td>
<td>2,000</td>
<td>India</td>
<td>3MW Poultry Litter based Power generation Project (CDM)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>900</td>
<td>China</td>
<td>Wahei Hydroelectric Project (CDM)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>800</td>
<td>Mexico</td>
<td>Ecatepec – EcoMethane Landfill Gas to Energy Project (CDM)</td>
</tr>
<tr>
<td></td>
<td>Rhodia Japan (Japan)</td>
<td>1,830</td>
<td>Korea</td>
<td>N2O Emission Reduction in Onsan, Republic of Korea (CDM)</td>
</tr>
<tr>
<td></td>
<td>Shangxi Xinglong Cogeneration</td>
<td>1,456</td>
<td>China</td>
<td>Comprehensive utilization of waste coal gas for electricity generation project in Xinglong Cogeneration Co. Ltd. (CDM)</td>
</tr>
<tr>
<td></td>
<td>Carbon Resource Management Ltd. (England)</td>
<td>1,074</td>
<td>China</td>
<td>Shandong Yucheng Xinyuan Biomass Heat &amp; Power (CDM)</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>6,360</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>Marubeni Corporation (Japan)</td>
<td>1,850</td>
<td>China</td>
<td>Chuanhua N2O Abatement Project (CDM)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>790</td>
<td>China</td>
<td>Yunnan Jiehua N2O Abatement Project (CDM)</td>
</tr>
<tr>
<td></td>
<td>PT. Pura Bartama (Indonesia)</td>
<td>343</td>
<td>Indonesia</td>
<td>Partial fuel switch from coal to biomass (CDM)</td>
</tr>
<tr>
<td></td>
<td>Marubeni Corporation (Japan)</td>
<td>700</td>
<td>Brazil</td>
<td>Embralixo/Arauna–Braganca Landfill Gas Project</td>
</tr>
<tr>
<td></td>
<td></td>
<td>278</td>
<td>China</td>
<td>BBMG Cement WHR for 10.5MW power generation project in Beijing</td>
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<td></td>
<td></td>
<td>158</td>
<td>China</td>
<td>Siliping Hydro Power Project in Sichuan Province</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>Mexico</td>
<td>Quimobasicos HFC Recovery and Decomposition Project</td>
</tr>
<tr>
<td></td>
<td>Rhodia Japan (Japan)</td>
<td>1,800</td>
<td>Brazil</td>
<td>N2O Emission Reduction in Paulinia, SP, Brazil</td>
</tr>
</tbody>
</table>

: **Type A projects** (Direct acquisition from credits issuers)

: **Type B projects** (In-Direct acquisition from credits issuers)
<table>
<thead>
<tr>
<th>FY</th>
<th>Contractor</th>
<th>Contracted Credit Quantity (1,000t-CO2e)</th>
<th>Host Country</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Keshiketeng County Huifeng New Energy Co., Ltd Inner Mongolia Keshiketeng Chuangjian Group Co., Ltd.</td>
<td>596</td>
<td>China</td>
<td>Inner Mongolia Keshiketeng County Wutaohai South Wind Farm 49.5 MW Project</td>
</tr>
<tr>
<td></td>
<td>Energy Initiative Japan Inc.</td>
<td>250</td>
<td>China</td>
<td>73 MW Tinghua Iron &amp; Steel Waste Gas and Heat Power Generation Project</td>
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<tr>
<td></td>
<td>Jian Gongge Hydropower Co., Ltd.</td>
<td>211</td>
<td>China</td>
<td>Jiangxi Gongge 15MW Hydropower Project, China</td>
</tr>
<tr>
<td></td>
<td>Jinggangshan Longgan Hydropower Development Co., Ltd.</td>
<td>87</td>
<td>China</td>
<td>Jiangxi Luohongkou 8.25MW Hydropower Project, China</td>
</tr>
<tr>
<td></td>
<td>Shandong Conglin Group Co., Ltd.</td>
<td>164</td>
<td>China</td>
<td>Shandong Conglin Group Co., Ltd. Waste Heat recovery and Utilization for Power Generation Project</td>
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<tr>
<td></td>
<td>Longkou Fanlin Cement Co., Ltd. Shandong Conglin Group Co., Ltd.</td>
<td>97</td>
<td>China</td>
<td>Longkou Fanlin Cement Co., Ltd. Waste Heat recovery and Utilization for Power Generation Project</td>
</tr>
<tr>
<td></td>
<td>INEOS Chemical Co., Ltd.</td>
<td>500</td>
<td>Korea</td>
<td>HFC Decomposition Project in Ulsan</td>
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<tr>
<td></td>
<td>Marubeni Corporation (Japan)</td>
<td>1,257</td>
<td>China</td>
<td>Inner Mongolia Zhuozi 40MW Wind Power Project</td>
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<tr>
<td></td>
<td></td>
<td>275</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>982</td>
<td></td>
<td>China Fluoro HFC23 abatement project in China</td>
</tr>
<tr>
<td></td>
<td>Rhodia Japan (Japan)</td>
<td>6,140</td>
<td>Brazil</td>
<td>N2O Emission Reduction in Paulinia, SP, Brazil</td>
</tr>
<tr>
<td></td>
<td>Tricorona AB (Sweden), MeitanTradition Co., Ltd.</td>
<td>2,662</td>
<td>China</td>
<td>Waste gases utilization for Combined Cycle Power Plant in Handan Iron &amp; Steel Group Co., Ltd.</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>16,657</strong></td>
<td></td>
<td></td>
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</tbody>
</table>
### Results of Kyoto Mechanisms Credit Acquisition (3/3)

<table>
<thead>
<tr>
<th>FY</th>
<th>Contractor</th>
<th>Contracted Credit Quantity (1,000t-CO2e)</th>
<th>Host Country</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Marubeni Corporation (Japan)</td>
<td>1,035</td>
<td>China</td>
<td>Chongqing Iron &amp; Steel Co. Ltd. Waste Gas to Electricity Project</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inner Mongolia Dali Phase V 49.5 MW Wind Power Project</td>
</tr>
<tr>
<td></td>
<td>Shanxi Xiyang Fenghui Coal Industry Ltd (China)</td>
<td>794</td>
<td>China</td>
<td>Shanxi Xiyang Mahui Coal Mine Methane Utilization for Power Generation Project</td>
</tr>
<tr>
<td></td>
<td>Shaanxi Xinglong Cogeneration Co. Ltd (China)</td>
<td>258</td>
<td>China</td>
<td>Shaanxi Xinglong TRT Project</td>
</tr>
<tr>
<td></td>
<td>National Environmental Investment Agency of Ukraine (Ukraine)</td>
<td>30,000</td>
<td>Ukraine</td>
<td>Green Investment Scheme (GIS)</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>32,087</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>Ministry of the Environment of the Czech republic (Czech Republic)</td>
<td>40,000</td>
<td>Czech Republic</td>
<td>Green Investment Scheme (GIS)</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>40,000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>95,104</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Type A projects** (Direct acquisition from credits issuers)
- **Type B projects** (In-Direct acquisition from credits issuers)
- **GIS projects**
## Results of Kyoto Mechanisms Credit Acquisition

### Breakdown of Credit Acquisition Amount by Type

<table>
<thead>
<tr>
<th>Contract type</th>
<th>Amount (ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDM (Type A)</td>
<td>5,329,316</td>
</tr>
<tr>
<td>CDM (Type B)</td>
<td>19,774,873</td>
</tr>
<tr>
<td>GIS</td>
<td>70,000,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>95,104,189</strong></td>
</tr>
</tbody>
</table>

**Target:** 100,000,000 ton

- **GIS**: 73%
- **CDM (Type B)**: 21%
- **CDM (Type A)**: 6%
Principal activities:

1. General coordination regarding the promotion of collaborative NEDO projects

2. Information exchange and consultation on NEDO projects and Japan’s R&D

3. Public relations
Thank You for your attention!

Kinkakuji temple in Kyoto