Comments on Siberian Oil Pipeline Plan

Power of Unity / Power of Scale

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1 Russia and Northeast Asia

For the oil thirsty Northeast Asia, the Siberian Oil Pipeline is the very right answer.

Great Social Benefit: Energy Security

Developing eastern Russia
Promote regional trade and investment
2. Asia in the World

1. Northeast Asia is one of the three major energy markets of the world together with North America and Europe.

2. Asian energy consumption is expanding rapidly driven by the fast growth of China.

   a. Northeast Asia will be a golden market of the 21st century
   b. Stable energy supply is an important policy objective of Asia.

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Energy Total

<table>
<thead>
<tr>
<th>Region</th>
<th>Oil Equiv. Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>14.1 +15.1</td>
</tr>
<tr>
<td>Korea</td>
<td></td>
</tr>
<tr>
<td>China+HK</td>
<td>17.6 +4.4</td>
</tr>
<tr>
<td>Taiwan</td>
<td>19.9 +4.7</td>
</tr>
<tr>
<td>Other Asia</td>
<td>20.0 +2.1</td>
</tr>
<tr>
<td>US, Europe, Others</td>
<td>102.2 +4.3</td>
</tr>
</tbody>
</table>

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Oil

<table>
<thead>
<tr>
<th>Region</th>
<th>Oil Equiv. Growth</th>
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</thead>
<tbody>
<tr>
<td>China</td>
<td>3.2 +15.5</td>
</tr>
<tr>
<td>Korea</td>
<td></td>
</tr>
<tr>
<td>China+HK</td>
<td>5.1 +4.7</td>
</tr>
<tr>
<td>Taiwan</td>
<td></td>
</tr>
<tr>
<td>Other Asia</td>
<td>6.1 +1.9</td>
</tr>
<tr>
<td>US, Europe, Others</td>
<td>28.2 +1.9</td>
</tr>
<tr>
<td>World</td>
<td>37.7 +3.4</td>
</tr>
</tbody>
</table>
3. Energy Outlook of Asia

IEA World Energy Outlook 2004

1. Energy consumption of Northeast Asia will exceed north America in 2020s.
2. In Asia, China’s energy consumption will grow rapidly, while those of Japan and Korea remain moderate.
4. Petroleum Outlook of NEA

Oil import of Northeast Asia will increase by more than 5 MMBD by 2020, driving the Middle East dependence upward further.
5. Skovorodino to Pacific Coast

Skovorodino is located at the foot of Siberian mountains, still far from an ideal connecting point to the China branch line.
6. Power of Scale

1. Objective >> Competitive Pipeline Tariff

2. Simple principles to consider regional cooperation
   1 Power of Scale (Bundling demand and policy measures)
   2 Economics of Scale
   3 Externality of Social Benefit

Power of Scale

<table>
<thead>
<tr>
<th>Crude Oil Import</th>
<th>Ratio against 1.6MMBD</th>
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</thead>
<tbody>
<tr>
<td>Japan</td>
<td>4.19</td>
</tr>
<tr>
<td>Korea</td>
<td>2.26</td>
</tr>
<tr>
<td>China</td>
<td>2.47</td>
</tr>
<tr>
<td>Total</td>
<td>8.92</td>
</tr>
</tbody>
</table>
7. Economics of Scale

Economics of Scale works greatly in a gigantic and capital intensive project.
8. Project Economics and Government Role

1. Private sector cannot raise huge fund.
2. Investment economics cannot incorporate **Social Benefit**.
3. Government can provide long term credit, lower interest loan, tax exemption and/or subsidies to lower the tariff.
9. Recommendation

1. Competitive tariff is the key for the project

   >> Role of Government:
   Responsibility for realizing the social benefit
   Initiative on a huge project
   Provision of proper international and internal settings (rules, laws and institutions)

2. Power of Unity / Power of Scale
   Collective power in realizing a mammoth project
   Economics of Scale

3. Project based approach
   Diversity in background, position and interest
   Benefit and role of each member on this specific project

Thank you

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