Long-Term Perspectives for Energy Market Analysis

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Long-Term Perspectives for Energy Market Analysis

1) US shale oil production to be much more price elastic than Saudi or Russia

2) US exports are key to globalization and understanding benchmark spreads

3) Infrastructure for US exports and futures products (Natural Gas – Sabine Pass, HCL – Oil Futures Physical Delivery from Houston)

4) Shipping costs matter, critical to basis risk relative to oil or natural gas faced by importer of US energy

5) Electric cars to hit gasoline demand in 2020s.

6) Natural gas to continue to supplant coal all around the world in electrical power generation
US Oil Imports and Exports

Source: Bloomberg Professional (DOCRTOTL, DOEBCEXP)
Infrastructure to Export

Terminals
Storage
Pipelines
Etc.
## Distances from Sabine Pass

<table>
<thead>
<tr>
<th>Discharge Port</th>
<th>Nautical Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gateway (NL)</td>
<td>5002</td>
</tr>
<tr>
<td>Tokyo</td>
<td>15762</td>
</tr>
<tr>
<td>Tokyo (via Panama Canal)</td>
<td>9209</td>
</tr>
<tr>
<td>Tokyo (via Suez Canal)</td>
<td>14521</td>
</tr>
<tr>
<td>Shanghai</td>
<td>15098</td>
</tr>
<tr>
<td>Shanghai (via Panama Canal)</td>
<td>10081</td>
</tr>
<tr>
<td>Shanghai (via Suez Canal)</td>
<td>13854</td>
</tr>
</tbody>
</table>

Source: SEA-DISTANCES.ORG, https://sea-distances.org/
Petroleum Production Consumed by the US Transportation Sector

Source: U.S. Energy Information Administration, Sept-2018 Monthly Energy Review, Table 2.5 Transportation Sector Energy Consumption.
Coal as a Percent of Electricity Generation

Source: IEA Statistics © OECD/IEA 2014
(http://www.iea.org/stats/index.asp)
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