Thoughts on Financing a Low Carbon Future

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Zero Carbon Electricity & Efficiency

Energy Efficiency = Avoided Cost

Assumes Management of Peak Demand

From Middle East to Middle America

Cost and Savings Relative to Baseline (Billion 2008$)

- Mitigation Cost
- Mitigation Savings and Net Cost

2020

- Electrification
- Energy Efficiency
- Other

2035

- Decarbonization
- Other Fuel Savings
- Diesel Savings

2050

- Gasoline Savings

Pricing Pollution Matters

• By 2040, over 80% of U.S. generation capacity will likely consist of new power plants not yet constructed today.

• Pricing social cost of pollution into production costs retires coal in favor of efficiency and nuclear.

• While no single pollutant drives overall results, carbon price has dominant role over the long term (2040).

• Capital cost is not a pivotal factor; coal continues to dominate even where assumed capital cost of nuclear is reduced by 50%.

• In contrast, when social costs are 70% or less of assumed value, no nuclear gets built.

Table 3 Projected Fuel Costs

<table>
<thead>
<tr>
<th>$/mmbtu</th>
<th>2020</th>
<th>2030</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>5.01</td>
<td>6.21</td>
<td>7.42</td>
</tr>
<tr>
<td>Oil</td>
<td>19.59</td>
<td>22.10</td>
<td>27.21</td>
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<tr>
<td>Coal</td>
<td>2.15</td>
<td>2.32</td>
<td>3.12</td>
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<tr>
<td>Nuclear</td>
<td>0.84</td>
<td>0.85</td>
<td>0.92</td>
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</tbody>
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Internal EDF analysis - work in progress, not for attribution
What the Future Requires

• On Bill Financing: Private Capital Deployed to Finance Efficiency
• Real-Time Pricing to End Users
• Fixed Service & Facility Charge
• National Tariff to Achieve Energy Independence: Eisenhower Goes Electric