Extending life beyond 60 years is not just an academic study

February 22, 2011
Life Beyond 60 years workshop
Nuclear Power is important to a US energy strategy

- Low carbon emissions

Source: EIA 2000
Replacing current nuclear generation with:

**Solar panels**
would require usage of land the size of New Jersey

**Wind turbines**
would require usage of land the size of NJ, DE, CT, RI, MA combined

**Gas plants**
would increase greenhouse gas emissions from electric power generators by 15% + 15%* 

would increase gas demand and gas and electric prices with it
Coal Plant Retirement, Baseload demand increase...

50% coal plants may be phased out

Electric Vehicles will create baseload power need

Base Load Capacity Impact of Plug-In Electric Vehicles

<table>
<thead>
<tr>
<th>High Summer Demand Day</th>
<th>High Winter Demand Day</th>
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<td>172GW (51%)</td>
<td>168GW (49%)</td>
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% of Coal Plant Capacity with Scrubber (2009 data)

- Scrubber (168GW, 384 units)
- No Scrubber (172GW, 1082 units) Planned

Source: Scrubber (EIA), Electric Vehicles (World-Nuclear)
We know
- 10CFR54 is a mature and robust regulatory framework for license extension

We don’t know
- Any technological show stopper to safe and reliable operations beyond 60 years

Ensuring the question of life extension beyond 60 years is not an academic study, it is an environmental imperative
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