NUCLEAR POWER FOR SASKATCHEWAN?

A presentation to the Saskatchewan Forum

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President and CEO

May 27, 2015
Uranium: A success story

- Cameco: Global supplier
- India: A hungry customer
- Proliferation: Adequate safeguards
What drives nuclear’s growth?

- Rising electrical demand
- Secure supply
- Climate change mitigation
- Safe, mature technology
Meeting the global demand

Operable: 438
Under Construction: 69
Planned: 184
Proposed: 312

Source: World Nuclear Association
Global electricity: fuel forecast

Adapted from ExxonMobile Outlook for Energy
What about Saskatchewan?

- Electrical demand and supply
- Carbon emissions and CCS
- Nuclear in the long-term plan
SMR prospects

- Comparison with bigger reactors
- Current projects
- Forecast
Nuclear energy = clean air

- Coal: 1001 g CO₂ eq/KWH
- Oil: 840 g CO₂ eq/KWH
- Natural Gas: 469 g CO₂ eq/KWH
- Solar PV: 46 g CO₂ eq/KWH
- Geothermal Energy: 45 g CO₂ eq/KWH
- Concentrated Solar Energy: 22 g CO₂ eq/KWH
- Biopower: 18 g CO₂ eq/KWH
- Nuclear Energy: 16 g CO₂ eq/KWH
- Wind Energy: 12 g CO₂ eq/KWH
- Tidal and Wave: 8 g CO₂ eq/KWH
- Hydropower: 4 g CO₂ eq/KWH

Source: IPCC
Nuclear energy = jobs

<table>
<thead>
<tr>
<th>Parameter</th>
<th>2 x 180 MW SMRs</th>
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<tbody>
<tr>
<td>Engineering and procurement</td>
<td>$1.6 billion</td>
</tr>
<tr>
<td>On-site labour cost</td>
<td>$400 million</td>
</tr>
<tr>
<td>Direct employment</td>
<td>2,400 person years</td>
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<tr>
<td>Schedule</td>
<td>3 years</td>
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</tbody>
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Source: Canada’s Manufacturers and Exporters, 2012
Nuclear energy = innovation

- Fedoruk Centre
- Canadian Lightsource
- Canadian Nuclear Laboratories
- Universities & colleges
- Future nuclear applications
Nuclear energy = knowledge exports

- Refurbishment
- Decommissioning
- Waste Management
Thank you