

Tidal energy in Nova Scotia: ready to use FORCE

OREG May 13, 2009
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A tale of two triangles

Durable

Politically
acceptable

Device

Project

Market priced

Efficient

Economically
advantageous

Socially
advantageous

Public property/private sector

- Government has
 - Raw tidal power
 - Public policy goals
- Government needs
 - New technology for resource value
 - Private expertise & investment
 - Public confidence in decision process

Public policy goals *

- Protect public interest objectives (environment etc)
- Economic opportunities
- Social development
- Market value for public resource
- Build knowledge & capacity



In no particular order

Strategies

1. Foster credible public engagement
2. Foster technology competition
 - Reduce barriers to entry by sharing
 - Infrastructure
 - Resource information
 - Reduce risk (both public & private)
 - Incremental: demonstration & research
 - Develop legal certainty
 - Subsidies

Public engagement: SEA

- Expert panel
- Public meetings
- Favours cautious development
 - Incremental
 - Reversible
- Gov't response
 - Accepted all recommendations
 - Research, legislation

Foster competition: RFP

- Seven respondents
- Panel evaluation
- Berth holders: NSP ,Clean Current, MBPP
- Project leader: Minas Basin Pulp & Power

Reduce barriers & risk: FORCE

- Not for profit
- Public objectives:
 1. Build, own, & operate multi-user facility
 2. Base for science, engineering, and public information
- “Two ways to succeed”

Reduce legal risk

- Key elements of any regime
 - Claim resource for Crown
 - Process for rights acquisition
 - Allocation: bids, competition, first in line?
 - Stages of development
 - Rents, fees, royalties & benefits

FORCE 2009

- Locate and acquire site
 - Sediment free bedrock
 - 10 metres/sec - like a piston
 - 15 KM from grid
- \$10m + \$3m loan
- Building & cable vault September 2009
- NSP (Open Hydro) installation October 2009
- Initiate relationships
- Raise money for stage 2

FORCE 2010 & beyond

- Install other two devices
- Become “small array capable”
 - Install submarine cables 2010
 - Link to grid
 - But no array until
 - Another EA
 - Provincial Ocean Energy legislation
- Become credible source of information

Fundy Ocean Research Centre for Energy

Good information for good
decision making

Fundy Ocean Resource Centre For Energy 'FORCE'

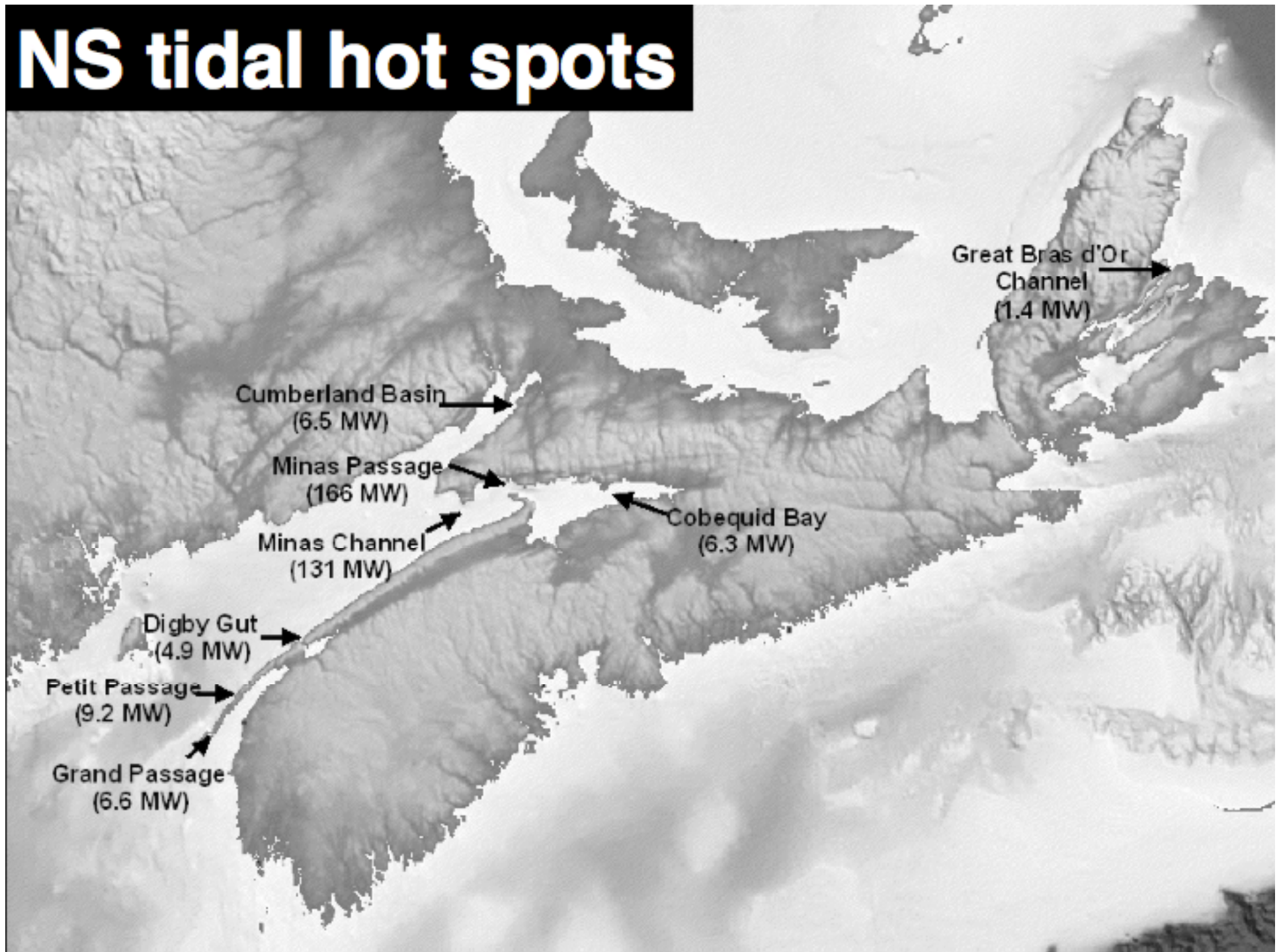


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Sea power

- Bay of Fundy facts
 - 100 B tonnes of water in motion, more than all the world's rivers
 - 300 MW Minas Channel & 1000 + MW potential

NS tidal hot spots





Government

- Democratic bottom line
- Good steward of public resources
 - Two competing roles?
 1. Regulator
 2. Resource owner & promoter