



energy everywhere

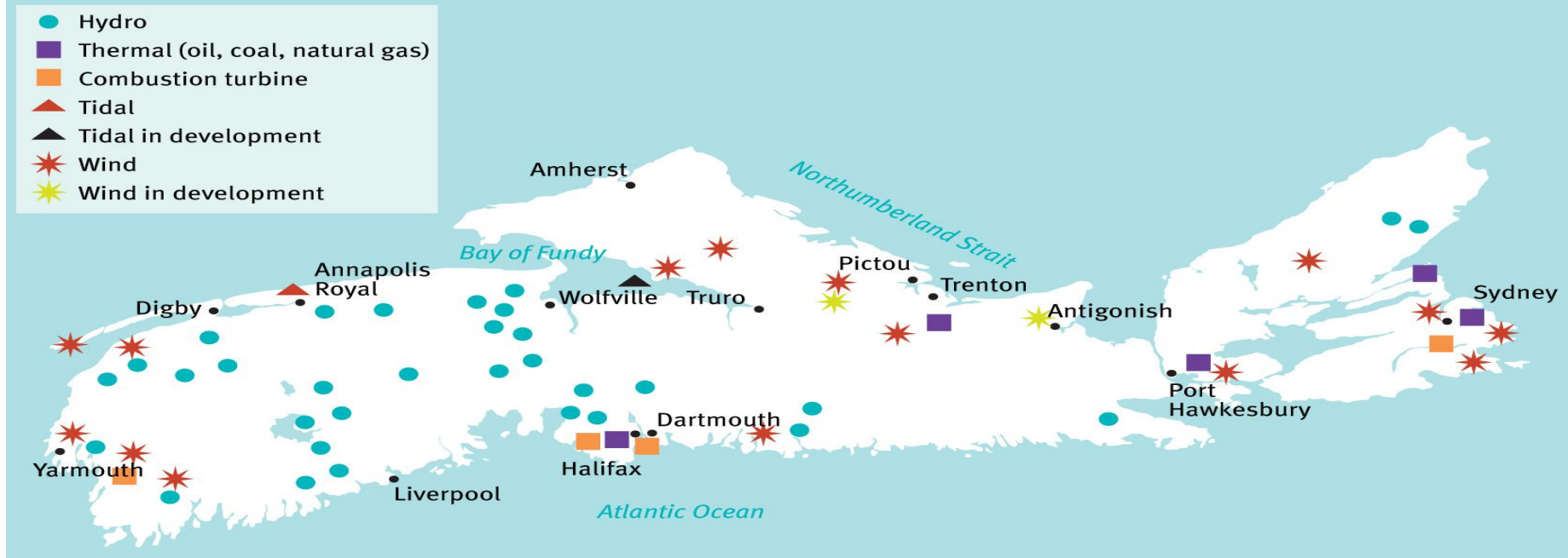
The Role for Biomass at Nova Scotia Power

August 25 2009



About Nova Scotia Power

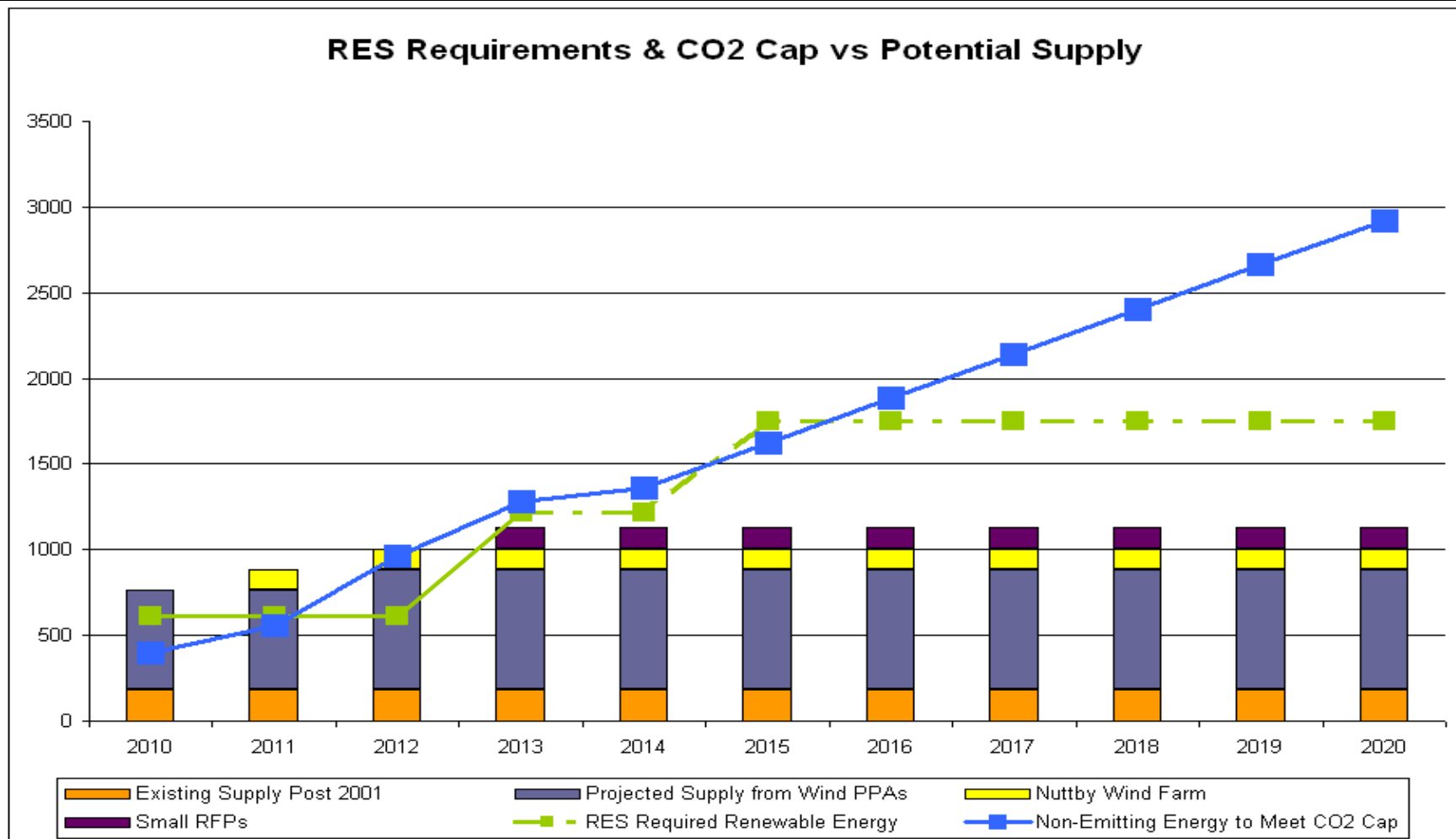
NSPI generating facilities



- We provide 97 per cent of the generation, transmission and distribution of electricity in Nova Scotia.
- We serve 483,000 residential, commercial and industrial customers.
- We produce more than 13,000 gigawatt hours of electricity each year, with generating capacity of 2,293 megawatts through power plants province-wide.
- Nova Scotia Power delivers power with 5,000 km of transmission and 25,000 km of distribution lines.

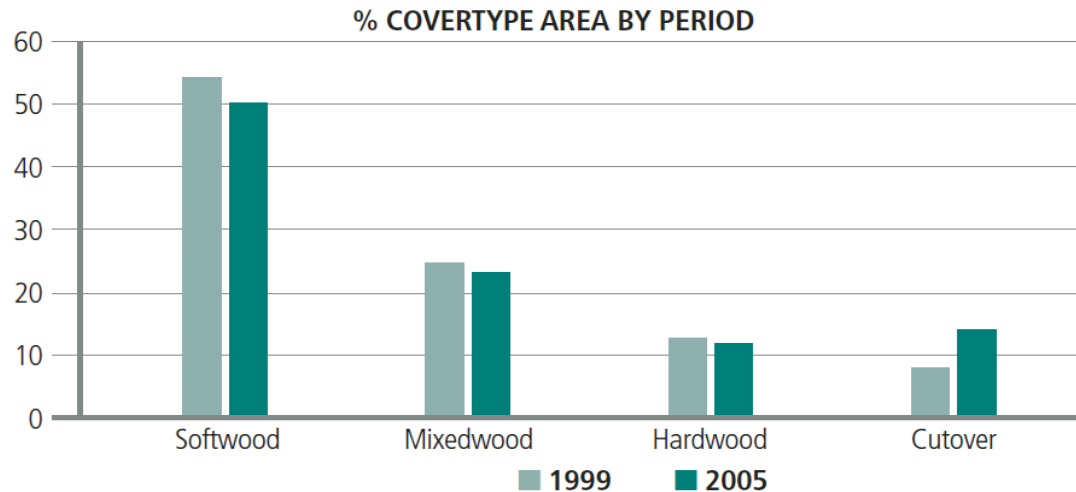


Our Environmental Requirements

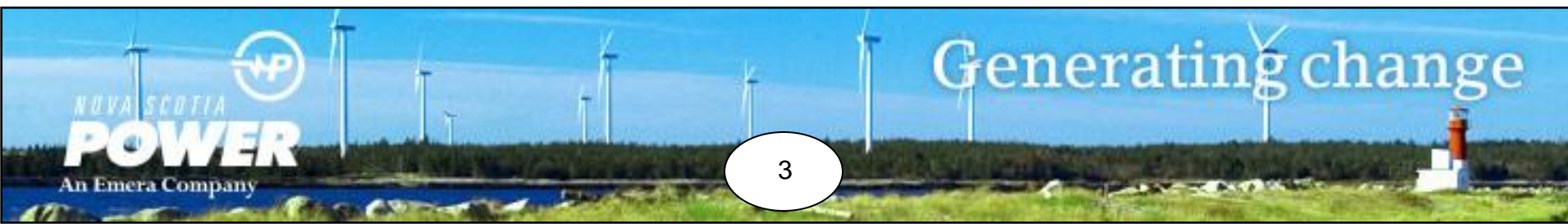


The Role for Biomass

- RES currently limited to new sources of renewable energy
- Carbon caps require non-emitting sources of energy
- Biomass co-fired in NSPI facilities could assist the company in achieving carbon reductions
- As RES regulations are currently written, only new facilities (post 2001) qualify for RES inclusion
- Volumes Available ¹:
 - 4.4 million hectares of land is forested in Nova Scotia (roughly 77% of the total)
 - Just over 50% of the land is owned by small private owners
 - Total forest harvest was 6 million cubic metres in 2005

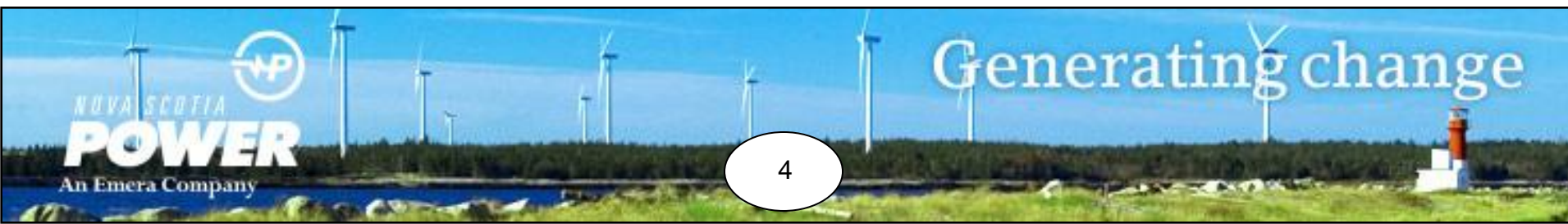


¹ Source: State of the Forest Report 1995- 2005 Nova Scotia Forests in Transition, Nova Scotia Department of Natural Resources



Evaluation of Biomass

- Potential for NSPI to use between 800,000 and 1 million tonnes of green biomass annually
- Technically
 - Determine what changes are required to co-fire biomass in our facilities
 - Test burns
 - Studies
 - Torrefaction
- Sustainability- Determine how much biomass is available on a sustainable basis
 - Economic
 - Ecological
 - Social
- Estimate two years to complete both technical and sustainability work



Decision Criteria for Biomass

- Government Policy
 - Emissions regulations
 - Policy objectives on biomass resource allocation
- Least cost economics
 - Regulated public utility with a mandate to provide least cost solutions that comply with all laws
 - Biomass co-firing will be compared against other non-emitting sources of energy
- Stakeholder support
 - NSPI's use of biomass in it's facilities requires the support of suppliers, non-government organizations, and the forestry industry.



Questions?

