



Ocean Energy and the Development of a Canadian Renewable Energy Policy Framework

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Ram Sahi, Assistant Director
Renewable Energy Policy
Natural Resources Canada



Natural Resources
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Canada



Policy Drivers for a Renewable Energy Framework

Speech from the Throne

- Government will work with stakeholders to develop comprehensive approaches to increase production of RE
- **Budget 2005**
 - Green Project encourages production and use of clean RE through new and expanded production incentives
- **CEM Process and Energy Dialogue Group**
 - F/P/T Renewable Energy Working Group
 - Development of a Renewable Energy Policy Framework



Objectives of Renewable Energy Policy

- Energy security and the need for diversification of energy supply
- Development of Canadian industrial capability
- Climate change and need for greenhouse gas reductions
- Environmental protection and sustainable development



Current Renewable Energy Programs

- Wind Power Production Incentive (WPPI)
- Renewable Power Production Incentive (RPPI)
- Renewable Energy Deployment Initiative (REDI)
- Government Purchases of Electricity from Emerging Renewable Energy Sources (PERR)



Tax Incentives

- Accelerated Capital Cost Allowance (Class 43.1)
 - Budget 2005 further accelerated the CCA rate from 30 % to 50 %
- Canadian Renewable and Conservation Expense (CRCE)
 - Allowing 100% tax-deductible expenditure from pre-feasibility and feasibility studies
 - Transferred to shareholders through a “flow-through share” agreement



Initiatives in Support of Ocean Energy

- Interdepartmental Group on Ocean Energy formed in Spring 2005 -- “Federal Ocean Energy Working Group”
- IC to lead a 3 part study on ocean energy in 2005/6
 - Industrial analysis, challenges and potential (IC)
 - Ocean energy technology screening (NRC-IOE)
 - Environmental scan for ocean energy development (EC)
- NRC managing “Resource Assessment” study
 - Resources allocated through Climate Change T&I Fund





Initiatives in Support of Ocean Energy (Cont'd)

- NRCan funds Canada's participation in IEA "Ocean Energy Implementing Agreement"
- SDTC invested in small-scale tidal power demonstration project, with "Clean Current Power Systems Inc."
- NRC's "Ocean Technology Enterprise Centre" at Memorial University
- IC financially supported OREG's production of "compendium of financial sources" for ocean energy funding



Renewable Energy Workshop: Key Messages

- Create a national collaborative framework under the Council of Energy Ministers (e.g. a National Council on Renewable Energy)
- Set up renewable energy targets and timetables
- Use market mechanisms such as feed-in tariffs and RPS
- Establish a renewable energy industrial Policy Framework
- Remove barriers to grid-access: create standards and interconnection codes
- Develop an education and public awareness Policy Framework



Council of Energy Ministers: Renewable Energy Working Group

- The F/P/T RE Working Group presented to Ministers at meeting:
 - A Study of the Impact of Renewable Portfolio Standards
 - Reports of the Renewable Energy Workshop, and
 - A 2-year Workplan on the development of renewable energy policy framework
- Ministers endorsed the workplan and directed the RE Working Group to:
 - Develop a discussion paper on a RE framework to be submitted at the CEM in 2006
 - Draft a Consultation Plan with stakeholders to also be submitted at the CEM in 2006
 - Submit a final discussion paper for a RE Framework at the CEM in 2007.





Renewable Energy Policy Framework – An Architecture

Long Term Vision

- Long term vision of Federal Policy Framework is to be a world leader in renewable energy development
- To achieve its full economic and technical potential in partnership with provincial/territorial governments and industry





Approach of a RE Policy Framework for Canada

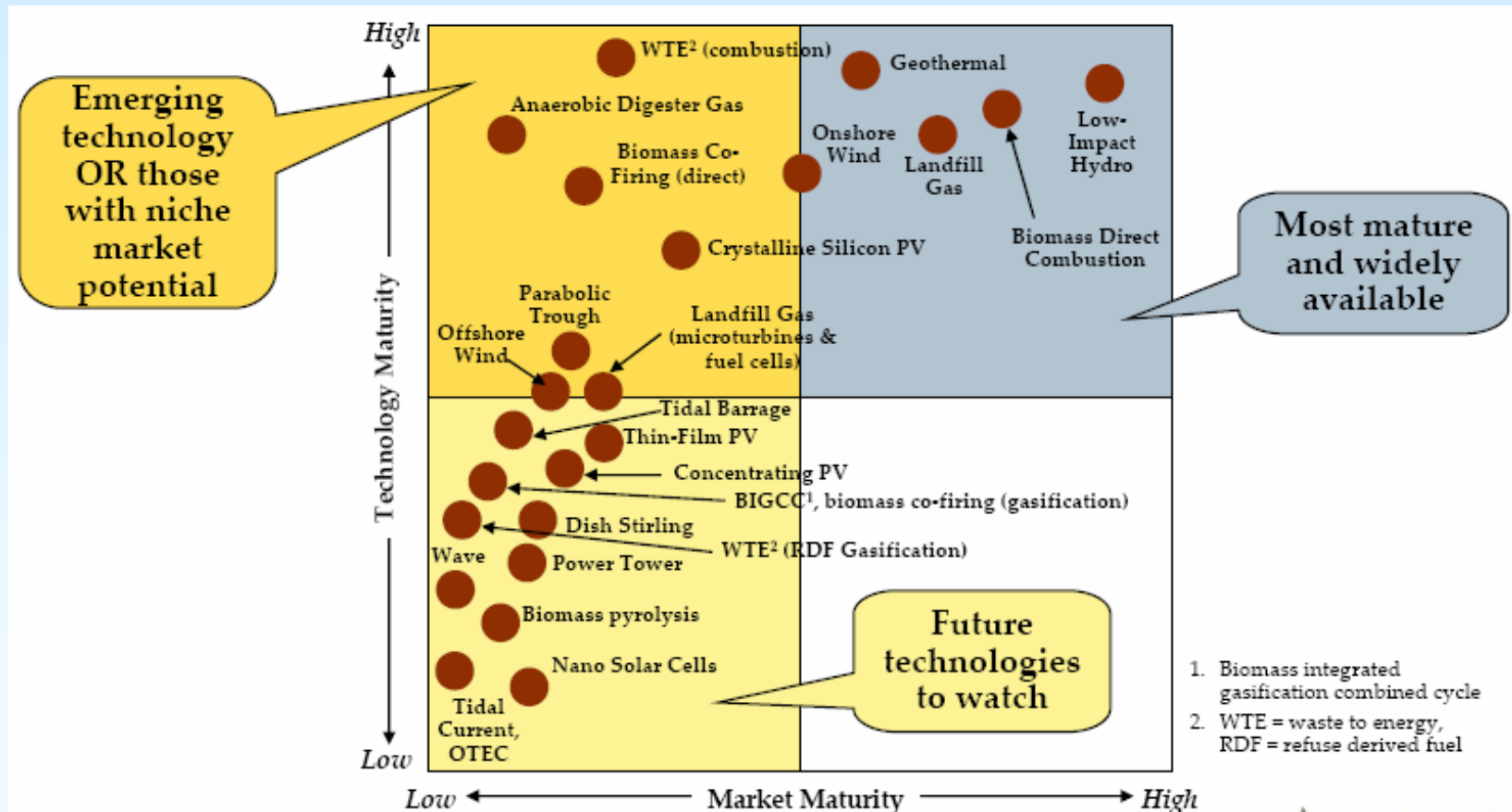
Objectives

- Through cooperative action, accelerate the development and commercialization of emerging and promising renewable energy technologies
- Respect for jurisdictional responsibilities
- Stepwise approach
 - Technology development
 - Pilot projects
 - Deployment and Commercialization






Emerging Renewable Energy Technologies Maturity Matrix



Source: Navigant Consulting Inc., "Overview of Renewable Energy Technologies, Markets and Opportunities" presentation to CleanTech Venture Forum VI, San Francisco, CA, March 2005, slide 4





Proposed Elements for a RE Policy Framework for Canada

- Investment in Technology Development
 - Field trials and R&D
 - Resource assessment and mapping
 - Technology adaptation to cold climate (wind/diesel, H&C technologies)

- Implement Deployment Measures
 - Federal funding for demonstration projects to identify effective program delivery mechanisms
 - Funding initiatives for deployment of renewable electricity
 - National Tradable Renewable Energy Certificate system flexible enough to accommodate a range of provincial measures (e.g.: RPS, RFP, Green Purchases)



Proposed Elements for a RE Policy Framework for Canada (cont.)

- **Facilitate Streamlining of Provincial Regulatory Frameworks**
 - Addressing regulatory and institutional barriers to the integration and interconnection into power grids
 - Examining alternate regulatory options required for off-shore wind and ocean energy installations
 - Developing standards and codes for RE equipment and harmonization to international standards

- **Develop Capacities**
 - Establish a National Advisory Council on RE
 - Developing Centres of Excellence for research
 - Develop training Policy Framework and increase public awareness





Conclusion

- The Federal Government has shown strong leadership in promoting renewable energy technologies in Canada
- Major challenges remain
- Need appropriate Policy Framework for each technology to promote its growth
- We encourage you to provide your thoughts on these matters