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Canada's National Hydrogen and Fuel Cell Strategy & Roadmaps

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h2 Early Adopters Program

Canadian Hydrogen and Fuel Cell History

World's First Fuel Cell Bus

2nd Generation Bus

Ford P-2000

Chicago/Vancouver Demo

Canada's Energy Policy

Framework within which strategy documents are set:

- Economic sustainability: create conditions for a competitive and innovative energy sector
- Environmental stewardship: ensure environmental impacts of energy development, transportation and use are addressed
- Social sustainability: ensure safe, reliable, affordable energy for Canadians

Hydrogen and Fuel Cell Sector in Canada

Sector Profile

- 68 public and private companies in the hydrogen and fuel cell sector

	2000	2002	2003
R&D Spending	$179M	$276M	$290M
Revenue	$100M	$134M	$188M
Employment*	1,800	2,863	2,685

* Approximately 90% in Canada

National Hydrogen and Fuel Cell Strategy

Elements of a National Strategy

- 30 year vision
- The National Strategy is a plan for near term policy and actions
- It is specifically aimed at assessing which instruments of government can be best accessed to develop this sector
- Initial focus on short-term (1-5 years)
  - Industry needs support through the R&D and pre-commercialization phase
  - Action plan to be reviewed periodically to align with market evolution
- Industry consultation phase scheduled for spring/summer 2005
- Completion expected fall 2005

Fuel Cell Commercialization Roadmap

- Published in 2003
- It identified the key commercialization challenges facing fuel cell companies
- Four key conclusions:
  - Need to stimulate market demand
    - Create more market awareness
    - Gain more knowledge of markets
  - Improve product quality while reducing costs
    - Develop a co-ordinated supply chain for fuel cell power systems
  - Financing
    - Gain increased access to capital for growth
  - Create supporting infrastructures
    - Develop skilled workers
    - Develop fueling infrastructure
    - Develop codes and standards

Summary

- Canadian companies have developed many world-leading hydrogen and fuel cell technologies, but many challenges still need to be overcome before the environmental and economic benefits of these technologies can be realized.
- The roadmap documents have set the stage for the development of the National Hydrogen and Fuel Cell Strategy. They set out a vision of what impact hydrogen can have on Canada's energy and economic future and defined some of the challenges faced in achieving it.
- The National Strategy will set out an action plan for industry, government and academia with targets and deliverables. It will move Canada along the road to achieving its hydrogen vision.