

Expansion of the Accelerated Capital Cost Allowance

- Enables a faster write-off of eligible equipment including waste-fuelled electrical generation systems and alternative energy systems (small-scale hydro-electric, wind, photovoltaic, geothermal, fuel cell, active solar).

Sustainable Development Technology Canada (SDTC)

- \$325M over 8 years to assist entrepreneurs in the development and demonstration of new, clean technologies.

Advanced Manufacturing Fund

- \$200M over 5 years to support investments by manufacturing firms in activities that create new and innovative products or production methods

National Research Council (NRC) – incremental funding

- \$20M over 3 years to support commercialization of R&D by SMEs

Venture Capital – Research and Innovation

- \$60M over 5 years to help incubator and accelerator organizations in Canada expand their services to entrepreneurs.
- \$100M for strategic partnerships with business accelerators and co-investments in graduate firms.

The NRC is the Government of Canada's premier organization for research and development

Refocused its internal investment structure around multi-year R&D initiatives with industry co-investors

- Targeting significant outcomes that will benefit Canada and the economy
- Initiatives under consideration include energy storage and vehicle propulsion – key markets for H2FC

NRC offers world-class capability for managing the technical risks of H2FC deployments

NRC is proud of its long track record of helping Canada-based companies achieve an international lead in growing H2FC markets

- Opportunity to enhance markets' understanding of the remaining technical risks
- Bolster Canadian supply chains for a vertically-sustainable industry sector

1. **Techno-economic analysis of the Power-to-Gas concept**

- Commissioned a study for preliminary research on the feasibility of large scale H2 energy storage in two Canadian provinces
- Findings:
 - Complex regulatory frameworks in both jurisdictions (natural gas / electricity)
 - H2 storage will impact multiple stakeholders – Utilities, system operators, regulators, independent power producers, energy storage operators
 - Stakeholders interested in the economic value - « What's in it for me? »
 - Conservative culture in regards to the adoption of new technologies
 - Safety-conscious environment
- More detailed techno-economic analysis to follow in 2013

2. **Business case analysis of alternative H2 generation and storage technologies in Canadian remote communities**

- Assess the value proposition of new hybrid energy systems in Canada's north



Canadian Industry Developments

- Mercedes-Benz Canada officially opened its automated fuel-cell production and technology development facility in British Columbia, Canada
- Hydrogenics Corporation awarded contract (up to US\$90M) for integrated power propulsion systems for a major OEM
- Enbridge Inc. (natural gas utility) investment in Hydrogenics to develop utility scale hydrogen energy storage systems
- Volkswagen Group - long-term engineering service contract with Ballard Power Systems (Canadian fuel cell developer); valued between CAD \$60 -100M
- South Africa's Anglo American Platinum Limited to invest \$4M in Ballard to support commercial advancement of the company's fuel cell products
- Hydrogenics awarded a contract for one megawatt hydrogen energy storage system for E.ON in Germany