

Federal Budget 2013

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

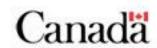
> \$200M over 5 years to support investments by manufacturing firms in activities that create new and innovative products or production methods

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.





National Research Council of Canada (NRC) Transformation

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





Policy and Analysis

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

