



Committee Report

To: Warden Mitch Twolan
Members of the Planning and Development Committee

From: Kara Van Myall
Director of Planning and Development

Date: January 23, 2020

Re: Bruce Innovates: Foundational Hydrogen Infrastructure Update

Staff Recommendation:

The “Bruce Innovates: Foundational Hydrogen Infrastructure Update” report is for information.

Background:

Steering Committee, Outreach and Connections for December:

- The Committee has engaged with two commercial partners and is in discussions to advance pilot projects. These are in formative stages and it is anticipated that they will culminate into projects that will have significant impacts on advancing foundational hydrogen market start-up opportunities and eventual spins-offs.
- The committee with staff support has submitted four delegation requests at ROMA during the annual conference January 19 - 21. Minister delegation requests include:
 - o Ministry of the Environment, Conservation and Parks;
 - o Ministry of Infrastructure;
 - o Ministry of Energy, Northern Development and Mines; and
 - o Ministry of Economic Development Job Creation and Trade.Staff have prepared briefing notes for the Warden and the Chief to present to the appropriate Minister.
- Communications continue in order to socialize the Project Overview with potential funding partners and/or investment partners. This effort is on-going and includes staff and political members of both the Provincial and Federal government Ministries in addition to outreach to private sector companies and individuals. This plan includes tactics such as video / illustrations to promote the objectives of Bruce Innovates and the broader goal of positioning Bruce County as the Energy Capital of Canada.
- The project Steering Committee acknowledges there are several interested parties in both the private and public sector that want to support the hydrogen agenda. These individuals are included in the communications / outreach plan.
- Staff met with representatives from the Ministry of Economic Development Job Creation and Trade to discuss potential funding initiatives to help advance the large-scale deployment activities.

- Staff are working with FCM to advance the application to the next round of reviews. We anticipate a response late February or early March.

Bruce Innovates Background:

A significant opportunity exists for Bruce County to produce clean hydrogen from clean nuclear and renewable electricity, and in doing so, position the region to not only contribute to, but also to benefit from, the transition to a low-carbon economy. To take advantage of this opportunity, Bruce County has launched an initiative called “Bruce Innovates: Foundational Hydrogen Infrastructure”.

The project aims to transform Bruce County into the Clean Energy Capital of Canada by establishing a world-class region for collaboration and training in clean technology development and innovation. Bruce Innovates has the potential to be a ground-breaking and innovative way to pursue multiple objectives simultaneously, including:

1. Developing, testing and scaling-up hydrogen-based energy systems - by undertaking pilot projects before eventually progressing to larger-scale commercial technologies;
2. Diversifying and boosting the economy - by growing a hydrogen economy and creating export opportunities, whilst supporting entrepreneurship, clean-tech business development, job creation and next generation career development;
3. Supporting Saugeen First Nation (SFN) and other First Nation communities in building capacity towards greater energy self-sufficiency - by developing hydrogen-based on- and off-grid energy systems; and
4. Accelerating the commercial deployment of Canadian-based hydrogen technologies both nationally and abroad - by marketing utility-scale hydrogen production and energy storage technologies.

Grant Application Update:

Grant Applications to Support Large Scale Deployment submitted to date:

- FCM application to the Green Municipal Fund passed through initial review. Staff are working with FCM staff on the next review phase with the goal of having a final decision for funding in late February / early March.
- Underground Storage / Dynamic Electrolyzer - submission made to the Strategic Innovation Fund (SIF) - advanced to stage two, under review.
- An application to NRCAN’s NICE program submitted for both the SSEC and Storage / Electrolyser initiatives. NICE may not support the specifics of the intended project, so staff are working inside the Ministry with OCNI to find a suitable funding opportunity that acknowledges the connection between nuclear and hydrogen. This opportunity is not an option at this time.

Financial/Staffing/Legal/IT Considerations:

There are no financial, staffing, legal or IT considerations associated with this report.

Interdepartmental Consultation:

None

Link to Strategic Goals and Elements:

- Goal #6 Explore alternate options to improve efficiency, service:
C. Look for economy of scale or shared services among our departments and our communities
- Goal #7 Stimulate and reward innovation and economic development

Written by: Jill Roote, Manager of Economic Development, Planning and Development

Approved by:



Bettyanne Cobean
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