



CLOSED SESSION Committee Report

To: Warden Paul Eagleson
Members of the Executive Committee

From: Kelley Coulter, CPA, CGA, MPA
Chief Administrative Officer

Date: April 5, 2018

Re: 2nd Update on Centre of Excellence (Applied Research Facility)

Recommendation:

That the 2nd Update on Centre of Excellence (Applied Research Facility) Report be received for information; and,

That the terms of the Draft memorandum of Understanding with Bruce Power be supported in principle.

Summary:

In follow up to the report provided on February 1, 2018 the following is a status update on the progression of work in support of the Applied Research Centre.

- Application to the Ministry of Advanced Education and Skills Development submitted for \$265,000 and the Director is reviewing for approval Friday April 6.
- Deloitte Project Innovate - Stage 1 complete with local municipal CAOs.
- Deloitte Project Innovate - Stage 2 beginning for development of overarching energy cluster strategy development, Business Case Development, Operating and Governance Model and Financial forecast.
- MaRS has been engaged by Bruce Power and Bruce County to complete an Opportunities Assessment of the regional readiness and capacity for the Applied Research Centre.

• [REDACTED]

- Architect for the Archival expansion has been engaged to consider the size
- Draft Memorandum of Understanding completed for Executive Committee consideration and Bruce Power.
- May 3rd - Bruce Power attend County Council and make announcement for the Applied Research Centre
- [REDACTED]
- In meeting with OPG, no deemed conflict with the Centre of Excellence proposed in the Municipality of Kincardine.

For Executive Committee members convenience, below is the report submitted to you on February 1.

Background :

In September 2017 Executive Committee were provided with an update on the Centre of Excellence for Bruce County. Since that time multiple meetings have occurred with the Ministry of Research and Innovation, the Ministry of Advanced Education and Skills Development, Bruce Power and union membership. A meeting is scheduled with the Ontario College of Trades on February 6.

The County of Bruce has been asked to submit an application to the Ministry of Advanced Education and Skills Development under the Labour Market Demand program that will secure between \$100,000 and \$200,000 to progress our plan including the characteristics for the Centre.

The work will include the research surrounding the community, the skills opportunity, and continued work with the Saugeen First Nation.

Meetings occurred with the Canadian Skilled Workers Union, the Power Workers Union, various private business enterprises. Letters of support have been committed from the Canadian Union of Skilled Workers, the Power Workers' Union, UNIFOR, Four County Labour Market Planning Board, Bruce Community Futures Development Corporation, the two local school Boards and Bruce Power.

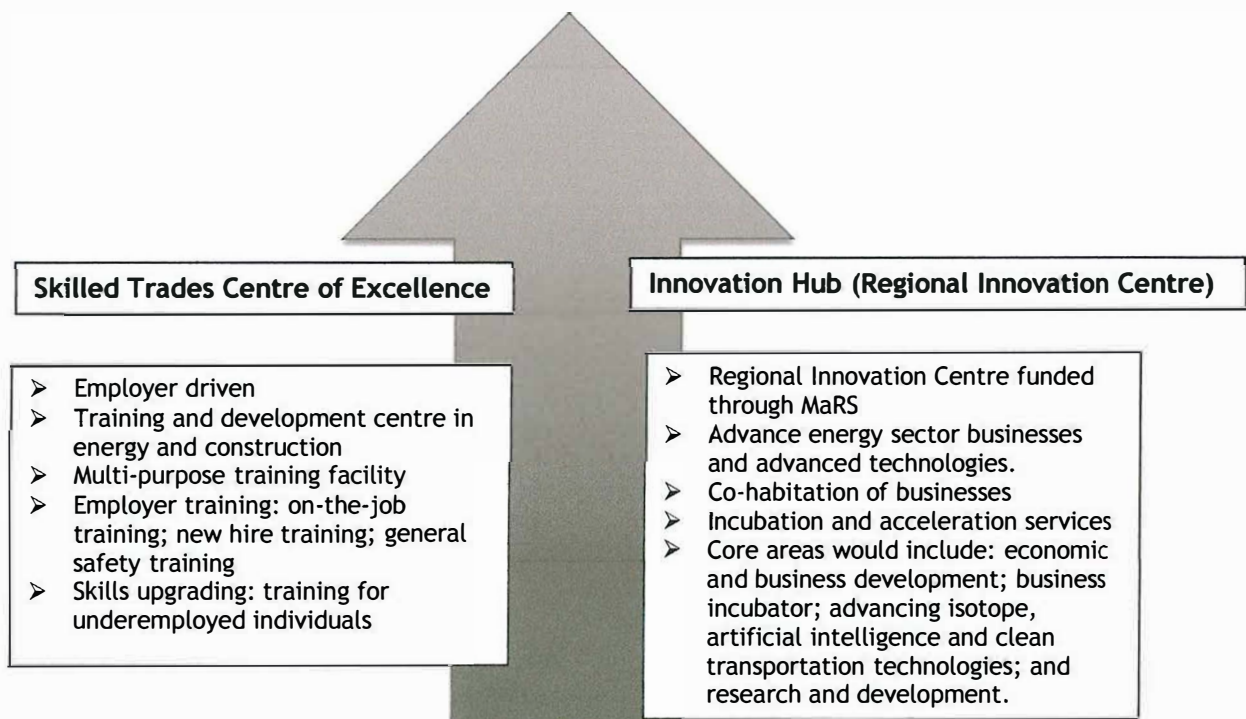
Through the various discussions a two pillared approach has settled upon which includes the Skilled Trades Centre of Excellence and an Innovation Hub (Regional Innovation Centre). Bruce Power has committed to build a facility in Southampton. The MaRS group from Toronto have been in discussions to utilize the facility to bring "bring together educators, researchers, social scientist,

entrepreneurs, and business experts” to advance knowledge, innovation and creativity. Our model goes one step further and includes the Skilled Trades in-career education.

1. The Model



Applied Research and Training Centre



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Next Steps:

- 1) Staff will have complete the application for the Labour Market Review by the week of February 5, 2018.
- 2) Staff are working to complete an additional Memorandum of Understanding with Bruce Power for Executive Committee consideration in relation to the Energy Applied Research and Training Centre. Bruce Power will focus on work with MaRS.

3) *Bruce Power has committed to fund a new build in Southampton, Town of Saugeen Shores.*

4) *May 3rd goal for announcement by Mr. Michael Rencheck at Bruce County Council.*

Financial/Staffing/Legal/IT Considerations: Internal staff time only. No additional funding requirements at this stage. The Grant application was submitted with a request of \$265,000.

Interdepartmental Consultation: Not applicable

Link to Strategic Goals and Elements:

Report links to all Goals included in the Strategic Plan.

Approved by:

A handwritten signature in black ink, appearing to read "Kelley Coulter", written in a cursive style.

Kelley Coulter,
Chief Administrative Officer

Attachment: Bruce County Energy Applied Research and Training Centre, Discussion Paper

Bruce County

Energy Applied Research and Training Centre

Introduction

As a region of energy excellence, Bruce County is pursuing the establishment of an *Energy Applied Research and Training Centre* to advance training opportunities and emerging technologies focused on building a sustainable energy sector and energy innovation cluster in the region.

An Energy Applied Research and Training Centre includes 2 integrated pillars:

- 1) A Skilled Trades Centre of Excellence; and
- 2) An Energy Innovation Hub

The establishment of a Centre will solidify the region as an energy hub in Ontario, with world class applied research filling a current gap, complementing and building on successful hubs established in other strategic sectors across the Province.

Bruce County: Setting the Stage

With a population in excess of 68,000, the Bruce Region is strategically located in Southwestern Ontario with a growing and diverse cross-cultural demographic. Within its geographic boundaries the region is also home to Saugeen Objibway Nation and the unceded territory of the Chippewas of Nawash.

The County is two hours from multiple urban centres and is home to Canada's largest operating nuclear facility operated by Bruce Power, employing over 4000 people with a highly educated workforce and an array of highly skilled tradespeople.

Bruce County has an established reputation as a hub for highly qualified skilled trades personnel and world leaders in the energy sector. 9.9% of the working population have obtained a trades certificate or diploma (compared to 7% Ontario)¹ and 8.7% are working in the utilities industry (compared to 0.5% Ontario)².

The Bruce region experiences an 84% demand by employers for full-time Journeyperson and 72% full-time Apprentices³. The region is a leader in skilled trades workforce across the province - creating significant growth opportunities. The communities from which the region draws the most people include: Waterloo Region, Wellington County, Middlesex County, Toronto Region and Simcoe County.

¹ Environics Analytics (EA), Source: DemoStats 2017

² Environics Analytics (EA), Source: DemoStats 2017

³ Four County Labour Market Planning Board, EmployerOne Survey Observations 2017

In the recent release of census data related to age demographics by Statistics Canada, the number of seniors reaching aged 65 and over is projected to almost double from 2.3 million, or 16.4 per cent of population, in 2016 to 4.6 million, or 25.0 per cent, by 2041. The growth in the share and number of seniors accelerates over the 2016-2031 period as baby boomers turn age 65. The Toronto Board of Trade equates this for Toronto to be 33% of their population reaching the age of 65 between 2011 and 2031.

According to the Council of the Federation, every \$1 billion invested supports between 8,000 and 36,000 person years of employment. The investment in the local region coupled with the impact of the aging population will equate to 100s of skilled trades related occupations needing to be filled over the next decade.

Regional Economic Landscape: Ideal Conditions

Bruce Power - the world's largest operating nuclear facility - is located in Bruce County on the shores of Lake Huron. Bruce Power's multi-year, multi-billion dollar Life Extension Program, announced in December 2015, will see an increased need for nuclear expertise and skilled trade development over the next several years, requiring 1000's of trades people each year for the next 20 years and beyond. This multi-billion dollar construction project will draw from several Building Trade Unions, including: CUSW, Sheet Metal, Millwrights, Ironworkers, Plumbers/ Pipefitters, Insulators, Boilermakers, Carpenters, IBEW, Labourers, Painters, Operating Engineers, Teamsters.

In addition to the requirement for skilled trades, since the announcement of Bruce Power's Life Extension Program- Bruce Power, Bruce County and the surrounding region have been working to position itself as a leader in the energy sector. An Economic Development and Innovation partnership was formed between Bruce Power and the surrounding region in 2016, to establish the region as a nuclear energy economic hub. This has been achieved through the expansion of world leaders in the nuclear industry and the construction sector establishing a local presence, creating 100's of new jobs over the next few years.

Major players in the nuclear and construction sectors who have a strong local presence include:

- Acuren Nuclear Services
- Aecon
- Framatone (formerly Areva)
- Black and McDonald
- BWXT
- EMC Power Canada
- Kinectrics
- Rolls Royce
- SNC Lavalin

Over the next few years, we will continue to support the expansion of additional players into the region with many from the construction sector expected to grow into the area.

Given the current presence of a highly skilled and educated workforce with the need for increased supply over the next several years, Bruce County is well situated for establishing an Energy Applied Research and Training Centre. With a close concentration of leaders and experts located in the area; an interest from the private sector to provide more training locally; no

current co-location- shared training facility model in the region, and a gap in accelerator services and incubation support for the energy sector in Ontario - Bruce County is poised for success.

Partnerships, Coordination & Collaboration

Bruce County has been working toward establishing readiness and building capacity to become the hub of both skilled trades development and the advancement of research and development of emerging trends in energy.

Bruce Power and Bruce County are in dialogues on forming a Memorandum of Understanding to jointly advance the establishment of an Innovation Hub and Applied Research Centre.

Under the Applied Research and Training Centers two pillars, there are partnerships and collaborations forming to advance the Centre model.

1. Skilled Trades Centre of Excellence: Sector Engagement

Bruce County has been working with potential private sector partners in the construction sector to develop a model to support their future training needs and build on existing investments. There are a number of private sector businesses interested in expanding the local training opportunities to support their current and future skilled trades needs.

Bruce County has engaged in dialogues with other key players in the trades including: the Ontario College of Trades; the Canadian Union of Skilled Workers, the Power Workers' Union, and UNIFOR.

2. Innovation Hub: Engaging Deloitte

Bruce County is working with Deloitte to advance the exploration of “managing innovation in Bruce County”. Working with Deloitte, the intent is to develop an overall cluster development Innovation Strategy and Action Plan for Bruce County.

The strategy will:

- Serve as a building block to foster entrepreneurial activity, creating jobs and stimulating economic development;
- Build networks for partnerships with business, education, government, associations and other key stakeholders;
- Support the attraction and development of talent to foster innovation, and
- Be used as a tool to support innovative approaches that align with the Province's cluster development approach.

An Innovation Centre will bring together all of these opportunities and create a centralized model for expanding skilled trades development and applied research in the energy hub both in the Bruce region and Province-wide.

Capitalizing on Existing Assets

Our region is in a position to repurpose suitable existing infrastructure and utilize existing assets to further develop the concept. An Energy Applied Research and Training Centre could be a

cluster of buildings and infrastructure across the region, filling underutilized spaces suitable for asset recycling.

A series of options exist in Bruce County including advancing partnerships with Unifor and the Power Workers Union, Aecon and Bruce Power. Equally, Bruce County is positioned for a new build as there are a number of existing business parks across the County that would be suitable for this development.

Building on the Ontario Government's Commitments

1. Skilled Trades Centre of Excellence

Establishing a Skilled Trades Centre of Excellence supports the Premier's Highly Skilled Workforce (HSW) Expert Panel report recommendations made to the Government of Ontario in June 2016. Pursuing the Centre in partnership with a local leader to advance skilled trades will help achieve several priorities identified in the report. This includes the Partnerships and Local Leadership theme and priority action items identified under this theme.

The proposed model for a Skilled Trades Centre of Excellence includes partnership with education, labour unions and the government to work together to address regional and sectoral needs in the labour market and increase participation in underrepresented groups.

"In the short term, this means that Ontario employers must join their partners in education, labour, government and elsewhere to actively and creatively address regional and sectoral needs in the labour market and better integrate underrepresented groups including older workers, new Canadians, Indigenous peoples, and persons with disabilities, in an economy that is being rapidly transformed by both demographic and technological change." Building the Workforce of Tomorrow: A Shared Responsibility (June 2016)

2. Innovation Hub

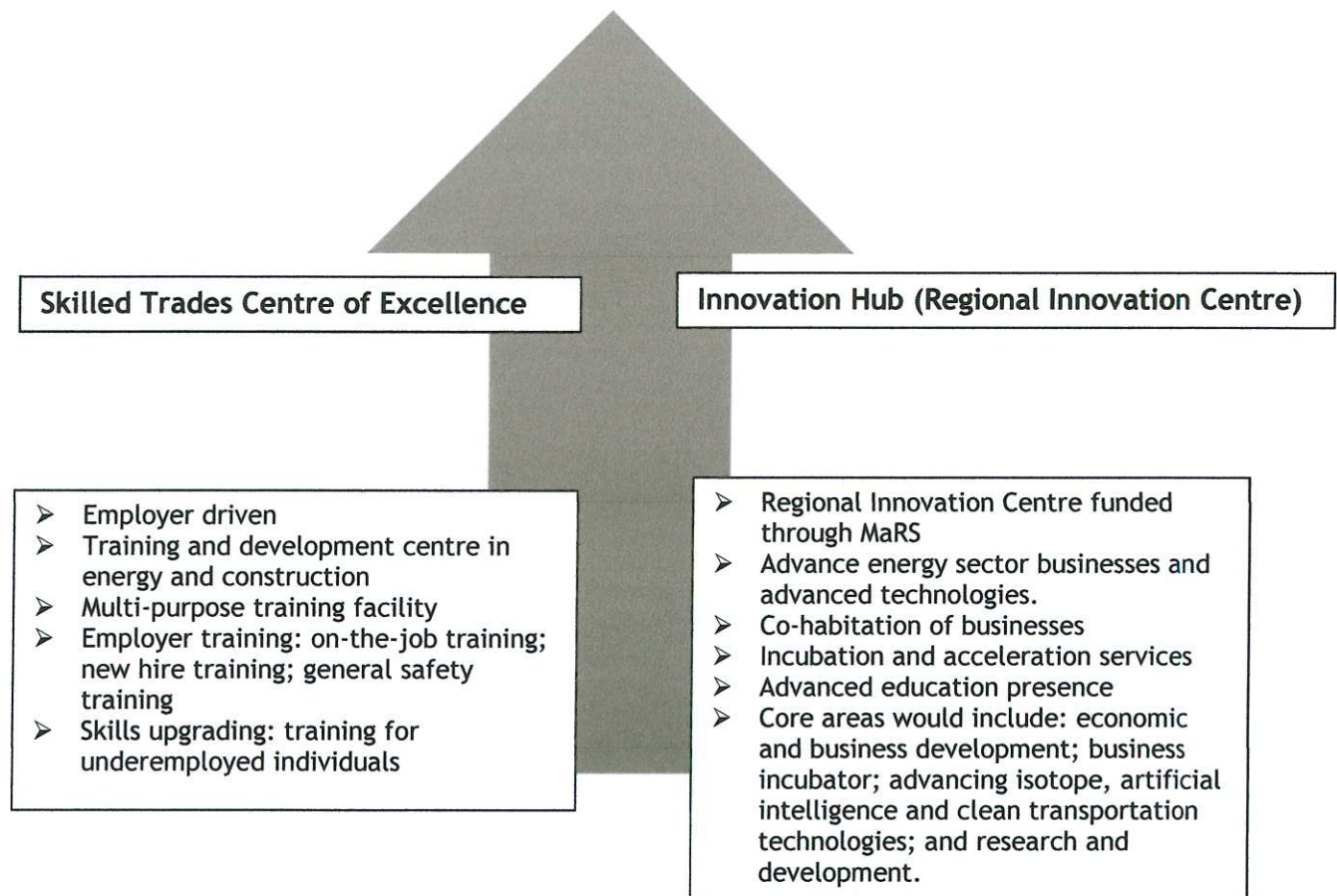
Establishing an Energy Innovation Hub as a Regional Innovation Centre through the Ministry of Research and Innovation will advance Ontario's commitment to regional hubs across the region, the province of Ontario and ultimately with world class recognition.

There is currently no recognized Regional Innovation Centre (funded by MRI through MaRS) in mid-western Ontario. In addition, there is no energy RiC in the Province.

Our proposed model: Energy Applied Research and Training Centre



Applied Research and Training Centre



1. Skilled Trades Centre of Excellence

The Centre would be a multi-purpose training facility to advance employer training requirements and provide skills upgrading opportunities for underemployed members of the workforce. Training would focus on construction and pre-job training requirements and be linked with Bruce Power's training facility currently under construction.

The training would be employer driven; working with various private sector organizations to provide collaborative training for various employers simultaneously. The training facilities can also be utilized by the school boards to provide opportunities for students to become more engaged in the trades.

A number of private sector businesses have expressed an interest in offering more local training and are looking at establishing their own local training facilities. A collaborative model would be most cost-effective and be well received by employers across the region.

A collaboration with MAESD on establishing the region as a Skilled Trades Centre of Excellence will enable Bruce County to further pursue dialogues with private sector businesses and other relevant organizations.

2. Innovation Hub (Regional Innovation Centre)

The Innovation Hub would be established as a not-for-profit organization with employer partnerships; regional partnerships and a collaboration with MRI through MaRS. The Innovation Hub will be a part of the Ontario Network of Entrepreneurs (ONE) as mid-western Ontario's Regional Innovation Centre partnering with community stakeholders to help start and accelerate the growth of innovative companies.

The Hub would consist of one centralized building for operations staff and include additional space for members to rent. Additional facilities could make up the cluster across the region - either driven by private sector investment, or utilizing existing facilities in high schools to enhance the cluster development model.

An Innovation Hub will provide a flexible, co-location, incubator and accelerator space that brings together entrepreneurs and leaders in the energy sector to work alongside other like-minded entrepreneurs to share ideas, enhance networks, and discuss challenges and opportunities.

Recommendation

Bruce County, along with supporting organizations, recommend that the Province of Ontario commit to supporting the establishment of an Energy Applied Research and Training Centre in Bruce County. Our preferred timelines are:

- 1) a provincial government announcement of policy and financial support by May of 2018,
- 2) collaborative final designs and partnerships (All levels of Government and government agencies (including MARS), Indigenous Community, University partner, Businesses, and Union Partners, announce June 2018
- 3) Construction and asset regeneration begin in September 2018 with a launch in the spring of 2019.