

# **Hydrogen Ready Power Plant Project Environmental Screening and Review Report**

## **Appendix 17.6 Government Agency and First Nations Consultation Report**

March 30, 2022  
Revision to Nov 15, 2021 report

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**Hydrogen Ready Power Project  
Government Agency and First Nations Consultation Report**

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## **1. Introduction**

This report documents the Governmental Agency and First Nation consultations carried out as part of the environmental screening and review completed for the Hydrogen Ready Power Plant Project. The proponent of the Project is Eastern Power Inc. The environmental screening process is applicable to the Project because it is a Category B electricity project under Ontario Regulation 116/01 of the *Environmental Assessment Act*.

The Project is being developed in response to the Independent Electricity System Operator's (IESO) identification of the need for additional electricity generation capacity in Ontario's South West Region. The Project is designed to take advantage of lower GHG carbon emitting hydrogen/natural gas mixed fuels as these become progressively more available over the life of the project and ultimately the use of pure hydrogen which emits no combustion related GHGs. The Hydrogen Energy Platform is being developed through support of the Ontario and Federal Governments as an important strategy for lowering Greenhouse Gas (GHG) carbon emissions and to help meet future GHG reduction targets. Hydrogen energy development strategies have now been initiated by both Ontario ([Ontario Hydrogen Strategy](#)) and Canada ([Canadian Hydrogen Strategy](#)). These strategies include using hydrogen for electrical power generation.

This report documents the steps taken by the proponent to seek consultative input on the Project and summarizes these consultations and their results, in compliance with the consultation requirements as set out in Ontario Regulation 116/01.

The purpose of this consultation was to inform and receive input from all federal, provincial and municipal government agencies with possible jurisdiction or a program interest related to a particular electricity project. The proponent identified 19 government agencies that might have jurisdictional interest over the project or might have a program interest in the project, and as listed in Appendix A1.

In addition individual consultations have also been carried with 8 First Nations in the general area of the Project and as listed in Appendix A2.

Nineteen agencies were identified within federal, provincial, regional or municipal jurisdictions for consultation as per O.Reg 116/01. These agencies were provided with copies of the mandatory notices as well as all information as was given to the public.

Eight First Nations with potential interest in the project were identified from previous consultation experience of the proponent with Greenfield South Power Corporation's Green Electron Power Plant project (2012) and through information provided by the EA coordinator for the Ministry of Environment Conservation and Parks (MECP). The proponent understands the MECP has Crown responsibility for First Nation consultation and expects this consultation to be carried out by the proponent.

## 2. Project Description

The Hydrogen Ready Power Plant project will be located on a 2 hectare portion of land immediately south of the existing Green Electron Power Plant on Greenfield South Corporation's property at 377B Oil Springs Line in St. Clair Township as shown in Figure 1. The site is located immediately east of Hydro One's 230 kV transmission corridor. The HRPP facility will have its own connections to circuits L28C and L29C to which the plant's electrical output will be delivered to the existing provincial transmission grid.

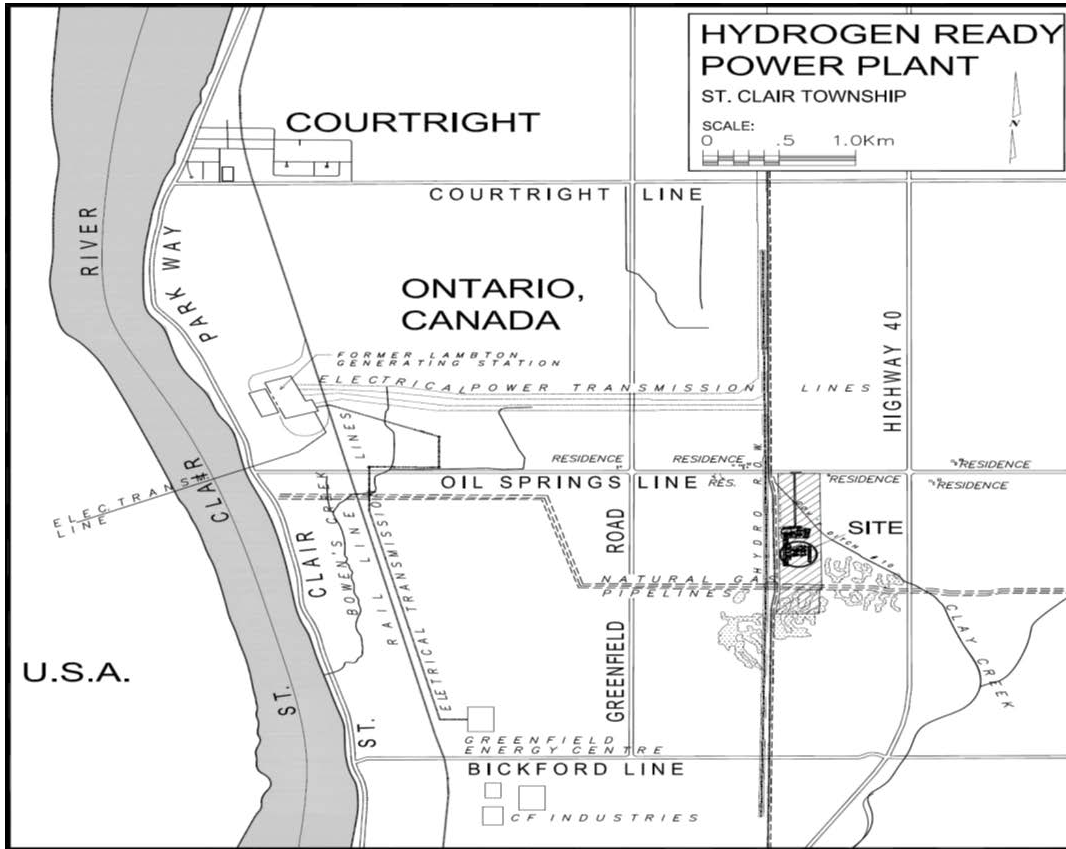


Figure 1 Hydrogen Ready Power Plant Location

Natural gas will be supplied on the GSPC property from an existing lateral tap line on the Vector/ Enbridge pipeline. It is expected that as Hydrogen fuel blends become available, the existing gas pipeline infrastructure will also be utilized.

Water for process cooling will be supplied from the Lambton Area Water Supply System (LAWSS) via an existing 12" lateral line connected to the main line on Greenfield Road and/or a new lateral line from a local industrial supplier (under construction for service in 2022).

Excess blowdown cooling and process wastewater will be discharged through an existing forced main pipeline on the property for treatment at the Courtright municipal wastewater treatment facility.

The facility will have a net, combined cycle generation capacity of approximately 600 MW depending on prevailing weather conditions, manufacturers' design margins, equipment condition, etc. The facility will include two gas turbogenerator sets both of which run on Natural Gas (NG) and Hydrogen Gas H<sub>2</sub> fuel blends. The use of H<sub>2</sub> versus NG fuel substantially reduces power plant combustion related GHG CO<sub>2</sub> emissions as hydrogen combustion does not emit carbon dioxide. Additionally, a steam turbogenerator set configured in combined cycle mode will be utilized.

### **3. Notices Consultation and Information provided to Government Agencies and First Nations**

The major components of the consultation process for Government Agencies and First Nations in summary:

1. Outreach/consultation initiated by email and mail (courier-delivered) July 9, 2021 with 6 First Nations (closest to the project site), prior to the publication of the Project Notice of Commencement;
2. Publication of the Notice of Commencement in local new papers (July 16 and July 21) and its posting on the Project website <https://hydrogenreadypowerplant.ca/> ;
3. Follow-up written information on the Project with an invitation for comments and questions including an invitation for one-on-one consultation was both e-mailed and mailed (courier-delivered) on July 21, 2021 to six closest First Nations.
4. Provision of written information on the Project and request for questions or comments was e-mailed to the 19 various government agencies with a request for any comments to be returned by August 21, 2021;
5. Virtual open house for project (advertised on the Project web site for 2 weeks prior) was hosted on the Project website between August 6-13;
6. Town Hall meetings; two Zoom internet-based town hall meetings were advertised on the Project web site two weeks in advance for attendance by any interested parties and hosted on August 11, 2021 at both 3PM EDT and 7PM EDT by senior officials of the proponent;
7. Follow-up correspondence between responding government agencies and First Nations by the proponent;
8. Discussion through virtual meetings with certain responding government agencies;
9. Consultation letters and project information sent to 2 additional First Nations (Oneida FN and Delaware FN) October 7, 2021 inviting any questions and expression of any need for additional information;
10. Follow up telephone calls Nov 1-2, 2021 to each of 8 First Nations Chiefs or their coordination/environmental representatives to again ask if they had any questions or comments and if they would like to receive copies of the ESRR when available for review;
11. Provision of the Draft Environmental Screening and Review Report to the Ministry of the Environment Conservation and Parks (MECP) for review and comments.

12. December 2021 and February 2022; follow up emails and telephone calls to all First Nations re desire for their comments on the project and Draft Environmental Screening and Review Report.
13. Provision of the draft Environmental Screening and Review Report to the Walpole Island First Nation for their review and peer review by their outside consulting firm Neegan Burnside.
14. Provision of Neegan Burnside Review Report on March 28, 2022 to other First Nations as agreed by WIFN.
15. To Follow: Finalization of Environmental Screening and Review Report in response to comments on draft ESRR by MECP, other Governmental Agency, Neegan Burnside Review Report and other First Nations.
16. To Follow: Posting of the completed Environmental Screening and Review Report on the HRPP project web site: <https://hydrogenreadypowerplant.ca/>
17. To Follow: Publication of the Notice of Completion of Environmental Screening and Review Report.
18. To Follow: Respond to any questions comments or concerns raised during the Ontario Regulation 116/01 prescribed 30 day review period of the Environmental Screening and Review Report.

All responses from Government Agencies received to date by the proponent have been addressed in this report.

All responses from First Nations received to date have been addressed in this report.

## **4. Responses from Government Agencies**

An example letter and information package as sent to each of the 19 Government Agencies listed in Appendix A1 are provided in Appendix A3. The table below summarizes responses received from these agencies and how these have been applied to the ESRR and project planning.

Agency comment date	Comment	Response
<p><b>Ministry of Heritage, Sport, Tourism and Culture Industries</b></p> <p><b>August 16, 2021</b></p>	<p>Under the EA process, the proponent is required to determine a project's potential impact on cultural heritage resources. This EA project may impact archaeological resources and should be screened using the MHSTCI criteria.</p> <p>If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the complete checklist and supporting documentation in the EA report or file.</p>	<p>Proponent advised August 23, 2021 that GSPC had previously completed a Stage 2 archaeological assessment of the entire site.</p> <p>MHSTCI responded Sept 1, 2021; Due diligence has been achieved as the Stage 2 archaeological assessment (Project Information Form Number: P077-008-2013) has been entered into the Ontario Public Register of Archaeological Reports indicating no further archaeological assessments are required for the study area.</p> <p>The screening checklist Appendix 17.1 of the ESRR documents and addresses these points.</p>

<p><b>Ontario Ministry Agriculture Food and Rural Affairs</b></p> <p><b>July 27, 2021</b></p>	<p>Based on the mapping provided, it is challenging to tell if OMAFRA will have a commenting role, however, based on the geography of the proposed Project, it is probable that prime agricultural lands (specialty crop areas and/or Canada Land Inventory Class 1-3) or prime agricultural areas (areas where prime agricultural lands predominate) may be affected. If you could please confirm whether prime agricultural areas or lands will be affected, that would guide our Ministry's response as to whether we would have an interest, as requested in your initial email.</p>	<p>Responded July 27, 2021: The property being developed was zoned Type 3 industrial in 2012 for the existing power plant now on the site (see attached general arrangement key plan drawing). The land immediately surrounding the project lands is scheduled for Type 3 industrial development by the Township of St. Clair as you can see in the attached Schedule A from the official plan of St. Clair.</p> <p>Sarah Kielek-Caster Rural Planner Land Use Policy and Stewardship Unit attended HRPP Zoom town hall and was satisfied that no prime agricultural land would be affected.</p>
<p><b>Ministry of Energy Northern Development and Mines</b></p> <p>August 18, 2021</p>	<p>I understand you have communicated with IESO regarding your proposal. I would encourage you to continue to engage with IESO to seek input.</p> <p>As you may be aware, Ontario is currently developing its first ever hydrogen strategy to create local jobs, attract investment and reduce greenhouse gas emissions. Details about Ontario's plans for a hydrogen strategy are available online: <a href="https://www.ontario.ca/page/low-carbon-hydrogen">https://www.ontario.ca/page/low-carbon-hydrogen</a>.</p> <p>Tim Christie Director Electricity Policy, Economics and System Planning Branch</p>	<p>Continued ongoing consultation with IESO; IESO indicated interest in hydrogen electrical power generation.</p>





<p><b>Ministry of the Environment Conservation and Parks (MECP)</b> August 13, 2021</p>	<p>MECP is delegating the procedural aspects of rights-based consultation to the proponent through this letter.</p> <p>A draft copy of the Screening/Environmental Review Report should be sent directly to me prior to the filing of the final report, allowing a minimum of 30 days for the ministry’s technical reviewers to provide comments.</p> <p>Please also ensure a copy of the final notice is sent to the ministry’s Southwest Region EA notification email account (eanotification.swregion@ontario.ca) after the draft report is reviewed and finalized.</p> <p>Additional Areas of interest to be addressed in ESRR:</p> <ol style="list-style-type: none"> <li>1. <b>Planning and Policy</b></li> <li>2. <b>Source Water Protection</b></li> <li>3. Climate Change</li> <li>4. Air Quality, Dust and Noise</li> <li>5. Ecosystem protection and Restoration</li> <li>6. Species at Risk</li> <li>7. Surface Water</li> <li>8. Groundwater</li> <li>9. Excess Materials Management</li> <li>10. Contaminated Sites</li> <li>11. Servicing Utilities and Facilities</li> <li>12. Mitigation Monitoring</li> <li>13. Consultation</li> <li>14. Environmental Screening Process</li> </ol>	<p>This consultation report documents the consultation with 8 First Nations that may have interests or concerns with the project and as identified by the MECP.</p> <p>The draft ERR and all its appendices will be sent to the MECP project EA coordinator Mark Badali for internal MECP review and comment before finalizing.</p> <p>Once the ESRR is finalized it will be posted on the project website and a Notice of Completion will be published as start of a 30 day public review period for question and comments</p> <ol style="list-style-type: none"> <li>1. addressed in section 5.2 of ESRR</li> <li>2. addressed in section 4.1 of ESRR</li> <li>3. addressed in section 6.3 of ESRR</li> <li>4. addressed in section 6 of ESRR</li> <li>5. addressed in section 8 of ESRR</li> <li>6. addressed in section 8.1 of ESRR</li> <li>7. addressed in section 4 of ESRR</li> <li>8. addressed in section 4 of ESRR</li> <li>9. addressed in section 13 of ESRR</li> <li>10. addressed in section 5.4 of ESRR</li> <li>11. addressed in section 10 of ESRR</li> <li>12. addressed in 17.7 of ESRR</li> <li>13. addressed in 17.5 and 17.6 ESRR</li> <li>14. addressed in 17.1 of ESRR</li> </ol>
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<p><b>Ministry of the Environment Conservation and Parks (MECP)</b></p> <p>Comments on review of Draft ESRR January 6, 2022</p>	<p><b>General</b></p> <p>1) In Section 3.1 of the Report, the first use of the acronym LAWSS should be clarified as meaning Lambton Area Water Supply System.</p> <p><b>Indigenous Consultation</b></p> <p>2) The proponent should continue to reach out to all communities identified in the Report by providing this draft Report for their consideration, in order to ensure that they have had an opportunity to provide any further input to the final Report.</p> <p><b>Air Quality</b></p> <p>3) The Appendix 17.2 Air Quality Impact Assessment (AQIA) of the Report should include an AERMOD input summary table and details on how the input parameters were derived. The Report should also include details of the emission calculations completed for each contaminant and source.</p> <p>4) Please submit the electronic AERMOD input and output files for ministry review.</p> <p>5) The London regional meteorological data set is acceptable at the EA stage for screening purposes, as noted in Section 2.1 of the AQIA. However, because of the unique meteorological conditions near the St. Clair River, site-specific meteorological data will be required for modelling at the Environmental Compliance Approval stage. Site-specific meteorological data is provided by the ministry. Please complete a Request for Approval under s.13(1) of O. Reg. 419/05 for use of Site Specific Meteorological Data to avoid any delays in the processing of your request. For guidance on complying with the dispersion model requirements of O. Reg. 419/05: Air Pollution – Local Air Quality, including the use of site specific meteorological data, refer to the Guideline A-11: Air Dispersion Modelling Guideline for Ontario (<a href="http://www.ontario.ca/document/guideline-11-air-dispersion-modelling-guideline-ontario-0">www.ontario.ca/document/guideline-11-air-dispersion-modelling-guideline-ontario-0</a>).</p>	<p>1) LAWSS has been defined in revised Air Quality Impact Assessment Report</p> <p>2) All 8 First Nations have been made aware of the draft ESRR and their comments have been invited. WIFN has been engaged to provide an independent review of the draft ESRR for comments using their outside review contactor Neegan Burnside (N-B). WIFN has agreed to share the N-B report with the other 7 First Nations.</p> <p>3) The AERMOD input summary table and details on how the input parameters have been added to the revised Air Quality Impact Assessment Report. Sample calculations for the emission rates used in the report are included in Appendix B of the revised Air Quality Impact Assessment Report</p> <p>4) These have been supplied to the MECP Jan 13, 2022</p> <p>5) Acknowledged.</p>
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<p><b>MECP</b></p> <p>Comments on review of Draft ESRR January 6, 2022</p>	<p>6) Section 2.2 of the AQIA states that the ministry’s Sarnia Air Quality Health Index Station 14111 “...at 700 Christina St. North, Centennial Park...” was used for background air quality concentrations between 2016 and 2020. For clarity, please remove “Centennial Park” from this statement. Station 14111 was located at Centennial Park until December 2015 before being relocated approximately 500 metres to 700 Christina St. North.</p> <p>7) Section 2.2 of the AQIA states: “This value represents the average of the highest concentrations of the contaminant detected in the ambient air at the 2 sampling stations over a sampling interval representing 90% of the total sampling time.” Please clarify what is meant by “2 sampling stations”. Typically, the highest 90th percentile value of the air stations reviewed would be used as the background concentration.</p> <p>8) Please clarify why Table 2a of the AQIA provides the 90th percentile concentration for the 1-hour averaging periods but not the 8-hour or 24-hour averaging periods.</p> <p>9) Table 2a of the AQIA should include a 1-hour averaging period for SO2 for comparison against the existing revised hourly Ambient Air Quality Criteria (AAQC) and upcoming (2023) revised hourly O. Reg. 419/05 Schedule 3 air standard of 40 ppb</p> <p>10) Please clarify the following information pertaining to Table 2b of the AQIA:</p> <p>a. Please confirm that each value represents data from one station rather than an average of several stations.</p> <p>b. Please include a footnote to indicate which Clean Air Sarnia and Area (CASA) stations the data represents and why that station was selected.</p> <p>c. An additional footnote should be added to include the following wording from the CASA web page:  <i>“Air quality data on this website are automatically polled from the Clean Air Sarnia and Area monitoring network and are intended for public awareness. Because the data is real time, they have not undergone complete quality control and quality assurance procedures, and so they may contain errors and are subject to change. The real-time air quality data on this web page are considered “unverified data” and should not be used in published documents.”</i></p> <p>d. It appears that 1-hour PM2.5 and NO2 data from the Aamjiwnaang station has been included under the “24 h Maximum” rows for these parameters. Please revise.</p>	<p>6) “Centennial Park” has been deleted.</p> <p>7) The statement indicates that the 90th percentile represents the average of the highest concentration of the contaminant individually reported by the MECP and CASA sampling stations. It is recognized and agreed that the highest 90th percentile would be used as the background concentration.</p> <p>8) The 90th percentile for both of the 8-hour and 24-hour averaging periods has now been included in Table 2a of the AQIA.</p> <p>9) The SO2 1-hour averaging period (90th percentile) has been added to Table 2a</p> <p>10)a. For NO2 1 h – the Aamjiwnaang station value was used since LaSalle Line and Moore Line did not have NO2 data; For NO2 24 h – the Aamjiwnaang station value was used since it reported the highest reading (LaSalle Line had no reported reading); For PM2.5 for both averaging periods, the highest reading between Aamjiwnaang and Moore Line was used (no information for LaSalle Line); SO2, maximum value between Aamjiwnaang and LaSalle Line was used (no information for Moore Line)</p> <p>b. The suggested footnote has been added.</p> <p>c. The suggested footnote has been added.</p> <p>d. The correction has been made in the report.</p>
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<p><b>MECP</b></p> <p>Comments on review of Draft ESRR January 6, 2022</p>	<p>11) Section 8.1 of the AQIA states, “Volatile Organic Compounds (VOCs) emissions will be very small but they were also modelled. However, since no AAQC for VOCs have been established, their impact on ambient air quality cannot be determined directly.” While there isn’t an AAQC for total VOCs, AAQCs for individual VOCs are available and should be included in this report for assessment of impacts on air quality. Please also note the Environment and Climate Change Canada Sarnia air monitoring station 61009, also located at 700 Christina St. N, measures VOCs. Data for select VOCs including benzene, 1,3-butadiene, ethylbenzene, isomers of xylene and toluene is available online at National Air Pollution Surveillance (NAPS) Program - Environment and Climate Change Canada Data. Please include this data as part of Table 2a.</p> <p>12) Please include VOCs in the point of impingement and combined effect assessment sections of the AQIA.</p> <p>13) Please note that the Ambient Air Quality Criteria (AAQCs) and Canadian Ambient Air Quality Standards (CAAQS) apply to NO<sub>2</sub> rather than NO<sub>x</sub>.</p> <p>14) The combined effect assessment section of the AQIA should also include the 1-hour and annual 2025 NO<sub>2</sub> CAAQS (Air Quality (ccme.ca)) for comparison purposes only. It appears that 90th percentile NO<sub>2</sub> combined effect concentrations for some scenarios at the POI and at receptor 1 will be above the 1-hour CAAQS value using a direct comparison. However, predicted adherence with the CAAQS using the CAAQS metrics of the three-year average of the annual 98th percentile of the daily maximum 1-hour average concentration is not required for this assessment. Including the 1-hour and annual CAAQS values as a direct comparison will provide additional context for potential air quality impacts.</p> <p>15) The AQIA should include a description of any predicted air quality impacts during construction as well as proposed mitigation measures.</p>	<p>11) Benzene, benzene, 1,3-butadiene, ethylbenzene, isomers of xylene and toluene AAQC's has been included in the Table 2a. NAPS data has been included in the revised AQIA report.</p> <p>12) VOCs POI and the combined effect assessment has been included in the revised AQIA</p> <p>13) Acknowledged. NO<sub>x</sub> has been changed to NO<sub>2</sub> in the revised AQIA</p> <p>14) The 1 h and annual 2025 NO<sub>2</sub> have been added to the revised assessment in the AQIS sections 8.1 and 9.4. It is acknowledged that the CAAQS air quality criteria are for comparison purposes only. It appears that 90th percentile NO<sub>2</sub> combined effect concentrations and for some scenarios at the POI and at receptor 1 will be above the 1-hour CAAQS value using a direct comparison. It is also acknowledged that predicted adherence with the CAAQS using the CAAQS metrics of the three-year average of the annual 98th percentile of the daily maximum 1-hour average concentration is not required for this assessment. Including the 1-hour and annual CAAQS values as a direct comparison will provide additional context for potential air quality impacts.</p>
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<p><b>MECP</b></p> <p>Comments on review of Draft ESRR January 6, 2022</p>	<p><b>Surface Water</b></p> <p>16) The proponent should ensure that any relevant requirements for a Permit to Take Water (PTTW) will be met, and the means by which any applicable PTTW requirements will be met should be addressed in the Report. Section 3.1 of the Report states that the Hydrogen Ready Power Plant (HRRP) will be receiving water for process cooling, “...from a new 14” lateral line from a local industrial supplier to the south/west (under construction for service in 2022)”. If the local industrial supplier being referred to is Terra, which has approval to provide water to Greenfield South Power Corp. (i.e. the Green Electron Power Plant) under their PTTW No. 1721-BLQM8C, then the proponent should consider whether the HRRP will have to be approved under Terra’s PTTW as a new Authorized User, or alternatively, if the HRRP will also be under the ownership of the proponent’s affiliated company Greenfield South Power Corp., whether the HRRP will not be exceeding the amount of 10,200,000 L/day between the two power plants as required by the conditions in the PTTW.</p> <p>17) The Report indicates that no water (sanitary, industrial sewage or stormwater) will be leaving the site via natural drainage. Provided that the proponent’s proposal to discharge sanitary sewage and industrial stormwater to the municipal wastewater treatment facility for treatment is acceptable to the municipality, the ministry has no concerns in this matter.</p> <p>18) The Report indicates that stormwater for the undeveloped portion of the site will remain as per predevelopment conditions, whereas the stormwater from the developed portion of the site will be collected and conveyed to the cooling water basin and used as makeup water for the cooling process. Calculations indicate that the cooling water basin, in addition to pipes and surface storage will contain the major storm events (up to the 1:100 year storm). Calculations also indicate that the volume of water stored within the cooling tower basin will be used within 8 hours of normal production. At this point in the Class EA process the ministry is unable to confirm the validity of the calculations – this will occur during the Environmental Compliance Approval application stage under engineer review.</p>	<p>Acknowledged.</p> <p>Acknowledged.</p> <p>Acknowledged</p>
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<p><b>MECP</b></p> <p>Comments on review of Draft ESRR January 6, 2022</p> <p>Additional MECP comments received March 14, 2022</p>	<p>Thank you for circulating this draft Report for the ministry’s consideration. Please document the provision of the draft Report to the ministry as well as this Project Review Unit Comments letter in the final report, and please provide an accompanying response letter to support our review of the final report. A copy of the final Notice should be sent to the ministry’s Southwest Region EA notification email account (<a href="mailto:eanotification.swregion@ontario.ca">eanotification.swregion@ontario.ca</a>).</p> <p>1) The fourth column of Table 6.2 – GHG Emissions in Section 6.3 of the Report is labeled “20% Natural Gas – 80% Hydrogen Emissions (tonne)”. Should this instead be “80% Natural Gas – 20% Hydrogen Emissions (tonne)” to be consistent with the scenarios detailed in Table 6.1 – Emission Summary Table presented in Section 6.1?</p> <p>2) The air dispersion modelling for the Hydrogen Ready Power Project, as operated by Eastern Power, was conducted based only on the emission sources from the Project. Although the stack at the Greenfield South Power Corporation (Greenfield South Power) facility was included in the source list in the model, this stack’s emissions were given as 0.0 g/s. The entire property boundary of the site where both facilities will be situated, however, was used as the property boundary for the Hydrogen Ready Power Project.</p> <p>3) For the purposes of the Environmental Compliance Approval (ECA) for the Project, there are three options for defining the appropriate property boundary for the air dispersion modelling:</p> <p>a. If Eastern Power and Greenfield South Power want to be considered as separate entities, then an internal boundary within the property needs to be defined in order to separate the two facilities. Eastern Power would only need to model its own emissions, but the internal boundary would now form part of its property line for the purposes of air dispersion modelling. Similarly, Greenfield South Power would need to update its Emission Summary and Dispersion Modelling (ESDM) report to reflect the new internal boundary.</p>	<p>This response table including those for March 14, 2022 will also be included as a separate file to accompany the cover letter for submission of the final ESRR files to the MECP.</p> <p>Table 6.2 of ESRR has been revised accordingly.</p> <p>Acknowledged</p> <p>Option 3a has been selected as these are separate entities and based on previously established GHG reporting boundaries. The AERMOD emission modelling has been updated to reflect this internal boundary within the overall property for the purpose of air dispersion modeling.</p>
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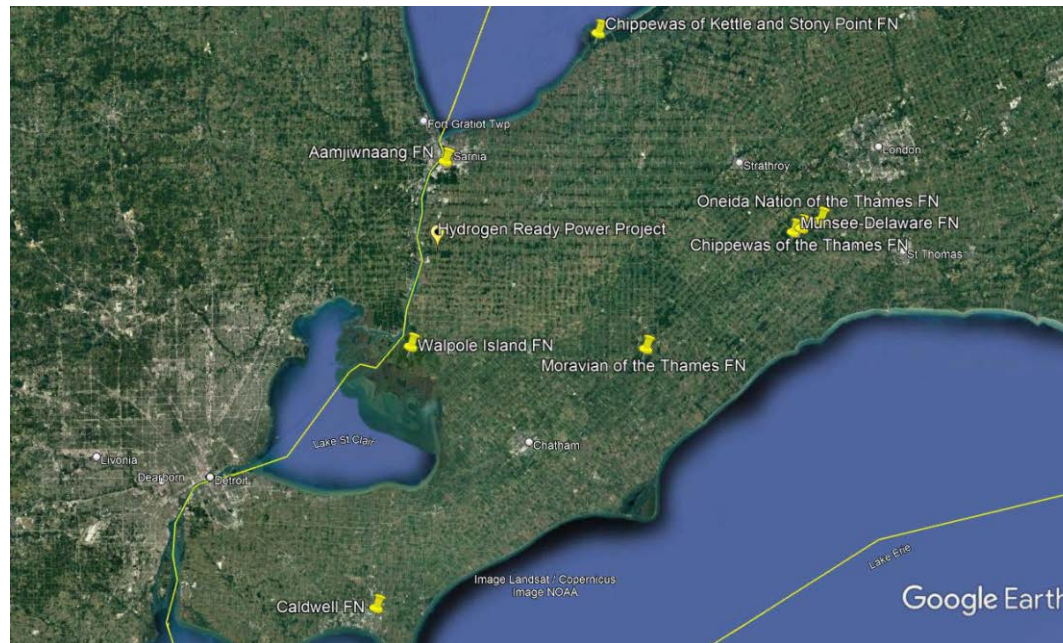
	<p>b. If Eastern Power and Greenfield South Power want to be considered as a single property with a single property boundary for the purposes of air dispersion modelling, then both facilities would need to notify the ministry under Section 4 of O. Reg. 419/05 Air Pollution – Local Air Quality that they are adjacent properties. In this case, the facilities would need to prepare a joint ESDM report including all sources that emit the air contaminants that they have in common.</p> <p>c. However, if Eastern Power and Greenfield South Power have the same legal name, then there is only one property and one property boundary. In doing the air dispersion modelling, all on-site sources would need to be included in the modelling and a single ESDM report would be prepared.</p> <p>4) Section 8.2 of Appendix 17.2 Air Quality Impact Assessment Report (the AQIA) of the Report states that the anemometer height for the 5-year regional meteorological data set that was used was 278 meters. This height is actually the elevation of the base of the anemometer, and the anemometer height is 10 m.</p> <p>5) Section 9.1 of the AQIA identifies sources as STK 2003 and STK 2004, whereas in Table 6a, Table 6b and Table 6c they are identified as STK 2002 and STK 2003, which is consistent with the names used in the modelling. In any case, the names used for the sources should be consistent.</p>	<p>The anemometer height has been corrected to 10 m.</p> <p>STK 2003 has been changed to STK 2002. STK 2004 has been changed to STK 2003</p>
<p><b>St. Clair Township</b> August 4, 2021</p>	<p>Thank you for sending along the attached information package for Council. I know that we had discussed having your team on the agenda as a delegation to speak with Council, however this meeting agenda currently has an extremely high volume of items as well as deputations to Council so I was wondering if we could include your information package on the agenda as an information item for the Mayor and Council to review and funnel any questions that they may have through Staff. If need be, we could always add your team to the next upcoming agenda in September should they wish to do so. Does that work? This way, Council gets this information in a timely manner.</p>	<p>Agreed as useful approach; package was sent for distribution to Council</p>



<p><b>St. Clair Region Conservation Agency</b> July 26, 2021</p>	<p>Thank you, your email has been received. Due to an unprecedented number of applications being received, I am unable to respond immediately.</p>	<p>Discussion with SCRCA as to possible need for fill permit to be determined later</p>
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## 5. Responses from First Nations Consultation

The HRPP site lands and the overall GSPC property on which HHRP is to be sited are not part of any First Nation reserve lands or on lands subject to any pending claims by any aboriginal communities. There are two First Nation reserves in the near region of the project site. The Aamjiwnaang First Nation (AFN) is approximately 20 km to the north of the site and the Walpole Island First Nation (WIFN) is approximately 20 km to the south. The location of these First Nations relative to the HRPP site is shown in Figure 2.



**Figure 2 Location of First Nations in relation to the HRPP Project**

Both the WIFN and AFN had responded through consultative engagement for the earlier (2012-2013) outreach/consultation process for GSPC's Green Electron Power Project. Ongoing continued consultations had occurred with both of these after the GEPP project went into full commercial operation. Both the WIFN and AFN were again consulted for the HRPP project, in addition to six other FNs in the broader region of the HRPP site.

The Table below lists the eight FNs contacted and briefly summarizes the consultation record with their Band Chiefs and/or their Consultation or Environmental Coordinators. An example copy of the information package as initially sent to these First Nations is included in Appendix A4, noting each FN had received a personalized information package on the HRPP project. Complete details of all correspondence are not included here but are available.

<b>First Nation (distance from HRPP site)</b>	<b>Consultative Outreach</b>	<b>Response (as of March 28 , 2022)</b>
Aamjiwnaang First Nation (20 km north)	<p>July 9, 2021; Courier Letter to Band Council Chief informing of project and wish to discuss. July 9: email letter to Band Council Chief and Band Environmental Coordinator</p> <p>July 21, 2021; Courier letter to Band Chief July 21, 2021; email letter to Band Chief Plain and environmental coordinator</p> <p>Nov 1, 2021; telephoned Band Environmental Coordinator- no answer and voice-messaged requesting return call.</p> <p>Dec 12, 2021; resent letter and project information to Band Council Chief and Environmental Coordinator.</p> <p>Feb 7, 2022; sent email letter and previous information to new Band Environmental Coordinator and Band Chief informing of ESRR review for input and comments by WIFN consultants and IAAC review with request for comments.</p> <p>March 4, 2022; email response from AFN Environmental Coordinator re presentation to Environmental Committee.</p> <p>March 11, 2022 made ESRR and reports available to consultation officer for review</p>	

*Hydrogen Ready Power Plant Project – Agency and First Nations Consultation Report*

	<p>March 14, 2022; met with environmental coordinator and reviewed and discussed project in preparation for presentation to environmental committee.</p>	<p>Presentation to be made to Environmental Committee April 5, 2022.</p>
<p>Walpole Island First Nation (20 km south)</p>	<p>July 9, 2021; Courier Letter to Band Council Chief with information on project and request to discuss.            July 9, email letter to Band Council Chief and Band Environmental Coordinator            July 21, 2021 Courier letter to Band Council Chief            July 21, 2021 email letter/information to Band Council Chief and Band Environmental Coordinator with request to discuss project and get input.</p> <p>Nov 1, 2021 telephoned Band Environmental Coordinator- no answer and voice-messaged for return call            Nov 1, 2021 emailed new Band Environmental Coordinator</p> <p>Dec 22, 2021; emailed Band Environmental Coordinator informing of MECP ESRR progress and request for input to finalize ESSR</p>	<p>Email Nov 1, 2021 from Band Environmental Coordinator, indicating new Band Environmental Coordinator</p> <p>Jan 6, 2022- Environmental Coordinator requested review of ESRR by WIFN and independent consultants – focus on emissions and noise            Feb 7, confirmed review underway            Feb 4-9, 2022; Environmental</p>

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	<p>Feb 11, 2022; meeting (ZOOM) with former and current Environmental Coordinators to discuss project and get input and comments as to review for ESRR finalization, Independent review of ESRR arranged with WIFN/Neegan Burnside (WIFN's independent consultants)</p>	<p>Coordinator arranged discussion with IAAC</p> <p>Feb 23, 2022; WIFN Environmental Coordinator agreed to share Neegan Burnside Review of ESRR with other First Nations; final report shared with the other FNs</p> <p>March 28, 2022</p>
<p>Chippewas of Kettle &amp; Stoney Point First Nation (55 km northeast)</p>	<p>July 9, 2021 Courier Letter to Band Chief ; announcement of project and information provided July 9, email letter to Band Chief</p> <p>July 21, 2021 Courier letter to Band Chief - follow-up request for comments and questions July 21, 2021 email letter to Band Chief Henry Nov 1, 2021 telephoned Band Chief - no answer and voice-messaged requesting return call Dec 22, 2021; follow-up letter to Band Chief inviting comments and questions Feb 7, 2022; letter to Band Chief –follow-up request, informed of ESRR review and invitation for comments, informed of IAAC review</p> <p>Feb 18, 2022- meeting arranged to discuss project, ESRR review/finalization and IAAC review</p>	<p>Feb 11, email from consultant advisor requesting a meeting to discuss project</p> <p>Feb 18, 2022; discussion of HRPP project – expressed desire to obtain Neegan Burnside Review Report of ESRR for their review.</p>

*Hydrogen Ready Power Plant Project – Agency and First Nations Consultation Report*

<p>Caldwell First Nation (82 km south)</p>	<p>July 9, 2021 Courier Letter to Acting Council Chief July 9, email letter to Acting Council Chief – advising of project and invitation to discuss.</p> <p>July 21, 2021 Courier letter to Acting Council Chief - follow-up request for any comments or questions July 21, 2021 email letter to Acting Council Chief</p> <p>Nov 2, 2021 telephoned for Acting Chief - informed of new Council Chief Nov 2, 2021 emailed new Council Chief including all info as had sent in July to Acting Chief</p> <p>Dec 22, 2021; follow-up request to Council Chief, informing of ESRR and desire for any comments to finalize ESRR</p> <p>Feb 07, 2022; follow-up informing of WIFN/consultant review of ESRR for finalization, IAAC review and request for any comments of questions.</p>	
<p>Chippewas of the Thames First Nation (78 km east)</p>	<p>July 9, 2021; Courier Letter to Council Chief informing of project and provided information July 9, email letter to Council Chief invitation for comments or questions</p> <p>July 21, 2021 follow-up Courier letter to Council Chief July 21, 2021 email letter to Council Chief</p> <p>August 5, 2021 emailed coordinator thanking for response and plan to meet by Zoom once ESRR report available to send and discuss.</p> <p>Dec 22, 2021; letter to coordinator re invitation for</p>	<p>August 4, 2021 letter from coordinator, indicating minimal concerns and desire to review electronic copy of ESRR once available.</p>

*Hydrogen Ready Power Plant Project – Agency and First Nations Consultation Report*

	<p>comments on ESRR, comments received from MECP. WIFN/consultants review of ESRR</p> <p>Jan 18, 2022; meeting (Zoom) with coordinators to discuss ESRR status; ESRR files sent via FTP link.</p>	<p>Jan 13, 2022- response from energy sector consultation coordinator requesting copy of Draft ESRR for review and comments</p> <p>Jan 18, 2022; consultation coordinator confirmed has ESRR files for their review.</p>
<p>Munsee-Delaware First Nation (78 km east)</p>	<p>July 9, 2021 Courier Letter to Council Chief; announcing project and provided information and invitation to discuss.                  July 9, email letter to Council Chief                  July 21, 2021 Courier follow-up letter to Council Chief                  July 21, 2021 email letter to Chief Peters</p> <p>Feb 2, 2022; follow-up letter to Band Council Chief re ESRR comments received from MECP, WIFN/consultants review of ESRR, IAAC review and request for any comments or questions on project.</p>	
<p>Delaware First Nation (46 km east)</p>	<p>October 7, 2021 courier letter to Council Chief – announced project, invited comments questions                  October 7, 2021 email to Council Chief</p> <p>Nov 2, 2021 called Council Chief and messaged her requesting a call                  Nov 2, 2021 follow-up email to Council Chief with copy of letter sent Oct 7, with invitation to discuss or answer questions.</p> <p>Dec 22, 2021; follow-up letter to Council Chief re draft</p>	

*Hydrogen Ready Power Plant Project – Agency and First Nations Consultation Report*

	<p>ESRR and invitation to discuss and provide input to finalize ESRR,</p> <p>Feb 7, 2022; follow-up on ESRR review/finalization, comments received from MECP, WIFN/consultants review of ESRR and IAAC review of project; invitation for comments or questions.</p>	
<p>Oneida Nation of the Thames (83 km southeast)</p>	<p>October 7, 2021 courier letter to Council Chief ; announcement of Project and MECP EA; invitation for comments October 7, 2021 email to Council Chief; project information provided</p> <p>Nov 2, 2021 called Council Chief and messaged him requesting a return call</p> <p>Dec 22, 2021: follow-up informed of ESRR and invited comments to finalize.</p> <p>Feb 07, 2022; updated on ESRR comments received from MECP. WIFN/consultants review of ESRR to finalize, IAAC review and invitation to provide any questions or comments,</p>	

## **Conclusion**

This Government Agency and First Nations consultation program for the environmental screening and review of the Hydrogen Ready Power Project was designed and carried out to allow the proponent to inform and receive input from all government agencies with jurisdiction or a program interest and from First Nations as related the HRPP project.

The consultation program elicited various responses from several government agencies and also from First Nations and their inputs were addressed in the environmental screening and review process. A draft of the Environmental Screening and Review Report including this consultation report was circulated to the Ministry of the Environment Parks and Conservation, to obtain MECP technical comments and input prior to the completion of the ESRR and its appended reports.

Consultation with government agencies and with First Nations will continue throughout all phases of the project as appropriate.



## **APPENDIX A1 – List of Government Agencies with Jurisdiction or Program Interest**

### Provincial Agencies

Ministry of Agriculture, Food and Rural Affairs (OMAFRA)  
Ministry of Heritage, Sport, Tourism and Culture Industries  
Ministry of Energy  
Ministry of Infrastructure  
Ministry of the Environment, Conservation and Parks  
Ministry of Northern Development, Mines, Natural Resources and Forestry  
Ministry of Transportation (MTO)  
Ministry of Indigenous Affairs  
Ontario Energy Board  
Independent Electricity System Operator

### Federal Agencies

Environment and Climate Change Canada  
Impact Assessment Agency of Canada (formerly Canadian Environmental Assessment Agency)  
Crown-Indigenous Relations and Northern Affairs Canada  
Canada Energy Regulator  
Transport Canada  
Fisheries and Oceans Canada

### Municipal Agencies

Township of St. Clair  
County of Lambton  
St. Clair Region Conservation Authority

**APPENDIX A2- First Nations Consulted**

Aamjiwnaang First Nation  
Walpole Island First Nation  
Chippewas of Kettle and Stony Point First Nation  
Caldwell First Nation  
Chippewas of the Thames First Nation  
Munsee-Delaware First Nation  
Delaware Nation  
Oneida Nation of the Thames

## APPENDIX A3 – Correspondence with Government Agencies

Example letter (Ministry Indigenous Affairs) shown along with Information sent

### **Bruce Holbein**

---

**From:** Bruce Holbein <BHolbein@easternpower.on.ca>  
**Sent:** July 26, 2021 9:59 AM  
**To:** 'Curtis.Lindsay@ontario.ca'  
**Cc:** info@hydrogenreadypowerplant.ca  
**Subject:** Ministry Indigenous Affairs Consultation Request Environmental Review Power Project St. Clair Township, ONT,  
**Attachments:** Hydrogen Ready Power Plant Information for Governmental Agency Consultation pptx.pdf; Hydrogen Ready Power Project Env Rev Announcement rev FINAL July 14 pdf.pdf

**RE: Request for Comment: Notice of Commencement Ontario Regulation 116/01 Class EA Category B Environmental Review, Hydrogen Ready Power Plant Project, St. Clair Township, ONT**

Dear Agency Official

Please find attached a copy of our Notice of Commencement of Environmental Review of the Hydrogen Ready Power Plant Project as was published in the *Sarnia Observer* July 16, 2021 and the *Wallaceburg Courier* July 22, 2021.

This project is subject to the Environmental Screening Process of the Ontario Ministry of Environment Conservation and Parks, Ontario Regulation 116/01 environmental assessment requirements for electricity projects. After preliminary screening, this Class B project has entered its Environmental Review stage in which air and noise emissions will be subject to more detailed study. Additional background information on the project is also attached.

The purpose of this letter is to inform you of the project and to seek and receive your input as a government agency that may have jurisdiction or a program interest related to this project.

Therefore, can you kindly:

1. Acknowledge receipt of this letter by return email by August 2, 2021, and,
2. Indicate either that your agency has no interest in this project or provide your comments and potential concerns regarding the project by return email by August 23, 2021?

In the meantime, if you have any questions or require any additional information please don't hesitate to contact me.

Thank you for your assistance.

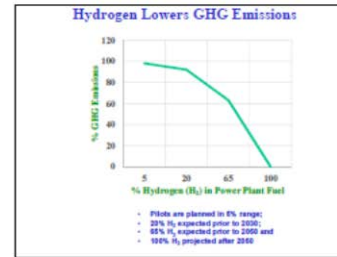
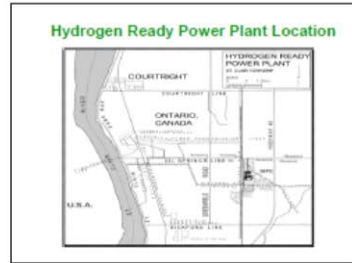
Yours sincerely,

Bruce E. Holbein  
Environmental manager

Bruce E. Holbein B.Sc. (AGR), Ph.D.  
for Eastern Power Inc.

### Hydrogen Ready Power Plant Project, 477 Oil Springs Line

Information for Agency Consultation  
July 23, 2021



### Eastern Power Group

- Since 1985, Ontario Company
- Environmental and Engineering Awards
- Build, own and operate power plants
- Early leaders in electrical power GHG reductions
- First Renewable biogas (methane) power 1991
- Designed, constructed and commissioned 300MW Green Electron Power Plant

### Hydrogen Ready Power Plant Project

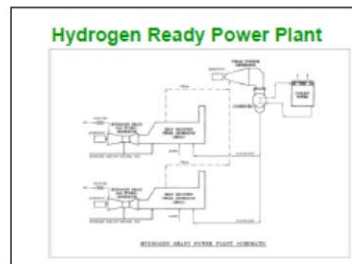
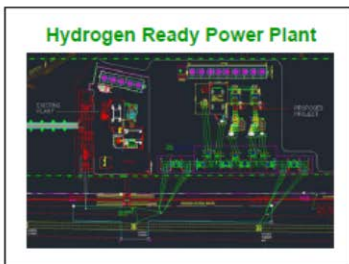
- Notice of commencement of EA published *Sarnia Observer* July 16, 2021 and *Wallaceburg Courier* July 22, 2021
- New plant on same property as Green Electron Power Plant (in operation since 2017)
- Separate independent connection to IESO grid
- Designed to meet increased power needs projected for region by IESO
- Designed to use Hydrogen fuels as well as Natural Gas as part of current move to low GHG emitting Hydrogen Energy Platform underway in Ontario and the rest of Canada
- Earliest date for HKPP construction start 2023



### Eastern Power, 35 Years Successfully Serving Ontario's Power Needs

Brock West Power Plant  
Renewable Power Pickering 1991

Keele Valley Power Plant  
Renewable Power Vaughan 1995



### Hydrogen Ready Power Plant

Virtual Open House  
August 6-13, 2021  
[www.hydrogenreadypowerplant.ca](http://www.hydrogenreadypowerplant.ca)

### Government & NGO Info

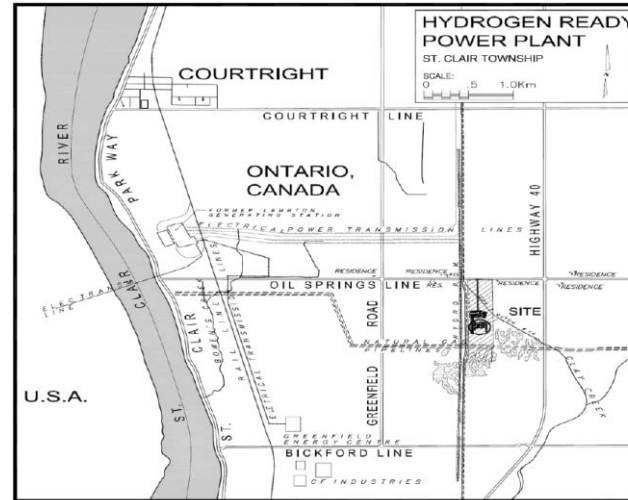
- <https://www.environment.ca.gov/>
- <https://www.environment.ca.gov/topics/hydrogen>
- <https://www.ieso.ca/en/About-Us/News-Room/2021/08/03>
- <https://www.ieso.ca/en/About-Us/News-Room/2021/08/03>

APPENDIX A4 –Information provided to First Nations with July letter

# Hydrogen Ready Power Plant Project, 477 Oil Springs Line

Information for AFN  
July 21, 2021

## Hydrogen Ready Power Plant Location



## Hydrogen Ready Power Plant Project

- Notice of commencement of EA published Sarnia Observer July 16, 2021 and Wallaceburg Courier July 22, 2021
- New plant on same property as Green Electron Power Plant (in operation since 2017)
- Separate independent connection to IESO grid
- Designed to meet increased power needs projected for region by IESO
- Designed to use Hydrogen fuels as well as Natural Gas as part of current move to low GHG emitting Hydrogen Energy Platform underway in Ontario and the rest of Canada
- Earliest date for HRPP construction start 2023

**NOTICE OF COMMENCEMENT OF ENVIRONMENTAL REVIEW**



Hydrogen Ready Power Plant (HRPP) is a planned project by Eastern Power Inc. (EPI) an affiliate of Greenfield South Power Corporation (GSPC). EPI plans to construct and operate a hydrogen/natural gas fueled electricity generating facility (nominal capacity 600 MW) on land leased from GSPC on Oil Springs Line, St. Clair Township (see map). This facility will address needs for additional electricity generating capacity in Ontario's South-West region as identified by the Independent Electricity System Operator (IESO). The facility will have new connections to the IESO-controlled 230 kV Hydro One electricity transmission grid directly adjacent to the project site. HRPP will be able to use hydrogen-enriched natural gas, or natural gas from gas lines currently on the site. Water will also come from existing supply lines on the GSPC property. The main components of this combined cycle facility include two advanced-design gas turbines capable of using new hydrogen fuel mixtures planned by local gas suppliers. Local gas suppliers have programs under way to develop hydrogen-enriched pipeline fuel mixtures to achieve lower GHG emissions as part of the overall commitment to help Ontario meet its carbon emission reduction targets. The facility will be operated by qualified operating engineers and will meet all applicable regulations, by-laws and legislation.

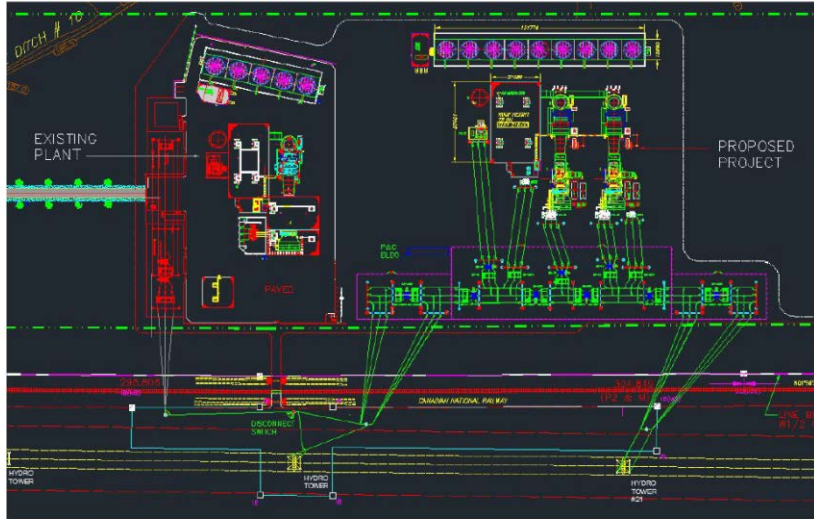
This project is subject to the Environmental Screening Process of the Ontario Ministry of Environment Conservation and Parks, Ontario Regulation 116/01 environmental assessment requirements for electricity projects. After preliminary screening, the project is now entering its Environmental Review stage in which air and noise emissions will be subject to more detailed study. EPI has previous experience in managing these activities and will also manage the eventual proposed construction phases.

You are invited to obtain more information about this project on the project's website. You are also invited to attend a virtual open house to be held on the project website between August 6, 2021 and August 13, 2021, to ask questions that you may have and to provide us your comments. To comment on this project or for more information, please contact:

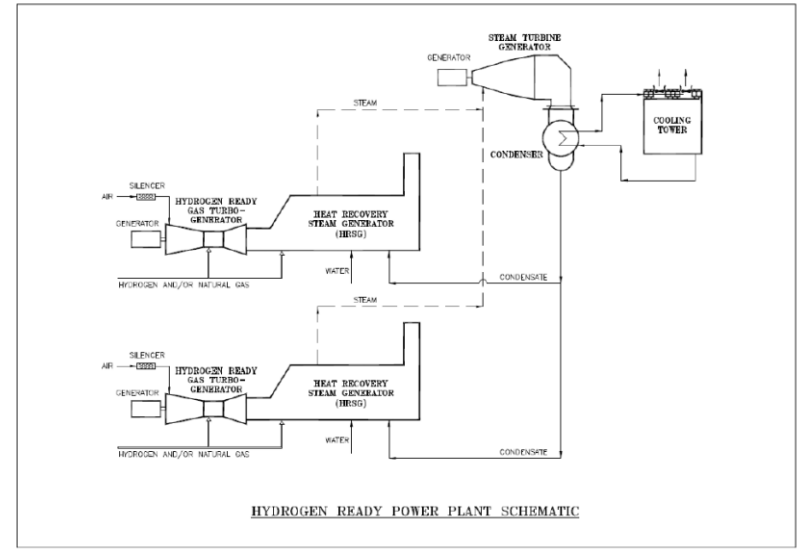
**Bruce E. Holbein Ph.D., Environmental Manager or Raman Raghavan P.Eng., Project Manager**

Eastern Power Inc.  
2275 Lake Shore Boulevard West, Suite 401  
Toronto, Ontario M8V 3Y3  
Tel: 416-234-1301 Fax: (416) 234-8336  
E-mail: info@hydrogenreadypowerplant.ca  
Web Site: www.hydrogenreadypowerplant.ca

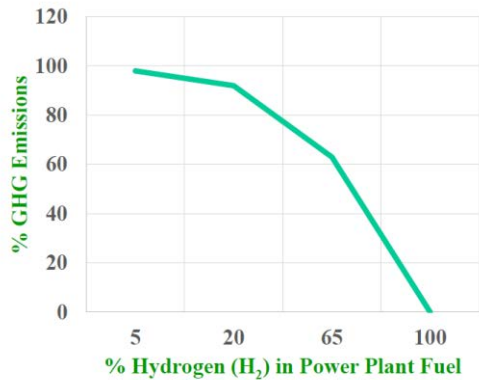
## Hydrogen Ready Power Plant



## Hydrogen Ready Power Plant



### Hydrogen Lowers GHG Emissions

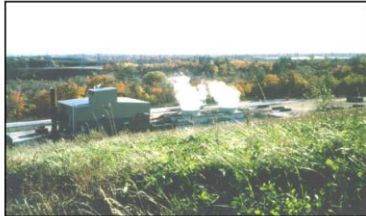


- Pilots are planned in 5% range;
- 20% H<sub>2</sub> expected prior to 2030;
- 65% H<sub>2</sub> expected prior to 2050 and
- 100% H<sub>2</sub> projected after 2050

### Eastern Power Group

- Since 1985, Ontario Company
- Environmental and Engineering Awards
- Build, own and operate power plants
- Early leaders in electrical power GHG reductions
- First Renewable biogas (methane) power 1991
- Designed, constructed and commissioned 300MW Green Electron Power Plant

## Eastern Power, 35 Years Successfully Serving Ontario's Power Needs



**Brock West Power Plant**  
**Renewable Power Pickering 1991**



**Keele Valley Power Plant**  
**Renewable Power Vaughan 1995**



## 300MW Green Electron Power Plant



## Hydrogen Ready Power Plant

**Virtual Open House**

**August 6-13, 2021**

**[www.hydrogenreadypowerplant.ca](http://www.hydrogenreadypowerplant.ca)**

## Government & NGO Info

- <https://hydrogencouncil.com/en/>
- <https://hydrogencouncil.com/en/hydrogen-decarbonization-pathways/>
- <https://www.ontario.ca/page/low-carbon-hydrogen>
- <https://news.gov.bc.ca/releases/2021EMLI0045-001306>