

# Planning Justification Report

Battery Energy Storage System Facility  
267 Neil McGregor Road, Cramahe Township



Proposed BESS

February 20, 2024 (draft 2)

Solar Flow-Through Funds

SolarBank Corporation

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## **1 Introduction**

DeLoyde Development Solutions has been retained by SolarBank to provide professional planning services in connection with the proposed Battery Energy Storage System (BESS) operation at 267 Neil McGregor Road in Cramahe Township.

## **2 Purpose of Report**

To report on the municipal planning policy and zoning justification for approvals required under the Planning Act to permit SolarBank's proposed 4.99 MW BESS. This report also includes a proposed Zoning By-law Amendment to Cramahe Township By-law 2008-18 to permit the proposed BESS facility on the subject lands in accordance with the Planning Act and Township of Cramahe land use planning requirements.

## **3 Site Description and Context**

### **3.1 Location of Property**

The subject lands are known municipally as 267 Neil McGregor Road, Grafton. Neil McGregor Road forms the mutual boundary between Cramahe and Haldimand Townships. The lands are located on the southeast corner of Neil McGregor Road and Pipeline Road as shown See Figure 1 below.

**Figure 1 – Location of Subject Property**



### 3.2 Property Boundary and Site Characteristics

The subject lands have a total land area of 4.68 hectares and are occupied by a solar farm as shown on the site plan map. The subject lands are generally flat, contain an existing solar array and a power line connection to the grid on Neil McGregor Road. An existing gravel access driveway in the northwest corner of the site connects the subject lands to Neil McGregor Road. The south limit of the property is traversed by a Trans-Canada natural gas pipeline easement which is 180 m away from the south limit of the proposed BESS. The site drains naturally to the southeast. There is no significant tree cover on the subject lands consistent with its current agricultural use. Soybean crops were recently observed on the subject lands beyond the solar farm.

No land severances are proposed. The applicant has entered into a lease agreement with the property owner for the BESS site lands for 25 years, until 2047. See Figure 1

above for the existing property boundary that is expected to remain unchanged throughout the life of the proposed BESS.

### 3.3 Property Ownership and Legal Description

The subject 4.69 ha lands are owned by 10000105919 Ontario Inc.

The lands are legally described as PT LT 35 Concession 5 Cramahe. A reference plan describes the subject property as Parts 1,2, and # Plan 38R4181

Property identification number (PIN) – 51132-0338 (LT)

A legal survey is attached as part of this application.

### 3.4 Site Context and Surrounding Land Uses

The subject lands and surrounding area are characterised as rural.

**West:** Solar farm and agricultural lands

**North:** Agricultural lands

**East:** Agricultural lands

**South:** TransCanada natural gas pipeline and agricultural lands.

The site slopes gently to the southeast. Groundwater is expected to flow to the southeast.

### 3.5 Road Access and Utilities

The proposed BESS facility location is easily accessible from Neil McGregor and Pipeline Roads. Area roads are maintained on a year-round basis. An existing gravel laneway connects the proposed BESS site in the northwestern corner of the site, adjoining solar array to the south. An existing electrical line and related communications services connects the solar array and proposed BESS Ontario's public power grid and national telecommunications systems.

## 4 Project Description

### 4.1 Battery Energy Storage System (BESS) Proposal

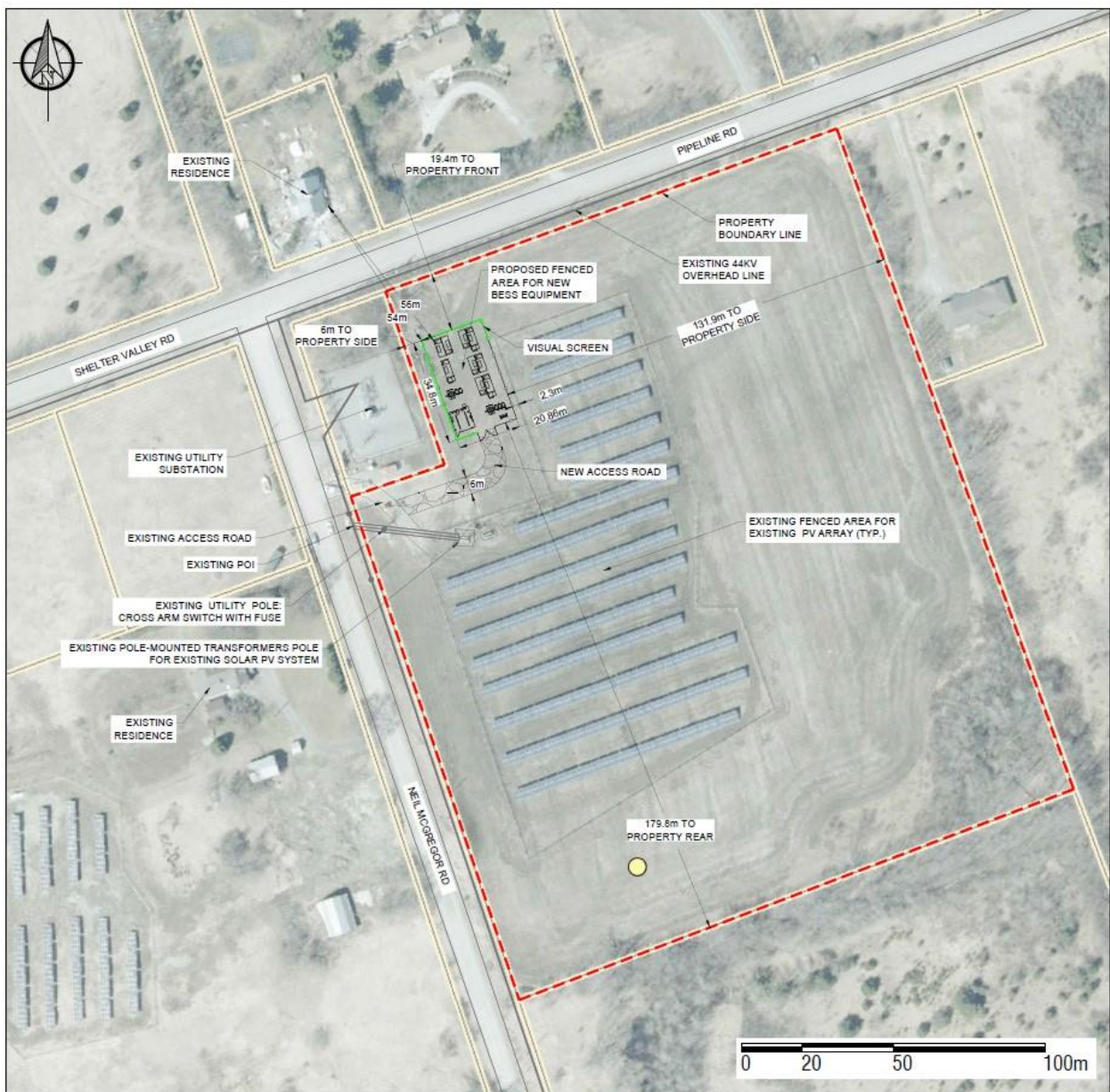


The applicant proposes to co-locate a 4.99 megawatt BESS operation with an existing solar array on approximately .5 hectares of land as shown on the plan shown on Figure 2 below.

While new to Cramahe Township, there are a growing number of BESS sites in North America, including downtown Toronto. The BESS is described in detail in the primer document contained in Appendix 2.

Ontario's public utility operator, IESO, has approved the Neil McGregor property for an expedited contract as set out in Appendix 1.

**Figure 2 – Site Plan**



#### **4.2 Concurrent Site Plan Application**

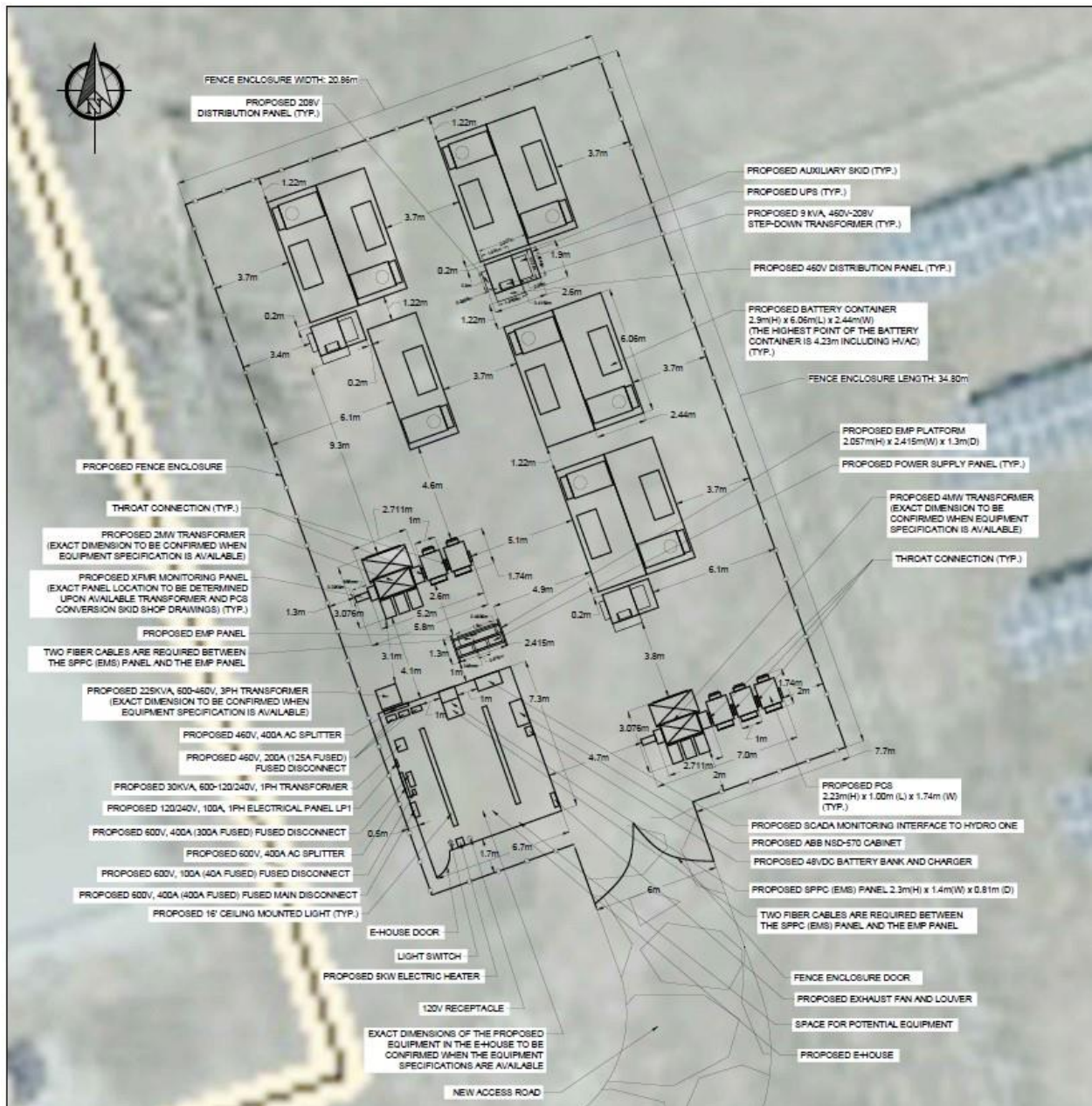
SolarBank has submitted a concurrent Site Plan Approval application with this rezoning application to the Township of Cramahe to illustrate the proposal and streamline planning approvals.

SolarBank understands that site plan and building permit approvals must follow the proposed zoning amendment.

The proposed Site Equipment Layout is shown in Figure 3 below:



**Figure 3 - Proposed BESS Equipment Layout**



#### 4.4 Cramahe Council's First Consideration of BESS on October 20, 2022

Cramahe Council considered and lent its support for the establishment of a BESS plant on the subject lands on October 20, 2022. Cramahe Township Council's resolution #268 of support was very helpful in securing IESO approval to proceed with the proposed BESS operation. See Municipal Support Resolution in Appendix 1.

## **5 Pre-consultation and Supporting Studies and Materials**

### **5.1 Pre-consultation**

The proponent SolarBank met with Cramahe Township CAO and staff in fall of 2022 to discuss the proposed BESS and held a public meeting as part of the community engagement plan. On October 20, 2022, the proponent met with Township of Cramahe Council to present the BESS proposal. Council received the proponent's BESS presentation on October 22, 2022, and granted a Municipal Support Resolution #268.

On January 17, 2024, DeLoyde Development Solutions (DDS) met with the proponent, senior Township staff and the Township planner to discuss zoning matters and studies and plans that have been completed.

DDS met on January 19, 2024, with Cramahe planning staff and its consultant to complete the preconsultation step and to identify the next steps needed to allow the BESS operation to proceed to development. The SolarBank rezoning application and related site plan submissions follow the advice given by Township of Cramahe staff.

### **5.2 Reliance on Studies**

The following provides a summary of the accompanying studies and other information reports that DDS we have considered and relied upon in this planning justification report.

#### **5.2.1 Natural Heritage**

The subject lands slope to the northward toward Neil McGregor Road. Some moderate regrading may be needed to level the site to accommodate the BESS operation. No other grading changes to the subject lands are proposed.

There are no identified natural heritage or wildlife habitat features on the subject lands. Accordingly, the site is suitable for the development of the proposed BESS plant and may proceed without any special natural heritage related mitigation measures

#### **5.2.2 Hydrogeology, Well Water and Septic**

There are no wells or septic systems on the subject lands. No well or septic systems are proposed to support the BESS operation which is highly automated.

#### **5.2.3 Stormwater Management**

Drainage of the property is a combination of natural runoff to the southeast and adjoining municipal ditches on Neil McGregor Road and Pipleine Road. Drainage related measures will be confirmed at the site plan approval stage.

#### **5.2.4 Geotechnical Report**

The BESS area will be moderately regraded to accommodate the BESS facility. A geotechnical study is being prepared and will be submitted along with the building permit application.

#### **5.2.5 Archaeological Assessment**

Not required.

#### **5.2.6 Traffic Impact**

No traffic impacts are expected given that the proposed facility is highly automated requiring only occasional visits from technical operations personnel.

#### **5.2.7 Survey**

A legal survey is provided in the SolarBank Zoning By-Law Amendment application package. Applications to show the precise location of the IESO approved 25 year lease area in the sketch provided.

### **5.9 Title**

The subject 4.69 ha lands are owned by 10000105919 Ontario Inc. The project proponent, Solar Flow Through Funds' Special-Purpose Entity "1000234763 Ontario Inc.", has entered into a lease agreement with the property owner for 25 years.

### **5.10 Soils and Wells**

The subject lands do not sit atop significant aggregate resources. The soil on the subject lands is identified Class 4 agricultural lands comprised of sandy silt to silty-sand textured till on a Paleozoic terrain. Bedrock is expected to be located about 80m below the surface.

No gas, oil or salt wells are located on site. Soils are suitable for the proposed BESS use.

### **5.11 Utilities**

The proposed BESS plant will share the existing Hydro One electrical transmission line connection to Ontario's public electrical grid with the adjoining solar farm. Bell and Rogers telecommunications services are readily available to the site.

## 6 Planning Policy Framework and Analysis

The following sections outline the applicable planning policy regime and evaluation of the proposed development in the context of Cramahe Township's planning policies and zoning regulations.

### 6.1 Provincial Policy Statement - Section 1.6.11 Energy Supply

"1.6.11.1 Planning authorities should provide opportunities for the development of energy supply including electricity generation facilities and transmission and distribution systems, district energy, and renewable energy systems and alternative energy systems, to accommodate current and projected needs."

The proposed BESS plant is entirely consistent with the Province of Ontario's energy policy statement.

### 6.2 Township of Cramahe Official Plan

The subject lands are designated "Rural" according to Schedule "A" of the Township of Cramahe Official Plan (OP) office consolidation dated December 2014, as amended.

Part 3.0 Section 15 Basis of the Plan places *"certain emphasis in the need for the municipality to encourage the enhancement of the commercial and industrial base of the Township in order to strengthen the assessment base"*. The proposed BESS will help fulfill this objective.

Part 4 Section 4.3.2 (d) of the plan promotes *"new commercial and industrial development (that) is not located where it would jeopardize existing and future residential applications, disrupt recreational, or impact environmentally sensitive areas"*. The various studies accompanying this rezoning application demonstrate that there will be no negative impacts on the natural environment or surrounding land uses.

Electric Power Facilities OP Land Use Policy Section 5.1.6(a) permits other electric power facilities on Rural lands. Private electric power generation facilities are permitted subject to a rezoning as set out in Sections 5.1.6 b) and c) of the OP.

Section 5.1.9 Development Abutting Pipelines is satisfied because the proposed BESS will be developed well beyond the required 10 m minimum setback from the pipeline easement that traverses the south limit of the property.

Section 5.1.11 Environmental Review requires that studies be undertaken “to ensure that development will not be subject to risk from natural hazards, nor have adverse impacts on natural features, or ground or surface water resources. The studies mentioned in this report and submitted along with proposed rezoning demonstrate that the proposed BESS will not have any negative environmental impact. There are no environmentally or culturally sensitive areas in the vicinity of the proposed BESS.

OP Section 5.1.12 Servicing restricts commercial and industrial uses to those of “a dry nature only”. The plan defines “a use of a *“dry nature” shall mean one in which water is not required in the processing, assembling, fabricating, manufacturing, washing, or cooling, or similar function of the establishment, and which requires water and sewage disposal facilities only for domestic uses, i.e., for employees and visitors to the establishment.* The proposed BESS requires no supporting well or septic system and thus qualifies as a dry use.

Section 5.1.13 Stormwater Management requires that stormwater runoff from development have no adverse impacts. Specifically, Section 5.1.3 a) requires that stormwater runoff from development be managed so as not to result in “*the degradation of water quality, increase in flood potential, interference or reduction of the drainage capacity of an existing watercourse, erosion and sedimentation, and damage or destruction of fish habitat or other environmentally sensitive area*”. The proposed BESS occupies a modest land area and will be established on a gravel pads thus allowing for infiltration. Ditches on adjoining roads will also convey stormwater safely away from the subject lands.

Rural policies contained in Section 5.3 of the OP permits the establishment of small scale industrial operations that are compatible with surrounding land uses subject to the “*provision of an acceptable driveway location, adequate off-street parking and loading facilities, appropriate building setbacks from property boundaries and other uses, landscaping and buffering, and that any lighting or signs are arranged to blend in with the character of adjacent uses*”

In conclusion, the BESS will support the energy distribution grid in Cramahé Township and beyond and serve the community by helping provide a reliable energy supply. We are satisfied that the proposed rezoning to permit a BESS conforms with the land use, environmental protection, transportation, and servicing policies of the Township of Cramahé’s Official Plan.



### 6.3 County of Northumberland Official Plan

The County of Northumberland Official Plan was originally approved by the Ontario Municipal Board on Nov 23, 2016. Portions of the OP are currently under review. Cramahe's OP and Zoning By-law should conform to Northumberland County's OP.

The subject lands are designated "Agricultural Area" according to the County of Northumberland's Official Plan which permits energy related land uses to support County growth objectives.

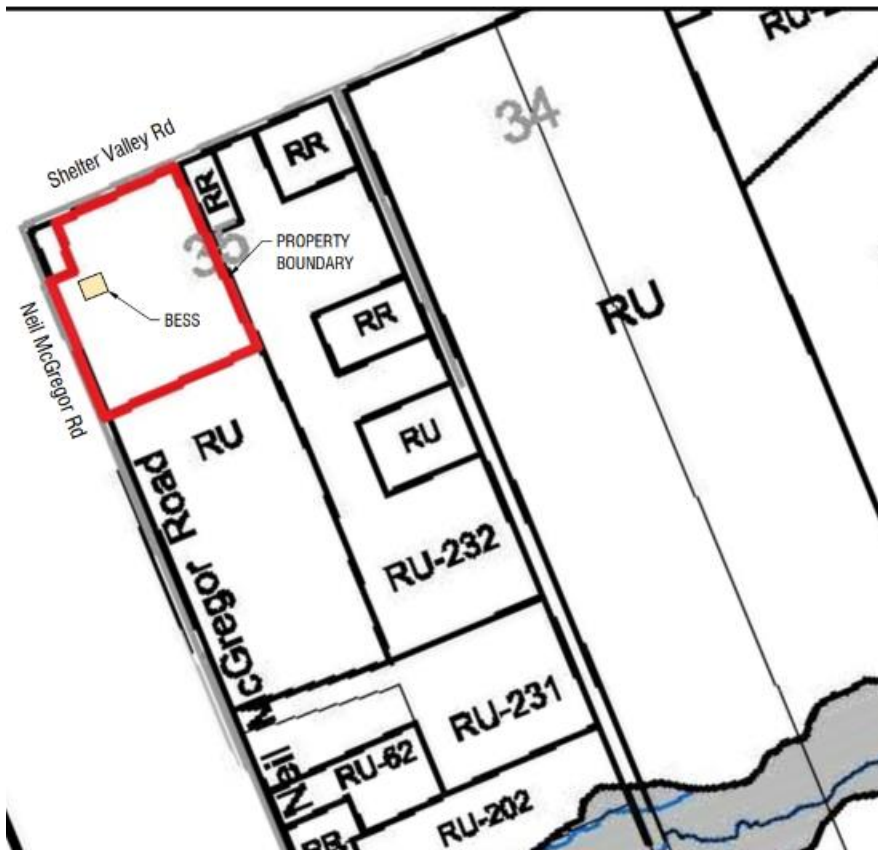
Northumberland OP General Development Policies Section E, Subsection 2.5(1) Energy Supply, encourages local municipalities to *"provide opportunities for the development of energy supply including electricity generation facilities and transmission and distribution systems, to accommodate current and projected needs"*.

The subject lands are identified as Prime Agricultural Land according to Figure 4 Cramahe - Provincial Agricultural Base Map. As mentioned, the proposed .5 ha BESS site is situated on a property that is occupied by a solar farm to the immediate south and a Hydro One transformer site to the immediate west. The proposed BESS is being located such that it will not impinge on the existing soyabean fields on the subject lands.

### 7 Township of Cramahe Comprehensive Zoning By-law

The subject lands are vacant and are currently zoned RU Rural under Cramahe Township By-law No. 2008-18 amended per Office Consolidation dated June 2021. Existing Zoning of the subject lands is shown in the Figure 4 below.

**Figure 4 - Existing Zoning**



The adjoining solar farm operation was permitted to proceed to development in 2018 under the then in effect Green Energy Act provisions. The proposed BESS operation will complement the existing permitted solar farm operation and will share a mutual fence and electrical transmission line connections. The rezoning of the site to permit a BESS is consistent with the Cramahe Official Plan and the Northumberland County Official Plan and should be approved.

Further, the BESS operation will support the efficient operation of Ontario's public electrical system. Generally speaking, facilities used to deliver of electricity to the public serve the public and thus are consistent with the intent of the Township of Cramahe Zoning By-law.

The Zoning By-law also requires that municipal site plan approval be obtained under Section 41 of the Planning Act, and that a development agreement be entered into with the municipality. The proponent is fully prepared to apply for site plan approval and enter into a development agreement with the Township of Cramahe.

The proposed Zoning By-law will permit a BESS operation on the subject lands subject to a minimum 6 m setback from:

- Pipeline Road and Neil McGregor Road
- The south property boundary and a 10 m setback from the pipeline easement.
- A 50 m setback from the east property boundary

A height limit of 14 m is proposed.

## **8 Planning Considerations**

### **8.1 Land Use Compatibility**

The proposed BESS facility is situated in a rural location adjoining an existing solar farm array and transformer station. We are of the opinion that the proposed BESS operation will be compatible with surrounding land uses.

### **8.2 Environmental Considerations**

The subject lands do not contain any identified natural heritage features or special habitat features. The site will be covered in gravel to serve as a base for the BESS thus allowing natural drainage. The proposed BESS operation is therefore acceptable from an environmental policy point of view. A Geotechnical Field Study, a Phase 2 Environmental Site Assessment (ESA), and other studies are underway to accompany the rezoning and site plan applications.

### **8.3 Traffic Considerations**

The proposed BESS plant is a very low intensity land use that is easily accessible from Neil McGregor Road. No traffic concerns have been identified.

### **8.4 Servicing and Stormwater Management**

The proposed development will be a classic dry operation and will not require water or private sanitary disposal systems. Stormwater generated on site will be conveyed naturally overland. Electrical utility lines are readily available to support the proposed development.

### **8.5 Twenty-five Year Lease IESO Requirement**

The Planning Act authorizes leases beyond 21 years without need for a Consent application if the proposed development is approved under Section 41 of the Planning Act.

### **8.6 Site Plan and Building Permit Approvals**

Development of the proposed BESS operation requires timely zoning, site plan approval, and building permit approvals. To help ensure an expedited site plan approval, the proponent is preparing three supportive studies: a Geotechnical Field Study, a Phase Two Environmental Site Assessment

(ESA), and a Noise Study. SolarBank appreciates the Township's willingness to telescope the zoning and site plan approvals for the BESS.

## **9 Planning Opinion, Recommendation, and Conclusion**

The proposed BESS plant will strengthen both the local and provincial electrical distribution systems. The Energy provision in the Provincial Policy statement clearly promotes a BESS type operation.

The proponent's expert team has verified that the proposed BESS plant will be developed in a manner that protects the area's water, and land resources and the local agricultural environment. The BESS will operate in a manner compatible with nearby rural residential and

The BESS plant will be situated on a small, one acre portion of the existing lot under a 25 year lease arrangement with the landowner. The subject lands will remain part of the current larger rural land holding shown in Figure 2 that contains an existing, permitted solar farm. Unless the 25 year lease is extended, the BESS structures would be removed.

We are of the opinion that the proposed BESS plant operation represents good land use planning and is in the public interest.

Next steps would site plan approval and building permit applications.



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