# Attachment P

## Exhibit 31: Local Laws and Ordinances, Revised December 2020

# EXCELSIOR ENERGY CENTER

## Case No. 19-F-0299

## Supplement to Exhibit 31

## Local Laws and Ordinances

## Contents



## Tables



## Appendices

## Exhibit 31: Local Laws and Ordinances

This Supplement to Exhibit 31, previously filed with the Application on September 28, 2020, will track the requirements of Stipulation 31, dated July 6, 2020, and therefore, the requirements of 16 New York Codes, Rules and Regulations (NYCRR) § 1001.31. All of the local law provisions discussed herein are contained in the Draft Town of Byron Solar Energy Local Law No. 3 of 2020 (version dated November 20, 2020) and the Draft Energy Storage Law (version dated February 18, 2020), copies of which are attached hereto. The purpose of this Supplement to Exhibit 31 is solely to address the Draft Solar Law and Draft Energy Storage Law provisions currently under review by the Town of Byron.

The Project will be located in the Town of Byron, Genesee County, New York. In January of 2020, the Town of Byron enacted a 12-month moratorium on applications or proceedings for applications for, or the issuance of approvals, permits, and zone changes for the establishment, placement, construction, enlargement, or erection of solar facilities within the Town.

The Town of Byron is currently working to draft and finalize local laws pertaining to solar energy systems and battery storage systems. As of the filing of this Supplement, the Town of Byron Solar Energy Local Law No. 3 of 2020 is expected to be finalized prior to January 1, 2021. Additionally, a draft of the Town's local law regarding battery storage systems has been drafted, but has not been finalized. Therefore, the procedural and substantive requirements described below are based upon the provisions in the most current draft solar (version from November 20, 2020) and energy storage laws (version from February 18, 2020).

The Applicant has been implementing the Public Involvement Program (PIP) Plan for the Project, as described in Exhibit 2. The Applicant has consulted with the Town of Byron, Genesee County, landowners, and others as part of PIP outreach activities. The Project's PIP Meeting Log, which documents the Applicant's outreach to date, is included as Appendix 2-4. Outreach to the municipal stakeholders has included presentations at town board meetings, open houses, and participation in community organized meetings to introduce the Applicant and the Project to the community. Coordination included the Applicant providing Project-specific information to the municipality, as well as consulting and responding to comments from agency stakeholders, such as the U.S. Fish and Wildlife Service and New York State Department of Agriculture and Markets (NYSDAM), among others. The Applicant is also working with the Genesee County Economic

Development Center (Steve Hyde), the Town of Byron (Supervisor Peter Yasses), and the Byron-Bergen Central School District (Superintendent Mickey Edwards) with the intention of executing a Payment in Lieu of Taxes (PILOT) agreement prior to construction of the Project. A Host Community Agreement is also being finalized.

Coordination with the Town of Byron regarding applicable substantive and procedural requirements for the Project has been performed in accordance with the Article 10 requirements. Based on a review of the local laws and coordination with Project stakeholders, the results of the Applicant's assessment of local procedural and substantive laws, and their applicability to the Project, are described in the following sections.

As a preliminary matter, the Siting Board could find, based upon the following provision reproduced from the Draft Law, that none of its provisions, procedural or substantive, would apply to the Project, because pursuant to the wording of the quoted provision, the Project has been under development for the last 20 months, thereby preceding the effective date of the Draft Law and thereby considered as "conforming use." See the follow excerpt from the Draft Law:

**ARTICLE III. SAVINGS, SEVERABILITY, AND EFFECTIVE DATE.**
**Section 3.01. Savings.**

> The amendment by this law of Section 11.15 of Article XI of the Code of the Town of Byron shall not affect or impair any permit issued or approved or the conditions thereof, or any offense committed or obligation, liability, order, penalty, forfeiture or punishment incurred or imposed, prior to the time of such amendment, but the same may be enjoyed, asserted, enforced, prosecuted or inflicted as fully and to the same extent and in the same manner as if such chapter or provision has not been amended, except that any structure or lot, or use or development of land within the Town of Byron that was lawful immediately prior to the enactment of this local law but that does not conform to the specifications of Section 11.15 of Article XI of the Code of the Town of Byron as enacted and amended by this local law, shall be deemed nonconforming as of the effective date of this law, and subject thereby to all provisions applicable to a nonconforming lot, structure, use, or development.

Development Center (Steve Hyde), the Town of Byron (Supervisor Peter Yasses), and the Byron-Bergen Central School District (Superintendent Mickey Edwards) with the intention of executing a Payment in Lieu of Taxes (PILOT) agreement prior to construction of the Project. A Host Community Agreement is also being finalized.

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## 31(a) Local Procedural Requirements Applicable to Construction/Operation of the Project Supplanted by Article 10

The following section contains a list of local ordinances, laws, resolutions, regulations, standards, and other requirements applicable to the construction and operation of the Project that are of a procedural nature for the Town of Byron. These local procedural requirements are supplanted by PSL Article 10 unless the Board expressly authorizes the exercise of the procedural requirement by the local municipality or agency.

Zoning Law of the Town of Byron, see Appendix 31-1

- Article III: Administration and Enforcement; Section 3.03 - Issuance of Permits and Certificates
- Article III: Administration and Enforcement; Section 3.04 - Application for a Zoning Permit
- Article III: Administration and Enforcement; Section 3.05 - Site Plan Review and Approval
- Article III: Administration and Enforcement; Section 3.06 - Fees
- Article IV: Board of Appeals; Section 4.03 - Variance and Appeals Procedure
- Article VI: General Provisions Applicable to All Districts; Section 6.05(o) - Regulations Applicable to All Districts (requirement for submission of a Storm Water Drainage Plan)
- Article IX: Regulations Governing Special Permit; Section 9.01(a)(ii) - General District Regulations (requirement for site plan review by the Planning Board)
- Article IX: Regulations Governing Special Permit; Section 9.02(a)(i) – Agricultural District (requirement for site plan review by the Planning Board)
- Article X: Supplementary Regulations; Section 10.06 – Access Control (requirement for site plan review by the Planning Board)

Draft Town of Byron Solar Energy Local Law (version dated November 20, 2020), see Supplemental Appendix 31-2

- Solar Energy Local Law – Section 11.15, Article II, Section 2.08 – Applicability
- Solar Energy Local Law - Section 11.15, Article II, Section 2.09 – General Requirements
- Solar Energy Local Law - Section 11.15, Article II, Section 2.12 – Permitting Requirements for Tier 3 and Tier 4 Solar Energy Systems
    - 11.15, Article II, Section 2.12.1 – Special Use Permit and Site Plan review
    - 11.15, Article II, Section 2.12.2 – Zoning Enforcement Officer review

- 11.15, Article II, Section 2.12.9 (a) – Submission of a Decommissioning Plan for Town Review
- 11.15, Article II, Section 2.12.10 – Filing of security in a form and amount acceptable to the Town and process for decommissioning and forfeiture of security
- 11.15, Article II, Section 2.12.11 – Requirement for Site Plan Approval
- 11.15, Article II, Section 2.12.12 (e) (ii) – Requirement for Visual Screening of Fencing at Discretion of Planning Board
- 11.15, Article II, Section 2.12.12 (f) – Submission of a Screening & Landscaping Plan for Town Review and Plant Selection at Discretion of the Planning Board
- 11.15, Article II, Section 2.12.12 (h) – Notice of Ownership Change.

- Solar Energy Local Law - Section 11.15, Article II, Section 2.13.2 – Removal of snow at level acceptable to the local Fire Department
- Solar Energy Local Law - Section 11.15, Article II, Section 2.14 – Permit Time Frame and Abandonment
- Solar Energy Local Law – Section 11.15, Article II, Section 2.15 – Inspections
- Solar Energy Local Law - Section 11.15, Article II, Section 2.16 – Enforcement

Draft Energy Storage Law (version dated February 18, 2020), see Supplemental Appendix 31-3

- Town of Byron Battery Energy Storage System Local Law – 5. General Requirements – Parts A and B requiring permits
- Town of Byron Battery Energy Storage System Local Law – 8. Permitting Requirement for Tier 3 Battery Energy Storage Systems – A. Applications for the installation of Tier 3 Battery Energy Storage System
- Town of Byron Battery Energy Storage System Local Law – 8. Permitting Requirement for Tier 3 Battery Energy Storage Systems – G. Noise (requirement for submitting noise ratings and measurements)
- Town of Byron Battery Energy Storage System Local Law – 8. Permitting Requirement for Tier 3 Battery Energy Storage Systems – H. Decommissioning (requirement for submission of a Decommissioning Plan for Town review and for procedural approval of decommissioning fund by Town)
- Town of Byron Battery Energy Storage System Local Law – 8. Permitting Requirement for Tier 3 Battery Energy Storage Systems – I. Site Plan Application
- Town of Byron Battery Energy Storage System Local Law – 8. Permitting Requirement for

Tier 3 Battery Energy Storage Systems – J. Special Use Permit Standards (requiring screening of Battery Energy Storage Systems at discretion of Town

- Town of Byron Battery Energy Storage System Local Law – 8. Permitting Requirement for Tier 3 Battery Energy Storage Systems – K. Ownership Changes (requiring notification to Zoning Enforcement Officer)
- Town of Byron Battery Energy Storage System Local Law – 9. Safety – B (requiring snow removal at level within discretion of local Fire Department)
- Town of Byron Battery Energy Storage System Local Law – 8. Permitting Requirement for Tier 3 Battery Energy Storage Systems – K. Ownership Changes
- Town of Byron Battery Energy Storage System Local Law – 10. Permit Time Frame and Abandonment
- Town of Byron Battery Energy Storage System Local Law – 11. Enforcement
- Town of Byron Battery Energy Storage System Local Law – 11. Enforcement
- Town of Byron Battery Energy Storage System Local Law – 12. Severability

## 31(b) Local Procedural Requirements Requested to be Expressly Authorized by the Board

Except with respect to the New York State Uniform Fire Prevention and Building Code, as explained below, the Applicant does not request the Board to authorize a municipality to implement any local procedural requirements.

## 31(c) Local Agency Review and Approval of Compliance with Building Codes

The Town of Byron has adopted and incorporated the New York State Uniform Fire Prevention and Building Code for administration into its local electric, plumbing and building codes; therefore, the Applicant may make a request to the Town Board during the Article 10 proceeding pursuant to subdivision (b) of this section that the Board expressly authorize the exercise of the electric, plumbing, and building permit application, inspection, and certification processes by the Town of Byron.

The Code Enforcement Officer for the Town of Byron is responsible for reviewing and approving building plans, inspecting construction work, and certifying compliance with the New York State Uniform Fire Prevention and Building Code, the Energy Conservation Construction Code of New

York State, and the substantive provisions of any applicable local electrical, plumbing, or building code. If necessary, the Code Enforcement Officer can hire consultants to assist with the review and approval. To the extent the Applicant requests the Board to make the aforementioned authorization to the Town, the Applicant is willing to fund those consultations, to the extent such fees are not paid for from the fund for municipal and local party intervenors. Alternatively, the Applicant may request to submit for review the building plans to an entity qualified by the New York State Department of State, in order to obtain compliance certified with the New York State Uniform Fire Prevention and Building Code, the Energy Conservation Construction Code of New York State, and the substantive provisions of any applicable local electrical, plumbing, or building code. Said demonstration would be filed with the Secretary or as a compliance filing with the Board.

### 31(d) Substantive Requirements

This section identifies the local ordinances, laws, resolutions, regulations, standards, and other requirements applicable to the construction or operation of the proposed Project that are of a substantive nature. The dimensional requirements under the Draft Solar Law are presented in Table 31-1. The dimensional requirements under the Draft Energy Storage law are presented in Table 31-2. The text of these substantive requirements and the Project's compliance with them are presented in Tables 31-3 and 31-4 below.

Town of Byron Zoning Law, 2013 and amended in 2016

- Article VI: General Provisions Applicable to All Districts; Section 6.04 – Preservation of Natural Features
- Article VI: General Provisions Applicable to All Districts; Section 6.05 – Regulations Applicable to All Districts
- Article VII: Non-Conforming Uses; Section 7.01 – Continuance
- Article X: Supplementary Regulations; Section 10.04 Sign and Billboard Regulations

Draft Town of Byron Solar Energy Local Law, dated November 20, 2020

- Town of Byron Zoning Law – Section 11.15, Article II, Section 2.12 – Permitting Requirements for Tier 3 and Tier 4 Solar Energy Systems:

- 11.15, Article II, Section 2.12.1 – Permissible Uses Within Zoning Districts
- 11.15, Article II, Section 2.12.3 – Underground Requirements & Vehicular Path
- 11.15, Article II, Section 2.12.4 – Roads and Berms
- 11.15, Article II, Section 2.12.5 – Signage
- 11.15, Article II, Section 2.12.6 – Glare
- 11.15, Article II, Section 2.12.7 – Lighting
- 11.15, Article II, Section 2.12.8 – Tree-cutting
- 11.15, Article II, Section 2.12.9 – Decommissioning
- 11.15, Article II, Section 2.12.12 – Special Use Permit Standards and Substantive Standards for Tier 3 and Tier 4 Solar Energy Systems:
  - (a) Lot size
  - (b) Setbacks
  - (c) Height
  - (d) Lot Coverage
  - (e) Fencing Requirements
  - (g) Agricultural Resources
  - (h)(i) Lighting and Security Cameras

- Town of Byron Zoning Law – Section 11.15, Article II, Section 2.13 – Safety
- Town of Byron Zoning Law – Section 11.15, Article II, Section 2.14 – Abandonment

<u>Draft Town of Byron Energy Storage Local Law, 2020</u>

- Town of Byron Battery Energy Storage System Local Law – Section 5(c) – General Requirements
- Town of Byron Battery Energy Storage System Local Law – Section 8 Permitting Requirements for Tier 3 Battery Energy Storage Systems:
  - (A)[1] Permitted Zoning Districts
  - (C) Utility Lines and Electrical Circuitry
  - (D) Signage
  - (E) Lighting
  - (F) Vegetation and Tree-cutting

[1] The Draft Solar Law includes two subsections 'A'; the first regarding permitted zoning districts is a substantive requirement applicable to the Project, the second contains procedural requirements that are supplanted by Article 10.

- (G) Noise
- (H)(2) Decommissioning Fund
- (J) Special Use Permit Standards- Permitting Requirement for Tier 3 Battery Energy Storage Systems

- Town of Byron Battery Energy Storage System Local Law – Section 9 – Safety
- Town of Byron Battery Energy Storage System Local Law – Section 10 – Abandonment

**Table 31-1. Town of Byron Zoning Dimensional Requirements Summary for Large Scale Solar - Draft Town of Byron Solar Energy Law, 2020**

| DIMENSIONS | LARGE SCALE SOLAR ENERGY SYSTEM REQUIREMENTS | | | PROVIDED |
|---|---|---|---|---|
| | A-R District | R-1 District | C-2 District | |
| Minimum Front Yard Setback | 200 feet | NA | 100 feet | 200 feet |
| Minimum Side Yard Setback | 200 feet | NA | 50 feet | 200 feet for A-R zones, 100 feet for R-1 and C-2 |
| Minimum Rear Yard Setback | 200 feet | NA | 50 feet | 200 Feet for A-R zones, 100 Feet for R-1 and C-2 |
| % Maximum Lot Coverage | 30 | 30 | 30 | 2 |
| Maximum Height | 15 feet | NA | 20 feet | 8 feet – Fixed<br>20 feet – Tracker* |
| Setback from owner-occupied or tenant-occupied dwelling | 500 feet | NA | 500 feet | 300* |
| Setbacks from Land Conservation Zoning District | 200 feet | NA | 200 feet | 200 feet |
| Minimum Fence Height | 7 feet | 7 feet | 7 feet | 7 feet |

*Should the draft law be adopted, denotes a waiver is requested from the Siting Board

**Table 31-2. Town of Byron Zoning Dimensional Requirements Summary for Large Scale Solar - Draft Town of Byron Battery Energy System Local Law, 2020**

| DIMENSIONS | LARGE SCALE SOLAR ENERGY SYSTEM REQUIREMENTS | | | PROVIDED |
|---|---|---|---|---|
| | A-R District | R-1 District | C-2 District | |
| Minimum Front Yard Setback | 200 feet | NA | 100 feet | 433 feet |
| Minimum Side Yard Setback | 200 feet | NA | 50 feet | 479 feet |
| Minimum Rear Yard Setback | 200 feet | NA | 50 feet | 492 feet |
| Maximum Height | 15 feet | NA | 20 feet | 11.4 feet |
| Minimum Fence Height | 7 feet | 7 feet | 7 feet | 7 feet |
| Minimum Vegetation and Tree-cutting | 25 feet on each side | 25 feet on each side | 25 feet on each side | Yes |

## 31(e) Local Substantive Requirements Applicant Requests the Board Not Apply

The Project is designed and will operate in compliance with applicable substantive local laws and regulations with the exception of 11 substantive requirements of the Town of Byron draft Solar Law (version dated November 20, 2020):

- Permissible Uses Within Zoning Districts (11.15, Article II, Section 2.12.1)
- Underground Requirements (11.15, Article II, Section 2.12.3)
- Roads and Berms (11.15, Article II, Section 2.12.4)
- Tree-cutting (11.15, Article II, Section 2.12.8)
- Setback from Owner-occupied or Tenant-occupied Dwelling (11.15 Article II, Section 2.12.12 and Appendix 1 - Tier 3 and Tier 4 Solar Energy Systems Lot Size, Setback, and Height Requirements)
- Height of Solar Panels (11.15, Article II, Section 2.12.12 (c))
- Fencing Requirement for Visual Screening (11.15, Article II, Section 2.12.12 (e))
- Screening and Visibility (11.15, Article II, Section 2.12.12 (f))

- Security Cameras (11.15, Article II, Section 2.12.12 (h)(iii))
- Electromagnetic Fields (11.15, Article II, Section 2.13.4)

The Project is designed and will operate in compliance with the applicable substantive provisions of the Town of Byron Draft Energy Storage Law (version dated February 18, 2020).

The Applicant is requesting that the Board elect not to apply the aforementioned substantive requirements of the Draft Solar law as they are unreasonably burdensome in the view of existing technology or consumer needs and would prevent the Project from being built.

With the exception of those substantive provisions identified above, the Applicant has determined that none of the remaining local substantive requirements are unreasonably burdensome in terms of existing technological, cost/economics, or consumer needs. Therefore, there are no additional substantive requirements which the Applicant is requesting that the Board elect not to apply at this time.

**Location of Solar Energy Systems in R-1 District. (11.15, Article II, Section 2.12.1) Statement of Justification:**

The Applicant requests that the Siting Board elect not to apply this restriction. The Project Area includes approximately 231 acres of R-1 zoned land. Through careful siting, while also balancing the constraints identified in Exhibit 9 and shown on Figure 9-1, the Project was able to limit the siting of Project Components within the R-1 zoning district to 16.45 acres. This approximately 16 acres of land within the R-1 zoning district is necessary for the Project and particularly well-suited for the siting of solar arrays as the two parcels within which they will be located are immediately adjacent to the existing New York Power Authority electric transmission right-of-way. Additionally, these two parcels are located immediately adjacent to the A-R zoning district in which solar is a permitted use. Furthermore, this particular land area within the R-1 zoning district is located a significant distance from any adjacent residences as the nearest distance from the arrays proposed within the R-1 zoning district to an adjacent residence being approximately 379 feet. Allowing the siting of arrays within this zone provides flexibility to propose greater setbacks from adjacent residences in other portions of the Project Area.

An area of at least approximately 1,650 acres is required to site the number of solar panels and the supporting components of the Project necessary to reach this generating capacity. Prohibiting

development of the Project Area in the R-1 District (approximately 231 acres of the Project Area), therefore, imposes a technological restriction on the Project related to necessary facility component bulk, making compliance impossible. By prohibiting the construction of the Project within the R-1 District, the potential to impact other sensitive resources or areas that were excluded based on agency, stakeholder, and individual comments increases. In order to meet its obligations under its contract awarded by NYSERDA, the Project must have a generating capacity of 280 megawatts (MW) and 20 MW/4 hour energy storage. As noted below, the Applicant has sited the Project components so as to minimize, to the maximum extent practicable, environmental impacts by avoiding certain forested areas, wetlands, agricultural exclusion areas and wildlife habitat, as shown on Figure 9-1. Further, the Project has been designed to provide certain setbacks from parcel boundaries and residential structures. A design change to comply with this interpretation while also meeting the Project's obligation to have a generating capacity of 280 MW is not feasible within the Project Area, especially when considering other siting factors, such as avoiding and/or minimizing environmental impacts. Because of the necessary facility component bulk for the Project, this interpretation would render the Project impossible to build within the Project Area in view of existing technology.

Thus, pursuant to 16 NYCRR § 1001.31(h)(1), the Applicant requests that the Siting Board refuse to apply this local governmental restriction because it is technologically impossible, impracticable, and unreasonable for all necessary Project components to be installed if the Project were required to comply with this restriction.

As to the needs of consumers, pursuant to 16 NYCRR Part 1001.31(h)(3), Excelsior Energy Center promotes the goals of the Climate Leadership and Community Protection Act (CL&CPA), the Clean Energy Standard (CES), and the most recent State Energy Plan (SEP). Moreover, Excelsior Energy Center has executed a contract with NYSERDA to sell the renewable energy attributes generated by the Project, in furtherance of the aforementioned CL&CPA, CES, and SEP. By adding 280 MW of clean, renewable, solar power into the New York State energy market, the Project helps New York State achieve its targets of 70% renewable generation by 2030, zero emissions from the statewide electrical demand system by 2040, an 85% reduction in greenhouse gas (GHG) emissions by 2050, and the operation of 6 gigawatts of solar generation by 2025.

In addition, the economic benefits to the community through the anticipated PILOT payments, Host Community Agreement, new jobs and Project expenditures, and the predicted GHG

emissions reductions outweigh the minimal impacts on the community that would result from refusing to apply this provision. Therefore, this interpretation is unreasonably burdensome in view of existing technology and the needs of consumers, and should not be applied.

**Electric Lines shall be buried no deeper than 24 inches to avoid mixing topsoil and subsoil. (11.15, Article II, Section 2.12.3) Statement of Justification:**

The Draft Solar Law requires that "all on-site utility lines shall be placed underground, with the exception of the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way." Though "utility lines" is not defined, the Applicant interprets this to mean proposed collection lines (the 34.5-kilovolt lines that convey electricity from the inverters to the collection substation) be installed underground, a requirement with which the Applicant's proposal complies. Cables from the solar modules to the inverters may be constructed either underground or aboveground along the solar array's racking systems (and beneath the solar modules) utilizing a CAB® cabling system (or similar).

As discussed in Exhibit 21 of the Application, the Project will comply with the requirements in NYSDAM's Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands, dated October 18, 2019, to the maximum extent practicable. Pursuant to those guidelines, in most circumstances, the minimum depth of cover required for buried collection lines may be greater than 24 inches of depth. For instance, in areas of cropland, hayland and improved pasture, buried collection lines must have a minimum cover of 48 inches (NYSDAM Solar Guidance at 3). In unapproved grazing areas or land devoted to pasture, the lines must be buried at least 36 inches below the surface (NYSDAM Solar Guidance at 4). Finally, where lines are buried below or adjacent to access roads, the collection lines must have a minimum depth of cover of 24 inches (NYSDAM Solar Guidance at 4). Compliance with these requirements will ensure the Project minimizes potential impacts to agricultural resources, to the maximum extent practicable. Further, the Town's Draft Solar Law also requires the Project to comply with the NYSDAM guidelines, meaning there is an internal conflict within the Town's Draft Solar Law. In addition, this requirement conflicts with the National Electrical Code (NEC) requirements for buried electrical cable. Pursuant to NEC 300.500, the minimum cover requirement for direct-bury medium voltage (34.5kV) electrical lines is 36 inches.

For these reasons, pursuant to 16 NYCRR § 1001.31(h)(1), the Applicant requests that the Board refuse to apply this local governmental restriction because it is technologically impossible, impracticable, and unreasonable for all Project components to be installed in accordance with NYSDAM and NEC requirements if the Project were required to comply with this restriction.

In addition, pursuant to 16 NYCRR § 1001.31(h)(3), the Board should elect to refuse to apply this local governmental restriction because the urgent needs of consumers to have GHG emissions reduced, through the goals, targets, and strategies embodied in the CL&CPA, CES, and SEP, outweigh the potential insignificant impacts to the community. In addition, the economic benefits to the community from landowner payments, construction jobs PILOT, and host community agreements outweigh the alleged benefit of applying this provision.

**Construction of gravel roads and management of stripped top soil. (11.15, Article II, Section 2.12.4) Statement of Justification:**

According to Section 2.12.4 (a) of the Draft Solar Law, solar facilities must construct all gravel roads over woven geotextile. Imposing this requirement imposes an unreasonable technological restriction on the Facility because access road design should be based upon actual on-site soil conditions. Geotextile fabric is sometimes utilized during construction to stabilize access roads, but is not always necessary depending on geotechnical conditions. In certain cases, the existing soils are stable enough that geotextile fabric is not needed. All proposed gravel access roads will be properly stabilized. The specific stabilization method and roadway section design of the access roads will be determined by the Engineer of Record during final design. Access road stabilization may include the installation of a woven geotextile layer, improving subgrade soils, and/or increasing the gravel thickness.

Further, Section 2.12.4 (b) of the Draft Solar Law requires all stripped topsoil to be stockpiled in berms near the perimeter of the area from which it was removed and utilized to construct a berm for screening purposes. As an initial matter, this requirement should be treated as procedural and supplanted by Article 10 because it references compliance with the requirement to submit a suitable landscaping and screening plan within the Town of Planning Board's discretion. In the event that the Siting Board determines that this requirement is substantive, however, the Applicant requests that the Siting Board elect not to apply this requirement because it is technologically impossible, impractical, and unreasonable for the Project to comply with the requirements in the NYSDAM Solar Guidance if this requirement is imposed. According

to the NYSDAM Solar Guidance, all stripped topsoil must be temporarily stockpiled but then utilized for restoration of the immediately adjacent area once construction of the Facility is complete (NYSDAM Solar Guidance at 2). Any remaining topsoil is required to be spread evenly in adjacent agricultural areas rather than left in place (NYSDAM Solar Guidance at 3 and 5).

For these reasons, pursuant to 16 NYCRR § 1001.31(h)(1), the Applicant requests that the Board refuse to apply these local governmental restrictions because it is technologically impossible, impracticable, and unreasonable for the Project to comply with the NYSDAM Solar Guidance if the Project were required to comply with these restrictions.

In addition, pursuant to 16 NYCRR § 1001.31(h)(3), the Board should elect to refuse to apply these local governmental restrictions because the urgent needs of consumers to have GHG emissions reduced, through the goals, targets, and strategies embodied in the CL&CPA, CES, and SEP, outweigh the potential insignificant impacts to the community. This Application details the measures being proposed to minimize impacts to agricultural areas according to the NYSDAM Solar Guidance. Moreover, pursuant to 16 NYCRR § 1001.31(h)(3), the economic benefits to the community from landowner payments, construction jobs and expenditures PILOT payments, and a host community agreement outweigh the alleged benefit of applying these provisions.

**Removal of existing trees larger than 6 inches in diameter is prohibited. (11.15, Article II, Section 2.12.8). Statement of Justification:**

As discussed in detail in Exhibit 22, the Project Area consists of approximately 206.6 acres of forested areas (6.0% of Project Area). In order to construct and operate the Project, the Applicant is proposing to clear approximately 22.7 acres of forested area, or 1.4% of existing woodlands within the entire Project Area. Approximately 13 acres of hedgerows and non-forested areas that contain sparse tree cover (e.g., successional old fields) will also be cleared. As discussed in Exhibit 9, the Applicant has added exclusion areas to be protective of existing forested land and hunting areas and developed a wildlife game trail to connect forested areas. These measures have been developed to minimize impacts, to the maximum extent practicable, to forested areas and stands providing wildlife habitat and to provide movement pathways between higher quality areas of wildlife habitat.

Prohibiting removal of existing trees larger than 6 inches in diameter imposes a technological restriction on the Project, making it impossible to build when considering other siting constraints and requirements such as wetlands, streams, setbacks, and landowner requested exclusionary

areas to continue farming. Accordingly, the burden caused by imposing this local restriction is unreasonable. The request cannot be obviated by a design change. It is the minimum necessary in order to build the Project selected by NYSERDA to sell Renewable Energy Credits, and this Application details how potential adverse impacts have been minimized to the maximum extent practicable. In addition, impacts are being minimized by the adoption of a landscaping plan, contained in Appendix 11-2, where trees and vegetation are being planted in multiple areas along the perimeter of the Project.

As determined through public outreach efforts, adjacent landowners and residents of the Town of Byron requested that the Project be designed so as to minimize the overall spread of components across the Project Area and to also preserve areas providing wildlife habitat. In order to do so, portions of the Project Area considered for siting of the solar arrays were avoided, as discussed in Exhibit 9. In some cases, this included areas of existing trees. Although the majority of the Project Area consists of open agricultural fields, areas of existing trees are proposed to be cleared and used for solar arrays in order to maximize setbacks from adjacent non-participating parcels and residences while also avoiding wetlands and wildlife habitat. Additionally, the Applicant has designed the Project to maintain existing tree hedgerows, to the maximum extent practicable, along the perimeter of the Project to limit its visibility. Limiting the tree clearing to only those trees smaller than 6 inches in diameter would result in the Applicant having to use existing agricultural areas closer in proximity to residential uses.

For these reasons, pursuant to 16 NYCRR § 1001.31(h)(1), the Applicant requests that the Board refuse to apply this local governmental restriction because it is technologically impossible, impracticable, and unreasonable for all Project components to be installed if the Project were required to comply with this restriction.

In addition, pursuant to 16 NYCRR § 1001.31(h)(3), the Board should elect to refuse to apply this local governmental restriction because the urgent needs of consumers to have GHG emissions reduced, through the goals, targets, and strategies embodied in the CL&CPA, CES, and SEP, outweigh the potential insignificant impacts to the community. As noted above, refusing to apply this provision actually decreases the impacts to the community. In addition, the economic benefits to the community from landowner payments, construction jobs and expenditures, PILOT, and a host community agreement outweigh the benefits of applying this provision.

**Setback from owner-occupied or tenant-occupied dwelling (11.15, Article II, Section 2.12.12 and Appendix 1 – Tier 3 and Tier 4 Solar Energy Systems Lot Size, Setback, and Height Requirements). Statement of Justification:**

The Project has been designed to provide a minimum setback of 300 feet from occupied residential structures. There are larger setbacks proposed in several areas. Limiting a large/commercial-scale solar energy system to minimum setbacks of 500 feet from occupied residential structures imposes a technological restriction on the Project, making it impossible to build. In order to meet its obligations under its contract awarded by NYSERDA, the Project must have a generating capacity of 280 MW and 20 MW/4 hour energy storage. An area of approximately 1,650 acres is required to site the number of solar panels and the supporting components of the Project necessary to reach this generating capacity considering other constraints such as resources, co-locating Project components, visual screening, wildlife corridors, archeological wetlands, streams, participating landowner exclusion zones (some reserved for continued farming), slopes, and the need to maintain setbacks from other residences.

Thus, pursuant to 16 NYCRR § 1001.31(h)(1), the Applicant requests that the Board refuse to apply this local governmental restriction because it is technologically impossible, impracticable, and unreasonable for all necessary Project components to be installed if the Project were required to comply with this restriction.

In addition, pursuant to 16 NYCRR § 1001.31(h)(3), the Board should elect to refuse to apply this local governmental restriction because the urgent needs of consumers to have GHG emissions reduced, through the goals, targets, and strategies embodied in the CL&CPA, CES, and SEP, outweigh the potential insignificant impacts to the community. This Application details the measures being proposed to mitigate any potential impacts to the maximum extent practicable. Moreover, pursuant to 16 NYCRR § 1001.31(h)(2), the economic benefits to the community from landowner payments, construction jobs and expenditures, PILOT payments, and a host community agreement outweigh the benefits of applying the provision. Thus, the factors all weigh in favor of the Board refusing to apply the Town's minimum setbacks and adopting the Applicant's proposed setbacks instead.

On a related matter, the Applicant interprets the term "setback" to apply to the boundaries of the Project Area, and not the individual boundaries of the parcels within the Project Area.

Large/commercial-scale solar facilities require large sites, which often necessarily include multiple parcels. Thus, common sense dictates that setbacks in a local law governing large/commercial-scale solar would apply to the boundaries of the entire site.

It would be unreasonable to apply the former interpretation because it would increase environmental impacts by requiring more land than is reasonable. Further, a design change to comply with this interpretation while also meeting the Project's obligation to have a generating capacity of 280 MW is not feasible within the Project Area, especially when other siting factors, such as avoiding and/or minimizing environmental impacts, are considered. Because of the necessary facility component bulk for the Project, this interpretation would render the Project impossible to build within the Project Area in view of existing technology.

In addition, as with the setback distances discussed above, the economic benefits to the community outweigh the benefits of applying the latter interpretation, and the GHG emissions reductions outweigh the minimal impacts on the community that would result from refusing to apply this interpretation. Therefore, this interpretation is unreasonably burdensome in view of existing technology and the needs of consumers, and should not be applied.

**Height of solar panels shall not exceed 15 feet in A-R District. (11.15, Article II, Section 2.12.1) Statement of Justification:**

The Project proposes to install fixed-tilt or tracker racking systems. As the technology is rapidly evolving for solar panel technology, and market conditions at the time procurement decisions need to be made are unknown, the Applicant is proposing in this Application to evaluate both types of racking systems, with the final decision to be made and detailed in the Compliance Filing. In the event tracker technology is utilized for the Project, the panels may reach a maximum height of 20 feet when at full-tilt with a dual-portrait solar panel orientation. The evolution of the dual-portrait panel orientation is a more efficient, yet slightly taller configuration compared to a single-portrait panel orientation. The maximum height of a tracker system is only sustained for a short period during daylight hours as the racking makes continuous angle adjustments to follow the sun. For example, tracker systems lay flat near mid-day when the sun is directly overhead resulting in a panel height considerably lower than the maximum height of 20 feet during mid-day. As a result, for the majority of the time when the panels will be visible, the tracker system will be less than 20 feet in height. Although the panels may exceed the 15-foot maximum height at full-tilt in the A-R District, this will likely only occur for short durations in the morning and evening or

overnight, when the panels are likely not even visible, if the panels are stored at full-tilt. By constructing the arrays with a dual-portrait solar panel presentation, and thus potentially at a height slightly above the Town's 15-foot maximum height requirement for the A-R District, the Applicant may be able to reduce the overall project impacts.

Additionally, allowing the tracker racking system to exceed the Town's 15-foot maximum height requirement results in the need for less soil disturbance during construction. Should the Applicant be held to a maximum height of 15 feet, additional site grading may be required beyond what is currently depicted in the preliminary design drawings included in Exhibit 11 in order to ensure adequate clearance between the bottom of the solar panels and the ground elevation. Discussions with NYSDAM, participating landowners and the public during the Applicant's outreach efforts have all indicated the preference to limit soil disturbances to the minimum amount necessary to construct the Project so that it can more easily be reverted back to agricultural use following the useful life of the solar Project and decommissioning.

Accordingly, the height cap represents a technological limitation that would prevent the use of certain tracker systems if evolving market conditions compel the Applicant to use those systems. In addition, the needs of consumers for a successful renewable project, the ability to satisfy the Applicant's obligations to deliver Renewable Energy Credits under its NYSERDA contract, and helping achieve the State's GHG reduction targets in the Climate Act and in the SEP outweigh the need to apply the local height restriction. Therefore, under either prong of 16 NYCRR § 1001.31 (h) (1) and (3), the Board has ample basis not to apply the height restriction.

**Chain-link fencing surrounding Tier 4 Solar Energy Systems shall be visually screened. (11.15, Article II, Section 2.12.12(e)). Statement of Justification:**

The Project has completed a detailed visual analysis (see Exhibit 24) evaluating the potential visibility of the Project. Based on the results of the visual analysis and in coordination with the Project's design team, 34,445 linear feet of landscaping has been integrated into the Project's design to provide additional visual screening for the Project, which is presented in Exhibit 11.

The comprehensive visual impact assessment examined the overall appearance, operational characteristics, and general visibility of the Project by means of computerized Geographic Information Systems viewshed and terrain analysis and with the use of specialized 3D visualization software. Viewshed analyses results are mapped for illustrating geographic locations

of predictive visibility as well as having used resultant data to quantify and compare amounts of visibility within varying parameters such as Distance Zones and sensitive receptors. Additional descriptive and qualitative assessments of the proposed Project were further provided with photo-simulations that show comparisons between existing conditions and conditions with the Project. These are provided in Exhibit 24.

The viewshed analysis concludes that only 8.0% of the land area within the 5-mile Visual Study Area expects some level of full or partial views of the Project where there would be some areas from which the Project would be in view and, in contrast, a multitude of areas (92%) from which it would not be seen. There is existing topography and many tree groups surrounding the Project that will block views. There are also significant attributes of the design of this solar project and its relationship to its particular surroundings that would minimize the Project's impacts as discussed in Exhibit 24. Based on these findings, the Applicant's integration of 34,445 linear feet of landscaping is appropriate for the minimal expected visibility of the Project. The chain-link fence is screened where necessary and practicable and therefore, is reasonable. In contrast, the Draft Solar Law's wholesale requirement that all chain-link perimeter fencing be visually screened is unreasonable and impracticable. The Siting Board, therefore, has ample basis, pursuant to 16 NYCRR Part 1001.(h)(1), to elect not to apply this provision.

In addition, pursuant to 16 NYCRR § 1001.31(h)(3), the Board should elect to refuse to apply this local governmental restriction because the urgent needs of consumers to have GHG emissions reduced, through the goals, targets, and strategies embodied in the CL&CPA, CES, and SEP, outweigh the potential insignificant impacts to the community. This Application details the measures being proposed to mitigate any potential visibility of the Project to the maximum extent practicable. Moreover, pursuant to 16 NYCRR § 1001.31(h)(2), the economic benefits to the community from landowner payments, construction jobs and expenditures, PILOT payments, and a host community agreement outweigh the benefits of applying the provision.

**Landscape screening must include evergreen trees at least 6 feet in height at time of planting. (11.15, Article II, Section 2.12.12 (f)(iv)) Statement of Justification:**

As an initial matter, the Applicant views this requirement as procedural because it requires the Applicant to submit a screening and landscaping plan to the Town for review and provides the Town Planning Board with discretion to determine appropriate landscaping and screening measures. As a result, this requirement should be supplanted by Article 10.

In the event the Siting Board determines that this requirement is substantive; however, the Applicant requests a waiver from the requirement to plant trees that are a minimum of 6 feet in height at the time of planting. As described in Appendix 11-2 of the Application, the Applicant plans to plant evergreen trees that are between 5 to 6 feet at the time of planting. As described in the Application, the Applicant anticipates planting trees that are between 5 to 6 feet at the time of planting; however, due to other ongoing Projects, the Applicant cannot guarantee that it will be able to find sufficient evergreen trees that are at least 5 feet in height at the time of planting and therefore, should have the flexibility to plant slightly smaller trees, if necessary.

For these reasons, pursuant to 16 NYCRR § 1001.31(h)(1), the Applicant requests that the Board refuse to apply this local governmental restriction because it may be technologically impossible, impracticable, and unreasonable for screening to be installed if the Project were required to comply with this restriction.

In addition, pursuant to 16 NYCRR § 1001.31(h)(3), the Board should elect to refuse to apply this local governmental restriction because the urgent needs of consumers to have GHG emissions reduced, through the goals, targets, and strategies embodied in the CL&CPA, CES, and SEP, outweigh the potential insignificant impacts to the community. As noted above, refusing to apply this provision will only result in a potential planting height differential of 1 foot. In addition, the economic benefits to the community from landowner payments, construction jobs and expenditures, the PILOT, and a host community agreement outweigh the benefits of applying this provision.

**No security cameras shall have the ability to photograph activity more than 50 feet beyond the fence. (11.15, Article II, Section 2.12.12(h)(iii)) Statement of Justification:**

As noted in Exhibit 18, no electronic security or surveillance is currently proposed for the Facility. However, in the event that cameras are needed for security purposes, the Applicant is requesting a waiver from this requirement. The Application details a robust plan for safety and security of the Facility during operation, including permanent fencing, locked gates, and signs prohibiting trespassing. If, at any time, further controls are necessary to ensure the Facility is protected, such security should not be limited. Indeed, the ability to capture images beyond the fence line should extend as far out as necessary to ensure public health and safety and security of the Facility.

For these reasons, pursuant to 16 NYCRR § 1001.31(h)(1), the Applicant requests that the Board refuse to apply this local governmental restriction because it may make it technologically

impossible, impracticable, and unreasonable for the Applicant to ensure the safe and reliable operation of the Facility if required to comply with this restriction.

**No Tier 3 or Tier 4 Solar Energy System shall exceed 1 mg of electromagnetic emissions. (11.15, Article II, Section 2.13.4) Statement of Justification:**

The Draft Solar Law prohibits Tier 4 Solar Energy Systems from exceeding "1 milligauss (mG) of electromagnetic emissions from any cable, wire conduits conveying electrical energy in or about the Solar Energy System." It is not technologically possible for the Project to comply with this draft requirement. As explained in Exhibit 35, the NYSPSC has established guidelines for addressing electric and magnetic fields (EMF). Pursuant to the NYSPSC guidelines, the standard for EMF at the edge of the right-of-way is 200 mG. Table 35-1 in Exhibit 35 notes that the maximum EMF will be less than 73 mG at the proposed edge of the right-of-way, well within the guidelines established by the NYSPSC. Further, the strength of EMF significantly decreases over distance. It is simply not possible to comply with the requirement that restricts electromagnetic emissions to less than 1mG. For example, at a distance of 3 centimeters, the typical EMF level for a coffee machine is between 10-100 mG and between 70-200 mG for a toaster. Additionally, the location of virtually all underground 34.5-kilovolt collection cables, and the location of the collection substation transformers and other electrical equipment inside a restricted area, will provide separation of these components from the general public. Indeed, electric fields are shielded by most objects meaning that the electromagnetic emissions from underground cables is negligible above the ground. Further, the collection lines associated with the Facility will be co-located in many places, meaning that the EMF levels will be less as compared to single cables. As a result, EMF levels from solar panel arrays and collection lines are expected to be limited or non-existent.

For these reasons, pursuant to 16 NYCRR § 1001.31(h)(1), the Applicant requests that the Board refuse to apply this requirement because it is technologically impossible, impracticable, and unreasonable for all Project components to be operated if the Project were required to comply with this restriction.

In addition, pursuant to 16 NYCRR § 1001.31(h)(3), the Board should elect to refuse to apply this local governmental restriction because the urgent needs of consumers to have GHG emissions reduced, through the goals, targets, and strategies embodied in the CL&CPA, CES, and SEP, outweigh the potential insignificant impacts to the community. This Application details the measures being proposed to minimize potential EMF levels to within the Commission's

Guidelines. Moreover, pursuant to 16 NYCRR § 1001.31(h)(3), the economic benefits to the community from landowner payments, construction jobs and expenditures PILOT payments, and a host community agreement outweigh the alleged benefit of applying the provision.

### 31(f) Procedural Requirements Applicable to Interconnections in Public Rights of Way

The Applicant has determined that there are no procedural requirements in local laws or regulations related to the interconnection or use of water, sewer, or telecommunication lines that are applicable to the Project.

### 31(g) Substantive Requirements Applicable to Interconnections in Public Rights of Way

The Applicant has determined that there are no substantive requirements in the local laws or regulations related to the interconnection or use of water, sewer, or telecommunication lines that are applicable to the Project.

### 31(h) Requirements Applicable to Interconnections in Public Rights of Way that the Applicant Requests the Board Not Apply

As there are no procedural or substantive requirements related to the interconnection or use of water, sewer, or telecommunication lines as identified above in Sections 31(f) and 31(g), there are no requirements which the Applicant is requesting that the Board elect not to apply.

### 31(i) List of Applicable Local Substantive Requirements and Compliance Assessment

The table below presents a list of all applicable substantive requirements to the Project and a description of how the Applicant plans to adhere to those requirements.

**Table 31-3. List of Substantive Requirements to the Facility that Continue to Apply Once Draft Solar Law Adopted and Plans to Adhere to the Requirements**

| Local Requirement | Project Compliance |
|---|---|
| **Zoning Law of the Town of Byron (2013 and amended in 2016)** | |
| Article VI, Section 6.04 – Preservation of Natural Features<br>(a) No structure shall be built within fifty (50) feet of the centerline of the bed of a stream carrying water on average six (6) months of the year, except for:<br>(i) Public bridges, water works, and other municipal or utility facilities.<br>(ii) Such private bridges, fords, drainage conduits, embankments, and similar structures as are necessary to permit access to a lot or portion of thereof or as are incidental to a lawful use of a lot, provided that structure will not have a material adverse effect on the stream, nor alter the flow of water therein, nor substantially increase the likelihood of flood or overflow in the area.<br>(b) No person shall strip, excavate, or otherwise remove topsoil for sale or other use other than on the premises from which it was excavated or pursuant to a permit issued in accord with Section 1102 of this Local Law.<br>(c) Natural features shall be preserved whenever possible. | The Project will comply with the substantive standards as identified in this Section. |
| Article VI: General Provisions Applicable to All Districts; Section 6.05: Regulations Applicable to All Districts<br>(a) One Principle Building and Use per Lot. There shall not be more than one (1) principal use on any lot in the Agricultural (A) Agricultural-Residential (A-R), and Residential (R-1) districts except as provided for in the following:<br>(i) An approved multifamily dwelling project,<br>(ii) A single -family dwelling accompanying a non-residential use permitted on a lot in A-R and R-1 Districts,<br>(iii) A single-family dwelling accompanying a non-residential use requiring a Special Use Permit in A-R and R-1 Districts, if approved by the Planning Board as part of the Special Use Permit application process, provided there is only one use of a commercial nature on the lot. | The Project will comply with the substantive standards as identified in this Section. |

**Table 31-3. List of Substantive Requirements to the Facility that Continue to Apply Once Draft Solar Law Adopted and Plans to Adhere to the Requirements**

| Local Requirement | Project Compliance |
|---|---|
| **Zoning Law of the Town of Byron (2013 and amended in 2016)** | |
| (b) Every principle lot shall have direct access to a public street improved to meet Town requirements.<br>(e) Visibility at Intersections. On a corner lot in any district, no fence, wall, hedge, or other structure or planting more than three feet in height, shall be erected, placed or maintained within the triangular area formed by the intersection street lines and a straight line joining said street at points which are fifty (50) feet (except in R-1 and commercial district thirty (30) feet) distance from the point of intersection, measured along said street lines. The height of three feet shall be measured above the road surface at the nearest edge of road traveled-way. This paragraph shall not apply to existing trees, provided no branches are closer than six (6) feet to the ground.<br>(h) For the purpose of regulating the locations of any building on corner lots, and on lots extending through between two parallel streets, all portions of a corner lot or a through lot which fronts on a public street shall be subject to the front yard requirements of the zoning district in which said corner lot or through lot is located.<br>(i) Except for vehicular parking on driveways, open storage of boats, vehicles, travel trailers, or any other equipment shall not be within any setback, side yard or rear yard requirements in any district. In any event, such vehicles or equipment may not be stored closer than ten (10) feet from lot lines.<br>(g) When a new lot is formed so as to include within its boundaries any part of a former lot on which there is an existing building or use, the subdivisions must be carried out in such a manner as will not violate upon any of the provisions of this Local Law either with respect to any existing structures or use and any proposed structures or use and setbacks.<br>(o) Any application for a building or zoning permit which proposes a change in the natural contours of the lot shall include a storm water drainage plan and shall comply with all Federal, State and Local laws, rules and | |

**Table 31-3. List of Substantive Requirements to the Facility that Continue to Apply Once Draft Solar Law Adopted and Plans to Adhere to the Requirements**

| Local Requirement | Project Compliance |
|---|---|
| **Zoning Law of the Town of Byron (2013 and amended in 2016)** | |
| regulations regarding storm water flows and retainage. | |
| Article VII: Non-Conforming Uses; Section 7.01 - Continuance.<br>(a) Except as otherwise provided in this Article, the lawful use of land or buildings existing at the date of the adoption of this Local Law may be continued although such use or building does not conform to the regulations specified by this Local Law for the zoning district in which such land or building is located. The following provisions shall, however, apply to all non-conforming uses:<br>(i) A non-conforming lot shall not be further reduced in size.<br>(ii) A non-conforming building shall not be enlarged, extended, or increased unless such enlargement would tend to reduce the degree of non-conformance.<br>(iii) A non-conforming use (building or land) shall not be expanded except as may be authorized by Section 702.<br>(iv) A non-conforming use may be changed into a conforming use. When a non-conforming use is changed to conform to the requirements of this Local Law, the use of the building or tract of land shall not be changed again except in accordance with these regulations. | The Project will comply with the substantive standards as identified in this Section. |
| Article X: Supplementary Regulations; Section 10.04 Sign and Billboard Regulations.<br>(a) General Provisions<br>(i) No sign may because if its design, location,<br>(ii) state of repair, or condition impair public safety.<br>(iii) No sign shall be located that it impairs the sight line from any street or road to any other street or road or to or from any sidewalk to any street or road.<br>(iv) No sign may be located, lighted or designated in any manner which could | The Project will comply with the substantive standards as identified in this Section. |

**Table 31-3. List of Substantive Requirements to the Facility that Continue to Apply Once Draft Solar Law Adopted and Plans to Adhere to the Requirements**

| Local Requirement | Project Compliance |
|---|---|
| **Zoning Law of the Town of Byron (2013 and amended in 2016)** | |
| cause it to be confused as a traffic light or traffic control device.<br>(v) No sign shall impede the operation of any door, window, fire escape or any other ingress or egress to any building.<br>(vi) Illuminated signs may not shine or reflect light onto or into adjacent property.<br>(vii) Except for emergency vehicles or facilities, flashing, oscillating, or revolving lights are not permitted.<br>(viii) No permit issued pursuant to this Local Law shall authorize the installation of any sign in any State Highway right -of- way.<br>(ix) Off-premises business and/or advertising signs shall not be permitted in any district.<br>(b) Signs Permitted in all Districts<br>(i) Signs designating a Home Occupation shall be permitted on the lot which the Home Occupation is conducted but shall neither exceed nine (9) square feet nor be located closer than ten feet (10) from the highway right-of-way or any property line.<br>(ii) Signs giving directions to public facilities (i.e. fire stations, medical treatment facilities, post offices, ambulance stations, public parking areas, etc.)<br>(iii) Temporary signs not exceeding nine (9) square feet in the A, AR,R-1 and C-1 Districts nor sixteen (16) square feet in the 1-1 or C-2 District provided:<br>(iv) No such sign shall be installed or displayed more than sixty (60) days prior to the first day of the event, and<br>(v) All such signs shall be removed with ten (10) days of the last day of the event.<br>(c) Non-Conforming Signs<br>(i) No such non- conforming signs shall be enlarged, extended, relocated, or altered in any manner and shall be removed in the event the use advertised on the sign is discontinued or changed. Normal maintenance such as painting and replacement of parts shall not be interpreted as violation of this provision. | |

**Table 31-3. List of Substantive Requirements to the Facility that Continue to Apply Once Draft Solar Law Adopted and Plans to Adhere to the Requirements**

| Local Requirement | Project Compliance |
|---|---|
| **Zoning Law of the Town of Byron (2013 and amended in 2016)** | |
| (d) Signs Permitted in Agricultural, Agricultural-Residential, and Residential Districts<br>(i) One (1) on-premise sign identifying a church, public building or other permitted non-commercial use located no closer than ten (10) feet from a property line with a maximum size of eight (8) feet wide x six (6) feet length in area per side. Two (2) off-premises (non-commercial) directional signs located no closer than ten (10) feet from the property line with a maximum size of nine (9) square feet per side.<br>(ii) One (1) on premises sign for uses which have a valid Special Use Permit to operate. Such sign may either be wall mounted with a maximum size of nine (9) square feet, or freestanding with a maximum size of nine (9) square feet per side. Freestanding signs shall be limited in height to 15 feet and not be located within five (5) feet of a property line. The final location/placement of all signs for uses allowed by Special Use Permits in the R-1 and A-R Districts shall be determined by the Town Planning Board on said Special Use Permit.<br>(e) Signs Permitted in General Commercial and Industrial Districts<br>(i) Freestanding business signs shall be permitted. Such signs shall conform to the following provisions relating to their size and number:<br>1) Each business or industrial use may have one (1) free-standing sign. Such free- standing sign shall have an area of neither more than 25 feet nor be more than twenty-five ( 25 )feet in height and be located not less than ten (10) feet from the property lines. Sign location subject to site plan approval by the Town Planning Board.<br>2) In a shopping center or industrial park there may be one directory sign at any location thereof which | |

**Table 31-3. List of Substantive Requirements to the Facility that Continue to Apply Once Draft Solar Law Adopted and Plans to Adhere to the Requirements**

| Local Requirement | Project Compliance |
|---|---|
| **Zoning Law of the Town of Byron (2013 and amended in 2016)** | |
| shall not exceed five (5) square feet for each business in the shopping center or industrial park provided that no such sign shall exceed thirty (30) square feet in area. No individual free-standing sign shall be allowed in a shopping center.<br>(ii) Off-premise direction signs shall be of such area and in such location as may be determined in the discretion of the Planning Board.<br>(f) Signs Prohibited<br>(i) The following types of signs are prohibited and shall not be permitted, erected, or maintained in any zoning district and the owner thereof shall upon written notice of the Zoning Enforcement Officer forthwith, in the case of immediate danger and in any case within not more than ten (10) days, make sure such sign conform with the provisions of this section or shall remove it. If within ten (l0)days the order is not complied with, the Zoning Enforcement Officer may cause said sign to be removed at the expense of the owner.<br>1) Any sign which by reason of its size, location, content, coloring or manner of illumination, constitutes a traffic hazard or a detriment to traffic safety by obstructing the vision of drivers, or by obstruction or detraction from the visibility of any traffic control device on public streets and roads.<br>2) Any sign which obstructs free ingress to or egress from a required door, window, fire escape or other required exit way.<br>3) Signs which make use of words such as "STOP", "LOOK", "DANGER" and other words, phrases, symbols or characters, in such a manner as to interfere with, mislead or confuse traffic.<br>4) Any sign which has any visible | |

**Table 31-3. List of Substantive Requirements to the Facility that Continue to Apply Once Draft Solar Law Adopted and Plans to Adhere to the Requirements**

| Local Requirement | Project Compliance |
|---|---|
| **Zoning Law of the Town of Byron (2013 and amended in 2016)** | |
| moving part, for example visible revolving parts or visible mechanical movement of any description (except time and temperature revolving signs as allowed) or other apparent visible movement achieved by electrical, electronic or kinetic means, including intermittent electrical pulsations, or by action of normal wind currents.<br>5) It shall be unlawful to have any sign insecure, unsafe or unlawfully installed,<br>6) erected or maintained | |

## Table 31-4. List of Proposed Applicable Substantive Requirements to the Facility and Plans to Adhere to the Requirements

| Local Requirement | Project Compliance |
|---|---|
| **Draft Town of Byron Solar Energy Local Law, 2020** | |
| Section 11.15, Article II, Section 2.12.1 – Permissible Uses<br>All Tier 3 and Tier 4 Solar Energy Systems are permitted within Agricultural (A), Agricultural Residential (A-R), Commercial (C-1, C-2), and Industrial (I) districts. | The Applicant is requesting the Siting Board not apply a portion of this requirement. See justification in Section 31(e) above. |
| Section 11.15, Article II, Section 2.12.3 – Underground Requirements<br>All on-site utility lines shall be placed underground, with the exception of the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way. Electric lines shall be buried no deeper than 24 inches to avoid mixing topsoil and subsoil. | The Applicant is requesting the Siting Board not apply a portion of this requirement. See justification in Section 31(e) above. |
| Section 11.15, Article II, Section 2.12.4 – Roads and Berms.<br>[a] Vehicular Paths. Vehicular paths within the site shall be designed to minimize the extent of impervious materials and soil compaction. Topsoil in the same location as roads shall be stripped and stockpiled, and gravel roads shall be constructed over woven geotextile.<br>[b] Stripped Top Soil. All Stripped Top Soil shall be stockpiled in berms at or near the perimeter of the area from which it was removed to construct a berm seeded and planted in conformity with the requirements of Section I(ii)e(vi) of this Law and the requirements of the Environmental Conservation Law to reduce the visual impact of the solar panel law. | The Applicant is requesting the Siting Board not apply a portion of this requirement. See justification in Section 31(e) above. |
| Section 11.15, Article II, Section 2.12.5 – Signage<br>[a] No signage or graphic content shall be displayed on the Solar Energy Systems except the manufacturer's name, equipment specification information, safety information, and 24-hour emergency contact information. Said information shall be depicted within an area no more than 8 square feet.<br>[b] As required by National Electric Code (NEC), disconnect and other emergency shut-off information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations. | The Project will comply with the substantive standards as identified in this Section. |

**Table 31-4. List of Proposed Applicable Substantive Requirements to the Facility and Plans to Adhere to the Requirements**

| Local Requirement | Project Compliance |
|---|---|
| Section 11.15, Article II, Section 2.12.6 - Glare<br>All Solar Panels shall have anti-reflective coating(s). | The Project will comply with the substantive standards as identified in this Section. |
| Section 11.15, Article II, Section 2.12.7 - Lighting<br>Lighting of the Solar Energy Systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties. | The Project will comply with the substantive standards as identified in this Section. |
| Section 11.15, Article II, Section 2.12.8 – Tree-cutting<br>Removal of existing trees larger than 6 inches in diameter is prohibited. | The Applicant is requesting the Siting Board not apply this requirement. See justification in Section 31(e) above. |
| Section 11.15, Article II, Section 2.12.9 - Decommissioning<br>Solar Energy Systems that have been abandoned and/or not producing electricity for a period of 1 year shall be removed at the Owner and/or Operators expense, which at the Owner's option may come from any security made with the Town of Byron. | The Project will comply with the substantive standards as identified in this Section. |
| Section 11.15, Article II, Section 2.12.12 - Special Use Permit Standards and substantive standard for Tier 3 and Tier 4 Solar Energy Systems, as provided in the identified section.<br>a. Lot size: The property on which the Tier 3 and Tier 4 Solar Energy System is placed shall meet the lot size requirements in Appendix 1.<br>b. Setbacks: The Tier 3 and Tier 4 Solar Energy Systems shall meet the setback requirements in Appendix 1.<br>c. Height: The Tier 3 and Tier 4 Solar Energy Systems shall comply with the height limitations in Appendix 1.<br>d. Lot coverage: The following components of a Tier 3 and Tier 4 Solar Energy System shall be considered included in the calculations for lot coverage requirements:<br>i. Foundation systems, typically consisting of driven piles or monopoles or helical screws with or without small concrete collars.<br>ii. All mechanical equipment of the Solar Energy System, including any pad mounted structure for batteries, switchboard, transformers, or storage cells.<br>iii. Access roads servicing the Solar Energy System.<br>Lot coverage of the Solar Energy System, as defined above, shall not exceed the maximum lot coverage requirement of the underlying zoning district. | The Project will comply with the substantive standards as identified in this Section except for those identified in Section 31(e) above, for which the Applicant is requesting the Siting Board not apply such requirements. |

**Table 31-4. List of Proposed Applicable Substantive Requirements to the Facility and Plans to Adhere to the Requirements**

| Local Requirement | Project Compliance |
|---|---|
| e. Fencing Requirements.<br>i. All mechanical equipment, including any structure for storage batteries, shall be enclosed by a 7-foot-high fence, as required by NEC, with a self-locking gate to prevent unauthorized access.<br>ii. Chain-link fencing surround Tier 4 Solar Energy Systems shall be visually screened.<br><br>g. Agricultural Resources. For projects located on agricultural lands:<br>i. Tier 3 and Tier 4 Solar Energy Systems on Prime Farmland or Farmland of Statewide Importance shall be required to seed 75% of the total surface area of all solar panels on the lot with native perennial vegetation where appropriate.<br>ii. Tier 3 and Tier 4 Solar Energy Systems located on Prime Farmland shall be constructed in accordance with the requirements of the New York State Department of Agriculture and Markets Guidelines for Agricultural Mitigation for Solar Energy Projects.<br>iii. Tier 3 and Tier 4 Solar Energy System owners shall develop, implement, and maintain native vegetation pursuant to a vegetation management plan by providing native perennial vegetation and foraging habitat beneficial to game birds, songbirds, and pollinators. When establishing perennial vegetation and beneficial foraging habitat, the owners shall use native plant species and seed mixes.<br>iv. Tier 4 Solar Energy Systems shall not result in conversion of more than 10% of all prime farmland in the Town of Byron. Converted farmland includes both prime farmland inside any perimeter fencing associated with Tier 4 facilities, and any adjacent prime farmland that is no longer suitable for farming as a result of the Tier 4 facility. Prime farmland means prime farmland as defined by the United States Department of Agriculture, New York State, or the Natural Resources Conservation Service. A farmland "conversion" is defined by Section | |

**Table 31-4. List of Proposed Applicable Substantive Requirements to the Facility and Plans to Adhere to the Requirements**

| Local Requirement | Project Compliance |
|---|---|
| 301(8) of the Agricultural and Markets Law.<br>(h)(i) Lighting and Security Cameras:<br>ii. All flood lights and other lighting devices designed and installed to protect the security of the Solar Energy System and the area in it vicinity shall be so designed installed and maintained to eliminate any glare or intrusion of any direct light into any residential building or any agricultural building housing livestock.<br>iii. No cameras or other photographic device installed on or about the area of the Solar Energy System shall be designed, installed and maintained to be capable of photographing any activity taking place outside the said area and the adjoining property more than 50 feet outside the fence installed pursuant to this law | |
| Section 11.15, Article II, Section 2.13 - Safety<br>2.13.1 Solar Energy Systems and Solar Energy Equipment shall be certified under the applicable electrical and/or building codes as required.<br>2.13.2 Solar Energy Systems shall be maintained in good working order and in accordance with industry standards. Site access shall be maintained, including snow removal at a level acceptable to the local fire department.<br>2.13.3 If Storage Batteries are included as part of the Solar Energy System, they shall meet the requirements of any applicable fire prevention and building code when in use and, when no longer used, shall be disposed of in accordance with the laws and regulations of the Town of Byron and any applicable federal, state, or county laws or regulations.<br>2.13.4 Electromagnetic fields: No Tier 3 or Tier 4 Solar Energy System shall exceed 1 mg of electromagnetic emissions from any cable, wire conduits conveying electrical energy in or about the Solar Energy System. | The Project will comply with the substantive standards as identified in this Section except for those identified in Section 31(e) above, for which the Applicant is requesting the Siting Board not apply such requirements. |
| **Draft Town of Byron Energy Storage Local Law, 2020** | |

| | |
|---|---|
| Town of Byron Battery Energy Storage System Local Law – 6. Permitting Requirement for Tier 3 Battery Energy Storage Systems:<br>B. Floodplain. The Applicant of battery energy storage systems shall obtain necessary local floodplain development permits if proposed within Special Flood Hazard Areas.<br>C. Utility Lines and Electrical Circuitry. All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility, with the exception of the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way.<br>D. Signage.<br>1) The signage shall be in compliance with ANSI Z535 and shall include the type of technology associated with the battery energy storage systems, any special hazards associated, the type of suppression system installed in the area of battery energy storage systems, and 24-hour emergency contact information, including reach-back phone number.<br>2) As required by the NEC, disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.<br>E. Lighting. Lighting of the battery energy storage systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.<br>F. Vegetation and tree-cutting. Areas within 25 feet on each side of Tier 3 Battery Energy Storage Systems shall be cleared of combustible vegetation and other combustible growth. Single specimens of trees, shrubbery, or cultivated ground cover such as green grass, ivy, succulents, or similar plants used as ground covers shall be permitted to be exempt provided that they do not form a means of readily transmitting fire. Removal of trees should be minimized to the extent possible. | The Project will comply with the substantive standards as identified in this Section. |

**Table 31-4. List of Proposed Applicable Substantive Requirements to the Facility and Plans to Adhere to the Requirements**

| Local Requirement | Project Compliance |
|---|---|
| G. Noise. The 1-hour average noise generated from the battery energy storage systems, components, and associated ancillary equipment shall not exceed a noise level of 60 dBA as measured at the outside wall of any Non-participating Residence and Occupied Community Building. Applicants may submit equipment and component manufacturers noise ratings to demonstrate compliance. The applicant may be required to provide Operating Sound Pressure Level measurements from a reasonable number of sampled locations at the perimeter of the battery energy storage system to demonstrate compliance with this standard. | |

Twenty-seven new access entrances to the Project are proposed along Byron Batavia Road, Bank Street, Cockram Road, Casewell Road, Starowitz Road, Walkers Corners Road, Townline Road, Ivison Road, Gillette Road, and Transit Road; along with a collection line crossing. The Applicant will consult with the County to determine any approvals required and/or the necessity of entering into a road use agreement. Road use agreements with the Town are also expected to be negotiated and access points and collection line crossings on local roadways may be addressed therein.

## 31(j) Zoning

The entire Project Area is located in the Agricultural-Residential (A-R), Residential (R-1), and General Commercial (C-2) zoning districts. Under the Draft Town of Byron Solar Energy Law, dated November 20, 2020, ground-mounted solar energy systems are permitted in Agricultural (A), A-R, Commercial, including C-2, and Industrial (I) districts. While some Project parcels, or a portion of parcels, are zoned as residential, the majority of these parcels will not be utilized for solar panel components and will instead be utilized as access for underground collection lines.

The following table provides the current zoning designation of parcels within the Project Area.

**Table 31-5. Zoning of Project Parcels**

| Parcel ID | Zoning District |
|---|---|
| 4.-1-11.1 | A - R Agricultural - Residential |
| 4.-1-14.2 | A - R Agricultural - Residential |
| 4.-1-27.11 | A - R Agricultural - Residential |
| 5.-1-1 | A - R Agricultural - Residential |
| 5.-1-96 | A - R Agricultural - Residential |
| 5.-2-54.1 | A - R Agricultural - Residential |
| 5.-2-58.11 | A - R Agricultural - Residential |
| 6.-1-13.111 | A - R Agricultural - Residential |
| 6.-1-13.12 | A - R Agricultural - Residential |
| 6.-1-14 | A - R Agricultural - Residential |
| 6.-1-15.2 | A - R Agricultural - Residential |
| 6.-1-16.111 | A - R Agricultural - Residential |
| 6.-1-16.112 | A - R Agricultural - Residential |
| 6.-1-19.213 | A - R Agricultural - Residential |
| 6.-1-20.2 | A - R Agricultural - Residential |
| 6.-1-22 | A - R Agricultural - Residential |
| 6.-1-25.1 | A - R Agricultural - Residential |
| 6.-1-26.1 | A - R Agricultural - Residential |
| 6.-1-26.2 | A - R Agricultural - Residential |
| 6.-1-28.111 | A - R Agricultural - Residential |
| 6.-1-33.111 | A - R Agricultural - Residential |
| 6.-1-37.1 | A - R Agricultural - Residential |
| 6.-1-37.2 | A - R Agricultural - Residential |
| 6.-1-41 | A - R Agricultural - Residential |
| 6.-1-42.1 | A - R Agricultural - Residential |
| 6.-1-42.2 | A - R Agricultural - Residential |
| 6.-1-43.1 | A - R Agricultural - Residential |
| 6.-1-44 | A - R Agricultural - Residential |
| 6.-1-5.1 | A - R Agricultural - Residential |
| 6.-1-52 | A - R Agricultural - Residential |
| 6.-1-6 | A - R Agricultural - Residential |
| 6.-1-8.21 | A - R Agricultural - Residential |
| 7.-1-103.1 | A - R Agricultural - Residential |
| 7.-1-111 | A - R Agricultural - Residential |
| 7.-1-46.111 | R - 1 Residential |
| 7.-1-46.111 | C - 2 General Commercial |
| 7.-1-47.11 | A - R Agricultural - Residential |
| 7.-1-47.11 | R - 1 Residential |
| 7.-1-60.113 | A - R Agricultural - Residential |

**Table 31-5. Zoning of Project Parcels**

| Parcel ID | Zoning District |
|---|---|
| 7.-1-65.12 | A - R Agricultural - Residential |
| 7.-1-65.12 | R - 1 Residential |
| 7.-1-66.1 | A - R Agricultural - Residential |
| 7.-1-66.1 | R - 1 Residential |
| 7.-1-73.1 | A - R Agricultural - Residential |
| 7.-1-88.11 | R - 1 Residential |
| 7.-1-88.11 | C - 2 General Commercial |
| 8.-1-1.2 | A - R Agricultural - Residential |
| 8.-1-10.2 | A - R Agricultural - Residential |
| 8.-1-17.12 | A - R Agricultural - Residential |
| 8.-1-19.12 | A - R Agricultural - Residential |
| 8.-1-2.2 | A - R Agricultural - Residential |
| 8.-1-26.1 | A - R Agricultural - Residential |
| 8.-1-28 | A - R Agricultural - Residential |
| 8.-1-29 | A - R Agricultural - Residential |
| 8.-1-3 | A - R Agricultural - Residential |
| 8.-1-38.1 | A - R Agricultural - Residential |

## 31(k) Town of Byron Applicable Laws, Codes, and Regulations

The above sections address the Town of Byron zoning ordinance, including applicable solar energy and energy solar code provisions currently in draft. Therefore, draft laws have been included as Supplemental Appendices 31-2 and 31-3.

## References

National Fire Protection Association (NFPA) (1897, updated 2020). NFPA 70 National Electric Code (NEC).

New York Department of Agriculture and Markets. (Revised October 18, 2019). Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands. Available at: https://agriculture.ny.gov/system/files/documents/2019/10/solar_energy_guidelines.pdf. Access December 2020.

# Supplemental Appendix 31-2

## Town of Byron Draft Solar Energy Law, 2020

**Town of Byron Local Law #3 of 2020:**

**A Local Law to Repeal and Replace Section 11.15 of the Zoning Law of the Town of Byron Relating to Solar Energy Systems**

**Be it enacted by the Town Board of the Town of Byron, New York as follows:**

## ARTICLE I. ENACTMENT AND INTENT

### Section 1.01. Authority.

This local law is authorized by, and adopted pursuant to, New York Town Law §§ 261-263, New York State Municipal Home Rule Law § 10(ii)(a)(12), the Statute of Local Governments, the laws of the Town of Byron, Article IX, §§ 1(a) and 2(c) of the New York State Constitution, and the general police powers vested with the Town of Byron to enact zoning regulations and to promote the health, safety and welfare of all residents and property owners in the Town.

### Section 1.02. Statement of Purpose and Legislative Intent.

1.02.1 In light of recent changes in New York State energy policy, the creation of the Office or Renewable Energy Siting, and aggressive State targets for new solar power generation and battery energy storage system capacity, the Town of Byron anticipates an increase in proposals for solar energy and battery energy storage facilities of all sizes in the Town. The Town of Byron desires to amend its zoning code to further align solar energy zoning provisions with the goals and objectives set forth in the January 2019 Town of Byron Comprehensive Plan. The modifications to the law set out herein support state energy policy by promoting appropriate solar development while further protecting existing community character, valuable farmland, and other exceptional local resources. The enactment of this law also evinces the Town's intent for State siting bodies to strictly apply all substantive provisions in the Town Code.

1.02.2 This Solar Energy Local Law is adopted to advance and protect the public health, safety, and welfare of the Town of Byron by creating regulations for the installation and use of solar energy generating systems and equipment, with the following objectives:

[a] To support the following vision statement included in the 2019 Town of Byron Comprehensive Plan: The Town of Byron should seek to preserve its rural nature and agricultural base. There is room and a need for limited residential, industrial and commercial development, but the current character of the community is what has attracted and keeps the residents of the Town here – the character should not be radically altered. Any new development must take place in a very planned, measured, and directed manner.

[b] To maintain the rural character of the town; and

[c] To preserve the agricultural base of land and farm operations;

[d] To encourage a sense of pride in the community and allow local residents, farms, businesses, and government to take advantage of solar energy systems that in some cases may be consistent with the community character of the Town;

[e] To improve public health;

[f] To diversify energy resources to decrease dependence on the grid;

[g] To aid in the energy independence of the community as well as the country;

[h] To decrease the use of fossil fuels, thereby reducing the carbon footprint of the Town of Byron;

[i] To avoid, or if avoidance is impossible, mitigate the impacts of Solar Energy Systems on environmental resources such as important agricultural lands, forests, wildlife and other protected resources;

[j] To increase employment and business development in the Town of Byron by furthering the installation of appropriately sited Solar Energy Systems;

[k] To decrease the cost of electricity to the owners of residential and commercial properties, including single-family homes;

## ARTICLE II. REPEALING AND REPLACING SECTION 11.15 OF ARTICLE XI OF THE ZONING LAW OF THE TOWN OF BYRON.

**Section 2.01: Repeal of Section 11.15 From the Zoning Law of the Town of Byron.**

Section 11.15 ("Solar Energy System"), as revised, of Article XI of the Town of Byron Zoning Law of 2013 is hereby deleted and repealed in its entirety.

**Section 2.02: Replacement of Section 11.15 in the Zoning Law of the Town of Byron.**

In place of the deleted and repealed Section 11.15, as revised, of Article XI of the Town of Bryon Zoning Law of 2013, the Town of Byron Zoning Code is amended to add a new Section 11.15. The new Section 11.15 of Article XI of the Town of Bryon Zoning Code, which fully replaces the deleted and repealed Section, is entitled "Section 11.15 Solar Energy Systems."

The new Section 11.15 of Article XI of the Town of Byron Zoning Code is amended to add the following:

2.02.1 Authority: This section is adopted pursuant to New York Town Law §§ 261- 263, New York State Municipal Home Rule Law § 10(ii)(a)(12), and Article IX, §§ 1(a) and 2(c) of the New York State Constitution.

2.02.2 Statement of Purpose: In light of recent changes in New York State energy policy, the creation of the Office or Renewable Energy Siting, and aggressive State targets for new solar power generation and battery energy storage system capacity, the Town of Byron anticipates an increase in proposals for solar energy and battery energy storage facilities of all sizes in the Town. The Town of Byron desires to amend its zoning code to further align solar energy zoning provisions with the goals and objectives set forth in the January 2019 Town of Byron Comprehensive Plan. The modifications to the law set out herein support state energy policy by promoting appropriate solar development while further protecting existing community character, valuable farmland, and other exceptional local resources. The enactment of this law also evinces the Town's intent for State siting bodies to strictly apply all substantive provisions in the Town Code.

2.02.3 Objectives: This Solar Energy Local Law is adopted to advance and protect the public health, safety, and welfare of the Town of Byron by creating regulations for the installation and use of solar energy generating systems and equipment, with the following objectives:

[a] To support the following vision statement included in the 2019 Town of Byron Comprehensive Plan: The Town of Byron should seek to preserve its rural nature and agricultural base. There is room and a need for limited residential, industrial and commercial development, but the current character of the community is what has attracted and keeps the residents of the Town here – the character should not be radically altered. Any new development must take place in a very planned, measured, and directed manner.

[b] To maintain the rural character of the town; and

[c] To preserve the agricultural base of land and farm operations;

[d] To encourage a sense of pride in the community and allow local residents, farms, businesses, and government to take advantage of solar energy systems that in some cases may be consistent with the community character of the Town;

[e] To improve public health

[f] To diversify energy resources to decrease dependence on the grid;

[g] To aid in the energy independence of the community as well as the country;

[h] To decrease the use of fossil fuels, thereby reducing the carbon footprint of the Town of Byron;

[i] To avoid, or if avoidance is impossible, mitigate the impacts of Solar Energy Systems on environmental resources such as important agricultural lands, forests, wildlife and other protected resources;

[j] To increase employment and business development in the Town of Byron by furthering the installation of appropriately sited Solar Energy Systems;

[k] To decrease the cost of electricity to the owners of residential and commercial properties, including single- family homes;

**Section 2.03: Definitions.**

For the purpose of this section, certain words and terms used herein are defined as follows:

2.03.1 Applicant: The individual/individuals or entity/entities that apply for any federal, state or local government permit or permission for installation of a Solar Energy System.

2.03.2 Building – Integrated Solar Energy System: A combination of Solar Panels and Solar Energy Equipment integrated into any building envelope system such as vertical facades, semitransparent skylight systems, roofing materials, or shading over windows, which produce electricity for on-site construction.

2.03.3 Farmland of Statewide Importance: Land, designated as "Farmland of Statewide Importance" in the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS)'s Soil Survey Geographic (SSURGO) Database on Web Soil Survey that is of state wide importance for the production of food, feed, fiber, forage, and oilseed crops as determined by the appropriate state agency or agencies.

Farmland of Statewide Importance may include tracts of land that have been designated for agriculture by state law.

2.03.4 Glare: The effect by reflections of light with intensity sufficient as determined in a commercially reasonable manner to cause annoyance, discomfort, or loss in visual performance and visibility in any material respects.

2.03.5 Ground-Mounted Solar Energy System: A Solar Energy System that is anchored to the ground via a pole or other mounting system, detached from any other structure that generates electricity for onsite or off-site consumption.

2.03.6 Native Perennial Vegetation: Native wildflowers, forbs, and grasses that serve as habitat, forage, and migratory way stations for pollinators and shall not include any prohibited or regulated invasive species as determined by the New York State Department of Environmental Conservation.

2.03.7 Pollinator: Bees, birds, bats, and other insects or wildlife that pollinate flowering plants, and includes both wild and managed insects.

2.03.8 Prime Farmland: Land, designated as "Prime Farmland" in the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS)'s Soil Survey Geographic (SSURGO) Database on Web Soil Survey that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these land uses.

2.03.9 Project Site: The physical area needed for a Solar Energy System including any setbacks, buffers, fencing, roads, screening, support facilities, and Solar Energy Equipment.

2.03.10 Roof-Mounted Solar Energy System: A Solar Energy System located on the roof of any legally permitted building or structure that produces electricity for onsite or off-site consumption.

2.03.11 Solar Access: Space open to the sun and clear of overhangs or shade so as to permit the use of active and/or passive Solar Energy Systems on individual properties.

2.03.12 Solar Energy Equipment: Electrical material, hardware, inverters, conduit, storage devices, or other electrical and photovoltaic equipment associated with the production of electricity.

2.03.13 Solar Energy System: A system of components intended for the collection, inversion, storage, and/or distribution of solar energy and that directly or indirectly generates thermal, chemical, electrical, or other usable energy. A solar energy system consists of, but is not limited to, solar collectors, mounting devices or structures, generators/turbines, water and energy storage and distribution systems, Battery Energy Storage Systems, storage, maintenance and/or other accessory buildings, inverters, fans, combiner boxes, meters, transformers, and all other mechanical structures. The term also includes, but is not limited to, Solar Panels and Solar Energy Equipment. The area of a Solar Energy System includes all the land inside the perimeter of the Solar Energy System,

which extends to any interconnection equipment. A Solar Energy System is classified as a Tier 1, Tier 2, Tier 3 or Tier 4 Solar Energy System as set forth in Sections 2.04 through 2.07.

2.03.14 Solar Panel: A photovoltaic device capable of collecting and converting solar energy into electricity.

2.03.15 Storage Battery: A device that stores energy and makes it available in an electrical form.

**Section 2.04: Tier 1 Solar Energy Systems include the following:**

2.02.1 Roof-Mounted Solar Energy Systems; and

2.02.2 Building-Integrated Solar Energy Systems.

**Section 2.05: Tier 2 Solar Energy Systems include the following:**

2.05.1 Ground-Mounted Solar Energy Systems with a total surface area of all solar panels on the lot of up to 5,000 square feet and that generate up to 110% of the electricity consumed on the site over the previous 12 months.

2.05.2 Notwithstanding the above, a solar energy system located on a farm operation, as defined in § 301(11) or the relevant provision of the New York State Agriculture and Markets Law, and located in a New York State Agricultural District, which primarily serves the needs of such farm operation and produces up to 110% of the farm's needs, or other amount that may be established by resolution of the Byron Town Board in accordance with New York State Department of Agriculture and Markets guidance, shall be deemed a Tier 2 solar energy system subject to limitations on farmland conversion contained in Section§ 23216.12 (F) and (G).

2.05.3 A system that does not exceed the production or output limits and otherwise conforms to the requirements of this definition shall not be excluded from designation as a Tier 2 solar energy system as a result of selling or otherwise receiving credits or benefits for excess energy provided to the distribution grid.

**Section 2.06: Tier 3 Solar Energy Systems**

These are systems that are not included in the definition for Tier 1, Tier 2, or Tier 4 Solar Energy Systems. The facility area of Tier 3 Solar Energy Systems shall not exceed 15 acres in size. The facility area shall include the area within all perimeter fencing, and any area used for visual screening vegetation, and any area used for access roads.

**Section 2.07: Tier 4 Solar Energy Systems**

These include any Solar Energy System greater than 15 acres in size, including the area within all perimeter fencing, and any area used for visual screening vegetation, and any area used for access roads.

**Section 2.08: Applicability**

Local Law shall apply to all Solar Energy Systems permitted, installed, or modified in the Town of Byron after the effective date of this Local Law, excluding general maintenance and repair.

2.08.1 Solar Energy Systems constructed or installed prior to the effective date of this Local Law shall not be required to meet the requirements of this Local Law.

2.08.2 Any proposed Solar Energy System subject to review by the New York Board on Electric Generation and Siting and the Environment pursuant to Article 10 of the New York State Public Service Law, or the Office of Renewable Energy Siting pursuant to Article 94-c of the Executive Law, shall be subject to all substantive provisions of this Section and any other applicable Byron Town Law.

2.08.3 All Solar Energy Systems shall be designed, erected, and installed in accordance with all applicable codes, regulations, and industry standards as referenced in the NYS Uniform Fire Prevention and Building Code ("Building Code"), the NYS Energy Conservation Code ("Energy Code").

**Section 2.09 General Requirements:**

2.09.1 A Building and Zoning permit shall be required for installation of all Solar Energy Systems.

2.09.2 Issuance of permits and approvals by the Town of Byron Planning Board shall include review pursuant to the State Environmental Quality Review Act [ECL Article 8 and its implementing regulations at 6 NYCRR Part 617 ("SEQRA")].

2.09.3 Unless preempted or waived by a body of competent jurisdiction, the procedural and substantive components of this law shall apply regardless of any contract, easement, or license that may exist between the Applicant and any other landowner in the Town.

**Section 2.10. Permitting Requirements for Tier 1 Solar Energy Systems**

2.10.1 All Tier 1 Solar Energy Systems shall be permitted in all zoning districts and shall be exempt from site plan review under the local zoning code or other land use regulation, subject to the following conditions for each type of Solar Energy Systems:

2.10.2 Roof-Mounted Solar Energy Systems shall incorporate, the following design requirements:

[a] Solar Panels on pitched roofs shall be mounted with a maximum distance of 8 inches between the roof surface and the highest edge of the system.

[b] Solar Panels on pitched roofs shall be installed parallel to the roof surface on which they are mounted or attached. (c) Solar Panels on pitched roofs shall not extend higher than the highest point of the roof surface on which they are mounted or attached.

[c] Solar Panels on flat roofs shall not extend above the top of the surrounding parapet, or more than 24 inches above the flat surface of the roof, whichever is higher.

[d] Glare: All Solar Panels shall have anti-reflective coating(s).

[e] Height: All Roof-Mounted Solar Energy Systems shall be subject to the maximum height regulations specified for principal and accessory buildings within the underlying zoning district.

[f] Building-Integrated Solar Energy Systems shall be shown on the plans submitted for the building permit application for the building containing the system.

**Section 2.11 Permitting Requirements for Tier 2 Solar Energy Systems**

2.11.1 All Tier 2 Solar Energy Systems shall be permitted in all zoning districts as accessory structures and shall require a site plan review under the local zoning code or other land use regulations, subject to the following conditions:

2.11.2 Glare: All Solar Panels shall have anti-reflective coating(s).

2.11.3 Setbacks: Tier 2 Solar Energy Systems shall be subject to the setback regulations specified for the accessory structures within the underlying zoning district. All Ground-Mounted Solar Energy Systems shall only be installed in the side or rear yards in residential districts.

2.11.4 Height: Tier 2 Solar Energy Systems shall be subject to the height limitations specified for accessory structures within the underlying zoning district.

2.11.5 Screening and Visibility:

[a] All Tier 2 Solar Energy Systems shall have views minimized from adjacent properties.

[b] Solar Energy Equipment shall be located in a manner to reasonably avoid and/or minimize blockage of views from surrounding properties and shading of property to the north, while still providing adequate solar access.

2.11.6 Lot Size: Tier 2 Solar Energy Systems shall comply with the existing lot size requirement specified for accessory structures within the underlying zoning district.

**Section 2.12 Permitting requirements for Tier 3 and Tier 4 Solar Energy Systems**

2.12.1 All Tier 3 and Tier 4 Solar Energy Systems are permitted within Agricultural (A), Agricultural Residential (A-R), Commercial (C-1, C-2), and Industrial (I) districts with a Special Use Permit and Site Plan Review approved by the Planning Board, and subject to site plan application requirements set forth in Section 3.03 and 3.05 (Town of Byron Zoning Law).

2.12.2 Applications for the installation of Tier 3 and Tier 4 Solar Energy System shall be reviewed by the Zoning Enforcement Officer for completeness.

2.12.3 Underground Requirements. All on-site utility lines shall be placed underground, with the exception of the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way. Electric lines shall be buried no deeper than 24 inches to avoid mixing topsoil and subsoil.

2.12.4 Roads and Berms.

[a] Vehicular Paths. Vehicular paths within the site shall be designed to minimize the extent of impervious materials and soil compaction. Topsoil in the same location as roads shall be stripped and stockpiled, and gravel roads shall be constructed over woven geotextile.

[b] Stripped Top Soil. All Stripped Top Soil shall be stockpiled in berms at or near the perimeter of the area from which it was removed to construct a berm seeded and planted in conformity with the requirements of Section I(ii)e(vi) of this Law and the requirements of the Environmental Conservation Law to reduce the visual impact of the solar panel law.

2.12.5 Signage.

[a] No signage or graphic content shall be displayed on the Solar Energy Systems except the manufacturer's name, equipment specification information, safety information, and 24-hour emergency contact information. Said information shall be depicted within an area no more than 8 square feet.

[b] As required by National Electric Code (NEC), disconnect and other emergency shut-off information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.

2.12.6 Glare. All Solar Panels shall have anti-reflective coating(s).

2.12.7 Lighting. Lighting of the Solar Energy Systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.

2.12.8 Tree-cutting. Removal of existing trees larger than 6 inches in diameter is prohibited.

2.12.9 Decommissioning. Solar Energy Systems that have been abandoned and/or not producing electricity for a period of 1 year shall be removed at the owner and/or operator's expense, which at the owner's option may come from any security made with the Town of Byron as set forth in Section 3(I) herein.

[a] A decommissioning plan (see Appendix 2) signed by the owner and/or operator of the Solar Energy System shall be submitted by the applicant, addressing the following:

i. The cost of removing the Solar Energy System.

ii. The time required to decommission and remove the Solar Energy System and any ancillary structures.

iii. The time required to repair any damage caused to the property by the installation and removal of the Solar Energy System.

2.12.10 Security.

[a] The deposit, executions, or filing with the Town Clerk of cash, line of credit (LOC), or other form of security reasonably acceptable to the Town of Byron attorney and/or engineer, shall be in an amount sufficient to ensure the good faith performance of the terms and conditions of the permit issued pursuant hereto and to provide for the removal and restorations of the site subsequent to removal. The amount of the LOC or security shall be 110% of the cost of removal of the Tier 3 or Tier 4 Solar Energy System and restoration of the property with an escalator of 3% or increase in the Consumer Price Index by the U.S. Bureau of Labor and Statistics annually for the life of the Solar Energy System.

[b] In the event of default upon performance of such conditions, after proper notice and expiration of any cure periods, the cash deposit, LOC, or security shall be forfeited to the Town, which shall be entitled to maintain an action thereon. The cash deposit, LOC, or security shall remain in full force and effect until restoration of the property as set forth in the decommissioning plan is completed.

[c] In the event of default or abandonment of the Solar Energy System, the system shall be decommissioned as set forth in Section j) (i) and j) (ii) herein.

Notwithstanding the forgoing, any Tier 3 or 4 solar energy system and any associated battery energy storage systems sited pursuant to Article 10 of the Public Service Law or Article 94-c of the Executive Law shall be required to obtain a letter of credit or fund an escrow in an amount satisfactory to the Town of Byron, to ensure the removal of the systems, their components, and associated structures, fixtures, equipment, fencing, or other improvements, and the remediation of the site. The amount of the letter of credit shall not be reduced by the salvage value of facility components.

2.12.11 Site plan application. For any Solar Energy system requiring a Special Use Permit, site plan approval shall be required. Any site plan application shall include the following information:

[a] Property lines and physical features, including roads, for the project site.

[b] Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, and screening vegetation or structures.

[c] A three-line electrical diagram detailing the Solar Energy System layout, solar collector installation, associated components, and electrical interconnection methods, with all National Electrical Code (NEC) compliant disconnects and over current devices.

[d] A preliminary equipment specification sheet that documents all proposed solar panels, significant components, mounting systems, and inverters that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of building permit.

[e] Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the Solar Energy System. Such information of the final system installer shall be submitted prior to the issuance of building permit.

[f] Name, address, phone number, and signature of the project applicant, as well as all the property owners, demonstrating their consent to the application and the use of the property for the Solar Energy System.

[g] Zoning district designation for the parcel(s) of land comprising the project site.

[h] Property Operation and Maintenance Plan. Such plan shall describe continuing photovoltaic maintenance and property upkeep, such as mowing and trimming.

[i] Erosion and sediment control and storm water management plans prepared to New York State Department of Environmental Conservation standards, if applicable, and to such standards as may be established by the Planning Board.

[j] Prior to the issuance of the Special Use Permit or final approval by the Planning Board, but not required as part of the application, engineering documents must be signed and sealed by a New York State (NYS) Licensed Professional Engineer or NYS Registered Architect.

2.12.12 Special Use Permit Standards and substantive standards for Tier 3 and Tier 4 Solar Energy Systems are as follows.

[a] Lot size: The property on which the Tier 3 and Tier 4 Solar Energy System is placed shall meet the lot size requirements in Appendix 1.

[b] Setbacks: The Tier 3 and Tier 4 Solar Energy Systems shall meet the setback requirements in Appendix 1.

[c] Height: The Tier 3 and Tier 4 Solar Energy Systems shall comply with the height limitations in Appendix 1.

[d] Lot coverage: The following components of a Tier 3 and Tier 4 Solar Energy System shall be considered included in the calculations for lot coverage requirements:

i. Foundation systems, typically consisting of driven piles or monopoles or helical screws with or without small concrete collars.

ii. All mechanical equipment of the Solar Energy System, including any pad mounted structure for batteries, switchboard, transformers, or storage cells.

iii. Access roads servicing the Solar Energy System.

Lot coverage of the Solar Energy System, as defined above, shall not exceed the maximum lot coverage requirement of the underlying zoning district.

[e] Fencing Requirements are as follows:

i. All mechanical equipment, including any structure for storage batteries, shall be enclosed by a 7-foot-high fence, as required by NEC, with a self-locking gate to prevent unauthorized access.

ii. Chain-link fencing surround Tier 4 Solar Energy Systems shall be visually screened. Other types of fencing surrounding Tier 4 Solar Energy Systems may require visual screening at the discretion of the planning board.

iii. Chain-link fencing surrounding Tier 3 Solar Energy Systems shall be visually screened at the discretion of the planning board.

[f] Screening and Visibility.

i. Solar Energy Systems smaller than 10 acres shall have views minimized from adjacent properties using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area.

ii. Solar Energy Systems larger than 10 acres shall be required to conduct a visual assessment of the visual impacts of the Solar Energy System on public roadways and adjacent properties. At a minimum, a line-of- sight profile analysis shall be provided. Depending upon the

scope and potential significance of the visual impacts, additional impact analyses, including for example a digital view shed report, may be required to be submitted by the applicant.

iii. Submit a screening & landscaping plan to show adequate measures to screen through landscaping, grading, or other means so that views of Solar Panels and Solar Energy Equipment shall be minimized from public roadways and adjacent properties.

iv. The screening and landscaping plan shall specify the locations, elevations, height, plant species, and/or materials that will comprise the structures, landscaping, and/or grading used to screen and/or mitigate any adverse aesthetic effects of the system. The landscaped screening shall be comprised of a minimum of one (1) evergreen tree, at least 6 feet high at time of planting, spaced 10-15 feet apart along the entire length of the screening, plus two (2) supplemental shrubs spaced appropriately within the gaps between evergreens along the entire length of the screening. The Town of Byron Planning Board will provide a list of suitable species.

v. The applicant shall be responsible for maintaining, preserving, and repairing visual screening until decommissioning of any solar energy system is complete.

[g] Agricultural Resources. For projects located on agricultural lands:

i. Tier 3 and Tier 4 Solar Energy Systems on Prime Farmland or Farmland of Statewide Importance shall be required to seed 75% of the total surface area of all solar panels on the lot with native perennial vegetation where appropriate.

ii. Tier 3 and Tier 4 Solar Energy Systems located on Prime Farmland shall be constructed in accordance with the requirements of the New York State Department of Agriculture and Markets Guidelines for Agricultural Mitigation for Solar Energy Projects.

iii. Tier 3 and Tier 4 Solar Energy System owners shall develop, implement, and maintain native vegetation pursuant to a vegetation management plan by providing native perennial vegetation and foraging habitat beneficial to game birds, songbirds, and pollinators. When establishing perennial vegetation and beneficial foraging habitat, the owners shall use native plant species and seed mixes.

iv. Tier 4 Solar Energy Systems shall not result in conversion of more than 10% of all prime farmland in the Town of Byron. Converted farmland includes both prime farmland inside any perimeter fencing associated with Tier 4 facilities, and any adjacent prime farmland that is no longer suitable for farming as a result of the Tier 4 facility. Prime farmland means prime farmland as defined by the United States Department of Agriculture, New York State, or the Natural Resources Conservation Service. A farmland "conversion" is defined by Section 301(8) of the Agricultural and Markets Law.

[h] Ownership Changes: If the owner or operator of the Solar Energy System changes or the owner of the property changes, the special use permit shall remain in effect,

provided that the successor owner or operator assumes in writing all of the obligations of the special use permit, site plan approval, and decommissioning plan. A new owner or operator of the Solar Energy System shall notify the zoning enforcement officer of such change in ownership or operator within 30 days of the ownership change.

i. Lighting and Security Cameras:

ii. All flood lights and other lighting devices designed and installed to protect the security of the Solar Energy System and the area in it vicinity shall be so designed installed and maintained to eliminate any glare or intrusion of any direct light into any residential building or any agricultural building housing livestock.

iii. No cameras or other photographic device installed on or about the area of the Solar Energy System shall be designed, installed and maintained to be capable of photographing any activity taking place outside the said area and the adjoining property more than 50 feet outside the fence installed pursuant to this law.

**Section 2.13 Safety**

2.13.1 Solar Energy Systems and Solar Energy Equipment shall be certified under the applicable electrical and/or building codes as required.

2.13.2 Solar Energy Systems shall be maintained in good working order and in accordance with industry standards. Site access shall be maintained, including snow removal at a level acceptable to the local fire department.

2.13.3 If Storage Batteries are included as part of the Solar Energy System, they shall meet the requirements of any applicable fire prevention and building code when in use and, when no longer used, shall be disposed of in accordance with the laws and regulations of the Town of Byron and any applicable federal, state, or county laws or regulations.

2.13.4 Electromagnetic fields: No Tier 3 or Tier 4 Solar Energy System shall exceed 1 mg of electromagnetic emissions from any cable, wire conduits conveying electrical energy in or about the Solar Energy System.

**Section 2.14 Permit Time Frame and Abandonment**

2.14.1 The Special Use Permit and site plan approval for a Solar Energy System shall be valid for a period of 12 months, provided that a building permit is issued for construction or construction is commenced. In the event construction is not completed in accordance with the final site plan, as may have been amended and approved, as required by the Planning Board, within 12 months after approval, the applicant or the Town may extend the time to complete construction for 180 days. If the owner and/or operator fails to perform substantial construction after 24 months, the approvals shall expire.

2.14.2 Upon cessation of electricity generation of a Solar Energy System on a continuous basis for 12 months, the Town may notify and instruct the owner and/or operator of the Solar Energy System to implement the decommissioning plan. The decommissioning plan must be completed within 1 year of notification.

2.14.3 If the owner and/or operator fails to comply with decommissioning upon any abandonment, the Town of Byron may, at its discretion, utilize the bond and/or security for the removal of the Solar Energy System and restoration of the site in accordance with the decommissioning plan.

**Section 2.15 Inspections**

2.15.1 The Zoning Enforcement Officer or his or her duly authorized and appointed deputies or assistants or authorized agents shall have the authority to cause any plans, structures, lots or system components to be inspected, examined or reviewed for any Tier 1, Tier 2, Tier 3 or Tier 4 Solar Energy Systems to determine whether or not they are in conformity with the provisions of this law.

2.15.2 The Zoning Enforcement Officer's duties and authority granted under Article III of the Town of Byron Code shall be applicable to Solar Energy Systems except where expressly preempted herein by a provision specific to Solar Energy Systems.

2.15.3 Inspection fees: The owner and/or operator shall permit the Zoning Enforcement Officer, at least annually and upon any written request by him or her to inspect any part of the Solar Energy System or its area to determine compliance with this law. The owner and/or operator shall pay an annual fee of Four Hundred Dollars ($400.00) to defray the expense incurred by the Town in conducting the said inspection or inspections.

Section 2.16 Enforcement

[a] Penalties: Any violation of this Solar Energy Law, or any section, subsection, paragraph, sentence, clause, provision, or phrase hereof, shall be subject to the same enforcement requirements, including the civil and criminal penalties, provided for in the zoning or land use regulations of the Town of Byron.

[b] Costs: The owner and /or operator shall be responsible to pay any and all costs, including reasonable attorney fees incurred by the Town in the enforcement of this Law.

## ARTICLE III. SAVINGS, SEVERABILITY, AND EFFECTIVE DATE.

**Section 3.01. Savings.**

The amendment by this law of Section 11.15 of Article XI of the Code of the Town of Byron shall not affect or impair any permit issued or approved or the conditions thereof, or any offense committed or obligation, liability, order, penalty, forfeiture or punishment incurred or imposed, prior to the time of such amendment, but the same may be enjoyed, asserted, enforced, prosecuted or inflicted as fully and to the same extent and in the same manner as if such chapter or provision has not been amended, except that any structure or lot, or use or development of land within the Town of Byron that was lawful immediately prior to the enactment of this local law but that does not conform to the specifications of Section 11.15 of Article XI of the Code of the Town of Byron as enacted and amended by this local law, shall be deemed nonconforming as of the effective date of this law, and subject thereby to all provisions applicable to a nonconforming lot, structure, use, or

development.

**Section 3.02. Severability.**

The invalidity or unenforceability of any section, subsection, paragraph, sentence, clause, provision, or phrase hereof, as declared by the valid judgment of any court of competent jurisdiction for any reason, shall not affect the validity or enforceability of any other section, subsection, paragraph, sentence, clause, provision, or phrase, which shall remain in full force and effect. Any judgment by a court of competent jurisdiction declaring any section, subsection, paragraph, sentence, clause, provision, or phrase hereof to be invalid shall be confined in its operation and effect to the clause, sentence, phrase, paragraph or part thereof, directly involved in the controversy or action in which such judgment shall have been rendered. It is hereby declared to be the legislative intent that the remainder of this local law would have been adopted had any such provisions been excluded

**Section 3.03. Effective Date**

This law shall be effective immediately upon filing with the Secretary of State.

## (f) Appendix 1 – Tier 3 and Tier 4 Solar Energy Systems Lot Size, Setback, and Height Requirements

| ZONING DISTRICT | TIER 3 and TIER 4 SOLAR ENERGY SYSTEM ACCESSORY USE | MINIMUM LOT SIZE | MINIMUM SETBACK FROM PROPERTY LINE (i), (ii), (iv) (FEET) | | | MAXIMUM HEIGHT (FEET)(iii) |
|---|---|---|---|---|---|---|
| | | | FRONT | SIDE | REAR | |
| **A AGRICULTURAL** | PERMITTED WITH SPECIAL USE PERMIT AND SITE PLAN | ≥ 5 ACRES | 200’ | 200’ | 200’ | 15’ |
| **A-R AGRICULTURAL RESIDENTIAL** | PERMITTED WITH SPECIAL USE PERMIT AND SITE PLAN | ≥ 5 ACRES | 200’ | 200’ | 200’ | 15’ |
| **R-1 RESIDENTIAL** | NOT PERMITTED | NA | NA | NA | NA | NA |
| **C-1 COMMERCIAL** | PERMITTED WITH SPECIAL USE PERMIT AND SITE PLAN | ≥ 2 ACRES | 100’ | 50’ | 50’ | 20’ |
| **C-2 COMMERCIAL** | PERMITTED WITH SPECIAL USE PERMIT AND SITE PLAN | ≥ 2 ACRES | 100’ | 50’ | 50’ | 20’ |
| **I-1 INDUSTRIAL** | PERMITTED WITH SPECIAL USE PERMIT AND SITE PLAN | ≥ 5 ACRES | 100’ | 50’ | 50’ | 20’ |
| **L-C LAND CONSERVATION** | NOT PERMITTED | NA | NA | NA | NA | NA |

## (g) Appendix 2 – Sample Decommissioning Plan

Date: [Date]

Decommissioning Plan for [Solar Project Name], located at:

[Solar Project Address] Prepared and Submitted by

[Solar Developer Name], the owner of [Solar Farm

Name]

As required by the Town of Byron, [Solar Developer Name] presents this decommissioning plan for [Solar Project Name] (the "Facility").

Decommissioning will occur as a result of any of the following conditions:

1. The land lease, if any, ends.
2. The system does not produce power for 12 months.
3. The system is damaged and will not be repaired or replaced.

The owner of the Facility, as provided for in its lease with the landowner, shall restore the property to its condition as it existed before the Facility was installed, pursuant to which may include the following:

1. Removal of all operator-owned equipment, concrete, conduits, structures, fencing, and foundations to a depth of 36 inches below the soil surface.
2. Removal of any solid and hazardous waste caused by the Facility in accordance with local, state and federal waste disposal regulations.
3. Removal of all graveled areas and access roads unless the landowner requests in writing for it to remain.

All said removal and decommissioning shall occur within 12 months of the

Facility ceasing to produce power for sale. The owner of the Facility,

currently [Solar Developer Name], is responsible for this

decommissioning.

Facility Owner Signature: Date:

# Supplemental Appendix 31-3

## Town of Byron Draft Battery Energy Storage Local Law, 2020

**Battery Energy Storage System Model Law Instructions**

*(ACTUAL DRAFT LOCAL LAW/ ADDITION TO ZONING LAW STARTS ON PAGE 3)*

1. This Model Law can be adopted by the governing board of cities, towns, and villages (hereinafter "local governments" or "municipalities") to regulate the installation, operation, maintenance, and decommissioning of battery energy storage systems. The Model Law is intended to be an "all-inclusive" local law, regulating the subject of battery energy storage systems under typical zoning and land use regulations and it includes the process for compliance with the State Environmental Quality Review Act. Municipalities should review this Model Law, examine their local laws and regulations and the types, size range and number of battery energy storage system projects proposed, and adopt a local law addressing the aspects of battery energy storage system development that make the most sense for each municipality, deleting, modifying, or adding other provisions as appropriate.

2. This Model Law references a "Battery Energy Storage System Model Permit" that is available as part of NYSERDA's Battery Energy Storage Guidebook. The Model Permit is intended to help local government officials and AHJs establish the minimum submittal requirements for electrical and structural plan review that are necessary when permitting residential and small commercial battery energy storage systems.

3. In some cases, there may be multiple approaches to regulate a certain aspect of battery energy storage systems. The word "*OR*" has been placed in the text of the model law to indicate these options. Municipalities should choose the option that works best for their communities. The content provided in brackets and highlighted is optional. Depending on local circumstances, a municipality may want to include this content or choose to adopt a different standard.

4. The Model Law is not intended for adoption precisely as it is written. It is intended to be advisory only, and users should not rely upon it as legal advice. A municipality is not required to adopt this Model Law. Municipal officials are urged to seek legal advice from their attorneys before enacting a battery energy storage system law. Municipalities must carefully consider how the language in this Model Law may be modified to suit local conditions, comprehensive plan, and existing land use and zoning provisions.

5. Before enacting this Model Law, a comprehensive plan outlining the goals and policies for the installation, operation, maintenance, and decommissioning of battery energy storage systems must be adopted by the local governing board (city or common council, town board, village board of trustees). Some local governing boards can satisfy this requirement by updating an existing comprehensive plan while others must adopt a new comprehensive plan. Suggestions on how local governing boards can develop and adopt in their existing or new comprehensive plans battery energy storage system friendly policies and plans that provide local protection are listed below:

    A. Adopt a resolution or policy statement that outlines a strategy for municipal-wide battery energy storage system development. The chief executive officer of a local government (like a town supervisor or city or village mayor)

may choose to issue in accordance with its local charter or other valid local law or regulations an executive order, proclamation or other declaration to advance battery energy storage system development.

B. Appoint a Battery Energy Storage Task Force ("Task Force") that represents all interested stakeholders, including residents, businesses, interested non-profit organizations, the battery energy storage industry, utilities, and relevant municipal officials and staff to prepare an action plan, adopt a new or amend the comprehensive plan to include battery energy storage system planning goals and actions, and develop local laws and/or other regulations to ensure the orderly development of battery energy storage system projects.

C. Charge the Task Force with conducting meetings on a communitywide basis to involve all key stakeholders, gather all available ideas, identify divergent groups and views, and secure support from the entire community. The Task Force also should conduct studies and should determine whether existing policies, plans, and land use regulations require amendments to remove barriers to and facilitate battery energy storage system development goals.

D. Establish a training program for local staff and land use boards. Municipalities are encouraged to utilize State and Federal technical assistance and grants for training programs when available.

E. Partner with adjacent communities to adopt compatible policies, plan components, and zoning provisions for battery energy storage system projects. County or regional planning agencies may also advise participating local governments on locally addressing these issues.

**Town of Byron**
**Battery Energy Storage System Local Law**

## 1. Authority

This Battery Energy Storage System Law is adopted pursuant to Article IX of the New York State Constitution, §2(c)(6) and (10), New York Statute of Local Governments, § 10 (1) and (7); sections 261-263 of the Town Law and section 10 of the Municipal Home Rule Law of the State of New York, which authorize the Town of Byron to adopt zoning provisions that advance and protect the health, safety and welfare of the community.

## 2. Statement of Purpose

This Battery Energy Storage System Law is adopted to advance and protect the public health, safety, and welfare of Town of Byron by creating regulations for the installation and use of battery energy storage systems, with the following objectives:

A. To provide a regulatory scheme for the designation of properties suitable for the location, construction and operation of battery energy storage systems;

B. To protect the health, welfare, safety, and quality of life for the general public;

C. To ensure compatible land uses in the vicinity of the areas affected by battery energy storage systems;

D. To mitigate the impacts of battery energy storage systems on environmental resources such as important agricultural lands, forests, wildlife and other protected resources; and

E. To create synergy between battery energy storage system development and Town of Byron Comprehensive Plan.

## 3. Definitions

ANSI: American National Standards Institute

BATTERY: A single Cell or a group of Cells connected together electrically in series, in parallel, or a combination of both, which can charge, discharge, and store energy electrochemically. For the purposes of this law, batteries utilized in consumer products are excluded from these requirements.

BATTERY ENERGY STORAGE MANAGEMENT SYSTEM: An electronic system that protects storage batteries from operating outside their safe operating parameters and generates an alarm and trouble signal for off normal conditions.

BATTERY ENERGY STORAGE SYSTEM: A rechargeable energy storage system consisting of electrochemical storage batteries, battery chargers, controls, power conditioning systems and associated electrical equipment designed to provide electrical power to a building. The system is typically used to provide standby or emergency power, an uninterruptable power supply, load shedding, load sharing, or similar capabilities. A battery energy storage system is classified as a Tier 1, Tier 2, or Tier 3 Battery Energy Storage System as follows:

A. Tier 1 Battery Energy Storage Systems include either:

a) Battery energy storage systems for one to two family residential dwellings within or outside the structure with an aggregate energy capacity that shall not exceed:

1. 40 kWh within utility closets and storage or utility spaces

2. 80 kWh in attached or detached garages and detached accessory structures

3. 80 kWh on exterior walls

4. 80 kWh outdoors on the ground

b) Other battery energy storage systems with an aggregate energy capacity less than or equal to the threshold capacity listed in Table 1

B. Tier 2 Battery Energy Storage Systems include battery energy storage systems that are not included in Tier 1, have an aggregate energy capacity greater than the threshold capacity listed in Table 1, and have an aggregate energy capacity less than 600 kWh

**Table 1: Battery Energy Storage System Tier 2 Threshold Quantities**

| Battery Technology | Capacity |
|---|---|
| Flow batteries | 20 kWh |
| Lead acid, all types | 70 kWh |
| Lithium, all types | 20 kWh |
| Nickel cadmium (Ni-Cd) | 70 kWh |
| Nickel metal hydride (Ni-MH) | 70 kWh |
| | |
| Other battery technologies | 10 kWh |

C. Tier 3 Battery Energy Storage Systems include all the following:

a) Battery energy storage systems with an aggregate energy capacity greater than or equal to 600kWh

b) Battery energy storage systems with more than one storage battery technology is provided in a room or indoor area

COMMISSIONING: A systematic process that provides documented confirmation that a battery energy storage system functions according to the intended design criteria and complies with applicable code requirements.

DEDICATED-USE BUILDING: A building that is built for the primary intention of housing battery energy storage system equipment and is classified as Group F-1 occupancy as defined in the International Building Code. It is constructed in accordance with the Uniform Code, and it complies with the following:

1) The building's only permitted primary use is for battery energy storage, energy generation, and other electrical grid-related operations.

2) Occupants in the rooms and areas containing battery energy storage systems are limited to personnel that operate, maintain, service, test, and repair the battery energy storage system and other energy systems.

3) No other occupancy types are permitted in the building.

4) Administrative and support personnel are permitted in incidental-use areas within the buildings that do not contain battery energy storage system, provided the following:

a. The areas do not occupy more than 10 percent of the building area of the story in which they are located.

b. A means of egress is provided from the incidental-use areas to a public way that does not require occupants to traverse through areas containing battery energy storage systems or other energy systems.

DWELLING UNIT: One or more rooms arranged for complete, independent housekeeping purposes with space for eating, living, and sleeping; facilities for cooking; and provisions for sanitation.

ENERGY CODE: The New York State Energy Conservation Construction Code adopted pursuant to Article 11 of the Energy Law, as currently in effect and as hereafter amended from time to time.

FIRE CODE: The fire code section of the New York State Uniform Fire Prevention and Building Code adopted pursuant to Article 18 of the Executive Law, as currently in effect

and as hereafter amended from time to time.

FLOW BATTERY: A type of rechargeable Battery that uses typically large, separated liquid reservoirs of electrolytes that flow through a reaction zone to store, charge, and discharge energy. These electrolytes are typically non-flammable.

LEAD-ACID BATTERY: A rechargeable Battery that is comprised of lead electrodes immersed in sulphuric acid electrolyte. These batteries may be flooded, vented, sealed, or may come in other form factors. They may produce hazardous gases during normal operations.

LITHIUM-ION BATTERY: A storage Battery with lithium ions serving as the charge carriers of the Battery. The electrolyte is typically a mixture of organic solvents with an inorganic salt and can be in a liquid or a gelled polymer form.

NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL): A U.S. Department of Labor designation recognizing a private sector organization to perform certification for certain products to ensure that they meet the requirements of both the construction and general industry OSHA electrical standards.

NEC: National Electric Code.

NFPA: National Fire Protection Association.

NICKEL-BASED BATTERY: A rechargeable Battery in which the positive active material is nickel oxide, the negative contains either cadmium (Nickel-cadmium, Ni-Cd), hydrogen ions stored in a metal-hydride structure (Nickel-metal hydride, Ni-MH), or zinc (Nickel-zinc, Ni-Zn) as the electrode and the electrolyte is potassium hydroxide.

NON-DEDICATED-USE BUILDING: All buildings that contain a battery energy storage system and do not comply with the dedicated-use building requirements, including all other occupancy types such as, but not limited to, commercial, industrial, offices, and multifamily housing.

NON-PARTICIPATING PROPERTY: Any property that is not a Participating property.

OCCUPIED COMMUNITY BUILDING: Any building in Occupancy Group A, B, E, I, R, as defined in the International Building Code, including but not limited to schools, colleges, daycare facilities, hospitals, correctional facilities, public libraries, theaters, stadiums, apartments, hotels, and houses of worship.

ONE-TO-TWO-FAMILY DWELLING: A building that contains not more than two dwelling units with independent cooking and bathroom facilities.

PARTICIPATING PROPERTY: A battery energy storage system host property or any real property that is the subject of an agreement that provides for the payment of monetary compensation to the landowner from the battery energy storage system owner (or affiliate)

regardless of whether any part of a battery energy storage system is constructed on the property.

SPECIAL FLOOD HAZARD AREA: The land area covered by the floodwaters of the base flood is the Special Flood Hazard Area (SFHA) on NFIP maps. The SFHA is the area where the National Flood Insurance Program's (NFIP's) floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies.

UNIFORM CODE: the New York State Uniform Fire Prevention and Building Code adopted pursuant to Article 18 of the Executive Law, as currently in effect and as hereafter amended from time to time.

**4. Applicability**

A. The requirements of this Local Law shall apply to all battery energy storage systems permitted, installed, or modified in the Town of Byron after the effective date of this Local Law, excluding general maintenance and repair.

B. Battery energy storage systems constructed or installed prior to the effective date of this Local Law shall not be required to meet the requirements of this Local Law.

C. Modifications to, retrofits or replacements of an existing battery energy storage system that increase the total battery energy storage system designed discharge duration or power rating shall be subject to this Local Law.

**5. General Requirements**

A. A Building permit, and an electrical permit shall be required for installation of all battery energy storage systems.

B. Issuance of permits and approvals by the Town of Byron Planning Board shall include review pursuant to the State Environmental Quality Review Act [ECL Article 8 and its implementing regulations at 6 NYCRR Part 617 (“SEQRA”)].

C. All battery energy storage systems, all Dedicated Use Buildings, and all other buildings or structures that (1) contain or are otherwise associated with a battery energy storage system and (2) subject to the Uniform Code and/or the Energy Code shall be designed, erected, and installed in accordance with all applicable provisions of the Uniform Code, all applicable provisions of the Energy Code, and all applicable provisions of the codes, regulations, and industry standards as referenced in the Uniform Code, the Energy Code, and the Town of Byron Zoning Law.

**6. Permitting Requirements for Tier 1 Battery Energy Storage Systems**

A. Tier 1 Battery Energy Storage Systems shall be permitted in all zoning districts and shall be subject to the “Battery Energy Storage System Permit” and exempt from site plan review.

**7. Permitting Requirements for Tier 2 Battery Energy Storage Systems**

A. Tier 2 Battery Energy Storage Systems shall be permitted in all zoning districts, shall be subject to the Uniform Code (referenced in Appendix 2) and the “Battery Energy Storage System Permit,” and are exempt from site plan review.

**8. Permitting Requirements for Tier 3 Battery Energy Storage Systems**

A. Tier 3 Battery Energy Storage Systems are permitted through the issuance of a special use permit within the Agricultural District (A), Agricultural Residential District (A-R), Neighborhood Commercial District (C-1), General Commercial District (C-2), and Industrial District (I-1), and subject to the Uniform Code and site plan application requirements set forth in this Section.

A. Applications for the installation of Tier 3 Battery Energy Storage System shall be:

1) reviewed by the Town of Byron Code Enforcement/Zoning Enforcement Officer for completeness. An application shall be complete when it addresses all matters listed in this Local Law including, but not necessarily limited to, (i) compliance with all applicable provisions of the Uniform Code and all applicable provisions of the Energy Code and (ii) matters relating to the proposed battery energy storage system and Floodplain, Utility Lines and Electrical Circuitry, Signage, Lighting, Vegetation and Tree-cutting, Noise, Decommissioning, Site Plan and Development, Special Use and Development, Ownership Changes, Safety, Permit Time Frame and Abandonment. Applicants shall be advised within 10 business days of the completeness of their application or any deficiencies that must be addressed prior to substantive review.

2) subject to a public hearing to hear all comments for and against the application. The Town of Byron Planning Board shall have a notice printed in a newspaper of general circulation in the Town of Byron at least 5 days in advance of such hearing. Applicants shall have delivered the notice by first class mail to adjoining landowners or landowners within 500 feet of the property at least 10 days prior to such a hearing. Proof of mailing shall be provided to the Town of Byron Planning Board at the public hearing.

3) referred to the Genesee County Planning Department pursuant to General Municipal Law § 239-m if required.

4) upon closing of the public hearing, the Town of Byron Planning Board shall take action on the application within 62 days of the public hearing, which can include approval, approval with conditions, or denial. The 62-day period may be extended upon consent by both the Town of Byron Planning Board and Applicant.

B. Floodplain. The Applicant of battery energy storage systems shall obtain necessary local floodplain development permits if proposed within Special Flood Hazard Areas.

C. Utility Lines and Electrical Circuitry. All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility, with the exception of the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way.

D. Signage.

1) The signage shall be in compliance with ANSI Z535 and shall include the type of technology associated with the battery energy storage systems, any special hazards associated, the type of suppression system installed in the area of battery energy storage systems, and 24-hour emergency contact information, including reach-back phone number.

2) As required by the NEC, disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.

E. Lighting. Lighting of the battery energy storage systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.

F. Vegetation and tree-cutting. Areas within 25 feet on each side of Tier 3 Battery Energy Storage Systems shall be cleared of combustible vegetation and other combustible growth. Single specimens of trees, shrubbery, or cultivated ground cover such as green grass, ivy, succulents, or similar plants used as ground covers shall be permitted to be exempt provided that they do not form a means of readily transmitting fire. Removal of trees should be minimized to the extent possible.

G. Noise. The 1-hour average noise generated from the battery energy storage systems, components, and associated ancillary equipment shall not exceed a noise level of 60 dBA as measured at the outside wall of any Non-participating Residence and Occupied Community Building. Applicants may submit equipment and component manufacturers noise ratings to demonstrate compliance. The applicant may be required to provide Operating Sound Pressure Level measurements from a reasonable number of sampled locations at the perimeter of the battery energy storage system to demonstrate compliance with this standard.

H. Decommissioning.

1) Decommissioning Plan. The applicant shall submit a decommissioning plan developed in accordance with the Uniform Code, containing a narrative description of the activities to be accomplished for removing the energy storage

system from service, and from the facility in which it is located. The decommissioning plan shall also include: (i) the anticipated life of the battery energy storage system; (ii) the estimated decommissioning costs; (iii) how said estimate was determined; (iv) the method of ensuring that funds will be available for decommissioning and restoration; (v) the method that the decommissioning cost will be kept current; (vi) the manner in which the battery energy storage system will be decommissioned, and the Site restored; and (vii) a listing of any contingencies for removing an intact operational energy storage system from service, and for removing an energy storage system from service that has been damaged by a fire or other event.

2) Decommissioning Fund. The applicant, or successors, shall continuously maintain a fund or bond payable to the Town of Byron, in a form approved by the Town of Byron for the removal of the battery energy storage system, in an amount to be determined by the Town of Byron, for the period of the life of the facility. This fund may consist of a letter of credit from a State of New York licensed-financial institution. All costs of the financial security shall be borne by the applicant.

I. Site plan application. For a Tier 3 Battery Energy Storage System requiring a Special Use Permit, site plan approval shall be required. Any site plan application shall include the following information:

1) Property lines and physical features, including roads, for the project site.

2) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, and screening vegetation or structures.

3) A three-line electrical diagram detailing the battery energy storage system layout, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and over current devices.

4) A preliminary equipment specification sheet that documents the proposed battery energy storage system components, inverters and associated electrical equipment that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of building permit.

5) Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the battery energy storage system. Such information of the final system installer shall be submitted prior to the issuance of building permit.

6) Name, address, phone number, and signature of the project Applicant, as well as all the property owners, demonstrating their consent to the application and the use of the property for the battery energy storage system.

7) Zoning district designation for the parcel(s) of land comprising the project site.

8) Commissioning Plan. Such plan shall document and verify that the system and its associated controls and safety systems are in proper working condition per requirements set forth in the Uniform Code (referenced in Appendix 1). Battery energy storage system commissioning shall be conducted by a New York State (NYS) Licensed Professional Engineer or NYS Registered Architect after the installation is complete but prior to final inspection and approval. A corrective action plan shall be developed for any open or continuing issues that are allowed to be continued after commissioning. A report describing the results of the system commissioning and including the results of the initial acceptance testing required in the Uniform Code (referenced in Appendix 1) shall be provided to Town of Byron Planning Board prior to final inspection and approval and maintained at an approved on-site location.

   Energy storage system commissioning shall not be required for lead-acid and nickel-cadmium battery systems at facilities under the exclusive control of communications utilities that comply with NFPA 76 and operate at less than 50 VAC and 60 VDC.

9) Fire Safety Compliance Plan. Such plan shall document and verify that the system and its associated controls and safety systems are in compliance with the Uniform Code (referenced in Appendix 2).

10) System and Property Operation and Maintenance Manual. Such plan shall describe continuing battery energy storage system maintenance and property upkeep, as well as design, construction, installation, testing and commissioning information and shall meet all requirements set forth in the Uniform Code (referenced in Appendix 3).

11) Erosion and sediment control and storm water management plans prepared to New York State Department of Environmental Conservation standards, if applicable, and to such standards as may be established by the Town of Byron Planning Board.

12) Prior to the issuance of the building permit or final approval by the Town of Byron Planning Board, but not required as part of the application, engineering documents must be signed and sealed by a NYS Licensed Professional Engineer or NYS Registered Architect.

13) An Emergency Operation Plan per requirements set forth in Appendix 4.

J. Special Use Permit Standards.

1) Setbacks. Tier 3 Battery Energy Storage Systems shall comply with the setback requirements of the underlying zoning district for principal structures.

2) Height. Tier 3 Battery Energy Storage Systems shall comply with the building height limitations for principal structures of the underlying zoning district.

3) Fencing Requirements. Tier 3 Battery Energy Storage Systems, including all mechanical equipment, shall be enclosed by a 7-foot-high fence with a self-locking gate to prevent unauthorized access unless housed in a dedicated-use building and not interfering with ventilation or exhaust ports.

4) Screening and Visibility. Tier 3 Battery Energy Storage Systems shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area and not interfering with ventilation or exhaust ports.

K. Ownership Changes. If the owner of the battery energy storage system changes or the owner of the property changes, the special use permit shall remain in effect, provided that the successor owner or operator assumes in writing all of the obligations of the special use permit, site plan approval, and decommissioning plan. A new owner or operator of the battery energy storage system shall notify the zoning enforcement officer (ZEO) of such change in ownership or operator within 60 days of the ownership change. A new owner or operator must provide such notification to the ZEO in writing. The special use permit and all other local approvals for the battery energy storage system would be void if a new owner or operator fails to provide written notification to the ZEO in the required timeframe. Reinstatement of a void special use permit will be subject to the same review and approval processes for new applications under this Local Law.

**9. Safety**

A. System Certification. Battery energy storage systems and Equipment shall be listed by a Nationally Recognized Testing Laboratory to UL 9540 or CAN 9540 (Standard for battery energy storage systems and Equipment) with subcomponents meeting each of the following standards that are applicable based on the storage type (electrochemical, thermal, mechanical):

1) UL 1973 (Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail Applications),

2) UL 1642 (Standard for Lithium Batteries),

3) UL 1741 or UL 62109 (inverters and power converters),

4) Certified under the applicable electrical, building, and fire prevention codes as required.

5) Alternatively, field evaluation by an approved testing laboratory for compliance with UL 9540 and applicable codes, regulations and safety standards may be used to meet system certification requirements.

Lead-acid and nickel-cadmium battery systems installed in facilities under the exclusive control of communications utilities and operating at less than 50 VAC and 60 VDC in accordance with NFPA 76 are not required to be listed.

B. Site Access. Battery energy storage systems shall be maintained in good working order and in accordance with industry standards. Site access shall be maintained, including snow removal at a level acceptable to the local fire department and, if the Tier 3 Battery Energy Storage System is located in an ambulance district, the local ambulance corps.

C. Battery energy storage systems, components, and associated ancillary equipment shall have required working space clearances, and electrical circuitry shall be within weatherproof enclosures marked with the environmental rating suitable for the type of exposure in compliance with NFPA 70.

## 10. Permit Time Frame and Abandonment

A. The Special Use Permit and site plan approval for a battery energy storage system shall be valid for a period of 24 months, provided that a building permit is issued for construction and construction is commenced. In the event construction is not completed in accordance with the final site plan, as may have been amended and approved, as required by the Town of Byron Planning Board, within 24 months after approval, the Applicant or the Town of Byron Planning Board may extend the time to complete construction for 180 days. If the owner and/or operator fails to perform substantial construction after 36 months, the approvals shall expire.

B. If the owner and/or operator fails to comply with decommissioning upon any abandonment, the Town of Byron may, at its discretion, utilize the available bond and/or security for the removal of a Tier 3 Battery Energy Storage System and restoration of the site in accordance with the decommissioning plan.

## 11. Enforcement

Any violation of this Battery Energy Storage System Law shall be subject to the same enforcement requirements, including the civil and criminal penalties, provided for in the zoning or land use regulations of Town of Byron.

## 12. Severability

The invalidity or unenforceability of any section, subsection, paragraph, sentence, clause, provision, or phrase of the aforementioned sections, as declared by the valid judgment of any court of competent jurisdiction to be unconstitutional, shall not affect the validity or enforceability of any other section, subsection, paragraph, sentence, clause, provision, or phrase, which shall remain in full force and effect.

## APPENDIX 1: Commissioning Plan

The battery energy storage system commissioning plan shall comply with the Uniform Code and include, at a minimum, the following information:

1. A narrative description of the activities that will be accomplished during each phase of commissioning including the personnel intended to accomplish each of the activities.

2. A listing of the specific BESS and associated components, controls and safety related devices to be tested, a description of the tests to be performed and the functions to be tested.

3. Conditions under which all testing will be performed, which are representative of the conditions during normal operation of the system.

4. Documentation of the owner's project requirements and the basis of design necessary to under-stand the installation and operation of the BESS.

5. Verification that required equipment and systems are installed in accordance with the approved plans and specifications.

6. Integrated testing for all fire and safety systems.

7. Testing for any required thermal management, ventilation or exhaust systems associated with the BESS installation.

8. Preparation and delivery of operation and maintenance documentation.

9. Training of facility operating and maintenance staff.

10. Identification and documentation of the requirements for maintaining system performance to meet the original design intent during the operation phase.

11. Identification and documentation of personnel who are qualified to service, maintain and decommission the BESS, and respond to incidents involving the BESS, including documentation that such service has been contracted for.

## APPENDIX 2: Supplemental Guidance for Developing the Fire Safety Compliance Plan

1. **Hazard mitigation analysis.** A failure modes and effects analysis (FMEA) or other approved hazard mitigation analysis shall be provided under any of the following conditions:
   - Where BESS technologies not specifically identified in Table 1: Battery Energy Storage System Tier 2 Threshold Quantities are provided.
   - More than one BESS technology is provided in a room or enclosed area where there is a potential for adverse interaction between technologies.
   - Where allowed as a basis for increasing maximum allowable quantities outlined in Table 2: Maximum Allowable Quantities.

   1.1. **Fault condition.** The hazard mitigation analysis shall evaluate the consequences of the following failure modes. Only single failure modes shall be considered.
      - A thermal runaway condition in a single BESS rack, module or unit.
      - Failure of any battery (energy) management system.
      - Failure of any required ventilation or exhaust system.
      - Voltage surges on the primary electric supply.
      - Short circuits on the load side of the BESS.
      - Failure of the smoke detection, fire detection, fire suppression, or gas detection system.
      - Required spill neutralization not being provided or failure of a required secondary containment system.

   1.2. **Analysis approval.** The fire code official is authorized to approve the hazardous mitigation analysis provided the consequences of the hazard mitigation analysis demonstrate:
      - Fires will be contained within unoccupied BESS rooms or areas for the minimum duration of the fire-resistance rated separations identified in Section 7.4.
      - Fires in occupied work centers will be detected in time to allow occupants within the room or area to safely evacuate.
      - Toxic and highly toxic gases released during fires will not reach concentrations in access of Immediately Dangerous to Life or Health (IDLH) level in the building or adjacent means of egress routes during the time deemed necessary to evacuate occupants from any affected area.
      - Flammable gases released from BESS during charging, discharging and normal operation will not exceed 25 percent of their lower flammability limit (LFL).
      - Flammable gases released from BESS during fire, overcharging and other abnormal conditions will be controlled through the use of ventilation of the gases preventing accumulation or by deflagration venting.

   1.3. **Additional protection measures.** Construction, equipment and systems that are required for the BESS to comply with the hazardous mitigation analysis, including but not limited to those specifically described in this Appendix shall be installed, maintained and tested in accordance with nationally recognized standards and specified design parameters.

2. **Fire Safety.** BESS installations shall comply with the requirements of this section.

2.1. **Large Scale Fire Test.** Where required elsewhere in Appendix 2, large scale fire testing shall be conducted on a representative energy storage system in accordance with UL 9540A or approved equivalent. The testing shall be conducted or witnessed and reported by an approved testing laboratory and show that a fire involving one energy storage system will not propagate to an adjacent energy storage system. In addition, the testing shall demonstrate that, where the energy storage system is installed within a room, enclosed area or walk-in energy storage system unit, a fire will be contained within the room, enclosed area or walk-in energy storage system unit for a duration equal to the fire-resistance rating of the room assemblies as specified in Section 8.4. The test report shall be provided to the fire code official for review and approval.

2.2. **Fire remediation.** Where a fire or other event has damaged the BESS and ignition or re-ignition of the BESS is possible, the system owner, agent, or lessee shall take the following actions, at their expense, to mitigate the hazard or remove damaged equipment from the premises to a safe location.

2.2.1. **Fire mitigation personnel.** Where, in the opinion of the fire code official, it is essential for public safety that trained personnel be on site to respond to possible ignition or re-ignition of a damaged BESS, the system owner, agent or lessee shall immediately dispatch one or more fire mitigation personnel to the premise, as required and approved, at their expense. These personnel shall remain on duty continuously after the fire department leaves the premise until the damaged energy storage equipment is removed from the premises, or earlier if the fire code official indicates the public safety hazard has been abated. On-duty fire mitigation personnel shall have the following responsibilities:

- Keep diligent watch for fires, obstructions to means of egress and other hazards.
- Immediately contact the fire department if their assistance is needed to mitigate any hazards or extinguish fires.
- Take prompt measures for remediation of hazards in accordance with the decommissioning plan
- Take prompt measures to assist in the evacuation of the public from the structures.

2.2.2. **Peer Review.** Where required by the Authority Having Jurisdiction, the owner or the owner's authorized agent shall be responsible for retaining and furnishing the services of a registered design professional or special expert, who will perform as a peer reviewer, subject to the approval of the fire code official. The costs of special services shall be borne by the owner or the owner's authorized agent.

2.2.2.1. **Special expert.** Where the scope of work is limited or focused in an area that does not require the services of a registered design professional or the special knowledge and skills associated with the practice of architecture or engineering, an approved special expert may be employed by the owner or the owner's authorized agent as the person in responsible charge of the limited or focused activity. The scope of work of a special expert shall be limited to the area of expertise as demonstrated in the documentation

submitted to the fire code official for review and approval. Special experts are those individuals who possess the following qualifications:

1. Has credentials of education and experience in an area of practice that is needed to evaluate risks and safe operations associated with the design, operation and special hazards of energy storage systems.
2. Licensing or registration, when required by any other applicable statute, regulation, or local law or ordinance.

3. **Battery energy storage management system.** Where required by the BESS listing an approved energy storage management system shall be provided that monitors and balances cell voltages, currents and temperatures within the manufacturer's specifications. The system shall disconnect electrical connections to the BESS or otherwise place it in a safe condition if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage are detected.

4. **Enclosures.** Enclosures of BESS shall be of noncombustible construction.

5. **General installations requirements.** BESS shall comply with the requirements of Sections 5.1 through 5.12.

   5.1. **Electrical disconnects.** Where the BESS disconnecting means is not within sight of the main electrical service disconnecting means, placards or directories shall be installed at the location of the main electrical service disconnecting means indicating the location of stationary storage battery system disconnecting means in accordance with NFPA 70.
   ***Exception:*** Electrical disconnects for lead acid and nickel cadmium battery systems at facilities under the exclusive control of communications utilities and operating at less than 50 VAC and 60 VDC shall be permitted to have electrical disconnects signage in accordance with NFPA 76.

   5.2. **Working clearances.** Access and working space shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment in accordance with NFPA 70 and the manufacturer's instructions.

   5.3. **Fire-resistance rated separations.** Rooms and other indoor areas containing BESS shall be separated from other areas of the building in accordance with Section 8.4. BESS shall be permitted to be in the same room with the equipment they support.

   5.4. **Seismic and structural design.** Stationary BESS shall comply with the seismic design requirements in Chapter 16 of the International Building Code, and shall not exceed the floor loading limitation of the building.

   5.5. **Vehicle impact protection.** Where BESS are subject to impact by a motor vehicle, including fork lifts, vehicle impact protection shall be provided in accordance with Fire Code Section 312.

   5.6. **Combustible storage.** Combustible materials shall not be stored in BESS rooms, areas, or walk-in units. Combustible materials in occupied work centers covered by Section 5.10 shall be stored at least 3 feet (914 mm) from BESS cabinets.

5.7. **Toxic and highly toxic gases.** BESS that have the potential to release toxic and highly toxic gas during charging, dis-charging and normal use conditions shall be provided with a hazardous exhaust system in accordance with Section 502.8 of the International Mechanical Code.

5.8. **Signage.** Approved signs shall be provided on or adjacent to all entry doors for BESS rooms or areas and on enclosures of BESS cabinets and walk-in units located outdoors, on rooftops or in open parking garages. Signs designed to meet both the requirements of this section and NFPA 70 shall be permitted. The signage shall include the following or equivalent.

- "Energy Storage System", "Battery Storage System", "Capacitor Energy Storage System", or the equivalent.
- The identification of the electrochemical BESS technology present.
- "Energized electrical circuits"
- If water reactive electrochemical BESS are present the signage shall include "APPLY NO WATER"
- Current contact information, including phone number, for personnel authorized to service the equipment and for fire mitigation personnel required by Section 2.2.

***Exception:*** Existing electrochemical BESS shall be permitted to include the signage required at the time they were installed.

5.9. **Security of installations.** Rooms, areas and walk-in units in which electrochemical BESS are located shall be secured against unauthorized entry and safe-guarded in an approved manner. Security barriers, fences, landscaping, and other enclosures shall not inhibit the required air flow to or exhaust from the electrochemical BESS and its components.

5.10. **Occupied work centers.** Electrochemical BESS located in rooms or areas occupied by personnel not directly involved with maintenance, service and testing of the systems shall comply with the following.

- Electrochemical BESS located in occupied work centers shall be housed in locked noncombustible cabinets or other enclosures to prevent access by unauthorized personnel.
- Where electrochemical BESS are contained in cabinets in occupied work centers, the cabinets shall be located within 10 feet (3048 mm) of the equipment that they support.
- Cabinets shall include signage complying with Section 5.8.

5.11. **Open rack installations.** Where electrochemical BESS are installed in a separate equipment room and only authorized personnel have access to the room, they shall be permitted to be installed on an open rack for ease of maintenance.

5.12. **Walk-in units.** Walk-in units shall only be entered for inspection, maintenance and repair of BESS units and ancillary equipment, and shall not be occupied for other purposes.

6. **Electrochemical BESS Protection.** The protection of electrochemical BESS shall be in accordance with 6.1 through 6.8 where required by Sections 8 through 10.

6.1. **Size and separation.** Electrochemical BESS shall be segregated into groups not exceeding 50 kWh (180 Mega joules). Each group shall be separated a minimum three feet (914 mm) from other groups and from walls in the storage room or area. The storage arrangements shall comply with Fire Code Chapter 10.

***Exceptions:***

- Lead acid and nickel cadmium battery systems in facilities under the exclusive control of communications utilities and operating at less than 50 VAC and 60 VDC in accordance with NFPA 76.
- The fire code official is authorized to approve larger capacities or smaller separation distances based on large scale fire testing.

6.2. **Mixed electrochemical energy systems.** Where rooms, areas and walk-in units contain different types of electrochemical energy technologies, the total aggregate quantities of the systems shall be determined based on the sum of percentages of each technology type quantity divided by the maximum allowable quantity of each technology type. The sum of the percentages shall not exceed 100 percent of the maximum allowable quantity.

6.3. **Elevation.** Electrochemical BESS shall not be located in the following areas:

- Where the floor is located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access, or
- Where the floor is located below the lowest level of exit discharge.

***Exceptions:***

- Lead acid and Nickel cadmium battery systems less than 50 VAC and 60 VDC installed in facilities under the exclusive control of communications utilities in accordance with NFPA 76.
- Where approved, installations shall be permitted in underground vaults complying with NFPA 70, Article 450, Part III.
- Where approved by the fire code official, installations shall be permitted on higher and lower floors.

**TABLE 2: MAXIMUM ALLOWABLE QUANTITIES**

| Technology | Maximum Allowable Quantities [a] |
|---|---|
| Lead-acid, all types | Unlimited |
| Nickel-cadmium (Ni-Cd) | Unlimited |
| Nickel metal hydride (Ni-MH) | Unlimited |
| Lithium-ion | 600 kWh |
| Flow batteries [b] | 600 kWh |
| Other battery technologies | 200 kWh |

a. For electrochemical energy storage system units rated in Amp-Hours, kWh shall equal rated voltage times the Amp-hour rating divided by 1000

b. Shall include vanadium, zinc-bromine, polysulfide-bromide, and other flowing electrolyte type technologies

6.4. **Fire detection.** An approved automatic smoke detection system or radiant energy–sensing fire detection system complying with Fire Code Section 907 shall be installed in rooms, indoor areas, and walk-in units containing electrochemical BESS. An approved radiant energy–sensing fire detection system shall be installed to protect open parking garage and rooftop installations. Alarm signals from detection systems shall be

transmitted to a central station, proprietary or remote station service in accordance with NFPA 72, or where approved to a constantly attended location.

6.4.1. **System status.** Where required by the fire code official, visible annunciation shall be provided on cabinet exteriors or in other approved locations to indicate that potentially hazardous conditions associated with the BESS exist.

6.5. **Fire suppression systems.** Rooms and areas within buildings and walk-in units containing electrochemical BESS shall be protected by an automatic fire suppression system designed and installed in accordance with one of the following:

- An automatic sprinkler system designed and installed in accordance with Fire Code Section 903.3.1.1 with a minimum density of 0.3 gpm/ft.2based on the fire area or 2,500 ft.2 design area, whichever is smaller.
- Where approved, an automatic sprinkler system designed and installed in accordance with Fire Code Section 903.3.1.1 with a sprinkler hazard classification based on large scale fire testing.
- The following alternate automatic fire extinguishing systems designed and installed in accordance with Fire Code Section 904, provided the installation is approved by the fire code official based on large scale fire testing
    - NFPA 12, Standard on Carbon Dioxide Extinguishing Systems
    - NFPA 15, Standard for Water Spray Fixed Systems for Fire Protection
    - NFPA 750, Standard on Water Mist Fire Protection Systems
    - NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems
    - NFPA 2010, Standard for Fixed Aerosol Fire-Extinguishing Systems

***Exception:*** Fire suppression systems for lead acid and nickel cadmium battery systems at facilities under the exclusive control of communications utilities that operate at less than 50 VAC and 60 VDC shall be provided where required by NFPA 76.

6.5.1. **Water reactive systems.** Electrochemical BESS that utilize water reactive materials shall be protected by an approved alternative automatic fire-extinguishing system in accordance with Fire Code Section 904, where the installation is approved by the fire code official based on large scale fire testing.

6.6. **Maximum enclosure size.** Outdoor walk-in units housing BESS shall not exceed 53 feet by 8 feet by 9.5 feet high, not including bolt-on HVAC and related equipment, as approved. Outdoor walk-in units exceeding these limitations shall be considered indoor installations and comply with the requirements in Section 8.

6.7. **Vegetation control.** Areas within 10 feet (3 m) on each side of outdoor BESS shall be cleared of combustible vegetation and other combustible growth. Single specimens of trees, shrubbery, or cultivated ground cover such as green grass, ivy, succulents, or similar plants used as ground covers shall be permitted to be exempt provided that they do not form a means of readily transmitting fire.

6.8. **Means of egress separation.** BESS located outdoors and in open parking garages shall be separated from any means of egress as required by the fire code official to ensure safe egress under fire conditions, but in no case less than 10 feet (3048 mm). ***Exception:*** The fire code official is authorized to approve a reduced separation distance if large scale fire testing is provided that shows that a fire involving the BESS will not adversely impact occupant egress.

7. **Electrochemical BESS technology specific protection.** Electrochemical BESS installations shall comply with the requirements of this section in accordance with the applicable requirements of Table 3.

**TABLE 3 ELECTROCHEMICAL BESS TECHNOLOGY SPECIFIC**

| Compliance Required [b] | Battery Technology | | | | Other BESS and Battery Technologies [b] |
|---|---|---|---|---|---|
| | Lead-acid | Ni-Cad & Ni-MH | Lithium-ion | Flow | |
| 7.1 Exhaust ventilation | Yes | Yes | No | Yes | Yes |
| 7.2 Spill control and neutralization | Yes [c] | Yes [c] | No | Yes | Yes |
| 7.3 Explosion control | Yes [a] | Yes [a] | Yes | Yes | Yes |
| 7.4 Safety Caps | Yes | Yes | No | Yes | Yes |
| 7.5 Thermal runaway | Yes [d] | Yes | Yes [e] | Yes | Yes [e] |

a. Not required for lead-acid and nickel cadmium batteries at facilities under the exclusive control of communications utilities that comply with NFPA 76 and operate at less than 50 VAC and 60 VDC.
b. Protection shall be provided unless documentation acceptable to the fire code official is provided that provides justification why the protection is not necessary based on the technology used.
c. Applicable to vented (i.e. flooded) type nickel cadmium and lead acid batteries.
d. Not required for vented (i.e. flooded) type lead acid batteries.
e. The thermal runaway protection is permitted to be part of a battery management system that has been evaluated with the battery as part of the evaluation to UL 1973.

7.1. **Exhaust ventilation.** Where required by Table 3 or elsewhere in this code, exhaust ventilation of rooms, areas, and walk-in units containing electrochemical BESS shall be provided in accordance with the International Mechanical Code and Section 7.1.1 or 7.1.2.

7.1.1. **Ventilation based upon LFL.** The exhaust ventilation system shall be designed to limit the maximum concentration of flammable gas to 25 percent of the lower flammable limit (LFL) of the total volume of the room, area, or walk-in unit during the worst-case event of simultaneous charging of batteries at the maximum charge rate, in accordance with nationally recognized standards.

7.1.2. **Ventilation based upon exhaust rate.** Mechanical exhaust ventilation shall be provided at a rate of not less than 1 $ft^3/min/ft^2$(5.1 $L/sec/m^2$) of floor area of the room, area, or walk-in unit. The ventilation shall be either continuous or shall be activated by a gas detection system in accordance with Section 7.1.2.4.

7.1.2.1. **Standby power.** Mechanical exhaust ventilation shall be provided with a minimum of two hours of standby power in accordance with Fire Code Section 604.2.17.

7.1.2.2. **Installation instructions.** Required mechanical exhaust ventilation systems shall be installed in accordance with the manufacturer's installation instructions and the International Mechanical Code.

7.1.2.3. **Supervision.** Required mechanical exhaust ventilation systems shall be supervised by an approved supervising station in accordance with NFPA 72.

7.1.2.4. **Gas detection system.** Where required by Section 7.1.2, rooms, areas, and walk-in units containing BESS shall be protected by an approved continuous gas detection system that complies with Fire Code Section 916 and with the following:

- The gas detection system shall be designed to activate the mechanical ventilation system when the level of flammable gas in the room, area, or walk-in unit exceeds 25 percent of the LFL.
- The mechanical ventilation system shall remain on until the flammable gas detected is less than 25 percent of the LFL.
- The gas detection system shall be provided with a minimum of 2 hours of standby power in accordance with Fire Code Section 916.
- Failure of the gas detection system shall annunciate a trouble signal at an approved supervising station in accordance with NFPA 72.

7.2. **Spill control and neutralization.** Where required by Table 3 or elsewhere in this code, areas containing free-flowing liquid electrolyte or hazardous materials shall be provided with spill control and neutralization in accordance with this section.

7.2.1. **Spill control.** Spill control shall be provided to prevent the flow of liquid electrolyte or hazardous materials to adjoining rooms or areas. The method shall be capable of containing a spill from the single largest battery or vessel.

7.2.2. **Neutralization.** An approved method to neutralize spilled liquid electrolyte shall be provided that is capable of neutralizing a spill from the largest battery or vessel to a pH between 5.0 and 9.0.

***Exception:*** The requirements of Section 7.2 only apply where the aggregate capacity of multiple vessels exceeds 1,000 gallons (3785 L) for lead-acid and nickel-cadmium battery systems operating at less than 50 VAC and 60 VDC that are located at facilities under the exclusive control of communications utilities and those facilities comply with NFPA 76 in addition to applicable requirements of this code.

7.3. **Explosion control.** Where required by Table 3 or elsewhere in this code, explosion control complying with Fire Code Section 911 shall be provided for rooms, areas or walk-in units containing electrochemical BESS technologies.

***Exceptions:***

- Where approved, explosion control is permitted to be waived by the fire code official based on large scale fire testing which demonstrates that flammable gases are not liberated from electrochemical BESS cells or modules.
- Where approved, explosion control is permitted to be waived by the fire code official based on documentation provided that demonstrates that the electrochemical BESS technology to be used does not have the potential to release flammable gas concentrations in excess of 25 percent of the LFL anywhere in the room, area, walk-in unit or structure under thermal runaway or other fault conditions.

7.4. **Safety caps.** Where required by Table 3 or elsewhere in this code, vented batteries and other BESS shall be pro-vided with flame-arresting safety caps.

7.5. **Thermal runaway.** Where required by Table 3 or elsewhere in this code, batteries and other BESS shall be pro-vided with a listed device or other approved method to prevent, detect and minimize the impact of thermal runaway.

8. **Indoor installations.** Indoor BESS installations shall be in accordance with Sections 8.1 through 8.4.

8.1. **Dedicated use buildings.** For the purpose of Table 4 dedicated use BESS buildings shall be classified as Group F-1 occupancies and comply with all the following:

- The building shall only be used for BESS, electrical energy generation, and other electrical grid related operations.
- Occupants in the rooms and areas containing BESS are limited to personnel that operate, maintain, service, test and repair the BESS and other energy systems.
- No other occupancy types shall be permitted in the building.
- Administrative and support personnel shall be permitted in areas within the buildings that do not contain BESS, provided:
  - The areas do not occupy more than 10 percent of the building area of the story in which they are located.
  - A means of egress is provided from the incidental use areas to the public way that does not require occupants to traverse through areas containing BESS or other energy system equipment.

8.2. **Non-dedicated use buildings.** For the purpose of Table 4 non-dedicated use buildings include all buildings that contain BESS and do not comply with 8.1 dedicated use building requirements.

**TABLE 4 INDOOR BESS INSTALLATIONS**

| Compliance Required | Dedicated Use Buildings [a] | Non-Dedicated Use Buildings [b] |
|---|---|---|
| 5. General Installation Requirements | Yes | Yes |
| 6.1. Size and separation | Yes | Yes |
| 6.3. Elevation | Yes | Yes |
| 6.4. Smoke and automatic fire detection | Yes [c] | Yes |
| 6.5. Fire suppression systems | Yes [d] | Yes |
| 8.3. Dwelling units and sleeping units | NA | Yes |
| 8.4. Fire-resistance rated separations | Yes | Yes |
| 7. Technology specific protection | Yes | Yes |

a. See Section 8.1.
b. See Section 8.2.
c. Where approved by the fire code official, alarm signals are not required to be transmitted to a central station, proprietary or remote station service in accordance with NFPA 72, or a constantly attended location where local fire alarm annunciation is provided and trained personnel are always present.
d. Where approved by the fire code official, fire suppression systems are permitted to be omitted in dedicated use buildings located more than 100 feet (30.5 M) from buildings, lot lines, public ways, stored combustible materials, hazardous materials, high piled stock and other exposure hazards.

8.3. **Dwelling units and sleeping units.** BESS shall not be installed in sleeping units or in habitable spaces of dwelling units.

8.4. **Fire-resistance rated separations.** Rooms and areas containing BESS shall include fire-resistance rated separations as follows:

- In dedicated use buildings, rooms and areas containing BESS shall be separated from areas in which administrative and support personnel are located.
- In non-dedicated use buildings, rooms and areas containing BESS shall be separated from other areas in the building.

Separation shall be provided by 2 hour rated fire barriers constructed in accordance with Section 707 of the International Building Code and 2 hour rated horizontal assemblies constructed in accordance with Section 711 of the International Building Code, as appropriate.

9. **Outdoor installations.** Outdoor installations shall be in accordance with Sections 9.1 through 9.3. Exterior wall installations for individual BESS units not exceeding 20 kWh shall be in accordance with 9.4.

9.1. **Remote outdoor installations.** For the purpose of Table 5, remote outdoor installations include BESS located more than 100 feet (30.5 M) from buildings, lot lines, public ways, stored combustible materials, hazardous materials, high piled stock and other exposure hazards.

9.2. **Installations near exposures.** For the purpose of Table 5, installations near exposures include all outdoor BESS installations that do not comply with 9.1 remote outdoor location requirements.

**TABLE 5 OUTDOOR BESS INSTALLATIONS**

| Compliance Required | Remote Installations [a] | Installations Near Exposures [b] |
|---|---|---|
| 5. General Installation Requirements | Yes | Yes |
| 6.1 Size and separation | No | Yes [c] |
| 6.4. Smoke and automatic fire detection | Yes | Yes |
| 6.5. Fire suppression systems | Yes [d] | Yes |
| 6.6. Maximum enclosure size | Yes | Yes |
| 6.7. Vegetation control | Yes | Yes |
| 6.8. Means of egress separation | Yes | Yes |
| 9.3. Clearance to exposures | Yes | Yes |
| 7. Technology specific protection | Yes | Yes |

a. See Section 9.1.
b. See Section 9.2.
c. In outdoor walk-in units, spacing is not required between BESS units and the walls of the enclosure.
d. Where approved by the fire code official, fire suppression systems are permitted to be omitted.

9.3. **Clearance to exposures.** BESS located outdoors shall be separated by a minimum ten feet (3048 mm) from the following exposures:

- Lot lines
- Public ways

- Buildings
- Stored combustible materials
- Hazardous materials
- High-piled stock
- Other exposure hazards

***Exceptions:***

- Clearances are permitted to be reduced to 3 feet (914 mm) where a 1-hour free standing fire barrier, suitable for exterior use, and extending 5 feet (1.5 m) above and extending 5 feet (1.5 m) beyond the physical boundary of the BESS installation is provided to protect the exposure.
- Clearances to buildings are permitted to be reduced to 3 feet (914 mm) where noncombustible exterior walls with no openings or combustible overhangs are provided on the wall adjacent to the BESS and the fire-resistance rating of the exterior wall is a minimum 2 hours.
- Clearances to buildings are permitted to be reduced to 3 feet (914.4 mm) where a weatherproof enclosure constructed of noncombustible materials is provided over the BESS, and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure based on large scale fire testing.

9.4. **Exterior wall installations.** BESS shall be permitted to be installed outdoors on exterior walls of buildings when all of the following conditions are met:

- The maximum energy capacity of individual BESS units shall not exceed 20 kWh.
- The BESS shall comply with applicable requirements in this Appendix.
- The BESS shall be installed in accordance with the manufacturer's instructions and their listing.
- Individual BESS units shall be separated from each other by at least three feet (914 mm).
- The BESS shall be separated from doors, windows, operable openings into buildings, or HVAC inlets by at least five feet (1524 mm)

***Exception*:** Where approved smaller separation distances in items 4 and 5 shall be permitted based on large scale fire testing.

10. **Special installations.** Rooftop and open parking garage BESS installations shall comply with Sections 10.1 through 10.6.

10.1. **Rooftop installations.** For the purpose of Table 6, rooftop BESS installations are those located on the roofs of buildings.

10.2. **Open parking garage installations.** For the purpose of Table 6, open parking garage BESS installations are those located in a structure or portion of a structure that complies with Section 406.5 of the International Building Code.

**TABLE 6 SPECIAL BESS INSTALLATIONS**

| Compliance Required | Rooftops [a] | Open Parking Garages [b] |
|---|---|---|
| 5. General Installation Requirements | Yes | Yes |
| 6.1. Size and separation | Yes | Yes |
| 6.4. Smoke and automatic fire detection | Yes | Yes |
| 6.6. Maximum enclosure size | Yes | Yes |

| | | |
|---|---|---|
| 6.8. Means of egress separation | Yes | Yes |
| 10.3. Clearance to exposures | Yes | Yes |
| 10.4. Fire suppression systems | Yes | Yes |
| 10.5. Rooftop installations | Yes | No |
| 10.6. Open parking garage installations | No | Yes |
| 7. Technology specific protection | Yes | Yes |

a. See Section 10.1.
b. See Section 10.2.

10.3. **Clearance to exposures.** BESS located on rooftops and in open parking garages shall be separated by a minimum ten feet (3048 mm) from the following exposures:

- Buildings, except the building on which rooftop BESS is mounted
- Any portion of the building on which a rooftop system is mounted that is elevated above the rooftop on which the system is installed
- Lot lines
- Public ways
- Stored combustible materials
- Locations where motor vehicles can be parked
- Hazardous materials
- Other exposure hazards

***Exceptions:***

- Clearances are permitted to be reduced to 3 feet (914 mm) where a 1-hour free standing fire barrier, suitable for exterior use, and extending 5 feet (1.5 m) above and extending 5 feet (1.5 m) beyond the physical boundary of the BESS installation is provided to protect the exposure.
- Clearances are permitted to be reduced to 3 feet (914.4 mm) where a weatherproof enclosure con-structed of noncombustible materials is provided over the BESS and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure based on large scale fire testing.

10.4. **Fire suppression systems.** BESS located in walk-in units on rooftops or in walk-in units in open parking garages shall be provided with automatic fire suppression systems within the BESS enclosure in accordance with Section 6.5. Areas containing BESS other than walk-in units in open parking structures on levels not open above to the sky shall be provided with an automatic fire suppression system complying with Section 6.5.

***Exception:*** A fire suppression system is not required in open parking garages if large scale fire testing is provided that shows that a fire will not impact the exposures in Section 10.3.

10.5. **Rooftop installations.** BESS and associated equipment that are located on rooftops and not enclosed by building construction shall comply with the following:

- Stairway access to the roof for emergency response and fire department personnel shall be provided either through a bulkhead from the interior of the building or a stairway on the exterior of the building.
- Service walkways at least 5 feet (1524 mm) in width shall be provided for service and emergency personnel from the point of access to the roof to the system.

- BESS and associated equipment shall be located from the edge of the roof a distance equal to at least the height of the system, equipment, or component but not less than 5 feet (1.5 m).
- The roofing materials under and within 5 feet (1524 mm) horizontally from a BESS or associated equipment shall be noncombustible or shall have a Class A rating when tested in accordance with ASTM E108 or UL 790.
- A Class I standpipe outlet shall be installed at an approved location on the roof level of the building or in the stairway bulkhead at the top level.
- The BESS shall be the minimum of 10 feet from the fire service access point on the roof top.
- The BESS shall not be located within 50 feet (15,240 mm) of air inlets for building HVAC systems.

  **Exception:** This distance shall be permitted to be reduced to 25 feet (7,620 mm) if the automatic fire alarm system monitoring the radiant-energy sensing detectors deenergizes the ventilation system connected to the air intakes upon detection of fire.

10.6. **Open parking garages.** BESS and associated equipment that are located in open parking garages shall comply with all of the following:

- BESS shall not be located within 50 feet (15,240 mm) of air inlets for building HVAC systems.

  ***Exception:*** This distance shall be permitted to be reduced to 25 feet (7,620 mm) if the automatic fire alarm system monitoring the radiant-energy sensing detectors de-energizes the ventilation system connected to the air intakes upon detection of fire.

- BESS shall not be located within 25 feet (7,620 mm) of exits leading from the attached building where located on a covered level of the parking structure not directly open to the sky above.
- An approved fence with a locked gate or other approved barrier shall be provided to keep the general public at least five feet (1,024 mm) from the outer enclosure of the BESS.

## APPENDIX 3: Operation and Maintenance Manual

The Operation and Maintenance Manual shall be provided to both the BESS owner and their operator before the battery energy storage system is put into operation. The energy storage system shall be operated and maintained in accordance with the manual and a copy of the documentation shall be retained at an approved onsite location to be accessible to facility personnel, fire code officials, and emergency responders.

In addition to complying with the Uniform Code, the battery energy storage system Operation and Maintenance Manual shall, at a minimum, include design, construction, installation, testing and commissioning information associated with the battery energy storage system as initially approved after being commissioned, as well as the following information:

1. Manufacturer's operation manuals and maintenance manuals for the entire BESS or for each component of the system requiring maintenance, that clearly identify the required routine maintenance actions.

2. Name, address and phone number of a service agency that has been contracted to service the BESS and its associated safety systems.

3. Maintenance and calibration information, including wiring diagrams, control drawings, schematics, system programming instructions and control sequence descriptions, for all energy storage control systems.

4. Desired or field-determined control set points that are permanently recorded on control drawings at control devices or, for digital control systems in system programming instructions.

5. A schedule for inspecting and recalibrating all BESS controls.

6. A service record log form that lists the schedule for all required servicing and maintenance actions and space for logging such actions that are completed over time and retained on site.

7. Inspection and testing records

## APPENDIX 4: Emergency Operations Plan

An emergency operations plan shall include the following information:

a. Procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions to reduce the risk of fire, electric shock, and personal injuries, and for safe start-up following cessation of emergency conditions.

b. Procedures for inspection and testing of associated alarms, interlocks, and controls.

c. Procedures to be followed in response to notifications from the Battery Energy Storage Management System, when provided, that could signify potentially dangerous conditions, including shutting down equipment, summoning service and repair personnel, and providing agreed upon notification to fire department personnel for potentially hazardous conditions in the event of a system failure.

d. Emergency procedures to be followed in case of fire, explosion, release of liquids or vapors, damage to critical moving parts, or other potentially dangerous conditions. Procedures can include sounding the alarm, notifying the fire department, evacuating personnel, de-energizing equipment, and controlling and extinguishing the fire.

e. Response considerations similar to a safety data sheet (SDS) that will address response safety concerns and extinguishment when an SDS is not required.

f. Procedures for dealing with battery energy storage system equipment damaged in a fire or other emergency event, including maintaining contact information for personnel qualified to safely remove damaged battery energy storage system equipment from the facility.

g. Other procedures as determined necessary by the Town of Byron to provide for the safety of occupants and emergency responders.

h. Procedures and schedules for conducting drills of these procedures.