



Staff Report

Council Meeting Date: April 14, 2025

Subject: Battery Energy Storage System Policy

Report from: Emily Dance, Chief Administrative Officer

Attachments: DRAFT Battery Energy Storage System Policy

Recommendation

Be It Resolved that Council hereby approves Report CAO-2025-06 being the Battery Energy Storage System Policy

AND approves the Battery Energy Storage Policy By-Law AND FURTHER authorizes the appropriate By-laws coming forward.

Background

The Independent Electricity Systems Operator (IESO) is responsible for managing the flow of electricity across Ontario and ensuring its reliability. They oversee Ontario's electricity markets by driving competition to maintain affordability

Emerging technologies like battery energy storage systems (BESS), distributed energy sources and demand response programs are rapidly developing to fulfil the reliability needs of Ontario's electricity system. Specifically, BESS draw and store energy from the grid during off-peak hours when demand is low and then discharge

On November 25, 2025, Council directed staff to bring forward an Energy Procurement Policy for consideration. The purpose is to provide clear direction for developers proposing Battery Energy Storage Systems (BESS) in the Municipality of Arran-Elderslie.

Analysis

The proposed policy outlines the responsibilities of the developer including requirements for pre-consultation with municipal staff prior to bringing forward a request to Council for a Municipal Support Resolution (MSR). This requirement will ensure proper considerations are given to proposed land-use and request the required studies and agreements prior to Council consideration.

Pre-consultation may result in further discussion with other commenting agencies including the County of Bruce and Conservations Authorities. This information will be included in a staff report that will accompany any MSR requests.

The policy is proposing entering into a development agreement with the developer that will include specific clauses highlighted below; however, the agreement will be specific to each project.

Included in the agreement is the requirement for a Community Benefit Contribution that will include a negotiated annual payment or one-time payment to the municipality to be used for community benefit projects as determined by the municipality based on the capacity, along with an annual CPI inflationary factor.

Fees

All costs associate with the development will be the responsibility of the developer including a fee for pre-consultation and the agreement as well as reimbursement for third party review, legal and engineering fees.

Service	Fee
Pre-Consultation- Municipality Includes initial meeting with Municipal staff to review the proposal and MSR Developer to consult with County of Bruce and Conservation Authority for applicable fee.	\$1,000
Energy Storage Development Agreement (includes site plan control review and circulation, community benefit review) Deposit Applicant responsible for registration, title search, legal and professional consultant costs.	\$5,000 \$25,000 (balance refunded)

Site Guidelines

The proper siting of BESS must consider project-specific requirements. Consideration for the siting of BESS will include noise, fire safety and emergency response planning, agricultural land and mitigating neighbouring land-use conflicts.

Reducing risk of fire is an important consideration for BESS. As part of application, developers will be required to demonstrate to the satisfaction of the Fire Chief that effective fire and safety risk management is to be applied in the design of the BESS facility. Proponents will also be required to install fire prevention and suppression systems. Each site will be assessed on a case-by-case basis to determine the appropriate water supply requirements, which may include municipal water supply, onsite storage reservoirs, or the installation of dry or remote hydrant systems.

In developing the policy, staff reviewed Hydro One Networks Inc.'s [BESS Fire Protection Risk & Response Assessment Standard \(FRRAS\)1](#). The Standard was specifically developed to address BESS in proximity to Hydro One's transmission grid facilities. Hydro One established setback distance of up to 150 metres from their highest voltage transmission lines (500 kilovolt) for BESS supporting the transmission grid.

In the absence of any provincial guidance on recommended setbacks for principal use BESS, staff are recommending that the setbacks set out by FRRAS of a minimum of 150 metres (492 feet) be used as a baseline setback from sensitive land uses (i.e. residential use buildings, day care, place of worship, school, library, community centre, open space, park or institutional use) with potential increases to that setback based on the review of plans, studies and public input which would accompany a planning application.

The policy proposes that that the maximum percentage size limit of land area of 2% for Agriculture to a maximum of one hectare and 20% for rural and industrial be applied. The 20 per cent threshold is consistent with some jurisdictions that current provide land use and building regulations for BESS facilities. (Whatcom County, June 2021.

<https://whatcom.legistar.com/View.ashx?M=F&ID=11026757&GUID=12AE42C0-2505-4EC0-8019-4AAB1E7255A2>

Screening or visual barriers will also be required as part of the development that must be compatible with the general appearance and character of the surrounding area.

Staff consulted with the County of Bruce Planning Department in developing the policy. The policy has also been forwarded to our Municipal Solicitor for comment.

Staff recognize that BESS systems and associated regulations are new and technology is constantly evolving. The proposed policy should be reviewed regularly as legislation and technology changes, best practices are established and lessons are learned.

Link to Strategic/Master Plan

6.1 Protecting Infrastructure, Recreation and Natural Assets

Financial Impacts/Source of Funding/Link to Procurement Policy

There is considerable staff time required as well as significant fees for third party review of BESS. To off-set staff time the proposed fees as indicated in the report include: pre-consultation \$1,000, development application \$5,000, deposit \$25,000 to cover all associated third-party review including but not limited to legal and engineering costs.

Approved by: Emily Dance, Chief Administrative Officer