



STAFF REPORT

Planning and Development

Subject: *Proposed MPS and LUB Amendments for Wind Energy Development*
To: Municipality of Argyle CAO and Council for December 13, 2022
Date Prepared: December 9, 2022
Related Motions: None
Prepared by: Erin Ferguson, LPP, MCIP, Senior Planner, WSP Canada Inc.

Summary

The Planning and Development Department and WSP have identified regulations and omissions which limit the development of wind energy projects. The Municipal Planning Strategy (MPS) indicates broader support for wind energy than the Land Use By-law (LUB) regulations currently allow. The LUB wind farm regulations are focused on the existing Pubnico Point Wind Farm, and do not permit additional wind farm developments in other areas of the municipality. This report outlines recommended amendments to the Land Use By-law and Municipal Planning Strategy to better align the two documents and enable a broader use wind farm development through appropriate areas of the municipality. No changes to the small scale or micro scale wind turbine policy and regulations are proposed at this time.

Financial Impact Statement

There is no immediate financial impact aside from the typical public engagement process and staffing requirements resulting from the application.

Recommendation

That Council to give second reading to amendments to the Municipal Planning Strategy and Land use By-law as contained in this report.

Recommended Motion

That Council:

- give second reading to consider approval of the proposed amendments to the Municipal Planning Strategy as contained in the planner's report dated December 9, 2022;
- give second reading to consider approval of the proposed amendments to the Land Use By-law as contained in the planner's report dated December 9, 2022;

Background

In 2005, a seventeen (17) turbine, 30-megawatt wind farm was established at Pubnico Point. It was the first large scale wind farm project in Nova Scotia. At that time, the Municipality established wind energy policy and provisions in the Municipal Planning Strategy and Land Use By-law however, it was specifically focused on the Pubnico Point Wind Farm and did not accommodate wind energy developments in other areas of the community.

Since then, wind energy technology has evolved and there has been increased interest in developing other wind energy opportunities within the municipality. Through the Municipal Planning Strategy (MPS) and Land Use By-law (LUB) review, the Municipality has adopted new policy and regulations to support and guide further wind energy development. However, there are inconsistencies between the intent statement, MPS policies and LUB regulations for wind projects which are currently limiting wind energy potential for Argyle.

At present, the installation of wind farms outside of the Pubnico Point Wind Farm requires an MPS amendment despite general support for wind energy and renewable energy projects in the MPS. Due to the risk, uncertainty, and length of the MPS amendment process, wind energy developers are reluctant to pursue this process and are focusing projects in



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other areas of the province where land use regulations already permit wind farm developments either as-of-right or by development agreement.

Discussion

Wind Development Opportunities and Key Concerns

The Nova Scotia Wind Atlas¹ indicates that there are wind energy resources in Southwest Nova Scotia that are suitable for commercial wind farm projects. Areas with the highest potential are located along the coastline or nearby inland areas. With the available wind resources, there is sustained interest from wind farm proponents in developing wind energy facilities in this region.

Wind turbines provide community benefits including carbon-free energy, creating local investment through land leases, municipal taxes, and local employment. Wind turbines provide energy that can typically offset greenhouse gas emissions within the first year of installation. This form of energy is recognized as one of the least carbon intensive forms of energy production and is a key component of the province's renewable energy plans.

While there are many benefits to wind energy, it has the potential to adversely impact nearby communities. Impacts from wind farm developments are generally related to noise and shadow flicker, potential for ice or blade throw, or in the case of wildlife, collision. Many of these concerns are addressed on a project specific basis through the Provincial Environmental Assessment Process. In Nova Scotia, all wind energy projects over 2MW (megawatts) in size must undertake a provincial Environmental Assessment (EA), administered by the Department of Environment and Climate Change.

Setback and separation distances are commonly used to avoid any disturbance from wind turbines on a community and its citizens however there are no federal or provincial regulations in place that specify setback requirements or separation distances for wind power projects. It is left to municipalities to determine where wind farm projects are suitable, if they want to impose any setback or separation distances, and to determine appropriate distances.

Approaches to Wind Farm Regulation

Municipalities take different approaches to wind energy regulation (Table 1). These approaches vary in terms of where large wind turbines or wind farms are permitted, what conditions must be met, and the planning tool used to regulate their development. Typical approaches include allowing wind farms as-of-right in specific zones through a development permit or site plan approval; allowing wind farms through development agreement either more broadly across the municipality or in specific zones; or by creating a new overlay zone. Based on the existing MPS policy framework, the ability to consider site-specific conditions, and the requirement to provide the opportunity for community input, it is recommended that the Municipality continues to require Development Agreements for large wind turbines and wind farms.

¹ [Nova Scotia Wind Atlas \(nswindatlas.ca\)](http://nswindatlas.ca)



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Table 1. Municipal Approaches to Large Scale Wind Turbines and Wind Farm Regulation

Approach	Description	Examples
As-of-Right through Development Permit	<p>The Land Use By-law contains regulations for wind farms and if the application is in conformance with the regulations, the Development Officer issues a Development Permit. Applicant can appeal to the Nova Scotia Utility and Energy Review Board if the Development Officer declines to issue the Development Permit.</p> <p>Advantages are a simplified approvals process however there is little ability to take site-specific conditions into consideration, and no municipal public process.</p>	<ul style="list-style-type: none"> • Municipality of the District of Digby allows Large Wind Turbines in the General Development zone with a Development Permit • Current approach for micro turbines in Argyle
As-of-Right through Site Plan Approval	<p>Site Plan Approval is enabled in the MPS and implemented in the LUB. The LUB sets out specific criteria or guidelines that must be satisfied to obtain site plan approval. These criteria address items like location, driveways, signage, buffering, landscaping, stormwater or parking but cannot regulate land-use, height of a building or hours of operation. Site Plan approval is granted by the Development Officer and can be appealed to Council. Property owners within 30 m are notified (notification distance can be enlarged through MPS, in Argyle it is 250 m for small scale turbines) of the decision and have 14 days to appeal.</p> <p>Site Plan Approval allows the municipality to negotiate certain site-specific items with an applicant prior to receiving a Development Permit but it only applies to a single property.</p>	<ul style="list-style-type: none"> • East Hants allows wind farms through site plan approval process with detailed submission requirements • Current approach for small scale wind turbines in Argyle
On a site-specific basis through Development Agreement (<i>recommended approach</i>)	<p>Development Agreements are a legal agreement between the municipality and property owners and are registered on the property title. The Municipal Planning Strategy and Land Use By-law set out types of land uses (often those which have the potential to create land use conflicts) and criteria that must be considered when entering into a development agreement. Development agreements can be appealed to the Nova Scotia Utility and Energy Review Board.</p> <p>Advantages are that it allows consideration of additional items such as maintenance and hours of operation, it can apply to several properties, it can apply site specific conditions, and includes a legislated public process. Drawbacks of this approach are that it is a longer, more costly, more complex process. Often it results in less transparency for the public once the development agreement is registered as development agreements and the land uses they permit are generally not represented on zoning maps.</p>	<ul style="list-style-type: none"> • Current approach for wind farms in the Pubnico Point Wind Farm Zone • Municipality of the District of Yarmouth
Overlay zone	<p>An overlay zone is a defined geographic area that is layered on top of the regular base zoning and imposes additional or alternative requirements to the underlying base zone.</p> <p>For example, Kings County created the wind energy overlay zone using the following criteria:</p> <ul style="list-style-type: none"> - land is primarily Crown land - Located 3 km or more from existing dwellings - 3 km or more from Cloud Lake Wilderness Area - There is limited development potential for other uses <p>The overlay has additional zoning regulations specific to wind development outlined in the LUB.</p> <p>Advantages are that the location of potential wind farm areas are more transparent with a defined area shown on a zoning schedule and a simplified process. Once established, it is the same process as a Development Permit with little ability to consider site-specific context or opportunity for public input.</p>	<ul style="list-style-type: none"> • Municipality of the County of Kings uses an overlay zone



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Municipalities also have also adopted specific provisions such as separation distance, setbacks, blade clearance, appearance, and decommissioning requirements. **Appendix A** presents a jurisdictional scan of wind farm regulations adopted by rural municipalities in western Nova Scotia.

Separation from Dwellings and Setbacks from Property Lines

To reduce noise, safety, and shadow impacts, municipalities often require separation distances between wind turbines and other uses or increased setbacks between wind turbines and property lines.

Separation distances usually specify the required distance between wind turbines and dwellings but can be applied to other uses or features such as parks or watercourses. There is no provincial standard and municipalities have set separation distances varying from 1.5 times the total turbine height to 3 kilometers. Other municipalities have chosen not to prescribe a minimum separation distance. Based on a review of wind energy information and regulations², and previous public input from local residents, a minimum separation distance between wind turbines and existing dwellings of 1 kilometer (1000 m) is suggested to mitigate safety and nuisance concerns. This is consistent with the existing policy direction in the MPS.

In reviewing the one (1) kilometre separation distance, there was concern that it might be too restrictive and severely limit wind opportunities if all seasonal dwellings (including camps) were included. The proposed amendments detailed in the following section of this report address this concern by excluding seasonal dwellings and camps from the required one (1) kilometre separation distance. To address potential safety hazards from ice throw or blade throw for nearby properties with seasonal dwellings or future development, a minimum setback distance equal to two (2) times the total turbine height, and not less than 300 m is proposed. The setback will be measured from base of the wind turbines to adjoining property lines where the adjoining property is not a wind energy development. The proposed setback aligns with available information on ice throw, modelling for blade throw, and with the Model Wind Turbine By-laws and Best Practices for NS Municipalities. A review of recent EA studies for wind farms in Nova Scotia suggests that blade throw isn't typically addressed through the provincial EA process. It should be noted that blade throw is a rare occurrence and there is no consensus on appropriate setbacks based on both potential distance and associated risk levels. The furthest reported incident of a blade fragment is 500 m³. The required setback for a wind farm can also be varied through the development agreement process should Council feel an alternate distance is more appropriate.

Lastly, while a reduced required minimum setback is proposed for dwellings with temporary or seasonal occupancy, the Provincial Environmental Assessment process for wind farms includes modeling and analysis of noise and shadow flicker impacts which may result in a larger required separation than the municipal regulations. The current provincial guidelines are that noise levels should not exceed 40 dBA at the exterior of receptors (eg. dwellings, schools, campgrounds) and shadow flicker that does not exceed 30 min a day or 30 hours per year at any receptor⁴.

Policy Analysis and Proposed Amendments

Staff feel that the existing approach to wind energy development by development agreement is appropriate following a review of MPS policy, and best practice review of wind energy information and regulations. However, amendments are required to align the MPS policies and LUB regulations and to better address Argyle's specific community context. Proposed amendments are shown using **green** text to indicate additions or revisions, and **red** text to indicate removal. A map showing the proposed wind development areas is included as **Appendix B**.

² This included a review of municipal regulations, Provincial Environmental Assessment Registration Documents for Wind Farm projects, and available information on noise thresholds

³ Chief Medical Officer of Health Report (2010). The Potential Health Impact of Wind Turbines. Available at: [The Potential Health Impact of Wind Turbines - Ministry Reports - Publications - Public Information - MOHLTC \(gov.on.ca\)](https://www.gov.on.ca/moh/hlth/eh/whit/whit.htm)

⁴ Guide to Preparing an EA Registration Document for Wind Power Projects in Nova Scotia, Revised 2021. Available at [EA.Guide-Proponents-WindPowerProjects.pdf \(novascotia.ca\)](https://www.gov.ns.ca/energy/EA/EA-Guide-Proponents-WindPowerProjects.pdf)



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Staff have proposed amendments based on a review of available information but the wind industry is rapidly growing and technology is rapidly evolving, and there are few federal or provincial guidelines available. Consistent with MPS policy, staff recommend revisiting wind energy policy and regulations should new information or guidelines emerge and in relation to growing experience with local wind farm operations.

Proposed LUB Amendments: Permitting Large Scale Wind Turbines in the RD Zone and Wind Farms in the CC and RD Zones by Development Agreement

Policy 12.10.6 of the MPS states “To establish in the Land Use By-law provisions for regulating the use and location of Large Scale WTG in the Rural Development Zone and Coastal Community Zone only and to require a Development Agreement to enable their use”. Part 11 of the LUB permits a single large scale wind turbine by development agreement in the CC Zone and in the WP Zone but not in the RD zone.

The Wind Farm use is currently restricted to Pubnico Point Wind Farm. Staff are recommending allowing wind farm use to the CC and RD Zones where large scale wind turbines will be permitted. This will require a concurrent amendment to MPS Policy also outlined in the report below.

The MPS contains conflicting policy with 12.10.6 above and policy 5.2.7 which states that Council may consider a Large Scale Wind Turbine Generator in the Wellhead Protection (WP) Zone through a development agreement. The small size of the wellhead protection area and proposed setbacks make siting a large turbine impractical, and the proposed amendments will result in a substantial land area in the RD and CC zoned lands available to wind energy development (Appendix B). For these reasons, staff suggest amending the MPS and LUB to remove the large wind turbine use from the WP Zone.

Staff are proposing the following amendments to better align the wind energy policies in the MPS with LUB regulations:

- Permit Wind Farms by development agreement in the Coastal Community (CC) and Rural Development (RD) zones and removing large scale wind turbines from the Wellhead Protection Zone by amending Part 11 of the Land Use-Bylaw as follows:

Wind Energy (See Part 8)	MU	LI	HI	RP	BP	WF	CC	CCI	V	FP	RD	MI	CW	WP
Large Scale Wind Turbine Generator						DA	DA				DA			DA
Wind Farm						DA	DA				DA			

Proposed MPS Amendments: Allow Wind Farms in CC and RD Zones By Development Agreement (Addition)

Staff are proposing to amend Part 12 of the MPS to permit Wind Farms in the CC and RD zones as follows:

- 12.10.6 To establish in the Land Use By-law provisions for regulating the use and location of Large-Scale WTG and Wind Farms in the Rural Development Zone and Coastal Community Zone only and to require a Development Agreement to enable their use.

Proposed MPS Amendments: Remove Large Wind Turbine Use from Wellhead Protection Zone

As discussed above, there is an inconsistency in the wind energy policies in the MPS. Staff are proposing to remove the Large Scale Wind Turbine Generator Use from the list of uses permitted by development agreement in the WP Zone as follows:



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- Council may consider the following uses through development agreement, pursuant to the requirements of Policy 13.14, in the Wellhead Protection Zone:

~~e) Large Scale Wind Turbine Generator~~

Proposed LUB Amendments: Revising the Wind Farm Definition

The Land Use By-law defines wind farms as “*more than one Wind Turbine Generator located on a lot*”. Wind farms typically cover a large area and involve several Large Wind Turbines which may be located on several different lots, often on land leased from the Crown, private property owners or a combination of both.

Staff suggest revising the wind farm definition in Part 26 of the LUB to provide more flexibility and better reflect wind development practices:

- *Wind Farm* means an array of two or more wind turbines that are connected to the local utility grid for the principal purpose of generating electricity for off-site consumption.

Proposed LUB Amendments: Separation Distances and Setbacks for Large Scale Wind Turbine Generators

A minimum separation distance of one (1) kilometer between large scale wind turbines and permanent dwellings is recommended to address both safety and nuisance concerns. In order not to overly restrict the location of wind turbines in relation to temporary or seasonal dwellings, camps and seasonal dwellings have been separated from principal dwellings.

Reducing the required separation distance may not fully mitigate nuisance concerns for nearby camps and seasonal dwellings, however noise and shadow impacts are addressed through the provincial EA process. Potential safety impacts from ice or blade throw are mitigated by requiring wind turbines to be setback 2 times the height of the wind turbine from property lines and at least 300 m. From a review of available information, ice throw events typically happen within 100 m from the tower base and are mitigated through blade design and monitoring weather. A review of available information indicates that blade fragments can travel larger distances than ice (farthest reported incidence was 500 m) but modeling indicates that the risk of a person or dwelling being struck by a blade fragment are exceptionally rare. There is the ability to vary the required setback distance for a specific wind development project through the Development Agreement process should Council feel it is appropriate given the surrounding rural context.

Staff are proposing the following amendments to address separation and setback distances for wind turbines.

- Insert the following provisions (shown in green text) into Section 8.1 of the Land Use By-law:

8.1 LARGE SCALE WIND TURBINE GENERATORS (See Definitions)

- A Development Agreement is required for a Large-scale Wind Turbine Generator or Wind Farm.
- Large Scale Wind Turbine Generators are required to be removed from the site after a period of two years from the date of cessation of electrical power generation of the Wind Turbine Generator.
- The required separation distance between Large Scale Wind Turbine Generators and existing dwellings shall be not less than 1 kilometre (1000 m).
- For the purpose of determining the separation distance in 8.1(iii) above, a dwelling shall not include a Camp or Seasonal Dwelling.
- Large Scale Wind Turbine Generators shall be setback from lot lines by a minimum distance equal 2 times the height of the wind turbine or 300 m, whichever is greater. Turbine height is measured from grade to the highest point of a wind turbine at the top of the rotator's arc.
- Notwithstanding 8.1 (v), where a lot line is common to two lots located within the same wind energy project, no setback is required from that common lot line.



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- Add the following definitions to **Part 26** of the Land Use By-law:

Dwelling, Seasonal means a cottage or secondary residence used from time to time throughout any season of the year but not used or intended to be used for year-round occupancy or as a principal residence.

Camp means a building or structure intended to provide basic shelter for a person engaged in hunting, fishing, or other recreational activities on an occasional or seasonal basis in a remote location and not satisfying the requirements for a dwelling under the National Building Code.

Proposed LUB Amendments: Part 18 – Coastal Communities (CC) Zone and Part 22 – Rural Development (Addition)

The LUB currently restricts development, other than single unit dwellings, to lots that have frontage on a public road.

Staff propose the following amendments to permit wind farms and large-scale wind turbines to be accessed by private road if access is secured.

- **18.4 Wind Energy Development without Frontage on a Public Road**
A development permit for large scale wind turbine generators or wind farms may be issued on a lot without frontage on a public road provided proof of secured access can be demonstrated.
- **22.2 Wind Energy Development without Frontage on a Public Road**
A development permit for large scale wind turbines or wind farms may be issued on a lot without frontage on a public road provided proof of secured access can be demonstrated.

Proposed MPS Amendments: Rural Development Policies (Addition)

As discussed above, MPS Policy 12.10.6 states that Large Scale Wind Turbines should be permitted by development agreement in the Rural Development (RD) Zone.

Staff are proposing to add Large Wind Turbines and Wind Farms as uses permitted by Development Agreement to align MPS policies and reflect wind energy practice:

- 5.2.5 Council shall consider the following uses through development agreement, pursuant to the requirements of Policy 13.14, in the Rural Development (RD) Zone:
 - l) Wind Farms and Large-Scale Wind Turbine Generators

Proposed MPS Amendments: Renewable Energy Policies (Formatting Correction & Policy Revision)

Staff noted a formatting error in Section 12.10, where criteria for the development agreement as listed as separate policies rather than a numbered list. Staff are also proposing text revisions to better align the MPS policies with the required separation distances outlined above. The reference to new large-scale wind turbines maintains the established separation distances at Pubnico Point Wind Farm but requires all new turbines to meet the 1 km separation distance.

Therefore, Staff propose the following amendments:

- 12.10.10 To consider the following criteria prior to entering into a development agreement for a large-scale



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wind turbine generator or wind farm development:

- a) ~~12.10.11~~ That new large-scale wind turbine generators be separated from habitable dwellings, excluding seasonal dwellings or camps, a minimum distance of one (1) kilometre.
- b) ~~12.10.12~~ That mitigation of noise, visual impacts, shadow effects and environmental impacts of wind turbines is undertaken to minimize any potential negative effects of the development on the community.
- c) ~~12.10.13~~ That safety concerns are addressed both on site and off site for matters of electrical safety, ice throw, blade throw, turbine collapse, and emergency response. A required setback from a wind turbine to a lot line may be amended if an impact study shows that a lesser or greater setback is appropriate to mitigate safety concerns.
- d) ~~12.10.14~~ That all documentation required for the Canadian Environmental Assessment Act and the Nova Scotia Environment Act for the proposal is included in the documentation submitted by the proponent.
- e) ~~12.10.15~~ That all documentation required by the Department of National Defence, Environment Canada, Navigation Canada, Transport Canada, Canadian Coast Guard, and Nova Scotia Department of Natural Resources is included in the documentation submitted by the proponent.
- f) ~~12.10.16~~ That a decommissioning plan be included in the development agreement to be enacted after two years of the cessation of electrical power generation on the site.
- g) ~~12.10.17~~ That the proposed development is in accordance with the Implementation Chapter of this Strategy.

Due to the above formatting change, policy 12.10.18 will be renumbered to 12.10.11. Staff are also proposing removing a redundancy related to notification requirements and inserting imperial measurements for reference as follows:

- 12.10.11 To consider the following criteria prior to approving a site plan for Small Scale Wind Turbine Generator developments:
 - a) That wind turbine generators be separated from dwellings a minimum of 200 metres (656 ft.).
 - ~~b) —That the distance between wind turbine generators and existing residences for notification of site plan approval for small scale wind turbine generators be 250 m (820 ft.).~~
 - e) b) That mitigation of noise, visual impacts, shadow effects and environmental impacts of wind turbines is undertaken to minimize any potential negative effects of the development on adjacent uses.
 - ~~e) c)~~ c) That all documentation required by the Department of National Defence, Navigation Canada, Transport Canada, Nova Scotia Environment and Nova Scotia Department of Natural Resources is included in the documentation submitted by the proponent.
 - e) d) That no commercial advertising other than the manufacturer's name be permitted on any WTG or accessory structures.
 - ~~e) e)~~ e) That written notification be sent to all property owners within ~~200~~ 250 m (820 ft) advising of the Site Plan Approval and outlining the Site Plan Approval appeal provisions of the MGA.



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Public Participation

Staff will comply with Public Participation Policies of the Municipal Planning Strategy (MPS) when processing these amendments. Figure 1 outlines the general process for amendments to the LUB.

A public information meeting was held on October 27th to provide an opportunity for members of the public to learn more about the proposed amendments, and to provide their input prior to the proposed amendments going to the Planning Advisory Committee and Council. This meeting was advertised on the Municipal website and social media accounts in advance of the meeting. There were no members of the public in attendance.

A public hearing will be held on December 13, 2022 prior to Council's consideration of 2nd reading. The public hearing was advertised in accordance with the *Municipal Government Act*. Two weeks prior to the public hearing, an advertisement outlining the proposed amendments and providing the location and time of the public hearing will be placed in the *VanGuard*. The public was encouraged to request additional information or clarification from Staff leading up to the public hearing if they have any questions. No public comments have been received to-date.

No mailout to surrounding property owners or posted sign was required as the amendments under consideration are not site-specific.

Conclusion

Wind policy and regulation is evolving along with technology and Council has expressed support for appropriate wind energy development in the MPS. The proposed amendments reflect modern wind policy and regulatory approaches and are largely in keeping with the existing wind energy policy intent in MPS. Therefore, WSP recommends that Council to give Second Reading to the Municipal Planning Strategy and Land Use By-law amendments as outlined in this report.

Appendices

- Appendix A – Jurisdictional Scan of Municipal Wind Energy Regulations
- Appendix B – Map of Proposed Areas for Wind Energy Development
- Appendix C – Draft Resolution for Proposed Amendments to the MPS
- Appendix D – Draft Resolution for Proposed Amendments to the LUB

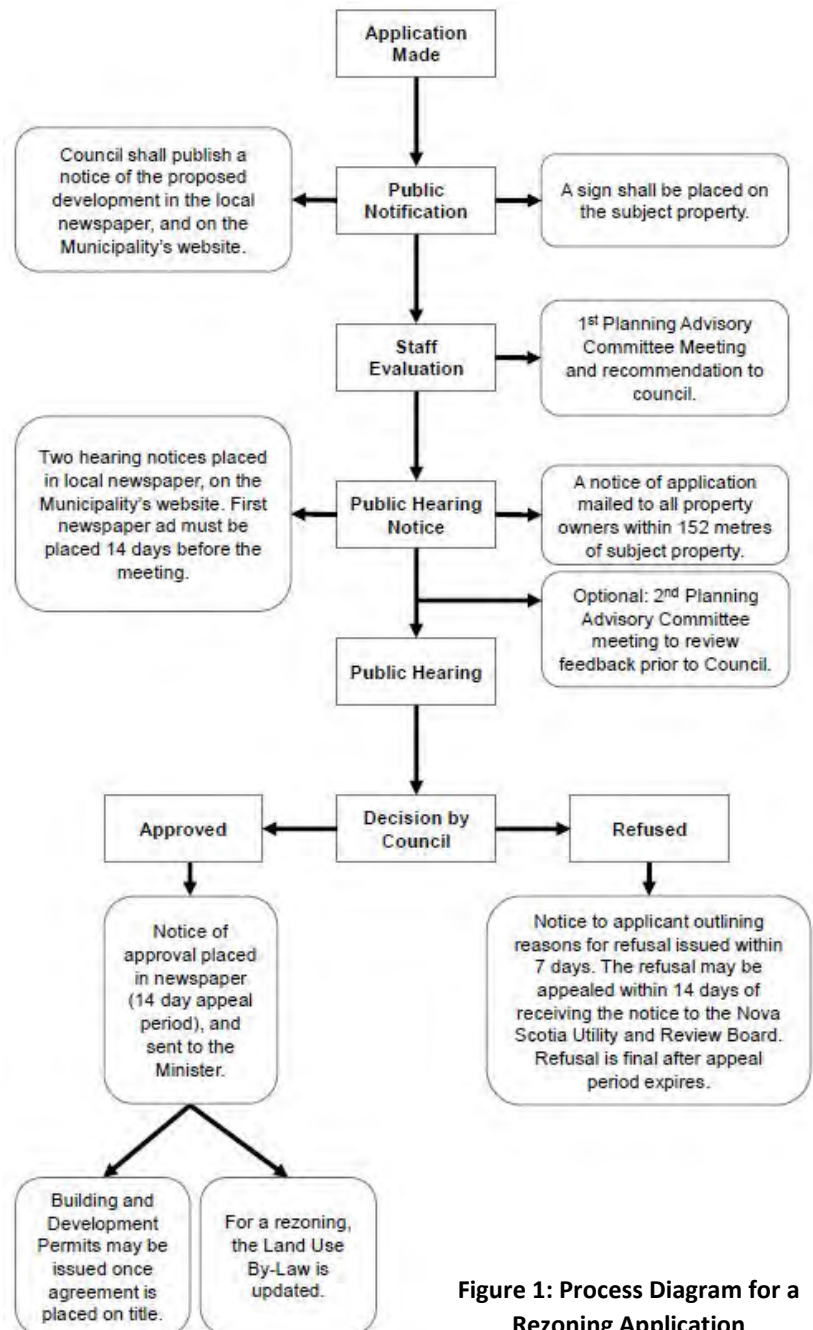


Figure 1: Process Diagram for a Rezoning Application



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Appendix A: Jurisdictional Scan of Municipal Wind Energy Regulations



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	Municipality of the District of Digby	Municipality of the District of Barrington	Region of Queen's Municipality	Municipality of the District of Shelburne	Municipality of the County of Kings	Municipality of the District of Yarmouth	Municipality of East Hants
Approach: (Development Agreement, Development Permit Only, Site Plan Approval)	Only development permit required in general development zone	Development Agreement required for large scale wind turbine generator developments	By Development Agreement in specific zones	Development Permit only in the general development zone	Overlay zone and Development Permit	Development Agreement required for large scale wind turbine generator developments	Site plan approval required, dependent on meeting regulations of land use bylaw, permitted in all zones except residential CR, LR, R1, R2, R2-T, R3 and MH
Submission requirements	<ul style="list-style-type: none"> - True shape and dimension of lot, proposed location, height, and dimensions, existing buildings on abutting lots, watercourse location - May require survey 	Location, existing and proposed utility lines, existing and proposed roads, noise levels, all property lines, type, size and location of fencing, landscaping	Lands subject to proposal, make and model of turbine, contact info for public, regular DA requirements	Study by professional including: noise impact assessment, visual impact assessment	<ul style="list-style-type: none"> - Site plans showing all proposed and existing wind turbines, buildings, roads, boundaries, and natural features; - an emergency response and fire safety plan approved by the municipal emergency coordinator; - a letter of no objection from department of National Defence, Transport Canada, NavCan, and/or other applicable agencies - The location of all large-scale wind turbines or 	<ul style="list-style-type: none"> -DA requirements -That all documentation required for the Canadian Environmental Assessment Act and the NS Envi Act for proposal is included in documentation submitted by proponent 	<p>accurate and to scale site plan (proposed and existing: wind turbine and related structures, test tower sites, property lines, utility lines, topography and contours, landscaping, ESA, prevailing winds, noise levels at adjoining property lines, type, size location of security fencing)</p> <p>Noise and Visual Impact study for all</p>



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	Municipality of the District of Digby	Municipality of the District of Barrington	Region of Queen's Municipality	Municipality of the District of Shelburne	Municipality of the County of Kings	Municipality of the District of Yarmouth	Municipality of East Hants
					utility-scale wind turbines shall be confirmed by a location certificate prepared by a surveyor licensed to practice in Nova Scotia.		property owners within 1000m of property manufacturer's Details
Setback Distance	Utility Scale - Setback min 750 m from any property boundary	- 1 km from habitable dwellings, institutional and recreational uses	Small Scale - 1.5x total height from property line	- Setback for large scale wind turbines: 1x wind turbine height from property line & 220m from public road	- Setback distance 1.5 times the height of the wind turbine from lot lines and public ROW - overlay embeds 3 km separation distance from existing dwellings and wilderness area	- 1 km from habitable dwellings	- Not less than 4x the height of the turbine, measured from grade to the highest point of the rotors arc, from adjoining property lines - For wind farms where impact study shows lesser or greater setback is appropriate, setbacks may be amended from max setback distance depending on number of wind turbines in a group or proximity, if owner of adjacent property agrees then setback min of 1.5 x height of turbine - 1.5 x turbine height from publicly owned lands if they are



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							determined to be culturally insignificant
Definition for Residential Dwelling	means a building, occupied or capable of being occupied as a home or fulltime residence by one or more persons containing one or more dwelling units and shall not include a hotel, a motel or an apartment hotel.	means a building, occupied or capable of being occupied as a home, residence or sleeping place by one or more persons containing one or more dwelling units and shall not include a hotel, motel, apartment hotel or travel trailer. Dwelling, Single Detached means a completely detached dwelling unit and shall include a cabin or cottage.	DWELLING means a building or a part of a building occupied or capable of being occupied as a home or residence by one or more persons, containing one or more dwelling units, and shall include a modular home but shall not include a fixed-roof overnight accommodation, mobile home, or recreational vehicle.	Means structured designed to accommodate people including residential, cottages and cabins, but not including accessory structures such as sheds or storage areas.	Not applicable as separation or setback is not dependant on proximity to dwelling	Dwelling means a building, occupied or capable of being occupied as a home, residence or sleeping place by one or more persons containing one or more dwelling units and shall not include a hotel, motel, apartment hotel or travel trailer.	- Not applicable as separation or setback is not dependant on proximity to dwelling



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Blade Clearance	Not specified	Not specified	Not specified for large turbines	- Rotor clearance min 8 m from grade	- Rotor blade clearance shall be at least 25 ft from grade	Not specified	- Minimum blade clearance of 8 m
Separation Distance	- 1 km from existing residential dwellings	- 1 km between wind farms and residences	Not specified	- Separation of a min 500m * Allows you to be within the prescribed distance if the wind turbine and dwelling are on the same property OR written consent is obtained	- separation distance between turbines equal to at least the height of the tallest wind turbine - overlay zone criteria was no closer than 3 km to existing dwellings	- 1 km from habitable dwellings	Not specified
Noise Levels	- Not specified for large wind turbine generators	mitigation of noise, visual, shadow effects and environmental impacts of wind turbines is undertaken to minimize any negative effects of the development	Not specified	- Ensure does not result in noise levels at location of any habitable dwellings in excess of 40 dBA at any time during	Not specified	mitigation of noise, visual impacts, shadow effects and environmental impacts of wind turbines is undertaken to minimize any potential negative effects of the development on the community	- Noise levels at adjoining properties shall not exceed 40 dBs or above existing background noise



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	Municipality of the District of Digby	Municipality of the District of Barrington	Region of Queen's Municipality	Municipality of the District of Shelburne	Municipality of the County of Kings	Municipality of the District of Yarmouth	Municipality of East Hants
Discontinuation of power requirements & decommissioning plan	Not specified	<ul style="list-style-type: none"> -wind turbines required to be decommissioned and removed within 2 years of cessation of electrical power generation 	<ul style="list-style-type: none"> - decommissioning plan which is a part of DA agreement; meet policies -development permit shall expire within 3 years from date issued if development hasn't commenced 		<ul style="list-style-type: none"> - Owner or lease of land on which wind turbines are located shall notify the Municipality within 1 calendar year of wind turbine inactivity and remove any wind turbines and associated infrastructure within 2 calendar years of inactivity - decommissioning and reclamation plan that includes provisions for the removal of all structures associated 	<ul style="list-style-type: none"> - wind turbines required to be decommissioned and removed within 2 years of cessation of electrical power generation (both small and large scale) 	<ul style="list-style-type: none"> - Decommissioning/ Reclamation required - If wind turbine/farm discontinues power production for a min of 1 year operator shall provide Municipality with a status report identifying future plans for the site
Other Provisions		<ul style="list-style-type: none"> -No advertising other than the manufacturer's name is permitted on any wind structures - all documentation required to demonstrate compliance with 	<ul style="list-style-type: none"> - project must have a webpage/website that identifies subject land, make and model of turbine 	<ul style="list-style-type: none"> - Shall be finished in non-reflective matte and solid colour, no advertising logos - No artificial lighting except lighting required - All power lines must be underground - Climbing apparatus min 	<ul style="list-style-type: none"> - shall not present flight hazard or interfere with radio, telecommunications, or radar, as evidenced by a letter of no objection from department of National Defence, Transport Canada, NavCan, and/or other applicable agencies 	<ul style="list-style-type: none"> - That no commercial advertising other than the manufacturer's name be permitted on any WTG or accessory structures. - That all documentation required for the Canadian Environmental Assessment Act and the NS Envi Act for 	<ul style="list-style-type: none"> - Only signage that appears on wind turbine is the owner's or manufacturer's identification, which can't exceed 5% of the total surface area of the wind turbine



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		requirements of Department of National Defence, Env Can, NavCan, Transport Canada, Canadian Coast Guard, RCMP and NS Department of Natural Resources for proposal included in documentation submitted by developer to Municipality.		3.5 m above grade 4 - Guy wires visible to height of 2 m above guy wire anchor lines		proposal is included in documentation submitted by proponent	
Safety concerns	Not specified	- Address on site and off site for matters of ice throw, blade throw, turbine collapse, and emergency response	Not specified	- Not dominate view from any habitable dwelling within 1000 m of proposed development, Not expose adjacent properties, particularly habitable	Not specified	- That safety concerns are addressed both on site and off site for matters of electrical safety, ice throw, blade throw, turbine collapse, and emergency response.	



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	Municipality of the District of Digby	Municipality of the District of Barrington	Region of Queen's Municipality	Municipality of the District of Shelburne	Municipality of the County of Kings	Municipality of the District of Yarmouth	Municipality of East Hants
				<p>dwelling, to risk of collapse, blade throw or ice throw</p>			
No Setback required	<p>- where a lot, located immediately adjacent to and abutting a lot where a utility scale wind turbine is erected, is subject to lease for purposes of wind turbine development setback requirement from property line shall be waived</p>	<p>-any required setback or separation distance that can't be satisfied shall be waived for the siting of a wind turbine and development permit shall be issued for its use where a registered legal agreement is obtained by developer for siting of wind turbine from owners of all affected adjacent properties within required yard setback or separation distance</p>	<p>Not specified</p>	<p>- Separation distance shall be waived if following conditions are met; located on same property as habitable dwelling and no other habitable dwellings are within required separation distance or, written consent is obtained from all owners of habitable dwellings located within separation distance</p>	<p>Not specified</p>	<p>- Any required setback, yard requirement or separation distance not satisfied shall be waived for siting of wind turbine and development permit shall be issued for its use where registered legal agreement is obtained by the developer for the siting of the wind turbine from the owners of all affected adjacent dwelling owners and property owners within the required setback or separation distance</p>	<p>Not specified</p>



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	Municipality of the District of Digby	Municipality of the District of Barrington	Region of Queen's Municipality	Municipality of the District of Shelburne	Municipality of the County of Kings	Municipality of the District of Yarmouth	Municipality of East Hants
		- required separation distance from a habitable dwelling for siting of WTG waived and Development Permit issued for its use where the WTG is situated on same lot as habitable dwelling.					



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Appendix B: Map of Proposed Areas for Wind Energy Development

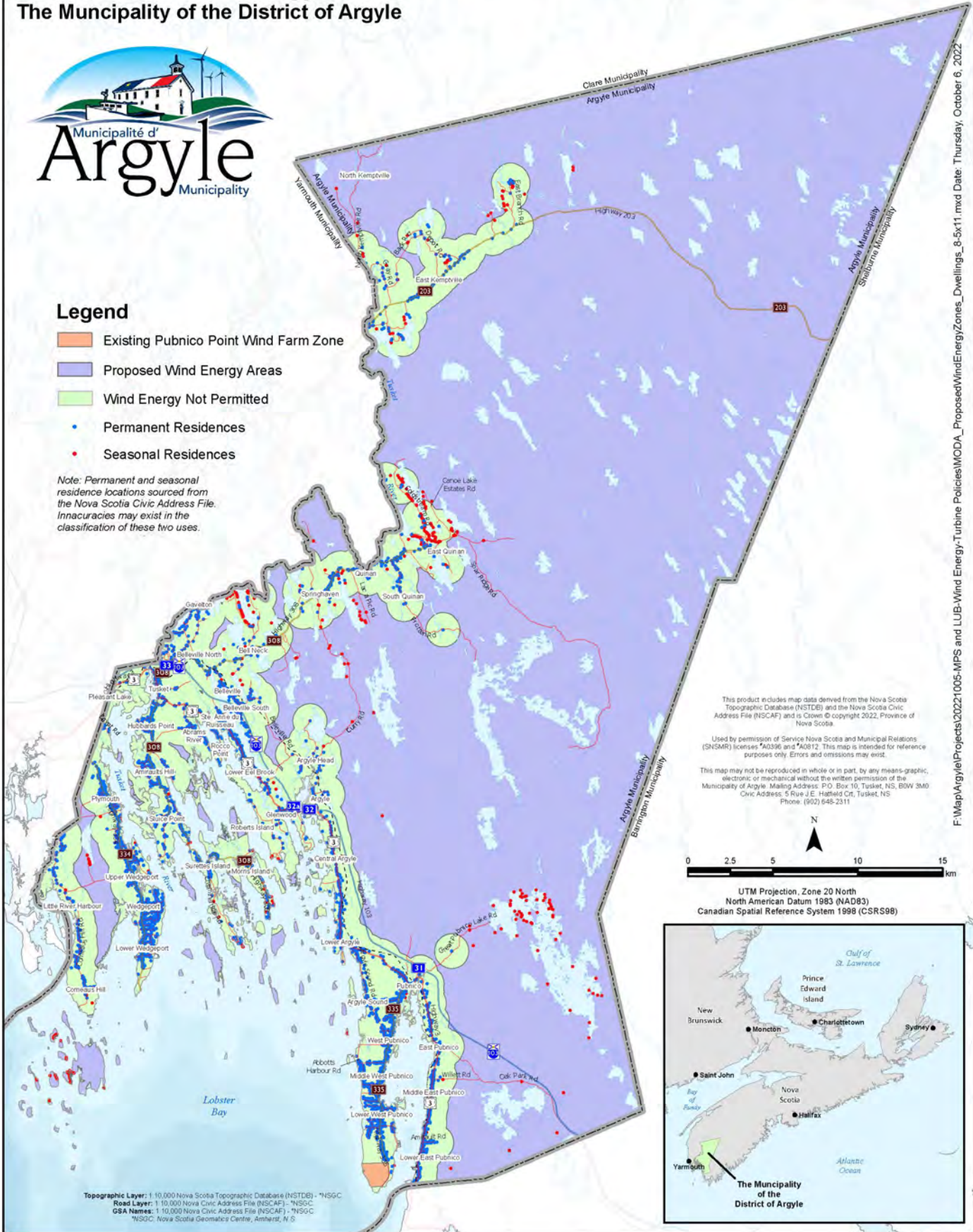
Proposed Wind Energy Areas The Municipality of the District of Argyle



Legend

- Existing Pubnico Point Wind Farm Zone
- Proposed Wind Energy Areas
- Wind Energy Not Permitted
- Permanent Residences
- Seasonal Residences

Note: Permanent and seasonal residence locations sourced from the Nova Scotia Civic Address File. Inaccuracies may exist in the classification of these two uses.



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This map may not be reproduced in whole or in part, by any means-graphic, electronic or mechanical without the written permission of the Municipality of Argyle. Mailing Address: P.O. Box 10, Tusket, NS, B0W 3M0
Civic Address: 5 Rue J.E. Haldfield Ct, Tusket, NS
Phone: (902) 645-2311



UTM Projection, Zone 20 North
North American Datum 1983 (NAD83)
Canadian Spatial Reference System 1998 (CSRS98)



Topographic Layer: 1:10,000 Nova Scotia Topographic Database (NSTDE) - *NSGC
Road Layer: 1:10,000 Nova Scotia Civic Address File (NSCAF) - *NSGC
GSA Names: 1:10,000 Nova Scotia Civic Address File (NSCAF) - *NSGC
*NSGC: Nova Scotia Geomatics Centre, Amherst, N.S.

F:\Map\Argyle\Projects\2022\1005-MPS and LUB-Wind Energy-Turbine Policies\MODA_ProposedWindEnergyZones_Dwellings_8-5x11.mxd Date: Thursday, October 6, 2022



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Appendix C: Draft Resolution for Proposed Amendments to the Municipal Planning Strategy

BE IT ENACTED by Council of the Municipality of the District of Argyle that the Municipal Planning Strategy is hereby further amended as follows which includes all amendments thereto which have been adopted and are in effect as of the [insert date of 'notice'] is hereby further amended by:

1. Amending Part 12 of the MPS to permit wind farms in the CC and RD zones by development agreement as shown in **green** text below:
 - 12.10.6** To establish in the Land Use By-law provisions for regulating the use and location of Large-Scale WTG and Wind Farms in the Rural Development Zone and Coastal Community Zone only and to require a Development Agreement to enable their use.
2. Amending policy 5.2.7 by removing the large-scale wind turbine generator use from the Wellhead Protection Zone as shown in **red** text below:
 - 5.2.7 Council may consider the following uses through development agreement, pursuant to the requirements of Policy 13.14, in the Wellhead Protection Zone:
 - ~~c) Large Scale Wind Turbine Generator~~
3. Amending Policy 5.2.5 as shown in **green** text below to add large wind turbine generators and wind farms as uses permitted by development agreement in the RD zone:
 - 5.2.5 Council shall consider the following uses through development agreement, pursuant to the requirements of Policy 13.14, in the Rural Development (RD) Zone:
 - m) Wind Farms and Large-Scale Wind Turbine Generators
4. Amending policy 12.10.10 up to and including policy 12.10.17 by reformatting these policies as a list of criteria related to large scale wind turbine and wind farm development. Proposed additions are shown in **green** text and text to be removed is shown in **red**.
 - 12.10.10 To consider the following criteria prior to entering into a development agreement for a large-scale wind turbine generator or wind farm development:
 - a) ~~12.10.11~~ That new large-scale wind turbine generators be separated from ~~habitable~~ dwellings, **excluding seasonal dwellings or camps**, a minimum distance of one (1) kilometre.
 - b) ~~12.10.12~~ That mitigation of noise, visual impacts, shadow effects and environmental impacts of wind turbines is undertaken to minimize any potential negative effects of the development on the community.
 - c) ~~12.10.13~~ That safety concerns are addressed both on site and off site for matters of electrical safety, ice throw, blade throw, turbine collapse, and emergency response. **A required setback from a wind turbine to a lot line may be amended if an impact study shows that a lesser or greater setback is appropriate to mitigate safety concerns.**
 - d) ~~12.10.14~~ That all documentation required for the Canadian Environmental Assessment Act and the Nova Scotia Environment Act for the proposal is included in the documentation submitted by the proponent.
 - e) ~~12.10.15~~ That all documentation required by the Department of National Defence, Environment Canada, Navigation Canada, Transport Canada, Canadian Coast Guard, and Nova Scotia Department of Natural Resources is included in the documentation submitted by the proponent.



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- f) ~~12.10.16~~ That a decommissioning plan be included in the development agreement to be enacted after two years of the cessation of electrical power generation on the site.
 - g) ~~12.10.17~~ That the proposed development is in accordance with the Implementation Chapter of this Strategy.
5. Renumbering policy 12.10.18 to 12.10.11 and removing the redundancy related to notification distances. Proposed additions are shown in **green** text and text to be removed is shown in **red**.
- 12.10.11 To consider the following criteria prior to approving a site plan for Small Scale Wind Turbine Generator developments:
- a) That wind turbine generators be separated from dwellings a minimum of 200 metres (656 ft.).
 - ~~b) That the distance between wind turbine generators and existing residences for notification of site plan approval for small scale wind turbine generators be 250 m (820 ft.).~~
 - e) b) That mitigation of noise, visual impacts, shadow effects and environmental impacts of wind turbines is undertaken to minimize any potential negative effects of the development on adjacent uses.
 - e) c) That all documentation required by the Department of National Defence, Navigation Canada, Transport Canada, Nova Scotia Environment and Nova Scotia Department of Natural Resources is included in the documentation submitted by the proponent.
 - e) d) That no commercial advertising other than the manufacturer's name be permitted on any WTG or accessory structures.
 - f) e) That written notification be sent to all property owners within ~~200~~ 250 m (820 ft) advising of the Site Plan Approval and outlining the Site Plan Approval appeal provisions of the MGA.

HEREBY CERTIFY that the amendments to the Municipality of Argyle Municipal Planning Strategy, as set out above, were duly passed by a majority vote of the Council of the Municipality of Argyle at a meeting held on the ___ day of _____, 20__.

GIVEN under the hand of the Clerk and the Corporate Seal of the Municipality of Argyle this

___ day of _____, 20__.



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Appendix D: Draft Resolution for Proposed Amendments to the Land Use By-law

BE IT ENACTED by Council of the Municipality of the District of Argyle that the Land Use Bylaw is hereby further amended as follows which includes all amendments thereto which have been adopted and are in effect as of the [insert date of 'appeal date'] is hereby further amended by:

1. Amending Part 11 by inserting 'Wind Energy' division into the table of permitted uses, and adding Large Scale Wind Turbine as a use permitted by development agreement in the RD zone, removing Large Scale Wind Turbine Generator as a use permitted by development agreement in the WP zone, and permitting a wind farm by development agreement in the CC zone and RD zone. Additions are shown in green text and removals are shown in red text.

Wind Energy (See Part 8)	MU	LI	HI	RP	BP	WF	CC	CCI	V	FP	RD	MI	CW	WP
Large Scale Wind Turbine Generator						DA	DA				DA			DA
Wind Farm						DA	DA				DA			

2. Amend Part 26 of the Land Use By-law to revise the wind farm definition as shown in green text below:

Wind Farm means an array of two or more wind turbines that are connected to the local utility grid for the principal purpose of generating electricity for off-site consumption.

3. Amend Part 26 of the Land Use By-law to add definitions for season dwellings and camps as shown in green text below:

Dwelling, Seasonal means a cottage or secondary residence used from time to time throughout any season of the year but not used or intended to be used for year-round occupancy or as a principal residence.

Camp means a building or structure intended to provide basic shelter for a person engaged in hunting, fishing, or other recreational activities on an occasional or seasonal basis in a remote location and not satisfying the requirements for a dwelling under the National Building Code.

4. Amend Section 8.1 of the Land Use By-law to include text shown in green:

- i. A Development Agreement is required for a Large Scale Wind Turbine Generator or Wind Farm.
- ii. Large Scale Wind Turbine Generators are required to be removed from the site after a period of two years from the date of cessation of electrical power generation of the Wind Turbine Generator.
- iii. The required separation distance between Large Scale Wind Turbine Generators and existing dwellings shall be not less than 1 kilometre (1000 m).
- iv. For the purpose of determining the separation distance in 8.1(iii) above, a dwelling shall not include a Camp or Seasonal Dwelling.
- v. Large Scale Wind Turbine Generators shall be setback from lot lines by a minimum distance equal 2 times the height of the wind turbine or 300 m, whichever is greater. Turbine height is measured from grade to the highest point of a wind turbine at the top of the rotator's arc.
- vi. Notwithstanding 8.1 (v), where a lot line is common to two lots located within the same wind energy project,



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no setback is required from that common lot line.

- Amend Part 18 (Coastal Community Zone) of the Land Use By-law by inserting Section 18.4 as follows:

18.4 Wind Energy Development without Frontage on a Public Road

A development permit for large scale wind turbine generators or wind farms may be issued on a lot without frontage on a public road provided proof of secured access can be demonstrated.

- Amend Part 22 (Rural Development Zone) of the Land Use By-law by inserting Section 22.2 as follows:

22.2 Wind Energy Development without Frontage on a Public Road

A development permit for large scale wind turbines or wind farms may be issued on a lot without frontage on a public road provided proof of secured access can be demonstrated.

HEREBY CERTIFY that the amendments to the Municipality of Argyle Land Use By-law, as set out above, were duly passed by a majority vote of the Council of the Municipality of Argyle at a meeting held on the ___ day of _____, 20__.

GIVEN under the hand of the Clerk and the Corporate Seal of the Municipality of Argyle this

___ day of _____, 20__.

Municipal Clerk