

**Secondary  
Plans**

# **CLARINGTON ENERGY BUSINESS PARK SECONDARY PLAN**

**MUNICIPALITY OF CLARINGTON OFFICIAL PLAN**

# CLARINGTON ENERGY BUSINESS PARK

## SECONDARY PLAN

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### 1. INTRODUCTION

1.1 The Clarington Energy Business Park (“the Energy Park”) is located immediately south of Highway 401 and north of the CN rail corridor, between Courtice Road and Solina Road. Osborne Road bisects the area. Immediately east of the Energy Park is the Darlington Nuclear Power Plant and to the west is Darlington Provincial Park.

1.2 The area for the Energy Park, occupying 129 hectares (318 acres), has been identified as an appropriate location for prestige employment uses that can benefit from close proximity to Darlington Nuclear Power Plant, the University of Ontario Institute of Technology and/or other major employers within the energy and environment sectors of the regional economy. The site has the attributes to become a focal point for new development within the Durham Energy Cluster. The overall intent of this Secondary Plan is to guide development of a business park that facilitates employment growth in these sectors, promotes energy innovations and demonstrates environmental sustainability in its design.

1.3 This Secondary Plan is based upon, and future development should be guided by, the following overarching principles:

- a) Innovation – businesses in the park should research, manufacture, demonstrate or otherwise support innovative technologies, particularly in the fields of energy. The park itself should be innovative in its design and demonstrate environmental sustainability to the world;
- b) Conservation – the conservation of energy and natural resources, and the use of renewable energy, should be among the highest priorities in the design, construction, operation and maintenance of all development in the park, including infrastructure, buildings and the landscape. Adverse impacts from development on natural systems should be minimized;
- c) Efficiency – the park as a whole and individual developments should be designed to use land, streets, municipal services and energy efficiently. Techniques to maximize energy efficiency should be integrated into the design of buildings, sites and the park as a whole;
- d) Integration – research and development facilities, institutional and corporate offices, and manufacturing plants should be mixed within the park to promote linkages and synergies among related businesses;

- e) Diversity – a wide range of businesses should be accommodated. Streets should be designed for a variety of transportation modes, including automobiles, trucks, cycling, walking and, in time, public transit. A diversity of renewable energy sources and demonstration projects should help power the Energy Park; and
- f) Design Excellence – the design of buildings, streetscapes, open spaces and infrastructure should be distinctive aesthetically and functionally, incorporating new energy innovations. The physical and business environment of the park should make it a showcase for Clarington, Durham Region and Ontario.

## 2. GOALS

- 2.1 To develop a focal point for research and development and related industrial activity and facilitate cooperation among businesses within the Durham Region energy cluster.
- 2.2 To distinguish the Clarington Energy Business Park as a unique and innovative employment area within the Greater Toronto Area.
- 2.3 To enhance the economic competitiveness and global profile of Clarington.
- 2.4 To broaden and diversify employment opportunities within Clarington.
- 2.5 To facilitate the incubation and commercialization of new energy innovations.
- 2.6 To both support and capitalize on the research and academic mission of the University of Ontario Institute of Technology.
- 2.7 To establish a real-world laboratory where new energy innovations are tested and applied in functioning industrial and commercial buildings.
- 2.8 To support the operation, maintenance and enhancement of the Darlington Nuclear Power Plant.
- 2.9 To promote innovative building designs with a high urban design standard that practice energy efficiency and meet LEED™ certification.
- 2.10 To harness and promote design practices centered on energy conservation, efficiency and environmental sustainability.
- 2.11 To use land and other natural resources efficiently and with minimal non-reusable waste.
- 2.12 To protect and restore elements of the site's natural heritage.

### 3. LAND USE AND BUILT FORM

In addition to the policies of this section, the policies of Sections 4-8 shall apply to all areas of the Clarington Energy Business Park.

#### 3.1 Objectives

- 3.1.1 To accommodate and integrate a mix of industrial and commercial land uses focusing primarily on the energy field.
- 3.1.2 To facilitate linkages among the University of Ontario Institute of Technology, other institutions, government agencies and private industry.
- 3.1.3 To encourage the relocation of pre-existing land uses not in keeping with the vision, goals and objectives of this Plan to other, appropriate employment areas.
- 3.1.4 To accommodate a variety of building types and sizes while ensuring that development overall contributes to a consistent and positive image of the Energy Park.
- 3.1.5 To provide, through the placement and massing of buildings, continuity and enclosure to the streets within the Energy Park.
- 3.1.6 To establish a gateway to the Energy Park at the Courtice Road and Highway 401 interchange.

#### 3.2 General Policies

- 3.2.1 The land use designations for the Clarington Energy Business Park shown on Map A of this Secondary Plan establish the general pattern for future development. They consist of *Prestige Employment Node*, *Prestige Employment Corridor*, *Light Industrial 1*, *Light Industrial 2*, *Open Space* and *Environmental Protection Area*.
- 3.2.2 The purpose of the Energy Park is to provide a unique industrial location that attracts industry related to the energy sector. The Energy Park targets energy innovations and related companies that engage in research and development, demonstration, commercialization, and sale of existing and new energy source technologies.
- 3.2.3 The Municipality acknowledges the Ministry of Transportation requirement that future buildings, roads, municipal services and essential parking be set back a minimum of 14 metres from the Highway 401 right-of-way. To accommodate a potential widening of Highway 401 and a future realignment of South Service Road, should the latter be required, while maintaining the desired streetscape, minimum building setbacks shall apply, as set out in this Plan, and municipal service and utility easements may be required.

- 3.2.4 Stand-alone warehouses, distribution facilities, truck terminals, truck service centres, gas stations and storage units are strictly prohibited in all areas of the Energy Park.
- 3.2.5 Drive-through facilities for restaurants and banks will not be permitted in any of the land use areas within the Energy Park.
- 3.2.6 The *Open Space* areas shown on Map A are intended for stormwater management facilities. In addition to such facilities, private or publicly-accessible open spaces are permitted in *Open Space* areas.
- 3.2.7 The policies in Section 14.4 of the Clarington Official Plan shall apply to the *Environmental Protection Area*.
- 3.2.8 Wind turbines are permitted in any designation except Environmental Protection Area.
- 3.2.9 Public art will be promoted to achieve a high quality public realm and identity in the Energy Park.
- 3.2.10 Appendix 1 contains illustrations that demonstrate the implementation of the urban design and road policies contained in this Energy Park Secondary Plan.

### **3.3 Prestige Employment Node**

- 3.3.1 The *Prestige Employment Node*, at the gateway to the Energy Park, is the most appropriate location for higher-order and higher-density employment uses as well as ancillary commercial uses. The permitted uses shall be:
- a) business office;
  - b) research and development facilities;
  - c) university and college facilities;
  - d) hotels and convention centres; and
  - e) commercial and recreational uses that cater to businesses and employees within the Energy Park, including banks, restaurants, convenience stores athletic clubs, and business and personal services, provided they are limited in scale and located on the ground floor of a multi-storey building.
- 3.3.2 The following urban design standards shall apply to development in the *Prestige Employment Node*. These standards will be implemented through standards established in the Zoning By-law.
- a) lots along Energy Drive and South Service Road shall generally be of a larger size and area to implement high quality urban design objectives;
  - b) to accommodate front yard landscaping and a future widening of Highway 401, buildings on South Service Road shall be set back a minimum of 18 metres from the right-of-way;

- c) to establish a consistent streetscape edge along Energy Drive and all Local Roads, buildings shall be oriented towards the front property line to achieve a continuous high quality built street edge;
- d) the width of a building's façade fronting a public street shall be at least 40% of the lot width;
- e) buildings on a corner lot shall be oriented towards the corner;
- f) buildings shall generally be a minimum of 12 metres in height near the intersection of Courtice Road and South Service Road;
- g) main building entrances shall address and be accessible from a public street;
- h) the massing of buildings that occupy sites at the Courtice Road-Energy Drive intersection shall be articulated to mark the entrances to the Energy Park;
- i) a minimum of 20% of the site area shall be landscaped. Areas between the building face and public right-of-way shall be attractively landscaped and should include lawn, coniferous and deciduous trees, and gardens. Chain link fencing is strictly prohibited within this area;
- j) parking lots shall be located to the interior side and/or rear of buildings located on the east and south sides of South Service Road but are prohibited in the front or exterior side yards;
- k) structured parking shall be located at the rear of a building and screened from view from Energy Drive and South Service Road;
- l) service and loading areas shall be located at the rear of buildings away from public streets or appropriately screened from view of public streets. Garbage facilities shall be located within the primary building; and
- m) outside storage or display of goods shall be strictly prohibited.

### 3.4 Prestige Employment Corridor

3.4.1 The *Prestige Employment Corridor* is an appropriate location for higher-order employment uses that will benefit from high visibility from Highway 401 and, through site and building design, will enhance the image of the Energy Park.

The permitted uses shall be:

- a) business offices;
- b) research and development facilities;
- c) university and college facilities;
- d) manufacturing, assembling, and fabricating facilities, provided the use is wholly enclosed within a building;
- e) warehousing, provided it is ancillary to one or more of the permitted industrial uses listed above; and
- f) commercial or technical schools wholly enclosed within a building.

- 3.4.2 The following urban design standards shall apply to development in the *Prestige Employment Corridor*. These standards will be implemented through standards established in the Zoning By-law.
- a) lots along Energy Drive and South Service Road shall generally be of a larger size and area to implement high quality urban design objectives;
  - b) to accommodate front yard landscaping and a future widening of Highway 401, buildings on South Service Road shall be set back a minimum of 18 metres from the right-of-way;
  - c) to establish a consistent streetscape edge along Energy Drive and all Local Roads, buildings shall be oriented towards the front property line to achieve a continuous high quality street edge;
  - d) the width of a building's façade fronting a public street shall be at least 40% of the lot width;
  - e) buildings on corner lots shall be oriented towards the corner;
  - f) main building entrances must address and be accessible from a public street;
  - g) the massing of buildings that occupy sites at the Energy Drive-Courtice Road intersection and Energy Drive-Solina Road intersection shall be articulated to mark the entrances to the Energy Park;
  - h) a minimum of 20% of the site area shall be landscaped. Areas between the building face and public right-of-way shall be attractively landscaped and should include lawn, coniferous and deciduous trees, and gardens. Chain link fencing is prohibited within the area between the building and the street but shall be considered on the balance of the property if necessary for security purposes;
  - i) parking lots shall be located to the interior side and/or rear of buildings but are prohibited in the front or exterior side yards;
  - j) structured parking shall be located at the rear of a building and screened from view from Energy Drive and South Service Road;
  - k) service and loading areas shall be located at the rear of buildings and appropriately screened from view of public streets. While garbage facilities are encouraged to be located within the primary building, garbage may be stored within a separate fully enclosed building with architecture matching the primary building on the lot; and
  - l) outside storage or display of goods shall be strictly prohibited.

### 3.5 Light Industrial 1

- 3.5.1 *Light Industrial 1* areas are appropriate locations for a range of employment uses that will benefit from the access and visibility provided by the primary road through the Energy Park and, through site and building design, will enhance the image of the park. The permitted uses shall be:
- a) business offices;
  - b) research and development facilities;

- c) manufacturing, assembling, and fabricating facilities, provided the use is wholly enclosed within a building;
- d) industrial processing, excluding the processing of waste materials, provided it is wholly enclosed within a building; and
- e) warehousing, provided it is ancillary to one or more of the permitted industrial uses listed above.

3.5.2 The following urban design standards shall apply to development in *Light Industrial 1* areas. These standards will be implemented through standards established in the Zoning By-law.

- a) lots along Energy Drive shall generally be wider than those lots located along local roads;
- b) to establish a consistent streetscape edge along Energy Drive and all Local Roads, buildings shall be oriented towards the front property line;
- c) the width of a building's façade fronting a public street shall be at least 40% of the lot width;
- d) buildings located on a corner lot shall be oriented towards the corner;
- e) main building entrances must address and be accessible from a public street;
- f) a minimum of 10% of the site area shall be landscaped. Chain link fencing is prohibited within the area between the building and the street and shall be considered within the rear yard of the building;
- g) parking lots shall be located to the interior side and/or rear of buildings but are prohibited in the front or exterior side yards; and
- h) servicing and loading areas shall be located at the rear or in the interior side yard of the building and screened from public view. While garbage facilities are encouraged to be located within the primary building, garbage may be stored within a separate fully enclosed building with architecture matching the primary building on the lot. Loading and servicing areas in an interior side yard shall be set back a minimum of 10 metres from the front edge of the building.

3.5.3 Outside storage may be permitted in *Light Industrial 1* areas provided:

- a) the storage area does not exceed 10% of the lot area;
- b) materials to be stored do not exceed 3 metres in height;
- c) the storage area is located in the rear of the lot and is appropriately screened so as to not have an adverse impact on abutting properties and not be visible from a public road; and
- d) the storage area is not adjacent to the Prestige Employment Node.

### 3.6 Light Industrial 2

3.6.1 *Light Industrial 2* areas are appropriate locations for a broader range of employment uses, including those that require more outside storage. The permitted uses shall be:

- a) manufacturing, assembling, fabricating, and processing facilities, provided the use is wholly enclosed within a building;
- b) research and development facilities;
- c) warehousing, provided it is ancillary to one or more of the permitted industrial uses listed above; and
- d) business offices that are accessory to another employment use, provided they do not exceed 25% of the total floor area on the site.

3.6.2 Waste-to-energy facilities, small-scale electrical generation and cogeneration facilities, and alternative fuels manufacturing may be permitted in *Light Industrial 2* areas by site-specific zoning amendments, subject to detailed study of the proposed facility relating to:

- compatibility within surrounding and adjacent land uses
- proposed environmental impacts that may require Ministry of Environment approval
- traffic impacts on the road network
- site planning and urban design issues
- measures to mitigate any impacts where appropriate

3.6.3 The following urban design standards shall apply to development in *Light Industrial 2* areas. These standards will be implemented through standards established in the Zoning By-law.

- a) lots shall generally be sized to accommodate the widest array of uses;
- b) to establish a consistent streetscape edge along all Local Roads, buildings shall be oriented towards the front property line;
- c) the width of a building's façade fronting a public street shall be at least 40% of the lot width;
- d) buildings on a corner lot shall be oriented towards the corner;
- e) main building entrances must address and be accessible from a public street;
- f) a minimum of 10% of the site area shall be landscaped. Chain link fencing is prohibited within the area between the building and the street and shall be considered within the rear yard of the building;
- g) parking lots shall be located to the interior side and/or rear of buildings but are prohibited in front or exterior side yards; and
- h) servicing and loading areas shall be located at the rear or in the interior side yard of the building and screened from public view. While garbage facilities are encouraged to be located within the primary building, garbage may be stored within a separate fully enclosed building with architecture matching the primary building on the lot. Loading and servicing areas in an interior side yard shall be set back a minimum of 10 metres from the front edge of the building.

- 3.6.4 Outside storage may be permitted in *Light Industrial 2* areas provided:
- a) the storage area does not exceed 25% of the lot area;
  - b) materials to be stored do not exceed 5 metres in height; and
  - c) the storage area is generally located in the rear of the lot and is appropriately screened from public view.

Notwithstanding the above, any waste-to-energy facility must be fully enclosed.

## 4. STREETS AND TRANSPORTATION

### 4.1 Objectives

- 4.1.1 To establish a road network that provides a rational and flexible framework for development, maximizes property frontage, and optimizes vehicular access and movement.
- 4.1.2 To provide a balanced transportation network that encourages walking, cycling and, eventually, public transit use while accommodating cars and trucks efficiently.
- 4.1.3 To establish an interconnected network of sidewalks that joins areas within the Energy Park, and provides links to adjacent trails and open spaces.
- 4.1.4 To develop attractive, tree-lined streets with high-quality lighting and other landscape elements that help establish a positive, consistent image of the Energy Park, enhance the pedestrian environment and mitigate the urban heat island effect.

### 4.2 Policies

- 4.2.1 The proposed future network of primary and secondary roads within and adjacent to the Energy Park is shown on Map A.
- 4.2.2 There are two primary roads proposed:
- a) Energy Drive will provide the main entry to the Energy Park and a primary address for development. It will function as a Type C Arterial Road, as defined in Section 19.5.1 of the Clarington Official Plan. Notwithstanding Section 19.5.1, however, Energy Drive may have a right-of-way width of up to 30 metres to accommodate a landscaped median. Applications for development fronting Energy Drive may be required to provide an Access Management Plan, depending on the land use and intended operations, to the satisfaction of the Director of Engineering Services and the Director of Emergency Services;

- b) South Service Road will eventually function as a Collector Road, as defined in Section 19.6 of the Clarington Official Plan with a maximum right-of-way width of 23 metres. The proposed right-of-way and minimum building setbacks will allow for the relocation of the roadway, if required by a future widening of Highway 401; and
  - c) the alignment and intersection configurations and Energy Drive and South Service Road and other future Local roads are subject to further detailed study and may be altered without amendment to this Plan.
- 4.2.3 Osbourne Road, Solina Road and Local Streets A and B will complete the main elements of the street network. They will function as Local Roads, as defined in Section 19.7 of the Clarington Official Plan. In conjunction with development of the Energy Park these roads will be upgraded or constructed to a right-of-way width of 20 metres, to accommodate landscaped borders, sidewalks, and boulevards with street trees.
- 4.2.4 Additional Local Roads to those shown on Map A may be permitted to subdivide land, serve development and improve the efficiency of the road network. Such roads shall respect the overall grid pattern of blocks, have right-of-way widths of 20 metres, and generally be designed and built to municipal standards.
- 4.2.5 Where appropriate, private rear lanes may be provided along multiple rear property lines for delivery access purposes. The integrated laneway system shall be implemented by means of registered easement in favour of abutting land owners. The Municipality shall not assume these laneways.
- 4.2.6 The Municipality, Durham Region and GO Transit will work cooperatively to develop a long-term public transit strategy for the Clarington Energy Business Park.
- 4.2.7 Council may require that applications for the development of office buildings include a Travel Demand Management (TDM) Plan, prepared to the satisfaction of the Municipality's Director of Planning Services. The intent of the TDM Plan shall be to implement and promote measures to reduce the use of low-occupancy and low-mileage automobiles for trips and to increase transit use, cycling and walking. To that end, the following measures shall be considered:
- a) organizing and promoting car pooling;
  - b) providing priority parking space assignments for car pool participants and low-polluting motor vehicles;
  - c) providing cycling amenities, such as bike stands, bike storage, showers and change rooms;
  - d) providing financial subsidies for transit passes;
  - e) providing rush hour shuttle service to the Oshawa GO Station;
  - f) links to initiatives in the municipality-wide TDM strategy; and
  - g) other measures that may be identified by Municipal staff.

- 4.2.8 All roads shall be lined with a double or single row of trees, spaced 6-9 metres on centre. Generally, hardy indigenous trees shall be used.
- 4.2.9 For the comfort and safety of pedestrians, curb radii shall generally be 5-8 metres.
- 4.2.10 Utilities shall be buried below grade in the street right-of way, or in easements, where required. For ease of access and maintenance, shared utility trenches are encouraged.

## 5. ACCESS AND PARKING

### 5.1 Objectives

- 5.1.1 To minimize the number of driveway entrances along public streets within the Energy Park.
- 5.1.2 To provide safe and clearly-defined routes within a site for pedestrians, cars and trucks.
- 5.1.3 To minimize the land required for parking.
- 5.1.4 To ensure parking areas are not a predominant feature in the views of development from public roads.
- 5.1.5 To mitigate the urban heat island effect of large parking areas.
- 5.1.6 To maximize stormwater infiltration and minimize stormwater runoff from parking areas.

### 5.2 Policies

- 5.2.1 Where feasible and appropriate, shared driveways shall be considered.
- 5.2.2 Where necessary, secondary driveways to access loading, servicing and parking areas shall be provided on Local Roads.
- 5.2.3 A walkway with a minimum width of 1.5 metres shall be provided between the public sidewalk and the main building entrance.
- 5.2.4 Consistent pedestrian-scale lighting along walkways shall be encouraged.
- 5.2.5 The use of landscaped islands to divide large parking areas, with at least one tree for every ten spaces, shall be considered.
- 5.2.6 The use of permeable materials for parking lots shall be considered. Permeability standards may be established for development through the Master Drainage Plan.

5.2.7 Parking requirements shall be established in the Zoning By-law. The Municipality may modify the parking requirements subject to a parking study and site-specific zoning amendment. Generally, the Municipality shall encourage a supply of parking that does not exceed the minimum requirement under the Zoning By-law.

## 6. OPEN SPACE AND LANDSCAPING

### 6.1 Objectives

- 6.1.1 To establish where appropriate connected private open spaces that manage stormwater, provide visual relief and outdoor amenities for employees and provide wildlife habitats.
- 6.1.2 To achieve a consistently high quality of landscaping on private lands that enhances streetscapes and the overall image and environment of the Energy Park.
- 6.1.3 To establish gateways to the Energy Park.
- 6.1.4 To preserve significant natural heritage features and augment the natural setting for the Energy Park.
- 6.1.5 To promote the integrity, vitality and interaction of Lake Ontario coastal wetlands.
- 6.1.6 To maximize stormwater infiltration and minimize stormwater runoff.

### 6.2 Policies

- 6.2.1 The connecting of private open spaces on two or more neighbouring properties shall be encouraged.
- 6.2.2 Landscaping on private lands and public open space at the intersections of Energy Drive and Courtice Road, South Service Road and Courtice Road, and Energy Drive and South Service Road shall reinforce the entrances to the Energy Park.
- 6.2.3 Gateway features shall be developed along Energy Drive at both entrances to the Energy Park. The western gateway feature shall be a passive recreational and outdoor display facility located along Energy Drive near Courtice Road. This facility shall have a minimum size of 1 hectare and may be developed in conjunction with a hotel and convention facilities. The eastern gateway feature shall be a passive recreational facility located near the intersection of Energy Drive and South Service Road. This facility shall have a minimum size of 0.4 hectares. Both facilities shall be connected to future sidewalks and walking trails.
- 6.2.4 Stormwater management swales and ponds shall be incorporated into the planning and design of open spaces. These facilities shall be constructed in accordance with the standards established in the Master Drainage Plan. Ponds should connect to other open space amenities.

- 6.2.5 Stand-alone and directional signage shall be incorporated into the design of the landscape.
- 6.2.6 To enhance the image of the Energy Park and help achieve the goal of environmental sustainability, the following measures and techniques related to landscape design, construction and maintenance shall be encouraged:
- a) preserving existing stands of trees and hedgerows, and integrating them into new open space systems;
  - b) naturalizing areas for the benefit of native flora and fauna, and managing such areas appropriately;
  - c) the use of native plants;
  - d) locating and selecting plants to provide climate protection for buildings and employees, for example, using deciduous trees with large canopies planted on heavily-glazed south sides of buildings and at the periphery of parking lots to reduce and redirect sun exposure in summer;
  - e) coordinating landscaping treatments among neighbouring developments;
  - f) the use of swales to channel stormwater runoff from parking areas to ponds;
  - g) the use of landscaped drainage basins internal to large parking areas;
  - h) the use of permeable materials instead of paving for walkways, driveways and parking areas, where feasible; and
  - i) selecting, designing and operating outdoor full cut-off lighting to municipal standards, where required, to conserve energy, minimize light pollution, and minimize impacts on the wildlife corridor.
- 6.2.7 The Municipality, Durham Region and Ontario Power Generation (OPG) shall work cooperatively to connect the planned Waterfront Link trail to the existing Waterfront Trail on OPG lands, in the vicinity of Solina Road.
- 6.2.8 The Municipality will continue to support the creation of the Lake Ontario Wildlife Corridor, which will provide an east-west connection between Second Marsh and Westside Marsh.
- 6.2.9 Land uses in the Energy Park shall be sensitive to the Lake Ontario Wildlife Corridor and, through the use of naturalized landscape areas, shall provide appropriate buffers to ensure that the functions of the Wildlife Corridor are not hampered by development.
7. ENERGY, WATER AND WASTE
- 7.1 **Objectives**
- 7.1.1 To provide municipal water and sanitary services and other utilities in an optimal manner, minimizing impacts on the environment.

- 7.1.2 To facilitate and demonstrate renewable energy generation and use.
- 7.1.3 To develop and promote shared utility systems and an overall network that manage energy, water and waste water efficiently.
- 7.1.4 To ensure utility infrastructure demonstrates how design, materials and technology can optimize total energy use and minimize the ecological footprint of development.
- 7.1.5 To ensure infrastructure is designed and constructed to minimize the use of non-renewable energy sources.
- 7.1.6 To utilize and demonstrate new building science that maximizes energy conservation and efficiency.
- 7.2 Policies**
- 7.2.1 Generally, all new development shall be on full municipal water and sanitary sewer services.
- 7.2.2 The Municipality will work with landowners and Durham Region to develop an Infrastructure Master Plan for the phasing and financing of roads, municipal water and sanitary sewer services and stormwater management facilities to the Energy Park.
- 7.2.3 The Municipality will work with landowners, Durham Region and the relevant utility companies to identify opportunities to provide renewable energy infrastructure within the Energy Park.
- 7.2.4 Hydro servicing shall be provided underground.
- 7.2.5 The use of solar power shall be considered to power municipal street lighting.
- 7.2.6 Stormwater shall be managed on site, or with shared systems, in accordance with the Master Drainage Plan for the Energy Park, such that post-development peak flow rates off-site will not exceed pre-development rates for all storm events. The Master Drainage Plan shall confirm the location of the stormwater management ponds, and Map A shall be revised accordingly.
- 7.2.7 Council may require that development applications include a Sustainability Plan, prepared to the satisfaction of the Municipality's Director of Planning Services, the Director of Engineering/Building Services and the Conservation Authority. In addition to addressing Policy 8.2.6, Sustainability Plans shall consider the following techniques to reduce stormwater runoff, improve water quality and conserve energy:
- a) rain barrels or cisterns to capture rainwater for reuse in landscape irrigation and other non-potable water applications;
  - b) vegetated swales to filter and detain stormwater;
  - c) porous surfaces for pathways, patios and parking lots to allow infiltration of stormwater;

- d) greywater systems that capture stormwater runoff and other greywater for reuse in toilets and industrial operations;
  - e) the use of renewable energy sources for building systems and exterior lighting, such as solar, wind and geothermal;
  - f) cogeneration, i.e., capturing and using heat from power generation;
  - g) green roofs; and
  - h) other techniques encouraged by the policies of this Secondary Plan and which may be identified by Municipal staff.
- 7.2.8 Stormwater management systems shall be integrated into the design of buildings and the landscape.
- 7.2.9 Natural watercourses shall be retained wherever possible.
- 7.2.10 At the appropriate time, but before the area of the Energy Park has been 50% developed, the Municipality and Durham Region shall consider the feasibility of building a district heating and cooling facility to serve the park.

## 8. BUILDING DESIGN AND CONSTRUCTION

### 8.1 Objectives

- 8.1.1 To facilitate and promote “green” buildings, i.e., buildings that incorporate certified energy-saving and environment-friendly techniques.
- 8.1.2 To utilize and demonstrate new building sciences that maximize energy conservation and efficiency.
- 8.1.3 To maximize the life span of buildings.
- 8.1.4 To retain elements of the site’s built heritage.
- 8.1.5 To ensure the park maintains a consistent, high-quality image and sense of place.

### 8.2 Policies

- 8.2.1 Development designed to meet or exceed the highest recognized environmental standards and/or be LEED™-certified shall be encouraged.
- 8.2.2 Building construction and operation methods that minimize the use of non-renewable energy and use recycled and locally-produced materials shall be encouraged.
- 8.2.3 Buildings flexibly designed to meet the potentially changing needs of current and future businesses shall be encouraged.
- 8.2.4 Buildings that occupy sites at the intersections of Energy Drive and Courtice Road, South Service Road and Courtice Road, and Energy Drive and South Service Road shall be massed, articulated and designed to emphasize gateways to the Park.

- 8.2.5 Buildings at the corner of two streets shall address the corner with special architectural massing or detail.
- 8.2.6 Building signage shall be incorporated into and coordinated with the architecture of the building, and signs shall not dominate any one floor or the mechanical penthouse of a building.
- 8.2.7 High-quality exterior cladding materials, such as glass, steel, metal paneling, stucco, and masonry, shall be used on the façades of buildings fronting Energy Drive and South Service Road. Pre-cast paneling and exterior insulated finishing systems generally shall not be permitted on façades facing these roads.
- 8.2.8 Mechanical penthouses, antennae, vents and chimneys shall be screened from view or incorporated into the design of the roof.
- 8.2.9 The use of high-quality exterior cladding materials on parking structures, particularly where they are visible from Local Roads, shall be encouraged.
- 8.2.10 The restoration and reuse of heritage buildings or structures shall be encouraged. The house known as “Fairfield”, the Robert Beith house, located at 255 Osborne Road is to be conserved and incorporated into any redevelopment of the property.
- 8.2.11 Energy conservation measures and techniques in building design shall be encouraged, including:
- a) glazing on the south side of a building to maximize direct sunlight in winter;
  - b) sun louvers to minimize direct sunlight in summer;
  - c) green roofs—roofs that are partially or completely covered with plants to minimize water runoff and improve building insulation; and
  - d) natural interior lighting through glass roofing systems.
9. IMPLEMENTATION
- 9.1 Zoning By-law Amendments for lands within the Clarington Energy Business Park shall conform to this Secondary Plan.
- 9.2 Applications for Plans of Subdivision for lands within the Clarington Energy Business Park shall include a Phasing Plan. Phasing Plans shall establish the order of private development and the staging of construction of public infrastructure and services. The Phasing Plan shall take into account the responsibility for construction of the public infrastructure and services and shall be considered by the Municipality in enacting Zoning By-law Amendments and recommending Plans of Subdivision for approval.
- 9.3 The review and approval of Site Plan Applications for lands within the Clarington Energy Business Park shall be guided by the policies of this Secondary Plan.

- 9.4 In addition to the provisions of Section 23.4.2 of the Official Plan, Holding Symbols may be used to ensure achievement of the policies of this Secondary Plan by establishing conditions linking the development to the achievement of site development and urban design policies and objectives through site plan agreements and agreement on the provision of infrastructure. In addition to provisions of Section 23.4.3 of the Official Plan, prior to the lifting of a Holding Symbol, the following provisions apply in respect to the Secondary Plan Area:
- a) plans for the proposed development show that the proponent has successfully implemented the Urban Design Policies and transportation objectives of this Secondary Plan to the satisfaction of the Municipality; and
  - b) arrangements have been made satisfactory to the Municipality and the Region of Durham for the proponent's contributions and dedications to the Infrastructure Management Plan referenced in Section 7.2.2.
- 9.5 Notwithstanding Section 9.4 (b), the lands subject to application SPA 2003-051 may proceed in accordance with Section 11.7.1 of the Official Plan.
- 9.6 The Municipality will work with Durham Region to expedite the provision of municipal services to allow development of the Clarington Energy Business Park.
- 9.7 The Municipality will prepare a Master Drainage Plan for the Energy Park, in consultation with landowners, Durham Region and the Conservation Authority, and in accordance with the policies of this Plan.
- 9.8 The Municipality will consider establishing a governing entity, such as a development corporation, responsible for facilitating and coordinating development of the Clarington Energy Business Park.
- 9.9 The Municipality will work with the Government of Canada, the Province of Ontario, Durham Region, the University of Ontario Institute of Technology (UOIT), the Clarington Board of Trade and private landowners and businesses to study and implement the concept of a "Sustainability Centre". The Centre will demonstrate and promote innovative energy and environmental technologies and function as a resource centre for developers, businesses and the public.
- 9.10 The Municipality in consultation with Durham Region, UOIT and the Durham Strategic Energy Alliance will define:
- Detailed design plan
  - Servicing strategies (water, sewage and roads)
  - Marketing plan
  - Incentives plan
- and prepare:
- the Master Drainage Plan
  - the Master Infrastructure Plan

**10. INTERPRETATION**

10.1 Some flexibility in the interpretation of the policies contained in this Secondary Plan is permitted provided that its general intent is maintained. The boundaries for land use areas are approximate and shall be defined by the precise alignment of new streets or implementing Zoning By-laws.

10.2 The Figures contained in Appendix 1 of this Secondary Plan are for illustrative purposes and are not to be considered prescriptive.

10.3 The policies of this Plan shall be interpreted in conjunction with the applicable policies of the Clarington Official Plan.

**11. IMPLEMENTATION**

The provisions set forth in the Clarington Official Plan and the Clarington Energy Business Park Secondary Plan, as amended, regarding implementation of the Plan shall apply in regard to this Amendment.

**12. INTERPRETATION**

The provisions set forth in the Clarington Official Plan and the Clarington Energy Business Park Secondary Plan, as amended, regarding interpretation of the Plan shall apply in regard to this Amendment.