

ARTICLE 24

ALTERNATIVE ENERGY

WIND ENERGY SYSTEMS

24.1 PURPOSE

It has become increasingly desirable in time of rising energy costs and shortages to look to alternative energy sources, solar and wind, for both residential and commercial uses. While utilization of these sources may reduce greenhouse gas emissions, implementation without realistic standards can cause problems visually and operationally both on and off site. These regulations are designed to balance rights of all parties and assist in benefitting the end user and the community as a whole in minimizing visual impacts and the potential for nuisance.

24.2 DEFINITIONS

24.2.1 SMALL WIND ENERGY SYSTEMS (SWES)

A rooftop or tower mounted system which includes the roof mount, foundation, tower, generator, blades, wire or other components used in the system and which is primarily intended to reduce residential on-site consumption of utility power. The nameplate capacity shall not exceed sixty (60) kilowatts and the tower height shall not exceed one hundred (100) feet. Rotor blade clearance shall be a minimum of twenty (20) feet above grade.

24.2.2 MEDIUM WIND ENERGY SYSTEMS (MWES)

A tower mounted system which includes the foundation, tower, generator, blades, wire or other components used in the system and which is primarily intended to reduce commercial, municipal, or industrial on-site consumption of utility power. The nameplate capacity is listed from more than sixty (60) kilowatts to three hundred (300) kilowatts and the tower height does not exceed one hundred sixty-four (164) feet. Rotor blade clearance shall be a minimum of thirty (30) feet above grade.

24.2.3 LARGE WIND ENERGY SYSTEM (LWES)

A tower mounted system which includes the foundation, tower, generator, blades, wire or other components used in the system and which is primarily intended to supply electricity to a grid system for off-site customers. The nameplate capacity is listed above three hundred (300) kilowatts and the tower height will exceed one hundred sixty-four (164) feet. Rotor blade clearance shall be a minimum of fifty (50) feet above grade. Property may be owned or leased by the developer. NOTE: The construction of a LWES is preceded by an investigation of on-site wind characteristics to assess suitability for power generation. This typically involves wind monitoring over several months with the installation of a Met Tower, which due to its height, would necessitate an application for and receipt of special zoning approval.