

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF GRAND PRAIRIE, TEXAS, AMENDING ARTICLE 4, "PERMISSIBLE USES" OF THE UNIFIED DEVELOPMENT CODE BY ADDING SECTION 9, "SMALL WIND ENERGY SYSTEMS"; PROVIDING FOR SEVERABILITY; PROVIDING FOR A PENALTY FOR VIOLATION OF THIS ORDINANCE AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, The City Council of the City of Grand Prairie, Texas ("City Council") has investigated and determined that Article 4, "Permissible Uses" of the Unified Development Code should be amended in order to implement and enforce regulations for wind turbine generators and towers; and

**WHEREAS**, The purpose of these regulations are to provide for the construction and operation of small wind energy systems in Grand Prairie, Texas, subject to reasonable conditions that will protect the public health, safety and welfare; and

**WHEREAS**, Notice was given of a public hearing on said amendment to be held by the Planning and Zoning Commission of Grand Prairie, Texas, in the City Hall Plaza Building at 7:00 o'clock P.M. on March 26, 2007, such Notice of the time and place of such hearing having been given at least ten (10) days prior to such hearing by publication in the FORT WORTH STAR TELEGRAM, Fort Worth, Texas, a newspaper of general circulation in such municipality; and

**WHEREAS**, After consideration of the proposed amendment, the Planning and Zoning Commission of the City of Grand Prairie, Texas voted 8 to 0 to recommend to the City Council of Grand Prairie, Texas that this amendatory Ordinance should be approved since its provisions are in the public interest and will promote the health, safety and welfare of the community; and

**WHEREAS**, Notice was given of a further public hearing to be held by the City Council of the City of Grand Prairie, Texas, in the City Hall Plaza Building at 6:30 o'clock P.M. on April 3, 2007, to consider the advisability of amending to Chapter 4, "Permissible Uses" of the Unified Development Code of the City of Grand Prairie, and all citizens and parties at interest were notified that they would have an opportunity to be heard, such Notice of the time and place of such hearing been given at least fifteen (15) days prior to such hearing by publication in the Fort Worth Star Telegram, Fort Worth, Texas, a newspaper of general circulation in such municipality; and

**WHEREAS**, All citizens and parties at interest have been given an opportunity to be heard on all the matter of the proposed amendment and the City Council of the City of Grand Prairie, Texas, being informed as the nature of the proposed amendment, have found and determined that by reason of changed conditions, does consider and find that this amendatory Ordinance should be enacted since its provisions are in the public interest and will promote the health, safety and welfare of the community; and

**WHEREAS**, The City Council finds that it will be advantageous, beneficial and in the best Interest of the public health, safety and welfare of the citizens to amend the Unified Code of the Ordinances (“UDC”) and establish regulations governing wind turbine generators and towers.

**NOW THEREFORE, BE IT HEREBY ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND PRAIRIE, TEXAS:**

**Section 1**

THAT the premises set forth above are hereby found to be true and correct legislative findings and are fully incorporated into the body of this Ordinance by reference.

**Section 2**

THAT a new section, Section 9, “Small Wind Energy Systems,” shall be added to Article 4 of the Unified Development Code which is hereby amended as follows with new text indicated in *bold, italicized* print:

***SECTION 9 – SMALL WIND ENERGY SYSTEMS***

***4.9.1.1 Small wind energy systems shall require a Specific Use Permit (SUP) in all zoning districts and flood plain areas and shall contain a minimum lot size of two (2) acres subject to certain requirements as set forth below:***

- A. An operational plan is required with the SUP application and shall include the following:***
- 1. Property lines and physical dimensions of the property,***
  - 2. Location, dimensions, and types of existing major structures on the property,***
  - 3. Location of the proposed wind system tower,***
  - 4. The public rights-of-way that are contiguous with the property,***
  - 5. Overhead utility lines,***
  - 6. Wind system specifications, including manufacturer and model, rotor diameter, tower height, and tower type,***
  - 7. Tower foundation blueprints or drawings,***
  - 8. Tower blueprint or drawing.***

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- B.** *Wind towers and generators proposed to be installed within the 100 year floodplain shall have approval of the Engineering Division and, where applicable, the U.S. Army Corps of Engineers. Such tower sites shall take such measures, as required by the Engineering Division, to protect the sites from damage from potential flooding. The Engineering Division shall require a floodplain permit and, where applicable, a Corridor Development Certificate shall be obtained from the Engineering Division.*
- C.** *If the plan is approved, the City will return one signed copy of the operational plan to the owner and will retain the other copy with the original application.*
- D.** *If the application is rejected, the City will notify the applicant in writing and provide a written record of the hearing at which the application was rejected. If the specified deficiencies are resolved, the applicant may reapply after one year from the submittal date.*
- E.** *For property sizes between two (2) and three (3) acres in area, the tower height shall be a maximum of 80 feet. For property sizes greater than three (3) acres in area, the tower height shall not exceed 150 feet.*
- F.** *Small wind energy systems must comply with applicable Federal Aviation Administration (FAA) regulations, including any necessary approvals for installations close to airports.*
- G.** *The tower for a small wind energy system shall be setback a distance equal to 1.25 times the tower height from all property lines, public rights-of-way and occupied buildings. No part of the wind system structure, including guy wire anchors, may extend closer than fifteen (15) feet to the property boundaries of the installation site.*
- H.** *The tower for a small wind energy system will be setback a distance equal to 1.25 times the tower height from any overhead utility lines, unless written permission is granted by the affected utility.*
- I.** *The minimum height of the lowest part of the rotor shall be either 30 feet above the highest structure allowed under the zoning district requirement, or potential tree height, whichever is higher, if it is within 300 feet of any property line.*
- J.** *No tower shall be erected closer than 75 feet or a distance of five times the diameter of the larger rotor, whichever is the greater distance, to another small wind energy tower.*
- K.** *All small wind energy systems shall be equipped with a redundant braking system. This includes both aerodynamic over speed controls (including*

*variable pitch, tip and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for over speed protection.*

**L. Warnings.**

- 1. A clearly visible warning sign that states "Caution, High Voltage" must be placed at the base of all pad-mounted transformers and substations.*
- 2. Visible, reflective, colored objects, such as flags, reflectors or tape shall be placed on the anchor points of guy wires and along the guy wires up to a height of ten feet from the ground.*

**M. Climb Prevention/ Locks.**

- 1. All ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.*
- 2. The tower shall be designed and installed so as to not provide step bolts or a ladder readily accessible to the public for a minimum height of 12 feet from the ground.*
- 3. All access doors to small wind energy systems shall be locked or fenced, as appropriate, to prevent entry by non-authorized persons.*

**N.** *All electrical wires associated with a small wind energy system, other than wires necessary to connect the wind generator to the tower wiring, the tower wiring to the disconnect junction box, and the grounding wires shall be located underground.*

**O.** *Small wind energy systems shall be required to comply with the noise standards and requirements contained within Chapter 13 of the City's Code of Ordinances.*

**P. Visual Appearance.**

- 1. A wind tower and generator shall not be artificially lighted unless such lighting is required by the Federal Aviation Administration.*
- 2. The wind tower and generator shall remain painted or finished the color or finish that was originally applied by the manufacturer, unless otherwise approved in the building permit.*

3. *All signs, other than the manufacturer's or installer's identification, appropriate warning signs, or owner identification on a wind generator, tower, building, or other structure associated with a small wind energy system visible from any public road, shall be prohibited.*

4. *A lattice type tower structure shall be prohibited for any tower measuring less than 81 feet in height, or for any tower erected in a residential zoning district. Only monopole type structures shall be permitted in these instances. Towers measuring greater than 81 feet in height built in the Agriculture (A) zoning district and in any non-residential zoning district shall be exempt from this requirement.*

*Q. Small wind energy systems shall be sited to prevent the impact of shadow flicker or blade glint upon any inhabited structures (except for the owner's) or City roadways. Systems found to be in violation of this condition shall be shut down until the flicker or glint problem is remedied.*

4.9.2 *A building permit shall be required for the installation of a small wind energy system.*

*A. The owner shall submit an application to the Building Inspections Division of the Planning and Development Department. The application shall be accompanied by standard drawings of the wind turbine structure, a line drawing of the electrical components, and two copies of an operational plan for the small wind energy system, and the fee required for an accessory use.*

*B. No permit for a small wind energy system shall be issued until evidence has been given to the City that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.*

*C. Building permit applications for small wind energy systems shall be accompanied by standard drawings of the wind turbine structure, including the tower, base and footings. An engineering analysis of the tower showing compliance with the International Building Code and certified by a licensed professional engineer shall also be submitted. This analysis is frequently supplied by the manufacturer.*

*D. Building permit applications for small wind energy systems shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electrical Code. This information is frequently supplied by the manufacturer.*

- E. *An issued permit shall expire if the small wind energy system is not installed and functioning within 6-months with a required inspection from the date the permit is issued; or, if the small wind energy system is out-of-service or otherwise unused for a continuous 12-month period.*

4.9.3 *Abandonment.*

- A. *A small wind energy system that is out-of-service for a continuous 12-month period will be deemed to be abandoned. The Director of Planning and Development or designee may issue a Notice of Abandonment to the owner of a small wind energy system that is deemed to have been abandoned. The Owner shall have the right to respond to the Notice of Abandonment within 30 days from Notice receipt date. The Director of Planning and Development or designee shall withdraw the Notice of Abandonment and notify the owner that the Notice has been withdrawn if the owner provides information that demonstrates the small wind energy system has not been abandoned.*
- B. *If the small wind energy system is determined to be abandoned, the owner of the small wind energy system shall remove the wind generator and tower structure from the property at the Owner's sole expense within 3 months of receipt of Notice of Abandonment. If the owner fails to remove the wind generator, tower, and any associated appurtenances, the Director of Planning and Development or designee may pursue a legal action to have the wind generator and tower structure removed at the Owner's expense.*

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4.9.4 *Definitions.*

*Occupied Building: Any residence, school, hospital, church, public library or other building that is occupied or in use when the permit application is submitted.*

*Owner: The "owner" shall mean the entity or entities having an equity interest in the small wind energy system, including their successors or assigns, that intend to own and operate the system in accordance with this ordinance.*

*Rotor: The blades and the hub together are called the rotor.*

*Small Wind Energy System: A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 100 kW and which is primarily intended to reduce on-site consumption of utility power.*

*Tower: The monopole, freestanding, latticed or guyed structure that supports a wind generator.*

*Tower Height: The height above grade of the fixed portion of the tower, excluding the wind turbine itself.*

*Wind Generator: The blades and associated mechanical and electrical conversion components mounted on top of the tower.*

**Section 3**

All ordinances or parts of ordinances not consistent or conflicting with the provisions of this Ordinance are hereby repealed. Provided that such repeal shall be only to the extent of such inconsistency and in all other respects this Ordinance shall be cumulative of other ordinances regulating and governing the subject matter covered in this Ordinance.

**Section 4**

If any article, section, sub-section, sentence or phrase of this Ordinance should be held to be invalid for any reason whatsoever, such invalidity shall not affect the remaining portions of this Ordinance which shall remain in full force and effect and to this end, the provisions of this Ordinance are declared to be severable.

**Section 5**

Any person, firm, association of persons, company corporation, or their agents, servants, or employees violating or failing to comply with any of the provisions of this article shall be guilty of a misdemeanor and fined, upon conviction, not less than one dollar (\$1.00) nor more than five-hundred dollars (\$500.00), and each day any violation of noncompliance continues shall constitute a separate and distinct offense. The penalty provided herein shall be cumulative of other remedies provided by State Law, and the power of injunction as provided in V.T.C.A. Local Government Code 54.012 and as may be, may be exercised in enforcing this article whether or not there has been a complaint filed.

**Section 6**

This ordinance shall be in full force and effect from and after its passage and publication as provided by law.

**PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF GRAND  
PRAIRIE, TEXAS, THIS THE 3<sup>rd</sup> DAY OF April 2007**

\_\_\_\_\_  
Mayor, Grand Prairie, Texas

ATTEST:

APPROVED AS TO FORM:

\_\_\_\_\_  
City Secretary

\_\_\_\_\_  
City Attorney