

SPONSORED BY: Consent  
PROPOSED BY: Executive  
INTRODUCTION DATE: 6/1/2004

ORDINANCE # 2004-041

**AN ORDINANCE AMENDING TEXT OF THE OFFICIAL WHATCOM COUNTY ZONING ORDINANCE, SPECIFICALLY WCC 20.82.010 AND 20.82.030 PUBLIC UTILITIES CHAPTER, ADDRESSING TRANSMISSION LINES OF 115KV AND TRANSMISSION LINES OF 115KV OPERATING ABOVE 160 MW AND MODIFYING WCC 20.42.030.158 AND 20.43.156, RURAL AND COMMERCIAL FORESTRY CHAPTERS.**

WHEREAS, Ordinance 90-124 was passed by the Whatcom County council to place into law the initiative passed by the voters of Whatcom County which restricts electrical power transmission lines of greater than 115,000 volts to lands where permits have already been granted or in those districts classified as industrial; and

WHEREAS, it has been brought to the attention of the Whatcom County Council that power lines of 115,000 volts could be powered with greater amperages than usual, and electrical science demonstrates that greater amperage loads create greater electromagnetic fields, interference and other negative impacts; and

WHEREAS, the public has brought forward concerns to the Whatcom County Council regarding the health, safety, and economic impacts of lines of 115,000 volts which may carry very high amperage loads; and

WHEREAS, there are concerns for public safety and property from the possible location of high power transmission lines in close proximity to people's houses, animals, and barns; and

WHEREAS, some of the concerns include, but are not limited to, falling lines and poles, possible negative health effects from electromagnetic fields created by large amperage loads being carried on undersized lines, stray voltage effects on dairies, and devaluation of property; and

WHEREAS, on January 15, 2002, the Whatcom County Council adopted an Emergency Ordinance 2002-002 imposing a moratorium on applications for conditional and/or land use permits for electrical power transmission lines of 115,000 volts or less, designed to carry 100 megawatts or greater loads, except in those district classified as industrial; and

WHEREAS, Resolution 2003-051 was passed by County Council August 5, 2003 and initiated an emergency amendment to WCC 20.82.030(8) which requested the Planning Agency's review of Council's proposal; and

WHEREAS, Proposed zoning text amendments shall be considered pursuant to WCC 20.90; and

WHEREAS, The Planning Commission held a public hearing on the proposed amendment on May 13, 2004, and considered all testimony and recommended approval; and

WHEREAS, The County Council has considered the Planning Commission's Findings of Fact & Reasons for Action, Conclusions, and Recommendations.

The Council makes the following findings of fact and conclusions:

#### FINDINGS OF FACT

1. Notice of the Planning Commission hearing for the subject amendment was published in the Bellingham Herald April 29, 2004.
2. The Whatcom County SEPA Official has issued a Determination of non-significance dated May 12, 2004.
3. The Planning Commission held a public hearing on the subject amendment on May 13, 2004.
4. Council initiated a moratorium Ordinance 2002-002, which prohibited acceptance of applications for electric power lines of 115 kv or less, designed to carry 100 mw or greater loads, except in those districts classified as industrial. This moratorium has been extended continuously since adoption and is still in place.
5. Council initiated an emergency amendment to Whatcom County Code 20.82.030 through adoption of Resolution 2003-051. This resolution included proposed text.
6. There are a number of scientific research studies relating to the potential biological health effects of extremely-low frequency electric and magnetic fields (ELF-EMF) that indicate an association between exposure to ELF-EMF and childhood leukemia and chronic lymphocytic leukemia in occupationally exposed adults (NIEHS, 1999). The National Institute of Environmental Health Sciences state that the level and strength of evidence supporting ELF-EMF exposure as a human health hazard are

insufficient to warrant aggressive regulatory actions and instead, suggests passive measures such as a continued emphasis on means aimed at reducing exposures. NIEHS suggests that the power industry continue its current practice of siting power lines to reduce exposures and continue to explore ways to reduce the creation of magnetic fields around transmission and distribution lines without creating new hazards (NIEHS, 1999).

7. On behalf of the California Public Utilities Commission (CPUC), three scientists working for the California Department of Health Services (DHS) were asked to review studies about possible health problems from electric and magnetic fields (EMFs) from power lines, wiring in buildings, some jobs, and appliances. To one degree or another, all three of the DHS scientists are inclined to believe that EMFs can cause some degree of increased risk of childhood leukemia, adult brain cancer, Lou Gehrig's Disease, and miscarriage. However, they strongly believe that EMFs do not increase the risk of birth defects or low birth weight, nor that they are universal carcinogens (Neutra, et. al., 2002).
8. When a higher amount of current flows through a conductor, the resultant magnetic field that is produced is greater and extends a farther distance from the source. Electric fields are produced by voltage present in electric conductors and is easily shielded by objects such as trees and buildings. Magnetic fields are produced when electric current, measured in amperes, flows through a conductor and is not easily shielded by most material. Most research has focused on potential health effects of magnetic field exposure because some epidemiological studies have reported an increased risk of cancer associated with estimates of magnetic field exposure. No similar associations have been reported for electric fields (NIEHS, 2002). Therefore the need to limit the the amount of amperage through power transmission lines needs to be considered.
9. Research studies relating to the impact of electric power lines on property values indicate that power lines do cause a reduction in property values. One study indicates an estimated valuation loss of 2 – 3% for properties very close to power lines. Another suggested a loss of about 10%. A study conducted in California showed that vacant lot values were adversely affected by 18 – 53.8% (Jaconetty, 2001).
10. The locational criteria for siting utilities in Chapter 5 (Utilities) of the Whatcom County Comprehensive Plan states that every effort must be made to avoid undesirable effects of locating utility facilities in areas where the health or safety of Whatcom County residents may be adversely affected.



11. Policy 5A-2 of the Whatcom County Comprehensive Plan states that when expansions or improvements of utility systems are being considered, the County prefers that existing corridors be utilized when upgrading existing facilities or replacing facilities and that existing corridors be shared.
12. Policy 5A-3 of the Whatcom County Comprehensive Plan encourages utility purveyors to consider underground installation of distribution facilities.
13. The Whatcom County Comprehensive Plan recognizes that questions have been raised concerning the potential health effects associated with exposure to 60Hz electric and magnetic fields. Goal 5K of the Comprehensive Plan requires the County to be responsive to new information on electric and magnetic field research progress.
14. Policy 5C-7 states that utility facilities will be located in a manner that protects the integrity of planned land uses, including resource lands.
15. Locating utility corridors or facilities in agriculture designated districts potentially damages the land and increases the difficulty to the farmer to farm around power transmission line towers and other facilities.
16. Sufficient land has been designated in Whatcom County to accommodate major consumers and/or generators of electricity in areas currently zoned for heavy impact industrial uses or along existing corridors in appropriately zoned lands.
17. Electric power generators choosing to locate outside of industrial zoned areas where existing corridors and zoning have been designed to accommodate such uses would require the development of new power lines to transmit power to the power grid.
18. Rural and Commercial Forestry Districts (WCC 20.42.158 and 20.43.156 respectively) are inconsistent with WCC 20.82 (Public Utilities) because both forestry zoning districts require a conditional use for the same uses (transmission lines and pipelines) that also require a conditional use under – WCC 20.82. Since WCC 20.82 applies to all zoning districts, the current code requires duplicate permits.
19. Rural and Commercial Forestry Districts (WCC 20.42.158 and 20.43.156 respectively) also allow power generation plants. No existing industrial zoning is located within designated forest lands, very little of the designated forest land is located adjacent to existing corridors with power lines of 115 KV.

## CONCLUSIONS

1. Sufficient evidence relating to negative health, safety and economic impacts of power lines of 115kv and above exist to:
  - a. Require limiting their placement to lands where such permits have already been granted or to lands zoned industrial, and
  - b. Reduce EMF exposure by limiting wattage of the 115kv lines to an average load well below the maximum carrying capacity of the power line.
2. The development of new power lines and related transmission facilities requires careful review and a public process to ensure that the community's needs and concerns are addressed.
3. Due to their location, variable terrain and primary intended use, lands designated forestry should not be considered for the siting of new power generation plants.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that:

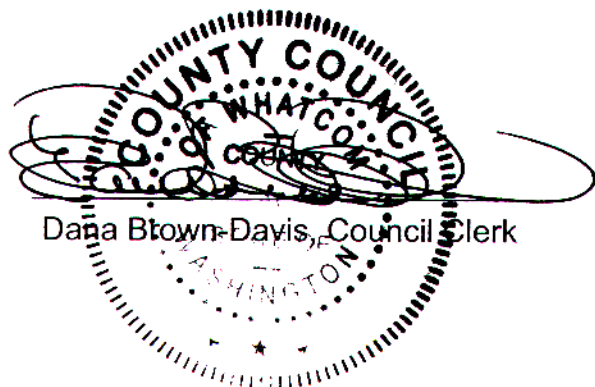
Section 1. The Official Whatcom County Zoning Ordinance, Title 20, is hereby amended as shown in Exhibit A.

Section 2. The adoption of this ordinance shall nullify the need for Ordinance 2004-032 – moratorium on applications for conditional and/or land use permits for electrical power transmission lines of 115,000 volts or less, designed to carry 100 megawatts or greater loads, except in those districts classified as industrial.

Section 3. Adjudication of invalidity of any of the sections, clauses, or provisions of this ordinance shall not affect or impair the validity of the ordinance as a whole or any part thereof other than the part so declared to be invalid.

ADOPTED this 13th day of July, 2004

ATTEST:



Dana Brown-Davis, Council Clerk

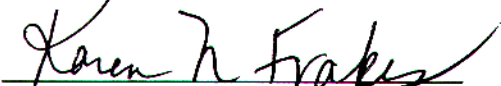
WHATCOM COUNTY COUNCIL

WHATCOM COUNTY,  
WASHINGTON

A handwritten signature in black ink, appearing to be "Dan", is written over a horizontal line.

Chairperson

APPROVED as to form:

  
Civil Deputy Prosecutor

☒ Approved    ☐ Denied

  
Pete Kremen, Executive

Date: 7-15-07

## Exhibit A

### Whatcom County Zoning Code Chapter 20.82 – Public Utilities

#### 20.82.010 Intent.

The provisions of this chapter regulate ~~shall not be construed to limit or interfere with the~~ installation, maintenance and operation of public utility lines, pipelines for oil and gas, railroads (but not including switching yards or round houses), or maintenance facilities. The citizen initiative, enacted through Ord 90-124 regarding power line placement, and comprehensive plan land use designations, comprehensive plan policy directives and the specific provisions of this chapter shall be the basis for decisions regarding utility development. This Chapter applies to all zoning districts unless stated otherwise. (Ord. 96-056 Att. A § T1, 1996; Ord. 87-12, 1987; Ord. 87-11, 1987).

#### 20.82.030 Conditional use.

(8) Electrical substations and electrical power lines ~~carrying~~ operating at voltages ~~in excess of greater than~~ 55 kV (55,000 volts); provided, ~~that no conditional use permit shall be granted for electrical transmission lines carrying more than 115 kv (115,000 volts except on land where such permits have already been granted or in those districts classified as industrial.~~ applications for such substations and power lines shall be processed as a major development permit (pursuant to WCC 20.88); provided that no further ~~conditional use permit~~ major development permit shall be granted for such lines which;

(a) operate at greater than 115kv (115,000 volts) except on land where such permits have already been granted or in those districts classified as industrial, or

(b) operate at 115kv (115,000 volts) and carry greater than 160mw (160 mega-watts) average loading, except on land where such permits have already been granted or in those districts classified as industrial, or. For purposes of this section, average loading means the average power in mega-watts carried by a power line over any twelve month period; provided that loading at full line carrying capacity may not extend beyond any 90 day period.

(c) are dedicated to provision of transmission service to(from)an electrical generating plant having a generating capacity greater than 160mw (160 mega-watts), except on lands where such permits have already been granted or in those districts classified as industrial.

#### RF District – 20.42.150 Conditional uses.

~~.158 Major utility and communication facilities, including, but not limited to: overhead transmission lines, power generation plants, and underground pipelines which are designed to serve areas beyond the local community.~~

#### CF District – 20.43.150 Conditional Use.

.156 Major utility and communication facilities, ~~including, but not limited to:~~  
~~overhead transmission lines, power generation plants, and underground~~  
~~pipelines which are designed to serve areas beyond the local community.~~