2009-2010 Development Code Docket
A-13: Solar & Wind Exemption from Height
Limitations (Titles 20, 21, 22, and 23)

Date: June 16, 2010

Public Hearing Date: Tentative Date: July 21, 2010

Prepared by: Tony Kantas,
Associate Planner

Proponent/Applicant: Thurston County

Action Requested: Amend Titles 20, 21, 22, and 23
by exempting solar and wind
structures from maximum height
restrictions.

☐ Map Changes  ☒ Text Changes  ☐ Both  ☐ Affects Comprehensive
Plans/documents
☐ Affected Jurisdictions

ISSUE:
The current Rural Zoning Ordinance (Title 20), Lacey Urban Growth Area Zoning
Ordinance (Title 21), Tumwater Zoning Ordinance (Title 22), and Olympia Zoning
Ordinance (Title 23) do not exempt solar and wind structures from the height limitations
when used as an appurtenance to approved uses.

BACKGROUND:
Each of the four (4) Zoning Ordinances includes a code section which lists the
mechanical appurtenances that are exempt from the height regulations. The code
section(s) do not specify solar and wind structures as a mechanical appurtenance to be
exempt from the height restrictions.

The proposal is to amend Thurston County Code Sections 20.07.080, 21.06.200,
22.04.085, and 23.02.180 by including solar and wind energy structures as an
exemption to the maximum height regulations. Currently, the code sections list
mechanical appurtenances such as silos, chimneys, and spires, among others as
exempt from the height regulations, but do not include solar and wind energy structures.

Current code prevents someone from attaching solar panels to their roof, if the structure
is constructed to the height limitation of the zone and the panel is required to be
designed and built beyond the roofline. In many instances, brackets are used to
position the panels for optimal sun angles, which results in the panels being higher than
the roofline of the structure.
Current code also prevents someone from utilizing wind as an energy source, if the structure is built in excess of the height limitation of the underlining zoning district. A typical windmill is constructed with blades that are connected to turbine towers that stand x feet off the ground, depending on topography and lay out of the parcel. From the base of the tower to the tip of the blades is a distance that can easily exceed the maximum height allowance of all zoning districts.

**DEPARTMENT ANALYSIS:**
This proposed change would allow a property owner to utilize solar and wind energy structures that may need to be constructed in excess of the height limitations of the underlining zoning district. The recognition of these mechanical appurtenances is consistent with county, state, and federal goals of reducing electricity demand for buildings and reducing greenhouse gas emissions. This code amendment will assist builders, developers, designers, engineers, and owners to use the environment to heat, cool, ventilate, and power buildings.

If the urban growth area zoning ordinances exempted detached stand-alone windmills on small urban lots, there could potentially be incompatibility, safety, and aesthetic issues and impacts. Windmills within urban growth areas could be mitigated by only exempting the height if it’s constructed within a utility parcel, open space area, or dedicated area within a subdivision.

Most zones within the rural zoning ordinance have a height limitation of 35-feet and the majority of all lots are one acre or greater. Therefore, staff does not foresee any significant adverse impacts regarding windmills within the rural potion of the county.

Solar panels only become a height restriction issue if the building is constructed to the maximum height limitation of the zoning district. In many instances brackets are used to lift and angle the panel above the roofline and ridge of the roof. Typically, a solar panel is constructed only a few inches to a few feet above the roofline.

**OPTIONS:**

1. Change the code sections by adding solar and wind energy structures as an exemption to the height limitations in all zoning ordinances.

2. Change the code sections by adding solar and wind structures as an exemption in all four zoning ordinances and only allowing detached windmill structures as an exemption in all zoning ordinances if the subject property is 1-acre or greater, or a utility tract, or the wind energy structure is constructed within a dedicated area of a subdivision.

3. No change to the Development Code as it relates to the height of solar and wind energy structures.

The proposed code amendments would add “solar and wind energy structures” to the following code sections:
Option 1:
20.07.080 Structures excluded from maximum height regulations
The height limitations of this title shall not apply to barns, silos, residential chimneys, spires, gables, domes, flagpoles, clock towers, flues, monuments, radio towers, television antennae or aerials, solar and wind energy structures, transmission towers and cables, smokestacks, or other similar structures and mechanical appurtenances.

21.06.200 Definition of “Building Height”
"Building height" means the vertical distance from average finish grade level to the highest point of a building or structure, excluding any chimney, solar and wind energy structure, antenna or other uninhabitable vertical appurtenances.

22.04.085 Definition of “Building Height”
"Building height" or "structure height" means the vertical distance from average grade level to the highest point of a building or structure excluding any chimney, solar and wind energy structure, antenna or other uninhabitable vertical appurtenances.

23.02.180 Definition of “Building Height”
"Building height" means the vertical distance from average finish grade level to the highest point of a building or structure excluding any chimney, solar and wind energy structure, antenna, or other uninhabitable vertical appurtenances. (See Figure 2-3.)

Option 2:
20.07.080 Structures excluded from maximum height regulations
The height limitations of this title shall not apply to barns, silos, residential chimneys, spires, gables, domes, flagpoles, clock towers, flues, monuments, radio towers, television antennae or aerials, solar and wind energy structures, transmission towers and cables, smokestacks, or other similar structures and mechanical appurtenances. To be considered exempt from the height restrictions, the wind energy structure shall be attached to an approved building structure. A detached windmill structure shall be constructed on a parcel of one acre or greater, or a utility tract, or within a dedicated area of a subdivision.

21.06.200 Definition of “Building Height”
"Building height" means the vertical distance from average finish grade level to the highest point of a building or structure, excluding any chimney, solar and wind energy structure, antenna or other uninhabitable vertical appurtenances. To be considered exempt from the height restrictions, the wind energy structure shall be attached to an approved building structure. A detached windmill structure shall be constructed on a parcel of one acre or greater, or a utility tract, or within a dedicated area of a subdivision.

22.04.085 Definition of “Building Height”
"Building height" or "structure height" means the vertical distance from average grade level to the highest point of a building or structure excluding any chimney, solar and
wind energy structure, antenna or other uninhabitable vertical appurtenances. To be considered exempt from the height restrictions, the wind energy structure shall be attached to an approved building structure. A detached windmill structure shall be constructed on a parcel of one acre or greater, or a utility tract, or within a dedicated area of a subdivision.

23.02.180 Definition of “Building Height”
"Building height" means the vertical distance from average finish grade level to the highest point of a building or structure excluding any chimney, solar and wind energy structure, antenna, or other uninhabitable vertical appurtenances. (See Figure 2-3.) To be considered exempt from the height restrictions, the wind energy structure shall be attached to an approved building structure. A detached windmill structure shall be constructed on a parcel of one acre or greater, or a utility tract, or within a dedicated area of a subdivision.

Option 3:
No Action

SEPA:
A SEPA determination has not been issued at this time.

NOTIFICATION:
Written notice of the public hearing will be published in The Olympian at least twenty (20) days prior to the public hearing.

DEPARTMENT RECOMMENDATION:
Amending TCC Sections 20.07.080, 21.06.200, 22.04.085, and 23.02.180 as suggested in Option 2) would be consistent with other Thurston County Development Codes and the Thurston County Comprehensive Plan. Staff believes Option 1 could potentially result in incompatibility, safety, and aesthetic impacts to urban lots.

The Resource Stewardship Department recommends the Planning Commission forward Development Code Docket item A-13, Solar & Wind Exemption from Height Limitations (Title 20, 21, 22, and 23) with a recommendation of approval of Option 2 to the Board of County Commissioners as follows:

Title 20, 21, 22, and 23 Zoning would be amended as follows:

Deleted Text: Strikethrough Proposed Changes: Underlined
Staff Comments: Italics Unaffected Omitted Text: (...)”

Proposed new language:

Option 2:

20.07.080 Structures excluded from maximum height regulations
The height limitations of this title shall not apply to barns, silos, residential chimneys, spires, gables, domes, flagpoles, clock towers, flues, monuments, radio towers,
television antennae or aerials, solar and wind energy structures, transmission towers and cables, smokestacks, or other similar structures and mechanical appurtenances.

To be considered exempt from the height restrictions, the wind energy structure shall be attached to an approved building structure. A detached windmill structure shall be constructed on a parcel of one acre or greater, or a utility tract, or within a dedicated area of a subdivision.

21.06.200 Definition of “Building Height”
"Building height" means the vertical distance from average finish grade level to the highest point of a building or structure, excluding any chimney, solar and wind energy structure, antenna or other uninhabitable vertical appurtenances. To be considered exempt from the height restrictions, the wind energy structure shall be attached to an approved building structure. A detached windmill structure shall be constructed on a parcel of one acre or greater, or a utility tract, or within a dedicated area of a subdivision.

22.04.085 Definition of “Building Height”
"Building height" or "structure height" means the vertical distance from average grade level to the highest point of a building or structure excluding any chimney, solar and wind energy structure, antenna or other uninhabitable vertical appurtenances. To be considered exempt from the height restrictions, the wind energy structure shall be attached to an approved building structure. A detached windmill structure shall be constructed on a parcel of one acre or greater, or a utility tract, or within a dedicated area of a subdivision.

23.02.180 Definition of “Building Height”
"Building height" means the vertical distance from average finish grade level to the highest point of a building or structure excluding any chimney, solar and wind energy structure, antenna, or other uninhabitable vertical appurtenances. (See Figure 2-3.) To be considered exempt from the height restrictions, the wind energy structure shall be attached to an approved building structure. A detached windmill structure shall be constructed on a parcel of one acre or greater, or a utility tract, or within a dedicated area of a subdivision.