Memorandum

To: Thurston County Board of County Commissioners
From: Thurston County Stakeholders Group
Date: June 23, 2010
Subject: Green Building Update

With staff support funded by the Energy Efficiency and Community Development Block Grant, the green building stakeholders group has now met five times to discuss energy efficiency code that seeks the greatest possible reduction in greenhouse gases. Items such as green building incentives, education, job site recycling, code barriers, electric vehicle charging infrastructure, green building review policy, and solar energy have been discussed so far at the meetings. The agendas and meeting summaries can be found at www.co.thurston.wa.us/planning/climate/climate_codes.htm.

Staff has designed a green building web page on the county web-site http://www.co.thurston.wa.us/planning/climate/climate-grnbld.html. The intent is to educate builders and developers as to the benefits to building green, while providing quick links to the available green building resources. Green building topics will be added to the web-site as they are developed including bios and photographs of green projects as they progress. Once the permitting web page is completely updated, it will serve as a resource to builders to stimulate green energy efficient building techniques.

Staff is developing green building posters designs and other informational resources for display in the Permit Assistance Center. These materials will provide visual references to green building techniques.

The stakeholders group has put together a draft green building policy, which is currently being reviewed by staff. The policy would recognize the green building certificate programs that the local builders and architects are familiar with, create a green county permit review team, and create a database of green innovative building techniques that presently are not commonly used in the local building industry.
The database would be designed and used in the following way:

- Once a green innovative building technique is approved by the county, the technique would be entered into the database with an explanation that supports how the concept meets the code requirement.

- Once a technique is entered into the database, a link will be emailed to members within the green permit review team and to building inspectors to educate them on the technique. In this way the database will serve as an educational resource to staff and a reservoir of ideas to builders.

- The database would be made available on the Thurston County web site and designed to allow all cities within the county to participate in the database.

Once staff has an opportunity to comment and propose changes, this policy will come to the Board for consideration.

**Code Amendments:**

Current Zoning Ordinances (Titles 20, 21, 22, and 23) do not exempt solar and wind structures from height limitations when used as an appurtenance to approved uses. Each of the four (4) Zoning Ordinances includes a code section, which lists the mechanical appurtenances that are exempt from the height regulations such as silos, chimneys, and spires among others. The code section(s) do not specify solar and wind structures as a mechanical appurtenance to be exempt from the height restrictions. Staff is currently working with the Planning Commission to develop options regarding height limitations for solar and wind energy structures in all four zoning ordinances for Board consideration.

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.

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.

The current zoning ordinances would prevent the above shown building from attaching the wind energy structures, if the building was constructed to the height limitation of the zone. This restriction also makes it difficult for existing structures to retrofit to wind and solar energy.

The stakeholders group has discussed possible code amendments that would promote more green energy efficient building within Thurston County that seeks the greatest possible reduction in green house gases. Stakeholders are in agreement that the development and building codes are not necessarily barriers to building green but they assert that any mandated code that is not performance based would hinder evolving green building technology. Because green building is evolving as fast as computer technology, stakeholders worry that mandated codes would lock in a certain process that could quickly become out dated. Rather, stakeholders would like the county to recognize the certification processes such as Built Green, LEED, and Passive House. Each of these certifications is third party verified. These certifications offer a holistic approach to the construction process where the homeowner and builder can have some flexibility with the choices that are best applicable to the homeowner and property. The stakeholders would like to see the County offer incentives to encourage this type of construction. Here are a few things that have been discussed;

- Priority permitting: a green permit application would receive priority review reducing the time it takes to get a permit.
- Recording a Green Certificate and the requirements that were in place at the time of the certification. The certificate would be recorded with the title. The seller would have documentation that their home was truly certified and this should add to the value of the home.
- A property tax exemption similar to the one the County now allows on remodels to existing homes. The current one gives the homeowner a three year exemption on the increased value of the home as a result to the improvements. The stakeholders group proposes something similar, maybe a five or six year exemption on half the property taxes on the house. They
would still pay full value for the land. On new construction, this would still give the County an increase in taxes, half the tax on the new house value, and yet it would encourage homeowners to pick green building by reducing their taxes at least temporarily. This could be the deciding factor in spending the extra needed to make the home green certified, especially in the starter home market where price is usually the main deciding factor.

Stakeholders plan to continue meet monthly to discuss green energy efficient building. The group will be discussing the possibilities of establishing an external technical review committee to evaluate and provide recommendations to innovative green building techniques.

**Amendments to the State Building Code:**
Staff is currently analyzing the possibilities of requiring all non-residential construction to be built to a LEED standard. Chapter 51-04 WAC prohibits local governments from amending building codes that affect the construction of single-family and multi-family residential buildings. All amendments must be approved by the State Building Code Council, which are reviewed on a yearly basis. Unless directed by the State Legislature, federal mandates or court order the Council will not enter formal rulemaking until 2012 as part of its consideration of adoption of the 2012 series of codes. The deadline is March 1st of each year for consideration the following year. In other words, to have the Building Council consider codes in 2012, we must submit by March 2011.

Pursuant to RCW 19.28.010 the County cannot adopt, administer, or enforce an electrical code, this prohibition makes it difficult to enforce some type of green building regulations such as solar. Staff has drafted site design code to possibly include in the subdivision regulations. The code could require applicants to consider the design placement of building envelopes for solar design within their subdivision design.

**Electric Vehicle Charging Infrastructure**
House Bill 1481 requires Thurston County to amend the zoning codes to permit electric vehicle charging stations and battery exchange stations in all non-residential and critical area designated areas. Staff has a work session with the Planning Commission scheduled for July 7, 2010.