



**Department of Commerce**  
Innovation is in our nature.




**Growing Solar Communities**



Northwest Solar Communities

WA-APA Planning Conference  
October 2014

**Session Agenda**

**Presentations**

- Heidi Bedwell – City of Bellevue
- Jackie Lynch – City of Bellingham
- Joyce Phillips – Dept. of Commerce, Growth Management Services

**Group Discussion**



*GROWING SOLAR: A local government's experience with solar permitting, regional collaboration, and a community driven program.*



CITY OF BELLEVUE  
WASHINGTON

Heidi Bedwell, Senior Environmental Planner  
City of Bellevue

WA-APA CONFERENCE:  
SPOKANE WA  
October 17,  
2014




**LOCAL GOVERNMENT EXPERIENCE**

- **Sunshot Initiative/Rooftop Solar Challenge Projects (Phase I: ESSP and Phase II: NWSC)**
  - Streamlined Permitting
  - Ongoing efforts (State Building Code, Solar Ready and Solar Friendly Provisions)
- **Community Driven and Municipal Solar Installation Projects**
  - Solarize Bellevue
  - Bellevue Service Center
- **Grow Solar-Get Ready!**


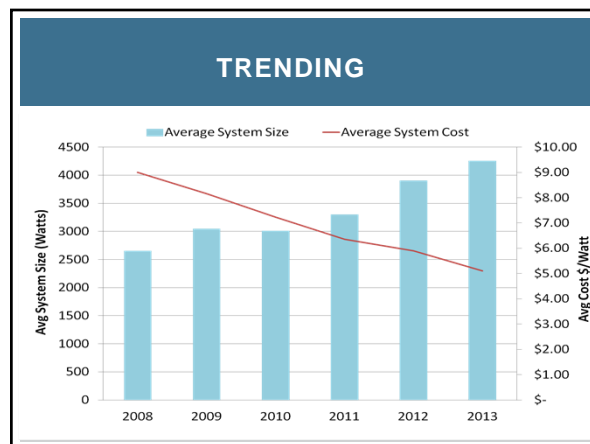


**SUNSHOT INITIATIVE-ROOFTOP CHALLENGE**

➤ Goal: Make solar energy cost-competitive without subsidy by 2020




- SunShot Rooftop Challenge
- 22 teams nationwide
- Improving local market conditions

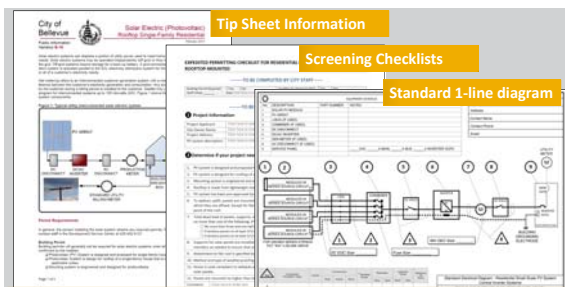
## PHASE I: EVERGREEN STATE SOLAR PARTNERSHIP (ESSP)

- 4 Jurisdictions and their associated Utilities
  - Seattle/Seattle City Light
  - Bellevue/ PSE
  - Edmonds/Snohomish PUD
  - Ellensburg/Ellensburg Municipal Utility
- Led by State Department of Commerce Energy Office with coordination from NWSEED



Making solar simpler, faster, more cost-effective

## PERMITTING WORKGROUP



Provide a streamlined permit process for PV systems that is simple, fast, and cost effective for permit applicants and jurisdictions

## BELLEVUE'S ACTIONS


- Adopted an expedited permit process, waiving permits for certain standard systems through ordinance adoption
- Offer online permitting through MyBuildingPermit.com
- Created city webpage dedicated to rooftop solar permitting
- Trained and knowledgeable review and inspection staff

**Goal:** Assist citizens interested in solar and cutting their carbon footprint through a permitting process that is predictable, efficient and understandable to the people who use it.






## PHASE II: NORTHWEST SOLAR COMMUNITIES (NWSC)







- 2 States
- 9 Jurisdictions
- 7 Utilities
- 10+ Industry Partners

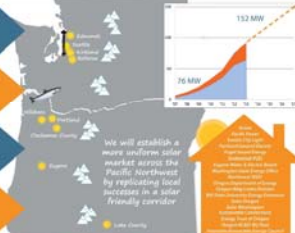
 Northwest Solar Communities

## Northwest Solar Communities

Linda Vavra  
WA Department of Commerce/NWSEED  
Building Solar Challenge

Northwest Solar Communities is a coalition of over 30 jurisdictions, utilities, industry partners and citizen groups in Oregon & Washington working together to make rooftop solar simpler, faster and more cost effective.

-  **Streamlined Permitting for 2 million**
  - ✓ Proposed solar exempt permit for standard systems
  - ✓ Unifying permit/online path checklist
  - ✓ Deploying online permitting
-  **Standard Interconnection for 10 million**
  - ✓ 9 utilities developing best practices
  - ✓ Offering ITE standards training for utilities
  - ✓ Developing common one-line diagrams
-  **Expanded Access to Financing**
  - ✓ Launching Solarize and shared solar in 6 communities
  - ✓ Testing PowerClerk incentive portal
-  **Solar Friendly Codes & Zoning**
  - ✓ Developing community placement toolkit
  - ✓ Drafting guidelines and templates for HRA's
  - ✓ Received fee code setback issues



We will establish a more uniform solar market across the Pacific Northwest by engaging local jurisdictions in a solar-friendly corridor.

132 MW  
76 MW

Increase engagement: National code makes NEC, Fire Code) impact local deployment  
Compile better data: Statistics on solar installations and soft costs are not collected consistently  
Build relationships: Streamlining processes across state level requires voluntary collaboration

SunShot | Department of Commerce | NWSEED | nwsolarcommunities.org

## NWSC SUCCESSES AND ONGOING COLLABORATION



- Emergency Rule WA Building Code
- Action Plan for Solar Friendly Provisions
- Solar Ready Construction Standards






 Northwest Solar Communities

## SOLARIZE BELLEVUE

- What is Solarize?
  - Grassroots outreach and promotion
  - Competitively selected contractors with set prices
  - Free educational workshops
  - Free site assessments
  - A limited time offer

## SOLARIZE BELLEVUE SUCCESSES

- 6 Workshops and over 300+ Participants
- 24 Contracts, Initial goal 25
- Program ends at end of year!

[www.greenWA.org](http://www.greenWA.org)





## SOLARIZE BELLEVUE

- Community benefits




## BELLEVUE SERVICE CENTER SOLAR ARRAY




Photo Credit: Puget Sound Solar

## GROW SOLAR- GET READY!

- Implement Permitting Tools
- Consider Fees
- Provide Public Information
- Training
- Support Solarize Program
- Partner with a Utility

Get recognized as a Northwest Solar Community! Applications available now from [www.northwestsolarcommunities.org](http://www.northwestsolarcommunities.org)




## RESOURCES

- Evergreen State Solar Partnership Website: [www.nwseed.org/ESSP.asp](http://www.nwseed.org/ESSP.asp)
- Sharing Success: Emerging Approaches to Efficient Rooftop Solar Permitting (IREC Report) [www.irecusa.org](http://www.irecusa.org)
- Solar ABC's Expedited Permit Process for PV [www.solarabcs.org/permitting](http://www.solarabcs.org/permitting)
- Photovoltaic Online Training For Code Officials [www.sitnusa.org/trainer-resources/pv-online-training](http://www.sitnusa.org/trainer-resources/pv-online-training)

**THANK YOU!**

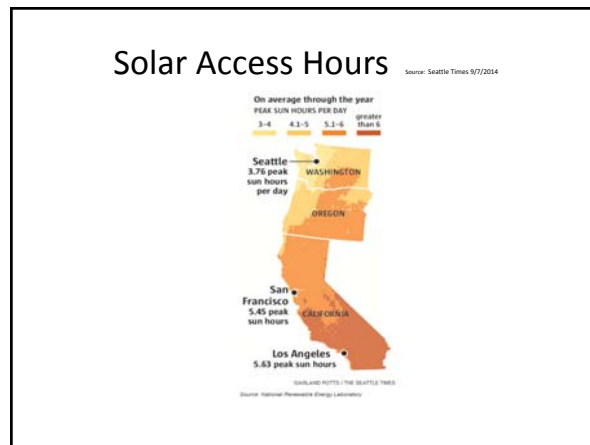
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City of Bellevue  
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 [www.nwsolarcommunities.org](http://www.nwsolarcommunities.org)

**Planning for Solar Access**

Jackie Lynch, AICP, CEP  
Planner II, City of Bellingham

Sustained  
Reliable  
Predictable  
Resilient



**Solar Efficiency Increasing**

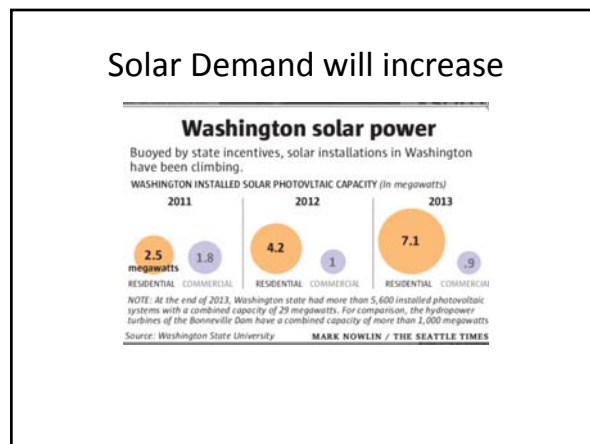
“Alternative Energy” becoming more efficient.

- = Better investment
- = Decreasing cost.

As efficiency increases, will be bumps

- Tax breaks will go away.
- Utilities pay retail for solar will go away.

ANTICIPATE!



## Anticipate and Encourage

- Historic/Design Review
- Outdated codes.
- Image:
  - What to encourage?
  - What to preserve?

i.e. What is valuable to your community?

## Process

"We are working today so future generations will benefit from..."

Adopted by Burlington City Council July 17, 2009

## Hold the Line!

If the issue's important - No damage to historic buildings!

Tips:

1. Move solar installations to where they are not visible.
2. Put up non-impactful barriers at the edge of a roof.
3. Panels may be visible, but not significant.

### FIVE/12 Agenda

**Streamlining City wide green building**

In 2009, The City of Burlington Planning and Community Development (PCD) Green Team developed the FIVE/12 Agenda with support from [Sustainable Connections](#). The PCD Green Team made substantial progress on FIVE green building barriers over the course of 12 months. The following are descriptions of accomplishments for each one:

**Incorporate LEED-IB prerequisites and other sustainable frameworks into Urban Villages**

Urban Villages comply with the essential components of LEED-IB, due in large part to the mixed-use design and the transit and pedestrian orientation that are an integral part of this development approach. The first urban village, Old Town, and the recently-approved Grand City Village, have development regulations that include components of LEED-IB. The planning underway for the Fourth Urban Village intends to do the same.

**Analyze effectiveness of "Green Factor" program**

The Green Factor is a scorecard for low impact development techniques and landscaping requirements that results in an increase in the quality and quantity of landscaping provided with new development. The Green Factor was adopted this year in the Urban Infill Toolkit for townhomes and courtyards, and was incorporated in the landscaping requirements in commercial areas of the Grand City Urban Village.

**Identify, analyze, and make available to the public alternative methods for green construction**

"Advanced Methods and Materials" (AMM) have been developed by the Building Official to allow and promote green alternatives. Some examples include roof-mounted photovoltaic solar panels and waterless urinals. AMMs are intended to respond to requests from green builders. The Building Official has more AMMs in the works.

**Developing a green permit review team**

An interdepartmental team has been established to review Building Department LEED and comparable "green" building designs. A designated lead for the team serves as project manager for green building projects which will result in a more coordinated review. Team members are familiar with green building techniques and will take advantage of educational opportunities to keep up with the industry.

**Analyze a system for reducing permit review time**

The Green Team analyzed reducing permit review time for certain green building projects as a way to make green building projects more attractive, in addition to offering the green permit review team. As a result, the Green Team will pilot a reduced permit review time in 2013 to determine its effectiveness as an incentive. In addition, the Permit Center is developing helpful guidelines and over-the-counter permits to accelerate approval, standardization and energy efficiency projects anticipated due to federal stimulus money.

Contact for more information: Kim West

### Advanced Methods and Materials

- [AMM400 - Advanced Framing \(PDF\)](#)
- [AMM305 - Raingardens \(PDF\)](#)
- [AMM304 - Amended Soils \(PDF\)](#)
- [AMM303 - Vegetated Roof \(PDF\)](#)
- [AMM302 - Pavers \(PDF\)](#)
- [AMM301 - Pin Foundation \(PDF\)](#)
- [AMM300 - Porous Concrete/Asphalt \(PDF\)](#)
- [AMM202 - Rainwater Harvesting \(PDF\)](#)
- [AMM201 - Composting Toilets \(PDF\)](#)
- [AMM200 - Waterless Urinals \(PDF\)](#)
- [AMM101 - Solar Water Heating Systems \(PDF\)](#)
- [AMM100 - Roof Mounted Photovoltaic Solar Panels \(PDF\)](#)

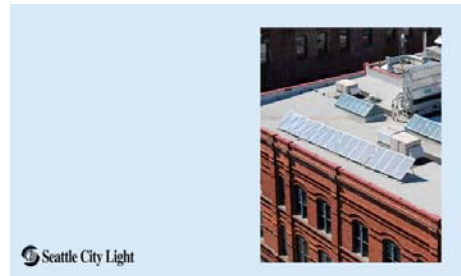
## How do we do it?

- The Community.
- Historic Preservationists.
- Builders.
- Owners.

## Work with the Community



## Work with Historic Preservationists



## Work with Builders



## Work with owners



## Therefore...

Add resilience.

Energy will increase in price.

Minimize low-income suffering.

Be a Planner!


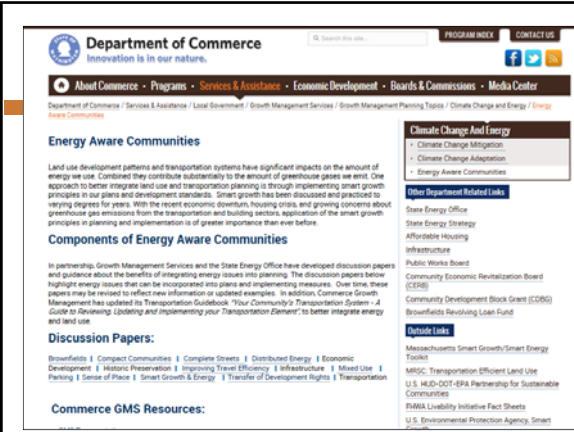
## Weblinks and Further Information

- Solar Panels: <http://www.cob.org/documents/planning/publications/amm-advanced-methods-materials/amm100-solar-panels.pdf>
- Solar Heating: <http://www.cob.org/documents/planning/publications/amm-advanced-methods-materials/amm101-solar-water-heating-systems.pdf>
- Energy incentives: <http://www.cob.org/services/environment/lid/energy-incentives.aspx>
- Green Development Resources: <http://www.cob.org/services/environment/lid/index.aspx>
- One Year to Eliminate Green Building Road Bumps: <http://www.cob.org/services/environment/lid/5-over-12-agenda.aspx>
- City Leads the State in Green Building: <http://www.cob.org/features/2014-08-20-permit-center.aspx>
- Community Energy Challenge: <http://sustainableconnections.org/energy/energychallenge>
- Historic and Solar power in Seattle: [http://www.historicseattle.org/documents/blondka\\_solar\\_v6.pdf](http://www.historicseattle.org/documents/blondka_solar_v6.pdf)

Contact: Jackie Lynch 360-778-8350 or [jlynch@cob.org](mailto:jlynch@cob.org)

## Planning Resources on Energy

- APA Policy Guides (Energy, Climate Change)
- SunShot Solar Outreach Partnership between APA, US DOE (<https://www.planning.org/research/solar/>)
- MRSC (Planning for Alternative Energy Facilities)
- Commerce Growth Management Services ~ Energy Aware Communities webpage
- Industry Guidance (e.g. Solar ABCs, IREC)

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### Energy Aware Communities

Land use development patterns and transportation systems have significant impacts on the amount of energy we use. Combined they contribute substantially to the amount of greenhouse gases we emit. One approach to better integrate land use and transportation planning is through implementing smart growth principles in our plans and development standards. Smart growth has been discussed and practiced to varying degrees for years. With the recent economic downturn, housing crisis, and growing concerns about greenhouse gas emissions from the transportation and building sectors, application of the smart growth principles in planning and implementation is of greater importance than ever before.

#### Components of Energy Aware Communities

In partnership, Growth Management Services and the State Energy Office have developed discussion papers and guidance about the benefits of integrating energy issues into planning. The discussion papers below highlight energy issues that can be incorporated into plans and implementing measures. Over time, these papers may be revised to reflect new information or updated examples. In addition, Commerce Growth Management has updated its Transportation Guidebook, "Your Community's Transportation System - A Guide to Developing, Updating and Implementing your Transportation Element" to better integrate energy and land use.

#### Discussion Papers:

Brownfields | Compact Communities | Complete Streets | Distributed Energy | Economic Development | Historic Preservation | Improving Travel Efficiency | Infrastructure | Mixed Use | Parking | Sense of Place | Smart Growth & Energy | Transfer of Development Rights | Transportation

#### Commerce GMS Resources:

Climate Change and Energy  
 • Climate Change Mitigation  
 • Climate Change Adaptation  
 • Energy Aware Communities



Other Department Related Links  
 State Energy Office  
 State Energy Strategy  
 Affordable Housing  
 Infrastructure  
 Public Works Board  
 Community Economic Revitalization Board (CERB)  
 Community Development Block Grant (CDBG)  
 Brownfields Revolving Loan Fund

Outside Links  
 Massachusetts Smart Growth/Smart Energy Toolkit  
 MRSC: Transportation Efficient Land Use U.S. HUD-DOE-EPA Partnership for Sustainable Communities  
 ENBA Livability Initiative Fact Sheets  
 U.S. Environmental Protection Agency, Smart Growth

## Solar Ready Construction – What is it?


Home is constructed so solar panels can easily be added at a later date. Features typically include:

- Designated roof space on south and/or west facing slopes
- Avoided shading - trees or other buildings
- Roof can carry additional weight/load
- Adequate space on electrical panel for future connection
- Electrical conduit from roof to electrical panel
- Dedicated wall space for future inverter, meter, and disconnect equipment near panel
- All cables, conduits, and electrical boxes should be labeled, secured, and supported according to code and performance ratings



## Solar Ready Construction

- Gaining popularity for home builders to build “solar ready” homes
- Homeowners may add solar energy system when buying the home or in the future
- When designed and built into the home it is generally low to no additional costs
- Local governments may want to be able to track which new homes are “solar ready”



## Group Discussion Topics

- Local experiences with solar and any modifications made as a result to either comprehensive plans, local ordinances, or permitting processes;
- Tools, guidance or training needed to help at the local level - what would be most helpful?

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