

Solar Energy in Washington State and Executive Order 14-04

Summary of Progress and Proposed Framework

Jake Fey

Director, WSU Energy Program

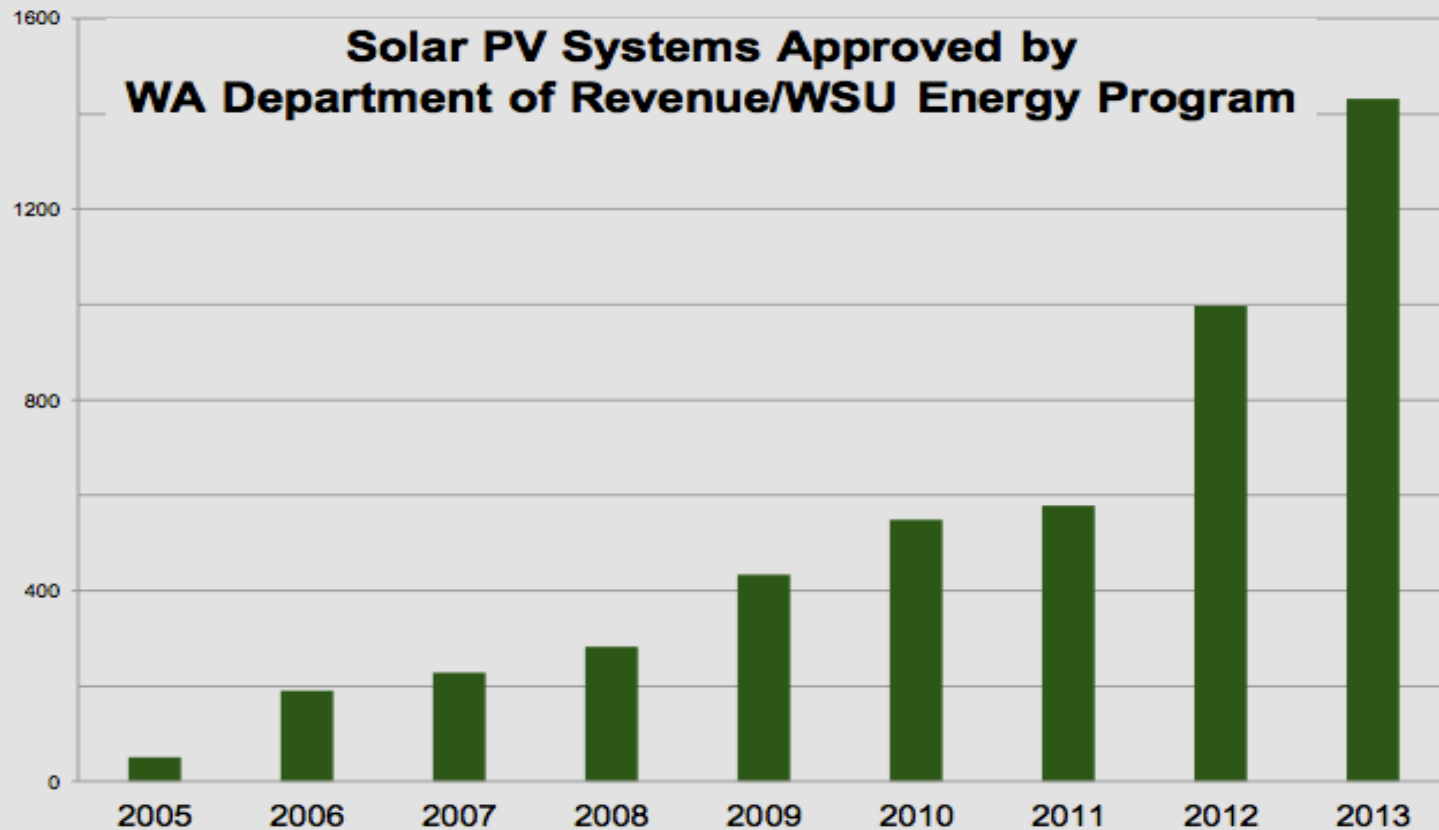
October 3, 2014



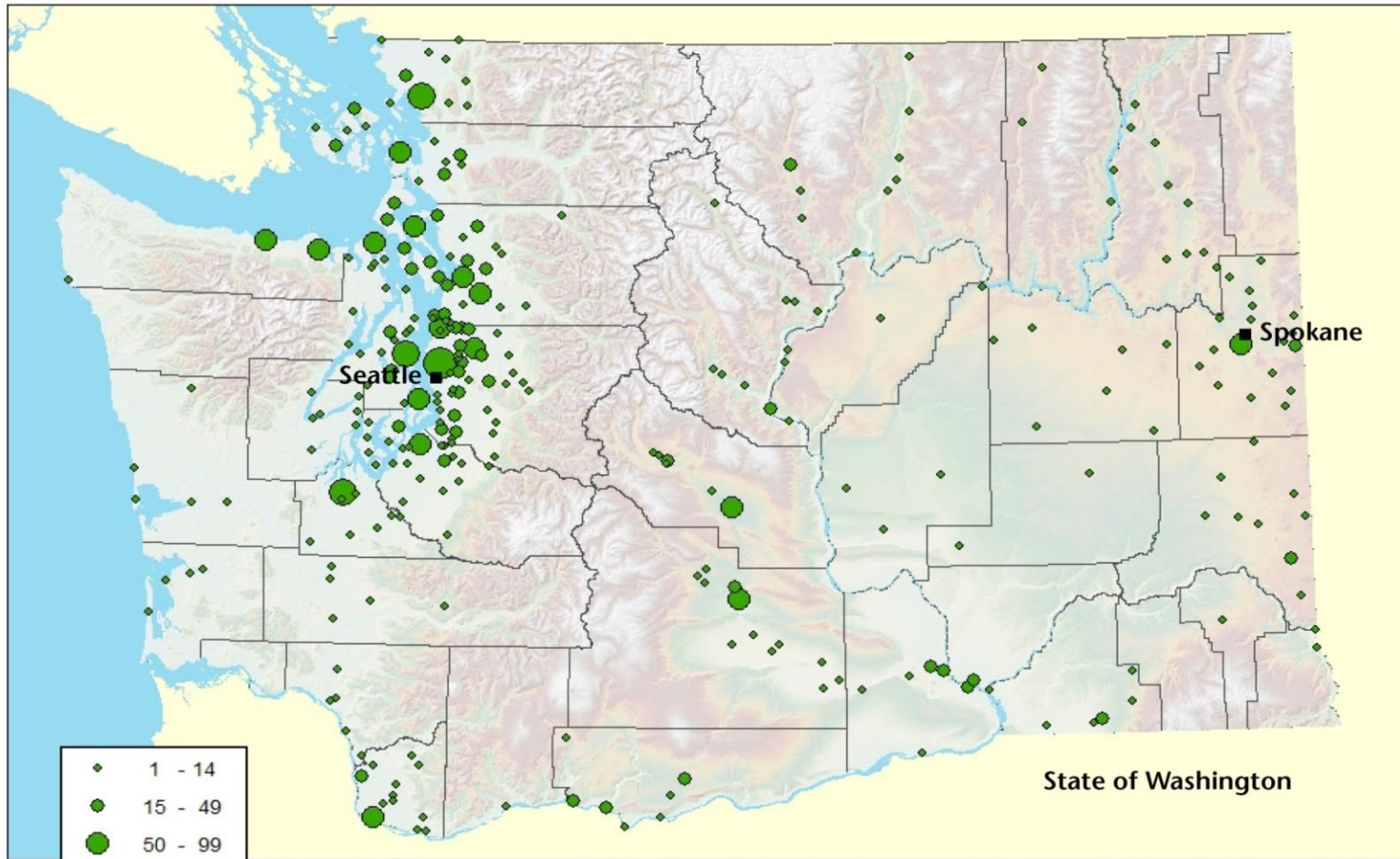
Expanding Solar in Washington: Meeting Executive Order 14-04 Goal

- Improve the current support program
 - Extend production incentives beyond 2020 end date
 - Broaden access to more people and businesses
 - Open the program to new markets through leasing and other new business models
- Develop new initiatives
 - Create opportunities for low-income participation
 - Catalyze at least one utility-scale development
 - Encourage solar in new construction
- Recommend new effort supporting advanced solar and energy storage integration

Growth of Solar Installations: New Systems per Year



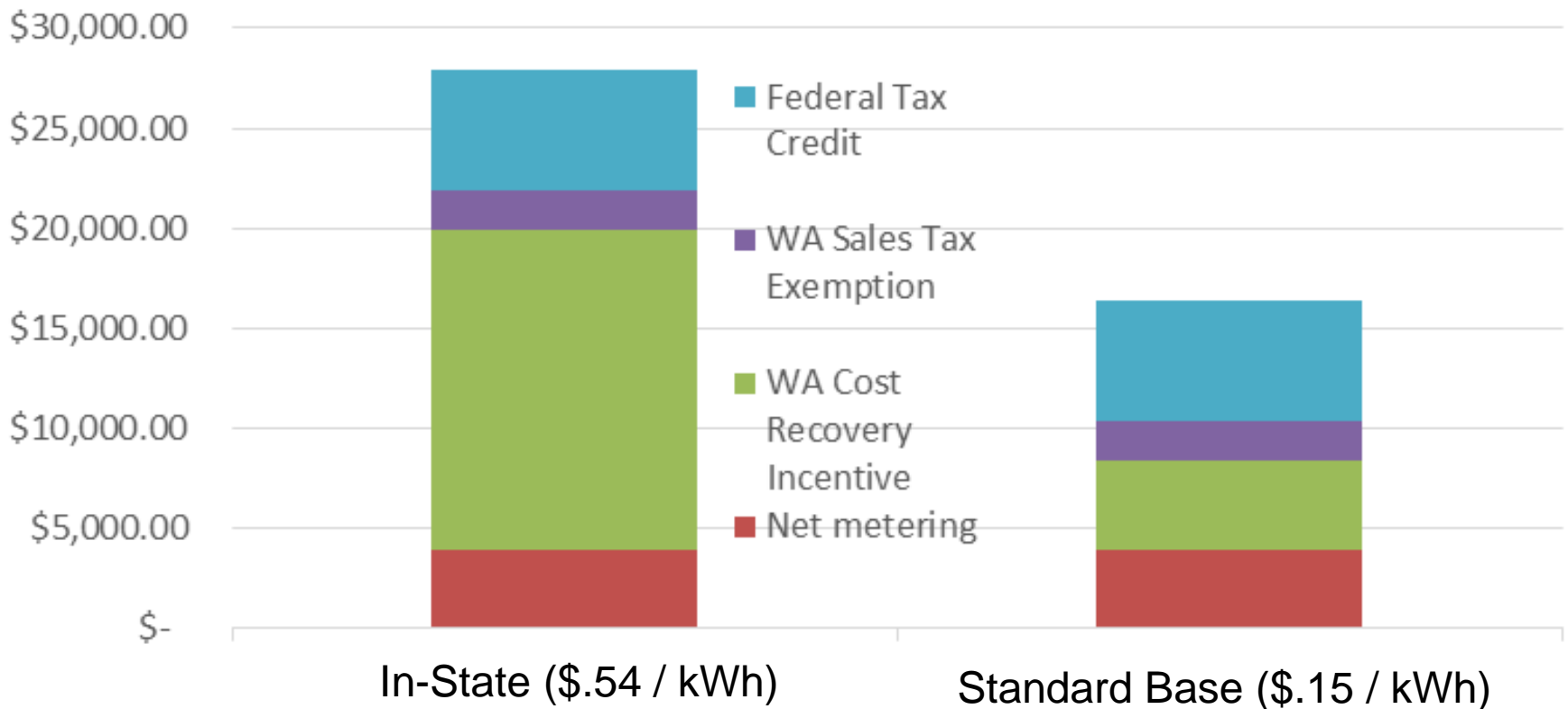
Where Solar Activity is Occurring



Solar Photovoltaic Systems Installed

Customer Benefit Over 10 years under Current Incentive

Total 10 Year Customer Benefits for 5kW Residential System installed in 2015 : Current Incentive



Opportunity for Improvement

- Program end date, sales tax exemption expiration and reduction in federal incentive will dampen market in future years
- Market is ripe for expansion, but a range of solutions is needed to reduce costs, ensure market stability, and expand participation



Creating the Next Generation Program

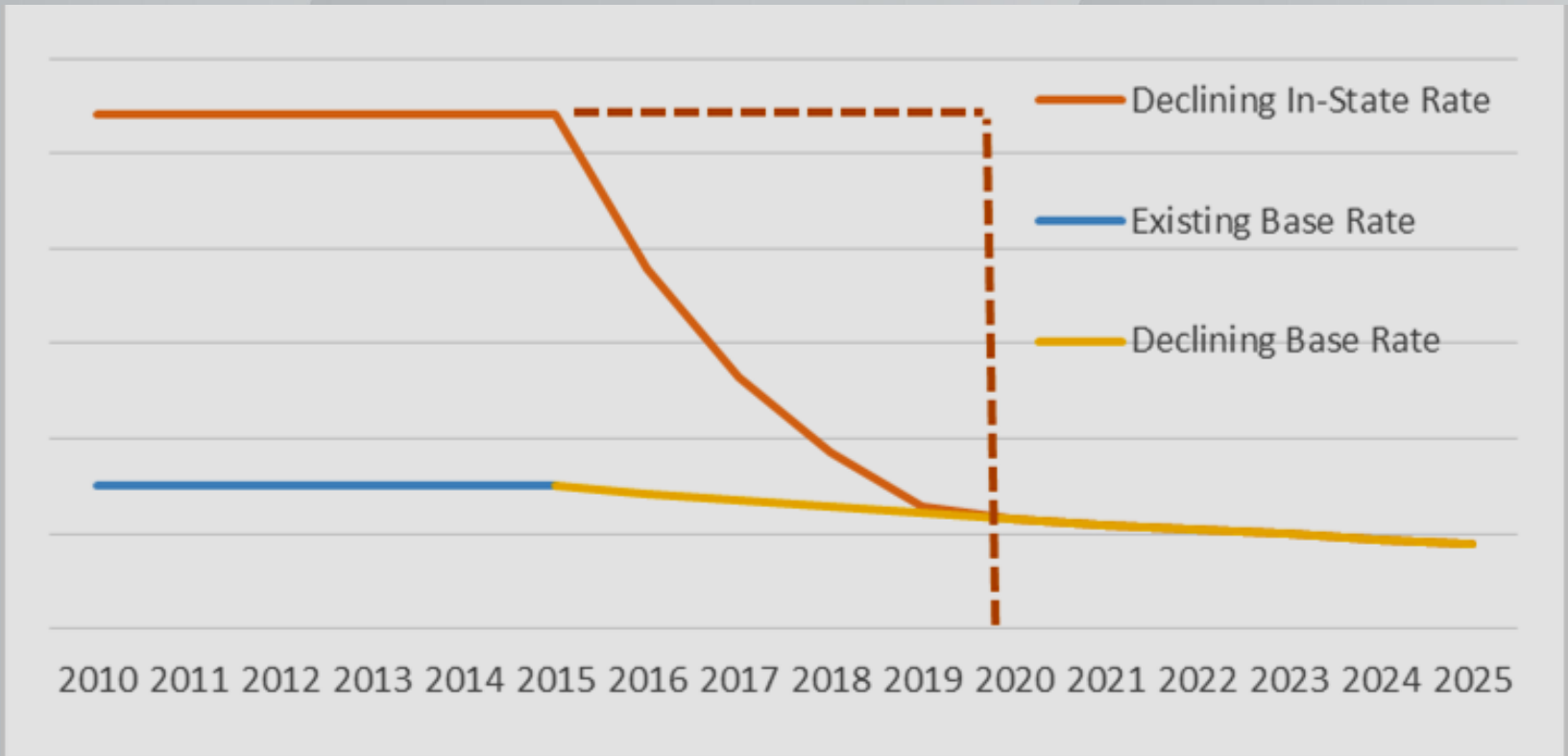
Five Principles/Objectives developed from the stakeholder engagement process

- Define and establish specific targets and metrics for solar expansion
- Broaden access in the solar marketplace to a greater range of participants
- Increase cost-effectiveness of incentives
- Provide predictability for participants and state budget
- Promote fairness and transparency for customers and administrators

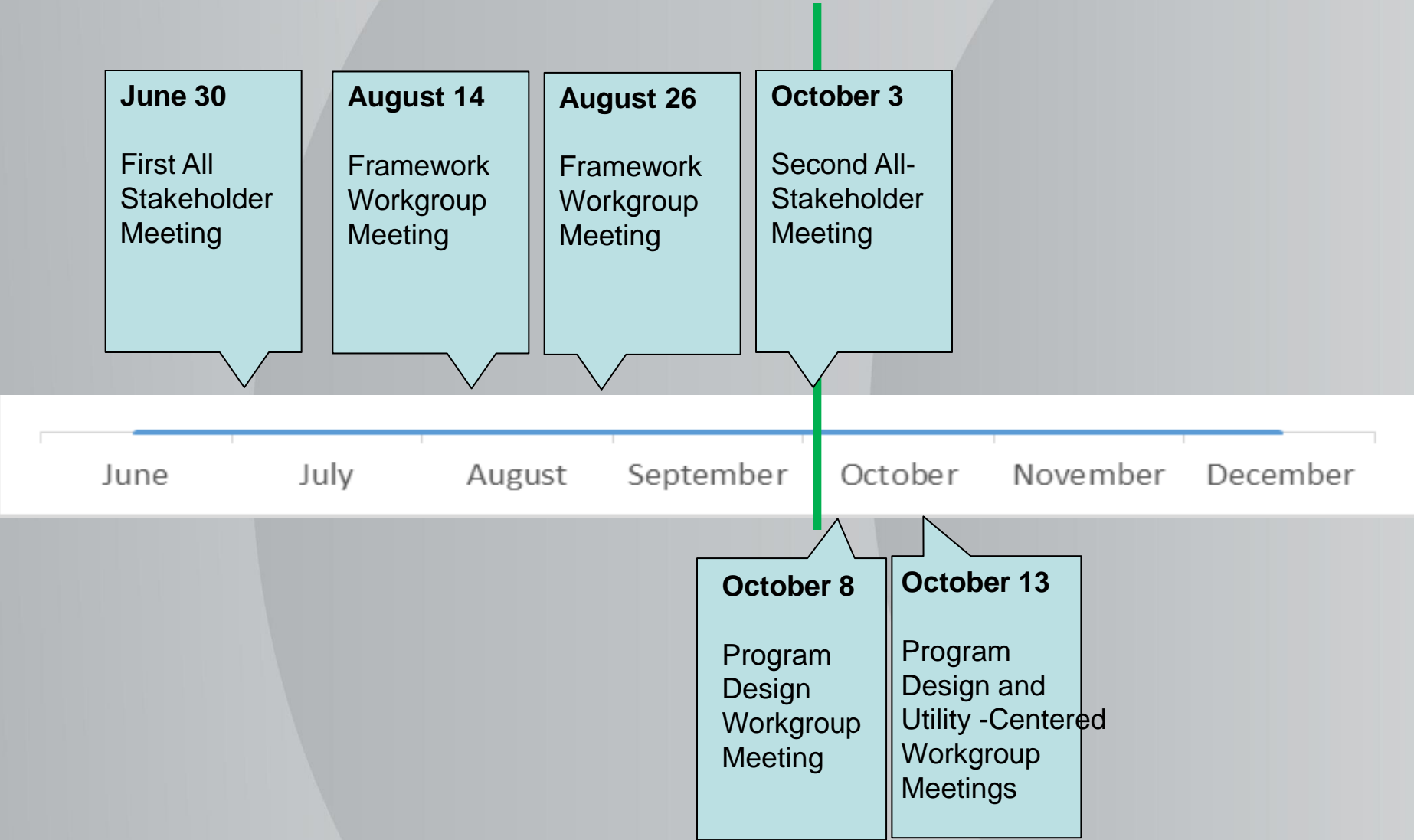
Key Program Improvements

Issues	Solutions
Incentive program end dates create market problem	Change to rolling fixed number of years production incentive with stepped decrease over time
In-State Manufacturing incentive too large and not working appropriately	Phase incentive out over time, find more effective mechanisms to motivate manufacturing
Limited opportunity outside residential solar market	Expand program to larger commercial systems at reduced rates and higher caps. Reduce community solar rates and eligibility restrictions
Financing options limited	Enable third-party financing and leases
Program benefits primarily higher income participants	Create low-income multi-family solar initiative

Future Potential Production Incentive Model



2014 Stakeholder Process Timeline



Next Steps : Stakeholder Workgroups

Program Design Workgroup

1. **Sales Tax Exemption**
2. Incentive levels and duration
 - a) In-State rates
 - b) Standard-Offer rates
3. Commercial and Community Solar
4. Eligibility and Caps
5. Third-Party incentives
6. Low-Income Program design

Utility-Centered Workgroup

1. Administrative Issues
 - a) Annual kWh certification
 - b) Metering true-up dates
 - c) Utility reporting to State
2. Net-Metering issues
3. Consumer Protection
4. Utility-Scale Demonstration Projects
5. REC ownership

Next Steps : State Agency Discussions

State Agency Work Topics

1. Promotion of In-State Manufacturing
2. New Construction Solar Incentives
3. Energy Storage / Advanced Solar Deployment
4. Electric Vehicles/ Solar Integration

Solar Sales Tax Exemption Discussion 10/3

Less than 10kW = Full exemption – Ends 2018

Over 10kW = 75% refund – Ends 2020

Reasons to keep

- Impacts payback period
- Current incentive is not fully utilized – may reduce market uptake and impact future sales
- Is available to broadest array of participants
- Benefit to reducing up front costs – operates as quasi-rebate
- Off-grid systems don't qualify for production incentive

Reasons to let expire

- Creates some red tape/ admin burden
- Could be eliminated if simpler incentive provided
- State gets revenue at time of install
- Impacts local government
- Single mechanism could be more effective

Additional Considerations

- Exemptions should be considered in context of full package of incentive
- Consider potential for differences between project size in extension
- Both production incentive and exemption hit state budget, through different pathways
- Need to determine scale of benefit in terms of annual costs and total net economic impact



Contacts and Additional Information

- Project website :
<http://www.energy.wsu.edu/RenewableEnergy/WashingtonSolarStakeholderProcess.aspx>
- Jake Fey – FeyJ@energy.wsu.edu
- Questions about Stakeholder Workgroups – Jaimes Valdez – Jaimes@nwseed.org