



Draft 2015 Annual Budget & 2015-2016 Action Plan - Revisions

Renewable Energy Advisory Council, November 21, 2014



Renewable energy budget and changes

Final Draft Budget Presentation

- Summary of budget changes
- Review of new investment
- 2015 Program highlights

2015: RE budget and generation (P&L Basis)

	Total Budget 2015	
	\$M	aMW
Other Renewables	\$4.7	1.99
Solar	\$11.5	1.48
Total	\$16.2	3.47

Changes to RE budget (dollars)

	\$ (million)	%
PGE	+ \$0.49	3%
Pacific Power	+ \$0.56	5%
Total	+ \$1.05	4.5%

Explanation

- Increase in revenue forecast
- Cancelled project – dollars came back into the budget

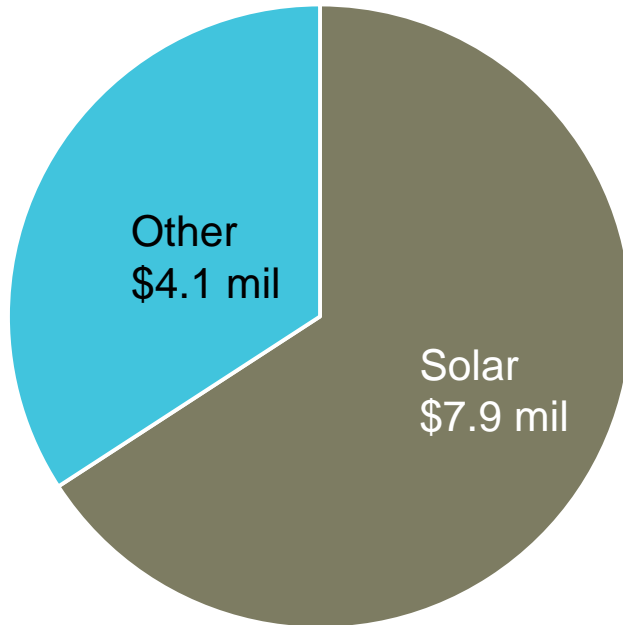
Changes to RE budget (generation)

	%	MWh	aMW
PGE	+ 3%	+ 372	0.04
Pacific Power	+ 6%	+ 970	0.11
Total	+ 5%	+ 1,300	0.15

2014 vs. 2015: RE budget and generation (Activity Basis)

	Total Budget 2014		Total Budget 2015	
	\$M	aMW	\$M	aMW
Other Renewables	\$7.8	1.39	\$12.4	1.95
Solar	\$10.2	0.81	\$11.6	1.36
Total	\$18.0	2.20	\$24.0	3.31

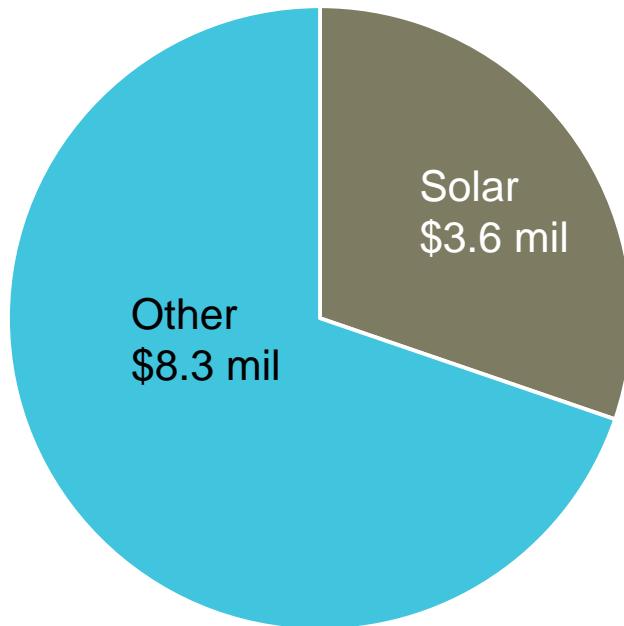
2015 renewable energy budget: PGE (Activity Basis)



	\$ Million	% of Budget	aMW
Other Renewables	\$4.1	34%	0.6
Solar	\$7.9	66%	0.9
Total	\$12	100%	1.5

- Heavily weighted to solar but still provides funding for Other program to commit to projects
- Expand PGE standard solar incentive to projects > 250 kW
- Two RFPs for non-solar projects; Unallocated non-solar incentives redirected to solar projects

2015 renewable energy budget: Pacific Power (Activity Basis)



	\$ Million	% of Budget	aMW
Other Renewables	\$8.3	70%	1.4
Solar	\$3.6	30%	0.5
Total	\$11.9	100%	1.9

- Continue competitive process for non-solar projects, focus on project and market development assistance
- Maintain viable standard solar incentives
- Unallocated non-solar incentives redirected to solar projects

Other Renewables: 2015 Highlights

- Complete four projects currently under contract
- Two RFPs scheduled to be issued Dec. 2014 and May 2015 (both utilities)
- Primary focus on hydro and bio opportunities
- Build a pipeline of projects
- Execute the first year of a hydropower initiative

Solar: 2015 Highlights

- Build on momentum with predictable standard incentives for residential and small to mid-scale commercial solar
- If funds available, competitive opportunities for custom and innovative solar projects
- Focus on addressing customer acquisition costs through marketing, lead generation
- Develop longer-term soft cost roadmap

Energy Trust overall budget changes

Action plan focus areas: no change

Emerging technologies

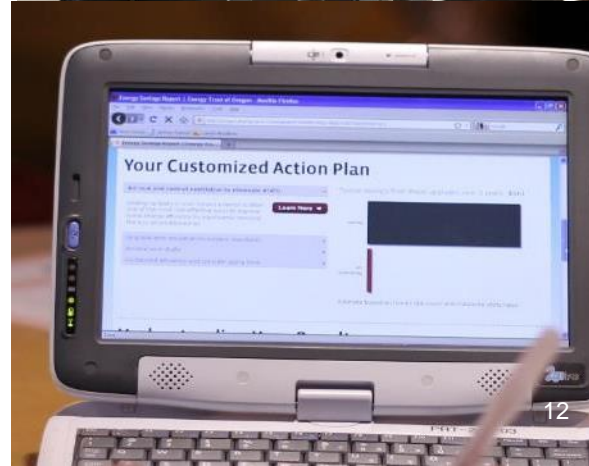
- Northwest Energy Efficiency Alliance investment
- Pilot programs and test bed/demonstrations
- More renewable project development support

Expanding participation

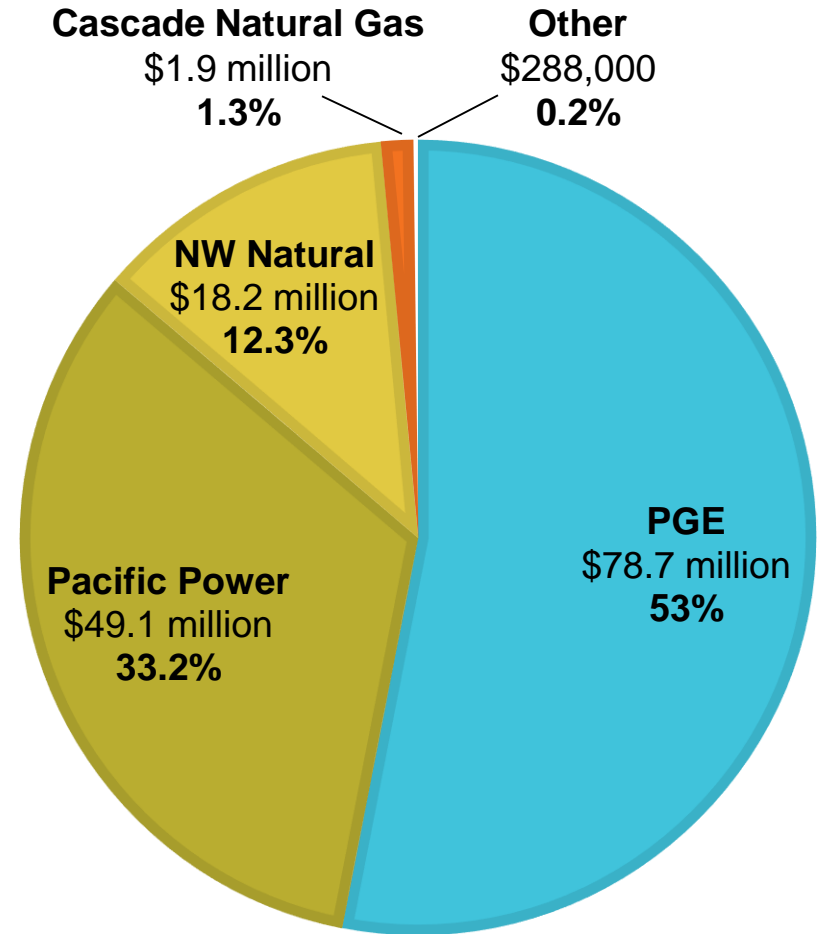
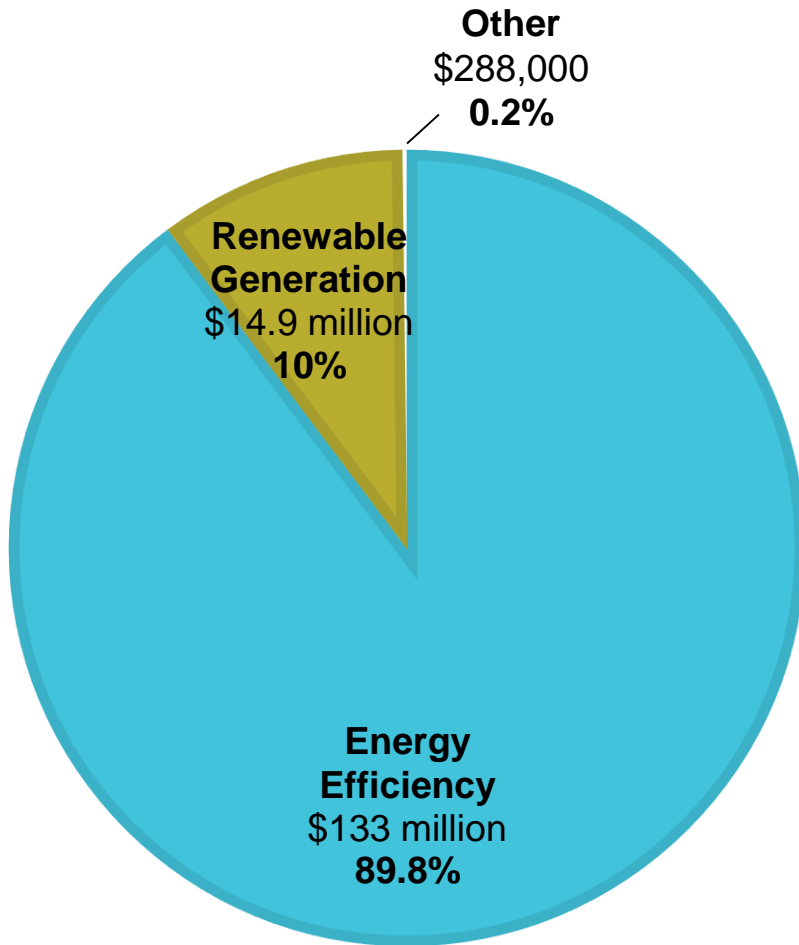
- Data, research and targeting
- Utility collaboration and other partnerships
- Moderate and low income, including renters
- Small businesses, industrial and commercial
- Engagement in rural and outlying areas

Improving operations

- Cost management and efficiency gains
- Continuous improvement pilots
- Benchmarking
- Plan for the future

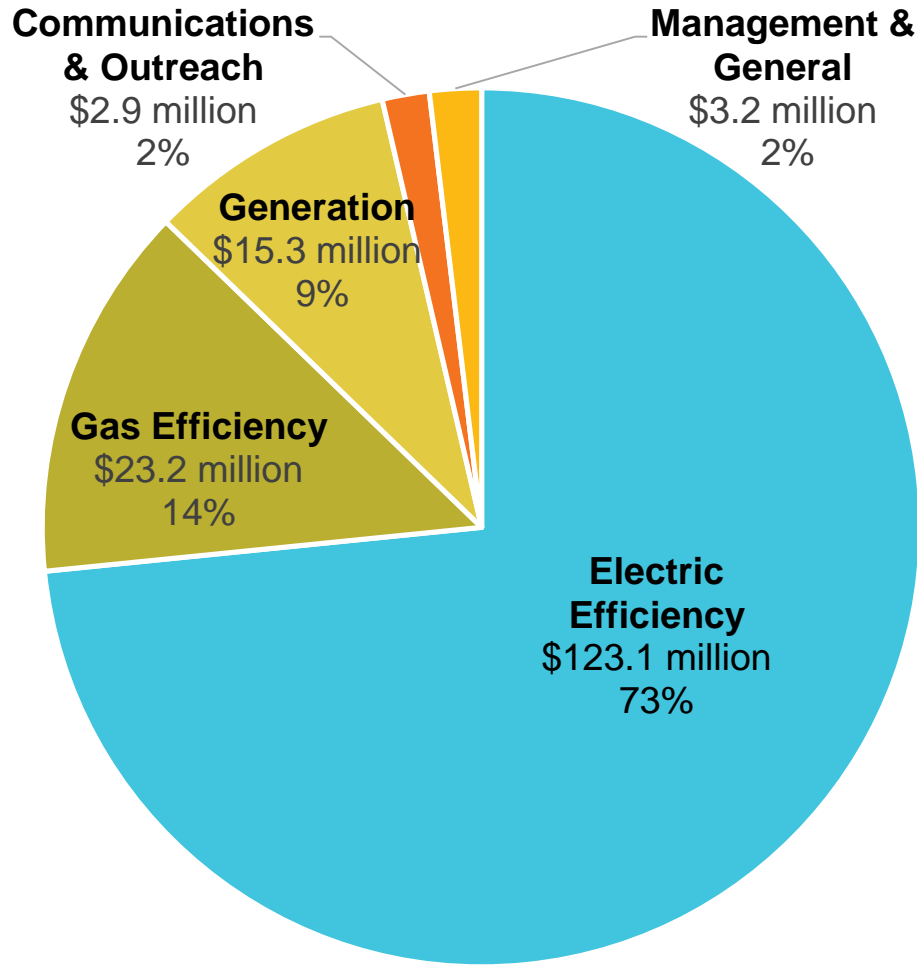


2015 budgeted revenues: no change

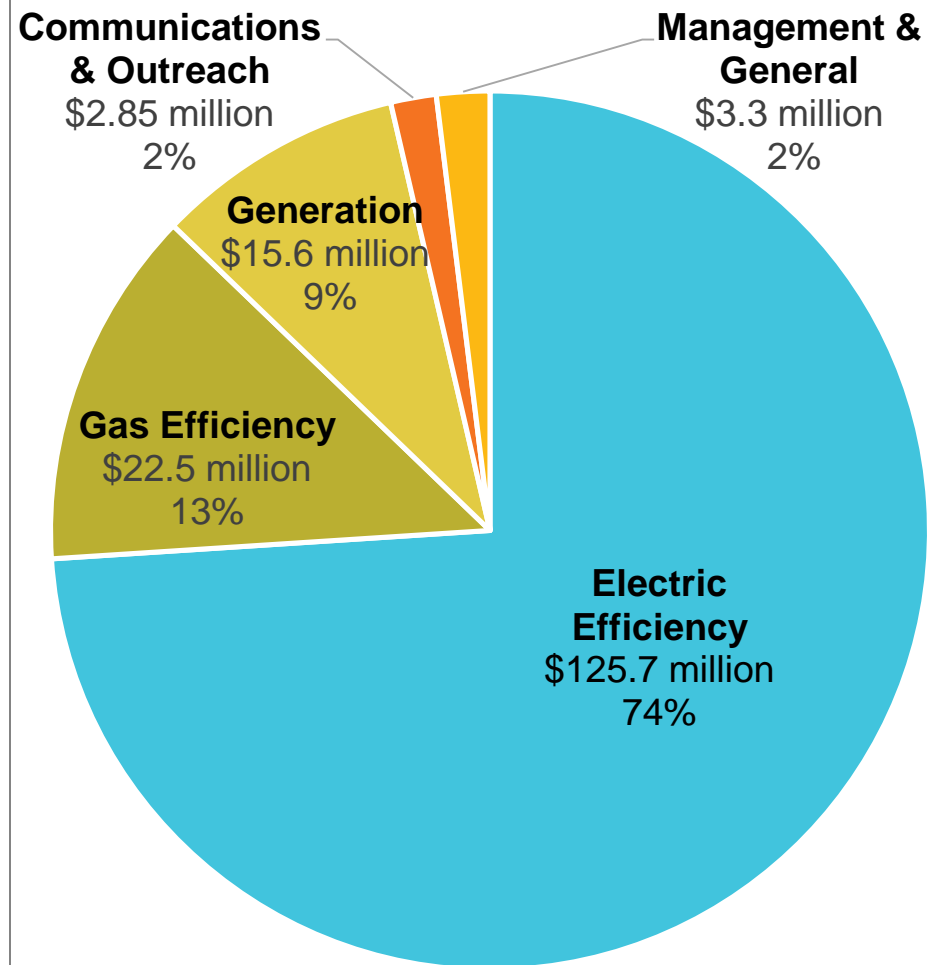


Total 2015 revenue \$148.2 million
Decrease of **\$20 million** (-12%) from 2014 Forecast

2015 budgeted expenditures: minor changes



Draft (R1)



Final Proposed (R2)

Final proposed budgeted expenditures of \$169.9 million, down 3.6% from 2014 budget

Ro2 ✓ Planned drawdown of reserves will cover expenses in excess of anticipated revenue

2015 utility savings & generation summary— Final proposed (R2)

	2014 Budget Savings (Net)	2015 Goal (Net)	2015 IRP target (Net)	2015 Budget (\$ Million)	2015 Budget (Levelized Cost)
PGE (Efficiency)	37.62 aMW	33.20 aMW	33.78 aMW	\$81.7	3.1¢/kWh
Pacific Power (Efficiency)	20.08 aMW	19.93 aMW	14.62 aMW*	\$48.6	3.1¢/kWh
NW Natural (Oregon)	5.33 MMTh	5.15 MMTh	4.62 MMTh	\$19.8	32.2¢/therm
NW Natural (Washington)	0.26 MMTh	0.26 MMTh	0.26 MMTh	\$1.6	47.0¢/therm
Cascade Natural Gas	0.47 MMTh	0.43 MMTh	0.42 MMTh	\$2.0	35.6¢/therm
PGE (Renewable Energy)	0.85 aMW	2.72 aMW	N/A	\$11.0	3.6¢/kWh
Pacific Power (Renewable Energy)	3.64 aMW	0.75 aMW	N/A	\$5.2	6.1¢/kWh

*MMTh: million annual therms
aMW: average megawatts*

** Pacific Power's IRP target is from 2013, will be updated for 2015*

Recap: Final proposed (R2) budget summary

1. Investing \$169.9 million to acquire **53.1 aMW** and **5.8 million annual therms** through efficiency, and **3.47 aMW** through renewable generation
2. Delivering all cost-effective energy efficiency at **3.1 cents/kWh** and **33.2 cents/therm**
3. **Lower spending - 3.6%** reduction compared to current year budget
4. Modest reduction in savings and generation
5. Lower revenue collections— budgeted **revenue down 12%** from 2014 forecast
6. Planned reduction in utility program reserves
7. Ongoing investments in **operational efficiencies**
8. Total **staffing costs flat** – up less than 2%
9. Continued **low administrative and program support costs**

Wrap Up

Budget outreach schedule

October & November

RAC/CAC presentations Oct. 22

Draft budget online, Oct. 31

Board of Directors, Nov. 5

OPUC workshop, Nov. 12

Live webinar, Nov. 12

Utility presentations, Oct. 29
Nov. 6, 11, 17

Public comments due Nov. 19

RAC/CAC updates, Nov. 21

December

OPUC public meeting, Dec. 3

Comments reviewed

Final adjustments, if needed

Final proposed budget online, **Dec. 4**

Board of Directors, **Dec. 12**

Action on Final Proposed
2015-16 Budget and Action Plan

+ www.energytrust.org/about/budget



Thank you

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EnergyTrust
of Oregon



Steel Bridge Solar
Renewable Advisory Council
November 21, 2014

Solar RFP intent and process

- Fourth OPUC funding priority for Renewables:
4. Fund above-market costs associated with innovative and custom solar projects, as funds are available.
- \$2 Million left from 2014 Other Renewables RFP (\$1.25 Million went to support standard solar)
- Released RFP in Sept, applications due Oct 17th
- Received 3 applications, all eligible
- Four weeks to review and score

Steel Bridge Solar proposal

Project size: 3 MW_{DC}, 2.4 MW_{AC} (fixed-tilt)

Expected generation: 3,800 MWh/year

Development team:

- OneEnergy Renewables – developer
- Christenson Electric – EPC contractor/trade ally
- NRG Energy – owner/operator

Project cost: \$6 Million (\$1.98/W_{DC})

Requested Incentive: \$2 Million (\$0.67/W_{DC})

Proposed commercial operation: Q3, 2015

Steel Bridge Solar site

- Located ½ mile SE of Willamina, OR
- Parcel is low-value ag land, but larger tract is predominantly high-value: limited to 12 acres under a conditional-use permit
- Leased private land, 26-year signed lease
- Access road, 1500 ft to substation





Willamina

Landowner

Landowner

Project site

PGE Substation

SE Lincoln

South Yamhill River

Savage Rd

Salmon River

Savage Rd

Steel Bridge Rd

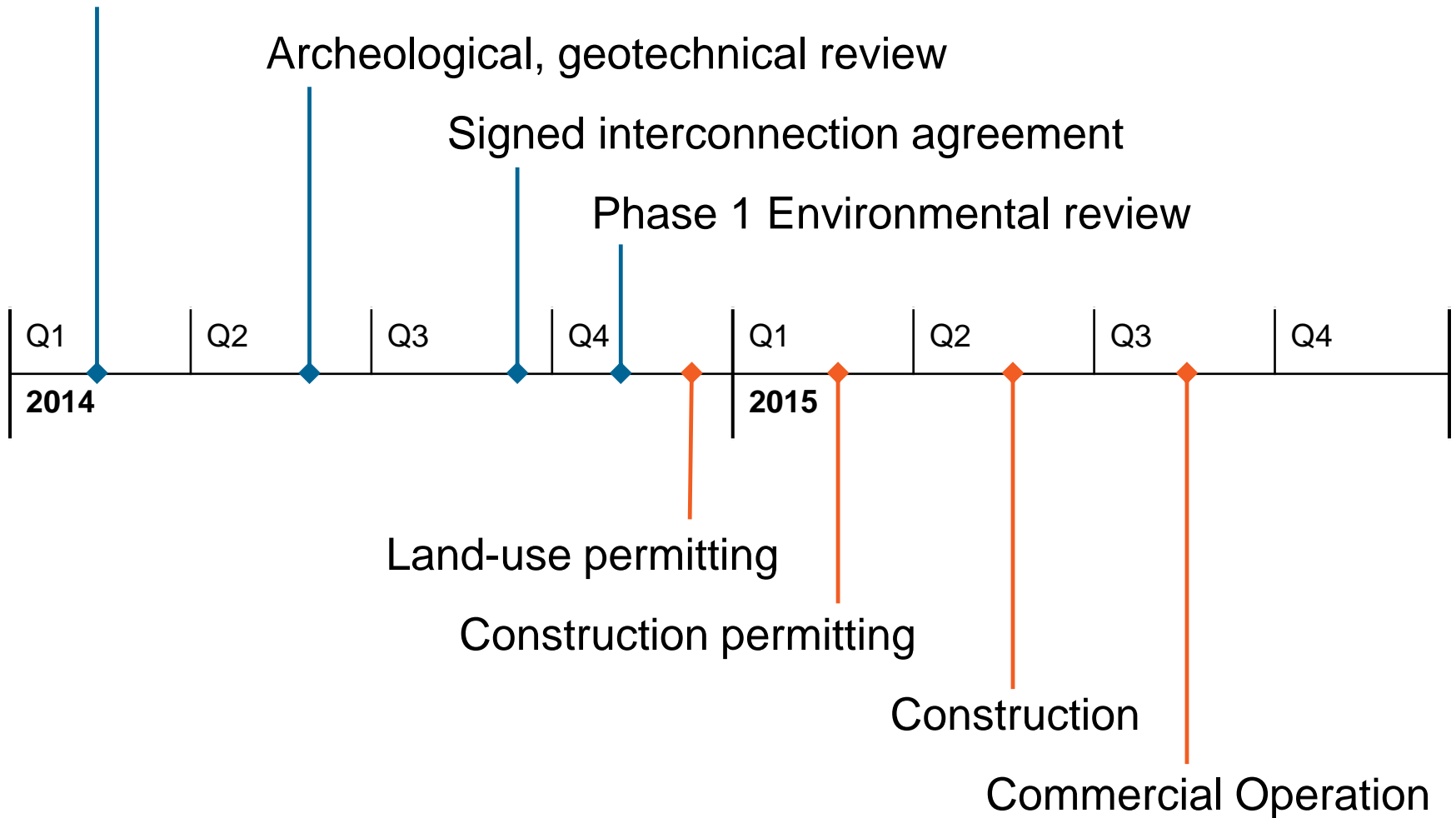
Savage Rd

18

Rd

Steel Bridge Solar milestones

Signed 20-year PPA with PGE



Steel Bridge Solar financial summary

Revenues

Energy Sales	\$2,949,972
<u>Consolidated Tax Benefits</u>	<u>\$2,315,327</u>
Total NPV Revenues	\$5,265,299

Expenses

Capitalized Construction Cost	\$5,935,395
Other Expenses	\$ 573,365
O&M Cost	\$ 590,367
<u>Taxes</u>	<u>\$ 78,886</u>
Total NPV Expenses	\$7,178,013

Above Market Cost (Total Revenue - Total Expense) (\$1,912,714)

Above Market Cost Increased for Tax Impacts (\$3,102,839)

Steel Bridge Solar project strengths

- Experienced developer, EPC & owner
- Solid business plan with key milestones completed: PPA, interconnection, site-control
- Lowest all-in cost of any project the solar program has supported (\$1.98/W_{DC})
- \$0.04/kWh levelized cost of incentive
- First utility-scale project to move forward in Oregon at QF rates without a BETC

Steel Bridge Solar incentive proposal

Evaluation Criteria

- Project Term: 20 years, 8% IRR
- Above Market Cost (NPV): \$3,102,839

Incentive Proposal

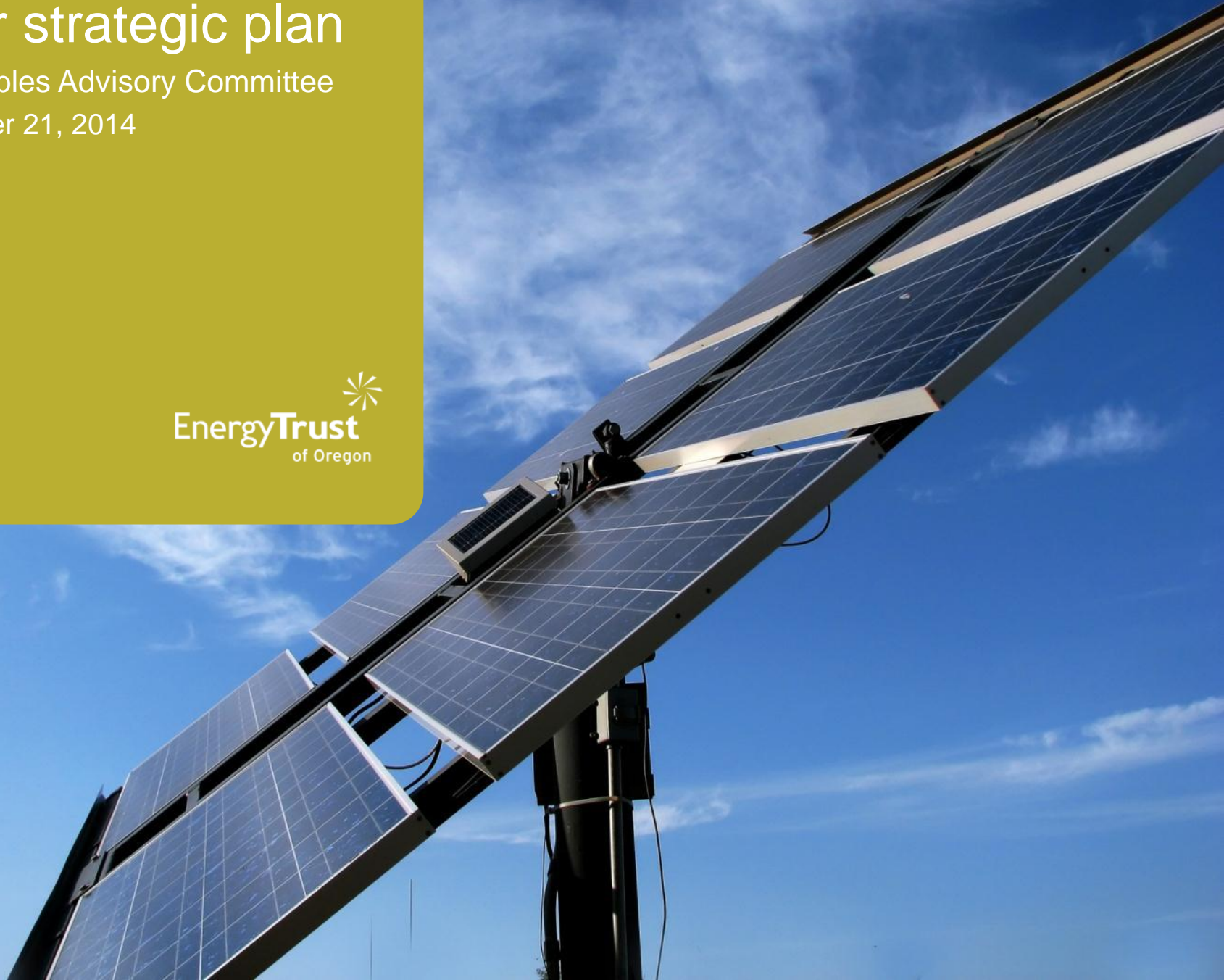
- Proposed Incentive: \$2,000,000
- REC Allocation: 75%, to be negotiated



Solar strategic plan

Renewables Advisory Committee

November 21, 2014



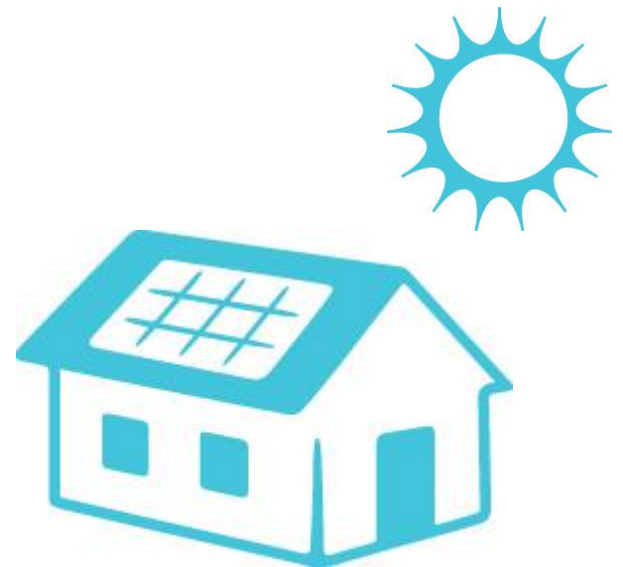
Solar strategic plan

- Mission & goals
- Challenges & Scenarios
- Strategies
- Summary
- Your feedback



Mission

To create a vigorous and sustainable market for solar in Oregon that ultimately can thrive without incentives.



Goals: 2015-2019

1. More solar in 2015-2019 than 2010-2014
2. Support 5 aMW of new solar generation
3. Make changes and support industry to lower local soft costs
4. Fund a small number of large, low-cost projects



Guiding principals for incentives

- Make solar a reasonable investment
- Support as many installations as possible
- Fuel residential & commercial markets
- Drive & respond to price reductions
- Adapt to changes in other incentives
- Provide long-term value for ratepayers



Challenges & Scenarios

Challenges

#1 = Expiring tax incentives

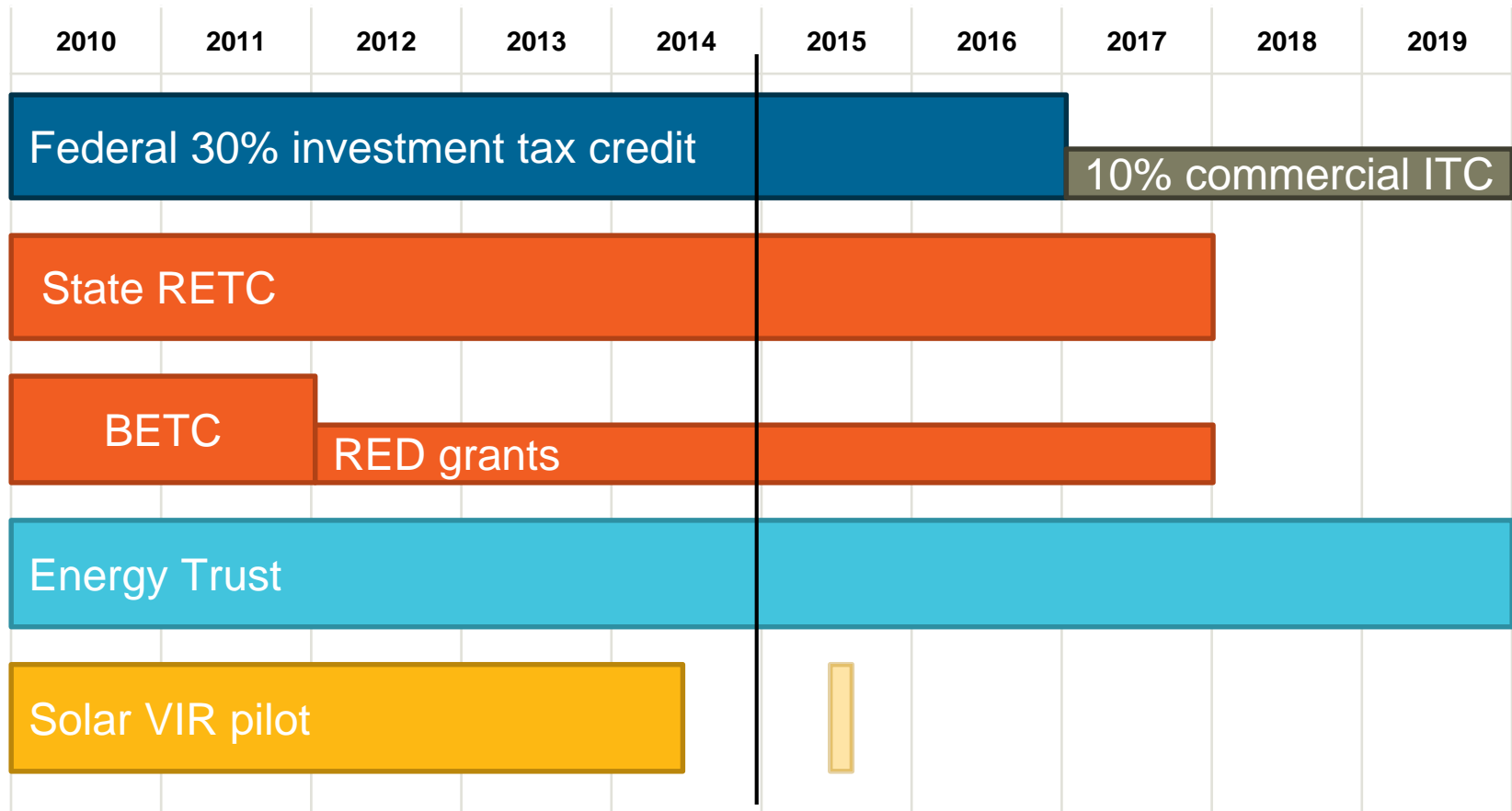
- Uncertainty & potential disruption
- Changing project economics

Additional uncertainty:

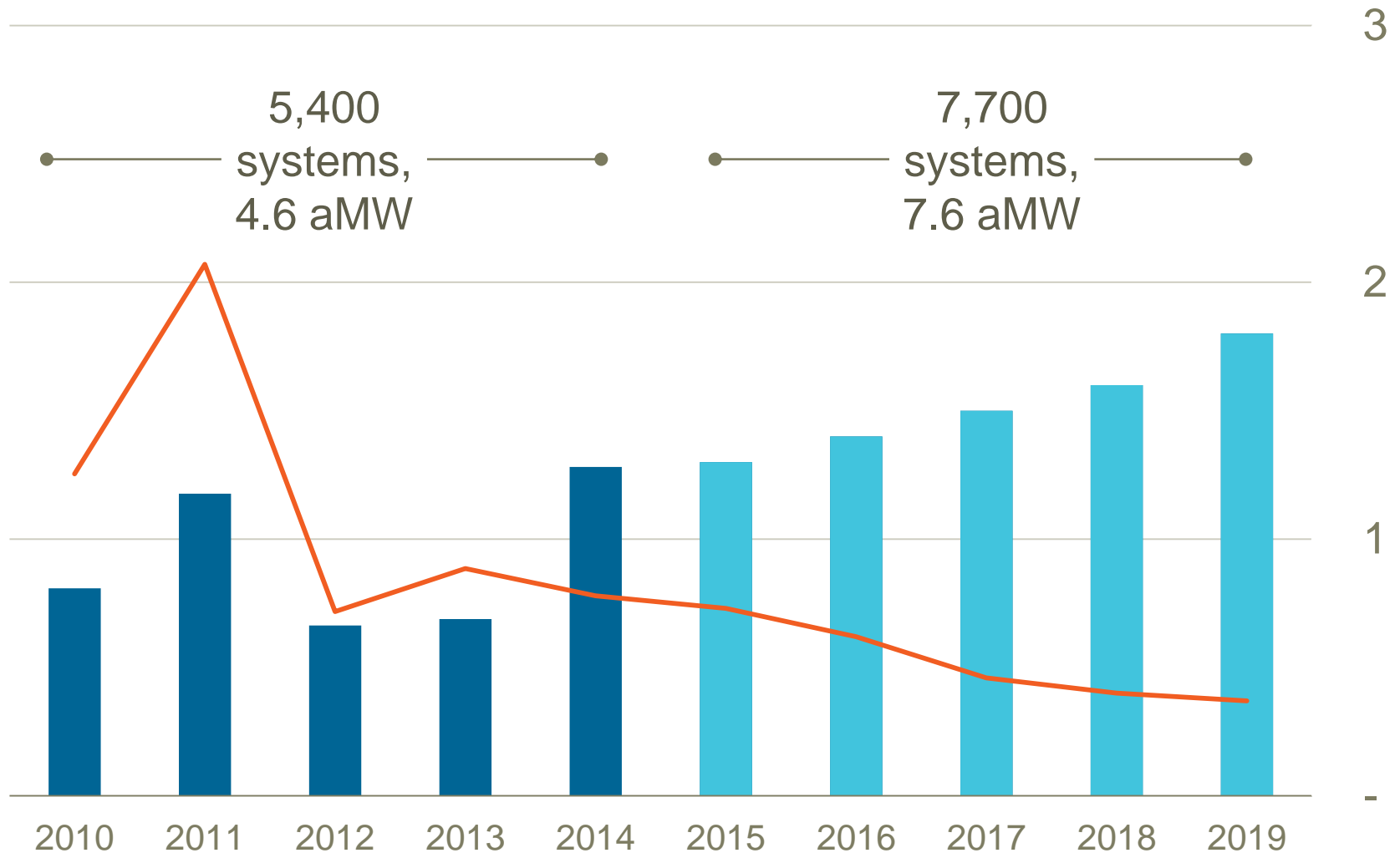
- Future module pricing
- Net-metering; future value of solar kWhs
- Oregon solar policies



Expiring incentives

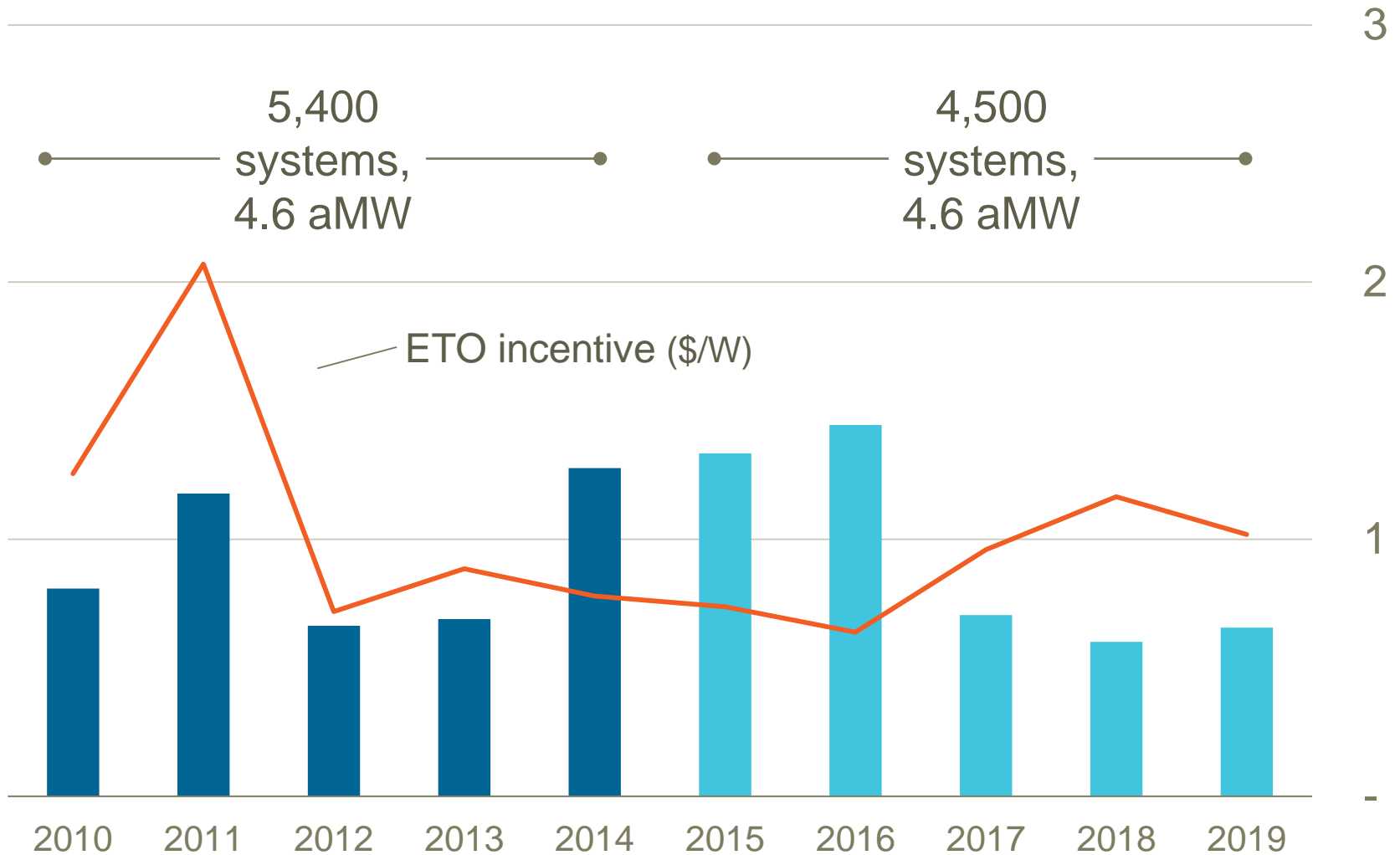


Unlikely best case: ITC & RETC extended



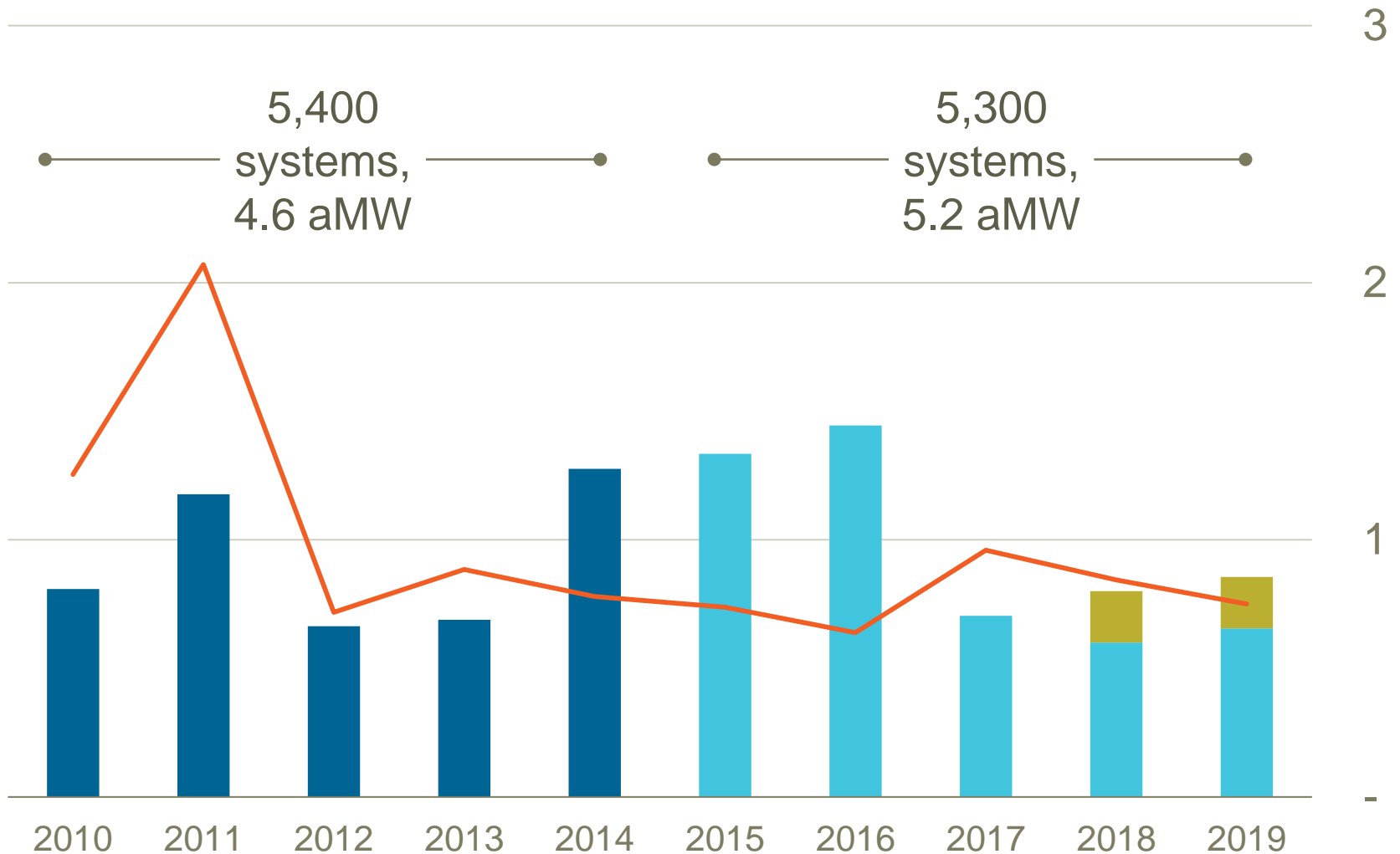
Scenario 1: standard program, 5% YOY cost reduction, ITC/RETC extended

Current policy: ITC and RETC expire



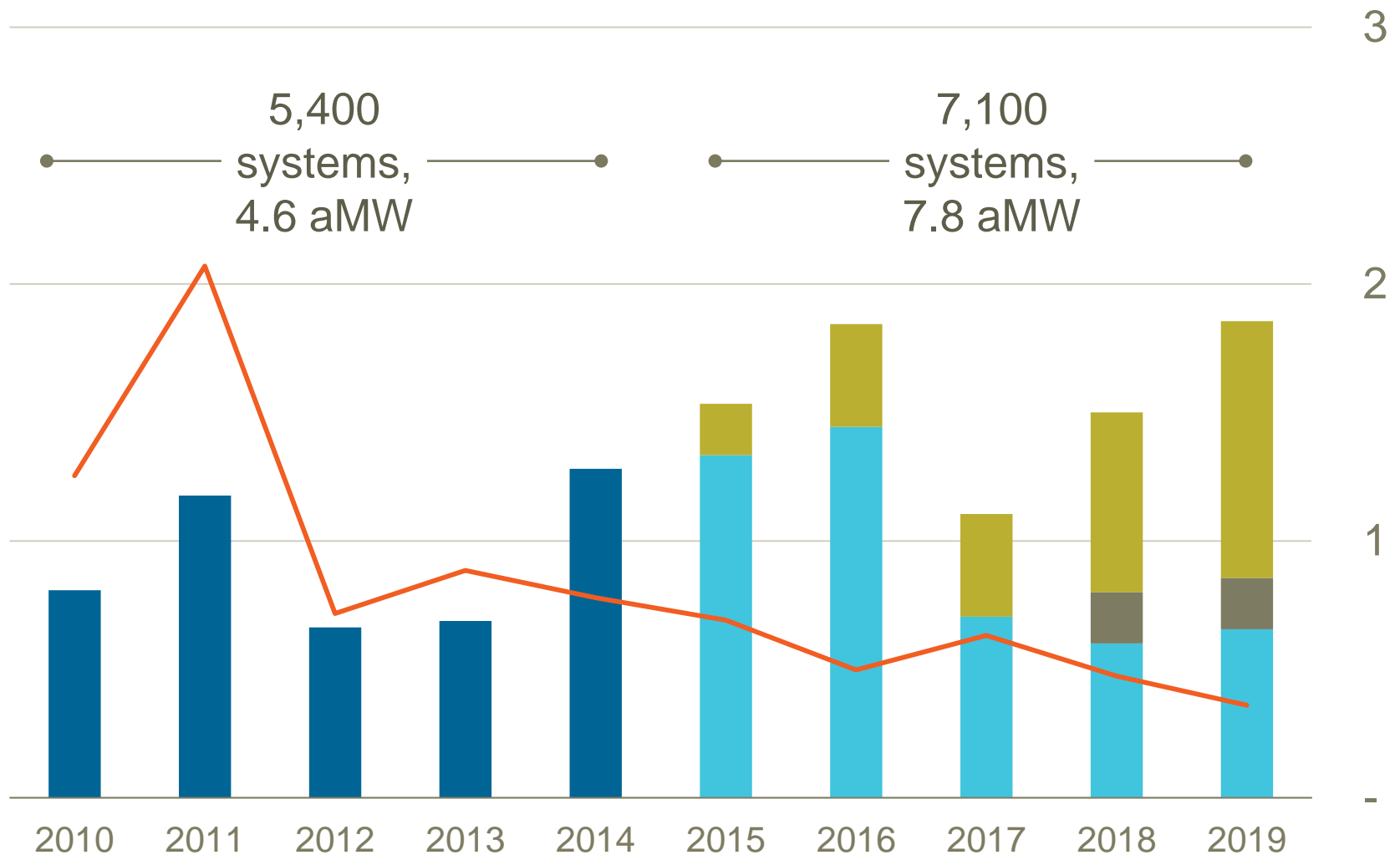
Scenario 2: standard program, 5% YOY cost reduction, ITC/RETC expire

Possible extension of RETC?



Scenario 3: standard program, 5% YOY cost reduction, ITC expires, RETC extended

Lower costs will help bridge the gap



Scenario 4: standard program, 11%YOY cost reduction, ITC expires, RETC extended

Strategies



1. Reduce soft costs

- Improved processes
- Trade ally business development
- Lead generation
- Education
- Agency/utility coordination
- Permitting



2. Consistent marketing

- Reassures customers
- Controls the message in good times & bad
- Avoids misinformation
- Helps customers understand the value
- Also tied to soft costs

3. Support some large projects

Provide more reliability; help developers make deals

- Standard option for medium-large (PGE, 250 kW – 700 kW)
- Better timing for competitive offers for large (≥ 500 kW)





4. New opportunities

Open to new models:

- Community solar
- Creative financing & ownership
- Low income
- Public & nonprofits

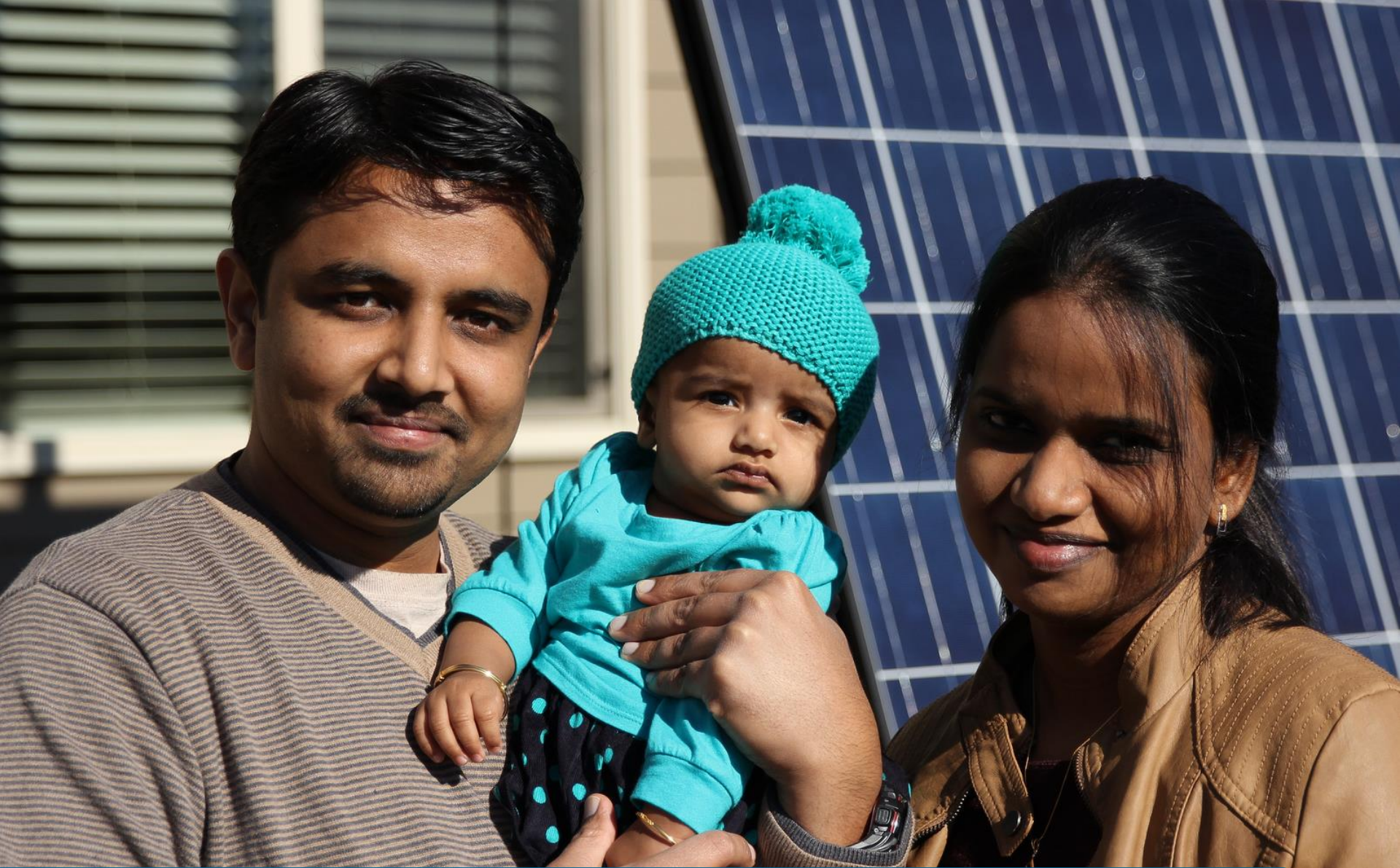
But, need balance with cost-reduction strategy

Summary

Summary: solar strategic plan

- Cutting soft costs will help reduce impacts of incentive changes & is crucial to reach goals
- Balance lots of engagement through small projects with high generation from big projects
- Open to new models, but must be mindful of high costs & impact on long-term goals





Discussion