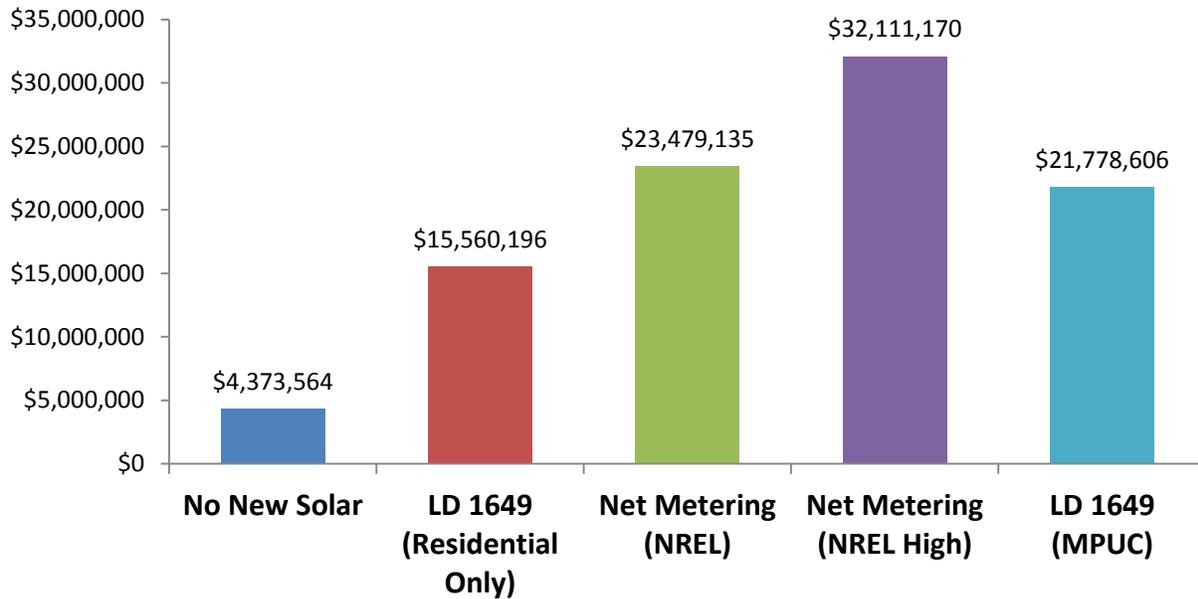
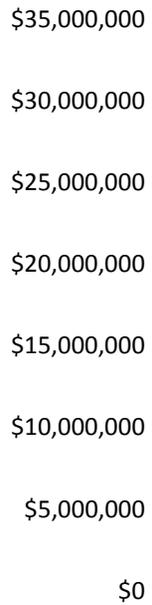


### Projected 2022 Cost



Scenario	Installed MW	Description
No New Solar	38	No additional solar installed after 2017, ongoing costs for grandfathered net billing only.
LD 1649 (Residential Only)	146	Includes only residential market segment of LD 1649 through 2022.
Net Metering (NREL)	146	Assumes net metering continues through 2022 and installations are equal to National Renewable Energy Lab's median estimates.
Net Metering (NREL High)	279	Assumes net metering continues through 2022 and installations are equal to National Renewable Energy Lab's high estimates.
LD 1649 (MPUC)	286	Includes all market segments in LD 1649.

### Annual Cost by Year, 2017-2022



	2017	2018	2019	2020	2021	2022
Net Metering (NREL High)	\$3,961,272	\$5,529,102	\$8,242,615	\$11,173,081	\$16,474,210	\$23,479,135
Net Metering (NREL)	\$4,169,760	\$5,741,760	\$9,652,536	\$13,717,446	\$21,326,204	\$32,111,170
LD 1649 (Residential Only)	\$4,320,701	\$5,474,638	\$7,436,636	\$9,887,326	\$13,353,349	\$15,560,196

### Summary of Revisions to Public Utilities Commission Cost Estimates

The adjustments described below: 1) conform the Commission’s short term cost estimate with the longer term cost analysis provided by our office, and 2) revise the cost estimate to better reflect likely actual costs in 2022.

Adjustment	Explanation	Cost Impact (\$ per year)
<b>Actual T&amp;D Rates</b>	<ul style="list-style-type: none"> <li>MPUC used a T&amp;D rate of \$.085 to calculate lost revenue associated with net metering and self- consumption in the residential market segment.</li> <li>Actual variable T&amp;D charges for investor-owned T&amp;D utilities range from 6.3 ¢/kWh (CMP) to 8.7¢/kWh (Emera-BHE).</li> <li>We used a weighted average based on net metered generation installed to date, equal to 6.613 ¢/kWh.</li> </ul>	(\$2.5 million)
<b>Lower REC Purchase Percentage</b>	<ul style="list-style-type: none"> <li>MPUC assumed that all customers would choose to purchase RECs, at an additional cost of approximately 3.2 ¢/kWh.</li> <li>Evidence from community solar installations in Maine, participation in Maine Green Power Options, and other jurisdictions suggests that few customers would choose to pay a premium to purchase RECs.</li> <li>We assumed only 10% of customers would purchase subsidized RECs.</li> </ul>	(\$918,000)
<b>On Peak Energy Values</b>	<ul style="list-style-type: none"> <li>MPUC assumed that energy value would be equal to the annual average zonal price in Maine.</li> <li>MPUC’s value of solar study indicated that solar installed in</li> </ul>	(\$1.8 million)

	<p>Maine would generate power during peak times, which would be expected to receive premium prices.</p> <ul style="list-style-type: none"> <li>• Updated energy values to reflect projections of prices during peak times.</li> </ul>	
<b>Revised Market Segment Pricing</b>	<ul style="list-style-type: none"> <li>• MPUC assumed that larger scale installations would be 80-90% of cost of residential installations.</li> <li>• Cost estimates in OPA Model were based on actual New England installation prices and conservative assumptions about the price relationship between installations of different sizes.</li> <li>• Revised costs to reflect those used in OPA model.</li> </ul>	(\$2.5 million)
<b>Total</b>		(\$7.75 million)

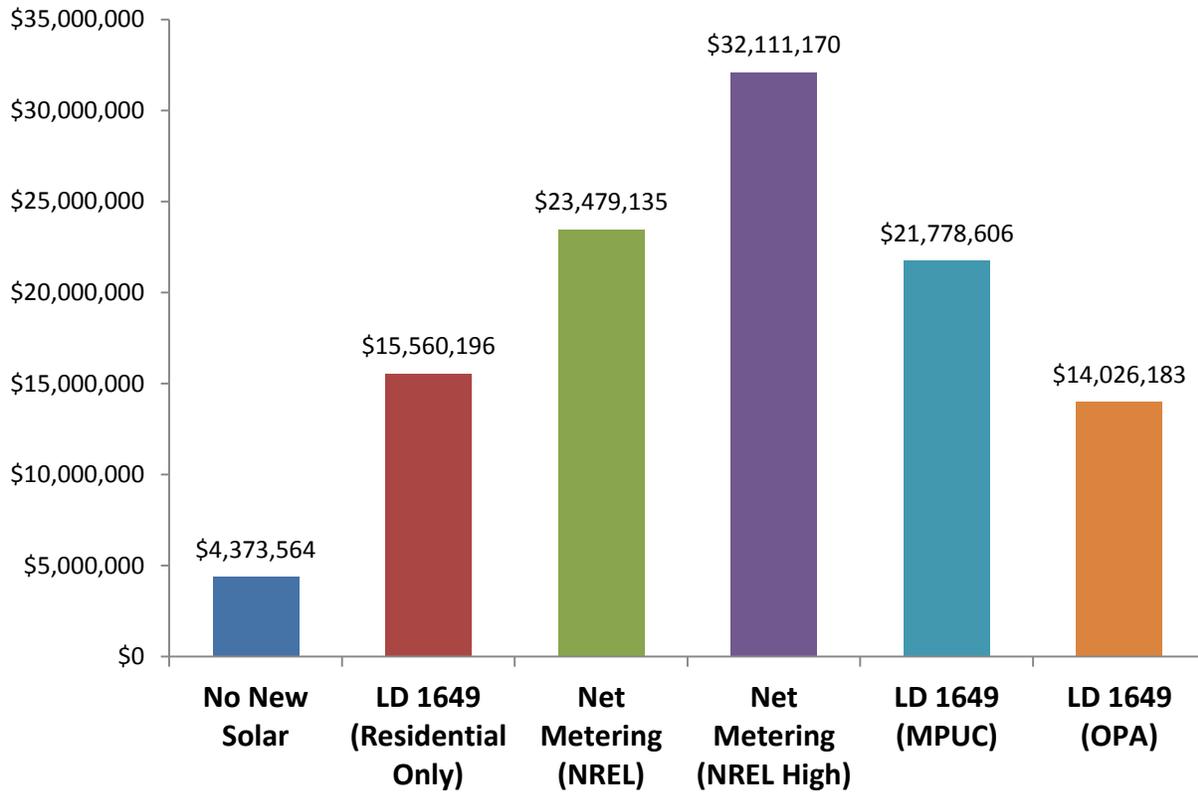
**Other Differences in Costs and Benefits:**

- Capacity Revenue
- Actual Output
- Rate Design
- Administrative Costs
- Indirect Benefits

<b>Scenario Summary</b>		Adjustment 1		Adjustment 2		Adjustment 3		Adjustment 4	
	MPUC Baseline	Actual T&D Rates	Lower REC Purchase %	On Peak Energy Values	OPA Segment Pricing	Composite			
<b>Changing Cells:</b>									
T&D Rate	0.085	0.06613		0.085	0.085	0.085	0.085	0.085	0.06613
% Customers Buying RECs (Res.)	100%	100%		10%	100%	100%	100%	100%	10%
% Customers Buying RECs (Comm.)	100%	100%		10%	100%	100%	100%	100%	10%
2017 Energy Value	\$35.53	\$35.53		\$35.53	\$41.41	\$35.53	\$35.53	\$35.53	\$41.41
2018 Energy Value	\$35.14	\$35.14		\$35.14	\$43.43	\$35.14	\$35.14	\$35.14	\$43.43
2019 Energy Value	\$36.84	\$36.84		\$36.84	\$44.36	\$36.84	\$36.84	\$36.84	\$44.36
2020 Energy Value	\$38.36	\$38.36		\$38.36	\$45.65	\$38.36	\$38.36	\$38.36	\$45.65
2021 Energy Value	\$40.34	\$40.34		\$40.34	\$47.89	\$40.34	\$40.34	\$40.34	\$47.89
2022 Energy Value	\$43.30	\$43.30		\$43.30	\$51.17	\$43.30	\$43.30	\$43.30	\$51.17
2023 Energy Value	\$45.26	\$45.26		\$45.26	\$53.38	\$45.26	\$45.26	\$45.26	\$53.38
C&I Pricing (% of Residential)	90%	90%		90%	90%	90%	85%	85%	85%
Community Pricing (% of Residential)	90%	90%		90%	90%	90%	80%	80%	80%
Grid Scale Pricing (% of Residential)	80%	80%		80%	80%	80%	65%	65%	65%
<b>Result Cells: 2022</b>									
Grandfathered NEB	\$4,373,564	\$3,402,633		\$4,373,564	\$4,373,564	\$4,373,564	\$4,373,564	\$4,373,564	\$3,402,633
Residential	\$11,186,631	\$9,679,133		\$10,665,657	\$10,617,500	\$11,186,631	\$11,186,631	\$11,186,631	\$8,589,027
Large C&I	\$1,309,054	\$1,309,054		\$1,309,054	\$1,067,897	\$1,094,434	\$1,094,434	\$1,094,434	\$853,277
Large Community	\$2,797,802	\$2,797,802		\$2,400,448	\$2,363,719	\$2,025,170	\$2,025,170	\$2,025,170	\$1,193,733
Grid Scale	\$2,111,554	\$2,111,554		\$2,111,554	\$1,532,777	\$566,290	\$566,290	\$566,290	-\$12,487
Total Cost (w/o grandfathered)	\$17,405,041	\$15,897,543		\$16,486,713	\$15,581,893	\$14,872,525	\$14,872,525	\$14,872,525	\$10,623,550
Rate Impact (w/o grandfathered)	\$0.001450	\$0.001325		\$0.001374	\$0.001298	\$0.001239	\$0.001239	\$0.001239	\$0.000885
		\$ 1,507,498.58	\$	918,328.32	\$ 1,823,148.83	\$ 2,532,516.00	\$ 2,532,516.00	\$ 2,532,516.00	\$ 6,781,491.73
Total Cost (w/ grandfathered)	\$21,778,606	\$19,300,176		\$20,860,278	\$19,955,457	\$19,246,090	\$19,246,090	\$19,246,090	\$14,026,183
Rate Impact (w/ grandfathered)	\$0.001815	\$0.001608		\$0.001738	\$0.001663	\$0.001604	\$0.001604	\$0.001604	\$0.001169

Notes: Current Values column represents values of changing cells at time Scenario Summary Report was created. Changing cells for each scenario are highlighted in gray.

### Projected 2022 Cost



	No New Solar	LD 1649 (Residential Only)	Net Metering (NREL)	Net Metering (NREL High)	LD 1649 (MPUC)	LD 1649 (OPA)
<b>MW of Solar Installed</b>	38	146	208	279	286	286
<b>2022 Annual Program Cost</b>	\$4,373,564	\$15,560,196	\$23,479,135	\$32,111,170	\$21,778,606	\$14,026,183
<b>Average Monthly Residential Bill Impact, 2022</b>	\$0.20	\$0.70	\$1.06	\$1.45	\$0.98	\$0.63