



A STATEWIDE UTILITY PROGRAM

Title 24, Part 11
Local Energy Efficiency Ordinances

Impact of Solar Tariffs on PV Costs Reach Code Cost Effectiveness

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In January 2018, the Office of the United States Trade Representative issued a decision imposing 30% tariffs on imported crystalline silicon photovoltaic modules and cells¹. The tariffs will decline in 5% increments over a four-year span, ending at 15% by 2022. According to GTM Research, a 30% tariff pencils out to roughly \$0.10 to \$0.15 per watt cost². Other market analysts estimate that the impact of the tariff in the first year will be between \$0.10 to \$0.12 per watt and fall to \$0.04 to \$0.05 per watt by year 4³. To assess the impact on the cost-effective analysis for reach codes, we assumed a \$0.15 per watt increase in PV cost.

PV cost assumptions in the California Statewide Codes and Standards Program Title 24, Part 11 Local Energy Efficiency Ordinances CALGreen Cost Effectiveness Study, completed in October 2016, were \$3.35/Watt for single family homes and \$3.05/Watt for multifamily buildings. By the time the CALGreen All-Electric Cost Effectiveness Study was done in 2017, PV costs had dropped. PV cost assumptions used in both the CALGreen All-Electric Cost Effectiveness Study and the All-Electric Non-Preempted Addendum Report for Climate Zones 2, 3, and 13 were \$2.80/Watt for single family and \$2.63/Watt for multifamily.

Adding \$0.15/Watt cost to the 2017 costs used results in adjusted unit costs of \$2.95/Watt for single family and \$2.78/Watt for multifamily. Since these adjusted costs are still lower than the costs assumed in the original report, the increase in PV costs due to the solar tariff has no impact on the original CALGreen Cost Effectiveness Study. Adjusting PV system costs in the other studies increases total package costs of the packages by varying amounts, depending on PV system size. Table 1 below summarizes the impact on total package costs for the various scenarios. The cost increase is dependent on PV system size which varies by package, building type, and climate.

Table 1: Impact of Solar Tariff on Total PV Costs

Building Type	Package	Cost Increase (\$)
Single Family	PV-Plus	\$297 - \$759
	Zero Electric	\$693 - \$1,204
Multifamily	PV-Plus	\$231 - \$374
	Zero Electric	\$481 - \$730

Conclusion

The increase in cost is minimal relative to the total installed system cost. The impact on life cycle benefit cost ratio (LCBCR) is a reduction of less than 0.1 in all cases and the PV packages are still cost effective in every case.

¹ <https://ustr.gov/sites/default/files/files/Press/fs/201%20Cases%20Fact%20Sheet.pdf>

² Shiao, MJ, C. Honeyman, J. Jones, "U.S. Solar Outlook Under Section 201: Supply and Demand Impacts of Tariffs at \$0.10/W Increments", <https://www.greentechmedia.com/research/report/us-solar-outlook-under-section-201-supply-and-demand-impacts-of-tariffs#gs.ZRXPqY>

³ <https://news.energysage.com/2018-us-solar-tariff-impact-prices/>

