

Can the In-house Installation of Solar Panels Increase Residential Developer/Builder's Profits?

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AVERAGE COST OF HOME SOLAR INSTALLATIONS IN CALIFORNIA, 2019



	TOTAL COST	COST PER WATT
1 SAN FRANCISCO BAY AREA	\$13,969	\$ 2.12
2 CENTRAL COAST	\$14,502	\$ 2.46
3 NORTH COAST	\$15,235	\$ 2.24
4 SAN DIEGO	\$15,600	\$ 2.14
5 LOS ANGELES / VENTURA COUNTIES*	\$15,994	\$ 2.19
6 SONOMA / NAPA / SOLANO COUNTIES	\$16,206	\$ 2.00
7 ORANGE COUNTY	\$16,499	\$ 2.32
8 CENTRAL SIERRA	\$16,788	\$ 2.47
9 SACRAMENTO*	\$16,811	\$ 2.44
10 SAN BERNARDINO / INLAND EMPIRE	\$17,333	\$ 2.17
11 REDDING AND SHASTA / CASCADES	\$18,276	\$ 2.56
12 CENTRAL VALLEY	\$18,362	\$ 2.96
AVERAGE	\$16,298	\$ 2.34



Average cost of home solar installations in California, after federal incentives, 2019.
Analysis by Solar to the People and underlying data from California Distributed Generation Statistics. Learn more at solar-to-the-people.com.
*Homeowners in LADWP, SMUD and several other regional utility districts may have additional incentives available.

<https://solar-to-the-people.com/solar-panel-cost/ca-california-cost-of-solar-panels/>

Abstract

The purpose of this paper is to analyze and determine if the In-house installation of solar panels by Residential Builders will lead to increased profits. Specifically, this pertains to Large Residential Developers that are focused on building single-family home developments with greater than 25 homes. With the demand for solar power in new homes continuously rising year after year, it is smart to find more profitable ways to install these systems, one of which is self-installation performed by the General Contractor. The Methodology of research I used is a combination of primary and secondary research, as well as interviews with current workers in the field. I also analyzed the licensing and training that is required to install solar panels to see how long it takes to make up the upfront costs. Through my research, I concluded that the in-house installation would lead to increased profits for Larger Residential Developers, although there is a required price to start the process of self-installation. In the end, Large Residential Developers could increase their profits by choosing to self-perform the solar installation on their developments, this is due to the labor savings that come with self-installation.

Key Words : Solar, Residential Construction, In-House Installation, Profits, Subcontractors

Residential Solar Facts:

- Effective in January of 2023. The 2022 Energy Code will come into effect and require all single-family homes to be electric-ready. Meaning all homes must have solar panels and a storage system installed.
- Currently there are 1.3 million solar systems in use in California today. This number is also expected to rise with all new housing requiring a solar system.

How does this topic better the construction industry? Why is it important?

-This idea of increasing profits for a company by self-installing solar systems in their housing developments comes from the current high pricing of solar subcontract labor. This idea is more focused on companies that are building many homes a year due to the savings adding up exponentially for the more homes produced utilizing self-installation. This is important because an increased profit margin can be re-invested into the company as well as having the ability to better control the scheduling process.



Why did I choose this topic?

- I chose this topic because I have a passion for residential construction. This idea came to me as I was thinking about how the new homes built in California are required to have solar panels installed. So, I wanted to think of and Research a possible way to increase Large Residential Developer's profits by self-performing the solar panel installations on their projects. In the end, I learned a lot of valuable information about the topic. As well I think the information, I brought forward will be useful to anyone who wants to learn more about this idea.

California Annual Solar Installations



<https://solarlove.org/california-solar-installers/>

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