

# Viability of Solar Power Use on Jobsites

## Purpose

The purpose of the research conducted throughout this project was to determine if there were any viable ways of implementing solar power into the jobsite as a means of providing temporary power for various aspects of the construction process. The illustrations below detail some of the typical costs to provide power to a jobsite.

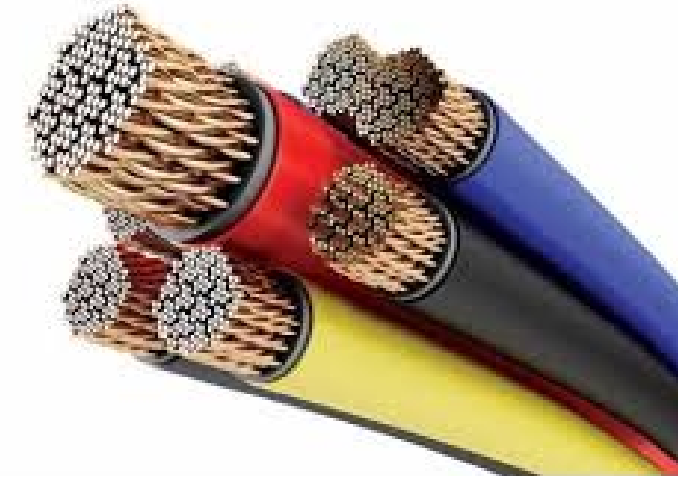
\* Costs include labor and maintenance



Typical Cost:  
\$1,200-3,500 per pole



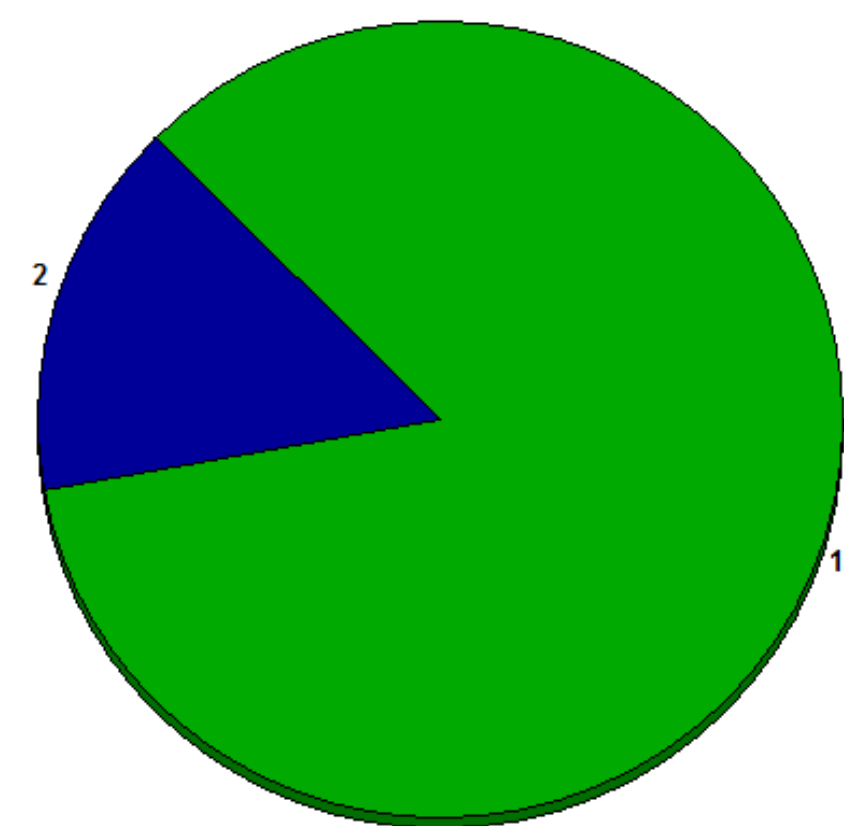
Typical Cost:  
\$700-1100 per week



Typical Cost:  
\$30-50 per foot of wire

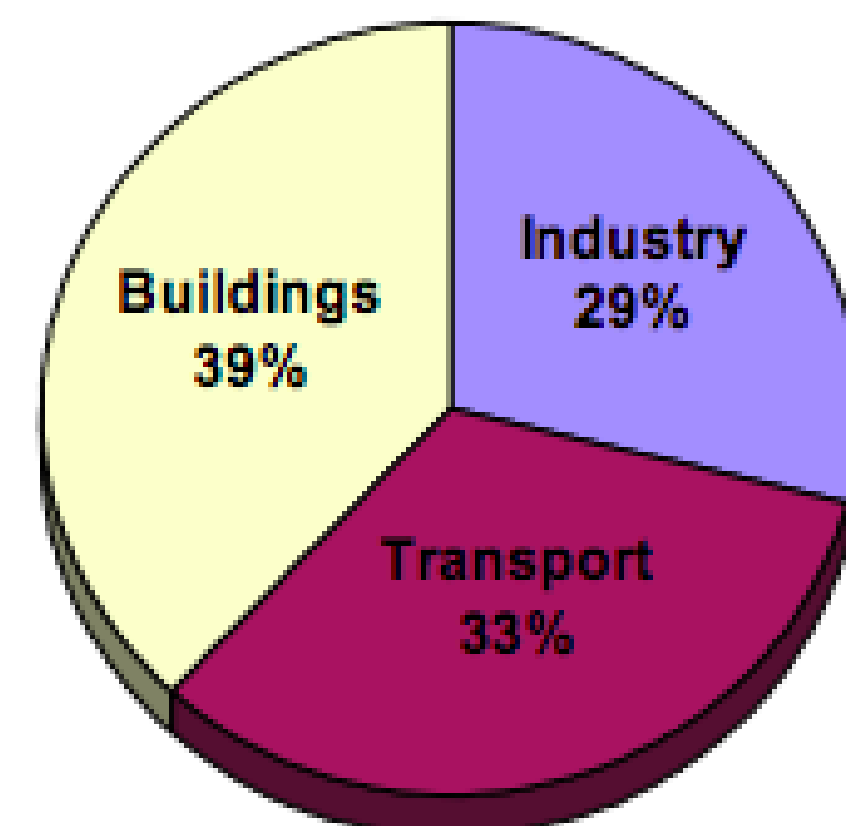
## Interviews with Industry Professionals

11 out of 13 of the commercial electrical contractors interviewed believed using solar power as a means of providing power to jobsites will be a viable option in the next two decades. Doing so will reduce environmental impacts from diesel and gas burning generators commonly used on jobsites. According to the U.S. Green Building Council, construction accounts for 39% of CO2 emissions. Making any and all reductions in carbon emissions critical to sustainability



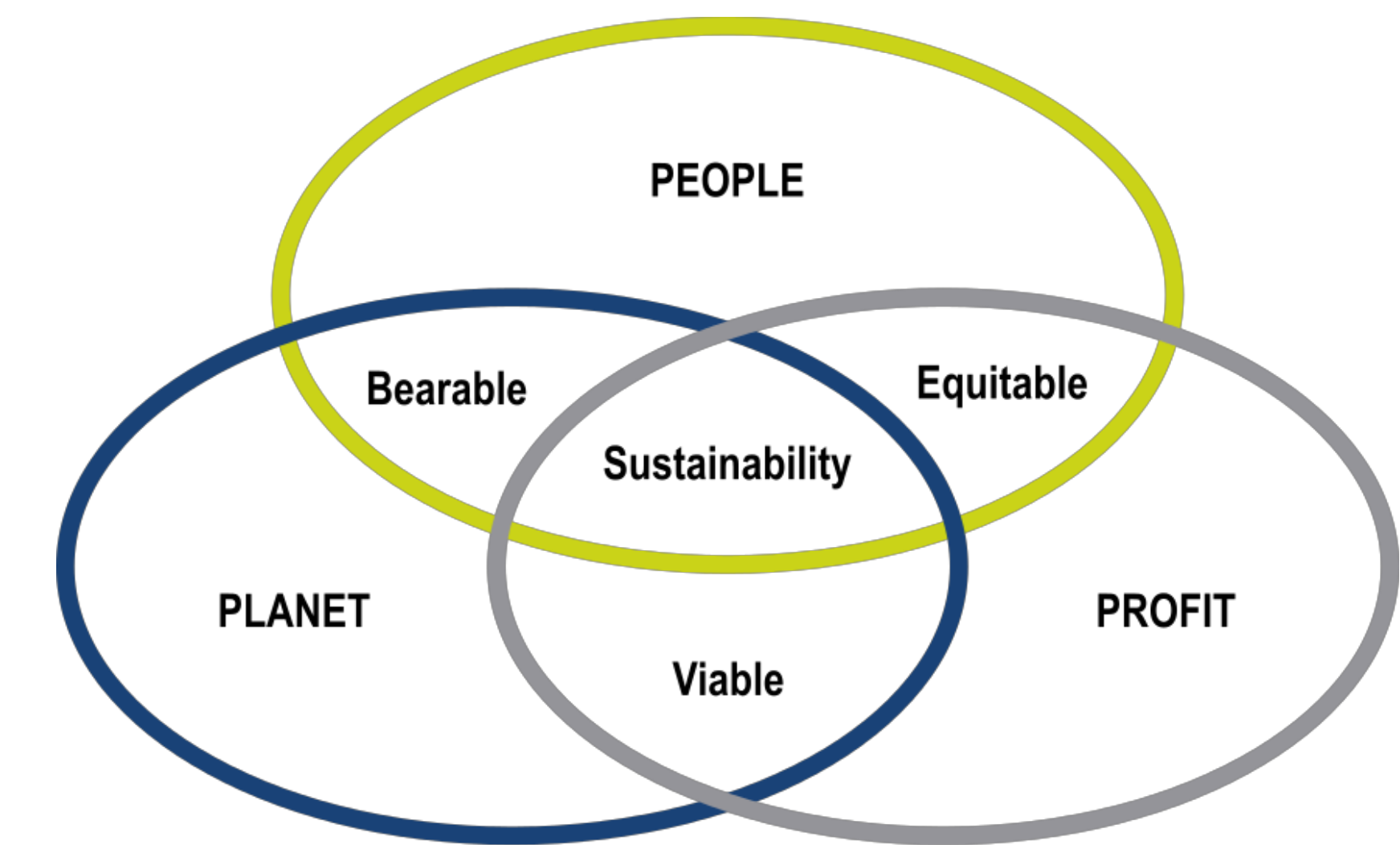
■ Pro Solar  
■ Pro Traditional

CO<sub>2</sub> Emissions from Fossil Fuels



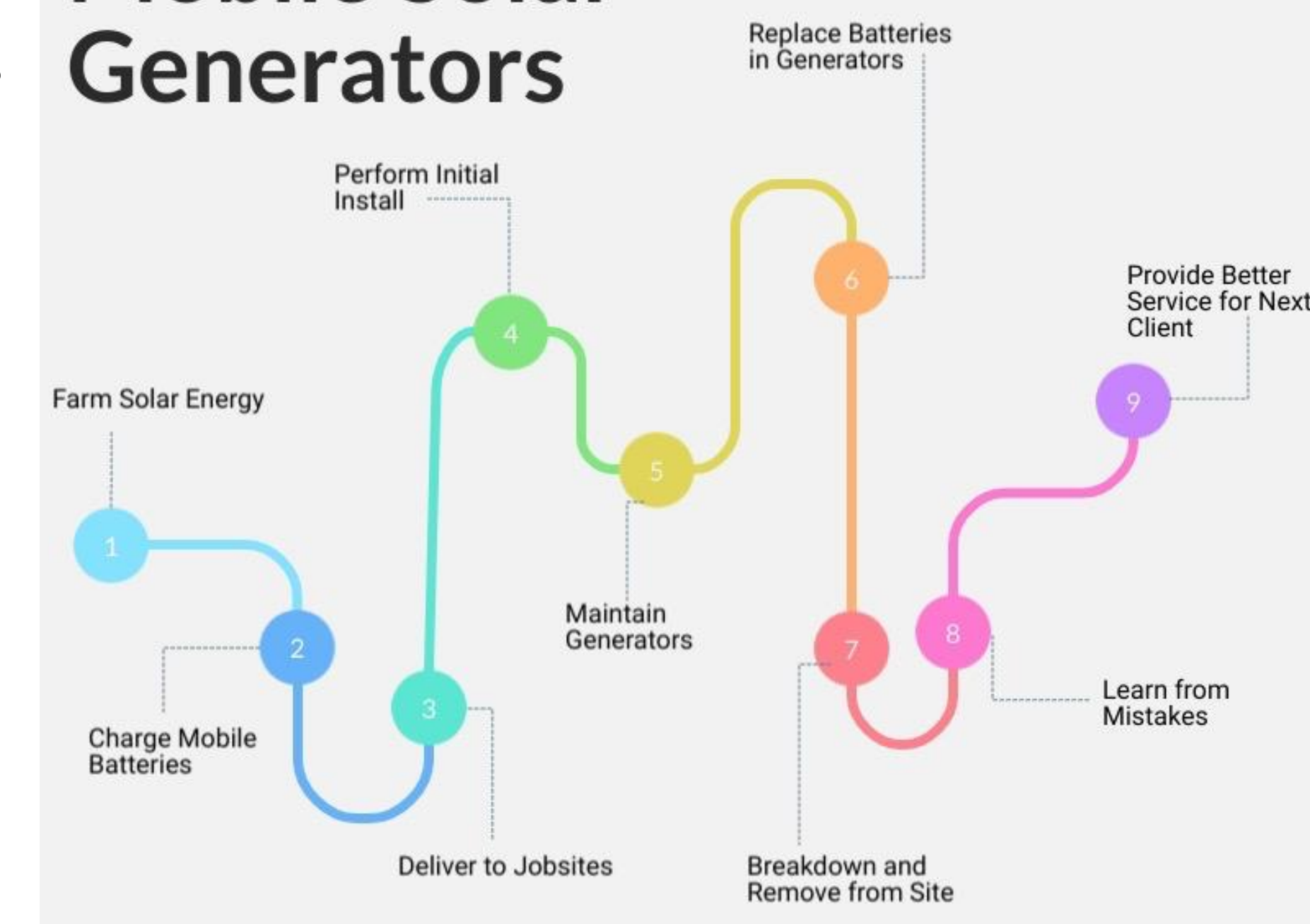
The use of solar energy has slowly been on the rise over the past few decades, the full potential of solar energy has not been realized in the realm of construction. Solar power in construction has been slow to catch on, as many of the upfront costs associated with solar power has created a feeling that investing in such systems will ultimately not be worth the investment. This paper attempts to address the issues of upfront costs, the willingness for contractors to invest in renewable energy both now and in the future, and will also identify possible uses for solar power on the jobsite. Through the research conducted in this paper, it has been proven that there are viable options for solar power on jobsites in the future. The research details current costs of solar, why solar has not been selected as a means of providing power at this point in time, and what future research is necessary to create an environment where solar power use is ubiquitous throughout the construction industry. Ultimately, this paper will provide a pathway for future contractors, investors in renewable energy, and developers to both reduce their environmental impact while saving costs on jobsite power.

Keywords: Renewable Energy, Solar, Sustainability, Photovoltaic, Cost Analysis



## Future Research and Business Idea

### Providing Mobile Solar Generators



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