

# The Path to More Profitable Commercial Solar Projects

In a financially constrained environment, how can you break away and achieve higher margins for your company and a higher return on investment for your customer?

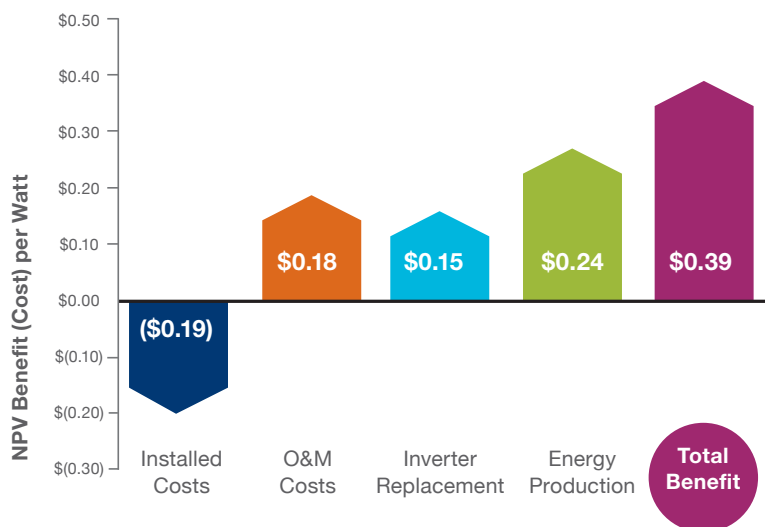


There are four key factors to consider when comparing different energy technologies over the system lifetime:

- ① **Installed Cost**
- ② **Energy Production**
- ③ **Inverter Replacement**
- ④ **O&M Cost**

## System Installed Cost

Critical technology choices in a solar array have implications that ripple not only through other components, but also through the design, installation and labour costs. When it comes to using Enphase Microinverters, you only have to deal with an AC system that is simple to design and install. The microinverter cost is partially off-set by **the ease of design and labour savings.**



Source: "Enphase Simple Project Investment Comparison Tool" June 2015"

For example, you can have up to 42 M250 Microinverters per AC branch and fewer branches per system that means:

- Easier system design
- Reduced balance of system (BoS) costs
- Reduced installation time

### Energy Production

Increased lifetime production: For your customer, purchasing a solar system means investing in a lifetime of energy production. When you install an Enphase System for your customers, you will maximise their energy production by delivering a **boost of 3 to 15%<sup>1</sup>** over a central or string inverter. More energy means higher cash flows for your customers over the long term and results in a higher ROI.

### Inverter Replacement

With the recent wave of DC isolator recalls, it is clear that DC solutions such as string and central inverters as well as DC optimisers are inherently less safe and less reliable than an all AC solution.

At Enphase, we design reliable micro-inverters that last longer than comparable string inverters which means up to **10 times lower equipment expenses after installation<sup>2</sup>** (inverter replacement cost), more electricity cost savings and increased energy independence compared to string solutions. In addition, Enphase offers warranty periods of a minimum 10 years for commercial projects.

<sup>1</sup> Source: "Enphase Performance Technical Modeling Review" DNV-GL, December 2014

<sup>2</sup> Source: "Enphase Simple Project Investment Comparison Tool" June 2015"

<sup>3</sup> Source: Enphase 2015 internal study performed using data from actual O&M contracts.

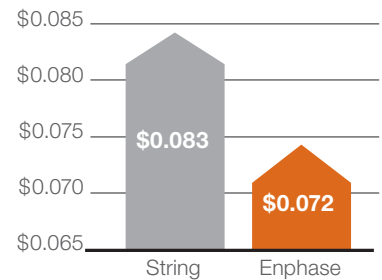
**Legal Disclaimer:** The charts and models included in this brochure are for illustrative purposes only and may vary from actual project returns. It is intended to provide a comparative analysis of the impact of using Enphase microinverters vs. a central or string inverter, based on a series of internal Enphase assumptions and calculations, including, but not limited to, equipment and system costs, revenues, tax credits, tax deductions, incentives, and debt which may not be accurate or applicable with respect to any specific project or installation. Users should consult their own tax and financial advisors in evaluating expected project returns.

### O&M Cost

O&M (Operations & Maintenance) is sometimes overlooked but it is highly important to closely monitor the performance of your customer's solar array over time and keep it running since it is a financial asset. Thanks to the highly reliable, distributed architecture of an Enphase System there is no single point of failure. With Enlighten Manager, our advanced remote monitoring system, you can immediately identify issues at the module level and update the Enphase Microinverter remotely in most instances, thereby eliminating emergency truck rolls that are typically 30% of the cost for annual commercial O&M<sup>3</sup>. This means that you save time and money, while still being able to provide excellent, proactive service to your satisfied customer.

In addition, Enphase Systems are an all AC solution. Your crew will therefore not have to deal with high-voltage DC during the installation process and your customer will own a much safer system compared to traditional string inverters.

For the Owner  
Levelised Cost of Energy



For the Financier  
System Net Present Value

