



## Case Study: Utilizing Tigo's Long String Functionality for the Highest ROI

*Optimizing two of Mexico City's most historic buildings with the most modern PV technology*

Tigo Products:	491 JES Smart Module JBoxes 8 Cloud Connects
Modules:	491 Upsolar M250PT
Inverters:	3 Kaco POWADOR 72 TL3 PARK M
Installer:	Wide Range
Location:	Zocalo's Plaza de la Constitucion Mexico City, Mexico
System Size:	116.5 kW on <i>Palacio Virrenial</i> Building 24.75kW on <i>Oficialia Mayor</i> Building

### Summary

Mexico City's most historical buildings in Zocalo Plaza are now equipped with the most modern PV technology from Tigo. The system uses Upsolar smart modules with Tigo's integrated junction boxes and module-level monitoring system.

Tigo's state of the art technology is designed to reduce balance of system costs by allowing longer strings in solar arrays. This long string functionality reduces the number of strings by 30%, which directly correlates to a 30% reduction in combiner box, wiring, fuses, and hardware overhead costs, as well as reducing the labor requirement for installation. This reduction equates to more than a \$0.05 / watt decrease in total system costs.

### The Challenge

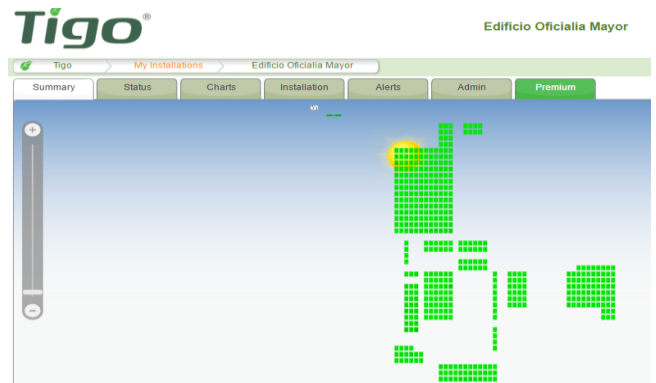
The installers at Wide Range needed a cost-effective module-level monitoring system due to the shading threats caused by the steeples of these buildings and neighboring structures. They also needed to design a PV system that would maximize the spaces of these compact, fragile historic roofs. This new system required the highest power per module with the best efficiency to meet the energy demand of such old, inefficient buildings.

### The Solution

With the selective deployment of Tigo's Smart Module Junction Boxes on each module, the two most historic buildings of Mexico have full module-level monitoring with PV designs to fit the maximum space of each roof. With Tigo's long string functionalities, this PV system maximizes roof space, avoids shading threats, and utilizes module-level optimization. This system will benefit from the best ROI for the next 25 years thanks to Tigo's on-demand monitoring, less equipment, high safety standards, and optimized design.



A view of the 116.25kW system carefully mounted on the 500+ year-old roof of the Plaza de la Constitucion.



The module-level monitoring capability is made possible by the 465 Tigo JES junction boxes on each smart module.



Tigo's long string functionality allowed the PV system to maximize the layout design on each roof.