

carbonTRACK facilitates delivery of an innovative solar service model and Virtual Power Plant capability

Summary

A leading solar company wanted to make solar accessible to more people with its solar energy as a service model. To make it scalable and to ensure service guarantees, the company needed an intelligent energy management solution with advanced control capability. With carbonTRACK, the company has the visibility and control to effectively deliver the service, manage its assets and operate a Virtual Power Plant environment.



carbonTRACK[®]
INTELLIGENT ENERGY MANAGEMENT

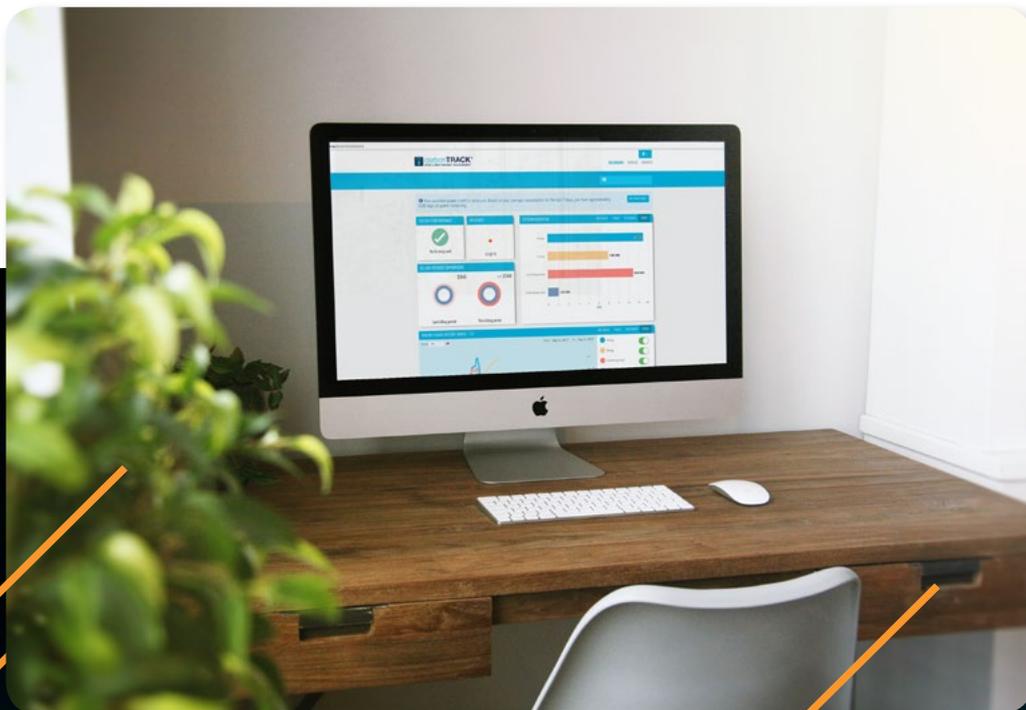
Objectives

Wanted: energy visibility and control, at the solar user and network-based levels

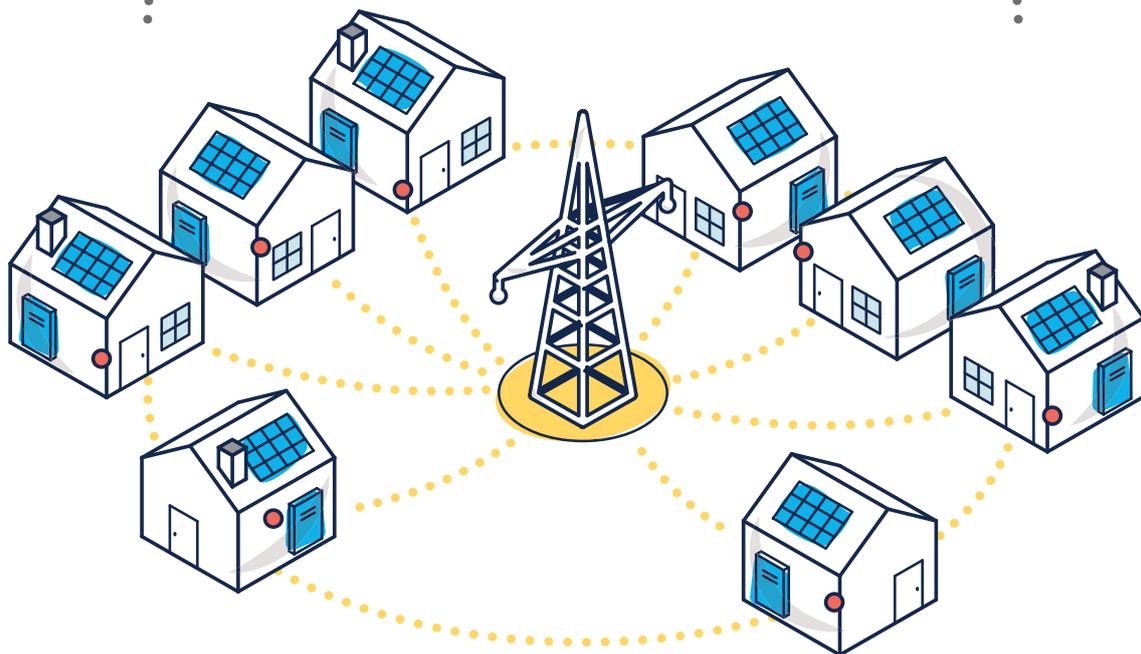
A leading solar business wanted to make solar more accessible to more people and launched an innovative, solar energy as a service model backed by service guarantees. Under this model customers enjoy the benefits of a solar system, complete with battery, for a monthly fee with no upfront costs, over a long-term contract period. Unlike 'lease to buy' models, this solar company continues to own and manage the solar panels and storage systems it installs.

To deliver on their vision, the solar business needed an energy management solution that could incorporate energy consumption control, energy generation control and energy storage control – at the users' homes and across the company-owned solar network.

In searching for a viable solution, the company considered several monitoring systems, but none offered the coordinated control capability they were seeking. The business even considered investing in the development of their own bespoke solution – until they came across carbonTRACK.



**Centrally managed
at head office via the
carbonTRACK platform**



● = carbonTRACK SmartHub

Solution

An intelligent energy management solution with advanced coordinated control capability

carbonTRACK's energy management solution proved to have the flexibility, scale and smarts the solar company was looking for.

At the building-level, the system provides visibility into energy use and solar production, and advanced control capability to help users make the most of their solar. At the network level, the solar company can monitor and control their assets and remotely assist their customers.

A carbonTRACK SmartHub monitors and controls the solar inverters and battery at each home, each home is also connected to the carbonTRACK platform which is centrally managed at company head office. The user interface is through a mobile App or online dashboard.

Following a successful trial implementation, carbonTRACK is now an integral part of the company's solar service solution. Since the initial engagement the installation numbers have grown to several thousand units – a number that's steadily growing every month.





Outcomes

A centrally managed network of solar assets with Virtual Power Plant capability

In pairing their offering with carbonTRACK, this leading solar company was able to transform their business model, accelerate its growth and help its customers save money and carbon emissions without large up-front investments. Here's how:

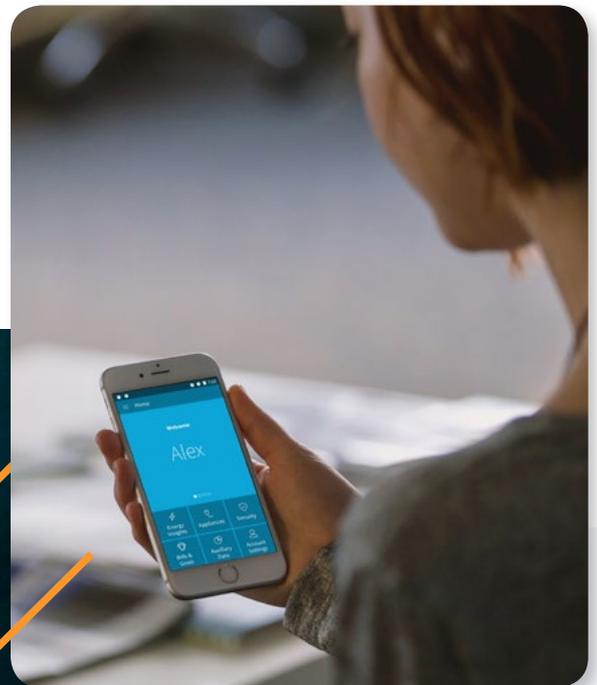
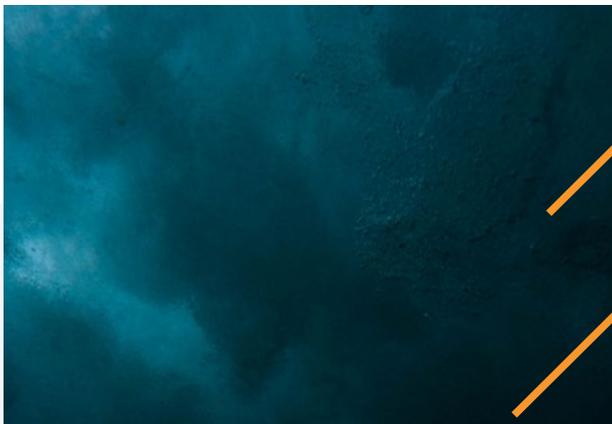
- **One platform to monitor and control a network of solar infrastructure**
Monitoring, managing and controlling their growing network of solar assets is no mean feat. The solar service company can do this through one central point, the carbonTRACK platform as accessed through an online control center. From there they can check the performance of their solar installations and batteries and remotely control these systems to assist their customers.
- **'Behind the meter' visibility and advanced control help optimise the solar umbrella**
The carbonTRACK app and dashboard – rebranded with the company's name and logo – provide solar users with 'behind the meter' visibility of their energy use and production. Combining this information with fluctuating grid-energy prices, home owners can manage appliances, prioritise loads and determine when to charge/discharge their battery. Control can be manual- via the app – or automated with carbonTRACK's powerful predictive engine and intelligent machine learning.



- **A Virtual Power Plant helps ensure grid stability**
With carbonTRACK, the solar company can centrally manage the batteries at each of their solar installations. This enables them to optimise their customers' battery usage and help them prioritise loads in the event of a grid outage. The company is also able to easily determine how much excess energy is available at the building and network level and (if required) feed it back into the grid in times of peak demand, thereby helping to reduce grid stress and the likelihood of an outage occurring in the first place.

- **Solar users are connected and in control**
carbonTRACK technology helps the solar company transform solar-powered buildings into smart homes. The carbonTRACK platform integrates with Google Home and a range of smart home accessories - such as Smart Plugs and HVAC controllers - and offers a unique level of control over appliances, heating and cooling.

- **A solution that connects all regions**
With a population spread out across a large landmass, mobile telephony coverage was a challenge in certain locations. In response, carbonTRACK redesigned the SmartHub's firmware to automatically switch to 2G if 4G or 3G was unavailable, and if neither was available, to default to Wi-Fi. This reshaping of the technology ensures a stable connection and empowers users to change telecommunications providers with ease.



Find out more about how carbonTRACK is helping energy consumers and energy providers to monitor, control, automate and share energy.

Get in touch with the team today.

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