

SPACEKNOW

Mapping Renewable Energy: Rising Solar Plants Making a Global Difference

An In-Depth Overview of Green Energy Plants Impacting Developing Countries



The Solar Power Boom is the Future of the Energy Sector

It's no secret that more resources than ever before are being poured into creating sustainable energy that's safe for the environment. That's why solar power is not only on the rise, it's the future of our long-term global success.

A smart, efficient way to generate electricity, solar power has no fuel costs and won't add to potential global warming, creating a cleaner, more reliable energy source.

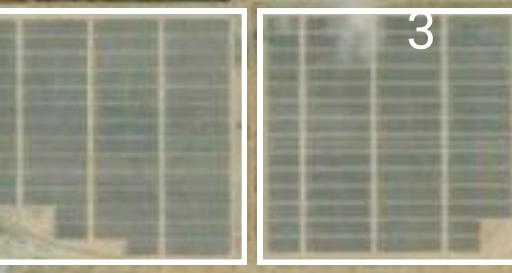
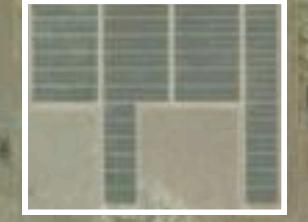
The only hurdle: controlling cost production of this large-scale operation for both personal and commercial properties. Here at SpaceKnow, we've developed a system to monitor this rising energy using satellite images, which can be seen by our monitoring of one of the largest solar power plants in the world—the Solar Star Power Plant in Mojave Desert, California.



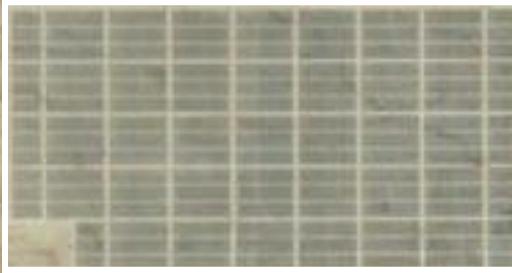
Solar Star Power Plant

Mojave Desert, California

34°50'23.7"N 118°23'26.3"W

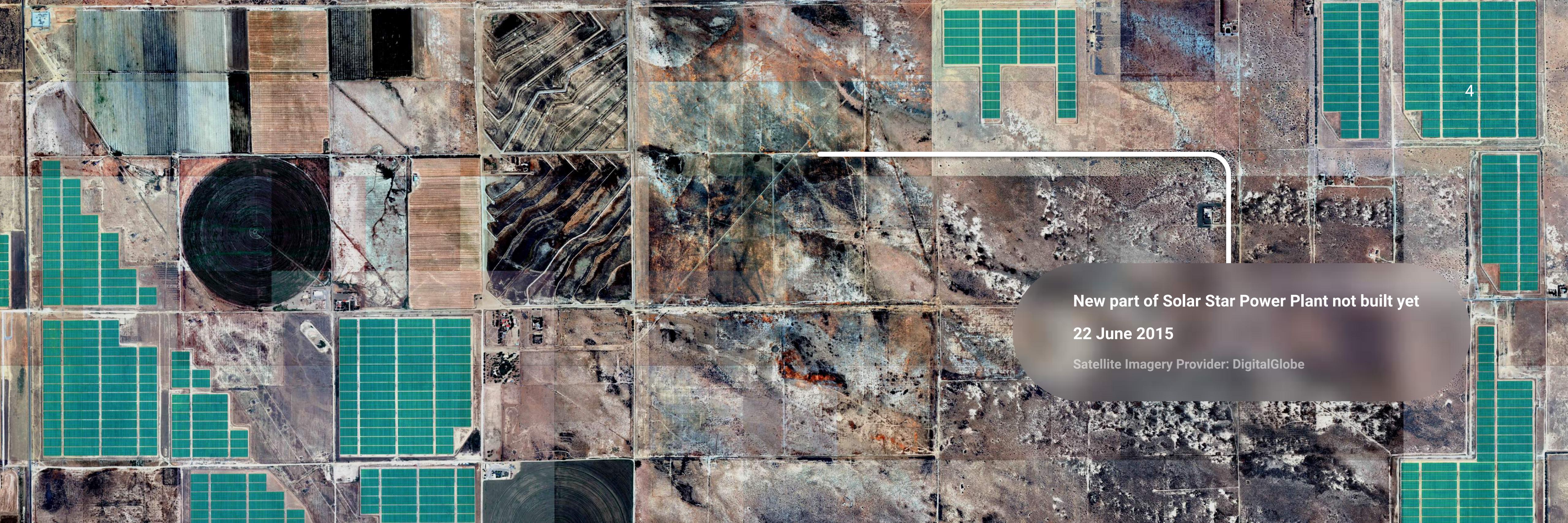


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Monitored period: 2015 - 2016



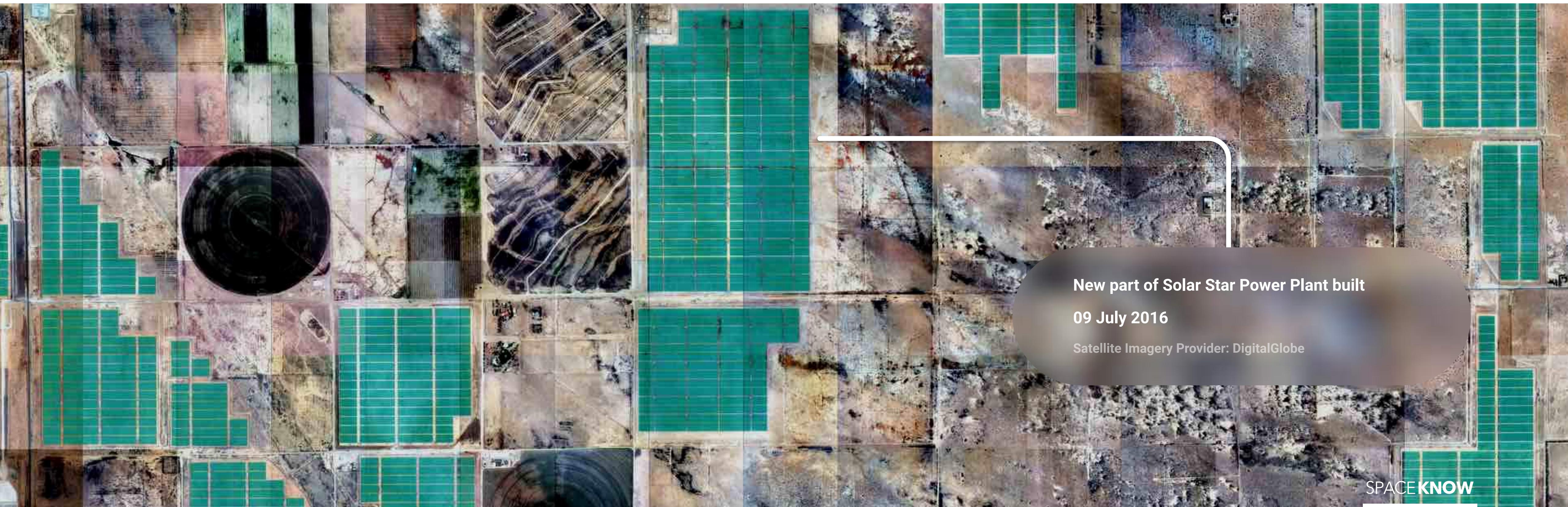
A satellite image showing the early stages of the Solar Star Power Plant construction. The image is a grid of agricultural fields and some existing solar panels. A large circular construction site is visible in the center-left. A white rectangular box highlights a specific area in the upper right.

4

New part of Solar Star Power Plant not built yet

22 June 2015

Satellite Imagery Provider: DigitalGlobe



New part of Solar Star Power Plant built

09 July 2016

Satellite Imagery Provider: DigitalGlobe



Tracing the Solar Expansion: Developing World to Emergency Countries

The International Solar Alliance announced by India at the Paris climate conference has challenged 120 countries to support solar technology expansion locally and across the world.

Some of the emerging leaders—such as China, India, Brazil, Thailand, South Africa, Morocco, and Egypt—are investing in large solar plant with equally ambitious targets because they're looking to make change on a global scale.

Other developing countries, including Bangladesh, Ethiopia, Kenya, Rwanda, Senegal and Ghana, are working to develop solar farms while rolling out large home-based solar systems that replace old, unreliable, and insufficient electricity stores.

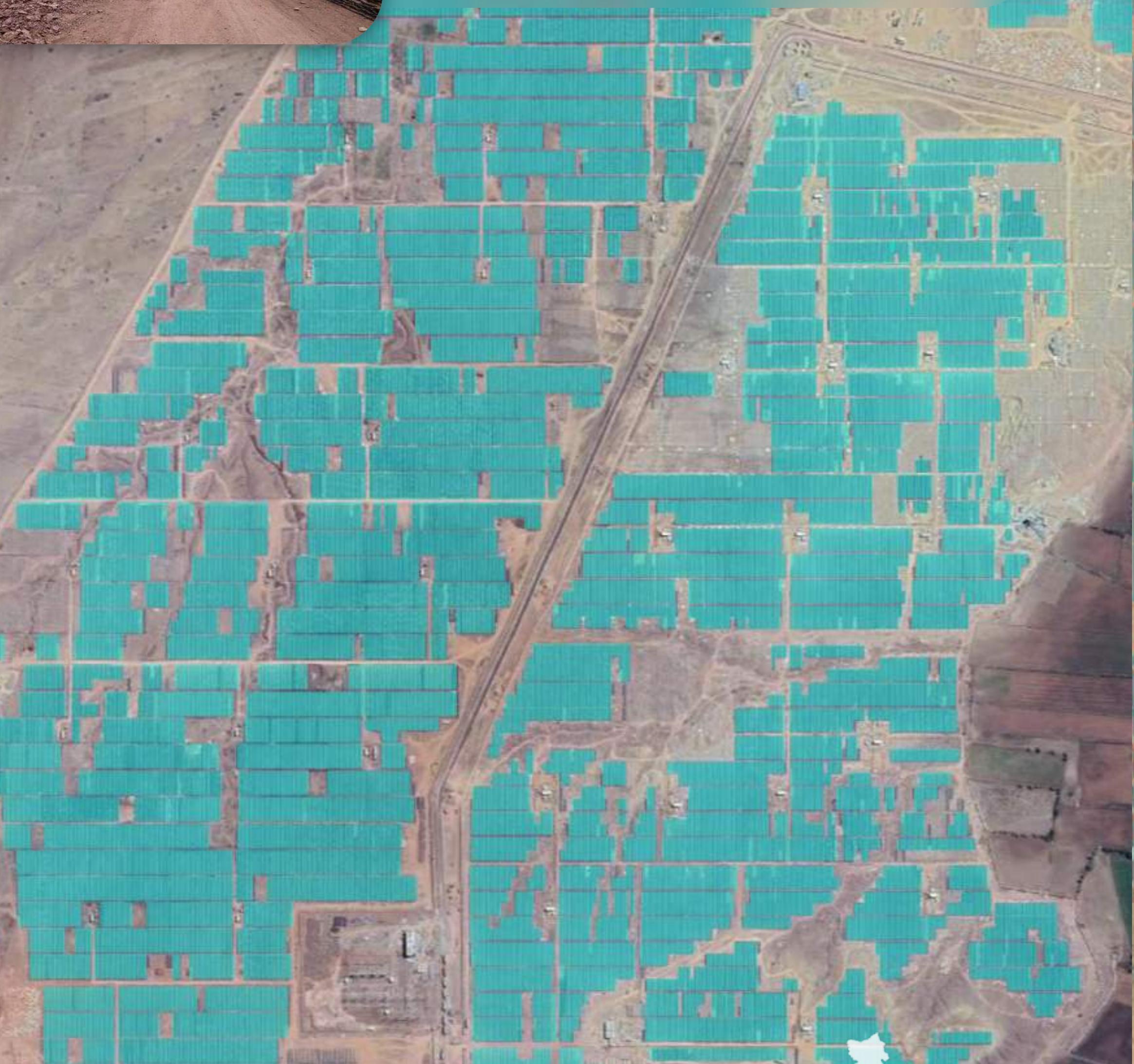
Here are the results of how SpaceKnow detected solar parks in India and China:



Kulnoor Ultra Mega Solar Park

India

15.681522°N 78.283749°E



Capacity: 1000 MW solar power

Size: 24 km²

Start Year: 2017



Tengger Desert Solar Park

China

37°33'00"N 105°03'14"E

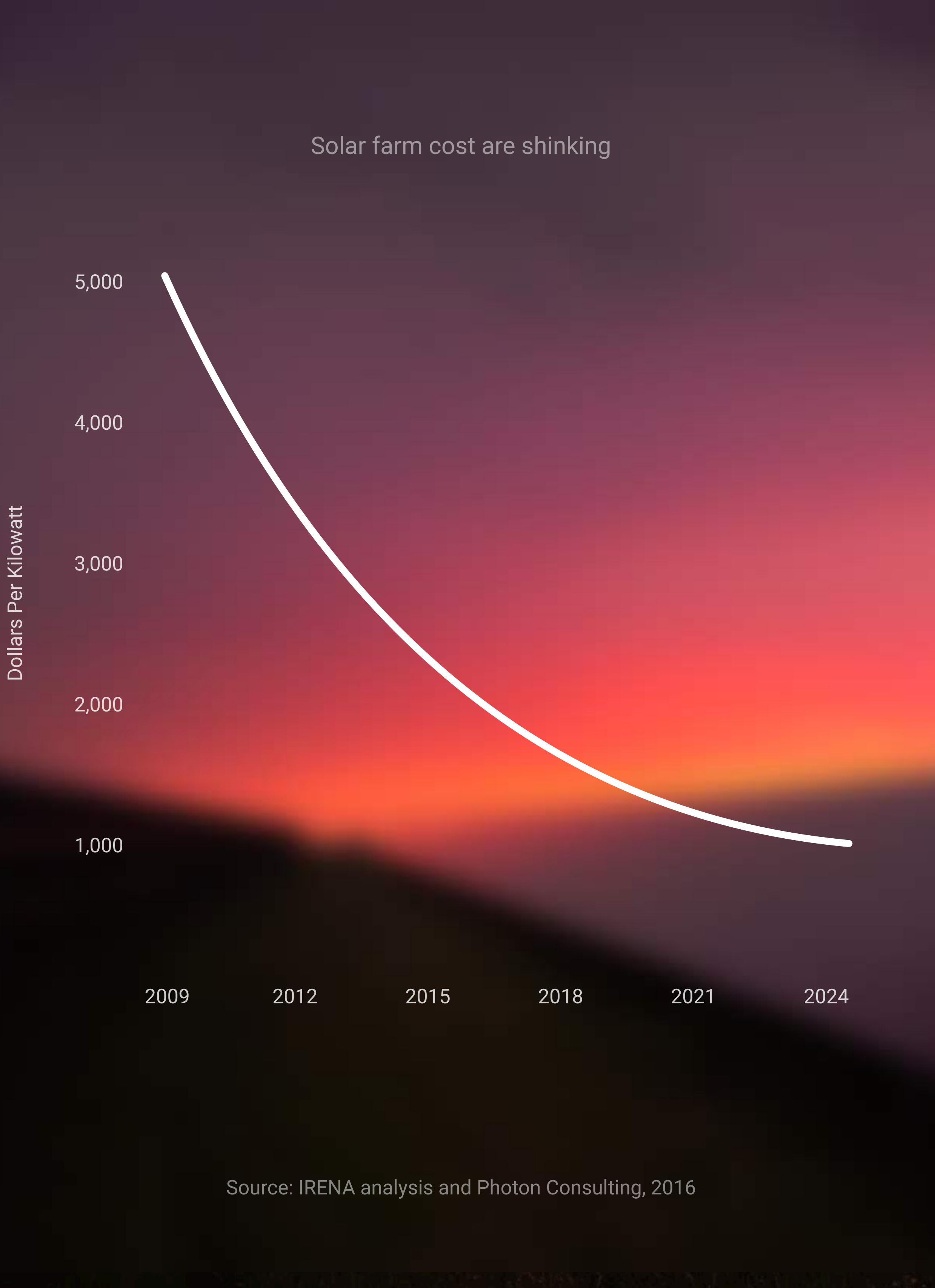


Capacity: 1547 MW solar power

Size: 43 km²

Start Year: 2016





Solar Plant Size in Relation to Production Power

Information is what drives our ability to make sound decisions for ourselves, our environment, and our future. This is especially true when it comes to getting actual, real-time data in less developed countries. With SpaceKnow, you don't need to focus on the statistical information provided by old reports or government handouts; you can get real-time data in minutes from all over the globe.

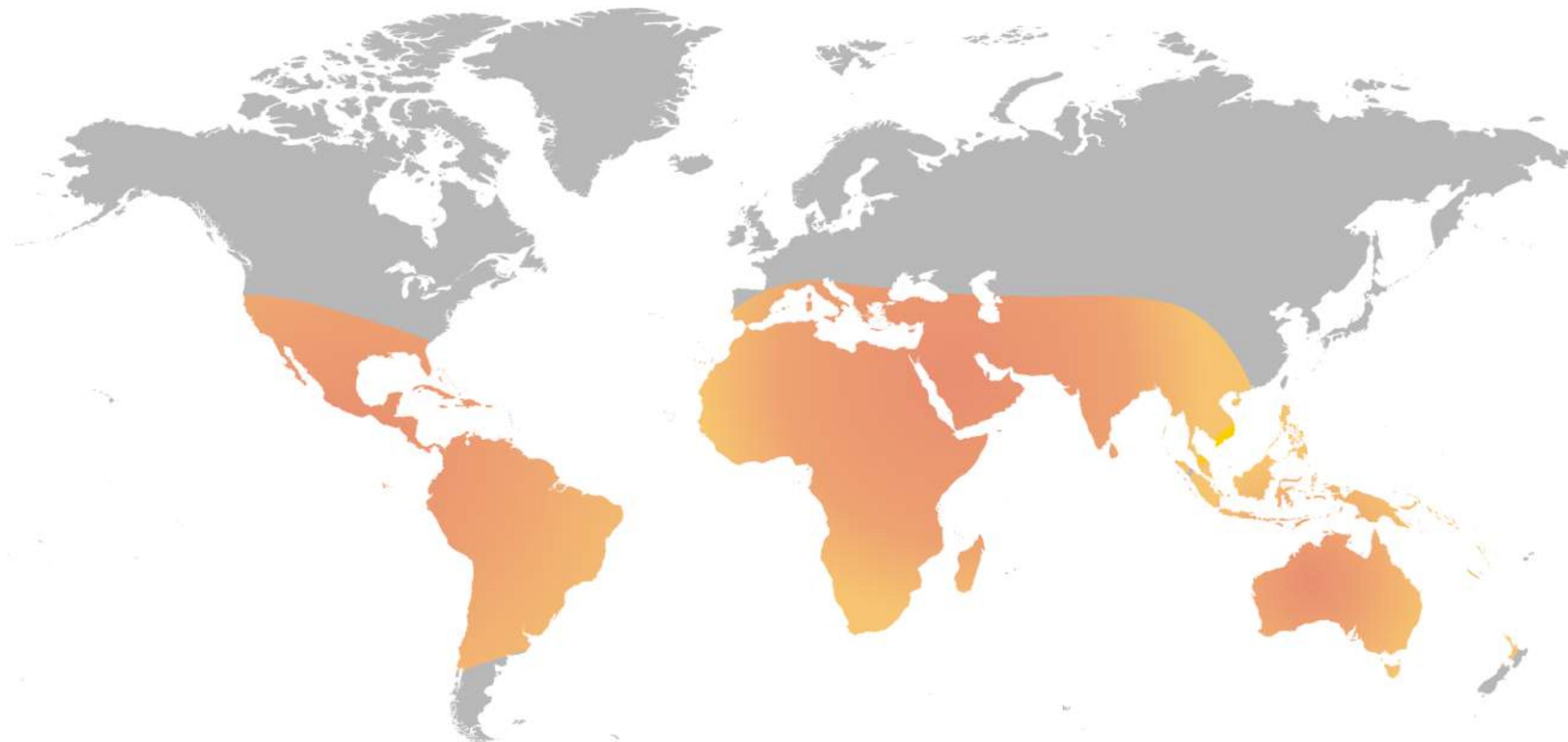
The best news behind these changes comes from Bloomberg New Energy Finance which tell us that solar plant costs continue to shrink and by 2025—where it may become cheaper than even coal. This means emerging and developing countries will continue to play a significant role in renewable energy sources.

In particular, India will become the world's third-biggest solar market after China and the U.S., with the aim to power 60 million homes with solar power by 2020.

Limitless Global Potential

The “Sun Belt” is one of the most opportune places to harness the most solar energy. With extremely bright, hot summers and little rain, the global Sun Belt stands to be the source for the most harvest solar power on the planet.

By 2030, there are 66 countries in the Sun Belt that could host a solar PV capacity of 405 GW; which would provide electricity to more than 300 million people.



Map shows possible solar electricity output



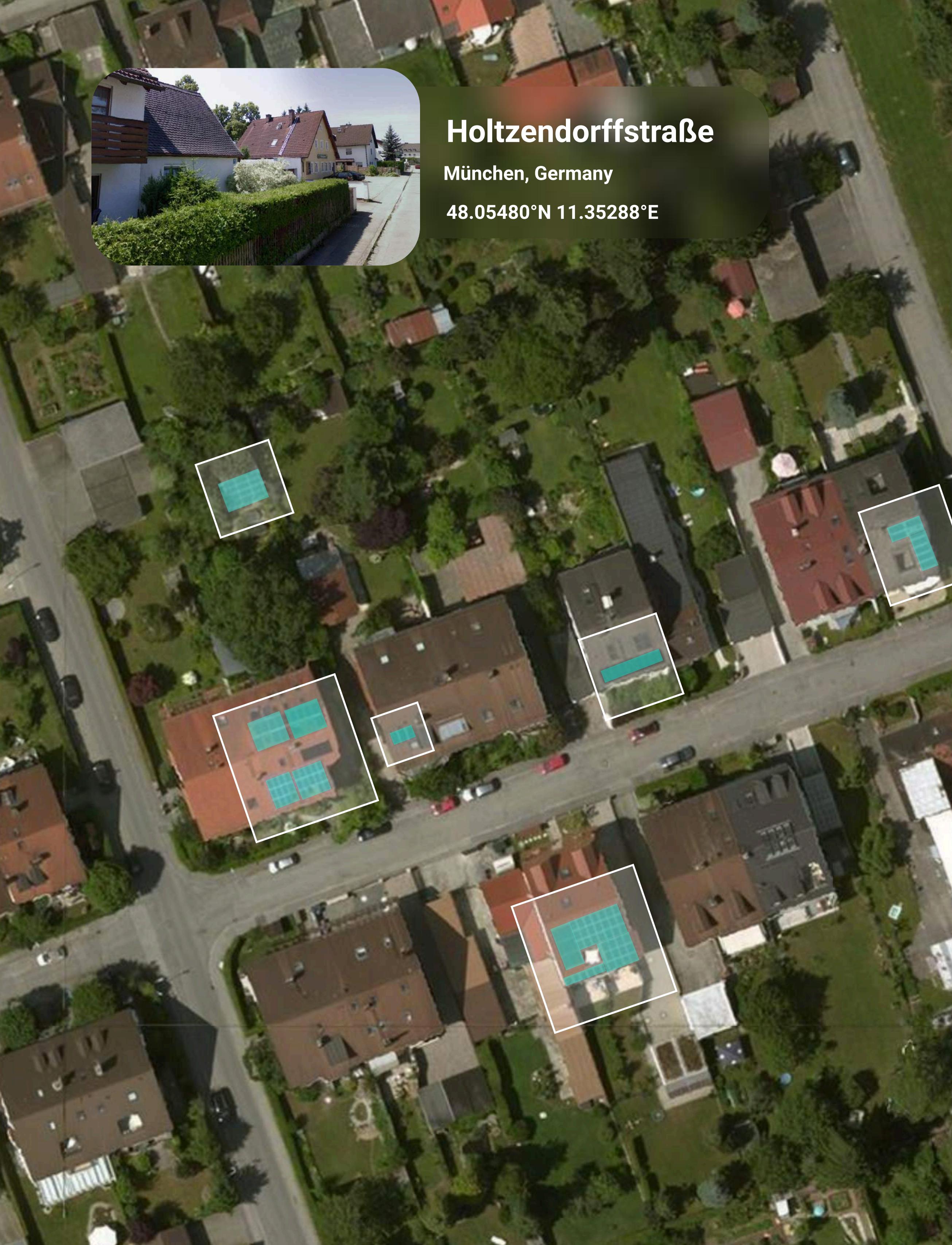
Maintaining Control and Fighting Solar Energy Fraud

In 2010, the solar industry rested its hope on a European market that was generously fed in tariffs; effectively attracting numerous investors and developers.

And while there was an enormous surge of solar applications in the country, it meant billions of U.S. dollars in incentive burden which authorities were not equipped to properly inspect.

Government authorities can conduct around 3,000 yearly inspections, saving millions in excessive payments, but their manual process is slow and ineffective as evidenced by their review of the largest solar plant but not the multitude of smaller ones.

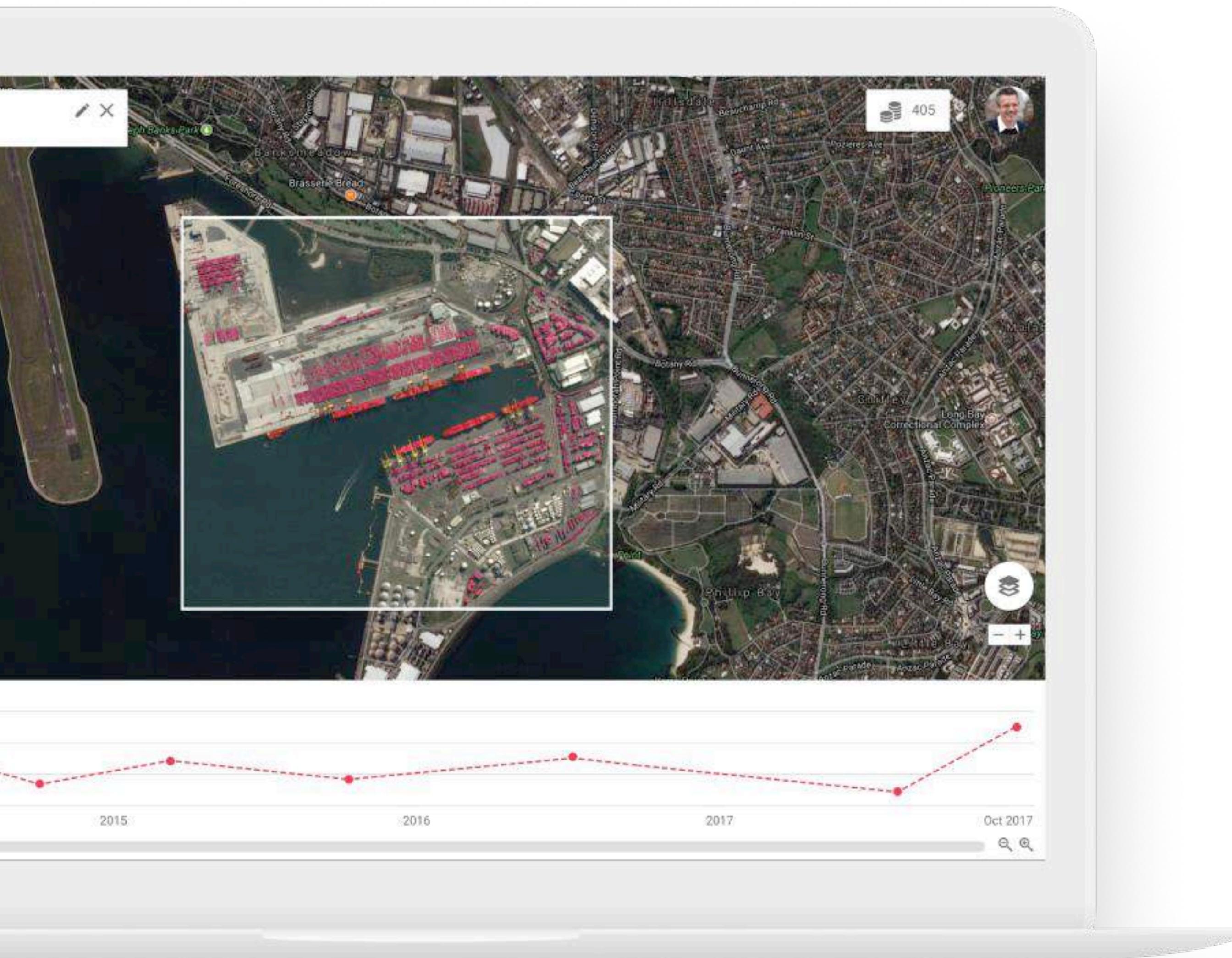
The problem, according to countryside campaign groups, is that while the subsidies come out of taxpayer pockets, the region has seen little of the profits made by the energy firms—many of which are accused of making fraudulent claims for funds.



Monitoring Small to Large-Scale Energy Locations

As popularity for solar energy solutions continues to grow, both for homes and commercial business, we'll be there to monitor this utility with efficient results. Using satellite imagery with SpaceKnow automated solar panel analysis we can provide home-scale monitoring and a wide range of global possibilities to fit your needs.

Talk to us about home-scale monitoring.



See our platform in action

Try our real-time, on-demand analytics for yourself with our free trial of Brisbane, Australia, at analytics.spaceknow.com.

SPACEKNOW

We are on a mission to index the physical world

SpaceKnow empowers decision-makers with ultra large-scale planetary analysis. Our secret? A proprietary, AI-powered analytics engine, combined with the world's most comprehensive collection of earth observation imagery.

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