
REPORTS FROM THE GRID'S EDGE

THE STATEN NEWSLETTER

DORMANT ASSETS

Commercial property managers sit on money without knowing it is there.

When tenants consume enough electricity, converting to solar liberates savings and provides the owner an opportunity to share those, increase the rent and still save the tenants money versus the status quo.

All parties come out winners.

Solar enhances value. Not only as a social benefit, but in the case of leased property, also from a balance sheet perspective....

The principle is not difficult to grasp, but it is new to most managers, hence the sitting.

Converting to solar saves money. Tenants pay too much for electricity. Savings from solar can be split. Savings and going green allow for higher rents. Higher rents translate into higher property values. Lower expenses, higher rents equal improved NOI. Balance sheet glows. .



INSIDE

Sun and Dust Maintaining a clean, tuned system is key to consistent performance. Staten's upcoming O&M service does that.

Solar science Competitive research in labs everywhere to convert more sunlight into energy illustrates the importance of solar.

DORMANT ASSETS

CONTINUED.

That is the principle. It applies when the energy consumption of the tenants is high enough and where there is enough room on the property (roof + land) to build a system that will offset enough billing from the utility, and the utility charges a high kWh price (the case with California's big three, or Hawaii, Alaska, and the east coast).

Source:

https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a

There are multiple ways to monetize underused surfaces drenched by the sun and each property is different with different constraints and different potential. Financing strategies include outright purchases (which secures the 30% tax credit and 100% MACRS year 1); leases, and PPA's (so long as lease costs and PPA payments are less than the utility bills).

Cost recovery vary with by property, types of lease, and rental environment. But can be grouped into three strategies: Full service lease which covers energy costs, PACE financing, green surcharges. Risk of over-usage is handled by setting limits and requiring tenants to pay for any usage over the agreed limit.

Energy management is moving toward service functions, which include billing reconciliation, managing new revenue streams, certifying transactions, demand response mitigation, maintenance, grid synchronization.

Any of which requires special knowledge, and separate technology, and creates new opportunities for energy companies.

While some large organizations have integrated energy management into their professional ranks and reaped the benefits (Apple, Google, Kaiser,

Target, etc.) most mid-sized companies have not invested in the discipline and cannot devote the resources to harvest the savings.

Dedicated energy consulting firms and some solar engineering firms have the experience to help steer their commercial real estate management clients to clean paths to boost their financials.

Firms whose tenants include high electricity usage consumers, plants, distribution centers, data centers, malls, office complexes, regional and national retailers, are sitting on dormant assets.

Staten provides smart designs and financing solutions to make property manager sit up.



SOLAR SCIENCE

A meta study found that more energy is returned from solar power per unit of energy invested than for oil and gas. (RSER Vol 72, May 2017)

The electrification of everything is spurring creative minds everywhere.

At Osaka University, researchers used machine learning to design new polymers for organic PV cells. The screening model could accelerate solar cell development compared to trial and error methods.

Source:

<https://www.sciencedaily.com/releases/2018/05/180529103558.htm>

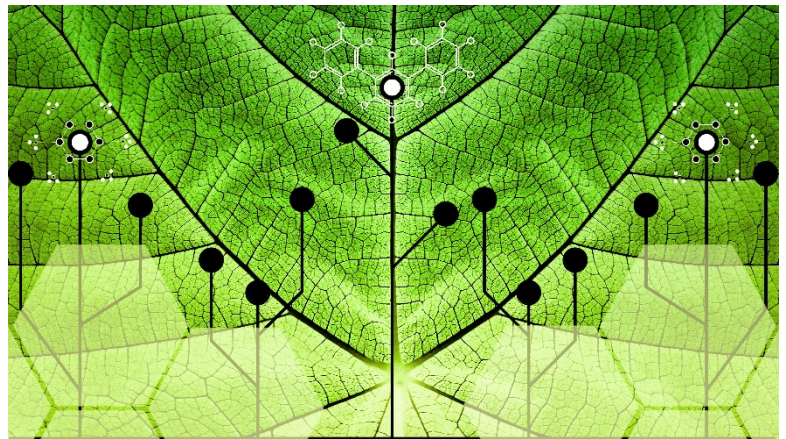
Meanwhile, at Brown and Stanford, a new experimental technique that layers perovskite solar cells on top of silicon cells in order to maximize their total efficiency, may define the future of solar.

This technique is promising because silicon cells capture sunlight at different wavelengths than perovskite materials. So if you put them together, they take advantage of a bigger segment of the spectrum than either would alone. And perovskite solar cells can be made transparent, or colored, which opens up the possibility of windows as source of solar energy...

Perovskite is a mineral found on every continent. Perovskite cells are much cheaper than silicon, hence the appeal.

Source:

[https://www.washingtonpost.com/news/energy-environment/wp/2016/01/15/this-technology-may-be-the-future-of-solar-energy/?noredirect=on&utm_term=.1f7b45ac3219](https://www.washingtonpost.com/news/energy-environment/wp/2016/01/15/this-technology-may-be-the-future-of-solar-energy/?hpid=hp_hp-top-table-main-energy-environment:energy-environment%3Athis-technology-may-be-the-future-of-solar-energy%3Ahomepage%2Fstory&hpid=hp_hp-top-table-main-energy-environment:energy-environment%3Athis-technology-may-be-the-future-of-solar-energy%3Ahomepage%2Fstory&hpid=hp_hp-top-table-main-energy-environment:energy-environment%3Athis-technology-may-be-the-future-of-solar-energy%3Ahomepage%2Fstory&utm_term=.1f7b45ac3219)



SUN AND DUST

Solar is magic.

No moving parts, no noise, a little bit of sun and Shazam! Instant clean energy. Less expensive than the electricity from regulated monopolies (PGE, SCE, Duke etc.) and zero emissions.

As close as photosynthesis as science currently gets...

With the development of storage, demand response, micro-grids, blockchain trading, energy management has become a fully-fledged discipline for most large organizations (public and private). Comprehensive management of all the functions involved in securing the best renewable solution for any particular context is slowly shaping into a new industry grail for companies who cannot develop the internal expertise.

Solar works. With care, a well-designed and well-built system will last 35 years. Unlike all other equipment, the care is minimal, simple and easy to execute.

Soiling is the main focus of care, dust, droppings, and water evaporation film if left to accumulate will interfere with production. On large systems, a 5% drop in efficiency can mean a perceptible loss of kWh's.

SUND AND DUST

Even though cleaning is simple, there is room for error and trained operators, using the right equipment, will get the job done faster and safer.

Staten is developing a flexible, cost effective O & M service that addresses soiling for commercial solar systems.

Starting in the Central Valley and Bay area, then rolling out California wide, the service will be open to any customer with systems 100kW and over. Cost will be based on wattage.

If your company needs a maintenance service, please call 408-780-2889 for customized information and to get on the waiting list.



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