

Owned Onsite Systems

Owned, onsite renewable energy assets are those developed or purchased by a company who is also responsible for operation and maintenance (O&M) of the system. Owned, onsite systems provide retailers with the ability to offset onsite grid electricity consumption, potentially reduce Scope 2 carbon emissions, and provide a long-term hedge and/or savings opportunity against future grid prices. Companies with a surplus of capital may see value in this structure, as it has the potential to provide the highest return on investment when compared to other onsite development options, such as onsite Power Purchase Agreement (PPA) or leasing, where benefits are shared with a third party in exchange for external financing and system maintenance.

Why should you use it?

- Your company has CAPEX to invest and prefers to own the property's renewable energy assets to realize all benefits
- Your company is comfortable coordinating O&M of the system
- Your company wants the reputational benefits of supporting renewable energy and the visual impact that an onsite installation can make on shopping customers
- Your company has rooftop, parking lot, or open ground space at its premises and wants to take advantage of its potential to make and save money
- Your company wants to potentially increase the installation site's property value

Who else is using it?

Generally speaking, more retailers opt for a PPA renewable project financing structure instead of a cash purchase structure due to the upfront CAPEX cost of the installation. Examples of retailers that have used a cash purchase structure include [IKEA](#), who owns and operates each of its onsite store solar PV energy systems. [Walmart](#) has used cash purchase for select installations and is exploring direct investment in projects and [GM](#) made its first direct purchase of a 2.2-megawatt solar array in Ohio in 2014.

What are the advantages?

- **Fully realized benefits** - After the system is paid off, all electricity produced is essentially free.
- **Enhanced returns** - Creditworthy entities may be able to enhance project returns via the use of debt, eliminating the need to post CAPEX for the project.
- **Positions company as a sustainability leader** - Offers good PR, marketing, and community relations opportunities.
- **Potential to reduce facility emissions** - Renewable energy certificates (RECs) generated by the project must be retained by the retailer in order to make environmental claims. Alternately, project RECs may be arbitrated and replacement RECs purchased.
- **Higher NPV than other options** - Cash purchase systems typically have higher project net present value compared to PPA structure because there are no third-party financing costs and no credit carrying costs.
- **Fewer contract risks than other options** - Owned installations eliminate the long-term counterparty risk present in PPA and leasing deals.

What are the downsides?

- **Large capital investment** - Funding an installation with CAPEX may not be desirable or possible for some companies
- **Financial returns** - The capital investment may not pass the necessarily thresholds for companies with aggressive internal project financing hurdles (e.g. IRR, ROI, payback).
- **Renewables onsite does not mean 100% renewable energy** - Installation capacities are very dependent on available space. On-site DG installations may only offset 5-25% of the site's electric consumption, which may not have a big impact on overall site spending and/or emissions reduction
- **Performance risks** - Cash purchase systems without strong production guarantees will reduce the developer's incentive to have the system produce as many kWh as possible. Developers may not be willing to offer strong production guarantees if they are not contracted to conduct all O&M work.
- **OPEX expenses** - The retailer may be responsible for O&M expenses for the life of the system.
- **Property taxes** - Owned systems may increase a site's property taxes.
- **Net metering policies** - Owned systems will need to comply with and consider utility or state-specific net metering policies. Net metering policy may change the optimal size of an onsite installation and can materially change project economics.
- **Additional costs & considerations** - There may be some insurance considerations and associated costs that retailers need to account for if they purchase a renewable system to cover catastrophic loss, system damage from inclement weather, etc.

Who should you talk to next?

- Engage a broad group of stakeholders early on to ensure there is a thorough understanding of the deal structure, benefits, risks, and implementation. Stakeholder groups that should be involved include Facilities, Procurement/Energy, Finance/Accounting, and Risk Management.
- Post-deal, Procurement/Energy should be involved on an ongoing basis as having onsite distributed generation will likely impact grid purchasing strategy, supply contracts, and potentially utility tariff rates.
- Engage with an independent consultant (e.g. [Schneider Electric](#), [Edison Energy](#)) that is very familiar with this space to help retailers understand the product structures, the opportunities that exist for end-users, and the financial impact of purchasing a renewable asset. There are some markets that are much more suitable for capital purchases of renewable assets, and a consultant can help retailers identify the optimal markets to focus on.
- Several NGOs and coalitions are available to help companies accelerate the adoption of renewable energy and provide expertise, such as the Rocky Mountain Institute's [Business Renewables Center](#) and the [Corporate Renewable Energy Buyers Principles](#), supported by World Wildlife Fund and World Resources Institute.

The Process

1

Retailer signs a contract with a project developer to build and install the renewable asset

Retailer pays for the system with the combination of cash and debt

2

After the project is built, the system will begin to produce kWh

3

Retailer pays for ongoing O&M expense (potentially with the actual project developer)

4

5

Any remaining electricity needs will be purchased from the site's retail supplier and/or utility at the current retail grid rate