Financing for Solar, Energy Storage, and Distributed Energy Projects

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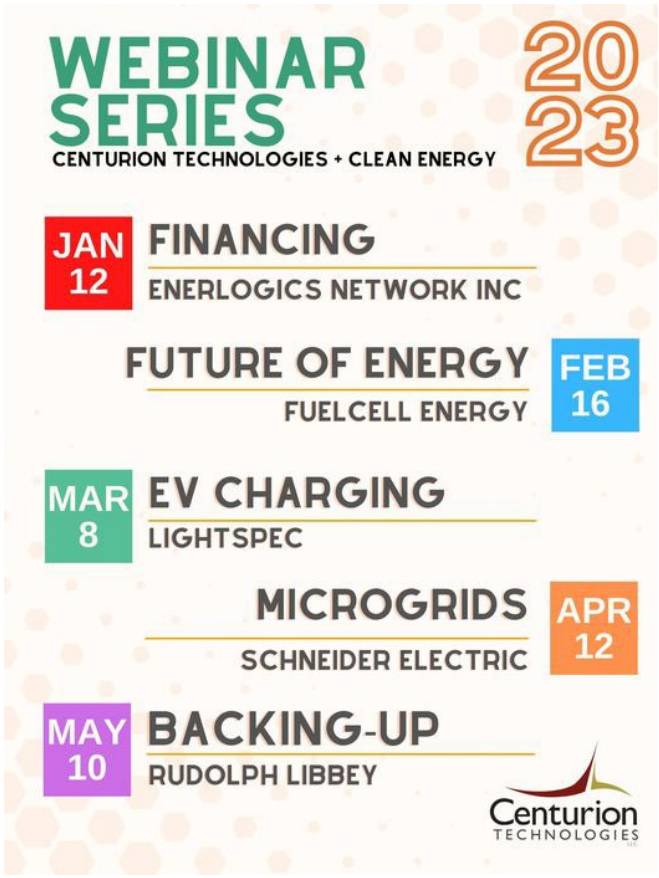
Webinar Series

Replay of first webinar available at https://enerlogics.com/2022/11/the-inflation-reduction-act-impacts-on-solar-energy-storage-and-other-dg-projects/



Enerlogics Representative Development Experience

Brooklyn Solar Project
4 MWdc solar project constructed on a former landfill in Brooklyn, Ohio.

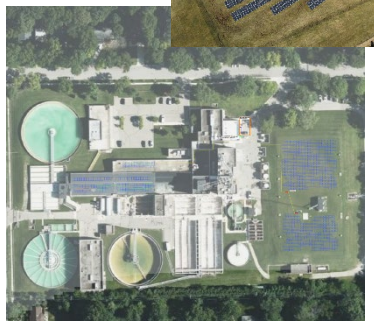
Cuyahoga County Rooftop Solar Program
1.4 MWdc multi-site deployment of solar systems on various sites within Cuyahoga County.

City of Lakewood Ohio
650 kWdc multi-site deployment of rooftop solar systems on various sites within the City of Lakewood Ohio.

City of Cleveland Heights Ohio
828 kWdc multi-site deployment of rooftop solar systems on various sites within the City of Cleveland Heights Ohio.

Penta Career Center
1.3 MWdc ground mount solar project constructed at Penta Career Center in Perrysburg, Ohio.

Kent State University
Multi- site deployment for the Kent State University regional campus throughout Eastern Ohio; 6-campus, 3.4 MWdc solar project that includes both ground mount and rooftop solar



City of Ann Arbor
Multi-site deployment of solar systems on various sites within the City of Ann Arbor. Up to 4.2 MWdc of solar across all locations including ground mount, rooftop, and floating solar.

Marin Clean Energy
Delivery of the C&I energy storage program to locations throughout MCE's territory.

Typical Project Development Process

Multistep process with full customer engagement throughout

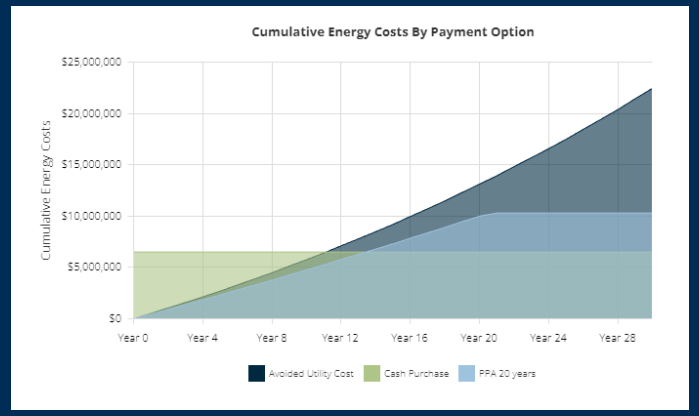
Level Set

- Project Locations: the presentation today will focus on behind-the-meter projects
  - Front-of-the-meter (aka utility scale) projects have similar impacts from the IRA, however many of these projects will utilize the IRA benefits to reduce the delivered cost of power
- Technologies: the presentation will focus on solar and energy storage system (ESS) technologies
  - Other clean energy technologies (wind, etc.) have similar benefits
- Treasury Guidance around Inflation Reduction Act: Treasury is currently in a public comment period; information provided is based on interpretations of the law and expected guidance but not yet finalized
- *Disclaimer: Enerlogics is not a tax advisor and is providing this for information purposes only based on our review of the Inflation Reduction Act and past experiences with project level financing and structuring*

Solar Deployment Types Comparison

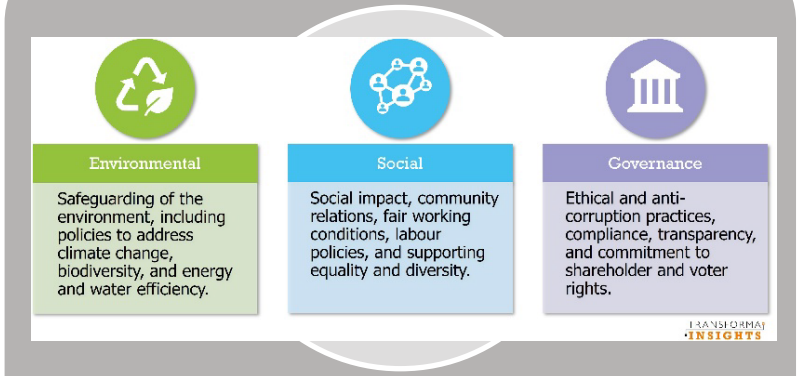
	Onsite Solar	Community Solar, etc.	Financial PPA
Example			
Typical Project Size	<2 MWs	2-10 MWs	>20 MW
Deployment Type	Ground Mount Roof Mount Carport	Ground Mount	Ground Mount
Typical Project Costs	$1.65 - $3.50/W	$1.25 - $2.00/W	<$1/W
Typical PPA Rates*	$0.06 - $0.12/kWh	$0.05 - $0.10/kWh	<$0.05/kWh
Facility Benefits	Avoidance of generation costs, avoidance of T&D charges, demand savings	Avoidance of generation costs	Avoidance of generation costs, long term price hedging strategy
Typical Deployment Times	Weeks to Months	Months to Years	3+ Years
Best for	Facilities with significant usable area for solar and stable electricity load, credit, and certainty to be in same location for 20+ years Example: Walmart rooftop	Offtaker with multiple facilities within the same service territory, limited usable area Example: Cuyahoga County / Cleveland Public Power in CURP	Large energy users (>100M kWh per year) with stable long term energy needs Example: Apple data centers

Why Solar and Energy Storage Now?



Electricity Cost Savings to Combat Rising Electricity Costs

- Utilize lower-cost solar with predictable power costs for next 25+ years



Achieve sustainability goals

- Use locally-generated solar (and energy storage) to reduce costs and carbon footprint

IRA Investment Tax Credits	Value
Base	30%
Domestic Content	10%
Energy Community	10%
Low Income Community	10% / 20%

Base with prevailing wage/apprenticeship for projects > 1 MWac

Low-income area at 10%, 20% if providing power to low-income households

Leverage tax benefits

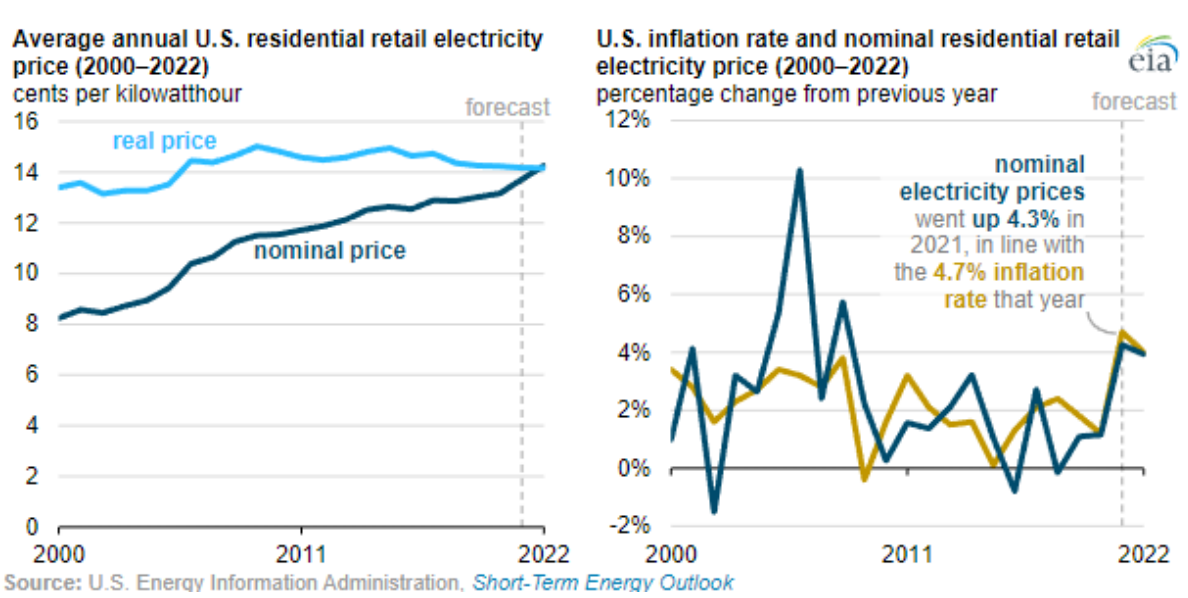
- Capture tax benefits of the Inflation Reduction Act (IRA) to reduce delivery costs under both cash purchase and third party financed options

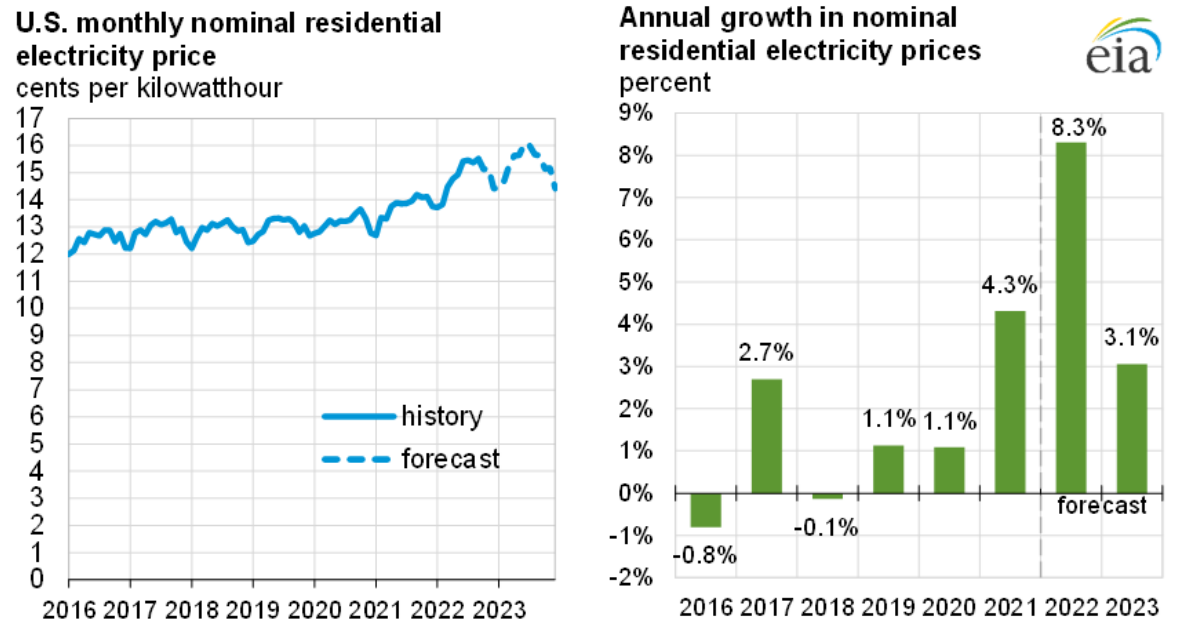
Benefits of Solar and Energy Storage

Rising Electricity Prices

- 2021: US retail electricity prices rose at the **fastest rate since 2008**
- 2022: EIA forecasts that wholesale electricity prices at major power trading hubs will be about **20-60% higher** on average this winter.
- 2022: EIA forecasts that the residential price of electricity will average 14.9 cents per kWh in 2022, **up 8% from 2021**. Higher retail electricity prices largely reflect an increase in wholesale power prices, which are driven by higher natural gas prices

Electricity prices are high and continuing to increase

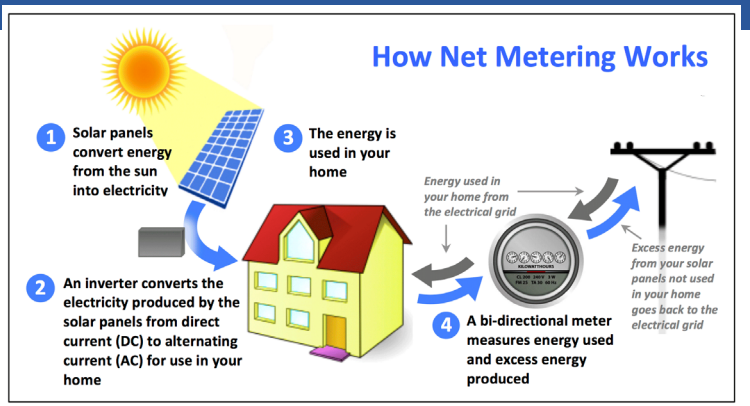


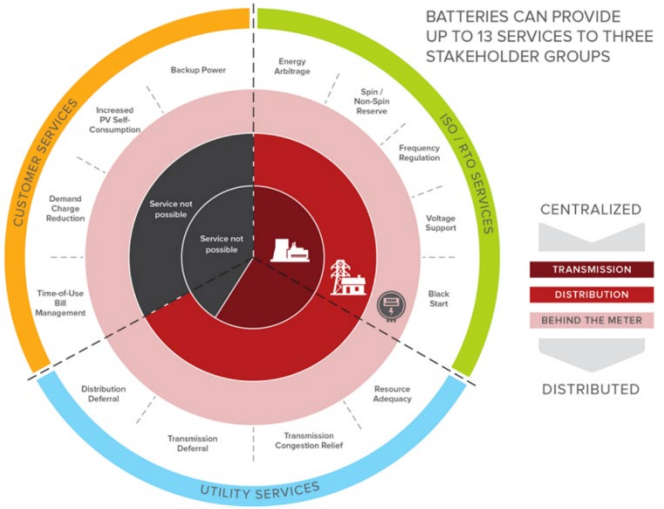


Sources: https://www.eia.gov/todayinenergy/detail.php?id=51438 and https://www.eia.gov/outlooks/steo/report/electricity.php

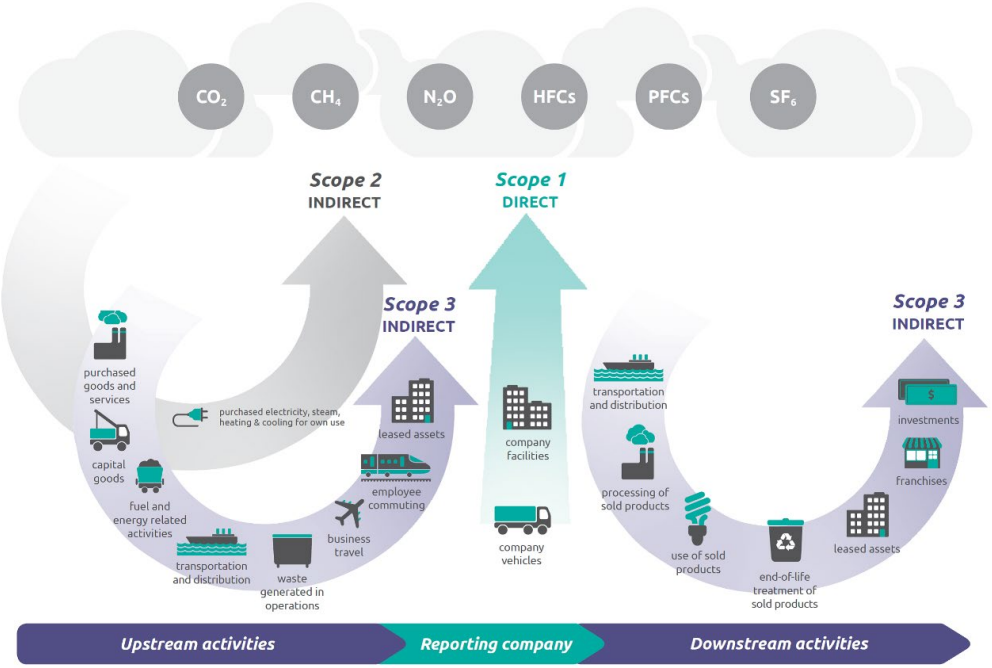
How Solar and Energy Storage Helps Address Rising Electricity Prices

- First tenant is to know where you are at – baseline your energy usage and costs
- Solar and ESS generally sized for only a portion of your facility's usage
  - Solar sized around available roof, ground, and parking lot areas
  - ESS sized around critical load, demand management, and resiliency needs
- Net metering enables your facility to produce more energy during daylight hours (exporting power to the grid) and then utilize more grid power during hours when energy production is lower than consumption
  - Net metering policies vary by state, mostly on size and on compensation schemes
- Energy produced by solar offsets the energy utilized by your facility from the grid, including both the generation and delivery of that power
- ESS enables shifting of usage profile (demand management, arbitrage, and revenue generation opportunities) to manage costs and generate revenue





ESG and Scope 1, 2 and 3



- Our focus is on addressing an appropriate, accretive and implementable solution to the “E” in ESG
- Why now? Increasing your multiple by positively impacting your bottom line

- Scope 1 is concerned with direct emissions from facility activity
- Scope 2 is indirect / upstream activities including electricity utilized at the facility level
- Scope 3 includes transmission/distribution of electricity

Solar impacts the scope 2 and scope 3 emissions

How Solar and Energy Storage Affect ESG

- Again, know where you are at with benchmarking
  - EPA's Emissions & Generation Resource Integrated Database (eGRID) provides site-level calculations of scope 2 and scope 3 impacts based on your energy usage: https://www.epa.gov/egrid
  - Scope 2 and Scope 3 emissions around electricity are based on the generation mix for facility location

- Offsite solar and wind (purchasing electricity via green tariffs, VPPAs, etc.) affects your scope 2 emissions only
- Onsite solar and wind (e.g., behind-the-meter projects) affects your scope 2 and scope 3 emissions
- Combination of onsite and offsite renewables gives a balanced option
- Purchase of renewable energy credits (RECs) can be used to bridge gaps and towards e.g., overall carbon footprint reduction from other emissions

Highlights of the Inflation Reduction Act (IRA)

- 10 (plus) years of full-value credits for onshore/offshore wind, solar, storage, and hydrogen.
  - Production Tax Credit (PTC)/Investment Tax Credit (ITC) through the end of 2024; tech-neutral credits from 2025-2032 (or later).
- Full value credits tied to prevailing wage and apprenticeship requirements.
- Adders/bonuses available for complying with domestic content requirements and investing in projects in certain energy and low-income communities.
- Direct pay available for hydrogen and advanced manufacturing PTC for the first 5 years; otherwise mostly limited to tax-exempt entities.
- New transferability program available for entities unable to elect direct pay—allowing the selling of credits to unrelated parties.
- Accelerated depreciation restored for clean energy projects (clean energy tax credits already protected) in corporate minimum tax.

Inflation Reduction Act and Project Impacts

Inflation Reduction Act (IRA) signed into law on 8/16/2022

- IRA provisions for full 30% ITC:
  1. <1 MWac system size OR
  2. If > 1MWac
     - A Meet prevailing wage AND apprenticeship requirements OR
     - B Start construction less than 60 days after Treasury guidance (start construction/safe harbor by 1/29/2023)
  - ✓ Most projects qualify under #1 or #2
- IRA Energy Storage Credits:
  1. New 30% ITC for standalone storage with minimum 5 kWh
  - ✓ ESS projects qualify
- IRA provisions for bonus 10% ITC for domestic content:
  1. 100% domestic steel in project AND
  2. Minimum 40% (2023) of equipment cost from US manufacturers
  - ✓ Most projects will NOT qualify: #1 met via current suppliers of racking; currently limited suppliers for #2
- IRA "bonus" language includes additional 10% tax credits for:
  1. Qualified energy communities OR
  2. Low income areas
  - ✓ Dependent on project location
- IRA Direct Pay option for tax-exempt facilities
  - ✓ Enables tax exempt facilities to receive cash payment for tax credits; no domestic content bonus available; domestic content requirements will start in 2024 with reduction in direct pay if not meeting domestic content requirements

Example Tax Credits

- The tax credits are generally available to projects placed in service after December 31, 2022.
- Max. credit amount: a small-scale project in a low-income energy community claiming the ITC could receive a credit in an amount of up to 70%; a project claiming PTCs could receive credits in an amount of up to $38.50 per MWh

Credit Rates				
Credit	**Base Credit**	**Base + Bonus**	**Base + Bonus + Domestic Content/Energy Community**	**Base + Bonus + Domestic Content + Energy Community**
ITC	6%	30%	40%	50%
PTC*	$5.50 / MWh	$27.50 / MWh	$30.25 / MWh	$33.00 / MWh

Source: "ACP Summary of the Inflation Reduction Act", American Clean Power.

ITC and PTC

- ITC was set to step down from current 26% (2022) to 22% then to 10% thereafter
  - IRA steps this back up to 30% with size/prevailing wage requirements
- Projects can elect either the ITC or the PTC
  - ITC is a 1x tax credit based on the project cost / fair market value
  - PTC is a tax credit based on the energy production of the system over the initial 10 years of operation
- Behind-the-meter projects generally best served with the ITC
- Standalone ESS only qualifies for the ITC

Project Financing

Project Considerations: Tax Credits and Accelerated Depreciation

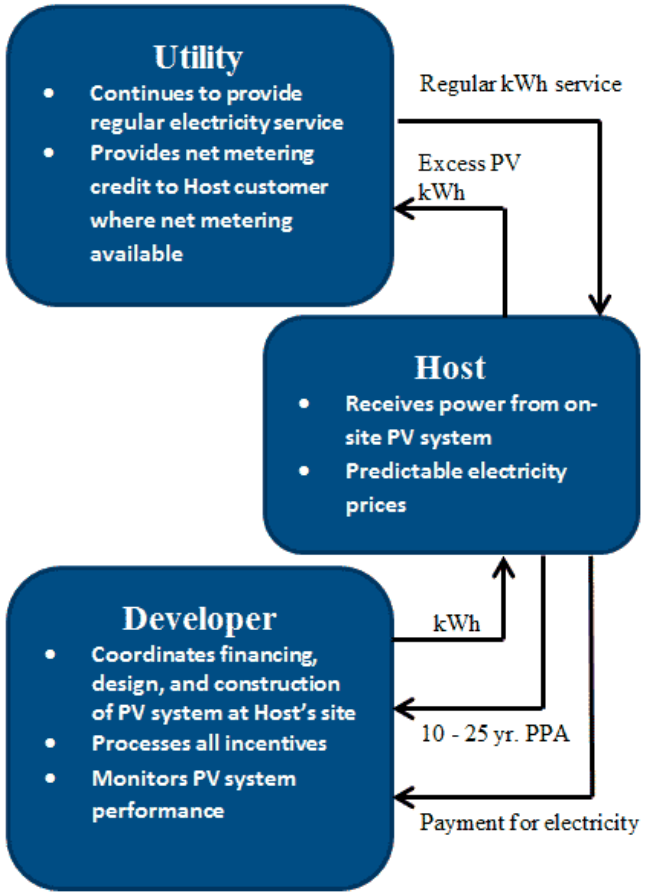
- Clean energy projects have tax credits and accelerated depreciation benefits that are available to the owner of the system
- For-profit enterprises:
  - Utilize the tax credits to offset federal tax obligations; tax credits can be retroactively applied 3 years or carried forward for 22 years
  - Utilize the accelerated depreciation as a deduction against corporate income, reducing tax liability;
- Non-profit enterprises:
  - Generally, do not pay federal income taxes
  - Direct pay of the tax credits is available
  - Accelerated depreciation benefit is “stranded” since these entities cannot utilize depreciation against corporate income

Typical Project Delivery Mechanisms

- Cash Purchase (aka Turnkey Delivery / Direct Ownership)
  - Facility contracts with developer/EPC for turnkey installation services
  - Facility is owner of the system with responsibility for all installation costs
  - Facility has responsibility for the operations & maintenance (O&M) of the system
- Financed: Power Purchase Agreement or Operating Lease
  - Facility contracts with a developer/investor (asset owner) for a PPA
  - Asset owner is owner of the system with responsibility for all installation costs
  - Asset owner has responsibility for the operations & maintenance of the system
  - Facility makes payments at contracted rate (per kWh, per kW of energy storage, per month, etc.) to the Asset Owner for the delivered capacity

Solar and Storage: Transaction Structuring

- Projects are eligible for a one-time investment tax credit (ITC) as well as accelerated depreciation
  - *Inflation Reduction Act (IRA) increases the ITC to 30%; plus the potential bonuses*
  - Accelerated depreciation with as little as 1 year bonus depreciation; basis is reduced by half of the ITC (e.g., with 30% ITC, eligible basis is 85% of costs)
  - Owner of the solar system takes the tax benefits
  - Energy storage can be eligible for the ITC depending upon how the storage is operated
- Facility can own the solar system
  - Large 1x capital expenditure for the system plus long-term ownership structure with operations responsibility (20+ year asset)
  - If facility does not have tax liability they cannot utilize the tax credit (e.g., non-profits cannot utilize the ITC)
- Power Purchase Agreement structure enables the following:
  - Developer/investor pays all installation costs for the system
  - Host facility provides the site (rooftop, ground, etc.)
  - Host facility purchases the power generated by the solar system at the rate specified in the PPA
  - Developer/investor covers all operations (including operating costs)



Cash Purchase for Taxable Entities

- Capital stack can be a mix of:
  - Direct cash into project
  - Financed loan (project-specific or general corporate borrowing)
- Tax credit considerations
  - If the entity has e.g., capital loss carryforwards that impact ability to recognize the ITC, consider a sale of the tax credits to one or more third party/ies via the IRA's tax credit transferability mechanism
    - Market is still in development and pending Treasury guidance, however expectations are that investors will purchase tax credits at 75 – 90% of the tax credit value
    - Sale of the tax credit does not incur income taxes for the seller entity
  - Entity still retains the accelerated deprecation benefits to offset income
- Long term considerations
  - Entity has the O&M responsibility for the system; many O&M services can be contracted to third party providers
  - Generally, the entity needs to include costs for direct operations (regular system inspection and maintenance) as well as other costs such as insurance, reserve for replacement of key equipment (e.g., inverters at ~10-12 year increments), property tax implications, etc.

Cash Purchase for Tax Exempt Entities

- Capital stack can be a mix of:
  - Direct cash into project
  - Financed loan (project-specific or general borrowing)
  - Tax exempt bonds
    - Utilization of tax exempt bonds will have a reduction in the basis for the tax credit. For facilities financed with tax-exempt bonds, the credit amount would be reduced by the lesser of (1) 15%; or (2) the fraction of the proceeds of a tax-exempt obligation used to finance the project over the aggregate amount of the project's financing costs.
- Tax credit considerations
  - Projects are eligible for direct payment of the tax credit value via the "direct pay" option
    - Finance options available for loans against the direct payment (E.g., lenders to provide up front financing through receipt of direct payment after project is completed)
  - Accelerated deprecation benefits are generally stranded
- Long term considerations
  - Same as for taxable entities
  - Tax exempt facilities may also be property tax exempt; generally, there is no impact on property taxes if the owner is also tax exempt.

Third Party Financing: PPAs and Leases

- Power Purchase Agreement (PPA)
  - Contract between a facility and an asset owner for delivery of energy at a contracted rate
  - Solar keys are the rate ($/kWh of energy produced by the solar array), escalation (0% through 2%+), and initial term (15, 20, 25, 30 years)
    - Energy storage priced at $/kW of energy storage capacity per month
  - PPAs typically have an energy production guarantee (e.g., 80% of anticipated annual energy production)
- Solar leases
  - Contract between a facility and an asset owner for right to use the system
  - Solar keys are the lease rate ($/month), escalation, and initial term
  - Solar leases typically have an energy production guarantee
  - Solar leases more often used in locations where third party PPAs are not allowed (e.g., state law or utility rules)

Third Party Financing with PPAs and Leases (cont'd)

- Capital stack can be a mix of:
  - Depending on the investor, this can be all a single source or syndicated on a portfolio basis
  - E.g., the investor group may have a series of funds with different investor pools for the projects
- Tax credit considerations
  - ITC and accelerated depreciation benefits go the asset owner
  - These are utilized to hit investor return thresholds with a lower PPA rate
  - For example, if a project is able to achieve a 40% ITC, it will have a lower PPA rate than that same project would with a 30% ITC
  - Many project investors look at a "step up" in the basis for ITC eligibility (generally using a discounted cash flow style model of the project economics). Accounting firms have guidance on what step up is feasible with Treasury.
- Long term considerations
  - Operations responsibility is on the asset owner as part of the PPA; energy production guarantee gives the facility a floor of energy production
  - Project is usually responsible for any property tax payments, etc.
  - For facilities that are tax exempt, third party ownership *may* trigger property tax implications that would not be there had the facility owned the system
    - E.g., a city owned solar array on a city site may be property tax exempt, but with third party ownership that may trigger property tax implications with a higher PPA rate

Third Party Financing with PPAs and Lease: End of Term Options

- PPAs and leases allow buyout at any time
  - Most cost effective after the tax benefits are utilized (after the 6th year of operation)
  - Fixed price buyouts are not allowed – they generally impair the tax credits. Most contracts have a “greater of fair market value or a calculated price” mechanism to preserve the tax credit treatment
- At end of initial term, PPAs and leases generally have 3 options:
  - Extend for one or more 5-year terms
  - Buyout by the facility
  - Removal of system at the asset owner’s expense
- Prepaid / Partially Prepaid PPAs and leases
  - Enerlogics has done partially prepaid PPAs, whereby the facility prepays a portion of the PPA in return for a lower rate per kWh.
  - Most cost effective when e.g., a facility has some capital available for projects but not enough to cover the entire project costs

Third Party Financing with PPAs and Leases: Variations

- PPAs and leases have rates that are based on factors including:
  - System size
  - System direct costs
  - System energy production
  - Cost of capital
  - Operating costs including sales and property taxes
- PPAs and leases for system that are the same size will vary with regional differences on the factors above
  - E.g., a project in sunny climates (CA, desert SW) will have greater energy production than the same system in the Midwest; even with all else equal that system in sunny climate would have a *lower* PPA/lease rate to hit the same investor return

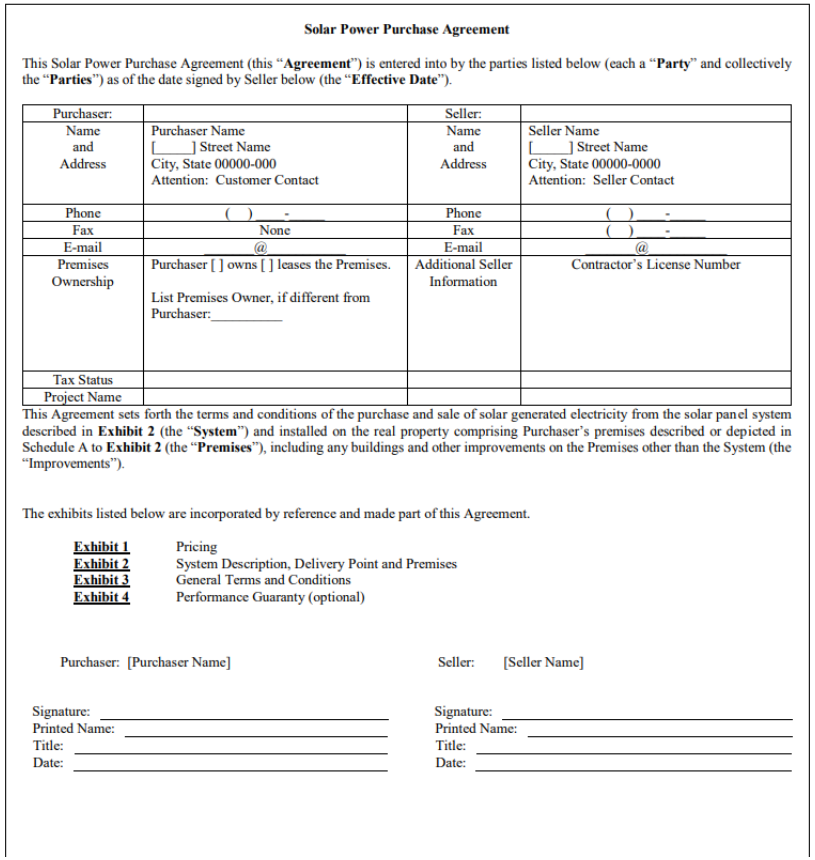
Third Party Financing with PPAs and Leases: Behind the Scenes

- Third party investors structure the PPAs and leases with a special purpose entity (SPE) for project ownership
  - SPE can have multiple investors including tax, sponsor, and debt
- SPE generally structured with one of the following structures:
  - Tax equity flip using time- or yield-based flip structure
  - Sale / leaseback
  - Inverted lease
  - Etc.
- How the investor structures the SPE can have an impact on the resultant PPA rate

Third Party Financing with PPAs and Leases: Templates

The Solar Energy Industries Association (SEIA) publishes model leases and PPAs

See https://www.seia.org/research-resources/model-leases-and-ppas



Solar Power Purchase Agreement

This Solar Power Purchase Agreement (this "**Agreement**") is entered into by the parties listed below (each a "**Party**" and collectively the "**Parties**") as of the date signed by Seller below (the "**Effective Date**").

Purchaser:		Seller:	
Name and Address	Purchaser Name [_____] Street Name City, State 00000-000 Attention: Customer Contact	Name and Address	Seller Name [_____] Street Name City, State 00000-0000 Attention: Seller Contact
Phone	(___)___-____	Phone	(___)___-____
Fax	None	Fax	(___)___-____
E-mail	_____@_____	E-mail	_____@_____
Premises Ownership	Purchaser [ ] owns [ ] leases the Premises. List Premises Owner, if different from Purchaser:_____	Additional Seller Information	Contractor's License Number
Tax Status			
Project Name			

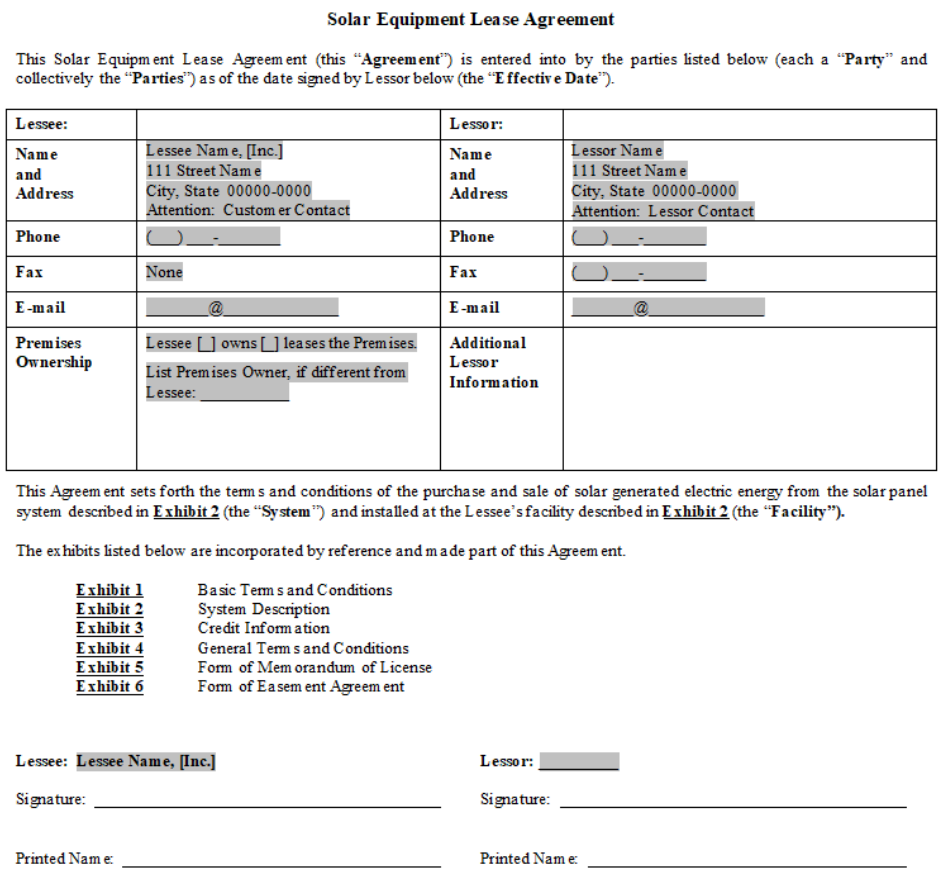
This Agreement sets forth the terms and conditions of the purchase and sale of solar generated electricity from the solar panel system described in **Exhibit 2** (the "**System**") and installed on the real property comprising Purchaser's premises described or depicted in Schedule A to **Exhibit 2** (the "**Premises**"), including any buildings and other improvements on the Premises other than the System (the "Improvements").

The exhibits listed below are incorporated by reference and made part of this Agreement.

Exhibit 1	Pricing
Exhibit 2	System Description, Delivery Point and Premises
Exhibit 3	General Terms and Conditions
Exhibit 4	Performance Guaranty (optional)

Purchaser: [Purchaser Name] Seller: [Seller Name]

Signature: _____ Signature: _____
Printed Name: _____ Printed Name: _____
Title: _____ Title: _____
Date: _____ Date: _____



Solar Equipment Lease Agreement

This Solar Equipment Lease Agreement (this "**Agreement**") is entered into by the parties listed below (each a "**Party**" and collectively the "**Parties**") as of the date signed by Lessor below (the "**Effective Date**").

Lessee:		**Lessor:**	
Name and Address	Lessee Name, [Inc.] 111 Street Name City, State 00000-0000 Attention: Customer Contact	**Name and Address**	Lessor Name 111 Street Name City, State 00000-0000 Attention: Lessor Contact
Phone	(___)___-____	**Phone**	(___)___-____
Fax	None	**Fax**	(___)___-____
E-mail	_____@_____	**E-mail**	_____@_____
Premises Ownership	Lessee [_] owns [_] leases the Premises. List Premises Owner, if different from Lessee: _____	**Additional Lessor Information**	

This Agreement sets forth the terms and conditions of the purchase and sale of solar generated electric energy from the solar panel system described in **Exhibit 2** (the "**System**") and installed at the Lessee's facility described in **Exhibit 2** (the "**Facility**").

The exhibits listed below are incorporated by reference and made part of this Agreement.

Exhibit 1	Basic Terms and Conditions
Exhibit 2	System Description
Exhibit 3	Credit Information
Exhibit 4	General Terms and Conditions
Exhibit 5	Form of Memorandum of License
Exhibit 6	Form of Easement Agreement

Lessee: Lessee Name, [Inc.] **Lessor:** _____

Signature: _____ Signature: _____

Printed Name: _____ Printed Name: _____

Purchase vs. PPA Considerations

- System purchase requires utilization of your capital to cover a non-core asset

- Power purchase agreement (PPA) enables us to cover the entire installation and operations costs of the system, with your facility only responsible for purchasing the power generated by the solar system
  - The PPA approach provides a hedge for a significant portion of the electricity needs of your facility
  - Your facility is committing to purchasing the power generated by the solar array
  - Your facility is free to “shop” the balance of power needs via regular supply auctions or negotiations
  - Your facility has known power costs for a significant portion of the energy needs for the next 25-years
  - You have the option to purchase the system at any time, generally most cost effective after tax benefits fully realized (year 6 or later)
  - ***PPA’s enable the investor to take a tax credit and accelerated depreciation, thus reducing cost***
- The PPA approach is designed to be treated as an energy contract vs. a traditional lease or debt capacity instrument.
  - In particular, the PPAs are off balance sheet transactions. PPAs (which have an operational component that falls on the special purpose entity, etc.) are not treated as a balance sheet obligation.

Power Purchase Agreement Fundamentals

	Current State	Solar Turnkey Purchase	Solar Power Purchase Agreement (PPA)
Consumption of Facility	e.g., 170,000 kWh per month all from the grid/utility	e.g., 120,000 kWh from solar, balance (50,000 kWh) from the grid/utility	e.g., 120,000 kWh from solar, balance (50,000 kWh) from the grid/utility
Upfront Cost	N/A	$$$	None - PPA is a zero out of pocket cost option
Tax Benefits: Investment tax credit and accelerated depreciation	N/A	To system owner against US tax obligations For tax exempt entities, direct payment of the ITC is feasible however the depreciation is stranded.	To system investor. For tax exempt municipalities and facilities that cannot utilize the ITC, this enables investor to utilize tax credits and depreciation to lower the cost of delivered electricity
Monthly Payments	Utility Costs for electricity: Traditional electricity bill for the month, which includes both delivery charges to regulated utility (e.g., AEP) and supply charges to the selected supplier (e.g., Direct Energy)	None for solar Utility costs for balance of electricity needs	Payment for electricity generated in that month at the PPA rate Utility costs for balance of electricity needs
Typical Term	N/A	Ownership – not applicable	20, 25, or 30 years
Long Term Benefits	100% grid power, generally with high SCOPE 2 carbon emissions	Significant portion of electricity is locally generated 100% carbon free Ownership typically has a 10+ year payback period	Significant portion of electricity is locally generated 100% carbon free Lock in your electricity rate for the energy generated by solar (typically only a portion of your overall energy usage).
Operations & Maintenance Responsibility	N/A	Responsibility of Owner	Responsibility of PPA owner

PACE Financing

- The property assessed clean energy (PACE) model is an innovative mechanism for financing energy efficiency and renewable energy improvements on private property. For commercial properties (commonly referred to as Commercial PACE or C-PACE).
- Commercial and residential PACE programs share a common foundation. PACE programs allow a property owner to finance the up-front cost of energy or other eligible improvements on a property and then pay the costs back over time through a voluntary assessment. The unique characteristic of PACE assessments is that the assessment is attached to the **property** rather than an individual.
- PACE financing for clean energy projects is generally based on an existing structure known as a "land- secured financing district," often referred to as an assessment district, a local improvement district, or other similar phrase. In a conventional assessment district, the local government issues bonds to fund projects with a public purpose such as streetlights, sewer systems, or underground utility lines.
- Property owners that voluntarily choose to participate in a PACE program repay their improvement costs over a set time period—typically 10 to 20 years—through property assessments, which are secured by the property itself and paid as an addition to the owners' property tax bills. Nonpayment generally results in the same set of repercussions as the failure to pay any other portion of a property tax bill.
- A PACE assessment is a debt of property, meaning the debt is tied to the property as opposed to the property owner(s). In turn, the repayment obligation may transfer with property ownership if the buyer agrees to assume the PACE obligation and the new first mortgage holder allows the PACE obligation to remain on the property.

Ability to utilize PACE financing is generally specific to the project site; not commonly used today for solar and energy storage projects

Other Tax Credits and Benefits

- Additional tax credits are potential for projects; these are generally location-specific for availability and include:
  - New Markets Tax Credits (NMTC)
  - Historic Tax Credits (HTC)
  - Low Income Tax Credits (LITEC)
  - Opportunity zones
  - Etc.
  - While not a focus of this presentation, layering of additional tax credits and tax benefits can improve project economics

Other Debt and Funding

- Some projects are able to tap into lower cost loans, loan guarantees, and grants; these are generally location-specific for availability and include:
  - USDA Rural Energy for America Program (REAP) loans and grants
  - DOE Loan Program Office (LPO) loans
  - DOE Tribal loan programs
  - Etc.
  - While not a focus of this presentation, layering of these benefits can improve project economics
- Tax exempt bonds can be utilized for project finance but will impact the ITC basis

Other Incentives: State, Utility, and Local Incentives

- Some states provide incentives for solar and energy storage projects
  - CA has a self generation incentive program (SGIP) which is a tiered incentive program
  - MA has a similar structure with MA Smart solar incentives
  - Many incentives are technology specific (e.g., only for solar or for energy storage)
- Some states also provide tax incentives for projects
  - E.g., lower or no sales tax, lower property taxes, state-level depreciation benefits, etc.
- Some utilities provide incentives
  - ComEd and Ameren smart inverter rebate program
  - PPL solar incentive program
  - Etc.
- Occasionally there are local incentives for solar
  - Local level grants generally the most common forms

SRECs, etc.

- Renewable energy generation projects create renewable energy credits (RECs)
  - Each MWh of generation has an associated REC
- RECs can be retired (e.g., used by the facility) to substantiate renewable electricity use claims
- Many states have liquid markets for RECs and some states have specific incentives for solar RECs (SRECs)
  - For example, IL Shines Adjustable Block Program currently will pay projects $40.90 per REC ($0.0409/kWh) for 15-years of utility purchased RECs
- Projects can either:
  - Keep the SRECs and retire
  - Sell the more valuable SRECs and purchase lower cost (wind) RECs to retire
  - Most PPA providers will keep more valuable SRECs and provide the host facility with replacement RECs; this enables lower PPA rates for projects

Eligible Costs

- Costs eligible for tax credits include:
  - Direct equipment, installation: solar and energy storage equipment, engineering, installation
  - Soft costs: Permits, development expenses, legal, etc.
  - Related equipment and installation costs: switchgear upgrades to support solar and energy storage, etc.
  - Systems such as EV charging infrastructure, building automation control upgrades, etc. may be costs eligible for the tax credits. Consult your tax advisor.
- Roof costs can be eligible for tax credits when paired with rooftop solar
  - See next page

Roofs and Rooftop Solar Considerations

- Rooftop solar is installed to preserve roof warranties with both ballasted and mechanically attached systems
- Rooftop solar systems are a 25+ year asset
  - Rooftop solar timing is best when paired with a new or newer roof to align system lifetimes and to ensure that avoid later costs to e.g. move solar array during a reroofing event
- Solar modules are increasingly utilizing “bifacial” modules which produce energy on both the front and back side of the modules
  - Reflective roof surface paired with bifacial modules makes a portion of the roof cost eligible for the Investment Tax Credit (IRS Private Letter Ruling (PLR) to the right)

When installed upon a highly reflective surface such as the Reflective Roof, the System generates significant amounts of electricity from reflected sunlight. Because the Reflective Roof enables the generation of significant amounts of electricity from reflected sunlight, the Reflective Roof constitutes equipment that uses solar energy to generate electricity when installed in connection with the System. The Reflective Roof also satisfies, when installed in connection with the System, the definition of energy property under Treas. Reg. §§ 1.48-9(d)(1) and 1.48-9(d)(3) because the Reflective Roof is part of the equipment and materials that use solar energy to directly generate electricity.

Accordingly, we conclude that the Reflective Roof, when installed in connection with the System, constitutes energy property under section 48 of the Code to the extent that the cost of the Reflective Roof exceeds the cost of reroofing Taxpayer's building with a non-reflective roof that is allowed by local law.

Except as expressly provided herein, no opinion is expressed or implied concerning the tax consequences of any aspect of any transaction or item discussed or referenced in this letter. Specifically, no opinion is expressed whether Taxpayer qualifies for the investment credit under section 46 of the Code or whether the energy property otherwise qualifies under section 48 of the Code.

In accordance with the Power of Attorney on file with this office, a copy of this letter is being sent to your authorized representative.

This ruling is directed only to the taxpayer requesting it. Section 6110(k)(3) of the Code provides that it may not be used or cited as precedent. We are sending a copy of this letter ruling to the Industry Director.

Case Study

Simplified Example Considering Ownership and Finance Options

- Hypothetical system:
  - 1.25 MWdc ground mount solar array
  - Cost of $2.25M ($1.80/W)
  - Initial year energy production of 1,674,000 kWh (1,340 kWh/kWdc)
- Current consumption of 4,948,000 kWh with Grid power costs of $0.13/kWh increasing at 3% per year
  - Solar offsets a portion of both energy and demand costs
- Running with 30% ITC and:
  - Direct ownership:
    - Cash purchase with O&M expenses
    - 70% loan with O&M expenses; loan at 6% interest rate for 20-year term
  - PPAs:
    - 20-year PPA at $0.097/kWh plus 1.5% annual escalation
    - 25-year PPA at $0.086/kWh plus 1.5% annual escalation

Case Study Details

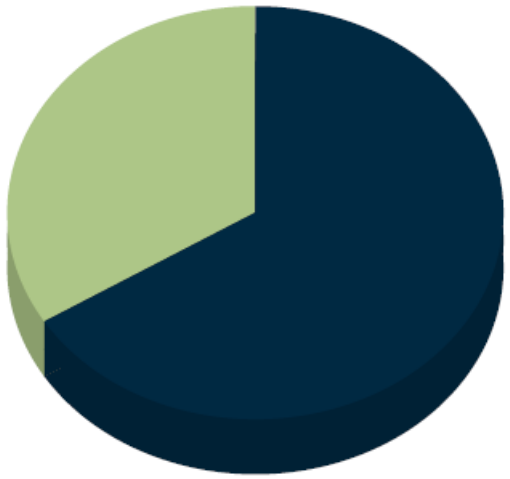
Solar PV System Rating

Power Rating: 1,249,200 W-DC

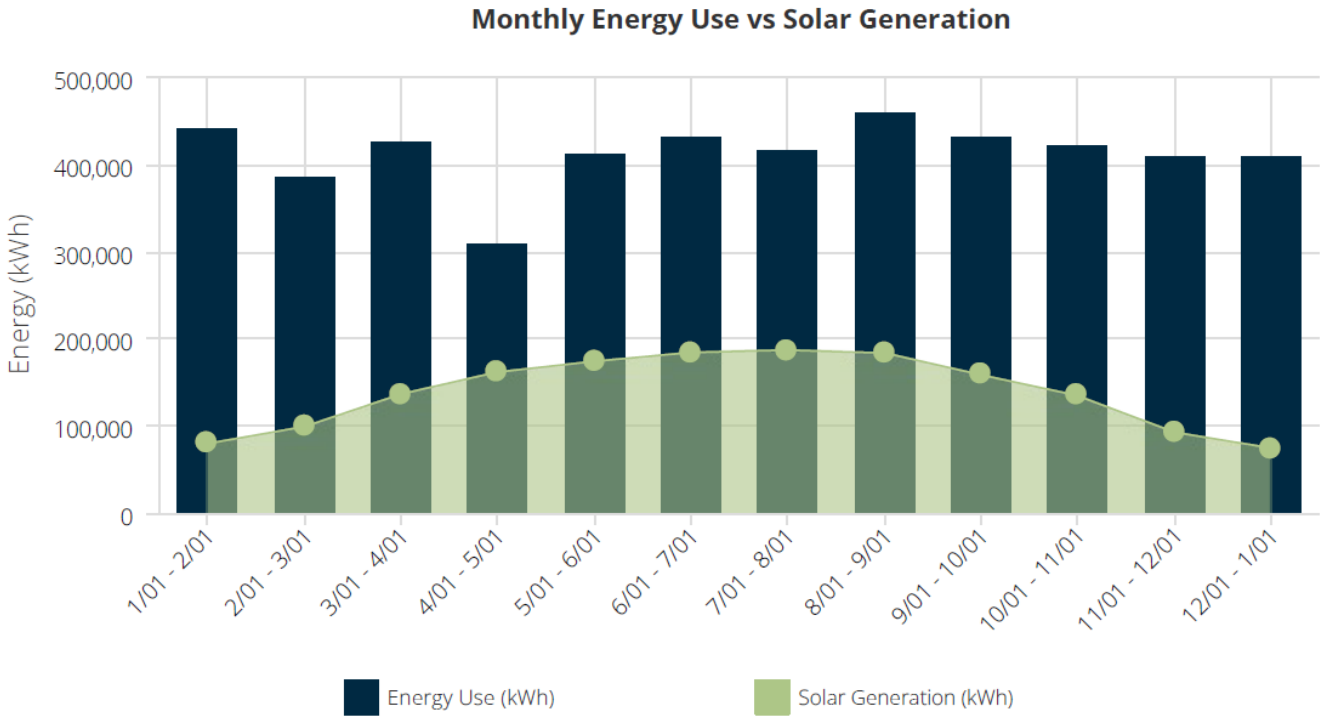
Power Rating: 1,088,128 W-AC-CEC

Energy Consumption Mix

Annual Energy Use: 4,948,174 kWh



Utility	3,274,073 kWh	(66.17%)
Solar PV	1,674,101 kWh	(33.83%)



Solar PV System Cost and Incentives

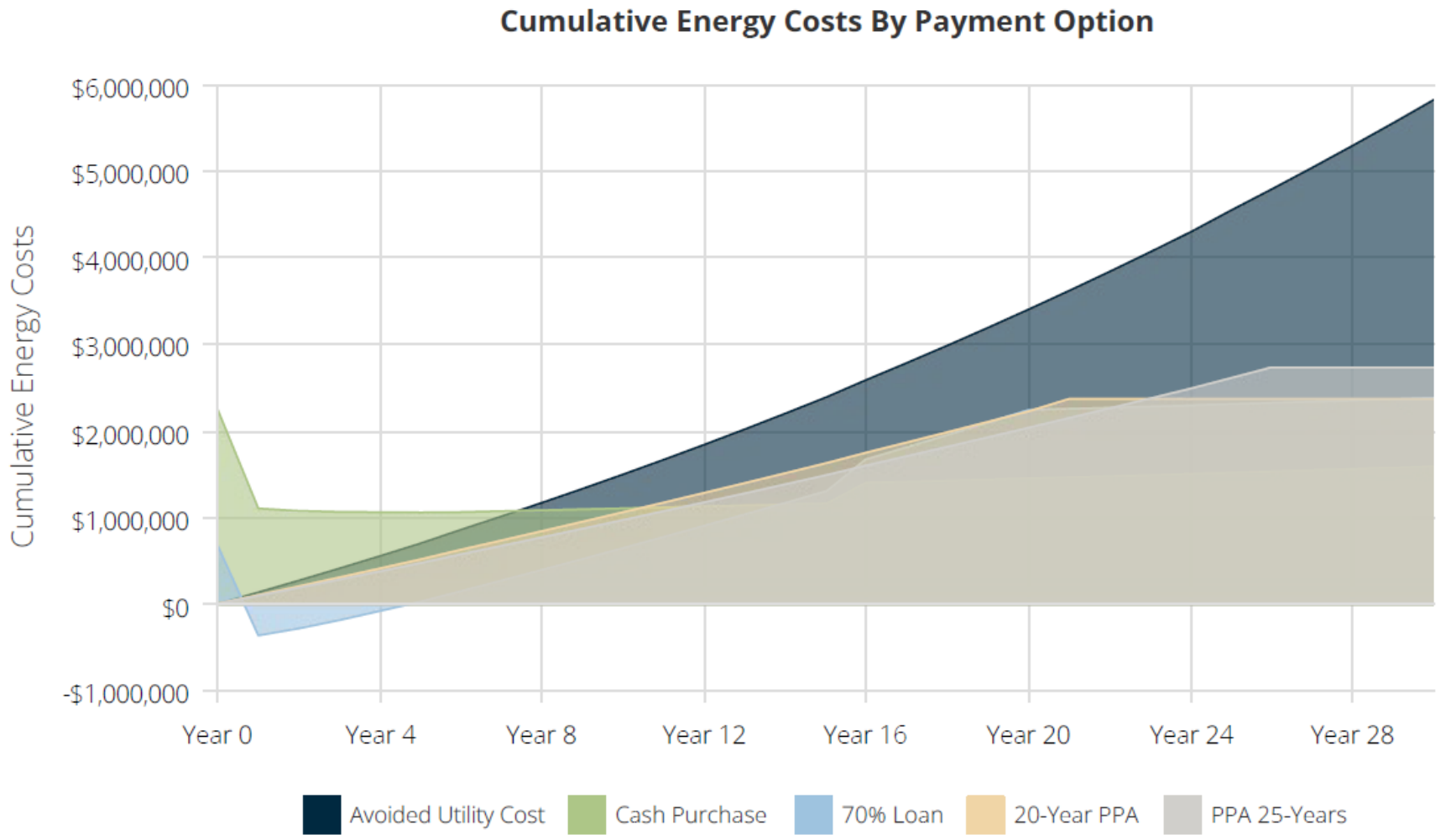
Solar PV System Cost	$2,248,560
Federal Tax Credit	-$674,568
Federal - MACRS Bonus Depreciation	-$573,383
Net Solar PV System Cost	**$1,000,609**

Case Study Results

	Cash Purchase	70% Loan	20-Year PPA	25-Year PPA	Comment
Upfront Payment	$2,248,560	$674,568	$0	$0	
Total Payments	$2,248,560	$3,380,944	$3,682,030	$4,243,846	Loan reflects total loan payments; PPA reflects total PPA payments plus buyout at end of term
Total Incentives	$1,247,951	$1,247,951	-	-	Incentives reflects ITC and accelerated depreciation benefits
Net Payments	$1,000,609	$2,132,993	-	-	Net payments is total payments less incentives.
Electric Bill Savings - Term	$9,055,285	$9,055,285	$9,055,285	$9,055,285	Bill savings is the 30-year gross electricity bill savings ($207k initial year savings, utility rates increasing at 3% per year)
Loan Term	-	20 Years, 6.0% interest rate	-	-	
Starting PPA Rate	-	-	$0.0940	$0.0860	
PPA Escalation Rate	-	-	1.50%	1.50%	
Term	-	-	20	25	
LCOE PV Generation	0.0215	0.0458	0.079	0.0911	
IRR - Term	12%	82%	-	-	
Net Present Value	**$1,391,538**	**$1,517,795**	**$1,321,843**	**$1,268,655**	
Payback Period	7.4226	-	-	-	
Upfront Payment	$2,248,560	$674,568	$0	$0	
Total Payments	$2,248,560	$3,380,944	$3,682,030	$4,243,846	Loan reflects total loan payments; PPA reflects total PPA payments plus buyout at end of term
Total Incentives	$1,247,951	$1,247,951	-	-	Incentives reflects ITC and accelerated depreciation benefits

Based on example project ground mount solar project with yields typical for Midwest states
Grid power costs increasing at 3% per year, solar offsets portion of electric energy and demand charges

Case Study Results



Questions

How we can help you

- Enerlogics and Centurion are part of the solution
- We can help you understand your needs by baselining your current electricity usage and costs before evaluating options
- We can deploy technologies such as solar, energy storage, and related energy projects can reduce your operating costs, stabilize your energy costs, and achieve sustainability targets while leveraging significant tax credits

Resources

- American Clean Power: https://cleanpower.org/
- SEIA: https://www.seia.org/research-resources/impact-inflation-reduction-act

- Get started with Enerlogics: https://enerlogics.com/services/leap/

Want to know more?

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