SOLAR FORENSIC CONSULTING GROUP

Independent Solar System & Contract Assessment

Homeowner Version - Redacted Sample Report

Report type	Third-party Power Purchase Agreement (PPA) assessment
Subject property	Single-family residence, Texas *(address redacted)*
Homeowner	*Name redacted at homeowner's request*
PPA provider	*Redacted* - a national residential solar finance company
Agreement date	July 2024
Assessment date	February 2026
Prepared by	Solar Forensic Consulting Group · Dallas–Fort Worth, Texas

Prepared in plain language for the homeowner. A companion version of this report, formatted for attorney review, is available separately.

About this sample. This document is a redacted work sample adapted from an actual assessment performed by the report author. Names, addresses, filing numbers, and other identifying details have been removed or generalized; all technical figures, calculations, and contract observations are drawn from the original engagement. Referenced exhibits and appendices are omitted from this sample.

How assessments are performed. Assessments of this type are completed remotely from the system's own monitoring data, the contract documents, and public records - no site visit is required. Where the facts of a particular case call for a physical inspection, that can be added as a separately scoped service.

Scope of this report. Solar Forensic Consulting Group provides independent technical, production, and financial analysis of residential solar installations and agreements. This report presents factual findings and the author's professional opinions on solar industry practice. It is not legal advice, tax advice, or financial advice, and it does not reach conclusions on any party's legal rights, obligations, or liability. Readers should consult a licensed attorney and a qualified tax professional regarding the matters identified herein.

Why This Assessment Was Performed

The homeowner entered into a 25-year Power Purchase Agreement (PPA) for a rooftop solar system in July 2024. Under a PPA, the homeowner does not own the system; the provider owns it and bills the homeowner each month for the electricity it produces. The homeowner asked Solar Forensic Consulting Group to answer three questions: Is the system performing the way it should be? Do the numbers in the contract match what the roof can physically produce? And how does the total cost compare to what this system would have cost to simply buy?

Everything in this report is based on the signed agreement, the recorded county filing, and the system's own monitoring data - the assessment was completed remotely, with no site visit needed. Anyone can reproduce the production math using the free PVWatts calculator published by the National Renewable Energy Laboratory (pvwatts.nrel.gov).

The System on the Roof

Component	Detail
Panels	43 × 410 W modules - 17.63 kW DC total
Inverters	Enphase IQ8+ microinverters (one per panel)
Main array	32 panels facing due east (90°), 40° tilt
Secondary arrays	5 panels due west (270°), 6 panels due south (180°), 40° tilt
Status	All 43 panels and microinverters verified reporting and producing normally via remote monitoring

The orientation matters. In North Texas, a due-south array is the most productive; east- and west-facing panels produce meaningfully less over a year. Roughly three-quarters of this system faces due east, which caps what the roof can physically generate - a constraint that should be reflected in any honest production estimate. One important point up front: the hardware itself is working correctly. The issues in this report are about the contract, not the equipment.

Does the Contract's Production Estimate Hold Up?

The agreement's first-year production estimate is 23,615 kWh. To test that figure, each array was modeled separately in PVWatts using its actual direction and tilt, with a 1% shading allowance on the east array for minor morning shade from a neighboring home:

Source	Annual production
Contract estimate (Year 1)	23,615 kWh
Independent PVWatts model (all three arrays)	22,607 kWh
Actual production, first 12 months	**22,605 kWh**

The independent model landed within 2 kWh of what the system actually produced - a match of better than one hundredth of one percent. That gives high confidence in the modeling. It also means

the contract's estimate was about 1,008 kWh per year higher than what standard industry modeling supports for this roof.

WHAT THIS MEANS FOR THE HOMEOWNER

Monthly PPA payments are sized around the provider's production estimate. An estimate set above what the roof can realistically produce supports a higher payment schedule than standard modeling would justify. The actual data now confirms the system performs at the modeled level - not the contract's level.

The Gap Between What Is Billed and What Is Guaranteed

Every solar panel loses a little output each year as it ages - this is called degradation. This agreement uses two different degradation numbers in two different places, and the difference adds up over 25 years:

Contract provision	Assumption used	25-year total
Billing schedule (Exhibit F) - the energy the homeowner is scheduled to pay for	0.5% degradation per year	556,274 kWh
Performance guarantee (Exhibit G) - the energy the provider promises to stand behind	90% of a 1%-degradation schedule	472,206 kWh
Difference		**84,068 kWh**

In other words, over the life of the agreement there are roughly 84,000 kWh - more than $18,500 at the contract's rates - that sit inside the billing schedule but outside the guarantee. If production falls anywhere in that band, the homeowner still pays on schedule, and no guarantee credit is triggered. This report refers to that band as the “dead zone.” A structure like this is one-directional: the buffer protects only the provider.

Billing When the System Isn't Producing or Reporting

Section 4(b)(iii) of the agreement permits the provider to bill for “reasonably estimated” production if the system stops reporting data, or if the provider attributes a production shortfall to the homeowner. As written, this places the practical burden of equipment and communication failures on the homeowner: if, for example, the monitoring gateway fails through no fault of the homeowner's, estimated billing can continue while the home receives no solar electricity. The homeowner may wish to have an attorney review how this clause operates alongside the guarantee provisions.

What the Agreement Costs Compared to Buying

Item	Amount
Year 1 PPA rate	$0.150 per kWh, escalating 2.99% per year

Item	Amount
Total of scheduled PPA payments (25 years)	$120,628.56
Market cash price for a comparable 17.63 kW system at signing (DFW, $2.25–$2.50/W)	$39,668 – $44,075
30% federal tax credit if homeowner-owned	$11,900 – $13,223 (retained by the provider under a PPA)
Net cash cost had the homeowner purchased	**$27,768 – $30,852**

THE BOTTOM LINE

The scheduled PPA payments total roughly four times the net cash cost of an equivalent purchased system. Because the provider owns the system under a PPA, the provider - not the homeowner - also keeps the federal tax credit.

The Filing Recorded Against the Property

In January 2025, the provider recorded a UCC-1 fixture filing in the county's real property records (filing number redacted). A filing of this kind will typically surface in a title search when the home is sold or refinanced, and buyers or lenders commonly ask that it be addressed before closing. Under the agreement, the options at sale are: (1) the buyer qualifies with the provider and assumes the PPA at the original rates, or (2) the seller prepays all remaining payments at a 5% discount. The agreement also bars any buyout before the fifth anniversary, and prices later buyouts at “fair market value” as determined at that time rather than by a published depreciation schedule.

One further detail: the recorded filing states an original loan amount of $58,355.30 - roughly $14,000 to $18,000 above the market cash price range for this system. Removing a 30% share from that figure yields $41,026.80, which falls inside the independent cash-price range. This arithmetic is consistent with common solar-finance structures in which lender fees are embedded in the stated project amount. The U.S. Department of Energy's homeowner guidance states that financing and origination fees are not eligible expenses for the 30% federal tax credit. How those principles apply to this transaction is a question for a qualified tax professional; it is flagged here because the recorded amount, not the market price, may have been used as the basis for tax credit and payoff figures.

Summary of Findings

1. The system's hardware is fully operational - all 43 panels and microinverters verified reporting and producing via remote monitoring. This is a contract issue, not an equipment issue.
2. Actual first-year production (22,605 kWh) matched independent PVWatts modeling (22,607 kWh) almost exactly, and both fall about 1,008 kWh below the contract's Year 1 estimate of 23,615 kWh.
3. The billing schedule and the performance guarantee use different degradation assumptions, creating an 84,068 kWh / $18,500+ band over 25 years that is billed but not guaranteed.
4. Section 4(b)(iii) permits estimated billing during outages or reporting failures, shifting that risk to the homeowner as written.
5. Scheduled payments of $120,628.56 are approximately 4× the net cash cost of an equivalent purchased system, and the federal tax credit remains with the provider.
6. A UCC-1 fixture filing recorded against the property states a loan amount well above market cash pricing; the tax-basis implications warrant review by a qualified tax professional.

Important. This report presents technical findings and the author's professional opinions on solar industry practice. It does not state legal conclusions, characterize any party's conduct in legal terms, or advise the homeowner on legal or tax positions. Decisions about contract remedies, disputes, or tax filings should be made with a licensed attorney and a qualified tax professional.