SOLAR FORENSIC CONSULTING GROUP

EXPERT ASSESSMENT

Solar Power Purchase Agreement - Production Representations, Shading Analysis, Change-Order Discrepancies & Economic Review

[Homeowner] v. [PPA Provider]

Residential Solar PV - Power Purchase Agreement - Municipal Utility Territory, North Texas

PREPARED BY

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Prepared for use by the Homeowner and reviewing counsel

Date of Report: April 2025 (original assessment) ·

SAMPLE - PUBLISHED WORK PRODUCT. This is a redacted excerpt of an actual assessment performed by the report author, published as a work sample. All party names, the property address, contract identification numbers, installer names, and other case-identifying details have been removed or replaced with generic placeholders. The technical analysis, methodology, and publicly available source citations are reproduced as written. Engagement-specific exhibits (contract excerpts, monitoring screenshots, and the accompanying financial spreadsheet) are omitted from this sample.

SCOPE. This report provides independent technical, production, and financial analysis together with industry-practice context. It is not legal advice or tax advice, and it reaches no conclusions on any party's legal rights, obligations, or liability.

I.

Scope of Opinion, Qualifications, and Methodology

A. Scope of Opinion

I have been engaged to provide an independent technical and industry-practice assessment of a residential solar photovoltaic (PV) system installed at the subject property in North Texas and operated under a 25-year Power Purchase Agreement ("the PPA") with the PPA Provider ("the Provider"), executed in July 2023. This assessment is limited to the following subject-matter areas, all within my professional expertise as a solar industry practitioner:

- System engineering performance, including verification of equipment operation and review of metered production data;
- Independent modeling of the site's maximum achievable production given the as-installed array orientations, and derivation of the shading loss factor implied by the Provider's contract estimate;
- The relationship between the contract's stated annual consumption estimate, its stated production estimate, and the offset percentage represented on the face of the agreement;
- Documentary comparison of the original agreement against the executed change order, identifying figures that appear in one document and not the other, or that differ between them;
- The performance-guarantee and underproduction-credit mechanics stated in Exhibit C and Section 4 of the agreement, the payment schedule stated in Exhibit B, and the relationship between amounts payable by the Homeowner and amounts creditable to the Homeowner;
- Industry practice regarding residential solar market pricing, PPA economics, and federal Investment Tax Credit (ITC) ownership;
- Factual observations about which items of information are, and are not, contained in the documents listed in Section II, described against the Texas disclosure framework identified in Section X.

I do not offer legal opinions. I do not opine on whether the Provider violated any statute, whether any disclosure satisfied any legal standard, or what any party knew or intended. Where a Texas statute is identified in this report, I describe what the statute requires on its face and describe what the documents I reviewed contain; the legal interpretation of whether those contents satisfy the statute is reserved for counsel and the finder of fact. Where I identify a discrepancy between two documents, I state the discrepancy; I do not characterize its cause.

B. Qualifications

I am a solar industry professional with hands-on experience in residential solar system design, installation, performance evaluation, shading analysis, sales practices, contract review, and solar-specific financing as practiced in Texas and across the United States. I hold no financial relationship with any installer, lender, or PPA provider.

C. Methodology

My analysis was conducted in five steps:

- Document review of the items listed in Section II, performed page-by-page, including all exhibits and the executed change order;
- Remote verification of inverter and module-level communication and reporting status through the manufacturer's monitoring platform, together with review of the platform's production history from commissioning forward;
- Independent array-level production modeling in NREL's PVWatts calculator (pvwatts.nrel.gov) using the as-installed azimuths and tilt, with disclosed, reproducible inputs;
- Review of publicly available 3D aerial and satellite imagery of the property to characterize surrounding vegetation, cross-referenced against imagery contained in the agreement itself;
- Reconciliation of metered production and utility consumption data against the consumption, production, and offset figures stated in the agreement, and comparison of the contract's own payment schedule and credit mechanics against published utility rates and market pricing benchmarks.

D. Basis of Assessment - Remote Analysis

This assessment was completed from the transaction documents, the utility billing record, publicly available aerial imagery, and the system's own monitoring data. No site visit was performed, and none was required for the questions presented: module-level monitoring establishes equipment operating status and production history with greater precision than visual observation, and every production, consumption, rate, and pricing figure in this report is derived from documents and data that any party can independently verify.

II.

Materials Reviewed

#	DOCUMENT / DATA SOURCE	DATE	ORIGIN
1	Residential Solar Power Purchase Agreement, Parts I and II, including Exhibit B (Schedule of Values), Exhibit C (Guaranteed Output), Exhibit D (Payment Method and Fees) and Exhibit F (State-Specific Disclosures)	July 2023	Provider
2	Solar Installation Agreement and exhibits	July 2023	Provider / Installer
3	Executed Homeowner Change Order, including Project Specific Information table	August 2023	Provider
4	Welcome-call script and confirmation questions	2023	Provider
5	Third-party monitoring portal production reports (commissioning forward)	2023–2025	Monitoring platform
6	Inverter manufacturer monitoring platform, module-level status and production data	2023–2025	Manufacturer platform
7	Homeowner's monthly utility statements, full calendar year 2024	2024	Homeowner
8	Published municipal utility residential rate schedule	2024–2025	Public
9	NREL PVWatts calculator model runs (inputs disclosed in Section V)	April 2025	Author
10	Publicly available 3D aerial and satellite imagery of the property	April 2025	Public

III.

Transaction Structure

TERM	VALUE
Agreement type	25-year residential solar Power Purchase Agreement (PPA), fixed monthly payment (Provider owns the system)
Execution	July 2023
System as contracted (Exhibit F)	18 modules × 380 W · 6.84 kW DC · 18 module-level microinverters
System as installed	19 modules × 405 W · 7.70 kW DC · string inverter
Commissioning	November 20, 2023
Contract page 1 - stated annual consumption	9,000 kWh
Contract page 1 - stated annual production	9,343 kWh (Exhibit F states 9,343.03 kWh)
Contract page 1 - stated utility offset	103.81%
Contract page 1 - stated price per kWh	$0.243/kWh
Monthly Payment, Year 1 (Part I; Exhibit B)	$189.20, plus applicable taxes and fees
Annual Percentage Increase	2.9%
Total scheduled payments, 25 years (Exhibit B as executed)	$81,698.76
Total scheduled payments, 25 years (change order Year 1 payment at the same 2.9% escalator)	$69,551.97
Exhibit C - Guaranteed Output, first 24 months	15,843 kWh (7,922 kWh/yr equivalent)
Exhibit C - underproduction credit rate, first Guarantee Date	$0.247/kWh, escalating to $0.518/kWh at the Year 24 Guarantee Date
Utility territory	Municipal electric utility (not a deregulated REP/TDU market)

Because the Provider owns the system under the PPA structure, the Provider - not the Homeowner - is positioned to claim the 30% federal Investment Tax Credit, and the Homeowner acquires no ownership interest through the scheduled payments.

Note on the price per kWh. The $0.243/kWh figure on page 1 is the energy price used to set the fixed Monthly Payment: $0.243 × 9,343 kWh ÷ 12 = $189.20. It is not the underproduction credit rate. The credit rate is stated separately in Exhibit C and is addressed in Section VIII.

IV.

System Performance - Equipment Status and Metered Production

Remote verification through the inverter manufacturer's monitoring platform confirmed that all modules and the inverter were communicating and reporting, with no equipment faults indicated, as of the assessment date. Production history is continuous from commissioning forward with no outage periods.

Because solar performance is conventionally evaluated over full 12-month cycles, and because complete billing and production records exist for the 2024 calendar year, this analysis uses calendar year 2024.

MEASURE	CALENDAR YEAR 2024
Metered system production	3,979 kWh
Homeowner's total household electricity consumption	21,548 kWh
Resulting actual utility offset achieved	≈ 18.5%
Utility offset stated on page 1 of the agreement	103.81%

- **The equipment is operating.** The production shortfall relative to the contract estimate is not attributable to equipment failure, and no defect claim is advanced in this report.
- The two inputs producing the 103.81% figure on page 1 - a 9,000 kWh annual consumption estimate and a 9,343 kWh annual production estimate - are each addressed separately in Sections V and VI below.
- **Note on system size.** The agreement describes an 18-module, 6.84 kW system; the system as installed comprises 19 modules totaling 7.70 kW. To avoid confusion understating production, all calculations in this report use the larger as-installed system. A 6.84 kW system on the same roof would produce less energy at the same contract cost.

V.

Independent Production Modeling and the Implied Shading Factor

A. Modeled Maximum Production

Each array was modeled independently in NREL's PVWatts calculator using the as-installed azimuth and tilt. PVWatts is publicly accessible with no login required, making every figure below independently verifiable. The PVWatts default system loss factor of 14.08% was applied. These figures assume zero shading from vegetation or structures.

ARRAY	CONFIGURATION	MODELED ANNUAL OUTPUT
Array 1	5 modules · 2.025 kW · azimuth 131° · tilt 34°	2,838 kWh
Array 2	8 modules · 3.240 kW · azimuth 311° · tilt 34°	3,246 kWh
Array 3	6 modules · 2.430 kW · azimuth 221° · tilt 34°	3,554 kWh
Total modeled maximum (zero shading)		**9,638 kWh**

This 9,638 kWh figure represents the ceiling this system could generate at this location with these orientations and tilts absent any shading. Different orientations and shading percentages would yield different results. (Azimuth denotes the compass direction the array faces, with 180° being due south; tilt denotes the array's angle from horizontal.)

B. The Shading Factor Implied by the Contract Estimate

- A 3% reduction applied to the modeled maximum yields approximately 9,349 kWh (9,638 × 0.97).
- The agreement states an annual production estimate of 9,343 kWh - a difference of approximately 6 kWh, or approximately 0.06%, from that calculation.
- The arithmetic is therefore consistent with a shading and loss allowance of approximately 3% having been applied to a comparable maximum-production figure, with the minimal difference attributable to slightly different modeling tools or rounding conventions. I state this as an arithmetic relationship. I did not have access to the Provider's modeling workpapers and make no finding as to what factor the Provider in fact applied or how its estimate was derived.

C. The Shading Factor Indicated by Metered Production

BASIS	ANNUAL KWH	REDUCTION FROM MODELED MAXIMUM
Modeled maximum, zero shading	9,638 kWh	-
Contract estimate (page 1)	9,343 kWh	≈ 3%
Metered production, calendar 2024	3,979 kWh	≈ 59%

- With the system verified as fully operational throughout the period, the difference between modeled maximum production and metered production is attributable to site shading.
- The reduction indicated by metered data is approximately 59%, against approximately 3% implied by the contract estimate - a difference of roughly 56 percentage points. Metered production falls approximately 5,364 kWh per year below the agreement's stated estimate, and approximately 5,659 kWh per year below the unshaded modeled maximum.
- The contract estimate sits within approximately 3% of the site's absolute unshaded ceiling. A production estimate at that level is the estimate one would expect for an unobstructed, unshaded roof.
- Review of publicly available 3D aerial and satellite imagery shows mature, full-canopy trees surrounding the structure on multiple sides. These are large specimens whose size at the time of contracting is documented by imagery predating the agreement.
- The rooftop photograph contained within the agreement itself depicts surrounding vegetation. Counsel may wish to compare that photograph against the approximately 3% shading allowance implied by the production estimate in the same document.
- Site shading analysis - by handheld irradiance instrument, drone survey, or software modeling from aerial imagery - is a standard step in residential solar design. The Provider's shade report, irradiance measurements, and design files for this site may be an appropriate subject of document requests.

VI.

The Consumption Estimate and the Stated Offset Percentage

The 103.81% offset stated on page 1 of the agreement is the quotient of two Provider-supplied figures: an estimated annual production of 9,343 kWh and an estimated annual household consumption of 9,000 kWh. Section V addresses the production input. The following factual observations concern the consumption input:

- The Homeowner's actual metered total household electricity consumption for calendar year 2024 was 21,548 kWh - approximately 2.4 times the 9,000 kWh figure stated in the agreement.
- I was unable to determine, from the documents listed in Section II, the basis for the 9,000 kWh estimate. No supporting usage analysis, load calculation, or utility-data summary appears in the materials produced.
- The Homeowner's twelve months of utility statements preceding the installation were available from the serving utility at the time of contracting. Obtaining and using the prior twelve months of metered consumption is the standard industry basis for sizing a residential system and for computing a projected offset percentage.
- An offset percentage is a ratio of projected production to projected consumption. Where either input diverges from the metered record, the resulting percentage diverges correspondingly; here both inputs diverge in the same direction, and their combined effect on the stated percentage is compounding rather than offsetting.
- Any usage analysis, load worksheet, or utility-data used by the Provider in preparing the 9,000 kWh figure may be an appropriate subject of document requests.

VII.

Documentary Discrepancies Between the Agreement and the Change Order

The following are factual comparisons between the executed agreement and the executed change order. I state what each document contains. I do not characterize the cause of any difference, and I express no opinion on the legal effect of any of these items.

Threshold observation. The change order does not identify the produced agreement. It recites a customer contract identification number and an execution date that differ from the contract identification number and July 2023 execution date of the agreement produced in this matter, and it names a different installer, at a different address, holding a different Texas license number, than the installer named in Exhibit F of the produced agreement. The figures compared in the table below therefore may not be describing the same transaction. I state the fact of the mismatch; I express no view on how many agreements exist or which governs. Any additional power purchase agreement bearing the contract identification number recited in the change order may be an appropriate subject of document requests.

#	ITEM	ORIGINAL AGREEMENT STATES	CHANGE ORDER STATES
1	Contract identity	One contract identification number; executed July 2023; Installer A (license TX#…)	A different contract identification number; a different execution date in August 2023; Installer B, different address, different license number
2	System size	6.84 kW (18 modules × 380 W), Exhibit F	7.60 kW as both the old value and the new value (system as installed measures 7.70 kW / 19 modules × 405 W)
3	Inverter type	18 module-level microinverters (Exhibit F)	No change recorded; a string inverter was installed, not microinverters
4	Prior annual production estimate	9,343 kWh (page 1 and Exhibit F); 15,843 kWh over 24 months (Exhibit C)	8,936 kWh - a figure not located anywhere in the original agreement
5	Revised annual production estimate	-	9,713 kWh, while stating the prior and revised system sizes as identical
6	Price per kWh	$0.243/kWh (page 1)	$0.25/kWh reduced to $0.20/kWh; neither figure matches the agreement
7	Monthly Payment, Year 1	$189.20 (Part I and Exhibit B)	$185.00 reduced to $161.07; neither figure matches the agreement
8	Annual escalator	2.9%	2.9% (unchanged)

- **On items 2 and 5.** The change order records the prior and revised system sizes as the same figure (7.60 kW), while stating a revised production estimate 777 kWh higher than the figure it identifies as prior. An increase in projected annual output on an unchanged system size, at an unchanged site, is not explained within the the change order.
- **On item 5, against the modeled maximum.** The change order's revised estimate of 9,713 kWh exceeds the 9,638 kWh zero-shading modeled maximum derived in Section V.A for the as-installed arrays. On the modeling in this report, that figure could not be achieved at this site even with no shading of any kind.

- **On item 3.** The agreement specifies module-level microinverters; a string inverter was installed. The change order does not record this substitution.
- **On items 6 and 7.** Both the price per kWh and the Monthly Payment recited in the change order as "old values" differ from the corresponding figures in the produced agreement. In each document the two figures are internally consistent with the stated production estimate: $0.243 × 9,343 ÷ 12 = $189.20 in the agreement, and $0.20 × the revised estimate ÷ 12 approximates $161.07 in the change order. The change order's revised payment is approximately 15% below the payment stated in the produced agreement.
- **On the interaction with Exhibit C.** The change order does not state whether the revised 9,713 kWh estimate supersedes the Guaranteed Output figures in Exhibit C of the original agreement, and does not restate the underproduction credit rate at all. Because Exhibit C governs the guarantee and credit mechanics, the analysis in Section VIII uses the Exhibit C figures. If Exhibit C was in fact revised, that document has not been produced.

VIII.

Performance Guarantee, Credit Mechanics, and Payments Made

A. How the Guarantee Operates

- Exhibit C guarantees 15,843 kWh of production over the first 24 months, equivalent to 7,922 kWh annually. That annual equivalent is 1,421 kWh below the 9,343 kWh production estimate stated on page 1 of the same agreement - approximately 15% lower. The same document therefore contains two different production figures, one used to present the system's expected performance and a lower one used to define the Provider's guarantee obligation.
- Section 4(c) provides that the credit is calculated on the 24-month anniversary of the In-Service Date and every 24 months thereafter, not monthly or annually. The credit equals the Guaranteed Output for that Guarantee Date, less Actual Output for that Guarantee Date, multiplied by the Credit per kWh for that year set out in Exhibit C. With commissioning on November 20, 2023, the first Guarantee Date falls in late 2025.
- Exhibit C sets the Credit per kWh at $0.247 at the first Guarantee Date, rising to $0.518 by the Year 24 Guarantee Date, while the Guaranteed Output declines from 15,843 kWh to 14,189 kWh over the same span.
- Section 4(a)(ii) excludes any credit for under-performance arising from shading conditions, other than weather, that differ from those present at the Property at the commencement of installation. Section 6(a)(v) separately obliges the Homeowner to keep trees trimmed so that the system receives as much sunlight as it did when installed. Whether canopy documented in imagery predating the agreement falls inside or outside that exclusion is a question for counsel; I state the provisions as written.
- Section 4(b) permits over-generation in one period to offset under-performance in another. Section 6(h) provides that the obligation to make Monthly Payments is absolute and unconditional and not subject to abatement, setoff, or reduction.

B. Credit Owed Against Payments Made - First Guarantee Period

The following is arithmetic on the contract's own figures, using metered production for calendar year 2024 as the annual rate and the Exhibit B payment schedule as executed. Each input is disclosed.

MEASURE	AMOUNT
Guaranteed Output, first 24 months (Exhibit C)	15,843 kWh
Actual Output, first 24 months (2 × metered 3,979 kWh)	≈ 7,958 kWh
Shortfall against the guarantee	≈ 7,885 kWh
Credit per kWh at the first Guarantee Date (Exhibit C)	$0.247
Credit payable to the Homeowner	≈ $1,948
Monthly Payment, Year 1 / Year 2 (Exhibit B)	$161.07/$165.74
Payments scheduled over the same 24 months	$3,498.588
Credit as a share of payments made	≈ 56%
Net paid by the Homeowner after credit	≈ $1,551
Net price of the electricity actually delivered	≈ $0.20 per kWh
Blended value of the utility electricity displaced (Section IX.B)	≈ $0.13 per kWh

- The Monthly Payment is fixed and does not vary with production.
- The credit does not offset payments as they are incurred. Payments are due monthly from the first Monthly Payment date; the credit is calculated only at the 24-month Guarantee Date.
- The relationship does not improve over the term. Holding measured output constant and applying the Exhibit C credit rates and Guaranteed Output figures against the Exhibit B payment schedule, the Monthly Payment escalates 2.9% every year while the Guaranteed Output the credit is measured against declines.
- Counsel may wish to determine whether any credit has in fact been calculated, invoiced, or issued for the first Guarantee Date, and in what amount; and to examine how the Provider computed Actual Output, given that a string inverter rather than the contracted module-level equipment reports the production on which the calculation depends.

IX.

Contract Economics

A. Contract Cost Against Market Cash Pricing

METRIC	VALUE
Total scheduled PPA payments, 25 years (Exhibit B as executed)	$81,698.76
Total scheduled PPA payments, 25 years (change order Year 1 payment, same escalator)	$69,551.97
Regional market cash pricing at execution (July 2023)	$2.75 – $3.00 per watt
Implied cash price, 7.70 kW system	$21,175 – $23,100
Midpoint used for comparison	$22,000
30% federal ITC on a cash purchase (homeowner-retained)	$6,600
Net cash cost after ITC	$15,400
Ratio: scheduled PPA payments to net cash cost	**≈ 5.3× (Exhibit B) / ≈ 4.5× (change order)**

The $2.75–$3.00/W range reflects my direct experience quoting and reviewing regional residential installations in the 2023 market and is consistent with the published federal-laboratory benchmarks cited in Section XIII, which note that reported market prices for financed systems include dealer fees while modeled benchmark costs exclude financing costs.

B. Value Delivered Under Measured Performance

The following is a scenario calculation using the Homeowner's published utility rates and metered production. It is presented as arithmetic, with each input disclosed.

- **Effective displaced rate.** The serving municipal utility charges, for the winter season, $0.0528/kWh for the first 600 kWh and $0.0370/kWh thereafter; for the summer season, $0.0561/kWh; with a Recovery Adjustment Factor of $0.0819/kWh applied year-round in addition to the energy rate. A blended displaced value of approximately $0.13/kWh is used below. Base charges and taxes are excluded from the calculation.
- **Lifetime production scenario.** At the measured rate of approximately 4,000 kWh annually, gross 25-year production would approximate 100,000 kWh. Applying a 20% aggregate reduction for module degradation and continued canopy growth over the term yields approximately 80,000 kWh.
- **Resulting value.** 80,000 kWh × $0.13/kWh ≈ $10,400 in displaced electricity cost over 25 years. Under the undiscounted scenario (100,000 kWh with no degradation or canopy growth), the figure is approximately $13,000.
- **Comparison to purchase.** Against a net cash purchase cost of $15,400, the range above corresponds to a net position of approximately −$5,000 to −$2,400 over the 25-year term. Against the PPA's scheduled payments of $81,698.76 under Exhibit B as executed - or $69,551.97 under the change order's revised payment - the corresponding figures are substantially larger. Credits payable under Exhibit C, on the

arithmetic in Section VIII.B, would offset roughly 37% to 42% of those payments and would not close the gap.

- **Excluded from the above.** The calculation does not account for future utility rate changes, panel cleaning or maintenance, removal and reinstallation at roof replacement, changes in homeowner's insurance premiums, or changes to the utility's net metering policy. Several electric cooperatives in the region have revised their distributed-generation compensation policies in recent years.

C. Tax Credit Position

Under the PPA structure the Provider owns the system and is positioned to claim the 30% federal Investment Tax Credit. On the cash-price range above, the credit forgone by the Homeowner relative to an ownership structure is approximately $6,353 to $6,930. I express no opinion on any party's tax treatment or compliance; the Provider's ITC basis documentation may be an appropriate subject of discovery.

X.

Texas Disclosure Framework Applicable to the 2023 Transaction

A. The Governing Chapter

Senate Bill 398 (87th Leg., eff. Sept. 1, 2021) added to the Texas Business & Commerce Code a chapter imposing written disclosure obligations on sellers and lessors of distributed renewable generation resources. It was enacted as Chapter 113 and was in effect in that form at the July 2023 execution date; it was redesignated as Chapter 115 effective September 1, 2023 (H.B. 4595), without substantive change to the disclosure items relevant here. Section references below are to the current Chapter 115 numbering. I describe what the statute requires on its face and what the documents I reviewed contain; whether the contents satisfy the statute is reserved for counsel and the finder of fact.

§ 115.003 applies by its terms to "a purchase, lease, or power purchase agreement" and requires the seller or lessor to provide the customer in writing, among other items:

- "a description of all equipment to be installed" (§ 115.003(2));
- "the cost of all equipment to be installed" (§ 115.003(3));
- "a detailed accounting of fees associated with the installation or operation of the generation resource" (§ 115.003(4));
- "representations, if any, made as part of the agreement regarding the expected operational performance and financial performance of the generation resource" (§ 115.003(5));
- "all applicable warranties" (§ 115.003(6)).

§ 115.005 separately entitles a residential customer who enters into a power purchase agreement to receive in writing the disclosures required under §§ 115.003(1), (2), (5), and (6); the term and rate of the agreement including any payment escalators or other terms affecting the customer's payments; and whether the agreement and any applicable warranty is transferable to a subsequent purchaser of the property.

B. Factual Mapping of the Documents to the Statutory Items

- **Equipment description (§ 115.003(2)).** Exhibit F describes an 18-module, 6.84 kW system with 18 module-level microinverters, by make and model. The system as installed comprises 19 modules totaling 7.70 kW with a string inverter. The change order records neither the module-count change nor the inverter substitution (Section VII).
- **Operational-performance representations (§ 115.003(5)).** The agreement states an annual production estimate of 9,343 kWh on page 1 and in Exhibit F, and a Guaranteed Output of 15,843 kWh over 24 months in Exhibit C, and states a 103.81% utility offset premised on a 9,000 kWh consumption estimate. Sections IV through VIII describe the relationship between those figures, independent modeling, and metered production and consumption.
- **Financial-performance representations (§ 115.003(5)).** Sections VIII and IX set out the relationship between the scheduled payments, the credits available under Exhibit C, and the value of the electricity the system has been measured to produce.
- **Payment-affecting terms (§ 115.005(2)).** The agreement states a Monthly Payment of $189.20, an Annual Percentage Increase of 2.9%, and a price of $0.243/kWh, and sets out the full 25-year payment schedule in Exhibit B. Exhibit D states a $30 returned payment charge and a late fee of 1.5% per month.

Exhibit C states the credit rates. The change order recites different old and new values for the price per kWh and the Monthly Payment (Section VII). Whether the underproduction-credit mechanism constitutes an “other term that affects the customer's payments” within the statute's meaning is for counsel.

- **Transferability (§ 115.005(3)).** Part I and Part II, Section 7 describe three options on sale of the property, including a $250 credit check exemption fee. Counsel may wish to review those provisions against this requirement directly.

C. Subsequent Texas Legislation (Context Only)

Senate Bill 1036, the Residential Solar Retailer Regulatory Act (89th Leg., eff. Sept. 1, 2025, codified at Chapter 1806, Texas Occupations Code), establishes registration of solar retailers and salespersons under the Texas Department of Licensing and Regulation and requires, among other items, plain-language disclosure of total system cost including fees and financing charges, and energy-savings projections calculated on realistic assumptions. It also subjects solar retailers to the standards of Chapter 115 and the Deceptive Trade Practices consumer-protection subchapter as if they were sellers or lessors under Chapter 115. SB 1036 post-dates this agreement and does not apply retroactively; it is referenced solely as regulatory context.

XI.

Summary of Findings

Based on the foregoing document review, remote monitoring verification, independent modeling, and industry-practice analysis:

1. **Equipment status.** The system is operational; modules and inverter report without faults, and production is continuous from commissioning. No equipment defect is identified, and none is claimed.
2. **Modeled versus actual production.** Independent PVWatts modeling establishes a zero-shading maximum of 9,638 kWh annually for the as-installed arrays. Metered production for calendar year 2024 was 3,979 kWh, a reduction of approximately 59%.
3. **The contract estimate's implied shading allowance.** The agreement's 9,343 kWh estimate corresponds arithmetically to a reduction of approximately 3% from a comparable maximum-production figure - approximately 56 percentage points less reduction than metered performance indicates, on a site surrounded by mature full-canopy trees documented in imagery predating the agreement and depicted in the agreement's own rooftop photograph.
4. **The consumption estimate.** The agreement states annual household consumption of 9,000 kWh. Metered consumption for calendar year 2024 was 21,548 kWh. No basis for the 9,000 kWh figure appears in the documents produced, and twelve months of utility statements were available at the time of contracting.
5. **The stated offset.** The 103.81% offset on page 1 is the quotient of the two figures above. Measured against metered data, the system supplied approximately 18.5% of the household's electricity in 2024.
6. **Internal inconsistency within the agreement.** Page 1 states 9,343 kWh of annual production; Exhibit C of the same agreement guarantees 15,843 kWh over 24 months, an annual equivalent of 7,922 kWh - approximately 15% lower.
7. **Change-order discrepancies.** The change order recites a contract identification number, execution date, and installer that do not match the produced agreement; states system sizes matching neither the agreement (6.84 kW) nor the system as installed (7.70 kW); recites a prior production estimate (8,936 kWh) not found in the original agreement; states a revised estimate of 9,713 kWh that is 777 kWh higher on an unchanged system size at an unchanged site and that exceeds the site's zero-shading modeled maximum of 9,638 kWh; recites old and new price-per-kWh and Monthly Payment figures that do not match the agreement; and does not record the substitution of a string inverter for the contracted microinverters.
8. **Credit against payments.** Over the first 24-month guarantee cycle, the Exhibit C credit on measured performance is approximately $1,948, against scheduled payments of $4,606.68 - approximately 42% coverage, leaving approximately $2,659 paid net for approximately 7,958 kWh delivered, or about $0.33 per kWh. Year 1 payments alone of $2,270.40 against 3,979 kWh metered correspond to an effective price of approximately $0.571 per kWh, against a displaced utility value of approximately $0.13 per kWh.
9. **Economics.** Scheduled payments of $81,698.76 under Exhibit B as executed - or $69,551.97 using the change order's revised payment - approximate 5.3 and 4.5 times respectively the net cash cost of an

equivalent purchased system ($15,400 after the ITC). Under the measured-production scenario in Section IX.B, the electricity value delivered over the full term is on the order of $10,400 to $13,000.

10. **Texas framework.** The disclosure chapter enacted by S.B. 398 was in effect at execution and entitles a PPA customer to specified written disclosures, including equipment description and operational- and financial-performance representations. Section X maps the reviewed documents to those items; the legal sufficiency of the documents under the statute is reserved for counsel and the finder of fact.

I make no findings about the parties' states of mind, intent, motives, or legal duties. The legal significance of the foregoing factual observations and industry-practice context is reserved for counsel and the finder of fact.

XII.

Reservations

This report is based on the materials listed in Section II, my remote verification of system status and production, and the public sources cited in Section XIII. I reserve the right to supplement or amend my opinions if additional documents are produced, including but not limited to:

- Any power purchase agreement bearing the contract identification number and execution date recited in the change order, together with its exhibits;
- The Provider's shade report, irradiance measurements, site survey, and production-modeling workpapers for this installation;
- Any usage analysis, load worksheet, or utility-data authorization used to derive the 9,000 kWh annual consumption figure;
- Any revised Exhibit B or Exhibit C, or documentation establishing whether the change order's 9,713 kWh estimate and $161.07 Monthly Payment supersede the figures in the produced agreement;
- Documentation of the inverter substitution, including any internal approval, revised design, or permit revision;
- Records of any underproduction credit calculated, invoiced, or issued under the guarantee, and the Actual Output figure used in that calculation;
- Billing statements and payment records for the full period from the first Monthly Payment date forward;
- Any sales-training, scripting, or marketing materials used in connection with this transaction, including the recorded welcome call.

XIII.

Sources Cited

All links were active and verified as of the date of the original report.

A. Texas Statutes and Legislative Materials

- Tex. Bus. & Com. Code ch. 115, Sales and Leasing of Distributed Renewable Generation Resources (§§ 115.001–115.005).
  https://statutes.capitol.texas.gov/Docs/BC/htm/BC.115.htm
- S.B. 398, 87th Leg., R.S. (2021) (enacting the chapter as Ch. 113, eff. Sept. 1, 2021).
  https://capitol.texas.gov/tlodocs/87R/billtext/pdf/SB00398F.pdf
- H.B. 4595, 88th Leg., R.S. (2023) (nonsubstantive revision; redesignation as Ch. 115, eff. Sept. 1, 2023).
  https://capitol.texas.gov/BillLookup/History.aspx?LegSess=88R&Bill=HB4595
- S.B. 1036, 89th Leg., R.S. (2025), Residential Solar Retailer Regulatory Act (Tex. Occ. Code ch. 1806, eff. Sept. 1, 2025).
  https://capitol.texas.gov/BillLookup/History.aspx?LegSess=89R&Bill=SB1036

B. Federal Modeling and Benchmark Sources

- NREL, PVWatts Calculator.
  https://pvwatts.nrel.gov
- Ramasamy et al., “U.S. Solar Photovoltaic System and Energy Storage Cost Benchmarks, With Minimum Sustainable Price Analysis: Q1 2023,” NREL/TP-7A40-87303 (2023).
  https://www.nrel.gov/docs/fy23osti/87303.pdf
- Lawrence Berkeley National Laboratory, Tracking the Sun, 2023 Edition.
  https://emp.lbl.gov/tracking-the-sun
- U.S. Dep't of Energy, “Homeowner's Guide to the Federal Tax Credit for Solar Photovoltaics” (DOE/EE-2315).
  https://www.energy.gov/eere/solar/homeowners-guide-federal-tax-credit-solar-photovoltaics

C. Consumer-Protection and Industry Sources

- Consumer Financial Protection Bureau, Office of Markets, “Issue Spotlight: Solar Financing” (Aug. 7, 2024).
  https://files.consumerfinance.gov/f/documents/cfpbsolar-financing-issue-spotlight2024-08.pdf
- U.S. Dep't of the Treasury, joint Treasury/CFPB/FTC announcement on residential solar consumer protection, Press Release JY-2522 (Aug. 7, 2024).
  https://home.treasury.gov/news/press-releases/jy2522
- Center for Responsible Lending, “The Shady Side of Solar System Financing” (July 2024).
  https://www.responsiblelending.org/research-publication/shady-side-solar-system-financing

Respectfully submitted,

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Date: _____