

Attachment E: Maximum Offer Calculator Guidance Document

1. Update Log

This update log tracks revisions made to the calculator guidance document over time to ensure transparency and accurate record keeping. The calculator has its own update log on a separate tab of the workbook.

V1	05/01/2025	Initial Calculator and Guidance Document development
V2	10/30/2025	Addition of smaller cooperatives, municipal utilities, and “Other” option
V3	11/10/2025	Addition of change log, updated utility tariff information
V4	01/28/2026	Updated utility tariff information, adjusted loan interest formula (monthly compounding, instead of annual)
V5	07/17/2026	Updated utility tariff information, removed Federal ITC reference

2. Purpose and Overview

This guidance document supports consistent and transparent use of the updated Maryland Solar Access Program (MSAP) Maximum Offer Calculator. The guidance provides instructions for how to calculate and verify consumer benefits, including step-by-step examples, sample calculations, and validation procedures for MEA reviewers and contractors.

The calculator determines whether proposed Power Purchase Agreements (PPAs), leases, loans, or purchases meet the minimum consumer benefit requirements under the Maryland Solar Access Program. The calculator enables consistent application of the Maryland Energy Administration’s (MEA) consumer protection policies across all participating utilities.

The updated version of the calculator expands coverage from the four major Maryland utilities to include all 13 electric utilities statewide, as well as an “Other” option that allows users to input a custom utility rate. This ensures equitable and accurate benefit evaluation across all service territories, including smaller cooperatives and municipal utilities. A sample customer utility bill is included at the end to show the inputs for an avoidable rate.

This tool does not evaluate every potential customer’s projected savings. To ensure perfect passthrough of the rebate, these calculations would need to occur per system using the real system size, financing plan and terms, and the customer’s real rate plan. All major Maryland investor-owned, municipal, and cooperative utilities are covered in the tool, but additional utilities such as other outside suppliers could be evaluated in using the “Other” option in the tool. This tool also only evaluates the Residential “R” Standard Offer Service (SOS) rate, and it’s possible that residential customers could be on other rate plans such as time-of-use plans. For a true financial analysis, a customer’s true rate plan would need to be reviewed on an individual basis, but additional review times make this approach less desirable. The “Other” option could be used for customer-specific rate plans. An incentive based on kWh production that’s dependent on each customer’s specific utility rates would be more precise.

Different utilities across Maryland revise their electric tariffs at varying intervals—some every two to four months, others seasonally, annually, or only as needed based on regulatory or market changes. To maintain accuracy and ensure that customer benefit calculations remain aligned with current utility rates, it is recommended that the MSAP Maximum Offer Calculator be updated at least twice per year. Semi-annual updates will capture seasonal fluctuations in electricity pricing, reflect any newly published rate schedules or surcharges, and help ensure that all program analyses and compliance reviews are based on the most current and representative tariff data available.

3. Step-by-Step User Instructions

The following guidance explains how to use the updated calculator to verify compliance with MSAP minimum benefit requirements. The calculator is organized by contract type (PPA, Lease, Loan, Purchase) and applies the same overall logic to all scenarios.

Color Key

Gray cells: Fixed static values; not to be edited.

Yellow cells: User input values (assumptions or site-specific data).

Blue cells: Calculator output values (results used for compliance review).

Step 1: Identify if the Solar Agreement is a Lease, Loan, Purchase, or PPA

Review the contract and identify the contract type. Select the corresponding tab in the calculator.

Step 2: Review Static Assumed Values

The following static assumptions apply across all scenarios and are not to be edited in this iteration of the calculator:

- Net Present Value (NPV) Discount Rate: 4.75%
- Annual PV Degradation Rate: 0.50%
- Expected System Lifespan (Maximum): 25 years
- Standard Escalator: 3.00%

These values are consistent with statewide program assumptions and ensure that financial comparisons between agreement types are standardized.

4. Step 3: Enter Contract Inputs

In **Box 5**, select the customer's electric utility from the dropdown list. The updated calculator now includes all 13 Maryland utilities:

1. Pepco
2. BGE
3. Delmarva Power
4. Potomac Edison
5. Berlin Municipal Electric Plant
6. Easton Utilities Commission
7. City of Hagerstown Light Department
8. Thurmont Municipal Light Company
9. Williamsport Municipal Electric Light System
10. A&N Electric Cooperative
11. Choptank Electric Cooperative Inc
12. Somerset Rural Electric Cooperative
13. Southern Maryland Electric Cooperative, Inc.

In addition, a the "Other" option allows users to input a custom retail electric rate (\$/kWh) for customers served by unaffiliated cooperatives or municipal providers. Selecting a utility automatically populates the Maximum Offer PPA Rate in **Box 6** based on the residential Standard Offer Service (SOS) rates. If selecting "Other", input the custom electric utility rate into the new yellow box that appears adjacent to Box 6.

Enter the values the **remaining boxes in the input section** as appropriate, as shown in Table 1 through Table 4, as applicable to the agreement type. To calculate system costs, sum up the material and installation costs before the addition of any tax credits or incentives. Input any non-solar costs into the corresponding cell (i.e. EV chargers, home electrical panel upgrades, roofing improvements, etc.). PPA Rates, First-Year Projected Total PV Generation, lease escalators, loan terms, and MEA grants come from contract information.

PPA

Table 1 PPA Minimum Benefit Calculator Inputs

7	First-Year Projected Total PV Generation [kWh/yr]	Enter the system's expected Year 1 production as it appears in the contract.
8	Grant Authorization	Select "Yes" if the MSAP grant is paid to the contractor and passed through to the customer via lower rates.

9	PPA rate (as appears on the contract) [\$/kWh]	Enter the first-year customer PPA rate or monthly payment.
10	Total System Cost (as appears on the contract or disclosure) [\$]	Enter the full installed system cost before incentives.
11	Non-solar costs incorporated into the PPA rate (enter \$0 if PPA rate is reflective of solar-related costs only) [\$]	Enter any costs unrelated to solar (e.g., EV chargers, roofing, main panel upgrades).

5.

6. Lease

Table 2 Lease Minimum Benefit Calculator Inputs

7	First-Year Projected Total PV Generation [kWh/yr]	Enter the system's expected Year 1 production.
8	Grant Authorization	Select "Yes" if the MSAP grant is paid to the contractor and passed through to the customer via lower rates.
9	Total System Cost (as appears on the contract or disclosure) [\$]	Enter the full installed system cost before incentives.
10	Non-solar costs incorporated into the lease rate (enter \$0 if lease rate is reflective of solar-related costs only) [\$]	Enter any costs unrelated to solar (e.g., EV chargers, roofing, main panel upgrades).
11	Lease Escalator [%/yr]	Enter the annual escalation rate (typically 0–3%).
12	First-year monthly lease rate (as appears on the contract) [\$/mo]	Enter the first-year customer rate or monthly payment.

Loan

Table 3 Loan Minimum Benefit Calculator Inputs

7	First-Year Projected Total PV Generation [kWh/yr]	Enter the system's expected Year 1 production.
8	Loan Term [years]	Enter the loan term; capped at 25 years.
9	Loan Interest Rate (as appears on the contract) [%]	Enter the loan interest rate as stated in the contract.
10	Total System Cost (as appears on the contract) [\$]	Enter the full installed system cost before incentives.
11	Non-solar costs (enter \$0 if all costs are solar-related) [\$]	Enter any costs unrelated to solar (e.g., EV chargers, roofing, main panel upgrades).
12	MEA grant amount to the resident (enter \$0 if the grant is authorized to the contractor instead) [\$]	Enter the grant amount applied directly to the customer (if applicable).

Purchase

Table 4 Purchase Minimum Benefit Calculator Inputs

7	First-Year Projected Total PV Generation [kWh/yr]	Enter the system's expected Year 1 production as it appears in the contract.
8	Total System Cost (as appears on the contract, or internally valued) [\$]	Enter the full installed system cost before incentives.
9	Non-solar costs (enter \$0 if all costs are solar-related) [\$]	Enter any costs unrelated to solar (e.g., EV chargers, roofing, main panel upgrades).
10	MEA Grant [\$]	Enter the grant amount applied directly to the customer (if applicable).

Step 4: Review Outputs and Compliance with Maximum Offer Status

After inputs are entered, the calculator automatically determines:

1. The portion of the customer payment or cost attributable to solar-only components (excluding non-solar costs).
2. The maximum allowable offer based on the selected utility's avoidable rate.
3. Whether the system design meets or does not meet MSAP program requirements.

If the customer's effective rate, payment, or cost exceeds the calculated Maximum Offer threshold, the system does not comply with MSAP's minimum benefit policy and does not qualify for MSAP incentives.

4. Methodology

Calculating the Avoidable Rate

The "avoidable rate" represents the rate (\$/kWh) a customer would otherwise pay for electricity if they were not generating solar power. It reflects all supply, distribution, and surcharge components of the utility's residential rate. Each participating utility's avoidable rate is pre-loaded into the calculator and updated periodically using published rate schedules. Users selecting "Other" must input the current average all-in residential rate for the applicable service provider.

Determining the Percentage Below the Avoidable Rate

The calculator evaluates how far below the avoidable rate a customer's proposed PPA or lease price is, both with and without the MSAP rebate. Using estimated PPA rates derived from market payback periods, the tool identifies the highest rate that still meets the required 20% or 30% savings threshold. This ensures the customer realizes at least a minimum guaranteed savings compared to what they would pay to the utility without solar.

Interpreting Results

The results show how proposed customer offers compare against the maximum allowable rates or payments derived from each utility's avoidable rate. This enables both contractors and MEA reviewers to confirm rebate pass-through and ensure equitable consumer protection across all Maryland utilities.

How Avoidable Rate Differences Affect Results

Utility rates vary across Maryland, and thus, the allowable solar offer differs by territory. A single statewide PPA rate could create inequitable customer benefits, so the calculator uses utility-specific avoidable rates to determine compliant offers. The "Other" utility option supports analysis of additional service territories, such as rural co-ops, municipal utilities, retail suppliers not listed among the 13 utilities, or cases in which the customer has a non-standard utility rate, such as a blended time-of-use rate¹ (averaged across hours).

5. Reference Values

Table 5 lists the current avoidable rate for each utility, corresponding maximum offer with and without escalators. These rates are determined using available tariff information for each utility, collected from utility websites or direct engagement with the utility.

Table 5 Utility Avoidable Rates

Pepco	0.251	0.201	0.176
BGE	0.213	0.170	0.149
Delmarva Power	0.257	0.206	0.180
Potomac Edison	0.184	0.147	0.129
Southern Maryland Electric Cooperative, Inc.	0.192	0.154	0.134
Berlin Municipal Electric Plant	0.133	0.106	0.093
Easton Utilities Commission	0.144	0.115	0.101

¹ A time-of-use (TOU) electric rate is a pricing structure in which the cost of electricity varies depending on the time of day, day of the week, or season. Under a TOU rate, customers pay higher prices during peak demand periods and lower prices during off-peak hours, encouraging energy use when the grid is less strained.

City of Hagerstown Light Department	0.119	0.095	0.083
Thurmont Municipal Light Company	0.124	0.099	0.087
Williamsport Municipal Electric Light System	0.123	0.098	0.086
A&N Electric Cooperative	0.125	0.100	0.088
Choptank Electric Cooperative Inc	0.169	0.135	0.118
Somerset Rural Electric Cooperative	0.199	0.159	0.139

Different utilities update their electric tariffs at varying frequencies, ranging from two-four months, seasonally, annually, or only on an “as-needed” basis. The calculator should be updated at least twice annually to address seasonal changes in electric tariffs. The date of last calculator refresh, electric tariff effective date, and update frequency is shown in Table 6.

Table 6 Calculator & Tariff Update Schedule

				Source
Pepco	07/14/2026	06/01/2026	Seasonal (Oct-May, Jun-Sep)	https://www.pepco.com/my-account/my-dashboard/rates-tariffs/maryland/current-tariffs https://www.pepco.com/my-account/my-service/customer-choice-md/price-to-compare
BGE	07/14/2026	01/01/2026	Between two and four months (Oct-Nov, Dec-Feb, Mar-May, Jun-Sep)	https://www.bge.com/my-account/my-dashboard/rates-tariffs/electric-service/electric-rates-information
Delmarva Power	07/14/2026	06/01/2026	Seasonal (Oct-May, Jun-Sep)	https://www.delmarva.com/my-account/my-dashboard/rates-tariffs/maryland/current-tariffs
Potomac Edison	07/14/2026	01/01/2026	Seasonal (Oct-May, Jun-Sep)	https://www.firstenergycorp.com/customer-choice/maryland/maryland_tariffs.html
Southern Maryland Electric Cooperative, Inc.	07/14/2026	01/01/2026	Seasonal (Oct-Apr, May-Sep)	https://www.smeco.coop/my-account/general-information/rates-fees/ https://www.smeco.coop/wp-content/uploads/SCHEDULE-R.pdf

				Source
Berlin Municipal Electric Plant ²	07/14/2026	11/28/2012	Updated as needed. The most recent info (non-tariff) is from 09/2024	https://berlinmd.gov/departments/electric/ https://berlinmd.gov/berlin-electric-utility-customer-information-guide/
Easton Utilities Commission ³	07/14/2026	06/01/2026	Biannual from published tariff. Monthly energy charges for January were unpublished, confirmed via phone	https://eastonutilities.com/wp-content/info/electric-tariff.pdf https://www.hagerstownmd.org/DocumentCenter/View/5379/HLD-Tariff?bidId=
City of Hagerstown Light Department	07/14/2026	02/01/2026	Annual	https://www.hagerstownmd.org/DocumentCenter/View/6703/RPT_PPCA-12_Month?bidId=
Thurmont Municipal Light Company	07/14/2026	04/01/2020	Updated as needed	https://thurmont.com/DocumentCenter/View/1576/Final---Electric-Service-Tariff---CLN---2020-04-03 https://thurmont.com/2332/Electric-Department
Williamsport Municipal Electric Light System ⁴	07/14/2026	05/01/2026	Updated as needed	https://williamsportmd.gov/community/utilities/ https://www.anec.com/wp-content/uploads/ANEC-A-1-Residential.pdf
A&N Electric Cooperative	07/14/2026	01/01/2026	Annual	https://www.anec.com/your-account/anec-rates/ https://www.choptankelectric.coop/sites/default/files/03.01.2025%20Choptank%20Electric%20Tariff%20and%20Terms%20and%20Conditions.pdf
Choptank Electric Cooperative Inc	07/14/2026	01/01/2026	Updated as needed	https://choptankelectric.coop/rates https://www.somersetrec.com/current-rates
Somerset Rural Electric Cooperative	07/14/2026	01/01/2026	Updated as needed	

6. Sample Calculations

The following examples illustrate how the calculator is applied for each solar agreement type. Each example follows the same four-step structure to confirm program compliance.

² Most recent Power Cost Adjustment (PCA) is from 9/2024, using 2022 average residential rates (without line-item breakouts).

³ No generation/energy supply costs provided (changes month to month), only distribution rates. No formal historical supply cost data available.

⁴ PCA data and updated rate projections taken from town-hall meeting held in 2025 to forecast 2026 rates.

PPA EXAMPLE CALCULATION

Example Scenario: A solar developer is designing a combined rooftop solar and EV charging package for a residence in the Delmarva Power service territory. The PV system would be sized for 8 kW DC and is expected to produce 11,157 kWh in the first year. The market cost of the solar components, site design, and installation is \$21,422, and \$2,885 for the EV charger. The developer plans to apply for the MSAP grant. They believe they can offer the customer a 25-year PPA for the combined package, starting at \$0.183/kWh and escalating by 3.0% each year. They would then use the maximum offer calculator to determine whether this system design is eligible to receive the MSAP grant.

Step 1: Identify if the Solar Agreement is a Lease, Loan, Purchase, or PPA

Once the developer has the maximum offer calculator open, they select the tab corresponding to the contract type – in this case, the developer chooses PPA.

Step 2: Reviewing Static Assumed Values

In the calculator, the developer first navigates to the PPA tab. The first table in the calculator provides fixed static values that act as baselines for all project inputs. Box 1 represents the Net Present value discount rate, which is used to determine the present value of the project's cash flows in future years (i.e., future payments and energy cost savings are discounted to the current year as savings and payments in future years are worth less than savings and payments today). Box 2 assumes that the production of a PV System will reduce by 0.50% each year due to natural wear and tear. Box 3 sets a 25-year PPA length, with a 3% annual escalator in the PPA \$/kWh rate in Box 4.

Static Assumed Values		
1	System Owner NPV Discount Rate [%]	4.75%
2	System Annual Degradation Rate [%]	0.50%
3	PPA and Lease Term, System Lifespan (25-Year Maximum) [yrs]	25
4	PPA Escalator [%/yr]	3.00%

Step 3: Entering Contract inputs

Box 5: Select the customer's utility territory (Delmarva Power) from the drop-down list.

Box 6: Automatically populated with the current maximum-offered PPA Rate for Delmarva Power, published by MSAP.

Box 7: Input the expected total first-year production from their PV System design (11,157 kWh).

Box 8: Confirms that the grant funding would go to the developer, who then would pass through savings to the customer by providing a reduced PPA rate. As the developer in this scenario plans to claim the grant as the system owner, they select "Yes" from the drop-down.

Box 9: Input the starting PPA rate they plan to offer to the residence for the combined package (\$0.183/kWh).

PPA Inputs		
5	Customer Utility Service Territory	Delmarva Power
6	Maximum-Offer: First Year PPA Rate <u>with escalator</u> [\$/kWh]	\$ 0.180
7	First-Year Projected Total PV Generation [kWh/yr]	11,157
8	The MEA grant is authorized to the contractor, in addition to other federal and state incentives, allowing the contractor to provide a discounted PPA rate to the resident	Yes
9	PPA rate (as appears on the contract) [\$/kWh]	\$ 0.183

Box 10: Calculate the total system cost to enter. Sum up the material and installation costs of the PV solar system and EV charger:

$$\$21,422 + \$2,885 = \$24,307 \text{ for the total system cost.}$$

Note that this value is before the inclusion of other incentives and rebates. The developer will include this total system cost on the MSAP customer disclosure form, but may not always include it on the PPA contract itself.

Box 11: Determine what package costs, if any, are not required to enable the installation of the rooftop solar system. As the EV charger is not necessary for the solar, the developer allocates the EV charger costs as non-solar (\$2,885) and enters the value in **Box 11**. Additional MSAP guidance⁵ is available to assist in calculating solar and non-solar costs.

10	Total System Cost (as appears on the contract or disclosure) [\$]	\$ 24,307
11	Non-solar costs incorporated into the PPA rate (enter \$0 if PPA rate is reflective of solar-related costs only) [\$]	\$ 2,885

Step 4: Review Outputs and Compliance with Maximum Offer Status

Box 12 then calculates the proportion of the vendor PPA rate (entered in Box 9) that represents only the solar costs of the design, excluding non-solar costs (in this scenario, the EV charger). Solar costs are subject to the MSAP minimum benefits policy. **Box 12's** output is the rate used to check if a system design meets MSAP requirements. For this design, the **Box 12** rate was \$0.161/kWh.

Box 13 is the maximum offer rate. The rate from **Box 12** must be equal to or lower than the **rate in Box 13** to meet program compliance. As the agreement type is a PPA, no additional calculations are required, and the value is the same as the **Box 6** maximum offer rate.

For this design, the **Box 12** PPA rate to compare (\$0.161/kWh) is below the **Box 13** maximum offer rate (\$0.180/kWh). Therefore, the current contract terms and system design provide the minimum customer savings required to receive the MSAP grant.

12	PPA rate subject to MEA's minimum benefits policy (for comparison with Maximum Offer) [\$/kWh]	\$ 0.161
13	Maximum Offer: First-Year PPA Rate subject to MEA's policy [\$/kWh]	\$ 0.180
14	The system design meets MEA program requirements.	

LEASE EXAMPLE CALCULATION

Example Scenario: A solar contractor is designing a rooftop solar lease for a residence in the Pepco service territory. The PV system is expected to produce 15,000 kWh in the first year. The total system cost, including all materials, labor, and installation, is \$47,000, of which \$5,000 represents non-solar costs (e.g., optional upgrades or electrical work not required for the solar system). The contractor plans to receive both the MEA grant and any applicable federal incentives and pass those savings through to the customer by offering a discounted lease payment. The proposed agreement is a 25-year solar lease with a 2.99% annual escalator and a first-year monthly lease payment of \$155.75.

Step 1: Identify if the Solar Agreement is a Lease, Loan, Purchase, or PPA

Once the developer has the maximum offer calculator open, they select the tab corresponding to the contract type – in this case, the developer chooses Lease.

Step 2: Reviewing Static Assumed Values

In the calculator, the contractor first navigates to the Lease tab. The first table provides the static assumed values that apply across all scenarios:

	Static Assumed Values	
1	System Owner NPV Discount Rate [%]	4.75%
2	Annual Degradation Rate [%]	0.50%
3	Lease Term, System Lifespan (25-Year Maximum) [yrs]	25
4	PPA Escalator [%/yr]	3.00%

Box 1: The Net Present Value (NPV) Discount Rate is 4.75%, representing the time value of money.

Box 2: The Annual Degradation Rate is 0.50%, accounting for gradual system performance decline over time.

Box 3: The lease term and system lifespan are set to 25 years, representing the maximum allowable period under MSAP.

⁵ [MSAP Contractor Guidance on Costs to Include](#)

Box 4: The standard PPA escalator (3.00%) is shown for consistency with other agreement types, but the lease-specific escalator is entered separately in the inputs.

These static assumptions ensure all calculations remain consistent across system types and utility territories.

Step 3: Entering Contract Inputs

Box 5: Select the customer's utility territory (Pepco) from the drop-down list.

Box 6: automatically populates with the current maximum-offer PPA rate (\$0.176/kWh) for Pepco, published by MSAP.

Box 7: Input the expected total first-year PV system production (15,000 kWh).

Box 8: Confirm that the MEA grant is authorized to the contractor, who will apply it to reduce the customer's lease rate. As this project meets that criterion, "Yes" is selected.

Box 9: Input the total system cost (\$47,000) into **Box 9**, representing all costs that appear in the disclosure or contract.

Box 10: Input the portion of costs unrelated to the solar system (\$5,000)—for example, site work, roof repairs, or other customer-requested upgrades.

Box 11: Input the lease escalator at 2.99% per year.

Box 12: Input the first-year monthly lease rate (\$155.75) as stated in the contract.

	Lease Inputs	
5	Customer Utility Service Territory	Pepco
6	Maximum-Offer: First Year Lease Rate <u>with escalator</u> [\$/kWh]	\$ 0.176
7	First-Year Projected Total PV Generation [kWh/yr]	15,000
8	The MEA grant is authorized to the contractor, in addition to other federal and state incentives, allowing the contractor to provide a discounted lease rate to the resident	Yes
9	Total System Cost (as appears on the contract or disclosure) [\$]	\$ 47,000
10	Non-solar costs incorporated into the lease rate (enter \$0 if lease rate is reflective of solar-related costs only)	\$ 5,000
11	Lease Escalator [%/yr]	2.99%
12	First-year monthly lease rate (as appears on the contract)	\$ 155.75

These entries capture the key system and financial characteristics necessary for determining compliance with MSAP's minimum benefit policy.

To verify that the system design meets MSAP requirements, the calculator isolates the portion of the customer's lease payment associated strictly with solar costs.

The solar-only share of the total project cost is calculated by removing the non-solar costs from the total system cost:

$$47,000 - 5,000 = 42,000$$

The calculator then proportionally applies this ratio to the lease payment to determine the solar portion of the monthly lease rate subject to MSAP's minimum benefits policy:

$$42,000 / 47,000 = 0.8936$$

$$155.75 \times 0.8936 = 139.18$$

As shown in **Box 13**, the "first-year monthly lease rate subject to MEA's minimum benefits policy" is \$139.18/month. This value represents only the solar portion of the lease payment and is the number used for compliance testing.

Step 4: Review Outputs and Compliance with Maximum Offer Status

The **Box 14** value represents the maximum allowable first-month lease payment (\$208.43/month) that still complies with MSAP's minimum benefit policy for customers in the Pepco service territory.

The contractor then compares the solar portion of the actual lease payment (\$139.18) against the program's maximum allowable payment (\$208.43/month).

Because \$139.18 is less than \$208.43, the proposed system design and lease terms meet MSAP program requirements. This means the customer will receive the minimum guaranteed savings compared to their utility avoidable rate, and the project qualifies for the MSAP grant.

13	First-year monthly lease rate subject to MEA's minimum benefits policy (for comparison with Maximum Offer) [\$ /mo]	\$	139.18
14	Maximum Offer: First-Month Lease Payment subject to MEA's policy [\$ /mo]	\$	208.43
15	The system design meets MEA program requirements.		

LOAN SAMPLE CALCULATION

Example Scenario: A homeowner located outside the 13 main Maryland utility territories is financing a residential rooftop solar system through a 25-year loan. The customer's utility is categorized as Other, which allows the user to enter a custom retail electric rate of \$0.125/kWh. This input automatically generates a Maximum-Offer First-Year PPA Rate of \$0.088/kWh in the calculator. The PV system is expected to produce 9,000 kWh in the first year. The total system cost is \$40,000, which includes \$5,000 in non-solar costs. The resident will receive a \$5,500 MSAP grant. The loan has a 4.00% interest rate and a 25-year term.

Step 1: Identify if the Solar Agreement is a Lease, Loan, Purchase, or PPA

Once the user has the maximum offer calculator open, they select the tab corresponding to the contract type – in this case, the user chooses Loan.

Step 2: Reviewing Static Assumed Values

In the Loan tab, the calculator begins with the same baseline assumptions that apply across all system financing scenarios.

	Static Assumed Values	
1	System Owner NPV Discount Rate [%]	4.75%
2	Annual Degradation Rate [%]	0.50%
3	Lease Term, System Lifespan (25-Year Maximum) [yrs]	25
4	PPA Escalator [%/yr]	3.00%

Box 1 sets the Net Present Value (NPV) Discount Rate to 4.75%, reflecting that money today is worth more than in the future.

Box 2 assumes an Annual Degradation Rate of 0.50%, capturing the gradual decline in PV system performance over time.

Box 3 specifies a 25-year system lifespan and loan term limit, representing the standard MSAP analysis period.

Box 4 lists a standard 3.00% annual escalator reference to ensure consistency across PPA and lease comparisons.

These fixed assumptions ensure uniformity across all financial mechanisms evaluated under MSAP.

Step 3: Entering Contract Inputs

Box 5: Select "Other" as the customer's utility service territory, enabling manual entry of a custom retail rate.

Box 6: Automatically populates the Maximum-Offer PPA Rate (\$0.088/kWh), based on the entered custom utility rate of \$0.125/kWh.

Box 7: Input the system's first-year projected PV generation (9,000 kWh).

Box 8: Input the loan term (25 years), and in Box 9, the loan interest rate (4.00%).

Box 10: Input the total system cost (\$40,000) as shown in the customer contract or disclosure.

Box 11: Input the non-solar costs (\$5,000), such as optional upgrades or electrical work not required for the solar installation.

Box 12: Input the MEA grant amount to the resident (\$5,500).

Loan Inputs		Input Custom Utility Electric Rate Below (\$/kWh)
5	Customer Utility Service Territory	Other
6	Maximum-Offer: First Year Loan Rate <u>with escalator</u> [\$/kWh]	\$ 0.088
7	First-Year Projected Total PV Generation [kWh/yr]	9,000
8	Loan Term (25-Year Maximum) [yrs]	25
9	Loan Interest Rate (as appears on the contract) [%]	4.00%
10	Total System Cost (as appears on the contract) [\$]	\$ 40,000
11	Non-solar costs (enter \$0 if all costs are solar-related) [\$]	\$ 5,000
12	MEA grant amount to the resident (enter \$0 if the grant is authorized to the contractor instead) [\$]	\$ 5,500

These values define the financial inputs required to assess program compliance.

The calculator determines the portion of the customer's loan principal attributable solely to solar costs after excluding non-solar components and applying direct customer incentives (MSAP grant).

The formula applied in **Box 13** is:

$$\text{Loan Principal Subject to Policy} = 40,000 - 5,000 - 5,500 = 29,500$$

Thus, **Box 13** = \$29,500, representing the amount of the loan that is subject to MSAP's minimum benefits compliance check.

Step 4: Review Outputs and Compliance with Maximum Offer Status

Box 14 lists the Maximum-Offer Loan Principal (\$15,811)—the highest allowable solar loan amount permitted under MSAP to still provide the required customer benefit.

Box 15 shows the Maximum-Offer Loan Payment (\$83.46/month)—the corresponding maximum monthly payment threshold.

The calculator compares the customer's actual solar-related loan principal (\$29,500) against the program's limit (\$15,811). Because the actual amount exceeds the allowable value, the financing arrangement fails to meet MSAP's minimum benefits requirement.

Box 17 therefore indicates that the system design does not meet MEA program requirements.

13	Total Loan Principal subject to MEA's minimum benefits policy (for comparison with Maximum Offer) [\$]	\$ 29,500
14	Maximum Offer: Loan Principal subject to MEA's policy [\$]	\$ 15,811
15	Maximum Offer: Loan Payment subject to MEA's policy [\$/mo]	\$83.46
16	The system design does not meet MEA program requirements.	

PURCHASE SAMPLE CALCULATION

Example Scenario: A homeowner in the Williamsport Municipal Electric Light System service territory plans to purchase a small residential solar system outright. The PV system is expected to produce 5,000 kWh in its first year. The total system cost listed on the contract is \$15,000, which includes \$1,750 in non-solar costs. The customer is not receiving an MEA grant. The system design and contract terms will be evaluated using the MSAP Maximum Offer Calculator to confirm whether the purchase meets the minimum benefit policy.

Step 1: Identify if the Solar Agreement is a Lease, Loan, Purchase, or PPA

Once the developer has the maximum offer calculator open, they select the tab corresponding to the contract type – in this case, the developer chooses System Purchase.

7. Step 2: Reviewing Static Assumed Values

When using the Purchase tab, the calculator begins with standard assumptions that ensure consistency across all program evaluations.

	Static Assumed Values	
1	System Owner NPV Discount Rate [%]	4.75%
2	Annual Degradation Rate [%]	0.50%
3	Lease Term, System Lifespan (25-Year Maximum) [yrs]	25
4	PPA Escalator [%/yr]	3.00%

Box 1 defines the Net Present Value (NPV) Discount Rate as 4.75%, accounting for the time value of money.

Box 2 applies a 0.50% Annual Degradation Rate to capture expected performance declines in PV generation.

Box 3 sets the maximum analysis period or system lifespan at 25 years.

Box 4 maintains a standard 3.00% annual escalator reference for comparability with other contract types.

These fixed assumptions serve as the baseline for evaluating system purchase offers under MSAP.

Step 3: Entering Contract inputs

Box 5: Select Williamsport Municipal Electric Light System from the dropdown utility list.

Box 6: Automatically populates with the Maximum-Offer First-Year PPA Rate (\$0.086/kWh) applicable to that utility.

Box 7: Input the first-year PV generation (5,000 kWh).

Box 8: Input the total system cost from the purchase contract (\$15,000).

Box 9: Input \$1,750 in non-solar costs, representing components not required for solar installation (e.g., structural improvements or optional add-ons).

Box 10 shows zero since the resident is not receiving a grant.

	System Purchase Inputs	
5	Customer Utility Service Territory	Williamsport Municipal Electric Light System
6	Maximum-Offer: First Year PPA Rate <u>with escalator</u> [\$/kWh]	\$ 0.086
7	First-Year Projected Total PV Generation [kWh/yr]	5,000
8	Total System Cost (as appears on the contract, or internally valued) [\$]	\$ 15,000
9	Non-solar costs (enter \$0 if all costs are solar-related) [\$]	\$ 1,750
10	MEA grant amount to the resident (enter \$0 if the grant is authorized to the contractor instead) [\$]	\$ -

These entries define all necessary inputs to calculate the system's cost subject to MSAP's minimum benefits policy.

The calculator determines the portion of the total system cost that represents the **solar-only cost** subject to MSAP's minimum benefit requirements.

The formula applied in **Box 11** is:

$$\text{Total Cost Subject to Policy} = 15,000 - 1,750 = 13,250$$

Thus, **Box 11** = \$13,250, representing the solar portion of the system purchase cost evaluated for compliance.

Step 4: Review Outputs and Compliance with Maximum Offer Status

Box 12 displays the Maximum-Offer System Purchase Cost (\$7,993)—the highest allowable system purchase price under MSAP for the Williamsport Municipal Electric Light System territory.

The calculator compares the total cost subject to policy (\$13,250) against this maximum allowable value (\$7,993). Because the actual purchase cost exceeds the maximum allowable limit, the design does not satisfy the MSAP minimum benefits standard.

Box 13 therefore indicates that the system design does not meet MEA program requirements.

11	Total Cost subject to MEA's minimum benefits policy (for comparison with Maximum Offer) [\$]	\$	13,250
12	Maximum Offer: System Purchase Cost subject to MEA's policy [\$]	\$	7,993
13	The system design does not meet MEA program requirements.		

8. Sample Bill

Breaking Down Your Pepco Bill

Maryland Electric Customer

Throughout the year, your bill can go up or down based on several factors relating to usage, weather, the cost of electricity and changing rates. We know there are many parts to an electric bill but we're here to help. Get a better understanding of the details of your bill, including definitions and how each line item may affect you.

Your bill has a new look, featuring an easier-to-read first page. The new format includes an enhanced bill summary and user-friendly graphics at a glance.

For more information about your bill visit pepco.com/BillSupport

PAGE ONE

Customer Account Header

Provides customer information and service period dates

Current Bill Period
Supply Charges

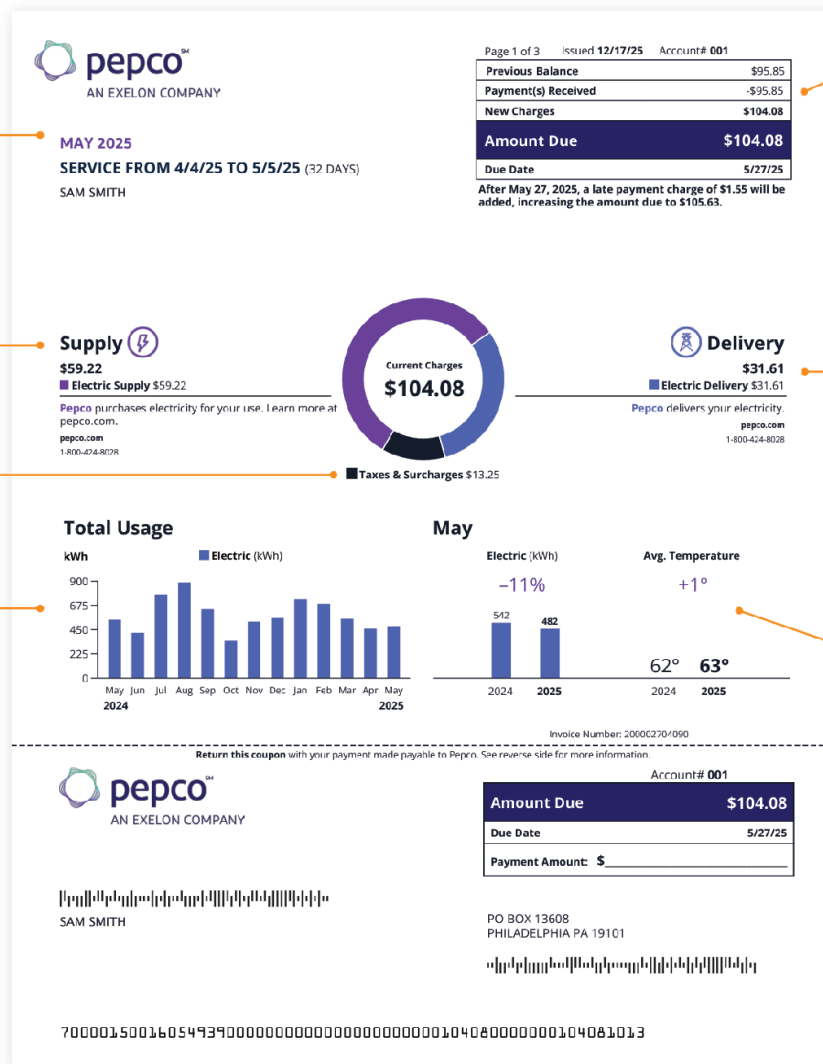
The cost of the electricity you use during this billing period, whether Pepco purchases it for you or you have a contract with a third-party supplier.

Taxes & Surcharges

Fixed or usage-based fees and credits related to special programs or regulations.

Historic Customer Energy Use

A comparison of the current month to the previous year, showing 13 months of usage. The easy-to-read visual shows how your usage changes over time



Summary Charges

At-a-glance account details, including due date, amount due, and previous balances and payments.

Current Bill Period
Delivery Charges

- The cost of delivering power to your home or business during this billing period, as well as maintaining infrastructure and restoring power during outages.

Comparison Charts

See how your energy use and costs are trending over time, as well as how warmer or colder weather may have played a role.



Breaking Down Your Pepco Bill

The remaining bill pages provide a complete breakdown of your energy charges.

PAGE TWO

Charge Details

Shows each service used during billing period and corresponds to the circle graph on page 1.

Supply

The pass-through cost of electricity Pepco purchases on your behalf or from a third party if you choose. This usage-based charge is determined by supply and demand of electricity.

Delivery

Displays the cost of delivering electricity to your home or business based on your usage and approved rates. This covers the cost of maintaining the infrastructure that brings electricity to your door.

Contact us by phone or visit pepco.com
Customer Service (7 a.m.-8 p.m.) 1-800-424-8028
Disponible en Español
TTY English 1-800-735-2258
TTY Español 1-800-877-1264
Electric Emergencies/Outages (24/7) 1-877-737-2662

Page 2 of 3 Issued 12/17/25 Account# 001

Amount Due \$104.08
Due Date 5/27/25

Details of Your Electric Charges

Residential Service - Service # 000

Meter Information

Meter# NX	Read Dates: 4/4 - 5/5 (32 days)
Energy Type	Previous Reading
Use (kWh)	132842

Your meter records electric energy use in hourly intervals. Your bill is the total of all hourly intervals recorded during your billing period.
End and start date kWh meter readings are provided for informational purposes only.
Please visit My Account at pepco.com to view your energy use.
Your next bill period is scheduled to end on June 4, 2025

Electric Charge Details

SUPPLY \$59.22

Pepco Charges
Billing Period: Apr 4, 2025 to May 5, 2025 (32 days)

Type of Charge	Charge Calculation	Amount(s)
Transmission Services:		
Energy Chg	482 kWh X \$0.0195100	\$9.40
Generation Services:		
Energy Chg	482 kWh X \$0.1070400	\$51.59
Procurement Cost Adj	482 kWh X \$0.0036653-	-\$1.77

DELIVERY \$31.61

Pepco Charges

Type of Charge	Charge Calculation	Amount(s)
Distribution Services:		
Customer Chg		\$8.44

TAXES & SURCHARGES \$13.25

Type of Charge	Charge Calculation	Amount(s)
Gross Receipts Tax	at 2.0408%	\$0.19
Franchise Tax (Delivery)	482 kWh X \$0.0006200	\$0.30
Universal Service Chg		\$0.32
MD Environmental Surchg	482 kWh X \$0.0001500	\$0.07
EmPOWER Maryland Chg	482 kWh X \$0.0137900	\$6.64
Gross Receipts Tax	at 2.0408%	\$0.80
Montgomery Cnty Enrg Tax	482 kWh X \$0.0113205	\$5.46
Administrative Cr	482 kWh X \$0.0010900-	-\$0.53

Service Period Total \$104.08
(Supply + Delivery + Taxes & Surcharges)

Ways To Pay Your Bill

Any inquiry or complaint about this bill should be made prior to the due date to avoid late charges.

Online
Use your My Account to conveniently view your bill online, enroll in paperless billing, or setup automatic payments.

Mobile App
Download the Pepco mobile app on your mobile device to view and pay your bill, or manage your account.

Phone
Call Pepco to make a payment with a credit card, ATM card, or your bank account at 1-800-424-8028.

In-Person
Pay your bill in-person at multiple Pepco authorized agents located throughout the region.

When you provide a check as payment, you authorize us to use information from your check to make a one-time electronic fund transfer from your account or to process the payment as a check transaction.

* Fees apply for card and phone payments. No fees apply when paying with your bank account information through your Pepco My Account.

Taxes & Surcharges

Displays fixed or usage-based fees and credits related to special programs or regulations.

Service Period Total

Sum of this service's supply, delivery, and taxes and surcharges during this billing period.

Back of Bill Stub

The back of the bill stub now provides QR codes for quick and easy access to view and pay your bill online, through the mobile app, or by calling directly.

Breaking Down Your Pepco Bill

PAGE THREE

Understanding Your Bill

Important and informative messages prioritized to put the most critical information first and grouped into categories such as Rates, Payments, Service, Account, and Updates from Pepco.



Page 3 of 3 Issued 12/17/25 Account# 001

PEAK ENERGY SAVINGS CREDIT

No Peak Savings Days were called during this billing period.

Payment - Apr 25, 2025

-\$95.85

PAYMENTS

-\$95.85

Total Amount Due

\$104.08

Payments & Total Amount Due

Reflects the payment applied to the previous month's bill and the total amount due on the account.

Understanding Your Bill

Service

500

Current charges for 32 days. Winter Rates in effect.

Your Price to Compare is 12.93 cents (\$0.1293) per kWh. When shopping for electric suppliers, compare this price to those proposed by other suppliers. This price reflects the average annual amount a customer on this rate pays per kilowatt-hour for Electric Supply. For information on electric energy suppliers please visit MDEnergyChoice.com.

Updates From Pepco

If you are moving or discontinuing service, please contact Pepco at least three days in advance.

The EnPOWER MD charge funds programs that can help you reduce your energy consumption and save you money. For more information, including how to participate, go to pepco.com/WaysToSave.

Help a Pepco customer with their energy bills by contributing to the Good Neighbor Energy Fund. Pay exactly \$1 more than your monthly bill to donate to the fund, which is administered by a 501(c)(3) organization in your community. You must donate exactly \$1 over your bill amount or the amount will appear as an account credit. We will also contribute \$1 to the fund for every \$3 in customer donations up to \$70,000.

