



Analysis of Return on Investment for Small Renewable Energy Systems

Consultation Document

ES 15/2026

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1. Introduction

The Utilities Regulation and Competition Authority (“URCA”) is the multi-sector independent regulator for the Electricity Sector (“ES”) in The Bahamas. URCA’s mandate is established under the Electricity Act, 2024 (“EA”), which empowers it to regulate the licensing of generation, transmission, distribution, and supply of electricity within, into, from, or through The Bahamas. In carrying out this mandate, URCA has broad functions and powers, including the issuance of regulatory measures to ensure that the ES is governed in accordance with national policy objectives.

Sections 13 and 14 of the EA set out URCA’s statutory responsibilities. Other sections of the EA buttress URCA’s obligations. Of particular interest here is Part V – Renewable Energy in the Electricity Sector.

Section 13(1) requires URCA to regulate the ES in accordance with the goals, objectives, and principles underpinning the national energy and electricity sector policies. In this regard, the Government’s National Energy Policy (NEP) 2025–2030 sets a clear target of achieving at least 30 percent of electricity generation from renewable energy sources, primarily solar, by 2030. As the regulator, URCA plays a central role in facilitating this transition. This includes ensuring that the regulatory framework governing interconnection, compensation mechanisms, and customer participation provides sufficient economic incentives to support renewable energy adoption while maintaining grid stability and fairness to all consumers. However, achieving these objectives requires more than setting targets. Of interest is whether renewable energy projects particularly small-scale systems such as residential and commercial solar PV are financially attractive to owners.

Return on investment (ROI) is a key determinant of whether households and businesses are likely to adopt renewable energy systems. If ROI is unattractive, uptake will remain limited, thereby undermining the achievement of national policy goals. Conversely, if the analysis shows that renewable energy systems deliver reasonable or strong financial

returns, it provides evidence that current frameworks are effective in promoting adoption.

For this project return on investment was considered in three ways; (1) the traditional Return on Investment which is ratio of income to expenses expressed as a percentage, (2) the Internal Rate of Return which is the annualized return, and (3) the payback period which is the number of years expected to take to earn the money back on the investment. Also, economic profits are used rather than accounting profits. The economic profits account for the opportunity costs of the investment, e.g. the avoided cost of paying the utility for electricity.

This analysis of ROI for small renewable energy systems is therefore an essential step in enabling URCA to:

1. Gather empirical evidence on the actual financial performance of renewable projects under existing market and policy conditions.
2. Assess whether current incentives and regulatory frameworks adequately support the achievement of NEP targets; and
3. Determine, where necessary, what additional regulatory or policy measures may be required to ensure that renewable energy adoption is sufficiently incentivized.

By grounding regulatory decision-making in evidence-based analysis, URCA fulfills its statutory remit by contributing to a more resilient, sustainable, and consumer-focused energy sector in The Bahamas.

1.1 Objectives

The objectives of this Consultation are to:

- Quantify the return on investment for a sample of existing Renewable Energy (RE) systems and extrapolate the results for the wider population.
- Improve public awareness of the return on investment for RE systems.

- Enable URCA to refine regulations and guidelines for RE systems based on empirical data.
- Present URCA’s findings, solicit public input before finalizing.

1.2 How to Respond

URCA invites comments from licensees, members of the public and interested parties. Comments must be received no later than 5:00 p.m. on 19 June 2026 by email to: info@urcabahamas.bs

1.3 Structure of the remainder of this document

- Section 2: sets out the background to this consultation.
- Section 3: sets out the regulatory framework under which URCA has exercised its powers to issue this consultation document.
- Section 4: sets out the methodology used.
- Section 5: contains the results from the PV model.
- Section 6: contains the analysis and interpretation of the results.
- Section 7: sets out the next steps to be taken by URCA.
- Annex A: contains the Renewable Energy Questionnaire.

2. Background

URCA is conducting this study to better understand the costs, benefits, and performance of renewable energy systems currently deployed in The Bahamas. The findings are intended to inform regulatory approaches to encourage sustainable investment and ensure that sector development remains aligned with the Government’s National Energy Policy (NEP) 2025–2030, which establishes a target of achieving at least 30 percent renewable energy generation by 2030.

The move toward renewable energy has been shaped by several key policy and regulatory milestones. In 2017, URCA introduced the Small-Scale Renewable Generation (SSRG) framework, which created a mechanism for residential and small commercial customers to interconnect renewable systems with the grid under a net billing arrangement. This was followed by the establishment of the Renewable Energy Self-Generation (RESG) program in 2019, expanding opportunities for larger customers to self-generate electricity from renewable sources while still maintaining grid reliability and oversight.

The NEP 2025–2030 further strengthens the policy foundation by explicitly identifying renewable energy adoption, particularly distributed solar PV as a national priority. It highlights the importance of creating regulatory conditions that support sustainable investment and consumer participation in energy generation.

Against this backdrop, the study was designed to capture empirical data on the financial performance of renewable systems and evaluate whether existing frameworks provide sufficient incentives to achieve the NEP’s renewable energy targets.

3. Regulatory Framework

The Electricity Act, 2024 (EA) establishes URCA as the independent regulator of the electricity sector, with its role defined in Section 13. URCA is required to regulate the

sector in accordance with the goals, objectives, and principles of the National Energy Policy (NEP), to monitor licensee compliance, and to support policy changes articulated by Government. The specific functions and powers of URCA are set out in Section 14, which grant authority to issue determinations, regulations, and technical rules, to approve or amend licensee proposals, and to otherwise take regulatory measures to implement sectoral objectives. These provisions ensure that URCA has both the mandate and the tools to align sector performance with national energy priorities. Complementing this, Section 5 of the EA requires the Minister, in consultation with URCA, to revise the NEP and ensure its objectives are implemented through regulatory decisions.

The EA also includes dedicated provisions on renewable energy, particularly in Part V (Sections 51–55). These sections require public electricity suppliers to prepare renewable electricity plans for URCA’s approval (Section 51), establish permitting requirements for residential renewable systems and grid interconnections (Section 54), and set conditions for crediting or purchasing excess generation

4. Methodology

4.1 Research Design

This study employed a quantitative research approach to assess the cost and performance data of renewable energy projects in The Bahamas. The methodology involved collecting primary data from solar energy customers through a structured questionnaire and analyzing their historical billing information to determine the financial and operational impacts of renewable energy adoption. The study aimed to provide insights into the performance of renewable energy systems and their cost implications for both residential and commercial users.

4.2 Data Collection Procedure

The Utilities Regulation and Competition Authority (URCA) requested and received a comprehensive listing of all renewable energy customers in their service territory from

Bahamas Power and Light (BPL). The listing provided by BPL included both residential and commercial customers. Upon review of the listing, URCA identified a total of 396 solar energy customers as of 2024.

URCA contacted all solar energy customers via email, requesting their participation in the study. The email included detailed information about the study objectives and requested their consent for the release of their BPL billing history for the period January 2016 to August 2024. The participation was voluntary, and URCA emphasized the confidentiality of the data collected.

4.3 Sampling

URCA aimed to recruit a sample size of 196 participants, deemed sufficient to achieve statistical reliability for the study objectives. This was calculated using a 95% confidence level and 5% margin of error and then making a finite population correction. However, out of the total population of 396 customers, 36 agreed to participate, representing a response rate of approximately 9%. The participants who consented formed the basis of the study's sample.

Normal Sampling

$$n = \frac{Z^2 * p (1 - p)}{e^2}$$

n = normal sample size

Z = Z score for the confidence level

p = population

e = margin of error

$$n = \frac{(1.96)^2 * 0.5 (1 - 0.5)}{0.05^2}$$

$$n = \frac{3.8416 * 0.25}{0.0025^2}$$

$$n = 384.16$$

Finite Population Adjustment

$$n_{adj} = \frac{n}{1 + \frac{n-1}{N}}$$

n_{adj} = adjusted sample size based on a finite population

n = normal population size

$$N = \text{Population size} \quad n_{adj} = \frac{385}{1 + \frac{384}{396}}$$

$$\underline{n_{adj} = 196}$$

4.4 Survey Administration

After securing consent, URCA sent a structured questionnaire to the 36 participants. The questionnaire was designed to capture detailed information on their renewable energy systems, including:

- Purchase cost
- Installation cost
- System performance and reliability
- Maintenance practices
- Perceived financial benefits
- Challenges encountered

Installation costs, where not included in the purchase price, were included to establish the upfront capital outlay, while system performance and reliability data were necessary to estimate energy generation and potential savings over time. Maintenance practices were captured to understand recurring operational costs, and perceived financial benefits provided insight into household-level cashflow impacts such as reduced electricity bills or

revenue from credits. Finally, challenges encountered were documented to account for risks and barriers that may affect long-term financial returns.

Despite the efforts to engage all 36 participants, only 19 customers completed the survey, resulting in a final response rate of 52.8% of the consenting participants. Moreover, once data analysis of the responses commenced due to certain data gaps only 11 customers projects were fit to use for the purposes of this study.

4.5 Data Analysis

The data collected from the questionnaires were analyzed using Microsoft Excel to assess quantitative data related to renewable energy costs and performance. The efficiency of the investment was measured by comparing the net financial benefits generated to the initial and ongoing costs incurred. The model captures both the upfront capital expenditure and the long-term effects from reduced electricity bills, net billing credits, and maintenance expenses. In this model, ROI was calculated by estimating annual inflows (savings and revenues) and outflows (installation and maintenance costs) over the system’s expected lifespan and then deriving a payback period and overall profitability ratio. Additionally, the billing data provided by BPL was used to validate customer-reported financial impacts and analyze trends in energy consumption before and after the adoption of solar energy systems.

Loan	Factor	Units
Total amount borrowed (inc. down payment)		\$
Down payment	0	\$
Annual percentage rate	0	% per year
Duration of loan	0	years
Initial down payment	0	\$
Annual loan payments	#NUM!	\$

Figure 1

This component of the PV ROI model (figure 1) sets out the financing assumptions used to estimate the annual loan repayment obligations for a solar PV system. It captures key

loan parameters specific to each participant including the total system cost, down payment, annual interest rate, and loan duration which together determine the annual loan repayments . These fixed annual loan payments are made over the life of the financing arrangement.

PV System Details	Factor	Units
System size	3	kW
Array tilt (elevation)	15	Deg. to horizontal
Array azimuth	180	Deg. from south
System losses	10%	%
Inverter efficiency	98%	%
DC to AC size ratio		number
Estimate of system output	5311.845	kWh per year
Estimate of avoided cost		kWh per year
Estimate of units fed-in to grid		kWh per year

Figure 2

This section of the model (figure 2) outlines the technical characteristics of the proposed solar PV system and uses these parameters to estimate its expected annual energy generation. Key inputs specific to each participant include the system size, panel tilt and orientation, system losses, inverter efficiency, and the DC-to-AC size ratio. These factors reflect the physical and performance attributes that determine how much electricity the system can realistically produce under Bahamian conditions. Based on these inputs, the model calculates an annual system output estimate in this example, approximately 5,312 kWh per year for a 3kW system. This estimated production is then used to determine the customer’s avoided electricity costs and the volume of excess energy that may be fed into the grid under net billing. Together, these outputs feed into the broader return-on-investment assessment

Routine Cost		
Maintenance contract	0	\$ per year
Insurance	105	\$ per year
Subtotal	105	
Inflation	3	%
Discount Rate for NPV analysis	5	%

Figure 3

This portion of the model (figure 3) captures the routine operating costs and the macroeconomic assumptions required to assess the long-term financial performance of a solar PV installation. The routine costs specific to each participant include annual expenses such as system insurance and optional maintenance contracts, which together represent the recurring out-of-pocket costs that a customer must cover each year. In the example shown, only insurance costs are included, resulting in a total annual routine cost of \$105.

	A	B	C	D	E	F	G	H
1	Electricity usage before PV system							
2	Month	2019	Jan	Feb	Mar	Apr	May	Jun
3	Units billed	kWh	506	935	1007	1134	1167	1150
4	Electricity charges	\$	\$147.71	\$270.88	\$275.73	\$397.09	\$378.46	\$394.31
5	Average charge per kWh		\$0.29	\$0.29	\$0.27	\$0.35	\$0.32	\$0.34
6	Electricity usage after PV system							
7	Month	2022	Jan	Feb	Mar	Apr	May	Jun
8	Units billed	kWh	501	648	866	875	746	609
9	Units fed to grid	kWh	270	249	245	337	335	320
10	Electricity charges	\$	\$ 39.15	\$ 31.13	\$ 25.73	\$ 35.39	\$ 35.18	\$ 33.60
11	PV Watts estimated ideal monthly output for 1kW system		171.43	173.88	205.53	204.3	194.68	174
14	System size	kW	5					
16	Estimate of ideal PV system output	kWh	857.15	869.4	1027.65	1021.5	973.4	870

Figure 4

Data was gathered for each participant's electricity usage for the full year before and after their PV system was installed (see an excerpt in figure 4). This included their units billed and electricity charges. After the system was installed, it also included any units fed to the grid. The estimated output of the system was calculated using PV Watts (www.pvwatts.nrel.gov) and the specific system characteristics shown in figure 2 above.

The model also incorporates broader economic assumptions, specifically an inflation rate and a discount rate which are used in calculating the net present value (NPV) of the investment. The inflation rate adjusts future costs to reflect expected price increases over time, while the discount rate reflects the time value of money and is used to convert future cash flows into today's dollars. These two parameters ensure that the ROI results are expressed in real, economically meaningful terms.

29	Annual Cash Flows			0	1	2	3	4	5
30	Item	Factor	Change	Y0	Y1	Y2	Y3	Y4	Y5
31	Loan payments			0	0	0	0	0	0
32	Routine cost				-150	-150	-150	-150	-150
33	Lumpsum payments not in loan			-6,500					
34	Value of units 0-200kWh @ \$0.00								
35	Value of units 201-800kW @ \$0.00								
36	Value of units generated and consumed @ 31 cents per kWh				1,102	1,102	1,102	1,102	1,102
37	Value of fuel charge								
38	Value of units fed to the grid 17 cents per kWh				609	609	609	609	609
39	Sub-total of cash flow			-6,500	1,561	1,561	1,561	1,561	1,561
40									
41	Present value accounting for inflation			-6,500	1,516	1,471	1,429	1,387	1,347
42	Cumulation of discounted cashflow			-6,500	-4,984	-3,513	-2,084	-697	649

Figure 5

The excerpt from the model above (figure 5) shows a Discounted Cash Flow (DCF) analysis done of the PV system investment over a 20-year period for one of the participants. The initial Net Cash Outflow of \$6,500 in Year 0 represents the system's capital cost. Subsequent years show a recurring Net Annual Cash Flow of \$1,561, derived primarily from avoided electricity purchases and fuel charges less routine maintenance costs. The core of the analysis, however, lies in the application of a discount rate to these future cash flows to determine their Present Value, effectively accounting for the time value of money and inflation. The Cumulation of Discounted Cashflow tracks the running balance; the point where this total shifts from negative to positive, occurring between Year 4 and Year 5, defines the project's Payback Period. The final value in Year 20 (not shown but considered the useful life of the system), is \$16,724. This Net Present Value (NPV), confirms that the project is financially viable, generating a positive return in today's dollars over its expected lifespan.

For each participant the model is used to calculate the Discounted Payback Period, Internal Rate of Return (at the Discount Rate), Net Present Value, and Return on Investment. These are described in section 5.1 of the Results below.

4.6 Ethical Considerations

The study adhered to strict ethical guidelines, ensuring participants' confidentiality and voluntary participation. Written consent was obtained from all participants for both the survey and the release of their billing history. All data was anonymized to protect individual identities.

4.7 Scope and Limitations

The primary limitation of this study was the lower-than-anticipated response rate. Based on the total population of registered renewable energy customers, a statistically representative sample would have required approximately 196 participants. Although 36 customers initially expressed interest in participating, only 19 completed the survey process, and after data validation and quality checks, only 11 projects were deemed suitable for detailed financial analysis.

The limited sample size reduces the ability to generalize the findings across the broader population of renewable energy users in The Bahamas and increases the possibility of non-response bias, whereby participants who responded may differ systematically from those who did not. In addition, portions of the study relied on self-reported cost and operational data, which may contain inaccuracies or omissions despite validation efforts using BPL billing information.

Further limitations include variability in system design, installation quality, customer consumption patterns, financing arrangements, and site-specific conditions such as shading and panel orientation, all of which may materially affect financial performance outcomes. Accordingly, the findings should be interpreted as indicative rather than definitive measures of renewable energy investment performance in The Bahamas. .

Results

Case	Class	System Size, kW	Discounted Payback Period, yrs	Internal Rate of Return, %	Return on Investment, %	Net Present Value
A	R	5	4.50	20	357	16,724
B	R	14	>20	-3	72	-27,061
C	R	3	>20	-10	32	-20,485
D	R	5	>20	-1	91	-2,486
E	C	240	6.80	12	244	857,803
F	R	7	19.80	0	101	138
G	R	7	7.00	11	229	20,660
H	R	15	8.20	9	203	53,716
I	R	9	7.60	10	217	46,733
J	R	5	2.50	38	623	26,144
K	C	25	15.90	2	119	33,978

Table 1

Definitions:

- Case: An alphabetical letter was assigned to each participant to identify them as an individual case study.
- Class: refers to the different categories of customers to which BPL assigns its consumers for tariff purposes. Each tariff class is subject to a distinct base rate and may also incur other applicable charges, such as a demand rate. The fuel charge component of the bill is treated as a pass-through cost and remains the same regardless of class assignment. Participants fell into one of two classes – Residential (R) or Commercial (C).
- System Size (kW): The total installed capacity of a solar photovoltaic (PV) system, expressed in kilowatts which indicates the maximum amount of electricity the system can generate under standard conditions.
- Discounted Payback Period (yrs): The length of time, measured in years, that it takes for the cumulative savings and revenues from the renewable energy system

to equal the initial investment cost. The values used to determine this period are discounted to factor in the time value of money.

- Internal Rate of Return (IRR): A financial metric that represents the discount rate at which the net present value (NPV) of future cashflows from an investment equals zero. It is used to evaluate the profitability of the system. This metric is important as it also factors in the time value of money of the investment over its lifespan. This is why IRR can differ greatly from ROI for the same project even when they both are positive.

Return on Investment (ROI %): The ratio of net financial benefits (savings and revenues minus costs) to total investment costs, expressed as a percentage, which measures the overall financial efficiency of the system.

5. Analysis

URCA did have concerns about some of the data supplied by the participants. Some values appeared outside the range expected (outliers). This is of particular concern with a small data set which lacks sufficient data points to produce a normalized distribution. Notwithstanding the discussions on the sample size in section 4.3 and the scope and limitations in section 4.7, URCA was able to draw interesting observations from the analysis. These are discussed below.

Residential system sizes ranged from 5 to 15 kW with the average size being 7.8kW which was consistent with the BPL SSRG framework. Applying the framework¹ to the annual use before the PV system was installed yields and expected system size of 8 kW. This means systems are being sized in accordance with the framework, which is designed for self-use, i.e. to avoid excessive units sent back to the grid.

Over half of the systems studied are projected to be a good investment for the individuals. These systems are likely to beat inflation. Eight out of eleven systems also had a positive

¹ https://www.bplco.com/wp-content/uploads/2020/02/Level_1_SSRG_Requirements_for_Grid_Interconnection_-_4.0_Final-1.pdf

net present value over their expected useful life of 20 years, applying a discount factor of 5%. This compares favorably with the available return on a Bahamas Government bond over a similar period. Hence, if a government bond is the next best alternative installing a PV system can be an attractive option. On average, people can expect to make their money back within 10 years after installation.

There was no strong correlation between system size and financial return (i.e. discounted payback, internal rate of return, return on investment, or net present value). There was a strong correlation between the upfront system cost and financial return, discussed later.

The billing data showed that persons paid about 31 cents, on average, for the electricity they consumed. This is the gross charge made up of approximately 14 cents per kWh for the base charge and 17 cents per kWh for the fuel charge. Having determined this, for the economic analysis, the kWh that the PV system produced and was consumed by the customer was valued at 31 cents per kWh and any units that were fed to the grid were valued at 17 cents per kWh.

According to the US Energy Information Administration, residential customers in the United States typically use about 25–35% of their total daily electricity between 11 a.m. and 4 p.m., depending on season and climate. This midday period often coincides with peak cooling demand in summer and moderate appliance use in winter. This is the time PV systems are expected to produce their output.

The analysis used the assumption that 30% of the historical consumption would now be satisfied by the PV system. A check was made, using PV Watts, to ensure that the size of the PV system installed could meet this demand and was found to be the case. The excess production from the PV system was then considered to be fed back to the grid. To validate this a comparison was made between the units billed before the PV system was installed and the units billed after the PV system was installed. The expectation would be that the units billed would drop by the amount being produced by the PV system. This turned out to be the case. On average, the units billed after the PV system was installed

were 34% lower than before. Hence, persons were saving about a third on their electricity bill compared with before.

The study then turned to look at units sent to the grid. Any units that are produced by the PV system and not consumed by the property are fed into the electricity grid. BPL compensates customers at the prevailing fuel charge for these units. As mentioned above, these units were valued at 17 cents per kWh for the study. The units exported to (fed into) the grid are shown on the customer's bill. A check was made to see if the numbers lined up with what was expected. To do this the ideal system output was compared to the number of units (kWh) BPL recorded being fed into the grid. The ideal system output was calculated by subtracting 30% (that consumed internally) from the system output calculated using PV Watts. The results showed that the actual was 40 percent lower than expected. This result is not necessarily surprising because most systems are not installed under ideal conditions, i.e. south facing at the right angle with no shading. It does show that persons should pay attention to how the system is installed to maximize its output and their financial return.

There was significant variation in how much people reported paying for their systems. It ranged from \$1.00 per W to \$10.00 per W and was the deciding factor on a systems return on investment. The two graphs below (figures 6 and 7) summarize these findings. Both graphs show the negative impact of paying more per W for a PV system.

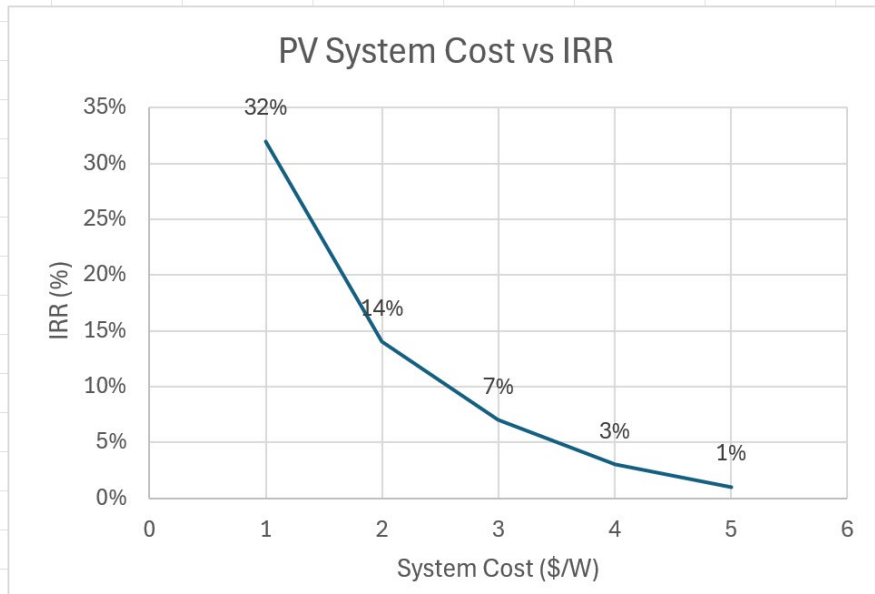


Figure 6

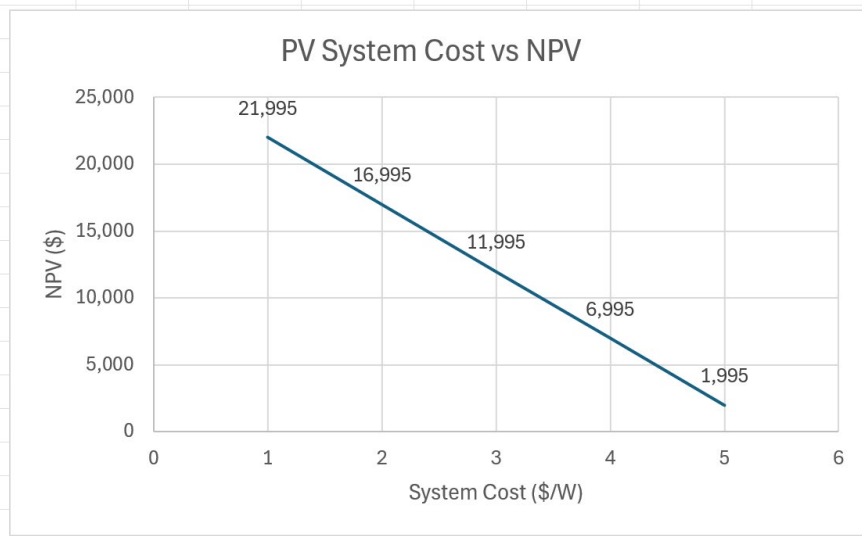


Figure 7

6. Key Takeaways

The key takeaways from the study include the following.

1. Units that are produced by the PV system and consumed internally are worth about twice as much as those fed into the grid, approximately 31 cents vs 17 cents. Hence, people can maximize the economic return on their PV investment by consuming more units and exporting less.
2. People can improve the economic return on their PV investment by ensuring their system is installed to maximize output i.e. south facing at an angle of about 25 degrees to the horizontal and unshaded (not in the shadow of trees or other structures).
3. Spending more than \$5 per W for a PV system is likely to yield a negative return on the investment (not good). Spending around \$4 per W should beat inflation or leaving your money in the bank. Spending \$3 or less should exceed the opportunity cost of investing in stocks or bonds. Realistically, in terms of what is available, people spending \$3.50 per W can be considered as having made a good investment in economic terms.

7. Next Steps

URCA issues a consultation document such as this to solicit feedback from interested persons on its contents. Interested persons are invited to submit comments on any aspect of this document in accordance with the submission procedures set out in Section 1.2. After the period for responses closes, URCA will carefully consider all submissions and shall issue its Statement of Results and Final Decision, of the Analysis of Return on Investment for Small Renewable Energy Systems. This will be published within thirty (30) calendar days from the close of responses by interested persons. This consultation also raises the following consultation questions which are outlined below:

Question 1: *Do you agree that the current net billing mechanism provides sufficient financial incentives to support the National Energy Policy (NEP) target of 30% renewable generation by 2030, or should URCA review the credit value for units fed into the grid?*

Question 2: *What measures, incentives, or consumer protections should be considered to assist buyers in ensuring their installation costs remain closer to or below the economically viable threshold of \$ value per Watt?*

Question 3: *Do you agree that the same Net Billing framework and economic valuation assumptions should apply uniformly to both Residential and Commercial customer classes, or should URCA establish distinct regulatory rules and compensation models for commercial self-generators?*

Question 4: *The data shows that self-consuming solar energy yields twice the value of exporting it to the grid. To help consumers maximize their returns, should URCA expand this regulatory framework to explicitly incentivize Battery Energy Storage Systems (BESS)? If so, what regulatory or technical barriers currently hinder storage adoption in The Bahamas?*

Question 5: *What barriers currently limit greater adoption of renewable energy systems in The Bahamas (e.g., upfront costs, financing availability, technical constraints, permitting, public awareness, or compensation mechanisms), and what regulatory or policy measures could assist in addressing these barriers?*

Question 6: *Do you consider the current SSRG and RESG interconnection frameworks to provide adequate clarity, transparency, and efficiency for customers seeking to install renewable energy systems? If not, what improvements should URCA consider?*

8. Annex A: URCA Renewable Energy Questionnaire

The following questionnaire was circulated to renewable energy customers using Google Forms to gather empirical data on installation costs, system performance, financing, and maintenance..

URCA Renewable Energy Questionnaire

Thank you kindly for your participation in this study to determine the actual return persons are achieving on their renewable energy investment. What follows is a series of short questions to gather the information needed to make that determination.

Answers are required to all the questions.

1. Please state your Name and Meter Number as it appears on your electricity bill.
This information is available on the top left-hand side of your bill (see below).
2. Did you finance all or a portion of your system with a loan?
3. Yes – please answer the next three loan questions below
4. No – please enter 0 as your answer to each of the next three loan questions below.
5. Amount borrowed on the loan, \$
6. Duration of the loan in years
7. Annual percentage rate on the loan, %
8. How much money did you pay to buy your system that was not financed by a loan?
If it was all financed by a loan just put 0 here.
9. Tell us about any routine annual expenses for the system (e.g. maintenance contract, insurance, etc.) State the annual amount in \$, followed by a description.
List all that you can remember. If you don't have any write "None".
10. Tell us about any other out of pocket expenses you have had on the system (e.g. you had to replace a damaged panel). State the Year, Amount in \$, and

description. Write down all that come to mind. If you don't have any write "None".

11. Choose the statement that best describes how you feel about the investment in your renewable energy system?
12. I would not do it again
13. I would do it again
14. It was one of the best investments I have made