AUDIT OFFICE OF GUYANA

PROMOTING GOOD GOVERNANCE, TRANSPARENCY

REPORT OF THE AUDITOR GENERAL ON THE IMPLEMENTATION OF THE SOLAR HOME ENERGY (SHE) PROGRAM IN GUYANA'S HINTERLAND AND RIVERINE AREAS

A PERFORMANCE AUDIT



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25 September 2026

Hon. Manzoor Nadir
Speaker of the National Assembly
Parliament of the Co-operative Republic of Guyana
Parliament Office
Public Buildings
Brickdam
Georgetown.

Dear Mr. Speaker,

RE: PERFORMANCE AUDIT REPORT

In accordance with Part V Section 24 and Section 28 of the Audit Act 2004 I would like to submit to you the Performance Audit Report on the Implementation of the Solar Home Energy (SHE) Program in Guyana's Hinterland and Riverine Areas.

This Report is required to be laid before the National Assembly, and I would very much appreciate if this is done at the earliest opportunity.

With best regards.

Yours sincerely,

AUDIT OFFICE GUYANA

DEODAT SHARMA
AUDITOR GENERAL



The Auditor General is the external auditor of the public accounts of Guyana, and is responsible for conducting Financial and Compliance, Performance and Value-for-Money and Forensic Audits with respect to the Consolidated Financial Statements, the accounts of all budget agencies, local government bodies, all bodies and entities in which the State has controlling interest, and the accounts of all projects funded by way of loans or grants by any foreign State or organization.

In conducting Performance and Value-for-Money Audits, the Auditor General examines the extent to which a public entity is applying its resources and carrying out its activities economically, efficiently and effectively with due regard to ensuring effective internal management control.

This report has been prepared in accordance with Part V Section 24 (1) (b) of the Audit Act 2004. In conducting this Performance Audit, we followed the Code of Ethics and Standards and Guidelines for Performance Auditing of the International Organization of Supreme Audit Institutions (INTOSAI), of which the Audit Office of Guyana is a member.

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A Performance Audit Report

IMPLEMENTATION OF THE SOLAR HOME ENERGY (SHE) PROGRAM IN GUYANA'S HINTERLAND AND RIVERINE AREAS

AUDIT OFFICE OF GUYANA

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EXECUTIVE SUMMARY

Why we did this audit

The Guyana Energy Agency's Solar Home Energy (SHE) Program aimed to bridge the energy gap between urban and rural areas. Its implementation supports the Government's plan to expand renewable energy access and electrification across Guyana's Hinterland and Riverine communities. This initiative is in keeping with the Government's commitment to the United Nations Sustainable Development Goal 7 – Affordable and Clean Energy and the National 2030 Low Carbon Development Strategy.

Given its alignment with SDG №. 7 and the national strategy, a performance audit was conducted to determine whether the Program was being implemented effectively and achieving its intended objectives. The audit covered the period from 1 January 2023 to 30 September 2025.

Key messages

In 2023 and 2024, over 30,000 households across all ten Administrative Regions of Guyana received a Solar Home Energy photovoltaic system through the SHE Program. The distribution was equitable and gender-neutral; the systems were deemed to be environmentally friendly, and training was conducted to support the installation and maintenance of the systems. This initiative gives targeted households in Hinterland and Riverine communities an opportunity to improve their livelihoods by providing electricity from renewable sources.

What we found

Positive social impact. The program achieved a high level of beneficiary satisfaction. Approximately 94% of the 803 residents interviewed reported improvements in their quality of life, citing benefits that include lighting for education, cooling from fans, and better communication via cell phone charging.

Effective response to system issues. The Guyana Energy Agency effectively utilized a complaints registry to systematically record and address requests for repairs and replacements. At the time of the audit, 84% of the 1,049 complaints received were resolved, indicating that the registry served as a functional management tool for maintaining system reliability despite operational challenges.

Environmental and social evaluation conducted. An Environmental and Social Impact Assessment was conducted to maximise the initiative's clean energy benefits while minimising unintended environmental and social harms.

Way forward

The Audit Office has made three recommendations to guide GEA's management in implementing similar programmes effectively in the future. This will support the achievement of the project's strategic objectives within established timelines.

Introduction

1. A Performance Audit of the Solar Home Energy (SHE) Program implemented by the Guyana Energy Agency (GEA) was conducted by the Audit Office of Guyana.

2. The topic aligns with the Government of Guyana's commitment to: (i) achieve Goal №. 7 of the United Nations Sustainable Development Goals, which aims to ensure universal access to affordable, reliable, and modern energy, and (ii) implement the National 2030 Low Carbon Development Strategy. The strategy's primary objectives are to transform the national economy onto a low-carbon, sustainable path, protect the country's vast forests, address climate change, and drive inclusive social and community development.

3. The Government, through the GEA, has embarked on several initiatives to replace fossil fuels for electricity generation by utilising Guyana's vast low-carbon resources, including solar energy and hydropower. The Solar Home Energy Program is one of these initiatives.

Background of the Program

4. The SHE Program is an off-grid electrification project that aimed to provide clean, reliable electricity to remote Hinterland and Riverine communities that were unserved and energy-poor.

5. The objective was to significantly improve living standards, education, and economic activities in isolated regions of Guyana. The Program was designed to benefit 29,843 households across 269 Hinterland and Riverine communities in the ten Administrative Regions of Guyana.

6. A total of 30,000 solar photovoltaic (PV) home energy systems, which convert sunlight directly into usable household electricity, were to be procured and distributed to beneficiaries. Each system was to be equipped with a USB port for charging portable electronic devices and to be able to power two 9-watt LED lamps and one 12-watt stand fan. In addition, community members would have been trained as technicians to assist with the installation and maintenance of the systems.

7. On completion of the project, a total of 4.5 megawatts of solar power capacity will be installed across all ten Administrative Regions.

8. The program was implemented by the GEA with support from stakeholders, which include the Ministry of Amerindian Affairs, Ministry of Local Government and Regional Development, Ministry of Finance, the Regional Democratic Councils, Toshaos and the community leaders.

Implementation of the Solar Home Energy Program

9. The GEA established an implementation methodology to guide the management of the Solar Home Energy (SHE) Program. This methodology is outlined in the figure below.

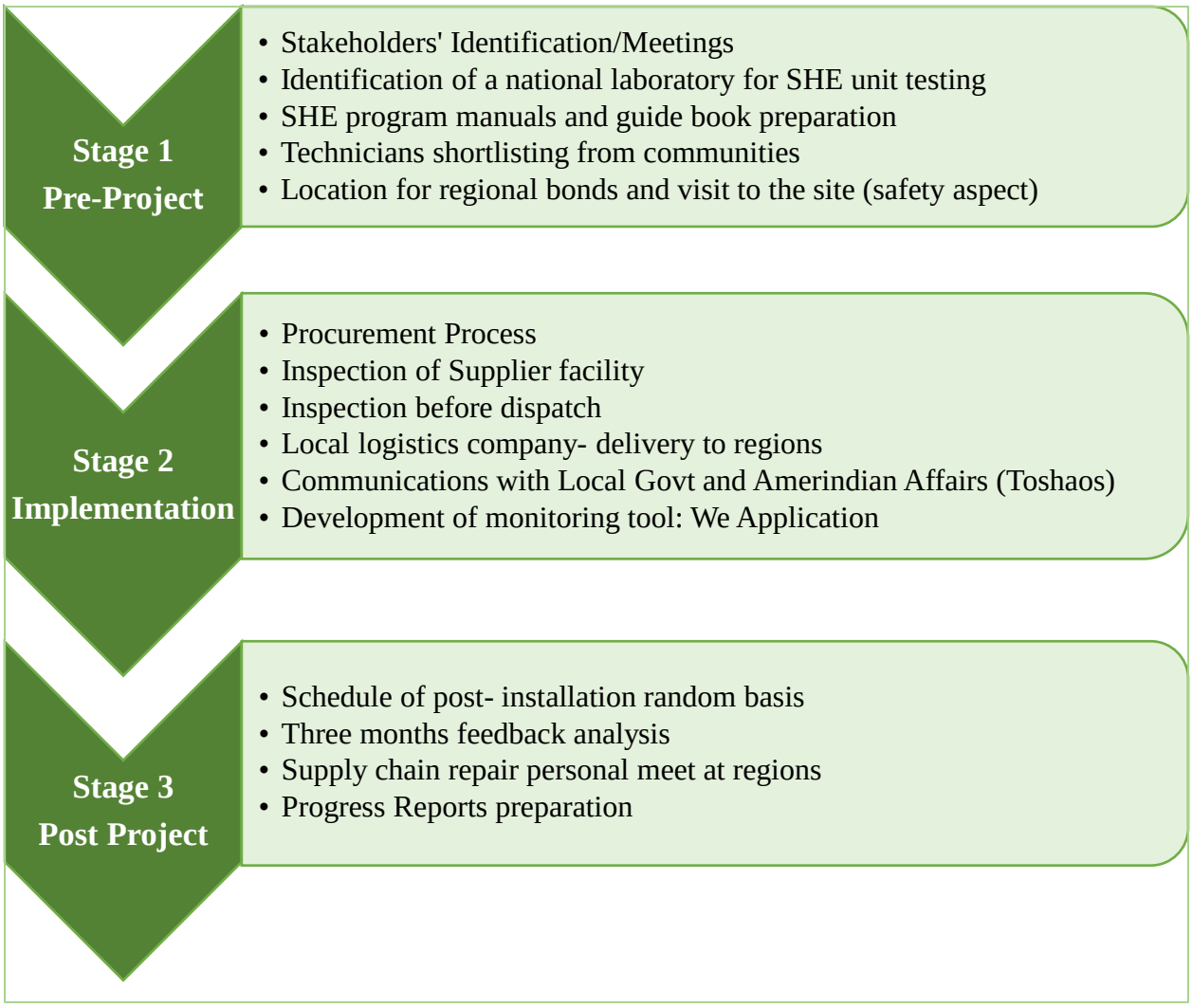

Figure 1 - Implementation Process for the SHE Program
Source: Solar Home Energy Program Implementation Methodology, July 2023

Roles and Responsibilities of Key Players

10. The GEA, a semi-autonomous agency established via the Guyana Energy Agency Act, 1997, is responsible for implementing the Government's energy agenda nationally. Its mission is "*to contribute to ensure the rational and efficient use of imported petroleum-based energy sources, while encouraging, where economically feasible and environmentally acceptable, increased utilization of indigenous new and renewable sources of energy".*

11. The GEA's responsibility for implementing the SHE Program includes undertaking the following activities:

- Coordinating with all stakeholders to determine/assign responsibilities at different levels of the project.
- Distributing the SHE systems to the administrative regions.
- Training relevant staff, technicians and beneficiaries.
- Installing the SHE systems supporting materials (such as leaflets, and videos).
- Operations, Monitoring, and Troubleshooting.
- Transferring/handing over SHE systems to beneficiaries.

12. The GEA falls under the purview of the Office of the Prime Minister, which oversees national energy policies, power generation expansion, and the development of sustainable infrastructure.

13. The Agency is governed by a Board of Directors, which provides strategic leadership, governance, and policy oversight to ensure the country's energy resources are managed efficiently, securely, and sustainably.

14. It is headed by a Chief Executive Officer (CEO), whose responsibility is to lead the national execution of Guyana's energy policies, secure reliable and affordable power, and spearhead the country's transition to sustainable and clean energy. The CEO also oversees the Agency's day-to-day operations.

15. The CEO is supported by a Project Coordinator, Technical Consultant, Senior Energy Engineer, Procurement Officer, Economist, Senior Inspector, Senior Investigator, six Electricians, and twelve Inspectors.

Financial Management

16. Budgetary allocations for the GEA are channelled through the annual estimates received from Parliament under, Agency 2 – Office of the Prime Minister, Programmes 023 – Power Generation – Solar System Project.

17. Funding for the SHE System Program was acquired through a Line of Credit agreement between the Cooperative Republic of Guyana and the Export Import Bank of India (EXIM India), which was finalised in October 2021. The Credit was valued at US$8.387M, of which the Bank funded US$7.290M while the Government of Guyana contributed US$1.097M under the local component of the Project.

18. The procurement of the Solar PV Home Energy Systems that were distributed under the SHE program was carried out under a contract awarded by the National Procurement and Tender Administration Board. The agreement was signed in November 2022 between the Guyana Energy Agency and an international supplier for a sum of US $8.387M.

Reason for Undertaking the Audit

19. The Program was intended to bridge the energy gap between urban and rural areas. Its implementation will support the Government's development plan of a larger program to electrify all Hinterland and Riverine communities. It will also propel the nation towards sustainable and eco-friendly power sources.

20. This initiative will support the Government's commitment to the United Nations Sustainable Development Goals and enable the implementation of the National 2030 Low-Carbon Development Strategy. Taking the above into consideration, and noting that the Program was never audited, stakeholders were concerned about whether the Program would have been successfully implemented to enable the Government to fulfil its commitments. In this regard, an audit was conducted under three Lines of Enquiry to:

i. Identification of Beneficiaries and Environmental Study

a) determine whether data was collected to identify the needs of the community;
b) determine whether the Program's selection process was gender-neutral and ensured equitable access for households to qualify as beneficiaries; and
c) determine whether the Program's design considered the environmental and social impacts of the Project.

ii. Management of the Program

a) determine whether the procurement of systems aligned with the needs identified;
b) determine whether adequate storage facilities were in place to ensure equitable distribution;
c) determine whether distribution of systems was equitable and reached the intended beneficiaries; and
d) determine whether systems were in place to ensure all systems distributed were properly installed.

iii. Monitoring and Reporting

a) determine whether monitoring systems were established; and
b) determine whether the Program was monitored and the results reported to stakeholders.

Audit Objective

21. The overall objective of the audit is to determine whether the Guyana Energy Agency effectively implemented the Solar Home Energy Program in energy-poor remote communities in Guyana's Hinterland and Riverine areas.

Audit Criteria

22. Audit criteria are reasonable standards against which management practices, controls, and reporting systems can be assessed. The audit criteria and their sources are in the "**About the Audit**" section of this report.

Report Structure

23. This report consists of three chapters as follows:

- *Chapter 1* – Identification of Beneficiaries and Environmental Study
- *Chapter 2* – Management of the Program
- *Chapter 3* – Monitoring and Reporting

Chapter 1

Identification of Beneficiaries and Environmental Study

Criterion 1.1

The GEA formulates a plan to identify beneficiaries and ensure equitable access to the distribution of the Solar Home Energy systems.

24. Best practices require that an official list of beneficiaries be compiled to promote transparency and accountability, and to ensure equitable distribution. As such, the GEA was expected to have a process in place to identify eligible beneficiaries of the Program, and to ensure equitable distribution of the SHE systems.

Needs Assessment Conducted

25. The Guyana Energy Agency conducted a survey to determine the number of beneficiaries of the Program. The survey collected data on housing types, transport modes, demographics, livelihoods, health, community facilities, and the availability of skilled labour in each of the communities surveyed.

26. The survey identified 29,843 households across 269 communities as beneficiaries, representing 135,366 residents. This enabled the Agency to estimate the number of systems needed for distribution. Details are provided in the table below:

Regions	No. of Communities	No. of Households	Total Population
1	90	8,453	39,415
2	15	1,930	8,952
3	5	2,214	11,036
4	6	564	2,800
5	2	247	1,244
6	3	254	1,205
7	39	3,375	14,635
8	34	3,788	16,914
9	59	6,709	28,520
10	16	2,309	10,645
Total	**269**	**29,843**	**135,366**

Table 1 – Needs allocation determined from the Survey
Source: Environmental and Social Impact Assessment January 2023

Clear criteria established for the identification of beneficiaries

27. Beneficiaries of the SHE Program were identified through a process coordinated by the GEA and local village councils or Toshaos. To qualify, a household had to be classified as remote (located in the Hinterland and Riverine communities) and unserved (not connected to the national utility network). This approach ensured that there were no barriers to a household's eligibility to receive a system, thereby promoting equitable access to affordable, reliable, and modern energy.

Criterion: 1.2

The processes to select and allocate the SHE systems consider gender.

28. According to the United Nations, gender equality is a fundamental human right and is essential to achieve peaceful societies, with full human potential and sustainable development. Furthermore, gender mainstreaming is the core strategy for making the concerns and experiences of people of all genders an integral part of the design, implementation, monitoring, and evaluation of all policies and programs. The primary goal is to advance gender equality and to combat all forms of gender-based discrimination.

Selection process was gender neutral

29. The design and implementation model of the SHE Program utilised a ‘one-system-per-household’ distribution method. This approach ensured that all households in remote and unserved communities were considered eligible to receive a system, irrespective of gender.

Criterion: 1.3

The GEA conducts an assessment to identify and mitigate any adverse environmental and social risks arising from the SHE Program.

30. An Environmental and Social Impact Assessment (ESIA) is a study undertaken to predict, assess and manage the impacts that a proposed project will have on the environment and surrounding communities.

Environmental and Social Evaluation conducted

31. The GEA presented an ESIA report that was dated January 2023. Based on the report, the environmental impacts of the SHE Program were assessed for the 269 identified communities located in the ten Administrative Regions of Guyana. The following diagram shows the locations where the ESIA study was conducted.



Figure 2 - Map of Guyana showing locations where the ESIA was conducted
Source: GEA Environment and Social Impact Assessment Report - January 2023

Systems to be distributed were deemed environmentally friendly

32. The ESIA report addressed the physical, biological, and socio-cultural environment through public consultation, implementation coverage, and energy demand assessment. It was reported that the SHE systems have no impact on the geology, topography, soil, hydrology, drainage, water and air quality, or the flora and fauna of the 269 communities surveyed across the ten Regions. This indicates that the systems to be distributed pose no physical, biological, or socio-cultural risks to the environment when implemented.

Conclusion

33. The GEA took the necessary steps to identify all eligible beneficiaries for the Program. The process utilised ensured equitable access to all identified households located in Hinterland and Riverine communities and ensured there were no barriers to restrict a household's eligibility for receipt of a system. Additionally, an Environmental and Social Impact Assessment was conducted to ensure that the initiative maximised clean energy benefits while minimising unintended environmental and social harms. As such, the processes utilised enabled the effective implementation of the SHE Program.

Chapter 2

Management of the Program

Criterion: 2.1

The GEA procures sufficient, functioning systems for distribution and stores them in a manner that preserves their useful life.

34. The GEA was required to procure a sufficient number of systems to distribute to the targeted number of households, as well as cater for replacements of damaged systems. Additionally, the procured systems were required to be properly stored to maintain their lifespan. This approach would have guaranteed that all intended beneficiaries received a functional system within the planned timeframe for distribution.

Procurement aligned with needs assessed

35. The GEA procured 30,000 systems at a total cost of US$8.387M (equivalent to GY$1.765B) for distribution. An additional 900 systems were provided as spares by the supplier at no additional cost. The systems arrived in twenty-one shipments between March 2023 and October 2023, and were verified as being received and properly accounted for in the Programs' records. Accordingly, the 30,900 systems taken into stock were sufficient to distribute to the 29,843 households identified as beneficiaries.

Adequate Storage facilities in place to support effective distribution

36. The GEA utilised nineteen locations throughout the ten Administrative Regions of Guyana to store systems for distribution to Hinterland and Riverine communities, as shown in Figure 3 below. In addition, a repair centre was established in the compound of the Institute of Applied Science and Technology (IAST), at the University of Guyana. This location also stored the spares which were to be used for repairs.

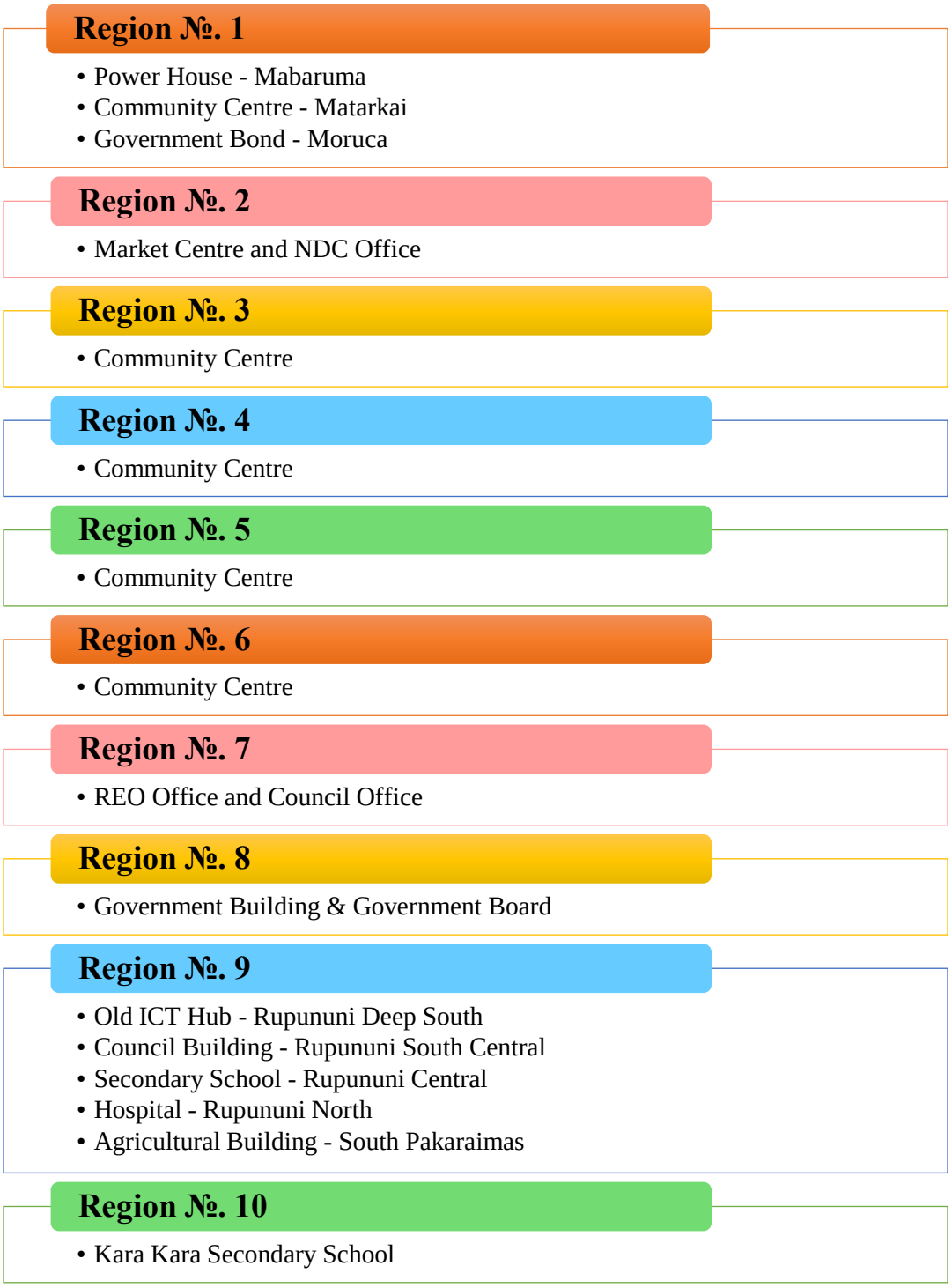

Figure 3 - Regional Warehouse where SHE systems were stored
Source: SHE Completion Report April 2024

Physical condition of storage location and repair centre

37. Physical verifications were conducted during the period 7-13 March 2025 at the Repair Centre in the IAST compound and at holding centres in Regions 1, 2, 7, 8 and 9. The purpose was to determine the number of systems in stock and assess whether the centres were maintained in an organised and sanitary condition. At the Repair Centre, we found 481 new systems on hand. These systems were reportedly part of the 900 additional units received for repairs. Additionally, the Repair Centre showed evidence of insect and bird infestation. However, at the time of reporting in September 2026, the infestation issues had been resolved.

Distribution of SHE systems

38. The distribution process involved verification of the eligible households identified in the initial survey. The verification was conducted by Toshaos/community heads, who were also tasked with distributing the systems to the eligible households.

39. According to the ESIA report, a total of 29,843 households were identified as beneficiaries of the Program. In its Project Completion Report, the GEA disclosed that 30,060 systems were distributed across the ten Administrative Regions of Guyana, as shown in the figure below.

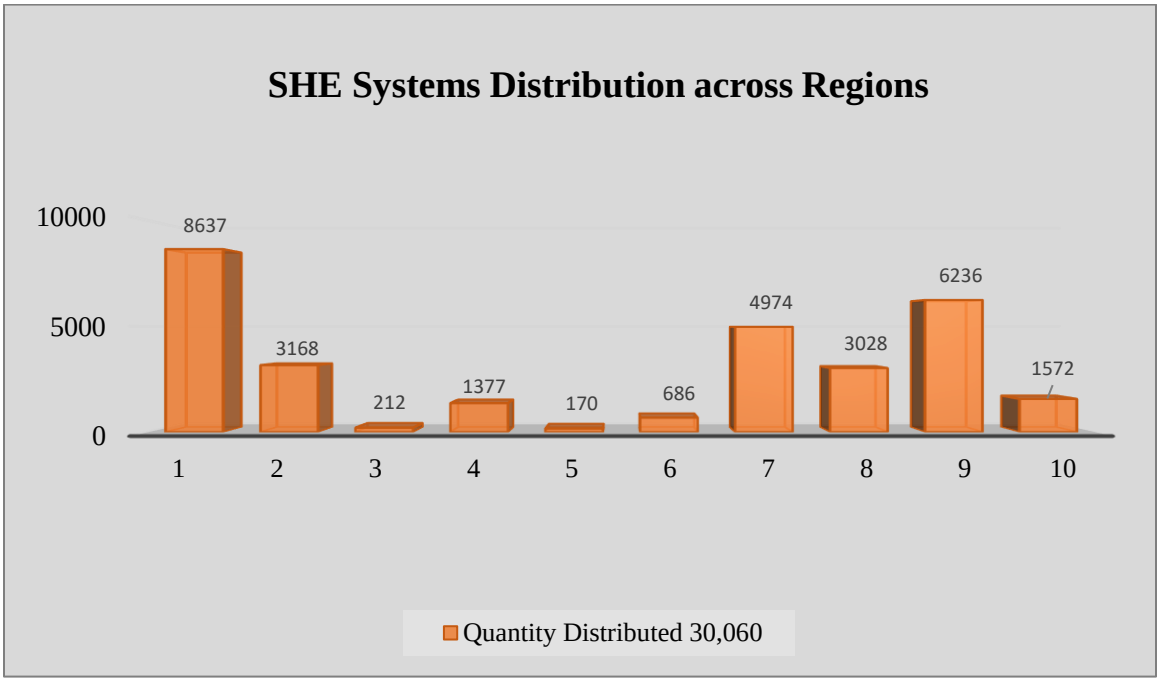

Figure 4 – SHE Systems Distribution across the Regions
Source: Audit Office of Guyana

Database established for systems distributed

40. An electronic database of systems distributed was presented for audit. The database reflected the total number of systems distributed according to communities and Administrative Regions. At the time of the audit, the database was being updated with pertinent information, such as beneficiary names, national identification numbers, signatures acknowledging receipt, and the serial numbers of the systems issued, submitted by community leaders and Toshaos.

Criterion 2.2

The GEA conducts training sessions with Community Service Officers and Technicians in systems installation and maintenance.

41. The GEA should provide technical support and training at the community level to facilitate the successful installation and maintenance of the SHE systems. This will ensure residents receive a reliable, renewable source of electricity. However, for training to be effective, training needs should be assessed, learning objectives clearly defined, appropriate training methods developed, ongoing evaluations carried out, and feedback provided to stakeholders. These steps ensure that training is targeted, engaging, and impactful. According to the Program's Operational Manual and Implementation Plan, designated individuals from each village should receive training in system installation and maintenance, enabling communities to become self-reliant.

Training provided to selected individuals

42. The GEA indicated that it provided training to support the installation and maintenance of the SHE systems. This was confirmed in the SHE Project Completion Report dated 24 April 2024. According to the report, 442 individuals from seven Regions were trained between September and November 2022. The training comprised in-house workshops delivered by Community Service Officers and Technicians from the GEA, and focused on basic operation, maintenance, troubleshooting, and repairs.

43. Examination of the training records revealed that 235 individuals from four Regions were trained. This resulted in a difference of 207 when compared to the 442 individuals stated in the Completion Report. In addition, it was noted that the training was only conducted in four regions during the months of January, October to December 2023, and March 2024. The following table provides a comparison of the information found in the Report against the training records.

Region No.	GEA Completion Report Number of Participants	Training Documents Number of Participants
1	150	79
2	30	28
3	0	0
4	35	0
5	0	0
6	0	0
7	60	0
8	56	0
9	86	106
10	25	22
Total	**442**	**235**

Table 2: Comparison of the completion report with Training Records
Source: Audit Office of Guyana

Recommendation: *The Audit Office recommends that the Head of the Agency, in collaboration with relevant stakeholders, including the Ministries of Finance, Local Government and Amerindian Affairs, community heads and Toshaos, implement systems for similar programmes in the future, to ensure more beneficiaries are trained across all Regions.*

Management's Response:

Our records show that 235 persons were trained. At the time of distribution of the solar panels, training and demonstration of the units were conducted. In addition, a video of installation and operation was prepared and shared widely.

The one-day training provided was intended to provide persons with an introduction to solar home systems and the major components of the system. This would have prepared them to provide basic support for the installation and troubleshooting.

While 442 persons were targeted, training was not conducted at all locations due to the high costs associated with distribution and training logistics in remote areas and availability of personnel. In anticipation of potential issues, a telephone number is prominently displayed on each unit if repairs are needed.

44. Further, it was noted that when a technical issue with a system could not be resolved on-site, a GEA employee was dispatched to the Region either to rectify the issue or to transport the system to Georgetown for assessment at the Repairs Centre. Therefore, recipients were unable to use their systems continuously to supply electricity to their households.

Recommendation: *The Audit Office recommends that the Head of the Agency implement systems for similar programmes in future to ensure beneficiaries are better trained to address technical issues as they arise.*

Management's Response:

At the time of distribution of the solar panels, training and demonstration of the unit were conducted. In addition, a video of installation and operation was prepared and shared widely.

The one-day training provided was intended to provide persons with an introduction to solar home systems and the major components of the system. This would have prepared them to provide basic support for the installation and troubleshooting. It was never the intention for these persons to provide complex repairs.

In anticipation of potential issues, a telephone number is prominently displayed on each unit if repairs are needed.

Criterion 2.3 The GEA ensures the systems are in full working condition and maintained after installation.

Training conducted allowed for successful installation and communities' self-reliance

45. To verify who actually installed the systems, we interviewed beneficiaries from 24 communities in Regions 1, 2, 7, 8, and 9. We found that 91% of beneficiaries (65% from Households and 26% from villages) had their systems installed by a trained individual from the community. This indicates that communities were self-reliant in installing the SHE systems. See details in Figure 5 below:

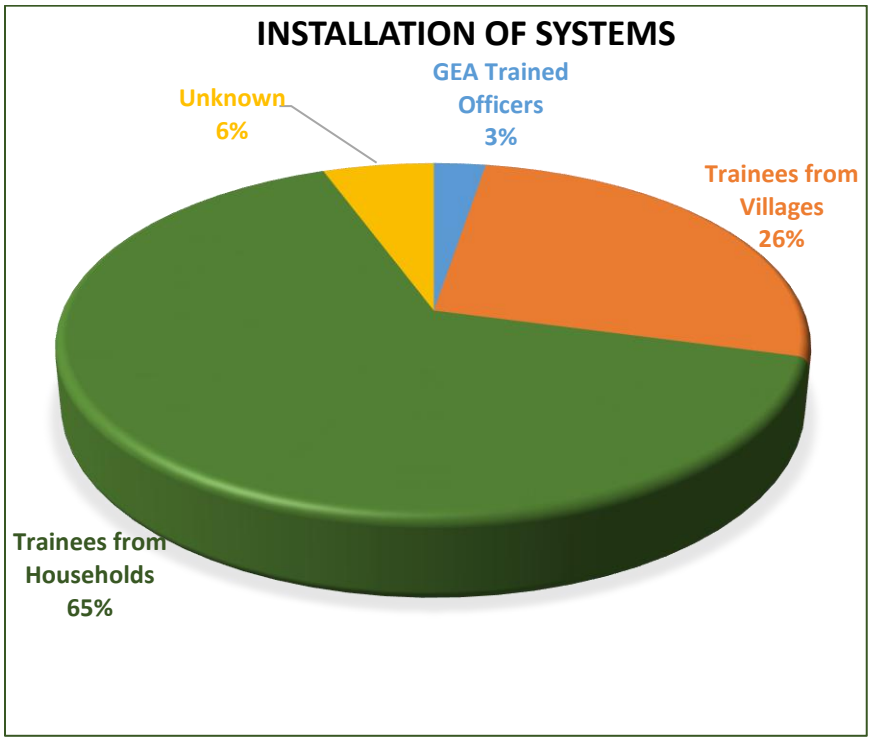

Figure 5 – Persons responsible for installing the SHE systems
Source: Audit Office of Guyana

Maintenance initiative was established

46. The GEA established a two-step initiative to ensure the continuous maintenance of the SHE systems that were distributed. The initiative is outlined in its Implementation Methodology, and the steps entailed: (i) include provisions in the budgets of the GEA and the Hinterland Electrification Company Incorporated in the event of a shortfall in funding, and (ii) establish an appropriate communication model to allow villages to regularly update the GEA on the operation of the systems and issues that need to be addressed. Also, personnel from the Guyana Energy Agency and the Hinterland Electrification Company Inc. will visit the sites periodically to ensure that the systems are functional and resolve any matters that may arise.

Effective response to repairs and replacement complaints

47. To successfully implement the maintenance initiative, the GEA established a SHE complaints/replacement registry. An examination of the registry revealed that it contained information on beneficiaries, their location, and the respective part of the system that was damaged and needed repairs or replacement. It further revealed that 1,049 complaints were received during the period under review, of which 876, or 84%, were resolved. This indicated that the complaints registry was effectively managed. Details are provided in Table 3 below:

Component	Complaints		
	Reported	Resolved	Unresolved
Charger Controller	593	480	113
Fan	250	237	13
Light	129	107	22
Module	50	30	20
Load Cable	27	22	5
Total	**1,049**	**876**	**173**

Table 3 – Statistics of complaints reported, resolved, and unresolved
Source: Guyana Energy Agency Complaints Report

Conclusion

48. The GEA procured sufficient solar photovoltaic (PV) home energy systems to provide every identified household with a system. In total, 30,060 systems were distributed, surpassing the initial target of 29,843 households. Therefore, an additional 217 households were able to benefit from the Program, providing them with access to clean and reliable electricity. Also, the facilities established supported storage and equitable distribution of the systems.

49. In addition, community members received training that enabled them to install and maintain the systems effectively, although the targeted number of individuals did not receive training. An initiative was also established to ensure an effective response to repair and replacement complaints.

50. Overall, the GEA collaborated with other Government agencies, Toshaos, and community leaders to ensure that the Program's implementation processes were effectively managed.

Chapter 3

Monitoring and Reporting

Criterion 3.1

The GEA should monitor the implementation process to ensure that the Program is implemented as planned.

51. The GEA should monitor the progress made in implementing the Program to determine whether objectives are met, promote transparency and accountability, and detect issues early to avoid resource waste. As a result, a mechanism should be in place to monitor the Program throughout its life cycle, to ensure beneficiaries receive the maximum benefits from their systems.

Monitoring systems in place

52. The GEA established monitoring mechanisms which entailed the completion of forms and an online monitoring tool. The forms collectively captured information at each stage of the implementation process, which was then recorded in the online monitoring tool. Details are shown in Figure 6 below:

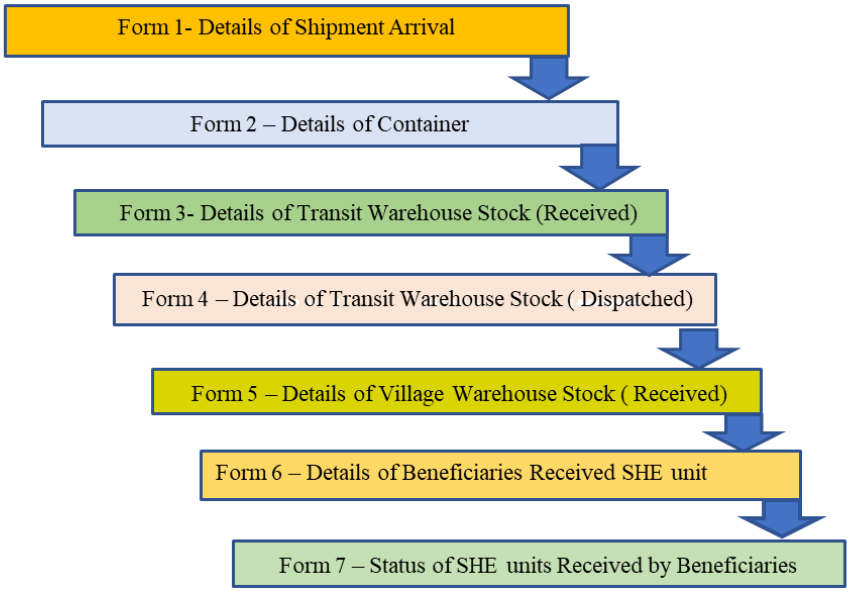

Figure 6 - Forms used by GEA for monitoring
Source: SHE Implementation Methodology

53. Additionally, feedback from the communities and official visits by the Senior Energy Engineer and other GEA staff support the monitoring process of the Program.

The monitoring process was not completely followed

54. Audit checks were conducted to determine whether the established monitoring process was functioning as intended. As shown in Figure 6, seven Forms were required to be completed. We found that Forms 1, 2, 3, 4, 5 and 7 were properly completed. However, the information recorded on Form 6 was not always legible or complete. As a result, the actual beneficiary who received a system could not be verified.

55. Additionally, the online monitoring tool was a live document, which was updated as Toshaos and beneficiaries uploaded information. Now that the Program has ended, the monitoring tool is a hyperlink contained in the SHE Program Implementation Methodology. This tool now accounts for the total number of systems issued to beneficiaries by Administrative Region.

56. The GEA's Management indicated that the Senior Engineer and other support staff also monitored the performance of the installed systems by official site visits and spot checks conducted in various communities across the regions in Guyana.

Recommendation:

The Audit Office recommends that the Head of the Agency establish control systems for similar programs in the future to foster greater collaboration with Toshaos and Community Leaders to improve Program monitoring.

Management's Response:

GEA is able to account for the movement of all the units transported to the various locations. Information related to logistics (from manufacture's delivery) for reaching the communities (Forms 1–4) was maintained by GEA staff. These forms were updated daily, and region wise distribution data for the communities was posted online for public access. The online monitoring tool provided live updates regarding the next steps in logistics and pending activities.

Community-level distribution is primarily managed by the community head. Form 6 is provided to the community head to record beneficiary information. Only a few community heads have returned the completed forms to GEA staff. Some of them misplaced the forms and submitted the information in different ways (paper and digital). Available documents were subsequently provided but this effort is still ongoing to ensure a complete record of the names.

As part of this effort to obtain completed Form 6, GEA is following up with community representatives through telephone calls, messages and site visits. This provides another opportunity, outside of reported issues, to gain feedback on whether the intended beneficiaries received systems and their performance.

Other tools used to monitor progress

57. The GEA's management indicated that the Complaints Registry was also maintained and utilized to evaluate the functionality of the systems. Additionally, due to the location of households (off-grid and located in remote areas), beneficiaries' feedback was important for performance measurement. Further, to measure beneficiaries' satisfaction, an officer was assigned to contact Village Heads once weekly. This was to assess challenges, determine how the systems were working, and initiate remedial action when necessary.

Criterion 3.2 The GEA reports on the progress of the Program to its stakeholders.

58. Stakeholder engagement is necessary to build and maintain trust, make informed decisions, and reduce project risks. In this regard, the GEA should prepare the relevant reports on the Program's progress.

Reporting requirements met

59. According to the Implementation Plan, the GEA was required to prepare a Detailed Project Report about the Program's activities implemented, the methodology utilised and the way forward. The Project's Closure Completion Report was prepared in March 2024, in collaboration with a consultant. As such, the management of the GEA was compliant with the Implementation Plan.

Beneficiaries appreciated the initiative

60. During the months of May to June 2025, interviews were conducted with 803 beneficiaries from Regions №. 1, 2, 7, 8 and 9. The purpose was to determine what impact the Program had on residents' daily lives. The responses received revealed that 755 persons or 94% welcomed the initiative and the positive impact it had on their daily lives. They indicated that they were able to complete their daily educational activities in comfort, and easily recharge their cellular phones.

Conclusion

61. Appropriate systems and tools were established to monitor the progress of the Program. Notably, the GEA prepared a Project Completion Report on the Program's activities implemented, related methodology utilised, and the way forward. In addition, site visits were conducted by authorised GEA officials, and communities' feedback was taken into consideration to ensure the Program was implemented effectively.

Overall Conclusion

62. The GEA has successfully implemented the Solar Home Energy Program. This initiative supports the government's SDG commitment and the implementation of its National 2030 Low Carbon Development Strategy. It aimed to supply and distribute Solar Photovoltaic Home Energy Systems to 29,843 households, benefiting 135,366 residents.

63. In the years 2023 and 2024, a total of 30,060 systems were distributed across all ten administrative regions, exceeding the projected number of distributions. This showed that the Program achieved its intended objective, even though there were minor breakdowns in internal control systems during the Program's management. We based the conclusion on the following:

- Steps were taken to identify all eligible beneficiaries, ensure there were no barriers to eligibility, and provide systems that were socially and environmentally friendly.

- The systems procured were adequate for the identified needs and required repairs. Storage and distribution facilities were adequate, allowing equitable distribution.

- The targeted number of persons to be trained for installation and maintenance was not achieved. However, this did not affect beneficiaries and communities as a whole in becoming self-reliant in properly installing systems.

- Systems and tools were established to monitor the Program's progress. However, the process was not completely followed.

About the Audit

This report was prepared by the Audit Office of Guyana. The audit examined whether the Guyana Energy Agency effectively implemented the Solar Home Energy Program in energy-poor remote communities in Guyana's Hinterland and Riverine communities.

Audit Scope and Approach

The audit covered the period 1 January 2023 to 30 September 2025 and focused on the following lines of enquiry:

- Identification of Beneficiaries and Environmental Study
- Management of the Program
- Monitoring and Reporting

The audit did not cover the management and operations of the Guyana Energy Agency.

Audit Methodology

The Audit Office undertook the following methodological approach: -

- Interviews were conducted with officials from the Guyana Energy Agency to understand their roles and responsibilities in relation to the implementation of the SHE Program. In addition, a random sample of beneficiaries from selected Hinterland and Riverine communities were interviewed to gather data on system functionality, training, and overall Program impact.
- Reviews of relevant documents, including implementation plans, assessment reports, procurement records, training manuals, installation guides, and progress reports, were done to gain an understanding and gather sufficient and appropriate audit evidence on the implementation of the SHE Program.
- Physical verification of installed solar systems was conducted in randomly selected households to assess the quality of installation and operational status. The information collected was analysed against established audit criteria to determine whether the SHE Program was implemented effectively, equitably, and in alignment with national development goals.

Audit Criteria and Sources

The main criteria used to conduct this audit and their sources are as follows:

Criteria	Source
1.1 - The GEA formulates a plan to identify beneficiaries and ensure equitable access to the distribution of the Solar Home Energy systems.	Solar Home Energy Implementation Methodology, pgs. 9 to 11
1.2 - The processes to select and allocate the SHE systems consider gender.	Data analysed from questionnaires obtained via interviews conducted by the Audit Office
1.3 - The GEA conducts an assessment to identify and mitigate any adverse environmental and social risks arising from the SHE Program.	The Environmental and Social Impact Assessment (ESIA) report, pgs. 41 to 53
2.1 - The GEA procures sufficient, functioning systems for distribution and stores them in a manner that preserves their useful life.	Solar Home Energy Implementation Methodology, pgs. 20, 21 and 22
2.2 - The GEA conducts training sessions with Community Service Officers and Technicians in systems installation and maintenance.	Solar Home Energy Implementation Methodology, pgs. 27 and 28
2.3 - The GEA ensures the systems are in full working condition and maintained after installation.	User manual for the Solar Home Energy (SHE) system, pgs. 1 to 5
3.1 - The GEA should monitor the implementation process to ensure that the Program is being implemented as planned.	Solar Home Energy Implementation Methodology, pgs. 23, 24 and 29
3.2 - The GEA reports on the progress of the Program to its stakeholders.	Solar Home Energy Implementation Methodology, pgs. 12 and 13

Definition of Terms Used in the Report

Solar Home Energy (SHE) System	A standalone solar photovoltaic (PV) unit designed to provide basic electricity for lighting, cooling, and charging small devices in off-grid households.
Hinterland and Riverine Areas	Remote communities across Guyana's ten administrative regions that are typically off-grid and have limited access to reliable electricity.
Low Carbon Development Strategy (LCDS) 2030	Guyana's national strategy aimed at promoting sustainable development through clean energy investments and reducing carbon emissions.
Sustainable Development Goals (SDGs)	SDGs, also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.
Community Service Officers (CSOs)	Local personnel trained to assist with the installation, maintenance, and monitoring of solar systems in beneficiary communities.
Beneficiary	A household selected to receive a Solar Home Energy System under the SHE programs.
Energy-Poor	Refers to people who do not have access to reliable and affordable energy sources.
Unserved Communities	These are populations lacking essential services, resources, or opportunities, including services that include healthcare, education, and technology.

GEA
GUYANA ENERGY AGENCY
Reliable energy – economically, environmentally and socially sustainable – for all in Guyana.

Mr. Deodat Sharma
Audit Office of Guyana
63 High Street, Kingston,
Georgetown

Auditor General
November 20, 2025

Dear Mr. Sharma,

Exit Conference – Performance Audit of the Implementation of the Solar Home Energy (SHE) System in an energy-poor remote communities within the Hinterland and Riverine Communities

Reference is made to correspondence dated October 23, 2025 on the above-captioned subject.

Please see attached responses from the Guyana Energy Agency to the reported findings.

The scanned documents are available via link
https://www.dropbox.com/scl/fo/g9pxaidctiae11pesowwy/AL1UXsVcYBTGcTat6_f1_80?rlkey=qsx6bei0p7i08u7b3bhnnhnyb&st=ttrk5mc6&dl=0

Yours sincerely,

Dr. Mahender Sharma
Chief Executive Officer

Copied to: Ms. Marcel Pinder, Audit Manager, Audit Office of Guyana

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No.	Findings	Management Response
1.	**Needs Assessment Conducted** *(Para. 25 – 26)* • The GEA carried out a pre-assessment study to verify the number of households at the community level.	GEA acknowledges this finding.
2.	**Clear criteria established for the identification of beneficiaries** *(Para. 27)* • The number of households to benefit were determined by the census and verified by the Ministry of Amerindian Affairs and villages heads to ensure no household from the targeted communities would be left behind	GEA acknowledges this finding.
3.	**Selection process was gender-neutral** *(Para. 29)* • The Program design and implementation model focused on a one-system-per-household distribution method irrespective of gender.	GEA acknowledges this finding.
4.	**Environmental and Social Impacts Considered** *(Para. 31)* • ESIA was conducted to identify, assess and mitigate any risks.	GEA acknowledges this finding.
5.	**Systems issued are environmentally friendly** *(Para. 32)* • The system had no impact on the geology, topography, soil, hydrology, drainage, water and air quality, or the flora and fauna of any of the 269 communities.	GEA acknowledges this finding.
6.	**Procurement aligned with need assessed** *(Para. 35)* • Sufficient systems were procured to be distributed.	GEA acknowledges this finding.

No.	Findings	Management Response
7.	**Adequate Storage facilities in place to support effective distribution** *(Para. 36)* • Nineteen locations established to support distribution	GEA acknowledges this finding.
8.	**Physical condition of storage location and repair centre** *(Para. 37)* • The Repair Centre showed evidence of insect and bird infestation. However, at the time of reporting in September 2026, the infestation issues had been resolved.	The IAST bond is not a "Central Storage" for solar home systems; it serves as a repair and maintenance workshop. Limited quantities of spare SHE unit components are stored there. Only failed unit components are kept at the facility as scrap. Spare components are organized and packed in rows and columns according to their size and weight, and verification is carried out after the completion of each shipment's distribution.
9.	**Distribution of SHE systems** *(Para. 38 - 39)* • A total of 29,843 households were identified as beneficiaries; however, 30,060 received, resulting in more households being able to benefit.	GEA acknowledges this finding.
10.	**Database established for systems distributed** *(Para. 40)* • An electronic database was established by the GEA. At the time of audit, it was being updated with information from the Toshaos and Community Leaders.	GEA acknowledges this finding. GEA's role was to deliver the units to the community leaders/Toshaos. The SHE distribution coverage is across the ten Administrative Regions, which mainly comprise remote areas of the hinterland, mining and riverine communities where grid electrification is a challenging task. The distribution was informed by the pre-assessment study, which included visits to all the identified communities and

No.	Findings	Management Response
		discussions with their respective village heads/councils about their requirements at the community level. After completing the community surveys, the list of communities with their respective number of households was shared with the main stakeholder, the Ministry of Amerindian Affairs (MOAA). This list was then verified against MOAA's existing database. This approach was found to be the most feasible as it allowed for direct input from the communities that were to benefit from the project, validation of data, and engaged the local governing authorities in these communities. The review from the Ministry (MOAA) were considered appropriate based on their previous experience and existing database. Community-level distribution is primarily managed by the community head. Form 6 is provided to the community head to record beneficiary information.
11.	**Training provided to selected individuals** *(Para. 42 - 43)* • 442 individuals from seven Regions were reported as being trained as per the SHE Project Completion Report dated 24 April 2024; however, training records were presented for 235 individuals.	Our records show that 235 persons were trained. At the time of distribution of the solar panels, training and demonstration of the unit were conducted. In addition, a video of installation and operation was prepared and shared widely. The one-day training provided was intended to provide persons with an introduction to solar home systems and the major components of the system. This would have prepared them to provide basic support for the installation and troubleshooting. While 442 persons were targeted, training was not conducted at all locations due to the high costs associated with distribution and training logistics in remote areas and availability of personnel.

No.	Findings	Management Response
12.	**Training provided to selected individuals (cont'd)** *(Para. 44)* • Although training was provided, a GEA technician had to be dispatched to the Regions to fix the system. • Where the system could not be fixed on site, it had to be sent to GEA for repairs.	The one-day training provided was intended to provide persons with an introduction to solar home systems and the major components of the system. This would have prepared them to provide basic support for the installation and troubleshooting. It was never the intention for these persons to provide complex repairs. In anticipation of potential issues, a telephone number is prominently displayed on each unit if repairs are needed.
13.	**Training conducted allowed for successful installation and communities' self-reliance** *(Para. 45)* • 91% of beneficiaries interviewed by the Audit Office (65% from Households and 26% from villages) had their systems installed by a trained individual from the community.	GEA acknowledges this finding.
14.	**Maintenance initiative established** *(Para. 46)* • GEA established an initiative to ensure the continuous maintenance of systems distributed.	GEA acknowledges this finding.
15.	**Effective response to repairs and replacement complaints** *(Para 47)* • The complaints registry was effectively managed. 84% of 1,049 complaints received were resolved.	GEA acknowledges this finding.
16.	**Monitoring systems in place** *(Para 52)* • GEA created seven forms to monitor the progress of the SHE Program.	GEA acknowledges this finding.

No.	Findings	Management Response
17.	**The monitoring process was not completely followed** *(Para 54)* • Forms 1, 2, 3, 4, 5 and 7 were properly completed. • The information recorded on Form 6 was not always legible or complete.	GEA is able to account for the movement of all the units transported to the various locations. Information related to logistics (from manufacture's delivery) for reaching the communities (Forms 1–4) was maintained by GEA staff. These forms were updated daily, and region wise distribution data for the communities was posted online for public access. The online monitoring tool provided live updates regarding the next steps in logistics and pending activities. The corresponding reports from the online monitoring system are attached herewith. Form 5, which is issued to the communities and signed by the village head, was submitted to the auditors. Community-level distribution is primarily managed by the community head. Form 6 is provided to the community head to record beneficiary information. Only a few community heads have returned the completed forms to GEA staff. Some of them misplaced the forms and submitted the information in different ways (paper and digital). This effort is still ongoing to ensure a complete record of the names. As part of this effort to obtain completed Form 6, GEA is following up with community representatives through telephone calls, messages and site visits. This provides another opportunity, outside of reported issues, to gain feedback on whether the intended beneficiaries received systems and their performance.
18.	**Other tools used to monitor progress** *(Para 57)* • GEA established a Complaints Registry	GEA acknowledges this finding.

No.	Findings	Management Response
19.	**Reporting requirements met** *(Para 59)* • Project's Closure Completion Report was prepared in-keeping with the Implementation Plan.	GEA acknowledges this finding.
20.	**Beneficiaries appreciate the initiative** *(Para 60)* • 94% of beneficiaries interviewed by the Audit Office welcomed the initiative as they have access to electricity to do schoolwork, power fans and charge their cellular phones.	GEA acknowledges this finding.