



**Verification and certification report form for
CDM project activities
(Version 02.1)**

Complete this form in accordance with the instructions attached at the end of this form.

BASIC INFORMATION

Title and UNFCCC reference number of the project activity	Greentech' Emission Reductions from PET Recycling, Romania Project id: 1040000 00011496 GS ID: 5099 listed on 1 st February 2017
Version number of the verification and certification report	Version 1.0
Completion date of the verification and certification report	6 th September 2018
Monitoring period number and duration of this monitoring period	1 st February 2016 to 31 st January 2018
Version number of the monitoring report to which this report applies	Version 2.0 dated 15 th August 2018
Crediting period of the project activity corresponding to this monitoring period	1 st February 2016 to 31 st January 2026
Project participants	Greentech S.A.
Host Party	Romania
Applied methodologies and standardized baselines	Sectoral Scope 13. Waste Handling and Disposal Methodology: AMS-III.AJ. Recovery and recycling of materials from solid wastes version 6.0
Mandatory sectoral scopes linked to the applied methodologies	Sectoral Scope 13. Waste Handling and Disposal
Conditional sectoral scope(s) linked to the applied methodologies	Not applicable
Estimated amount of GHG emission reductions or GHG removals for this monitoring duration in the registered PDD	94,738 tCO ₂ e
Certified amount of GHG emission reductions or GHG removals for this monitoring period	108,283 tCO ₂ e
Name and UNFCCC reference number of the DOE	EPIC Sustainability Services Private Limited (E-0062) (Report no: ESSPL/GS/2017/049) Scope of DOE: GS verification

Name, position and signature of the approver of the verification and certification report	R. Vijayaraghavan Lead Auditor <i>R. Vijayaraghavan</i> K. Sudheendra Head of Operations and Director (approver of this report) <i>K. Sudheendra</i>
--	--

SECTION A. Executive summary

>>

EPIC Sustainability Services Private Limited (EPIC) has been contracted by Greentech S.A to undertake the first verification of the registered CDM project activity titled "Greentech' Emission Reductions from PET Recycling, Romania" (hereinafter called "the project activity") (GS ID: 5099). The objectives of this verification are to verify and certify emission reductions reported for project activity for the monitoring period of 1st February 2016 to 31st January 2018 (first and last day included); and to verify that the data reported are complete and transparent.

The scope of the DOE is GS verification which includes independent assessment of the project against GS Verification requirements. This report summarizes the findings of the verification of the project, performed on the basis of UNFCCC criteria for CDM, GS requirements as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to the Kyoto Protocol, the CDM rules and modalities as agreed in the Bonn Agreement, the Marrakech Accords and the CDM Executive Board's decisions. The verification team has, based on the recommendations in the Validation and Verification Standard^{/1/} for project activities version 1.0, GS requirements^{/1/} v2.2 and GS toolkit^{/1/} v2.2 and employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generations of GS-VERs. The verification team has confirmed that applicable version of methodology^{/2/} (AMS.III.AJ version 6.0) was valid at the time of registration of the project under GS. EPIC has employed a risk-based approach in the verification based on the recommendations in the requirements focusing on validity of applied methodology, baseline, actual monitoring plan and actual emission reduction calculations as documented in the PDD v3.0 of the PDD^{/3/} and GS-passport^{/3/} version 3.0 (hereinafter referred to as PDD^{/3/} and GS-passport respectively). The verification is not meant to provide any consulting towards the client. However, the stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

This report summarizes the findings of the verification of the project, performed on the basis of UNFCCC criteria for CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to the Kyoto Protocol, the CDM rules and modalities as agreed in the Bonn Agreement, the Marrakech Accords and the CDM Executive Board's decisions.

The verification team has, based on the recommendations in the Validation and Verification Standard for project activities version 1.0^{/1/}, and employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generations of CERs. The verification is not meant to provide any consulting towards the client. However, stated request for clarifications and/or corrective actions may provide input for improvement of the project design.

The purpose of project activity is recycling PET waste, reducing energy consumption that would otherwise be required for the production of plastic made of virgin inputs for the production of plastic products, and consequently reducing greenhouse gases emissions. The output of the R-PET, Strap and Fiber respectively is 12,000 tons per year, 9000 tons per year and 32,400 tons per year. The project is located in Buzau county, in the city of Buzau, Muntenia province, Romania.

The verification team determines the conformity of the actual project activity and its operation with the project design document. EPIC has, by means of a desk review and an on-site visit, assessed that all physical features of the proposed CDM project activity proposed in the PDD are in place, and that the project participants have operated the CDM project activity as per the PDD. Thus the verification team has concluded that the project activity was implemented and operated as per PDD, and that all physical features of the project are in place.

The verification team, based on the site visit and document review, was able to conclude that the project activity has been commissioned and implemented as per the PDD. The start date of this monitoring period is 1st February 2016 considering the start date of the crediting period.

The monitoring report for this monitoring period is in compliance with the monitoring plan of the PDD. The project activity was registered by applying the large scale methodology^{/3/} AMA.III.AJ version 6.0 and the verification was carried out in accordance with the applied methodology. It was confirmed during the site visit that the project activity during the current periodic verification is in accordance with the applicability criteria of the methodology.

It is the responsibility of EPIC to express an independent GHG verification opinion on the GHG emissions reductions and on the calculation of GHG emission reductions from the project for this monitoring period based on the reported emission reduction in the monitoring Report.

EPIC's verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakech accord, as well as those defined by the CDM Executive board. EPIC's approach was risk-based, drawing on an understanding of the risks associated with reported GHG emissions data and the controls in place to mitigate these. The examination includes assessment of evidence relevant to the amounts and disclosures in relation to the project's GHG emission reductions for this monitoring period.

The verification team has planned and performed the work to obtain the information and explanations that is considered necessary to provide sufficient evidence for it to give reasonable assurance that the amount of calculated GHG emission reductions for this monitoring period were fairly stated

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Verification findings
1.	Lead Auditor	IR	Radhamadha van	Vijayaraghavan	EPIC	√	√	√	√
2.	Auditor	IR	G	Vishnu	EPIC	√	-	√	√
3.	Technical Expert	ER	-	Aurel Pop	External expert of EPIC	√	√	√	√

B.2. Technical reviewer and approver of the verification and certification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	D	Siddaramu	EPIC
2.	Technical Expert	IR	Anbazhagan	Prabu Das	EPIC
3.	Approver	IR	Krishnagar	Sudheendra	EPIC

SECTION C. Application of materiality

C.1. Consideration of materiality in planning the verification

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.	No risk	Nil	Not applicable	Proposed for complete verification of all the values indicated in the emission reduction spread sheet in documents.

C.2. Consideration of materiality in conducting the verification

>>

In line with Guidelines for Application of materiality in verifications^{/4/}, a reasonable level of assurance is defined for the verification of the project by complete verification of all the values indicated in the emission

reduction spreadsheet in documents such as gas invoices, electricity meter reports, electricity invoices at the document review stage and onsite. There are no material errors, omissions or misstatements.

SECTION D. Means of verification

D.1. Desk/document review

>>

The verification was performed primarily based on the review of the monitoring report and the supporting documentation. This process included review of data and information presented to verify their completeness and review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the QA/QC procedures, and an evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of emission reduction.

The first MR^{/5/} version 1.0 submitted by the project participant and additional background documents related to the emission reductions are reviewed as an initial step of the verification process. The subsequent step involved the identification of corrective action requests and clarification requests (CAR and CL) which are presented in Appendix 4 of this report. As a result of these findings, the MR is revised to MR version 2.0^{/5/}. A complete list of all documents and records reviewed is as attached in Appendix 3 of this report

D.2. On-site inspection

Duration of on-site inspection: 20/02/2018 and 21/02/2018				
No.	Activity performed on-site	Site location	Date	Team member
1.	- General information about the project. - Serious consideration of GS revenue. - Chronology of Events/ Implementation cycle of the project activity. - Barriers faced/overcome in the processes (additionality) - Local Stakeholder consultation processes - Legal/ Statutory Clearances and Agreements Signed - Baseline determination - Application of appropriate Methodology - Operation and maintenance Procedures - Technical details of project - Data monitoring and storage practices - Calibration and maintenance requirement of the equipment - Monitoring Methodology - Review of the implementation status of the project activity. - Review of applicability conditions of the applied GS baseline and monitoring methodology and applicable methodological tools. - Check on applicable national policies and regulations and their eventual impacts in terms of changing of the baseline scenario ad baseline emissions. - Verification of the values of ex-ante determined parameters. - Review of the Monitoring plan.	Project site	20/02/2018 and 21/02/2018	R. Vijayaraghavan & Mr. Aurel Pop

	• Verification of Stakeholder Consultation by interviewing the stakeholders. • Verification of Sustainable Development Monitoring Plan and mitigation measures. • Verification of the scores of the Sustainable Development indicators. • Verification of Sustainable Development Assessment. • Verification of Sustainable Development indicators with respect to the level of risk associated with the Safeguarding Principles of the Do-No Harm Assessment (DNHA).			
--	---	--	--	--

D.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Genes	Alina	Deputy Chief Executive Officer- Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
2.	Fometescu	Casiana	Carbon Expert- CDM Consultant	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
3.	Solea	Mihai Florin	CDM Consultant- Emission calculation	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
4.	Savin	Mihaela	Chief Operating Officer Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
5.	Voinea	George	Director- R&D- Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
6.	Fotache	Adriana	Safety Responsibility manager Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
7.	Dumitru	Gabriel	Production Director - Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
8.	Mocanu	Viorel	Sorting Section chief - Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
9.	Moise	Marian	Inspector- Tintesti Municipality	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
10.	Stoica	Aurel	Mayor - Tintesti village	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
11.	Pancescu	Ion	Energetic Manager Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
12.	Magda	Magda	Quality Technical Control (CTC) Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
13.	Cocoasa	Doina	CTC Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
14.	Dutca	Florin	Safety – Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
15.	Stefan	Aura	CTC (R-PET)- Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
16.	Raduta	Alina	HR- Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
17.	Baciu	Daniel	Sales- Greentech	20/02/2018 and 21/02/2018	As above	R. Vijayaraghavan & Mr. Aurel Pop
18.	Sofronea	Mihaela	Public Relation &	20/02/2018 and	As above	R. Vijayaraghavan & Mr. Aurel Pop

			Communication- Greentech	21/02/2018		
--	--	--	-----------------------------	------------	--	--

D.4. Sampling approach

>>

No sampling approach is used for this verification scope by the verification team.

D.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
Compliance of the monitoring report with the monitoring report form	0	0	0
Compliance of the project implementation and operation with the registered PDD	0	0	0
Post-registration changes	0	0	0
Compliance of the registered monitoring plan with the methodologies including applicable tools and standardized baselines	0	0	0
Compliance of monitoring activities with the registered monitoring plan	0	0	0
Compliance with the calibration frequency requirements for measuring instruments	0	0	0
Assessment of data and calculation of emission reductions or net removals	0	1 (CAR 1)	0
Assessment of reported sustainable development co-benefits	0	0	0
Global stakeholder consultation	1 (CL 1)	0	0
Others (please specify)- Lifetime	0	0	0
Others (please specify)- Stakeholder feedback consultation	0	1 (CAR 2)	0
Total	1	2	0

SECTION E. Verification findings**E.1. Compliance of the monitoring report with the monitoring report form**

Means of verification	As per para 355 and 356 of VVS-PA ¹⁷ version 1.0, the verification team has determined whether the monitoring report was completed using the valid version of the applicable monitoring report form. The verification team has checked whether all the sections of the monitoring report follows the guidelines provided in the template itself.
Findings	No Car was raised in this section.
Conclusion	PP has used the version 6.0 of the MR template ¹⁸ which is current and active one. The monitoring report has been prepared as per the instructions provided in the template. The verification team has concluded that the monitoring report was completed using the valid version of the applicable monitoring report form and is followed the guidelines given in the template itself.

E.2. Remaining forward action requests from validation and/or previous verifications

>>

The verification has reviewed the previous validation report and observed that there is no open issue i.e FARs was found from the validation. EPIC has not raised a forward Action Request (FAR) during this verification process.

E.3. Compliance of the project implementation and operation with the registered project design document

Means of verification	As per para 357 to 359 of VVS-PA ¹⁷ version 1.0, the verification team determined the conformity of the actual project activity and its operation with the project design document. EPIC has, by means of a desk review and an on-site visit, assessed that
------------------------------	--

	all physical features of the proposed CDM project activity proposed in the PDD ^{12/} are in place, and that the project participants have operated the CDM project activity as per the PDD ^{12/} .
Findings	No CL or CAR was raised in this section.
Conclusion	The verification team has reviewed the technical specifications ^{6/} of major equipments. The verification team has reviewed the records that affected the operation of the power plant and accepted the same. Based on the onsite observation, the verification team has confirmed technical specifications of major equipments are matching with that of PDD. Based on the onsite observation, the verification team has confirmed the correctness and accuracy of site location, project design, envisaged installed capacities of the major equipments, processes, power requirements of the project activity. The verification team has reviewed the commissioning certificate ^{7/} , PPA ^{7/} etc.

E.4. Post-registration changes

E.4.1. Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines

>>

There is no temporary deviation from the PDD for this monitoring period.

E.4.2. Corrections

>>

There are no corrections in this monitoring period.

E.4.3. Change to the start date of the crediting period of the project activity

>>

There is no such change to the start date of the crediting period in this monitoring period.

E.4.4. Inclusion of a monitoring plan

>>

Not applicable.

E.4.5. Permanent changes from registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other applied standards or tools

>>

There is no permanent deviation for this monitoring period from the PDD.

E.4.6. Changes to the project design

>>

There is no such change.

E.4.7. Changes specific to afforestation and reforestation project activities

>>

Not applicable as the project does not involve afforestation and reforestation activity.

E.5. Compliance of the registered monitoring plan with the methodology including applicable tools and standardized baselines

Means of verification	As per the para 360 to 362 of VVS-PA version 1.0, the verification team determined whether the monitoring plan indicated in the PDD is in accordance with the applied methodology ^{6/} (AMA.III.AJ v6.0) including applicable tools.
Findings	There is no CAR/CL/FAR raised in this section.
Conclusion	The verification team was able to confirm that the monitoring plan contained in the PDD is in accordance with the approved methodology ^{3/} applied by the project activity and its applicable tools. The monitoring plan of the project is in accordance with the applied methodology. The monitoring has been carried out in accordance with the monitoring plan contained in the PDD. All parameters stated in the

	monitoring plan and the applied methodology has been fulfilled in the current monitoring period. All parameters used for emission reductions calculation have been verified and found satisfactory. The discussion regarding each parameter has been elaborated in the further sections of this report. The monitoring plan as mentioned in the PDD is in accordance with the applied methodology. The monitoring approach for each parameter described in the PDD was found consistent in terms of unit, measurement procedures and monitoring frequency. The verification team has reviewed the line diagram ^{/6/} and monitoring parameters mentioned in the MR are in line with the PDD and onsite observation.
--	--

E.6. Compliance of monitoring activities with the registered monitoring plan

E.6.1. Data and parameters fixed ex ante or at renewal of crediting period

Means of verification	As per the para 363 to 367 of VVS-PA ^{/7/} version 1.0, the verification team has determined whether all ex-ante parameters used for emission reduction calculation stated in the monitoring plan are used appropriately as per the PDD.
Findings	There is no CAR/CL raised in this section.
Conclusion	Refer Appendix 5 of this report for details

E.6.2. Data and parameters monitored

Means of verification	As per the para 363 to 367 of VVS-PA ^{/7/} version 1.0, the verification team has determined whether the monitoring plan has been properly implemented and followed by the PP that the monitoring has been carried out in accordance with the PDD.
Findings	There is no CAR/CL raised in this section.
Conclusion	Refer Appendix 5 of this report for details

E.6.3. Implementation of sampling plan

Means of verification	As per para 363 to 367 of VVS-PA ^{/7/} version 1.0, the verification assessed whether the compliance of the sampling efforts and surveys with the sampling plan in accordance with the “Standard for sampling and surveys for CDM project activities and programme of activities” if PP had applied a sampling approach to determine data and parameters monitored.
Findings	There is no CAR/CL/FAR raised in this section.
Conclusion	PP did not apply sampling plan to determine data and parameters monitored during this monitoring period. The verification team has checked all the documents such as centralised production documents and centralised utility documents etc. hence sampling plan was not required. The verification team hereby confirms that it checked all the documents.

E.7. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	As per para 368 to 374 of VVS-PA ^{/7/} version 1.0, the verification team determined whether the calibration of the measuring equipment that has an impact on the claimed emission reductions is conducted by the PP at a frequency specified in the PDD.
Findings	One CAR (CAR 2) was raised in this section.
Conclusion	Refer Appendix 5 of this report for details

E.8. Assessment of data and calculation of emission reductions or net removals

E.8.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	As per para 375 to 377 of VVS-PA ^{/7/} version 1.0, the verification team assessed whether the data and calculations of baseline emission resulting from the PDD is correct. The verification team has checked whether calculations of baseline GHG emissions have been carried out in accordance with the formulae and methods described in the PDD.
Findings	One CAR (CAR 1) was raised in this section.
Conclusion	Refer Appendix 5 of this report for details

E.8.2. Calculation of project GHG emissions or actual net anthropogenic GHG removals by sinks

Means of verification	As per para 375 to 377 of VVS-PA ¹⁷ version 1.0, the verification team assessed whether the data and calculations of project emission resulting from the PDD is correct. The verification team has checked whether calculations of project GHG emissions have been carried out in accordance with the formulae and methods described in the PDD.
Findings	There is no CAR/CL raised in this section.
Conclusion	Refer Appendix 5 of this report for details

E.8.3. Calculation of leakage GHG emissions

Means of verification	As per para 375 to 377 of VVS-PA ¹⁷ version 1.0, the verification team assessed whether the data and calculations of leakage emission resulting from the PDD is correct. The verification team has checked whether calculations of leakage GHG emissions have been carried out in accordance with the formulae and methods described in the PDD.
Findings	There is no CAR/CL raised in this section.
Conclusion	Refer Appendix 5 of this report for details

E.8.4. Summary calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

Means of verification	As per para 375 to 377 of VVS-PA ¹⁷ version 1.0, the verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the registered CDM project activity. The verification team has checked whether calculations of GHG emission reduction have been carried out in accordance with the formulae and methods described in the PDD.
Findings	There is no CAR/CL raised in this section.
Conclusion	Refer Appendix 5 of this report for details

E.8.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

Means of verification	The verification team has determined the CER achieved during this monitoring period with the estimated value and reason for increase if any.
Findings	There was no CAR/CL/FAR was raised in this section.
Conclusion	The actual CER achieved is more than the estimated one due to higher input raw material to the plant. Hence accepted.

E.8.6. Remarks on difference from estimated value in registered PDD

Means of verification	The verification team has determined the CER achieved during this monitoring period with the estimated value and reason for increase if any.
Findings	There was no CAR/CL/FAR was raised in this section.
Conclusion	The actual CER achieved is more than the estimated one due to higher input raw material to the plant. Hence accepted.

E.8.7. Actual GHG emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards

Means of verification	The verification team has determined the CER achieved during second commitment period.
Findings	There was no CAR/CL/FAR was raised in this section.
Conclusion	The actual emission reductions achieved during the monitoring period is found to be more than the estimated value due to higher input raw material to the plant. Hence accepted. CER achieved upto 31st Dec 2012 = 0 tCO₂e CER achieved from 1st Jan 2013 = 108,283 tCO₂e CER achieved in 2016 = 45,380 tCO₂e CER achieved in 2017 = 58,384 tCO₂e CER achieved in 2018 = 4,519 tCO₂e

E.9. Assessment of reported sustainable development co-benefits

Means of verification	As per para 378 of the VVS-PA ^{/7/} v1.0, if the project participants have monitored the sustainable development co-benefits of the registered CDM project activity, and requested the DOE to verify them, the verification team will assess whether: (a) The monitoring has been carried out in accordance with the document for monitoring sustainable development co-benefits, if such document was developed and published on the UNFCCC CDM website in accordance with the “CDM project standard for project activities”; (b) The reported monitoring results correspond to the sustainable development co-benefits of the project activity as observed by the DOE.
Findings	There was no CAR/CL/FAR was raised in this section.
Conclusion	Appendix 6 of this report for details.

E.10. Global stakeholder consultation

Means of verification	As per para 394 of VVS-PA ^{/7/} ver 1.0, the verification team determined whether authentic and relevant comments in the global stakeholder consultation were taken into due account and assess how the comments are resolved.
Findings	There was no CAR/CL/FAR was raised in this section.
Conclusion	As far as GS is concerned, since the project activity falls under retroactive registration, local stakeholder consultation is not required to be conducted which is in line with para VIII.b.4 of “Gold Standard requirements”^{/1/} version 2.2. Hence accepted by the verification team. The verification team has checked how the stakeholder feedback round process for the project is conducted by interviewing the stakeholders. The verification team has verified how the consultation prior to the submission of the request for registration was conducted by the PP. The verification opinion of the same is detailed below. PP has made the initial PDD^{/3/} and initial GS passport^{/3/} available in public domain (GS website^{/3/} for 60 days (from 24th October 2017) to enable the local stakeholders to make comments. The email invitation^{/10/} dated 24th October 2017 was attached in English and Romanian language. The documents attached were passport, project concept note and PDD. Stakeholders were invited to comment on the project documents, project registration and grievance mechanism. The invitation was extended to 10 key stakeholders. PP has sent another email^{/10/} (dated 22nd December 2017) reminding the local stakeholders to provide their opinion. In response to the invitation, there was with no negative comment. The same was reported in the GS-Passport. During the onsite visit, the verification team interviewed local stakeholders and confirmed that local stakeholders are satisfied about the project and have do not have any negative comments. They informed the team that they welcome such projects. They do not have any grievances from the project as such and are aware of the grievance mechanism and how to contact the PP in case of grievances. The verification team has observed that the project activity is located in inhabited areas and there is no visible impact on human activities.

SECTION F. Internal quality control

>>

After the completion of assessment by the verification team all the relevant documentation is submitted to a qualified, Independent Technical reviewer as part of EPIC' internal quality control system. A Technical reviewer team is appointed to review the draft final verification report (Draft FVR). The comments made by the Technical reviewer team are taken into consideration and incorporated in the final FVR. The technical reviewer team assesses whether all the reporting requirements have been fulfilled and whether all the issues raised were closed satisfactorily by the verification team with justification. The technical review process can also raise issues in this regard which is resolved further by the verification team to the satisfaction of the technical reviewer. The technical reviewer team either accepts or rejects the report made by the verification team. The final report (after resolutions of all findings) is then submitted to the Head-operations for review and approval.

SECTION G. Verification opinion

>>

EPIC Sustainability Services Private Limited (EPIC) has been contracted by Greentech to undertake the first verification of the registered project activity. The objectives of this verification are to verify and certify emission reductions reported for project activity for the monitoring period of 1st February 2016 to 31st January 2018 (first and last day included); and to verify that the data reported are complete and transparent.

The verification team determines the conformity of the actual project activity and its operation with the project design document. EPIC has, by means of a desk review and an on-site visit, assessed that all physical features of the proposed CDM project activity proposed in the PDD are in place, and that the project participants have operated the CDM project activity as per the PDD. Thus the verification team has concluded that the project activity was implemented and operated as per PDD, and that all physical features of the project are in place.

The verification team, based on the site visit and document review, was able to conclude that the project activity has been commissioned and implemented as per the PDD. The start date of this monitoring period is 1st February 2016 considering the start date of the crediting period.

The monitoring report for this monitoring period is in compliance with the monitoring plan of the PDD. The verification team was able to confirm that the monitoring plan contained in the PDD is in accordance with the approved methodology applied by the project activity, i.e. AMS.III.AJ version 6.0 and its applicable tools. It was confirmed during the site visit that the project activity during the current periodic verification is in accordance with the applicability criteria of the methodology.

The management of project participants is responsible for the preparation and reporting of GHG emissions data, and the reported GHG emission reduction on the basis set out within the project monitoring plan. The development and maintenance of records and reporting procedures in accordance with the monitoring plan, including the calculation and determination of GHG emission reduction from the project is the responsibility of the management of the project. It is the responsibility of EPIC to express an independent GHG verification opinion on the GHG emissions reductions and on the calculation of GHG emission reductions from the project for this monitoring period based on the reported emission reduction in the monitoring Report.

EPIC's verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakech accord, as well as those defined by the CDM Executive board. EPIC's approach was risk-based, drawing on an understanding of the risks associated with reported GHG emissions data and the controls in place to mitigate these. The examination includes assessment of evidence relevant to the amounts and disclosures in relation to the project's GHG emission reductions for this monitoring period.

The verification team has planned and performed the work to obtain the information and explanations that is considered necessary to provide sufficient evidence for it to give reasonable assurance that the amount of calculated GHG emission reductions for this monitoring period were fairly stated.

The verification team has verified that the information included in the revised monitoring report is correct and that the emission reduction achieved has been determined correctly. Based on the information seen and evaluated, the verification team confirms the following:

Project title:	Greentech' Emission Reductions from PET Recycling, Romania
GS ref no:	5099
Crediting period:	Fixed; 1 st February 2016 to 31 st January 2026 (both days inclusive)
PDD	Version 3.0, dated 15 th August 2018
Passport	Version 3.0, dated 15 th August 2018
Monitoring report	Version 2.0 dated 15 th August 2018; first verification
Methodology used for verification:	Sectoral Scope 13. Waste Handling and Disposal Methodology: AMS-III.AJ. Recovery and recycling of materials

	from solid wastes version 6.0
Applicable monitoring period:	1 st February 2016 to 31 st January 2018 (first and last day included)
Emissions reductions verified:	108,283 tCO ₂ e

SECTION H. Certification statement

>>

As above

Appendix 1. Abbreviations

Abbreviations	Full texts
AAU	Assigned Amount Unit
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CSR	Corporate Social Responsibility
DNA	Designated National Authority
DNHA	Do-No Harm Assessment
DOE	Designated Operational Entity
EFSA	European Food Safety Authority
EU-ETS	European Union Emission Trading Scheme
FAR	Forward Action Request
FVR	Final Validation Report
GHG	Greenhouse gas(es)
GWP	Global Warming Potential
ILO	International Labour Organisation
IPCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
MR	Monitoring Report
MSW	Municipal Solid Waste
NERA	National Energy Regulatory Authority, Romania
OECD	Organisation for Economic Co-operation and Development
OHSAS	Occupational Health and Safety Assessment
PDD	Project Design Document
PET	Polyethylene terephthalate
PP	Project Participant
PPE	Personal protective equipment
RON	Romanian Currency-leu
R-PET	Recycled PET
SEAP	Sustainable Energy Action Plan
SEC	Specific Electricity Consumption
SFC	Specific Fuel Consumption
SFR	Stakeholder Feedback Round
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Clean Development Mechanism Validation and Verification Standard
AAU	Assigned Amount Unit
CAR	Corrective Action Request
CDM	Clean Development Mechanism

Appendix 2. Competence of team members and technical reviewers

The following verification team has been assigned to carry out the verification of the project.

Name	Mr. R. Vijayaraghavan	Mr. Aurel Pop	Dr. D. Siddaramu & Mr. A. Prabu Das
Role	Lead Auditor	Host country expert (Romania)	Technical Reviewer team

Competence in relevant sectors	Sector 1 and 13	Sector 13	Sector 1 and 13
Responsibility	Document review, onsite, DVR preparation, DVR resolution, FVR preparation	Document review, onsite	Technical review

Mr. R. Vijayaraghavan holds BE in Mechanical Engineering, M. Tech in Energy Conservation and Management and MBA in Technology Management. He is certified as Energy Auditor by Bureau of Energy Efficiency (BEE), Government of India. He has 12 years of working experience in energy sector including validation / verification of CDM, VCS and GS projects. He has undergone extensive training on CDM validation and verification and has been qualified as Lead Auditor for sector 1 and sector 13. He has also attended quarterly webinar conducted by GSF on 7th August 2014, 23rd July 2015, 27th January 2016, 8th December 2016, 9th Feb 2017, 27th March 2017, 13th Sep 2017, 23rd Sep 2017 –recorded webinar and 13th February 2018 for eligibility for fast track procedure. He has also involved in validation and verification of GS projects as lead auditor, thus having prior experience in validating the GS projects.

Dr. G. Vishnu holds a Masters and Doctorate in Environmental Science. He has around 8 years of experience in the field of research and consultancy related to water, wastewater, solid waste management systems, implementation of new, Cleaner Production technologies and biomass assessment studies. He has more than four years' experience in validation verification of more than thirty CDM, projects and has undergone extensive training on GHG validation and verification. He is a Lead Auditor for various technical areas. He is also an ISO 26000 lead auditor and ISO 50001 auditor certified by Professional Evaluation and Certification Board (PECB). He is a Certified Sustainability Assurance Practitioner (CSAP) from AccountAbility, UK. He is qualified as Lead Auditor based on EPICs CDM accreditation procedures.

Mr. Aurel Pop holds Bachelor degree in Technological equipment for steel industry from Universitatea Politehnica Cluj-Napoca. He has dealt with projects such as Project management for SCHOLZ Recycling Timisoara, Project management for SCHOLZ Recycling Arad, Relocating a car shredder from Brasov to Cluj Napoca for SCHOLZ Recycling for about 10 years. He was representing VIREO, Sweden and USITALL, Romania as well. He was qualified as sector 13 expert and host country expert (Romania) in accordance with EPIC's procedure.

Dr. D. Siddaramu holds a M.Sc., Ph.D in Environmental Science, with over 16 years of experience. A qualified Clean Development Mechanism (CDM) Lead Auditor, successfully registered more than 30 projects with United Nations Framework Convention on Climate Change (UNFCCC) and Verified Carbon Standard registry (VCS) registry; well versed with both National and International legal regime. Has hands on experience in Environmental Impact Assessment (EIA) studies pertaining to different Ecosystem; monitoring, collection & analyzing environmental samples and conducting socio-economic surveys; data analysis. Conducting CDM/VCS audits, preparation of validation protocols and reports. He is qualified for technical area TS 1.2 based on CDM accreditation requirements and is qualified as lead auditor as per GS4GG EPIC accreditation.

Mr. A Prabu Das, holds a M. Tech Degree in Energy Conservation and Management and B. Tech Degree in Petro-chemical Technology. He is a certified Energy Auditor by Bureau of Energy Efficiency (BEE), Government of India. He has around 8 years of work experience in Design of biomass Power plants, preparing Techno Economic Feasibility Reports (TEFR), carrying out energy audits, of which last six years have been in CDM consultancy and validation services. He has undergone extensive training on CDM validation and verification and is a qualified lead auditor for Sectoral Scope 1 and sector 13 in accordance with procedures of EPIC Sustainability Services Pvt. Ltd. He is also an ISO 26000 lead auditor certified by Professional Evaluation and Certification Board (PECB).

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	UNFCCC/ GSF	Validation and Verification Standard for Project activities v1.0 https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-	1	Publicly available

		20170502114945162/reg_stan06.pdf Project Standard for Project activities v1.0 https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20170307130848045/reg_stan04.pdf Project Cycle Procedure for Project activities v1.0 https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20170307130803756/pc_proc03.pdf Gold Standard Requirements v2.2 https://www.goldstandard.org/sites/default/files/gsv2.2_requirements.pdf Gold Standard Toolkit v2.2 https://www.goldstandard.org/sites/default/files/gsv2.2_toolkit.pdf		
2	UNFCCC	Methodology: AMS-III.AJ. Recovery and recycling of materials from solid wastes version 6.0 https://cdm.unfccc.int/methodologies/DB/GAEWN9TKQ3RSVT5H9JCVQH6EGKUUKD	2	Publicly available
3	PP	PDD version 1.0 dated 19 th October 2017 and GS-passport version 2.0 dated 24 th October 2017 (listed) and corresponding ER sheet https://mer.markit.com/br-reg/public/project.jsp?project_id=104000000011496 PDD v3.0 dated 15 th August 2018 and GS-passport ^{3/} v3.0 dated 15 th August 2018 (Request for registration) and corresponding ER sheet	3	Publicly available
4	PP	Prefeasibility reports of R-PET, Strap and Fibre Feasibility reports of baseline and project emissions for R-PET and Strap dated 1 st October 2015 Prefeasibility report for Strap Pre-feasibility report for fibre plant	4	Greentech
5	Greentech	Centralised production reports and centralised utility report	5	Greentech
6	UNFCCC	Tool 01: Tool for the demonstration and assessment of additionality version 7.0.0 https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf	6	Publicly available
7	UNFCCC	Standard for sampling and surveys for GS project activities and programme of activities v7.0 https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20170509173058940/Methodology_standard05_EB94a02%28ver07.0%2C%204may17%29.pdf Guidelines for sampling and surveys for CDM project activities and programme of activities v4.0 https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20151023152925068/Meth_GC48_%28ver04	7	Publicly available

		0%29.pdf		
8	Greentech	Commissioning Certificates for R-PET, Strap and Fibre plant	8	Greentech
9	National authorities	Environmental permits fire fighters permit Construction permits Local permit Sanitary company contract EFSA approval	9	Greentech
10	Greentech	Emails sent to stakeholders for SFR	10	Greentech
11	Greentech	Lifetime of the project document	11	Greentech
12	Greentech /Contractor	Waste Management contract R.E.R Servicii Ecologice S.R.L Waste management contract signed between SC Rosal Group SA	12	Greentech
13	Greentech	Greentech company statuses	13	Greentech
14	Ministry of Economy	Ministry of Economy, Romania document (No 251812 dated 10 th July 2017) for first of its kind –R-PET Ministry of Economy, Romania document (No 221577 dated 8 th August 2018) for first of its kind –Fibre	14	Greentech
15	Retailers	Agreement with retailers for sale of recycled plastic (for avoiding double counting)	15	Greentech
16	PCI PET Packaging, Resin & Recycling Ltd	National demand for virgin PET for various Europe countries	16	Greentech
17	Suppliers	Technical specifications of R-PET, Strap and Fibre	17	Greentech
18	OEKO-TEX	Authorisation certificate by OEKO-TEX for the products complying the quality set by Standard 100, validity upto 31 st January 2018	18	Greentech
19	Greentech	Investment approval for R-PET by Greenfiber (No 08 dated 27 th June 2012 Investment approval for R-PET by Greenfiber (No 11 dated 28 th September 2012) Investment approval for Strap by Greentech (No 7 dated 1 st September 2015)	19	Greentech
20	Greenfiber International	Pre-sale agreement of R-PET between Greenfiber International (promissory seller) and Technologie PET SRL (promissory buyer) dated 23 rd August 2012	20	Greentech
21	Greenfiber International	Final sale agreement for R-PET signed between SC ESOX Prodimpex SRL, Romania and Greenfiber (No 8019 dated 19 th October 2012)	21	Greentech
22	UNFCCC	Glossary of CDM terms v9.1 https://cdm.unfccc.int/Reference/Guidclarif/gloss_CDM.pdf	22	Publicly available
23	Greentech	Sale agreement for R-PET line 2 dated 18 th July 2012	23	Greentech
24	Greentech	Sale agreement for R-PET line 3 dated 7 th November 2012	24	Greentech
25	Greenfiber	Executive framework contract for construction of site work place for R-PET signed between Greenfiber and SC Betomax SRL (No 54 dated 6 th March 2013).	25	Greentech
26	Greentech	Sale agreement for R-PET between Greenfiber (seller) and Greentech (buyer) (No 160 dated 18 th August 2014	26	Greentech

27	Greentech	Lease agreement for R-PET between Greenfiber (seller) and Greentech (buyer) for land space dated 18 th August 2014. (No 161 dated 18 th August 2014).	27	Greentech
28	Greentech	Contract of sale and delivery of Extrusion line for production of strapping tape between Greentech and Reimotec Maschinen and Anlagenbau GmbH (supplier) (No 6283 dated 17 th September 2015)	28	Greentech
29	Greentech	Sale agreement for Strap between Greenfiber (seller) and Greentech (buyer) (No 7779 dated 15 th January 2016)	29	Greentech
30	Greentech	Construction refurbish contract for Strap signed for between Greentech and Ness Proiect Europe SRL (No 738 dated 14 th July 2016)	30	Greentech
31	Greenfiber	Sale agreement between Greenfiber and Jiangyin Desel Environmental Protection Equipments Co Ltd (Contract no: GF-DS-160728 dated 28 th July 2016)	31	Greentech
32	Greenfiber	Sale agreement between Greenfiber and Rofep SA dated 28 th August 2016 for land and building	32	Greentech
33	Greentech	Investment decision on 9 th July 2012	33	Greentech
34	Greentech	Internal note regarding project taken by the PP dated 3 rd September 2012 Internal email dated 20 th August 2013	34	Greentech
35	Greentech	A report on carbon revenues and expenditures prepared by the PP dated 15 th September 2013	35	Greentech
36	Greentech and CarbonExpert/ Mr. Solea Mihai	CDM consultancy agreement signed between PP and CDM consultancy (CarbonExpert dated 18 th November 2013 and Mr. Solea Mihai dated 1 st February 2017)	36	Greentech
37	Greentech	Monthly CDM related documents	37	Greentech
38	Greentech	PP letter to GS to open an Markit account Markit/ PP correspondence	38	Greentech
39	Environment Ministry	Official letter from Environment Ministry, Romania to Greentech (no. 35036 from 25 th January 2018) for confirming AAU units	39	Greentech
40	UNFCCC	Tool 23 "Additionality of first-of-its-kind project activities" version 3.0 https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-23-v1.pdf	40	Publicly available
41	Greentech	Calibration certificate ^{41/} dated 20 th June 2016, 5 th February 2018.	41	Greentech
42	SEAP	Emission factors for electricity consumed national and European - technical annex to the SEAP template instructions" www.eumayors.eu/IMG/pdf/technical_annex_en.pdf www.anpm.ro ; www.mmediu.ro chrome-extension://oemmnndcbldboiebfnladdacbfmad adm/http://www.soglasheniemerov.eu/IMG/pdf/technical_annex_ro.pdf chrome-extension://oemmnndcbldboiebfnladdacbfmad adm/http://www.mmediu.ro/app/webroot/uploads/files/2014-03-	42	SEAP

		18_Lista_valorilor_nationale_FE_PCN-2014.pdf		
43	RWE/NERA	Energy purchase contract dated 5 th November 2015 for RWE Measurement code approved through order no. 17/2002 issued by National Energy Regulatory Authority Energy purchase contract dated 24 th November 2017 between Greentech and Energy Distribution Services SRL (power supplier)	43	Greentech
44	RWE/Energy Distribution services	Monthly invoices for the years 2016, 2017 and 2018	44	Greentech
45	Engie Romania	Fuel purchase contract dated 22 nd July 2016 and its amendment (dated 30 th September 2016, 30 th December 2016, 27 th February 2017) between Engie Romania SA (Seller) and Greentech Fuel purchase contract and its amendment between CEZ Vanzare S.A (Seller) and Greentech dated 11 th May 2017	45	Greentech
46	ILO	International conventions for the protection of Human rights and Fundamental freedoms http://www.ilo.org/dyn/normlex/en/f?p=1000:11200:14467954220003:::P11200_INSTRUMENT_SORT:3 United Nations Declaration on the Rights of Indigenous Peoples (61/295) dated 13 th December 2007 https://en.wikipedia.org/wiki/Declaration_on_the_Rights_of_Indigenous_Peoples	46	Publicly available
47	Greentech	Approval of buying the private land for fiber plant dated 12 th August 2016	47	Greentech
48	ILO	Article 1 of the International Covenant on economic, Social and Cultural Rights and Covenant on 27 th June 1968 and ratified on 9 th December 1974 https://en.wikipedia.org/wiki/International_Covenant_on_Economic,_Social_and_Cultural_Rights	48	Greentech
49	Greentech	Staff contracts and staff records	49	Greentech
50	National authorities	United Nations Convention Against Corruption dated 2 nd November 2004 https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XVIII-14&chapter=18&clang=_en https://www.google.co.in/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwjgpbnhqZHbAhUKOo8KHWS0At4QFggTMAE&url=https%3A%2F%2Fwww.unodc.org%2Fdocuments%2Ftreaties%2FUNCAC%2FWorkingGroups%2FImplementationReviewGroup%2F2-6June2014%2FPanelPresentations%2FRomania_Presentation_on_whistleblowers.pdf&usg=AOvVaw1q6eyhIQUk_cPYdQ9HVy6v	50	Greentech
51	National authorities	Air quality tests and legislation for air quality Water quality tests and its legislation Noise tests and its legislation	51	Greentech
52	Greentech	Training records	52	Greentech

Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. Remaining FAR from validation and/or previous verifications

FAR ID	xx	Section no.	-	Date: 26/02/2018
Description of FAR				
No FAR raised				
Project participant response				Date: 13/04/2018
-				
Documentation provided by project participant				
-				
DOE assessment				Date: 16/05/2018
-				

Table 2. CL from this verification

CL ID	1	Section no.	-	Date: 26/02/2018
Description of CL				
Please provide document for supporting lifetime of the project activity.				
Project participant response				Date: 13/04/2018
The document "Greentech Project lifetime has been provided to the DOE.				
Documentation provided by project participant				
Greentech Project lifetime ^{/11/}				
DOE assessment				Date: 16/05/2018
The verification team has reviewed the document dated 10 th November 2012 and accepted the same as correct and reasonable. As per the document, the lifetime of the R-PET, Strap and Fibre plant is 30 years.				

Table 3. CAR from this verification

CAR ID	1	Section no.	-	Date: 26/02/2018
Description of CAR				
Estimated emission reduction is not calculated in the MR.				
Project participant response				Date: 13/04/2018
Emission calculation is added now in the MR.				
Documentation provided by project participant				
Final MR ^{/3/}				
DOE assessment				Date: 16/05/2018
The verification team assessed the MR and now detailed calculation is mentioned in the revised MR. Hence closed. Refer Appendix 5 for details.				

CAR ID	2	Section no.	-	Date: 26/02/2018
Description of CAR				
Please provide SFR documents, emails, follow up mails etc. for verification.				
Project participant response				Date: 13/04/2018
The SFR documents ^{/10/} , e-mails ^{/10/} and follow-up e-mails ^{/10/} has been provided to the DOE.				
Documentation provided by project participant				
E-mail with the SFR dated on 24.10.2017, follow-up e-mail dated 22.12.2017				

DOE assessment	Date: 16/05/2018
As far as GS is concerned, since the project activity falls under retroactive registration, local stakeholder consultation is not required to be conducted which is in line with para VIII.b.4 of "Gold Standard requirements"^{n/1/} version 2.2. Hence accepted by the verification team. The verification team has checked how the stakeholder feedback round process for the project is conducted by interviewing the stakeholders. The verification team has verified how the consultation prior to the submission of the request for registration was conducted by the PP. The verification opinion of the same is detailed below. PP has made the PDD^{/3/} and initial GS passport^{/3/} available in public domain (GS website^{/3/} for 60 days (from 24th October 2017) to enable the local stakeholders to make comments. The email invitation was attached in English and Romanian language. The documents attached were initial passport^{/3/}, project concept note and initial PDD^{/3/}. Stakeholders were invited to comment on the project documents, project registration and grievance mechanism. The invitation was extended to 10 key stakeholders. In response to the invitation, there was with no negative comment. The same was reported in the GS-Passport. During the onsite visit, the verification team interviewed local stakeholders and confirmed that local stakeholders are satisfied about the project and have do not have any negative comments. They informed the team that they welcome such projects. They do not have any grievances from the project as such and are aware of the grievance mechanism and how to contact the PP in case of grievances. The verification team has observed that the project activity is located in inhabited areas and there is no visible impact on human activities.	

Table 4. FAR from this verification

FAR ID	xx	Section No.	Date: 26/02/2018
Description of FAR			
No FAR was raised			
Project participant response			Date: 13/04/2018
-			
Documentation provided by project participant			
-			
DOE assessment			Date: 16/05/2018
-			

Appendix 5: Emission Reduction calculation

Emission reduction achieved by the project activity (ER_y)	As per para 36 of the applied methodology^{/2/}, the emission reductions achieved by the project activity shall be determined as the difference between the baseline emissions and the project emissions and leakage. As per equation 9 of the applied methodology, $ER_y = BE_y - PE_y - LE_y$ Where BE_y-Baseline emission PE_y-Project emission LE_y-Leakage emission The verification of each is demonstrated below.
Baseline emission (BE_y)	The purpose of project activity is recycling PET waste, reducing energy consumption that would otherwise be required for the production of plastic made of virgin inputs for the production of plastic products, and consequently reducing greenhouse gases emissions. Hence as per para 21a of the applied methodology, baseline emissions include emissions include for the production of plastic, associated with energy consumption for the production of plastic pellets from virgin plastic materials. As per para 22 of the applied methodology, Baseline emissions shall be determined as follows. $BE_y = BE_{plastic,y} + BE_{glass,y} + BE_{paper,y} + BE_{metal,y}$ Where $BE_{plastic,y}$ -Baseline emissions in year y associated with the recycling of

	plastic $BE_{glass,y}$ - Baseline emissions in year y associated with the recycling of glass $BE_{paper,y}$ - Baseline emissions in year y associated with the recycling of paper $BE_{metal,y}$ - Baseline emissions in year y associated with the recycling of metals The verification of each is demonstrated below. http://www.oecd.org/env/cc/listofannexicountries.htm								
Baseline emissions in year y associated with the recycling of plastic	As per para 25/equation 2 of the applied methodology, baseline emissions for the production of pellet type i from virgin inputs are calculated. $BE_{plastic,y} = \sum [Q_{i,y} \times L_i \times B_i \times (SEC_{BI,i} \times EF_{el,y} + SFC_{BI,i} \times EF_{FF,CO2})]$ Where $Q_{i,y}$ -Quantity of plastic type i recycled in year y i-Indices for material type i L_i- Net to gross adjustment factor to cover degradation in material quality and material loss in the production process of the final product using the recycled material B_i-Correction factor based on share of production in non-Annex I countries $SEC_{BI,i}$ -Specific electricity consumption for the production of virgin material type i $EF_{el,y}$-Emission factor for grid electricity $SFC_{BI,i}$-Specific fuel consumption for the production of virgin material type i $EF_{FF,CO2}$ -CO2 emission factor for fossil fuel								
Municipal solid waste <table border="1"> <thead> <tr> <th>Year</th><th>Municipal solid waste</th></tr> </thead> <tbody> <tr> <td>2016</td><td>72,885.945 tonnes</td></tr> <tr> <td>2017</td><td>94,184.723 tonnes</td></tr> <tr> <td>2018</td><td>7,477.989 tonnes</td></tr> </tbody> </table> (monitored parameter No 1)	Year	Municipal solid waste	2016	72,885.945 tonnes	2017	94,184.723 tonnes	2018	7,477.989 tonnes	It is sourced from centralized production data^{/5/} for the years 2016 to 2018. The verification team has reviewed the document and accepted the same as authentic and correct. As per the applied methodology, it is measured by direct weighing and recording of the weight, cross checked with company's records that is invoiced and backed by receipt of payments. The verification team has accepted the monitoring procedure and accepted the same as feasible. QA/QC procedure: The weigh balance is calibrated every 5 years. The verification team has checked the calibration certificates against serial number, date of calibration, validity and actual error and found that balance is calibrated by the certified agency and the actual error is always less than the maximum permissible error. The verification team has accepted the measurement methods, aggregation approach and data used for baseline emission calculations and quality control procedures. Hence accepted.
Year	Municipal solid waste								
2016	72,885.945 tonnes								
2017	94,184.723 tonnes								
2018	7,477.989 tonnes								
Quantity of plastic type i recycled in year y ($Q_{i,y}$) <table border="1"> <thead> <tr> <th>Year</th><th>$Q_{i,y}$</th></tr> </thead> <tbody> <tr> <td>2016</td><td>52,081.155 tonnes</td></tr> <tr> <td>2017</td><td>64,566.703 tonnes</td></tr> <tr> <td>2018</td><td>5,116.534 tonnes</td></tr> </tbody> </table> (monitored parameter No 2)	Year	$Q_{i,y}$	2016	52,081.155 tonnes	2017	64,566.703 tonnes	2018	5,116.534 tonnes	It is sourced from centralized production data^{/5/} for the years 2016 to 2018. The verification team has reviewed the document and accepted the same as authentic and correct. As per the applied methodology, it is measured by direct weighing and recording of the weight, cross checked with company's records that is invoiced and backed by receipt of payments. The verification team has accepted the monitoring procedure and accepted the same as feasible. QA/QC procedure: The weigh balance is calibrated every 5 years. The verification team has reviewed the calibration certificate^{/41/} dated 20th June 2016, 5th February 2018. The verification team has checked the calibration certificates against serial number, date of calibration, validity and actual error and found that balance is calibrated by the certified agency and the actual error is always less than the maximum permissible error. The verification team has accepted the measurement methods, aggregation approach and data used for baseline emission calculations and quality control procedures. Hence accepted.
Year	$Q_{i,y}$								
2016	52,081.155 tonnes								
2017	64,566.703 tonnes								
2018	5,116.534 tonnes								
Material type (i) = R-PET, Strap and Fibre (ex-ante parameter)	The verification team has reviewed the prefeasibility reports^{/4/}, centralized production reports^{/5/} and confirmed that the project is generating only R-PET & polyester fiber (intermediate) and PET Strap only (finished product). The onsite visit also confirms the same. But production and								

	consumption of the whole plant is considered for the calculation.								
Net to gross adjustment factor to cover degradation in material quality and material loss in the production process of the final product using the recycled material (L_i) = 0.75 (ex-ante parameter)	It is as per para 25 of the applied methodology. Hence accepted.								
Correction factor based on share of production in non-Annex I countries (B_i) = 1 (ex-ante parameter)	The verification team has reviewed the national demand for virgin PET for various Europe countries ^{/16/} (based on data from PCI PET Packaging, Resin & Recycling Ltd) and found finished PET demand for Romania for the past three years. PP has thus demonstrated that the finished products were manufactured in the host country of the GS project using either virgin raw materials or imported from another non Annex I country. The verification team has reviewed the PDD and PP has considered the baseline correction factor to be 1. Since the requirement is met, the verification team has accepted the same as correct								
Specific electricity consumption for the production of virgin material type i ($SEC_{BI,i}$) = 1.11 MWh/ton (ex-ante parameter)	It is as per para 24c ii) of the applied methodology. Hence accepted.								
Emission factor for grid electricity ($EF_{el,y}$) = 0.701 tCO ₂ /MWh (ex-ante parameter)	It is as per document "Emission factors for electricity consumed national and European - technical annex to the SEAP template instructions" ^{/42/} www.eumayors.eu/IMG/pdf/technical_annex_en.pdf								
Specific fuel consumption for the production of virgin material type i ($SFC_{BI,i}$) = 15 GJ/ton (ex-ante parameter)	It is as per para 24b of the applied methodology. Hence accepted.								
CO ₂ emission factor for fossil fuel (EF_{FF,CO_2}) = 0.202 tCO ₂ /MWh = 0.05611 tCO ₂ /GJ Note : 1 MWh = 3.6 GJ (ex-ante parameter)	It is as per website www.anpm.ro ; www.mmediu.ro								
Baseline emissions in year y associated with the recycling of plastic ($BE_{plastic,y}$) <table border="1"> <thead> <tr> <th>Year</th><th>$BE_{plastic,y}$</th></tr> </thead> <tbody> <tr> <td>2016</td><td>63,269.87 tCO₂e</td></tr> <tr> <td>2017</td><td>78,437.72 tCO₂e</td></tr> <tr> <td>2018</td><td>6,215.73 tCO₂e</td></tr> </tbody> </table> (calculated)	Year	$BE_{plastic,y}$	2016	63,269.87 tCO ₂ e	2017	78,437.72 tCO ₂ e	2018	6,215.73 tCO ₂ e	As per para 25/equation 2 of the applied methodology, baseline emissions for the production of pellet type i from virgin inputs are calculated. $BE_{plastic,y} = \sum [Q_{i,y} \times L_i \times B_i \times (SEC_{BI,i} \times EF_{el,y} + SFC_{BI,i} \times EF_{FF,CO_2})]$
Year	$BE_{plastic,y}$								
2016	63,269.87 tCO ₂ e								
2017	78,437.72 tCO ₂ e								
2018	6,215.73 tCO ₂ e								
Baseline emissions for paper and cardboard recycling ($BE_{paper,y}$) = 0 tCO ₂ e	As per para 26 of the applied methodology, Baseline emissions for the anaerobic decay of paper and cardboard in the solid waste disposal site are calculated using the methodological tool "Emissions from solid waste disposal sites". The project consists recycling of plastic waste into recycled PET and PET strap as per onsite observation. The project does not involve glass/metal recycling. Prefeasibility reports ^{/4/} , centralised production reports ^{/5/} also confirmed the same. Hence Baseline emissions for paper and cardboard recycling ($BE_{plastic,y}$) is zero.								
Baseline emissions for glass	As per para 28 of the applied methodology, $BE_{glass,y}$ is calculated as								

recycling ($BE_{\text{glass},y} = 0 \text{ tCO}_2\text{e}$)	follows. $BE_{\text{glass},y} = Q_{\text{glass},y} \times L_{\text{glass}} \times B_i \times SEC_{\text{BI,glass}} \times EF_{\text{el},y}$ The project does not involve glass recycling, $BE_{\text{glass},y} = 0 \text{ tCO}_2\text{e}$ per year								
Baseline emissions for metals ($BE_{\text{metals},y} = 0 \text{ tCO}_2\text{e}$)	As per para 30 of the applied methodology, $BE_{\text{metals},y}$ is calculated as follows. $BE_{\text{metals},y} = Q_{i,y} \times B_i \times SEC_i$ The project does not involve metals recycling, $BE_{\text{metals},y} = 0 \text{ tCO}_2\text{e}$ per year								
Baseline emission (BE_y) <table border="1" data-bbox="151 488 542 622"> <thead> <tr> <th>Year</th><th>BE_y</th></tr> </thead> <tbody> <tr> <td>2016</td><td>63,269.87 tCO₂e</td></tr> <tr> <td>2017</td><td>78,437.72 tCO₂e</td></tr> <tr> <td>2018</td><td>6,215.73 tCO₂e</td></tr> </tbody> </table>	Year	BE_y	2016	63,269.87 tCO ₂ e	2017	78,437.72 tCO ₂ e	2018	6,215.73 tCO ₂ e	As per para 22 of the applied methodology, Baseline emissions shall be determined as follows. $BE_y = BE_{\text{plastic},y} + BE_{\text{glass},y} + BE_{\text{paper},y} + BE_{\text{metal},y}$
Year	BE_y								
2016	63,269.87 tCO ₂ e								
2017	78,437.72 tCO ₂ e								
2018	6,215.73 tCO ₂ e								
Project emissions	As per para 32 of the applied methodology, Project emissions include emissions for energy use at recycling facility and emissions associated with the use of the recycled material in the manufacturing facility. For project activities of Case B, project emissions are calculated using equation (5). $PE_y = \sum \{Q_{i,y} \times [(EC_{i,y} + SEC_{P,i}) \times EF_{\text{el},y} + FC_{i,y} \times NCV_{\text{FF}} \times EF_{\text{FF},\text{CO}_2}]\}$ Where $Q_{i,y}$ -Quantity of plastic type i recycled in year y i-Material type – plastics (HDPE, LDPE, PET and PP), container glass cullet, aluminum or steel $EC_{i,y}$-Electricity consumption of the recycling facility apportioned to material type i $SEC_{P,i}$-Energy consumption factor for processing of recycled material i in the processing/manufacturing facility $EF_{\text{el},y}$-Emission factor for grid electricity $FC_{i,y}$ -Fuel consumption of the recycling facility apportioned to material type i NCV_{FF} -Net calorific value of the fossil fuel consumed in the recycling facility in year y $EF_{\text{FF},\text{CO}_2}$ -CO₂ emission factor of the fossil fuel consumed at the recycling facility (tCO₂/GJ), use local or national values, or IPCC default values The verification of the same is detailed below.								
Quantity of plastic type i recycled in year y ($Q_{i,y}$) <table border="1" data-bbox="151 1518 542 1641"> <thead> <tr> <th>Year</th><th>$Q_{i,y}$</th></tr> </thead> <tbody> <tr> <td>2016</td><td>52,081.155 tonnes</td></tr> <tr> <td>2017</td><td>64,566.703 tonnes</td></tr> <tr> <td>2018</td><td>5,116.534 tonnes</td></tr> </tbody> </table> (monitored parameter no 2)	Year	$Q_{i,y}$	2016	52,081.155 tonnes	2017	64,566.703 tonnes	2018	5,116.534 tonnes	It is already validated as above.
Year	$Q_{i,y}$								
2016	52,081.155 tonnes								
2017	64,566.703 tonnes								
2018	5,116.534 tonnes								
Material type (i) = R-PET, Strap and Fibre	It is already validated as above.								
Electricity consumption ($EC_{i,y}$) <table border="1" data-bbox="151 1832 542 1955"> <thead> <tr> <th>Year</th><th>$EC_{i,y}$</th></tr> </thead> <tbody> <tr> <td>2016</td><td>22,801.565 MWh</td></tr> <tr> <td>2017</td><td>24,147.59 MWh</td></tr> <tr> <td>2018</td><td>1980.16 MWh</td></tr> </tbody> </table> (monitored parameter no 3)	Year	$EC_{i,y}$	2016	22,801.565 MWh	2017	24,147.59 MWh	2018	1980.16 MWh	The verification team has validated the centralized utility consumption^{75/} data for the years 2016-2018 and accepted the same. As per the PDD, it will be monitored continuously and recorded monthly. Hence accepted. The verification team has reviewed the energy purchase contract^{43/} dated 5th November 2015 (for the year ending 2016) between Greentech and RWE (power supplier). As per the contract, the measurement of electricity sold hereunder shall be made according to the provisions of the measurement code approved through order no. 17/2002 issued by National Energy Regulatory Authority (NERA) and maximum annual electricity to be delivered was 23,870 MWh. The contract price is fixed at
Year	$EC_{i,y}$								
2016	22,801.565 MWh								
2017	24,147.59 MWh								
2018	1980.16 MWh								

	RON 303.05/MWh. The verification team has also reviewed the addendums/amendments^{/43/} (dated 27th November 2015, 1st January 2017, 1st March 2017 & dated 1st August 2017) added to the existing energy purchase contract as well. The verification team has reviewed another energy purchase contract^{/43/} dated 24th November 2017 between Greentech and Energy Distribution Services SRL (power supplier) with contracted annual electricity being 50,800 MWh, contracted price being RON 218.5/MWh. The verification team has validated the centralized utility consumption data^{/5/} and monthly invoices^{/44/} for the years 2016, 2017 and 2018 upto January and accepted the same. QA/QC procedure: The meter is calibrated every 5 years. The verification team has reviewed the calibration certificates^{/41/} dated 29th March 2013 and 9th January 2017 (class is 0.5S). The verification team has checked the calibration certificates against serial number, date of calibration, validity and actual error and found that balance is calibrated by the certified agency and the actual error is always less than the maximum permissible error. The verification team has accepted the measurement methods, aggregation approach and data used for baseline emission calculations and quality control procedures. Hence accepted										
Electricity consumption of the recycling facility apportioned to material type <i>i</i> ($EC_{i,y}$) = 0.4378 MWh/tonne of plastic recycled (calculated)	It is calculated as below. $EC_{i,y}$ = Electricity consumption/Quantity of plastic recycled										
Energy consumption factor for processing of recycled material <i>i</i> in the processing/manufacturing facility ($SEC_{p,i}$) = 0 MWh/tonne (ex-ante parameter)	As per the applied methodology, emissions associated with transportation of recyclable materials and processing/manufacturing under the project activity are considered as equivalent to the corresponding emissions for the virgin materials and therefore ignored in this methodology.										
Fuel consumption of the recycling facility apportioned to material type <i>i</i> ($FC_{i,y}$)	Fuels consumed in the project activity are natural gas, diesel, gasoline and LFO. $FC_{i,y}$ = Fuels consumed / Quantity of plastic recycled The verification of the same is detailed below.										
Fuel consumed <table border="1" data-bbox="151 1391 533 1827"> <thead> <tr> <th>Fuels</th><th>Fuel consumed in MWh</th></tr> </thead> <tbody> <tr> <td>Natural gas</td><td>2016-3,860, 2017-12875, 2018-1294.38</td></tr> <tr> <td>Diesel</td><td>2016-1,825.43, 2017-1980.36, 2018-176.52</td></tr> <tr> <td>Gasoline</td><td>2016-3.76, 2017-1.812, 2018-0</td></tr> <tr> <td>LFO</td><td>2016-2,405.46 2017-0 2018-0</td></tr> </tbody> </table> (Monitored parameter no 4)	Fuels	Fuel consumed in MWh	Natural gas	2016-3,860, 2017-12875, 2018-1294.38	Diesel	2016-1,825.43, 2017-1980.36, 2018-176.52	Gasoline	2016-3.76, 2017-1.812, 2018-0	LFO	2016-2,405.46 2017-0 2018-0	Ex ante estimation: The verification team has reviewed the centralized utility consumption data^{/5/} for the years 2016 to 2018. The verification team has reviewed fuel purchase contract^{/45/} dated 22nd July 2016 and its amendment (dated 30th September 2016, 30th December 2016, 27th February 2017) between Engie Romania SA (Seller) and Greentech (annual contract amount being 4,580 MWh and fixed price being RON 72.80/MWh variable prices include transport and distribution). The verification team has reviewed fuel purchase contract and its amendment between CEZ Vanzare S.A (Seller) and Greentech dated 11th May 2017. The verification team has reviewed the centralized utility consumption data^{/5/} and monthly invoices for NG accepted the same. QA/QC procedure: The values are crosschecked with invoices and hence accepted.
Fuels	Fuel consumed in MWh										
Natural gas	2016-3,860, 2017-12875, 2018-1294.38										
Diesel	2016-1,825.43, 2017-1980.36, 2018-176.52										
Gasoline	2016-3.76, 2017-1.812, 2018-0										
LFO	2016-2,405.46 2017-0 2018-0										

Fuel consumption of the recycling facility apportioned to material type i ($FC_{i,y}$) <table border="1"> <tr> <th>Fuels</th> <th>$FC_{i,y}$</th> </tr> <tr> <td>Natural gas</td> <td>0.0741151 MWh/tonne</td> </tr> <tr> <td>Diesel</td> <td>0.03504 MWh/tonne</td> </tr> <tr> <td>Gasoline</td> <td>0.000072 MWh/tonne</td> </tr> <tr> <td>LFO</td> <td>0.0461 MWh/tonne</td> </tr> </table>	Fuels	$FC_{i,y}$	Natural gas	0.0741151 MWh/tonne	Diesel	0.03504 MWh/tonne	Gasoline	0.000072 MWh/tonne	LFO	0.0461 MWh/tonne	$FC_{i,y}$ = Fuels consumed / Quantity of plastic recycled
Fuels	$FC_{i,y}$										
Natural gas	0.0741151 MWh/tonne										
Diesel	0.03504 MWh/tonne										
Gasoline	0.000072 MWh/tonne										
LFO	0.0461 MWh/tonne										
CO2 emission factor of the fossil fuel consumed at the recycling facility ($EE_{FF,CO2}$) <table border="1"> <tr> <th>Fuels</th> <th>$EE_{FF,CO2}$</th> </tr> <tr> <td>Natural gas</td> <td>0.202 tCO2/MWh</td> </tr> <tr> <td>Diesel</td> <td>73.56 kgCO2/GJ or 0.264816 tCO2/MWh</td> </tr> <tr> <td>Gasoline</td> <td>71.62 kgCO2/GJ or 0.257832 tCO2/MWh</td> </tr> <tr> <td>LFO</td> <td>74.08 kgCO2/GJ or 0.266688 tCO2/MWh</td> </tr> </table> (ex-ante parameter)	Fuels	$EE_{FF,CO2}$	Natural gas	0.202 tCO2/MWh	Diesel	73.56 kgCO2/GJ or 0.264816 tCO2/MWh	Gasoline	71.62 kgCO2/GJ or 0.257832 tCO2/MWh	LFO	74.08 kgCO2/GJ or 0.266688 tCO2/MWh	For natural gas: Emission factors^{/42/} for electricity consumed national and European - technical annex to the SEAP template instructions www.eumayors.eu/IMG/pdf/technical_annex_en.pdf For other fuels: It is as per website www.anpm.ro ; www.mmediu.ro. This document provides the list of national emission factors and net calorific values, specific to each type of fuel and category of activity. These values are determined on the basis of EU-ETS reports dated 2012. chrome-extension://oemmnadbldboiebfnladdacbfmadadm/http://www.soglashenie-merov.eu/IMG/pdf/technical_annex_ro.pdf chrome-extension://oemmnadbldboiebfnladdacbfmadadm/http://www.mmediu.ro/app/webroot/uploads/files/2014-03-18_Lista_valorilor_nationale_FE_PCN-2014.pdf
Fuels	$EE_{FF,CO2}$										
Natural gas	0.202 tCO2/MWh										
Diesel	73.56 kgCO2/GJ or 0.264816 tCO2/MWh										
Gasoline	71.62 kgCO2/GJ or 0.257832 tCO2/MWh										
LFO	74.08 kgCO2/GJ or 0.266688 tCO2/MWh										
Project emissions (PE_y) <table border="1"> <tr> <th>Year</th> <th>PE_y</th> </tr> <tr> <td>2016</td> <td>17,889.49 tCO2e</td> </tr> <tr> <td>2017</td> <td>20,053.10 tCO2e</td> </tr> <tr> <td>2018</td> <td>1,696.30 tCO2e</td> </tr> </table>	Year	PE_y	2016	17,889.49 tCO2e	2017	20,053.10 tCO2e	2018	1,696.30 tCO2e	As per para 32 of the applied methodology, Project emissions include emissions for energy use at recycling facility and emissions associated with the use of the recycled material in the manufacturing facility. For project activities of Case B, project emissions are calculated using equation (5). $PE_y = \sum \{Q_{i,y} \times [(EC_{i,y} + SEC_{P,i}) \times EF_{el,y} + FC_{i,y} \times NCV_{FF} \times EF_{FF,CO2}]\}$		
Year	PE_y										
2016	17,889.49 tCO2e										
2017	20,053.10 tCO2e										
2018	1,696.30 tCO2e										
Leakage (LE_y) <table border="1"> <tr> <th>Year</th> <th>LE_y</th> </tr> <tr> <td>2016</td> <td>0 tCO2e</td> </tr> <tr> <td>2017</td> <td>0 tCO2e</td> </tr> <tr> <td>2018</td> <td>0 tCO2e</td> </tr> </table>	Year	LE_y	2016	0 tCO2e	2017	0 tCO2e	2018	0 tCO2e	As per para 31 of the applied methodology, if it is demonstrated that organic biogenic waste segregated in the recycling facility would otherwise have been deposited in a landfill without methane recovery in the baseline scenario, or if the baseline scenario is the incineration of the wastes, then no leakage calculation is required. Since PP is not collecting any biogenic waste in the recycling facility, leakage is zero.		
Year	LE_y										
2016	0 tCO2e										
2017	0 tCO2e										
2018	0 tCO2e										
Emission reduction achieved by the project activity (ER_y) <table border="1"> <tr> <th>Year</th> <th>ER_y</th> </tr> <tr> <td>2016</td> <td>45,380 tCO2e</td> </tr> <tr> <td>2017</td> <td>58,384 tCO2e</td> </tr> <tr> <td>2018</td> <td>4,519 tCO2e</td> </tr> <tr> <td>Total</td> <td>108,283 tCO2e</td> </tr> </table>	Year	ER_y	2016	45,380 tCO2e	2017	58,384 tCO2e	2018	4,519 tCO2e	Total	108,283 tCO2e	As per para 36 of the applied methodology, the emission reductions achieved by the project activity shall be determined as the difference between the baseline emissions and the project emissions and leakage. As per equation 9 of the applied methodology, $ER_y = BE_y - PE_y - LE_y$ The verification team reviewed the Official letter from Environment Ministry, Romania to Greentech (no. 35036 from 25th January 2018) for confirming AAU units. The Ministry confirmed the fact that there are no AAUs in the national account, and therefore there is no double counting once GS-VERs are issued.
Year	ER_y										
2016	45,380 tCO2e										
2017	58,384 tCO2e										
2018	4,519 tCO2e										
Total	108,283 tCO2e										
Intrinsic Viscosity for R-PET = 0.78 to 0.81 dl/g	Ex-ante estimation: As per the PDD, it is measured for every batch of polymerization. It is sourced from the technical specification^{/17/} of R-PET.										

(monitoring parameter No 5)	During monitoring: As per para 7e of the applied methodology, for recycling of PET, the PP shall demonstrate the chemical equivalence of the recycled PET to that of PET made from virgin inputs by the comparison of intrinsic viscosities to ensure that the recycled PET replaces virgin inputs. The verification team has reviewed the technical specification of virgin PET is 0.8 ± 0.02 dl/g. As per applied methodology, it should be measured every batch of polymerization. The Testing method for determining Intrinsic viscosity is as per ASTM D 4603 "Standard test method for determining Viscosity of Polyethylene Terephthalate" for PET. The verification team has reviewed the technical report and the value for R-PET is measured by ASTM D 4603. Hence accepted. The verification team has reviewed the viscosity for each month for the years 2016 to 2018
-----------------------------	--

Appendix 6. Sustainable Development Assessment

Sustainable Development Assessment	The verification team has verified the Sustainable Development Assessments with respect to the validity of the updated baseline. The verification team has checked any necessary revision in the scores of the Sustainable Development indicator if baseline is updated. The verification team has also checked sustainable development indicators with respect to the level of risk associated with the eleven Safeguarding Principles of the Do-No Harm Assessment (DNHA). The verification opinion of the same is detailed below.
1.The project respects internationally proclaimed human rights including dignity, cultural property and uniqueness of indigenous people. The project is not complicit in Human Rights abuses. Conclusion: low risk http://www.ilo.org/dyn/normlex/en/f?p=1000:11200:14467954220003:::P11200_INSTRUMENT_SORT:3 https://en.wikipedia.org/wiki/Declaration_on_the_Rights_of_Indigenous_Peoples	Romania has ratified the international conventions^{/46/} for the protection of Human rights and Fundamental freedoms as amended by protocols No 11 and 14. With Romania signatory to this convention framed by members of council of Europe dated 10th December 1948. The verification team has observed that Romania has also endorsed United Nations Declaration^{/46/} on the Rights of Indigenous Peoples (61/295) dated 13th December 2007. This convention states that the primary duties of the State are: to defend national sovereignty; Ensuring the full exercise of human rights; Protect the population from threats to their security; And promote the general welfare that is based on justice and on the integral and balanced development of the Nation. It is also the duty of the State to establish and implement border policy and promote integration, particularly in their country, as well as the development and cohesion of border areas, in accordance with foreign policy. The verification team has interviewed the staffs at the site and they seemed to have understood that the rights of indigenous peoples, as well as their rights to culture, identity, language, employment, health, education and other issues. They understood that indigenous peoples are also equal to all other peoples. However, there are no indigenous people located inside the project area as evident from interview with local authority of Buzau. During the onsite, the verification team has observed that the project activity is installed in inhabitant area where there is no impact of the human existence. The people interviewed by the verification team, had a positive opinion on the project and are welcome to such projects. PP has established communication mechanism through which human abuse is avoided by seeking possible actions. As such there is no risk involved and therefore the project does not violate this safeguarding principle.
2.The project does not involve and is not complicit in involuntary resettlement. Conclusion: low risk https://en.wikipedia.org/wiki/International_Covenant_on_Economic_Social_and_Cultural_Rights	The verification team has reviewed the approval^{/47/} of buying the private land for fiber plant dated 12th August 2016 and confirmed that there was no involuntary resettlement. In accordance with Article 1 of the International Covenant^{/47/} on economic, Social and Cultural Rights, the project does not complicit in involuntary resettlement. Romania has signed this Covenant on 27th June 1968 and ratified on 9th December 1974. During the onsite, the verification team has observed that the project activity is installed in faraway place where there are no households and there is no impact of the human existence and there is no displacement of people at all. The same was confirmed with the people interviewed. As such there is no risk involved and therefore the project does not violate this safeguarding principle.

3.The project does not involve and is not complicit in the alteration, damage or removal of any critical cultural heritage Conclusion: low risk	Romania is committed to compliance to International Covenant on Economic, Social and Cultural Rights. During the onsite, the verification team has observed that the project activity is installed in a place where is no cultural heritage and there is no risk of alternation, damage or removal of such heritages. As such there is no risk involved and therefore the project does not violate this safeguarding principle.
4.The project respects the employees' freedom of association and their right to collective bargaining and is not complicit in restrictions of these freedoms and rights Conclusion: low risk http://www.ilo.org/dyn/normlex/en/f?p=1000:11200:14467954220003:::P11200_INSTRUMENT_SORT:3	Romania is a party to International Labour Organisation and forming employee associations is commonly practiced in the host country. The verification team has reviewed the ILO website^{/46/} and observed that Romania has ratified all the 8 ILO fundamental conventions. The details are 1. Freedom of Association and Protection of the Right to Organize Convention, 1948 (No. 87) (Date of ratification by Romania: on 28th May 1957) 2. Right to Organize and Collective Bargaining Convention, 1949 (No. 98) (on 26th Nov 1958) 3. Forced Labour Convention, 1930 (No. 29) (on 28th May 1957) 4. Abolition of Forced Labour Convention, 1957 (No. 105) (3rd August 1998) 5. Minimum Age Convention, 1973 (No. 138) (on 19th Nov 1975) 6. Worst Forms of Child Labour Convention, 1999 (No. 182) (on 13th Dec 2000) 7. Equal Remuneration Convention, 1951 (No. 100) (on 28th May1957) 8. Discrimination (Employment and Occupation) Convention, 1958 (No. 111) (on 6th June 1973) The verification team has interviewed the staff employed by the PP and following are confirmed. The staff employed is employed by a contract by which they are free to form an association and there is no restriction on their part for collective bargaining. The contract^{/49/} has provision for the identity of the parties, the place of work, the title, grade, nature or category of the work for which the employee is employed or a brief description thereof, the date of commencement of the contract, the amount of paid leave to which the employee is entitled or, failing that, the procedures for allocating and determining such leave, the length of periods of notice, information regarding the salary and the frequency of its payment and working hours: daily or weekly and the collective agreements governing the conditions of employment. They are provided with sufficient holidays (5 weeks per year) with 40 working hours per week, good work place. The staffs are happy about annual increments in salary/ annual bonuses etc. One staff member conveyed to the verification team that he was proud to be associated with PP.

5.The project does not involve and is not complicit in any form of forced or compulsory labour Conclusion: low risk	The verification team has reviewed the ILO website^{/46/} and observed that Romania has ratified all the 8 ILO fundamental conventions. The details are 1. Freedom of Association and Protection of the Right to Organize Convention, 1948 (No. 87) (Date of ratification by Romania: on 28th May 1957) 2. Right to Organize and Collective Bargaining Convention, 1949 (No. 98) (on 26th Nov 1958) 3. Forced Labour Convention, 1930 (No. 29) (on 28th May 1957) 4. Abolition of Forced Labour Convention, 1957 (No. 105) (3rd August 1998) 5. Minimum Age Convention, 1973 (No. 138) (on 19th Nov 1975) 6. Worst Forms of Child Labour Convention, 1999 (No. 182) (on 13th Dec 2000) 7. Equal Remuneration Convention, 1951 (No. 100) (on 28th May1957) 8. Discrimination (Employment and Occupation) Convention, 1958 (No. 111) (on 6th June 1973) The verification team has understood that by ratifying the conventions, the host country is committed themselves to applying the convention in national law and practice. By these convections, forced or compulsory labour is abolished in Romania. The verification team has reviewed the contracts. All the staffs are contracted which does not involve forced or compulsory labour. The interview with the staff confirms this. As such there is no risk involved and therefore the project does not violate this safeguarding principle.
6.The project does not employ and is not complicit in any form of child labour Conclusion: low risk	The verification team has reviewed the ILO website^{/46/} and observed that Romania has ratified all the 8 ILO fundamental conventions. The details are 1. Freedom of Association and Protection of the Right to Organize Convention, 1948 (No. 87) (Date of ratification by Romania: on 28th May 1957) 2. Right to Organize and Collective Bargaining Convention, 1949 (No. 98) (on 26th Nov 1958) 3. Forced Labour Convention, 1930 (No. 29) (on 28th May 1957) 4. Abolition of Forced Labour Convention, 1957 (No. 105) (3rd August 1998) 5. Minimum Age Convention, 1973 (No. 138) (on 19th

	Nov 1975) 6. Worst Forms of Child Labour Convention, 1999 (No. 182) (on 13th Dec 2000) 7. Equal Remuneration Convention, 1951 (No. 100) (on 28th May 1957) 8. Discrimination (Employment and Occupation) Convention, 1958 (No. 111) (on 6th June 1973) Romania is a party to International Labour Organisation and child labour is illegal in the host country. The minimum legal age for employment is 16 in Romania. All the staff are grown up people and there is no child labour involved. As such there is no risk involved and therefore the project does not violate this safeguarding principle.
--	---

7.The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis. Conclusion: low risk	Equal Remuneration Convention, 1951 (No. 100) (on 28th May 1957) by which discrimination in any form is abolished in the host country. The staffs employed by the PP are local people. Romania has also ratified Maternity Protection convention, 2000 (No 183) on 23rd October 2002. The period of maternity leave in Romania is 126 calendar days. This ensures that there is no discrimination based on gender, race, religion, sexual orientation or any other basis. The verification team, based on review and interview, observed that PP has also employed female staffs who have been provided with maternity leave etc. Maternity leave is granted for all female employees, Women workers are entitled to 14 weeks of maternity leave: 49 days of prenatal leave and 49 days postnatal leave. These rights are not negotiated irrespective of the position one is holding. The verification team has reviewed the contracts of staffs^{/49/} and accepted the same as correct. As such there is no risk involved and therefore the project does not violate this safeguarding principle.				
8.The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work environments. Conclusion: low risk Legislation referred	Each staff member is provided with all the necessary personal protective equipments (PPE) among other items. PPE is designed to help minimize exposure to inherent system hazards and to identify potential hazards to the process of selecting the appropriate PPE for the task at hand. Each staff member is provided with all the necessary personal protective equipment (PPE). As such there is no risk involved and therefore the project does not violate this safeguarding principle.				
<table border="1"> <tr> <td data-bbox="145 1048 209 1749">1.</td><td data-bbox="209 1048 759 1749"> EUROPEAN Waste Legislation A. Framework European Union legislation on waste 1. Waste Framework Directive- Directive 2008/98/EC 2. Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste. 3. Decision 2000/532/EC establishing a list of wastes 4. Commission Decision (EU) No 2014/955/EU of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council 5. Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives </td></tr> <tr> <td data-bbox="145 1749 209 2074">2.</td><td data-bbox="209 1749 759 2074"> B. European Union legislation on waste management operations 1. Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste- Directive 2000/76/EC 2. Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste- Council Directive 1999/31/EC 3. Directive 2010/75/EU of the European </td></tr> </table>	1.	EUROPEAN Waste Legislation A. Framework European Union legislation on waste 1. Waste Framework Directive- Directive 2008/98/EC 2. Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste. 3. Decision 2000/532/EC establishing a list of wastes 4. Commission Decision (EU) No 2014/955/EU of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council 5. Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives	2.	B. European Union legislation on waste management operations 1. Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste- Directive 2000/76/EC 2. Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste- Council Directive 1999/31/EC 3. Directive 2010/75/EU of the European	The verification team has reviewed the construction permit^{/9/} for construction of PET wastes recycling plant; (area being 49,090 sq.m) provided by Directorate for Territory Arrangement and Urbanisation, Municipal Council of Romania (dated 25th October 2015 & No 62 dated 16th November 2016). The verification team has reviewed the environmental permit^{/9/} for Fiber plant (No 2 dated 3rd Janaury 2018), valid upto 3rd January 2023. The verification team has reviewed the environmental permit^{/9/} (permit no 66 of 9th April 2012, 14th August 2013, 16th January 2014, 14th April 2015, 13th July 2016, 3rd February 2017 and 29th August 2017) provided by Environmental Authority and the Environment Protection Agency, Buzau based on the Government decision no 19/2017. The verification team has reviewed the environmental permit^{/9/} for R-PET valid until 27th October 2019 (permit no 233 of 27th October 2014, revised on 4th April 2016 and on 3rd February 2017) provided by Environmental Authority and the Environment Protection Agency, Buzau based on the Government decision no 19/2017. The verification team has reviewed the latest fire fighters permit^{/9/} (No 6/17/SU-BZ dated 20th January 2017, No 237/16/SU-BZ dated 22nd June 2016, No 187/14/SU-BZ dated 19th August 2014) and accepted the same. The permits are based on provisions of article 11 from the Governmental Decision no. 149212004 on the principles of organization, operation and attributions of professional emergency services, Law no. 30712006
1.	EUROPEAN Waste Legislation A. Framework European Union legislation on waste 1. Waste Framework Directive- Directive 2008/98/EC 2. Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste. 3. Decision 2000/532/EC establishing a list of wastes 4. Commission Decision (EU) No 2014/955/EU of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council 5. Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives				
2.	B. European Union legislation on waste management operations 1. Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste- Directive 2000/76/EC 2. Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste- Council Directive 1999/31/EC 3. Directive 2010/75/EU of the European				

	Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control)- Directive 2010/75/EU	on fire prevention, modifications and complements subsequent, and Government Decision no. 173912005. with amendments and complements.
3.	C. European Union legislation on specific waste streams - Packaging and Packaging Waste 1. European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste- Council Directive 94/62/EC 2. Directive 2004/12/EC of the European Parliament and of the Council of 11 February 2004 amending Directive 94/62/EC on packaging and packaging waste- Directive 2004/12/EC 3. Directive 2005/20/EC amending Directive 94/62/EC on packaging and packaging waste (extension of deadlines for the attainment of the recycling and recovery targets for the Member States acceding the EU in 2004)- Directive 2005/20/EC 4. Regulation (EC) No 219/2009 adapting a number of instruments subject to the procedure referred to in Article 251 of the Treaty to Council Decision 1999/468/EC with regard to the regulatory procedure with scrutiny 5. Commission Directive 2013/2/EU amending Annex I to Directive 94/61/EC on packaging and packaging waste 6. Directive (EU) 2015/720 of the European Parliament and of the Council of 29 April 2015 amending Directive 94/62/EC as regards the consumption of lightweight plastic carrier bags	The verification team has reviewed the latest local permit^{9/} from Tintesti Local Council, Buzau county (No 21 dated 25th March 2016). The verification team has reviewed the latest sanitary company contract^{9/} (No 60 dated 25th February 2008 by SC RER SERVICII ECOLOGIE SRL). The verification team has reviewed the EFSA approval^{9/} and observed that as per Commission Regulation (EC) No 282/2008 dated 21st March 2008 on recycled plastic materials intended to come into contact with foods, European Food Safety Authority (EFSA) is requested to evaluate processes for recycling plastic waste. In this context, the EFSA Panel on Food Contact Materials, Enzymes, Flavourings and Processing Aids (CEF Panel) evaluated the Greentech. The Panel considered that all processes are well characterised and the main steps used to recycle PET flakes into decontaminated PET pellets have been identified. Having examined the challenge test provided, the Panel concluded that the decontamination in the continuous reactor is the critical step for the decontamination efficiency of the processes. The operating parameters which control performance are temperature, pressure and residence time. Therefore, the panel considered that the recycling processes Greentech is able to reduce any foreseeable accidental contamination of the post-consumer food contact PET to a concentration that does not give rise to any concern regarding a risk to human health if 1) they are operated under conditions that are at least as severe as those obtained from the challenge test used to measure the decontamination efficiency of the processes 2) the input is washed and dried post-consumer PET flakes originating from materials and articles that have been manufactured in accordance with the Community legislation on food contact materials containing no more than 5 % of PET from non-food consumer applications. 3) the final bottles manufactured from the recycled pellets contain up to 100 % recycled post-consumer PET when produced in Greentech 4) the final thermoformed trays and containers manufactured from the recycled pellets and not used for packaging water contain up to 100 % recycled post-consumer PET when produced by Greentech. Therefore, the Panel concluded that the recycled PET obtained from the processes Greentech, intended to be used for the manufacture of bottles for contact with all types of foodstuffs and for the manufacture of thermoformed trays and containers for contact with all types of foodstuffs except packaged water, is not considered of safety concern when final articles are manufactured with no more than the percentage of recycled post-consumer PET specified above. The verification team has reviewed list of risks and its controls with local legal regulations and accepted the same.
4.	ROMANIAN Waste Legislation A. Framework Romanian legislation on waste 1. Legea Nr. 211 din 15 noiembrie 2011 privind regimul deșeurilor - republicata/Law No.. 211 of 15 November 2011 on waste- Transpose The Waste Framework Directive	
5.	B. Romanian legislation on waste management operations 1. Decizia 2003/33 privind stabilirea criteriilor și procedurilor pentru acceptarea deșeurilor la depozite ca urmare a art. 16 si anexei II la Directiva 1999/31/CE- Transpose The Landfill Directive 2. Hotararea Guvernului 349/2005 privind depozitarea deseurilor, modificata si completata prin HG 210/2007- Transpose The Landfill Directive 3. Legea 278/2013 privind emisiile industriale/Law Nr. 278/2013 on industrial emissions- Transpose Directive 2010/75/EU on The Incineration of Waste	
6.	C. Romanian legislation on specific waste streams - Packaging and Packaging	

	Waste 1. Romanian legislation on specific waste streams - Packaging and Packaging Waste- Transpose The Packaging and Packaging Waste Directive	
--	---	--

9.The project takes a precautionary approach in regard to environmental challenges and is not complicit in practices contrary to the precautionary principle. Conclusion: low risk	During onsite visit, the verification team has checked the project is located in inhabitant area in private land. Therefore, the project and its activities is not affecting livelihood of people. The verification team has also checked that, there are no crops or affected households/people or tribal people living along the project area. Since the project was approachable by existing roads, no road construction was required by the project construction. The same was confirmed by the verification team during onsite visit. The verification team has concluded that the project is environmentally safe one. As such the project is not complicit in practices contrary to the precautionary principle. As such there is no risk involved and therefore the project does not violate this safeguarding principle.
10.The project does not involve and is not complicit in significant conversion or degradation of critical natural habitats, including those that are (a) legally protected, (b) officially proposed for protection, (c) identified by authoritative sources for their high conservation value, or (d) recognized as protected by traditional local communities Conclusion: low risk	The verification team has observed that the project is not located in the natural high conservation areas, protected area or areas protected by local communities. As such there is no risk involved and therefore the project does not violate this safeguarding principle.
11.The project does not involve and is not complicit in corruption. Conclusion: low risk https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtmsg_no=XVIII-14&chapter=18&clang=en https://www.google.co.in/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwjgpbnhqZHbAhUKOo8KHWSoAt4QFgggtMAE&url=https%3A%2F%2Fwww.unodc.org%2Fdocuments%2Ftreaties%2FUNCAC%2FWorkingGroups%2FImplementationReviewGroup%2F2-6June2014%2FPanelPresentations%2FRomania%2FPresentation_on_whistleblowers.pdf&u sg=AOvVaw1g6eyhlQUK_cPYdQ9HVy6v	Romania ratified the United Nations Convention^{750/} Against Corruption in 2nd November 2004. There was no evidence of corruption involved as far as the project is concerned. The Romanian Congress approved the Implementation of article 33 in the Romanian legislation and Whistle-blower protection act (571/2004) in 2004. The law helps Romania in meeting its commitments under the OECD Anti-Bribery Convention. It bolsters the country's enforcement regime and creates corporate liability, administrative liability and criminal liability for the defaulters. The verification team has reviewed the payment history to the workers and confirmed that there is no corruption involved in the project activities, payments to the employees etc. by the PP. As such there is no risk involved and therefore the project does not violate this safeguarding principle.
Sustainable development matrix assessment	The verification team has assessed the scores of the Sustainable Development indicators depending on the baseline which can lead to a revision of the sustainable development monitoring plan. The verification team has also assessed the changes in the scores of the twelve sustainable development indicators as per the sustainable development assessment guidance. The verification opinion of the same is detailed below.
1- Air quality Score = Negative Chosen parameter:	The performance of the project with respect to sustainability indices and how the project contributes to the sustainability development is undertaken and verification of conformance of indices to the Gold standard version 2.2 is detailed below.

- Outside ambient emissions measurement (CO, NOx, SO2, O2, dust at chimney)
- Inside emissions (dust and NaOH);
- Inside air humidity (%)
- Inside air temperature (Celsius)
- Inside air currents speed (m/s)

(monitored parameter 6)

Air quality test:

S. No	Date of execution of air quality test/conducted by
1.	Test report no. 711 conducted by SC Lajedo SRL, Environmental Analysis laboratory dated 14 th April 2017

Standard used = SR ISO 10396/2008 Ord. MAPPM 462/1993 PSL - 12

As per the passport, Ambient outside emissions analysis and inside emissions analysis would be monitored in the authorized laboratories at project sites every three years. The verification team has interviewed the employees and neighbours during the visit and confirmed that air quality has improved due to the project activity. The mitigation measures taken by the PP are Ventilation systems, exhauster installation system, air protection masks for the employees. The verification team has witnessed these measures at the site. The employees and neighbours are happy that there is no harm to the air quality. The verification team has reviewed the air quality tests^{/51/} conducted at NG based steam boiler dated 14th April 2017 (Test report no. 711/ 14.04.2017). The report indicates that CO, SOx, NO2, O2, temperature, relative humidity etc. The verification team has reviewed the air quality tests (refer left side) and confirmed the values are within the permissible levels and the high quality of air consumed by the employees working there.

This shows the positive impact of the project activity towards sustainability development, hence accepted by the **verification** team.

2. Water quality and quantity Score =Negative Chosen parameter: 1. Quality of the used water (pH, suspended dust, colours, phosphates, total azote etc.) and 2. Output used water (monitored parameter 7) Water quality tests: <table border="1"> <thead> <tr> <th>S. No</th> <th>Date of execution of water quality test/conducted by</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>17th Feb 2016 to 24th Feb 2016; done by Department of pollution control, Romania</td> </tr> <tr> <td>2.</td> <td>11th April 2016 to 19th April 2016; done by Department of pollution control, Romania</td> </tr> <tr> <td>3.</td> <td>13th June 2016 to 23rd June 2016; done by Department of pollution control, Romania</td> </tr> <tr> <td>4.</td> <td>8th August 2016 to 12th August 2016; done by Department of pollution control, Romania</td> </tr> <tr> <td>5.</td> <td>10th October 2016 to 17th October 2016; done by Department of pollution control, Romania</td> </tr> <tr> <td>6.</td> <td>12th December 2016 to 19th December 2016; done by Department of pollution control, Romania</td> </tr> <tr> <td>7.</td> <td>14th February 2017 to 20th February 2017; done by Department of pollution control, Romania</td> </tr> <tr> <td>8.</td> <td>19th April 2017 to 26th April 2017; done by Department of pollution control, Romania</td> </tr> <tr> <td>9.</td> <td>12th June 2017 to 19th June 2017; done by Department of pollution control, Romania</td> </tr> <tr> <td>10.</td> <td>9th August 2017 to 18th August 2017; done by Department of pollution control, Romania</td> </tr> <tr> <td>11.</td> <td>17th October 2017 to 23rd October 2017; done by Department of pollution control, Romania</td> </tr> <tr> <td>12.</td> <td>12th December 2017 to 19th December 2017; done by Department of pollution control, Romania</td> </tr> </tbody> </table> Test reports for used water: • Test report no. 496/ AI din 25.02.2016 • Test report no. 1258/ AI din 19.04.2016 • Test report no. 2056/ AI din 23.06.2016 • Test report no. 2784/ AI din 16.08.2016 • Test report no. 3563/ AI din 17.10.2016 • Test report no. 4454/ AI din 19.12.2016 • Test report no. 482/ AI din 20.02.2017 • Test report no. 1295/ AI din 26.04.2017	S. No	Date of execution of water quality test/conducted by	1.	17 th Feb 2016 to 24 th Feb 2016; done by Department of pollution control, Romania	2.	11 th April 2016 to 19 th April 2016; done by Department of pollution control, Romania	3.	13 th June 2016 to 23 rd June 2016; done by Department of pollution control, Romania	4.	8 th August 2016 to 12 th August 2016; done by Department of pollution control, Romania	5.	10 th October 2016 to 17 th October 2016; done by Department of pollution control, Romania	6.	12 th December 2016 to 19 th December 2016; done by Department of pollution control, Romania	7.	14 th February 2017 to 20 th February 2017; done by Department of pollution control, Romania	8.	19 th April 2017 to 26 th April 2017; done by Department of pollution control, Romania	9.	12 th June 2017 to 19 th June 2017; done by Department of pollution control, Romania	10.	9 th August 2017 to 18 th August 2017; done by Department of pollution control, Romania	11.	17 th October 2017 to 23 rd October 2017; done by Department of pollution control, Romania	12.	12 th December 2017 to 19 th December 2017; done by Department of pollution control, Romania	As per the passport, water quality analysis⁷⁵¹⁷ would be monitored in the authorized laboratories at project sites every three years. The Verification team has reviewed the legislative requirements on the water quality and quantity conditions: Law no. 265/2006 on the environment protection; HG no. 188/2002 on the approval of the norms regarding the conditions of discharging in the aquatic environment of the used waters; The Law of the Waters no. 107/1996. The verification team has also reviewed the fresh water permit (No 6 dated 13th February 2018) valid until 15th February 2021. The verification team has also reviewed the used water sewage permit (No 34 dated 28th June 2017). As per the passport, Quality of the used water (pH, suspended dust, colours, phosphate, total azote etc) and Output used water would be monitored in the authorized laboratories at project sites every three years. The verification team has interviewed the employees and neighbours during the visit and confirmed that water quality has improved due to the project activity. The verification team has witnessed these measures at the site. The employees and neighbours are happy that there is no harm to the water quality. The verification team has reviewed the water tests (refer left side) and confirmed the values are within the permissible levels and the high quality of water/used water. The verification team has reviewed the used water test report. The sample is taken from water treatment station mud. The test report indicates pH, humidity, and other minerals are within the maximum limit. This shows the positive impact of the project activity towards sustainability development, hence accepted by the verification team.
S. No	Date of execution of water quality test/conducted by																										
1.	17 th Feb 2016 to 24 th Feb 2016; done by Department of pollution control, Romania																										
2.	11 th April 2016 to 19 th April 2016; done by Department of pollution control, Romania																										
3.	13 th June 2016 to 23 rd June 2016; done by Department of pollution control, Romania																										
4.	8 th August 2016 to 12 th August 2016; done by Department of pollution control, Romania																										
5.	10 th October 2016 to 17 th October 2016; done by Department of pollution control, Romania																										
6.	12 th December 2016 to 19 th December 2016; done by Department of pollution control, Romania																										
7.	14 th February 2017 to 20 th February 2017; done by Department of pollution control, Romania																										
8.	19 th April 2017 to 26 th April 2017; done by Department of pollution control, Romania																										
9.	12 th June 2017 to 19 th June 2017; done by Department of pollution control, Romania																										
10.	9 th August 2017 to 18 th August 2017; done by Department of pollution control, Romania																										
11.	17 th October 2017 to 23 rd October 2017; done by Department of pollution control, Romania																										
12.	12 th December 2017 to 19 th December 2017; done by Department of pollution control, Romania																										

- Test report no. 1989/ AI din 19.06.2017
- Test report no. 2868/ AI din 21.08.2017
- Test report no. 3726/ AI din 24.10.2017
- Test report no. 4564/1/ AI din 20.12.2017

Used water test:

S. No	Date of execution of used water quality test/conducted by
1.	29 th June 2017 to 5 th July 2017

3. Soil condition Score = Neutral	There is no impact regard to other pollutants due to this project. Hence accepted by the verification team.
4. Other pollutants Score =Negative Chosen parameter: 1. Noise pollution, measured in decibels (dB) 2. Solid waste measurements by type of waste (monitored parameter 8) Noise: Standard for noise test = Directive 89/391/CEE, Standard SR ISO 199:1996, Standard CEI 651 Maximum limit = 87 dB for jobs and 75 dB for process control cabinets. Various sections = sorting section, R-PET section, water treatment plant section etc. Light level: Standard = Ord. 508/933/2002 al MMSS, MSP Maximum level= 75-100-150-200 lux depending on the category of visual work Various sections = sorting section, R-PET section, water treatment plant section etc. Humidity level: Standard = Ord.508/933/2002 al MMSS si MSF Maximum level = Thermal comfort zone is at a relative humidity level of between 30-70% Various sections = sorting section, R-PET section, water treatment plant section etc.	The verification team has reviewed the national regulations^{/51/} on environmental protection on noise, Law no. 265/2006 on the environment protection; STAS 10009/1988 Urban acoustic, limits admitted of the noise level at the site premises; STAS 6156/1986 – Protection against the noise in civil and social-cultural constructions, limits admitted and parameters of acoustic isolation. The verification team has also reviewed the national regulations on waste: Law no. 211/2011 regarding the waste regime; Law no.249/2015 regarding packing and waste from packing; OM no. 749/2012 regarding the reporting procedure of packing and waste from packing; HG no. 856/2002 on the reporting of the waste. PP has conducted noise tests^{/51/}, light level and humidity levels in sorting section, R-PET section, water treatment plant section etc. The verification team has reviewed the noise tests conducted in 2015, 2016 and 2017 and actual value is always less than the maximum limit for jobs (87 dB) and process control cabinets (75 dB).. The verification team has observed that noise level of the transformers is less than 85 dB and is bearable for the employees living around the project activity. People interviewed do not have any issue with respect to the noise level. As such there is no negative impact. The verification team has interviewed the employees and neighbours during the visit and confirmed that soil and noise has improved due to the project activity. The verification team has witnessed these measures at the site. The mitigation measures taken by the PP are selecting machinery with low noise level during construction period. During the operation phase, noise protection ear-plugs are regularly distributed and OHSAS trainings are done quarterly. The verification team has accepted the same as reasonable.
5. Biodiversity Score =0 (neutral)	There is no impact regard to biodiversity due to this project. Also, there were no tree was cut therefore there is be no impact on the climate conditions during the construction and operation phases of the project activity. Access road was also already available for transportation of equipments and hence no harm to the environment and biodiversity as such during construction /transportation of equipments. The project is located in far way place. The project does not pose any biodiversity issues as there is no vegetation available at the project site. There is no forest near to the project activity. Since project is located in a non-migratory region, there is no harm to the birds or animals as such. Hence accepted by the verification team.
6. Quality of employment Score =Positive	As per the final passport^{/3/}, this parameter is to be monitored every year. The verification team has observed that the jobs created for the maintenance and operation of the proposed project activity are in accordance with National laws and therefore do not

Chosen parameter: Training of staff (monitored parameter 9)			present any significant negative impact in quality of employment. Even as the project provides employment to improve living standard of the employees, it is difficult to quantify and monitor the quality of employment except for training of staff. The verification team has accepted the argument of PP and training of staff is accepted as parameter for this indicator. The training records^{/52/} (refer left side) would be available as evidence every year. The verification team has accepted as reasonable. As per the passport, during the crediting period, 695 people are directly employed on yearly basis. Besides, it generates part time employment for undertaking repair and other sundry works. This was evident from the onsite visit by the verification team. This shows the positive impact of the project activity towards sustainability development, hence accepted by the verification team.
Year	Training	Number of attendees	
2013	Health & Security Inspector	1	
2013	Risks Evaluator/Assessor	1	
2013	Preventing and Extinguishing Fire	1	
2013	Logistics Management	1	
2013	Polymer Manufacturing and Processing Operator	6	
2013	Forklift driver	10	
2013	Plumber	1	
2014	Professional Competence Evaluator	1	
2014	Seminar - The Real Course of Water	1	
2014	KPI's Training	1	
2014	Seminar - Interior Trade Supplies	2	
2014	Quality Auditor	1	
2014	Standard Transition Course - ISO Audit	1	
2014	Persuasion Conference - Jordan Belford - The Wolf of Wall Street	1	
2014	Conference -Plastic Industry	2	
2014	First Aid Training	23	
2014	Transport Manager Training	1	
2014	Training on Industrial Machines- Buhler - Sortex	2	
2014	Intrastat Statement Training	1	
2014	Acquisitions Training	11	
2015	Technical Specialist - Emergency Situations	1	
2015	Chief of Emergency Situations Service	1	
2015	Boiler Worker - Heating Central	1	
2015	Environmental Responsible/Waste Management	1	
2015	Civil Protection Inspector	1	
2015	Seminar - Mud Management - Water Treatment Station	2	
2015	Waste Water Management ; New technologies for Water Treatment Stations	2	

2015	Seminar - Waste Shipment	2	
2015	First Aid Training - Refresh	24	
2015	Plumber	1	
2015	Waste-Water Treatment Operator	10	
2015	Extension Forklift Authorisation - ISCIR Authority	8	
2015	Plasting Processing Operator	9	
2015	Seminar - Chemicals - REACH European Regulation	3	
2015	Locksmith/Mechanic	6	
2015	Electrician	1	
2015	Forklift driver	24	
2015	Forklift driver	13	
2016	Locksmith/Mechanic	35	
2016	Environmental Responsible/Waste Management	1	
2016	Health & Security Inspector	1	
2016	Waste Management Training	3	
2016	Forklift driver	16	
2016	Seminar - Chemicals - REACH European Regulation	3	
2017	Forklift driver	2	
2017	First Aid Training	15	
2017	Firemen	5	
2017	Extension Boiler Worker Authorisation - ISCIR Authority	2	
2017	Extension Forklift Authorisation - ISCIR Authority	26	
2018	Forklift driver	10	

7. Livelihood of the poor Score= Positive Chosen parameter: 1. Suggestions, recommendations made by the employees 2. Claims or concerns of the employees 3. Wage Bonuses offered by the employer to the employees (monitored parameter 10)	As per the passport^{3/}, this parameter is to be monitored by HR department of PP annually. The verification team has interviewed the beneficiaries and confirmed that they were able to identify several factors that contributed to the positive outcome. The verification team accepted the view of PP that the project activity provided jobs for local poor people. Hence it has a positive impact on the livelihood of the poor. But PP preferred to score positive for this parameter which is accepted by the verification team. This shows the positive impact of the project activity towards sustainability development, hence accepted by the verification team.
8. Access to affordable and clean energy services Score =Positive Chosen parameter: Emission reduction achieved by the project activity =45,380 tCO₂e per year (monitored parameter 11)	The verification of the same is already detailed in Appendix 8 of this report. This shows the positive impact of the project activity towards sustainability development, hence accepted by the verification team.
9. Human and institutional capacity Score =Positive Chosen parameter: 1. Number of visits of school children to the plant to enhance environment education and climate change awareness. 2. Recycling programs and trainings organized with the occasion of different events and fairs (monitored parameter 12) CSR activities : 1. Interactive recycling sessions to kids encouraging recycling plant tours in 2012 to 2017. 2. Greentech enables schools and community to see the start of the art recycling in action-recycling talks and education interactive recycling sessions to kids 3. Interactive recycling sessions to kids encouraging recycling plant tours in 2015 4. Conference and congress participation exhibitions and fairs 5. Conducted an event on waste museum in Bucharest (first of its kind in Europe) in 2011 - 2012 6. Celebrating environment day with interactive sessions with kids in 2011 to 2017 7. Conducted an event Romenvirotec in Bucharest in 2011-2014 8. Conducted an event: Fach pack-trade fair for packaging solutions in 27-29/09/2016, Nuremberg 9. Event: Launching Sigurec throughout Romania in 2013-2017 10. Event: Pria environmnet conference in 08/02/2017, Bucharest	As per the passport^{3/}, this parameter is to be monitored by CSR Activities Report annually (refer left). This brings positive impact of the project activity towards sustainability development, hence accepted by the verification team.

- | | |
|---|--|
| <ul style="list-style-type: none"> 11. International conference ARS-ISWA, 30 of July-3rd June 2015, 2016, 2017 Mamaia 12. Event: Logimat-the international trade fair for distribution, materials handling and information flow in 14-17/03/2017, Stuttgart 13. Event: green city. investments in the environment for Bucharest in 06/04/2017, Bucharest 14. Event: Sigurec –Focsani blues festival in 9 – 11/09/2016, Focsani 15. Event: Sigurec –CSR in 04-07/08/2016 16. Event: Sigurec –CSR –recycling games in 12-14/08/2016 17. Event: Circular economy-waste as resources in 31/05/2016 18. Event: circular-the largest conference on the topic of circular economy in 15/04/2016, Bucharest 19. Sigurec- Initiative and innovation in collection Sigurec mobile app 20. Event: the recycling lottery in Oct 2015-March 2016 21. Event: Street delivery in 12 -14 June 2015 22. Event: Extravacanza, Mamaia in 4 -20 June 2015 23. Donation system at Sigurec 24. Various voluntary programs conducted in Romania | |
|---|--|

10. Quantitative employment and income generation Score = + Chosen parameter: 1. No. of staff employed in the project activity = 695 (292 female and 403 males; 110 officers 585 plant workers) 2. No. of local employees/total employees (monitored parameter 13) Interviewed people: 1. Alina Raduta Camelia (Human resource department) (Employee code: 28210 08100 156) 2. Daniel Baci (Sales department) (Employee code: 18604 23100 141) 3. Florin Dutca (Production department) (Employee code: 19006 25100 166) 4. Magdalena Grozea (Raw material reception – Quality control) (Employee code: 27512 30100 068)	As per the passport^{13/}, this parameter is to be monitored annually. The verification team has reviewed the staff records^{149/} & contracts of sampled staffs^{149/} (refer left side) and accepted that quality of employment has improved due to the project activity leading sustainable development in the host country. The verification team has reviewed the collective labour regulation framed by Greentech dated 2017-2019, code of conduct dated 2017 and internal regulation dated 2017. The verification team has reviewed the employee list and found 695 people were employed by PP. Based on the fact that employees are being employed due to the project activity which would be absent in the baseline scenario, the verification team has accepted that they are enjoying the quality of employment irrespective of their employment by the PP directly or not. Moreover, the PP established agreement/contract with those ensures positive quality of employment. The verification team has also interviewed the some of the employees and all conveyed immense satisfaction in their employment and even appreciated the support provided by the PP. The verification team has interviewed the staff employed by the PP and following are confirmed. The staff employed is employed by a contract by which they are free to form an association and there is no restriction on their part for collective bargaining. The contract^{177/} has provision for the identity of the parties, the place of work, the title, grade, nature or category of the work for which the employee is employed or a brief description thereof, the date of commencement of the contract, the amount of paid leave to which the employee is entitled or, failing that, the procedures for allocating and determining such leave, the length of periods of notice, information regarding the salary and the frequency of its payment and working hours: daily or weekly and the collective agreements governing the conditions of employment. They are provided with sufficient holidays (5 weeks per year) with 40 working hours per week, good work place. The staffs are happy about annual increments in salary/annual bonuses etc. One staff member conveyed to the verification team that he was proud to be associated with PP. This brings positive impact of the project activity towards sustainability development, hence accepted by the verification team.
11. Balance of payments and investment Score = Positive Chosen parameter: 1. Plastic imported 2. Plastic saved/recycled from the project 3. Foreign exchanged saved (monitored parameter 14)	The project activity does not have negative impact on balance of payments and investment but have tangible positive impact on balance of payments and investment by saving the foreign exchange. Hence the score is positive. The verification team has accepted the same.
12. Technology transfer and technological self-reliance Score = neutral	As project technology is sourced primarily from inside the country, the score is kept as zero as a conservative approach.

- - - - -

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
02.1	11 January 2018	Editorial revision to correct the numbering of appendices in the instructions.
02.0	31 October 2017	Revision to align with the requirements of the “CDM validation and verification standard for project activities” (version 01.0).
01.0	23 March 2015	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: project activities, verifying and certifying		