

# Preliminary Assessment Public Summary

This *Preliminary Assessment Public Summary*, prepared by Puro.earth, contains general information about the CO<sub>2</sub> Removal Supplier and its project, as evaluated at the time of the Preliminary Assessment. It also includes a *Non-Technical Project Summary* and a *Criteria Assessment Report* detailing: i) key criteria assessed and their associated outcomes, ii) Puro's comments, and iii) evidence provided by the CO<sub>2</sub> Removal Supplier.

The *Preliminary Assessment Public Summary* serves as a transparent communication tool, enabling potential investors, buyers, and stakeholders to quickly understand the supplier's carbon removal capabilities and assessment status.

The supplier has also received an extended *Preliminary Assessment Report*. This confidential document offers in-depth insights, including specific remarks and actionable recommendations to guide the Supplier's progression through the certification journey.

## 1. Supplier and Project Information

CO <sub>2</sub> Removal Supplier*	
Company name	Tigasfera Greentech Sdn Bhd
Company address	L10-03, Tower 2, Wangsa 118, No. 8, Jalan Wangsa Delima, Wangsa Maju, 53300 Kuala Lumpur – Malaysia
Business ID	202301008522
KYC status	Completed
CO <sub>2</sub> Removal Project*	
Methodology	Biochar, Edition 2022/2025
Production Facility name	Facility 1: Bukit Damar I-CARE Facility 2: Putrajaya I-CARE Facility 3: Wood Factory Waste Facility
Facility registration date	July 10, 2025
Production Facility ID	Facility 1: 530515 Facility 2: 322774 Facility 3: 645636
Production Facility location	Facility 1: Lot.226, Jalan 3/6, Bukit Damar, Dengkil 43800 Sepang, Selangor – Malaysia Facility 2: Tapak Nursery Taman Wetland Putrajaya, Presint 13 62300 Wilayah Persekutuan, Putrajaya – Malaysia Facility 3: 11, Jalan 8, Kawasan Perindustrian, Kampung Olak Lempit 42700 Banting, Selangor – Malaysia
Host Country of removal	Malaysia
Has this facility been registered in another registry?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, additional information:
Preliminary Assessment Details	
Date of assessment	March 06, 2026
Status of assessment	Final
Conclusion of assessment	Passed

\* The definition of CO<sub>2</sub> Removal Supplier and Production Facility can be found in Puro's Standard General Rules.

## 2. Non-Technical Project Summary\*\*

Tigasfera Greentech's Biochar Carbon Removal project comprises three decentralized, community-based biochar production facilities in Malaysia. Each facility is deployed in a modular 40-foot container and designed as a closed-loop system integrating pyrolysis and gasification technologies. Biomass waste from landscaping and agricultural activities is converted into engineered biochar, enabling long-term and permanent carbon sequestration.

The system also generates renewable off-grid electricity from syngas using gasification and Stirling engine modules, supported by a Battery Energy Storage System (BESS) to ensure stable and continuous operation. Waste heat and flue gases are recovered and reused within the system, including for feedstock drying and process heat, maximizing energy efficiency and minimizing emissions while reducing reliance on external energy inputs.

The biochar produced is intended for a range of long-lived and beneficial applications, including soil amendment, cultivation substrates, animal feed additives, construction materials, and incorporation into cold mix asphalt. By diverting biomass from open burning, decay, and landfilling, the project avoids emission-intensive disposal pathways and delivers durable carbon removals.

The three initial project sites form part of a broader scaling strategy, with the containerized, decentralized design enabling replication across the country and regional markets. By operating within local communities, the facilities foster engagement and collaboration with stakeholders to ensure long-term sustainability. This approach not only supports local waste management, renewable energy generation, and circular economy practices, but also contributes to Malaysia's transition toward net-zero greenhouse gas emissions.

\*\* Filled by the Supplier. Between 150-300 words

### 3. Criteria Assessment Report

Reminder: Sub-criteria either concern the Production Facility’s technical eligibility or its maturity and quality. There are three types of sub-criteria:

- **Required to be passed:** These correspond to the core criteria related to the eligibility of a Production Facility. Suppliers must meet these criteria, as they may otherwise be impossible or costly to change at a later stage of the certification journey.
- **Required to be assessed:** These criteria are important for evaluation but do not necessarily determine pass or fail at this stage, as it is understood that the suppliers may be at different stages of development.
- **Not required:** These criteria are optional at this stage. They may provide additional information about the project maturity but are not essential for passing the preliminary assessment.

For a facility to be considered eligible for listing, all the sub-criteria that condition eligibility must be met (i.e. passed or assessed). If one of those sub-criteria is not met, the facility in its current state of development is not eligible for listing.

Disclaimer: The assessment has been made against the criteria in the current version of the methodology. Puro.earth relied on the CO<sub>2</sub> Removal Supplier for the correctness of the provided information during the time of the preliminary assessment and will make no representation as to the accuracy or completeness of this report. The CO<sub>2</sub> Removal Supplier must undergo a third-party audit before issuing CO<sub>2</sub> Removal Credits (CORCs). **Passing the Preliminary Assessment does not guarantee a success in the third-party audit.**

**Important Notice Regarding Biochar Methodology Update:** This Preliminary Assessment has been conducted against Edition 2022, but to some extent, reflected some important changes in the updated Biochar Methodology – Edition 2025.

**Overall evaluation:** Preliminary Assessment is: **Passed**

Table 1. Criteria and sub-criteria assessment by Puro based on the documents submitted.

ID	Criteria / Sub-criteria	Outcome	Comment	Evidence reviewed	Requirement for listing	Purpose of criteria
c1	Planned biomass feedstock(s) is(are) eligible	Passed			<i>Passed if required sub-criteria are met</i>	
c1.1	<i>Biomass feedstocks are identified and compatible with EBC positive list</i>	Passed	The Supplier has identified multiple biomass feedstocks for its three Production Facilities.  <b>Bukit Damar I-CARE &amp; Putrajaya I-CARE</b> Feedstocks include wood waste from municipal landscaping activities (S-05 and/or R-01, to be clarified for the audit), as well as agricultural residues (Ag-05 or N-02, to be clarified for the audit) and perennial	Biochar Carbon Removal Project Information_Tigasfera_Rev1.pdf; Type of Waste & Information on Putrajaya_Tigasfera	Required to be passed	Technical eligibility

			<p>energy crops (Ag-02). These biomass types are compatible with the EBC/WBC Positive List of Feedstock.</p> <p><b>Wood Factory Waste Facility</b> Feedstocks include waste wood from production of wooden doors and cable reels (R-03 and/or R-04, to be clarified for the audit) and wood residues from mechanical processing (F-03). These biomass types are compatible with the EBC/WBC Positive List of Feedstock.</p>			
C1.2	<i>Biomass feedstock sustainability and chain-of-custody can be demonstrated, if applicable</i>	Passed	<p><b>Bukit Damar I-CARE &amp; Putrajaya I-CARE</b> The Supplier has identified multiple local feedstock sources for wood waste from municipal landscaping activities, in the Selangor and Putrajaya, Malaysia, through a partnership with a local biomass provider. While certification is not required for any identified feedstock type for these two Facilities, it must still be sourced using sustainable, legal, and safe working practices. Comprehensive record-keeping will be required for the audit, especially owing to the multiplicity of feedstock types.</p> <p><b>Wood Factory Waste Facility</b> End-of-life wood materials (R-03 and/or R-04) do not require certification; however it must still be sourced using sustainable, legal, and safe working practices. For wood residues (F-03), the Supplier plans to demonstrate sustainability through FSC and/or PEFC certification of the supplying wood-processing facilities. Comprehensive record-keeping will be required for the audit.</p>	Biochar Carbon Removal Project Information_Tigasfera, Feedstock Supply Agreement_Tigasfera, Putrajaya Letter of Award_Tigasfera, Type of Waste & Information on Putrajaya_Tigasfera	Required to be passed	Technical eligibility
C1.3	<i>Bioenergy leakage related to feedstock use is minimal</i>	Assessed	<p><b>Bukit Damar I-CARE &amp; Putrajaya I-CARE</b> Feedstocks are locally and sustainably sourced from landscaping and agricultural operations. According to the Supplier, they would not otherwise be used for energy production and would instead be left to decay, sent to landfills, or illegally dumped at unauthorized sites. Feedstock use is this not expected to result into bioenergy leakage.</p> <p><b>Wood Factory Waste Facility</b> According to the Supplier, end-of-life wood materials and wood residues are currently left to decay or sent to landfills. In some cases, they may also be combusted in boilers for energy production or sold to recyclers. If these practices represent baseline uses rather than alternative scenarios, the current Biochar Methodology – Edition 2022 identifies potential bioenergy and other market/activity-shifting</p>	Puro Environmental and Social Safeguards_Tigasfera, Biochar Carbon Removal Project Information_Tigasfera	Required to be assessed	Technical eligibility

			leakage risks. <i>Under the forthcoming Biochar Methodology – Edition 2025, such risks will need to be assessed more rigorously and may not be deemed mitigated.</i>			
c1.4	<i>Land use change related to feedstock use is minimal</i>	Passed	<p><b>Bukit Damar I-CARE &amp; Putrajaya I-CARE</b> Feedstocks sourced from pre-existing landscaping and agricultural operations are not expected to result in land-use change.</p> <p><b>Wood Factory Waste Facility</b> End-of-life wood materials are not expected to result in land-use change. For wood residues, evidence of sustainable sourcing is sufficient to demonstrate that land-use impacts are minimal. FSC and/or PEFC certification of the supplying wood-processing facilities will be expected to be provided for the audit.</p>	Puro Environmental and Social Safeguards_Tigasfera, Biochar Carbon Removal Project Information_Tigasfera	Required to be assessed	Technical eligibility
c1.5	<i>Sourcing of biomass is secured (e.g. letters of intent, contracts)</i>	Assessed	Supply and offtake agreements for wood waste from municipal landscaping activities were included in the submission. The signed agreements confirm secured sourcing and specify the biomass quantities and contractual terms.	Feedstock Supply Agreement_Tigasfera, Putrajaya Letter of Award_Tigasfera	Not required	Maturity & Quality
c2	<b>Planned biochar production equipment is technically sound</b>	<b>Passed</b>			<i>Passed if required sub-criteria are met</i>	
c2.1	<i>Several options of reactor design have been identified</i>	Passed	<p>The Supplier has selected the Ecosfera 1.0 and the upgraded version of Ecosfera, two continuous rotary kiln systems. These proprietary reactors have been, jointly developed by the Supplier and its manufacturing partner. A key feature is the compact integration of pyrolysis, energy recovery, and power generation, combined with an improved automation system. Ecosfera 1.0 is expected to produce about 1 metric tonne of biochar per day, while the upgraded version will produce 2–4 metric tonnes per day.</p> <p>The Ecosfera 1.0 will be operated at the Bukit Damar I-CARE facility, while the upgraded version of Ecosfera will be deployed at the Putrajaya I-CARE and Wood Factory Waste Facility facilities.</p>	Biochar Carbon Removal Project Information_Tigasfera_Rev1.pdf; Biochar production equipment questionnaire_Tigasfera_Rev1.xlsx	Required to be passed	Technical eligibility
c2.2	<i>Reactor design has been decided, contracted, or purchased</i>	Passed	The Ecosfera 1.0 pyrolysis system was contracted and commissioned in 2024 and has been operating at the Bukit Damar I-CARE facility since January 2025. The upgraded version of Ecosfera pyrolysis system was contracted in Q2 2025 and is planned to be commissioned in Q3 2026 at the Putrajaya I-CARE facility. As of Q2 2025, the Wood Factory Waste Facility facility is still in the early stages of project discussions.	Biochar Carbon Removal Project Information_Tigasfera_Rev1.pdf; Biochar production equipment questionnaire_Tigasfera_Rev1.xlsx	Required to be assessed	Maturity & Quality
c2.3	<i>Reactor design is vetted, regarding production of</i>	Passed	<p><b>Bukit Damar I-CARE</b> Pyrolysis temperatures are expected to reach up to 850°C, with a</p>	Biochar Carbon Removal Project Information_Tigasfera_Rev1.pdf;	Required to be passed	Technical eligibility

	<i>biochar with H/C ratio below 0.7</i>		<p>residence time of 45 min-1 hour and a heating rate of 10–12°C/min. Preliminary laboratory analyses indicate that the Ecosfera 1.0 reactor can produce biochar with an H/C ratio below 0.7 when using wood waste from municipal landscaping activities. This must be confirmed through analyses conducted by an accredited laboratory and for all feedstock types.</p> <p><b>Putrajaya I-CARE and Wood Factory Waste Facility</b> The projects will be utilizing the same technology with the upgraded version from Ecosfera 1.0, hence it is expected to produce biochar with an H/Corg ratio below 0.7 with improved operability and reliability. This must be confirmed through analyses conducted by an accredited laboratory.</p>	Biochar production equipment questionnaire_Tigasfera_Rev1.xlsx; Lab Report Evidence folder		
c2.4	<i>Reactor design is vetted, regarding risk for CH<sub>4</sub> emissions</i>	Passed	<p><b>Bukit Damar I-CARE</b> Pyrolysis gases are combusted instantly in the combustion chamber at optimal temperatures of up to 1000°C under excess oxygen conditions. Design features that ensure complete combustion during normal operation include automatic controls regulating oxygen and airflow, and a combustion chamber optimized for turbulence and thorough air-gas mixing. On-site monitoring of explosivity (unburnt or flammable gases, including CH<sub>4</sub>) at the exhaust outlet using a handheld gas monitor showed 0% LEL, suggesting complete combustion and negligible CH<sub>4</sub> emissions. In addition, on-site emission monitoring of CH<sub>4</sub> as part of an Environmental Technology Verification (ETV) in accordance with ISO 14034:2016 will be conducted by a leading Malaysian certification, inspection, and testing body. The results will be provided during the audit.</p> <p><b>Putrajaya I-CARE &amp; Wood Factory Waste Facility</b> Air emission testing has not yet been conducted, as the upgraded version of Ecosfera pyrolysis system has not been commissioned. Emission testing similar to that conducted and planned at the Bukit Damar I-CARE facility will be carried out after commissioning, targeted for Q3 2026 at the Putrajaya I-CARE facility. The Wood Factory Waste Facility facility remains in the early stages of project discussions, thus no clear emission testing timeline has been established. Nevertheless, as the upgraded version of Ecosfera operates using the same technology as the Ecosfera 1.0, a similarly low risk of methane (CH<sub>4</sub>) emissions is expected.</p>	Biochar Carbon Removal Project Information_Tigasfera_Rev1.pdf; Biochar production equipment questionnaire_Tigasfera_Rev1.xlsx; Emission Compliance Evidence folder	Required to be passed	Technical eligibility

<p>c2.5</p>	<p><i>Reactor design is vetted, regarding air pollutant emissions in line with local regulation</i></p>	<p>Passed</p>	<p><b>Bukit Damar I-CARE</b>                  No dedicated flue gas treatment systems (e.g., cyclones, scrubbers, or electrostatic precipitators) are installed. However, the facility is designed to comply with Malaysian air pollutant emission regulations, which require annual or bi-annual on-site monitoring of total particulate matter as part of the air permitting process. On-site measurements at the exhaust outlet under steady operating conditions were conducted using handheld gas and dust monitors, assessing oxygen (O<sub>2</sub>), carbon monoxide (CO), hydrogen sulfide (H<sub>2</sub>S), and particulate matter (PM). Results indicate minimal air pollutant emissions, suggesting compliance with the Environmental Quality (Clean Air) Regulations 2014, Second Schedule (Regulation 13). PM<sub>10</sub> concentrations were measured at 0.016 mg/m<sup>3</sup>, well below the regulatory limit of 50 mg/m<sup>3</sup>. In addition, on-site emission monitoring of CO<sub>2</sub>, CO, and H<sub>2</sub>S at the stack as part of an ETV in accordance with ISO 14034:2016 will be conducted by a leading Malaysian certification, inspection, and testing body. The results will be provided during the audit.</p> <p><b>Putrajaya I-CARE and Wood Factory Waste Facility</b>                  Emission testing similar to that conducted and planned at the Bukit Damar I-CARE facility will be carried out for the Putrajaya I-CARE facility and Wood Factory Waste Facility facility when commissioned (see timeline above for Criteria c2.4). Nevertheless, upgraded version of Ecosfera may include dedicated emission treatment system, expected to further minimise the , risk of air pollutant emissions. Emission testing results will be expected for the audit to demonstrate compliance with local regulations.</p>	<p>Biochar Carbon Removal Project Information_Tigasfera_Rev1.pdf;                  Biochar production equipment questionnaire_Tigasfera_Rev1.xlsx;                  Emission Compliance Evidence folder</p>	<p>Required to be passed</p>	<p>Technical eligibility</p>
<p>c2.6</p>	<p><i>Facility design is vetted, regarding disposal of waste streams, including any liquid streams (wastewater, oil, tars)</i></p>	<p>Passed</p>	<p><b>Bukit Damar I-CARE</b>                  The Supplier has identified the relevant Malaysian soil and water pollutant regulations applicable to the facility, including the Environmental Quality (Sewage and Industrial Effluents) Regulations 2009 for water emissions and Section 24 of the Environmental Quality Act 1974 for soil protection.                  The Ecosfera 1.0 reactor reportedly condenses only minimal quantities of vinegar and tars, which are collected and reused internally (i.e., no waste) and are not released to the environment. The pyrolysis process does not discharge wastewater or solid waste into water bodies or soil. As such, the facility is expected to comply with these regulations, and no specific environmental risk mitigation measures are required.</p>	<p>Biochar Carbon Removal Project Information_Tigasfera_Rev1.pdf;                  Biochar production equipment questionnaire_Tigasfera_Rev1.xlsx</p>	<p>Required to be passed</p>	<p>Technical eligibility</p>

			<b>Putrajaya I-CARE &amp; Wood Factory Waste Facility</b> As the facility will be utilising the upgraded Ecosfera , a similarly low risk of soil and water pollutant emissions is expected.			
c2.7	<i>Facility is co-producing bioenergy (e.g. heat, power) for internal use</i>	Assessed	Yes. The pyrolysis gas is combusted, and the recovered energy is recycled back into the pyrolysis system to sustain the reaction. The Supplier also intends to use the generated power and waste heat to operate internal equipment, including the shredder, dryer, control panels, and other facility processes.	Biochar Carbon Removal Project Information_Tigasfera_Rev1.pdf; Biochar production equipment questionnaire_Tigasfera_Rev1.xlsx; deck for SEDA 12Dec24.pdf	Required to be assessed	Maturity & Quality
c2.8	<i>Facility is co-producing bioenergy (e.g. heat, power, fuel) for external use</i>	Assessed	Yes. The Supplier intends to generate electricity from recovered energy using a Stirling engine. Integrated with a Battery Energy Storage System (BESS), this system will provide off-grid power.	Biochar Carbon Removal Project Information_Tigasfera_Rev1.pdf; Biochar production equipment questionnaire_Tigasfera_Rev1.xlsx	Required to be assessed	Maturity & Quality
<b>c3</b>	<b>Biochar planned end-use(s) is(are) eligible</b>	<b>Passed</b>			<i>Passed if required sub-criteria are met</i>	
c3.1	<i>Biochar end-uses are eligible</i>	Passed	The Supplier intends to use biochar as a soil amendment, cultivation substrate, animal feed additive, long-lived construction material, and for incorporation into cold mix asphalt for road construction. All these end-uses are eligible.	Biochar End Use Plan_Tigasfera.pdf; Baseline and Additionality Questionnaire_Tigasfera.pdf	Required to be passed	Technical eligibility
c3.2	<i>Plans of biochar end-uses are tangible</i>	Assessed	The Supplier intends to sell biochar and intend on collecting evidence of delivery and low risk of carbon reversal, and ensuring traceability through procedures and agreements with intermediaries (if applicable). However, specific partners have not yet been identified, and no offtake contracts have been provided. <i>Under the forthcoming Biochar Methodology – Edition 2025, depending on whether the biochar is used in pure or mixed form, for final or cascading applications, and whether it is handled by intermediaries, the Supplier will be required to move beyond stated intentions and provide detailed, concrete, and implementable arrangements.</i>	Biochar End Use Plan_Tigasfera.pdf; Baseline and Additionality Questionnaire_Tigasfera.pdf	Required to be assessed	Maturity & Quality
c3.3	<i>Biochar environmental quality thresholds are known for the identified end-uses</i>	Assessed	The Supplier is aware of international standards such as the European Biochar Certification (EBC) and has identified the relevant environmental quality thresholds for the intended end uses. However, it remains unclear whether Malaysian regulations impose compliance requirements for biochar applications across the identified end-use categories (if so, these requirements should prevail over international standards). This will need to be clarified for the audit.	Biochar End Use Plan_Tigasfera.pdf; Biochar Sampling Plan_Tigasfera.pdf	Required to be assessed	Maturity & Quality
<b>c4</b>	<b>Additionality is demonstrated</b>	<b>Passed</b>			<i>Passed if required sub-criteria are met</i>	
c4.1	<i>Carbon storage additionality to baseline</i>	Passed	Without the project, biomass feedstocks would be left to decay, sent to landfills, illegally dumped at unauthorized sites, or, in some cases, used for energy production. In all scenarios, no long-term carbon storage	Baseline and Additionality Questionnaire_Tigasfera.pdf;	Required to be passed	Technical eligibility

			would occur. The project therefore delivers carbon storage that is additional to the baseline.	Biochar Carbon Removal Project Information_Tigasfera_Rev1.pdf		
C4.2	<i>Financial additionality of facility</i>	Passed	The Supplier has demonstrated, through a cash flow model and sensitivity analysis, that biochar production is not financially viable without CORC revenues. Although biochar is sold, CORC revenues are essential to ensure a positive NPV by repaying the initial investment. The Supplier also plans to monetize recovered energy by storing electricity in a BESS and selling it to off-grid users. This market is reportedly subsidized and the expected revenues are minimal; they are therefore not expected to undermine the project’s financial additionality. For the Audit, the sensitivity analysis should confirm this.	Baseline and Additionality Questionnaire_Tigasfera.pdf, Cashflow Projection_Tigasfera.xlsx	Required to be passed	Technical eligibility
C4.3	<i>Regulatory additionality</i>	Passed	The project is not required by existing laws, regulations, or other binding obligations in Malaysia. At present, there are no mandatory national or local regulations that require the pyrolysis of wood waste or the production and application of biochar for carbon sequestration.	Baseline and Additionality Questionnaire_Tigasfera.pdf	Required to be passed	Technical eligibility
C4.4	<i>Production equipment is newly built (i.e. not an existing facility or a retrofit of existing facility)</i>	Assessed	The biochar equipment is newly built. Bukit Damar I-Care was first commissioned in December 2024, Putrajaya I-Care initiated its contract in May 2025, and Wood Factory Waste Facility began project initiation discussions in February 2025.	Baseline and Additionality Questionnaire_Tigasfera.pdf	Required to be assessed	Maturity & Quality
C5	<b>Facility has monitoring, reporting, and LCA capabilities or tangible plans</b>	<b>Passed</b>			<i>Passed if required sub-criteria are met</i>	
C5.1	<i>Protocol for biomass and biochar record keeping is prepared</i>	Assessed	A preliminary protocol for biomass and biochar record-keeping has been outlined, covering key elements such as biomass feedstock type, biochar production and storage tracking, batch documentation, and quality control. This is complemented by a supporting data record spreadsheet for biomass sourcing and biochar production. The supplier also plans to implement Cula Technologies GmbH’s dMRV system, a digital MRV provider, recognized as an official LCA partner by Puro.earth, under which monitoring, recording, and reporting will be automated, securely stored, and digitally verifiable.	Data Collection Template_Tigasfera.xlsx; Monitoring Reporting & Verification Plan_Tigasfera.pdf	Required to be assessed	Maturity & Quality
C5.2	<i>Protocol for dry mass determination of biochar is prepared</i>	Assessed	Protocol for dry mass determination of biochar has not been yet prepared, but formula for determining moisture content has been identified.	Sampling Plan_Tigasfera.pdf	Required to be assessed	Maturity & Quality
C5.3	<i>Protocol for biochar sampling and laboratory analysis is</i>	Assessed	A preliminary protocol for biochar sampling and laboratory analysis has been prepared, based on the Biochar Methodology – Edition 2025. The plan demonstrates the Supplier’s awareness of sampling and testing	Sampling Plan_Tigasfera.pdf	Required to be assessed	Maturity & Quality

	<i>prepared (permanence and environmental quality)</i>		requirements by outlining minimum sampling and testing frequencies as well as high-level sampling procedures. However, it must be further refined and converted into an operational protocol that can be followed in practice, i.e., clear, step-by-step operating procedures.			
c5.4	<i>Monitoring and reporting plan of facility emissions is prepared</i>	Assessed	A preliminary monitoring and reporting plan of facility emissions has been prepared, including parameters monitored, methods, frequency, and quality control procedures (e.g., calibration of emissions measurement devices)	Monitoring Reporting & Verification Plan_Tigasfera.pdf	Required to be assessed	Maturity & Quality
c5.5	<i>An LCA model specific to the facility's operation is prepared</i>	Assessed	No LCA model was prepared at this stage.	No specific document provided	Not required	Maturity & Quality
<b>c6</b>	<b>Facility has likely co-benefits and positive SDG impacts</b>	<b>Passed</b>			<i>Passed if required sub-criteria are met</i>	
c6.1	<i>Facility-specific co-benefits have been identified</i>	Assessed	The project is designed to support municipal waste management, organic waste disposal, agricultural production, and energy and heat generation with the broader goal of supporting urban sustainability.	Puro Environmental and Social Safeguards_Tigasfera.docx; Tigasfera deck for SEDA 12Dec24.pdf	Required to be assessed	Maturity & Quality
c6.2	<i>Facility-specific SDG targets or indicators have been identified</i>	Assessed	No specific SDG target or indicators have been identified at this stage.	SDG Reporting_Tigasfera.pdf	Required to be assessed	Maturity & Quality
<b>c7</b>	<b>Facility team has access to relevant knowledge and skills</b>	<b>Passed</b>			<i>Passed if required sub-criteria are met</i>	
c7.1	<i>Relating to biomass sourcing, handling, processing</i>	Assessed	No specific information was provided and therefore a formal assessment was not conducted.	No specific document provided	Not required	Maturity & Quality
c7.2	<i>Relating to thermochemical processes</i>					
c7.3	<i>Relating to biochar use</i>					
c7.4	<i>Relating to monitoring and carbon accounting</i>					
<b>c8</b>	<b>Environmental and social safeguards</b>				<i>Passed if required sub-criteria are met</i>	
c8.1	<i>Stakeholder consultations have been planned or conducted</i>	Assessed	Consultations have included site visits, formal meetings, exhibitions, and community programs, engaging a wide range of stakeholders: local residents, community representatives, nearby nurseries, authorities, and institutional partners such as the Ministry of Natural Resources and Environmental Sustainability (NRES), local NGOs and associations, universities, and industry experts. Feedback was generally positive, emphasizing opportunities for cooperation, transparency, and safety.	Puro Stakeholder Engagement Report_Tigasfera.docx	Required to be assessed	Maturity & Quality

			Continued engagement is planned; however, further information is needed on community liaison channels, accessible communication platforms, and the grievance and feedback process.			
c8.2	<i>Regulation applicable to facility has been identified</i>	Assessed	The Supplier has identified applicable national and local laws and programs and ensures that all environmental, occupational safety, and labor practices comply with Malaysian legal requirements. Environmental safeguards include the Environmental Quality Act 1974, the Clean Air Regulations 2014 for diesel systems, and the Sewage and Industrial Effluents Regulations 2009 with Section 24 of the Environmental Quality Act. Labour and social safeguards are maintained under the Occupational Safety and Health Act 1994 and the Employment Act 1955.	Puro Environmental and Social Safeguards_Tigasfera.docx	Required to be assessed	Maturity & Quality
c8.3	<i>Procedures to acquire relevant permits have been identified, started, or completed</i>	Assessed	No specific operating permitting requirements were not indicated. These permits were not listed or provided.	No specific document provided	Required to be assessed	Maturity & Quality