

Launch of GreenChecker, the World's First Web Service That Uses Generative AI to Evaluate the Quality of Carbon Credits

March 28, 2025
Osaka Gas Co., Ltd.

Osaka Gas Co., Ltd. (President and Representative Director: Masataka Fujiwara) will begin offering “GreenChecker” today, the world’s first^{*1} web service that uses generative AI to evaluate the quality of carbon credits.

The web service is available on a preliminary basis from today, and based on feedback received, the company plans to further refine the service, with the aim of making it generally available around summer 2025.

■ Part of the GreenChecker usage screen

Figure 1: Evaluation results of the quality of carbon credits generated by project Nos. 139 and 69

プロジェクト番号	139	69
方法論	バイオチャー	バイオチャー
条件1	食品工場残渣物	農業廃棄物
条件2	ハイテク技術ではない	ハイテク技術ではない
評価基準	すべて	すべて
総合スコア	 41点 90点中	 60点 87点中
LCA	13点/ 33点	21点/ 33点
永続性	13点/ 26点	15点/ 25点
追加性	3点/ 9点	7点/ 9点
リーケージ	2点/ 2点	2点/ 2点
ベースライン	2点/ 3点	3点/ 3点
PJ	1点/ 9点	5点/ 7点
Co-Benefit	7点/ 8点	7点/ 8点

Figure 2: Detailed display of the permanence^{*2} score of a project

個別スコア **14**点 / 26点

評価基準

すべて



クライテリア	評価基準	判定	根拠	
廃棄バイオマスからのバイオ炭生産	verra	○	The methodology is applicable since th	
熱分解技術の適切性	sylvera	○	The project uses flame curtain pyrolysis	
熱分解温度の要件	ebc	○	The project uses flame curtain pyrolysis	
炭化プロセスにおけるバイオ炭定義の除外	ebc	○	The methodology is applicable when bi	

1. Background

In recent years, while companies and other entities have been making efforts to reduce greenhouse gas emissions, there has been a growing movement to utilize carbon credits as part of achieving their carbon neutrality plans. However, since there is a possibility that some carbon credits may be of low quality and do not meet the standards, it is extremely important to properly evaluate the quality of carbon credits.

Under these circumstances, we developed the world's first^{*3} system in 2024 using generative AI to evaluate the quality of carbon credits (hereinafter referred to as "this AI system")^{*4} and have been working to expand the areas of application and improve its accuracy. (Patented)

2. Overview of GreenChecker

GreenChecker, a web service that evaluates the quality of carbon credits, is equipped with this AI system. The generative AI quickly checks the quality of the credits by evaluating the consistency between the plans for carbon credit creation projects and multiple pre-set standards.

By simply loading their plan into GreenChecker, service users can obtain the score of the project (absolute evaluation), its ranking among other projects in the same field (relative evaluation), any items that have not met the standards, and other information.

This web service will initially cover carbon credits in the fields of biochar^{*5} and rice-paddy methane^{*6} and will then expand the application fields to deforestation control and cookstoves^{*7} around April 2025, with plans to continue expanding the fields in the future.

3. Future plans

Going forward, we plan to expand the application fields of this web service through collaboration with partner companies and gradually expand sales destinations, starting from the Asian region. We will also continue to develop the system further, such as improving the evaluation accuracy of this core AI system and implementing new functions.

In the future, we hope to enable companies to use this web service to evaluate the quality of carbon credits, contribute to the realization of a world without greenwashing, and establish a credit trading platform, thereby contributing to the realization of carbon neutrality by 2050.

The Daigas Group, under the “Energy Transition 2050” initiative announced in February 2025, remains committed to developing technologies and services that contribute to a decarbonized society and solving social issues, including climate change, in order to become a corporate group that contributes to the “further evolution” of customers’ lives and businesses.

*1: According to our research

*2: A concept that ensures that reduced or absorbed greenhouse gases do not return to the atmosphere for an extended period of time

*3: According to our research

*4: Building a System to Evaluate the Quality of Carbon Credits Using Generative AI (announced in October 2024)

https://www.osakagas.co.jp/en/whatsnew/_icsFiles/afieldfile/2024/10/21/241004_1.pdf

*5: By carbonizing wood and agricultural residues into biochar, which is highly resistant to biodegradation, and incorporating it into agricultural soil, CO₂ can be stored underground for an extended period of time.

*6: Extending the period of drainage or draining the water multiple times during rice cultivation can reduce methane emissions from rice paddies, taking advantage of the fact that draining water from rice paddies decreases the activity of methane-producing methanogens.

*7: Replacing inefficient cookstoves with more efficient ones can help reduce CO₂ emissions.