



Sustainable Revenue

Sustainable Products and Services Classification and Verification



Bangchak Group applies defined and measurable criteria to identify sustainable products, services, and economic activities. The classification approach incorporates recognized sustainability frameworks and certification schemes, including the EU Taxonomy and Thailand's Carbon Label Product Scheme, where applicable

1. Classification based on specific and quantified environmental benefits

Economic activities are assessed against the EU Taxonomy criteria, including substantial contribution to relevant environmental objectives, applicable technical screening criteria, Do No Significant Harm (DNSH) requirements, and minimum safeguards.

For low-carbon products, environmental performance is assessed using quantified greenhouse gas (GHG) emissions, including life-cycle carbon footprint criteria under Thailand's Carbon Label Product Scheme. These criteria provide a measurable basis for identifying products and activities with environmental benefits..

2. External verification of sustainable products

Selected low-carbon products are independently assessed and certified under Thailand's Carbon Label Product Scheme, where applicable. The certification provides external verification of quantified carbon performance in accordance with the requirements of the applicable certification scheme.

Through these complementary approaches, Bangchak Group applies defined and measurable criteria to classify sustainable economic activities and products, while using external certification to substantiate the environmental performance of certified products.

Sustainable Revenue

Unit: Baht

Sustainable Revenue Category	FY2022	FY2023	FY2024	FY2025
EU Taxonomy-aligned Activities	5,446,128,634	4,587,279,558	3,550,795,341	2,778,199,243
Certified Low Carbon Products	239,436,000,000	218,407,000,000	294,249,000,000	275,710,828,113
Total Sustainable Revenue	244,882,128,634	222,994,279,558	297,799,795,341	278,489,027,356

Bangchak Group measures and monitors revenue generated from sustainable products and economic activities using defined and measurable classification criteria. Sustainable revenue is derived from two complementary categories: EU Taxonomy-aligned economic activities and Certified Low-Carbon Products.

For **EU Taxonomy-aligned activities**, the reported revenue is derived from the results of Bangchak Group’s EU Taxonomy assessment, in which relevant economic activities are evaluated against the applicable EU Taxonomy requirements, including substantial contribution criteria, technical screening criteria, Do No Significant Harm (DNSH), and minimum safeguards.

For **Certified Low-Carbon Products**, revenue is derived from products with quantified environmental performance that have been certified under recognized carbon-labeling schemes.

Based on these classifications, Bangchak Group recorded THB 278.49 billion in sustainable revenue in FY2025, comprising THB 2.78 billion from EU Taxonomy-aligned activities and THB 275.71 billion from Certified Low-Carbon Products. Sustainable revenue was THB 297.80 billion in FY2024, THB 222.99 billion in FY2023, and THB 244.88 billion in FY2022. The Group monitors sustainable revenue over time as a measurable indicator of the contribution of sustainable products and economic activities to its business portfolio and its long-term transition toward a low-carbon economy.

Additional Information: Please see EU taxonomy 2025 at <https://sustainability.bangchak.co.th/en/document/viewer/307/taxonomy-report-2025>

EU Taxonomy Activities



Unit: Baht

Business Activity	Environmental Objective	FY2025 Revenue
A.1. Environmentally sustainable activities (Taxonomy-aligned)		
Anaerobic digestion of sewage sludge	Climate Change Mitigation	97,583,660
Electricity generation from hydropower	Climate Change Mitigation	1,301,283,200
Electricity generation from wind power	Climate Change Mitigation	94,976,781
Electricity generation using solar photovoltaic technology	Climate Change Mitigation	1,254,755,600
Transport by motorbikes, passenger cars and light commercial vehicles	Climate Change Mitigation	29,600,000
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)		
Manufacture of biogas and biofuels for use in transport and of bioliquids		17,082,492,268

Additional Information: Please see EU taxonomy 2025 at <https://sustainability.bangchak.co.th/en/document/viewer/307/taxonomy-report-2025>

In FY2025, Bangchak Group generated THB 2.78 billion in revenue from EU Taxonomy-aligned activities, covering renewable energy, waste-to-energy and low-carbon transport activities that meet the applicable EU Taxonomy criteria for climate change mitigation.

Certified Low-Carbon Products

Bangchak classifies selected products as low-carbon products based on quantified product carbon footprint and external certification under Thailand's Carbon Label Product Scheme. The carbon footprint of each certified product is assessed in accordance with the applicable Product Category Rules (PCR) and certified under the scheme administered by the Thailand Greenhouse Gas Management Organization (TGO) under collaboration with Thailand National Metal and Materials Technology Center (MTEC) and the National Science and Technology Development Agency (NSTDA)



Certified Low-Carbon Products



Based on FY2025 sales volumes, Bangchak’s certified low-carbon products are estimated to result in approximately 1,326,811 tCO₂e lower GHG emissions compared with Thailand’s reference emission factors for equivalent product volumes. This estimate is calculated using the difference in emission factors and FY2025 sales volumes and is separate from the external certification of the products’ carbon footprints.

Product	2025 sale volume (Million liters) ⁽¹⁾	Average Emission of Thailand		Bangchak’s Emission	
		Emission factors (kgCO ₂ /L) ⁽³⁾	GHG emissions (tCO ₂ e)	Emission factors (kgCO ₂ /kg) ⁽²⁾	GHG emissions (tCO ₂ e)
Gasoline	3,700	0.4124	1,144,410	0.344	954,600
Diesel	7,110	0.3522	2,103,479	0.237	1,415,459
Fuel oil	975	0.3743	353,994	0.276	261,027
LPG	668	0.858	292,372	0.272	92,665
Jet Kerosene	1445	0.328	387,698	0.196	231,391
		Total	4,281,953	Total	2,955,142

(1) 2025 sale volumes from Bangchak’s Annual Report 2025, page 136, <https://www.bangchak.co.th/storage/document/ar/2025/ar2025-en.pdf>
(2) Emission factors for Bangchak’s product from carbon label products according to the PCR standard (Product Category Rule: PCR) by the Greenhouse Gas Management Organization (TGO)
(3) Emission factors for normal oil product from IPCC 2006, Vol.2, table 3.2.1, 3.2.2, and the Department of Alternative Energy Development and Efficiency (DEDE)

Continuous Improvement

Quantified and Time-bound Targets for Sustainable Products and Services

BCPG Public Company Limited (BCPG), Bangchak Group's renewable energy and sustainable infrastructure business, plays a strategic role in supporting the Group's transition toward its Net Zero target. BCPG has established specific, quantified and time-bound growth targets for its sustainable business portfolio, including doubling its business scale with an EBITDA target of THB 7 billion by 2028 and expanding its solar rooftop portfolio under private PPAs to 100 MW. These targets support the expansion of renewable energy capacity and sustainable products and services within Bangchak Group's portfolio. Renewable electricity activities are also assessed under Bangchak Group's EU Taxonomy classification framework, providing a structured basis for evaluating their contribution to the Group's long-term low-carbon transition.

Additional Information:

[BCPG unveils 2026 strategy "The Next Decade: Broadening Horizons of Sustainability", targeting 100% growth by 2028 and expanding from clean energy to comprehensive sustainable infrastructure | BCPG](#)

Investments made (CAPEX, OPEX) to increase sustainable products or services portfolio

Bangchak Group has made dedicated capital investments to expand its sustainable products and services portfolio. In the future fuels business, THB 8.5 billion in CAPEX has been allocated to the Group's Neat SAF production facility, with a production capacity of 1 million liters per day. In the clean power business, the 600 MW Monsoon Wind Power Project represents total project CAPEX of USD 950 million, including USD 150 million at the BCPG level.

Additional Information:

- EU taxonomy 2025 at <https://sustainability.bangchak.co.th/en/document/viewer/307/taxonomy-report-2025>
- [Bangchak Group Launches Thailand's First Commercial SAF Production A Major Step Towards the Future of Low Carbon Energy for Domestic and International Markets | Bangchak Corporation](#)
- Bangchak Corporation, Opportunity Day Q1/2025, page 11 and 21
<https://investor.bangchak.co.th/en/document/viewer/stream/150749/opportunity-day-q1-2025>
- Bangchak TCFD Report 2025, page 30 at <https://sustainability.bangchak.co.th/en/document/viewer/64/tcf-report-2026>
- Analyst Meeting 1Q25 Transcript at <https://investor.bangchak.co.th/storage/document/presentation/2025/bcp-transcript-am-1q2025.pdf>

Continuous Improvement

Research & Development

Bangchak Group promotes research and development (R&D) as a key driver of sustainable business growth through the Bangchak Initiative and Innovation Center (BiiC). The Center supports the development of green technologies, climate technologies, and bio-based solutions, while fostering innovation through collaboration with business units, investment initiatives, and external partners. Research activities cover areas including AI, IoT, Big Data, Carbon Capture, Utilization and Storage (CCUS), and other technologies that enhance operational efficiency and support the transition towards a low-carbon economy.

As an example, the Astaxanthin Production Project demonstrates the Company's commitment to sustainable product innovation. The project encompasses the entire R&D value chain, including strain selection, cultivation technology, feed formulation, prototype development, nano-astaxanthin research, engineering design, quality and toxicity testing, and systematic market validation. The Company also collaborates with leading research institutions, including Chulalongkorn University and the Thailand Institute of Scientific and Technological Research (TISTR), to strengthen product development and commercialization.

Additional Information:

- 1. EU taxonomy 2025 at <https://sustainability.bangchak.co.th/en/document/viewer/307/taxonomy-report-2025>*
- 2. Frontier Technology & BiiC | Bangchak Corporation*
- 3. <https://sustainability.bangchak.co.th/en/document/viewer/44/sustainability-report-2025> Page 40-41*
- 4. <https://www.bangchak.co.th/en/newsroom/bangchak-news/1806/bangchak-partners-with-noovoleum-to-launch-ucollect-box-pilot-to-collect-used-cooking-oil-for-saf-production>*

The project has generated tangible innovation outcomes, including six petty patents, prototype products, commercially registered dietary supplements and cosmetic products, and ongoing expansion towards commercial-scale production. In addition, BiiC collaborates with technology partners to develop innovative solutions supporting sustainable products. One example is the UCollect Box pilot project, developed with Noovoleum, which applies sensor technology and digital applications to improve the collection of used cooking oil as feedstock for Sustainable Aviation Fuel (SAF). The initiative supports circular economy practices, enhances feedstock collection efficiency, and contributes to the development of low-carbon products through technology-driven innovation.

These initiatives demonstrate the Company's commitment to allocating dedicated R&D and innovation resources to develop and commercialize sustainable products and technologies.



Continuous Improvement

Infrastructure Improvements

Bangchak Group continues to invest in and strengthen infrastructure that supports the sustainable production and delivery of its products and services, in line with the Group's long-term transition toward Net Zero. In 2025, BCPG operated 1,474.9 MW of electricity generation capacity, with an additional 485.7 MW under development, supported by continued investment in renewable energy infrastructure, including solar and wind power, substations, and transmission systems. The Group has also expanded infrastructure for low-carbon fuels, including a dedicated stand-alone Sustainable Aviation Fuel (SAF) production facility in Thailand. These infrastructure investments strengthen the Group's capacity to expand renewable energy and low-carbon products and services while supporting its long-term sustainable growth and transition strategy..

Additional Information:

1. EU taxonomy 2025 at <https://sustainability.bangchak.co.th/en/document/viewer/307/taxonomy-report-2025>
2. [Bangchak Group Launches Thailand's First Commercial SAF Production A Major Step Towards the Future of Low Carbon Energy for Domestic and International Markets | Bangchak Corporation](#)

Continuous Improvement

Internal Training

Bangchak Group provides internal capability-building programs for employees and functions involved in R&D, innovation, technology development and new business development, strengthening their capabilities to design and develop sustainable products, services and business solutions. Through workshops, innovation challenges and knowledge-sharing activities, employees are equipped with practical skills to support the development of future products, services and business models. Representative initiatives include

- *TECHBITE ENERGY, which provides workshops on Technology & Product R&D, product design and intellectual property (IP)*
- *Bangchak Next Gen Tech for Greenovation (Wrong DI), which promotes innovation in clean energy, climate technologies, bio-based solutions and AI applications*
- *PowerWise Challenge, which develops innovation capabilities through business problem-solving and solution development.*



Incentives for sales staff to promote sustainable products/services

Sales personnel responsible for sustainable products and services are covered by the Company's performance-based incentive system. Where sustainable product or service sales targets are included in the individual's approved KPIs, achievement against these targets forms part of the performance assessment used to determine variable compensation and bonus payments..

Additional Information:

1. <https://sustainability.bangchak.co.th/en/document/viewer/44/sustainability-report-2025> Page 41



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