

# NET ZERO MASTER PLAN

BAFS GROUP NET - ZERO 2025 - 2030

## ROAD TO NET - ZERO

Leading Change for  
a Sustainable and  
Resilient Future.

## TOGETHER TOWARDS NET ZERO

“Reimagining Asia’s sustainable future, uplifting the world with infinite opportunities  
and leading the journey to Net Zero 2050.”

### NEXT HORIZON

*“Discover how we are  
transforming to achieve  
Net Zero by 2050 and  
shaping a sustainable future.”*

### DRIVING IMPACT

*“Advancing climate action  
through sustainable growth,  
resilience, and operational  
excellence.”*

### INNOVATE TOGETHER

*“See how partnerships  
and innovation uplift  
opportunities to create  
lasting climate solutions.”*





“Leadership  
with vision for  
sustainability.”

“Shaping  
strategy, inspiring  
progress.”

“A future  
built step by step.”

# “COMMITMENT FROM OUR DIRECTOR”

We are committed to reducing greenhouse gas emissions and accelerating our transition to a low-carbon future on our journey to Net Zero. Beyond transforming our own operations, we strive to uplift the aviation industry’s shift toward cleaner, more sustainable energy. By leading with responsibility and innovation, we are building a sustainable legacy for the future.



# NEWS AND ACHIEVEMENT

## BAFS AND TARCO RECEIVE CARBON NEUTRAL CERTIFICATION FROM TGO, REINFORCING THEIR COMMITMENT TO CLIMATE ACTION.

*“This certification signifies BAFS Group’s genuine commitment to environmental responsibility and a sustainable future.”*

On 25th June 2025, Bangkok Aviation Fuel Services Public Company Limited (BAFS) and Thai Aviation Refueling Company Limited (TARCO) were awarded the “Carbon Neutral Label” certification by the Thailand Greenhouse Gas Management Organization (Public Organization), or TGO. This achievement signifies another significant milestone that reflects the BAFS Group’s strong commitment to conducting business with genuine environmental responsibility. BAFS Group have systematically assessed their greenhouse gas emissions and implemented continuous carbon offset measures, with the goal of becoming an effective Carbon Neutral Organization. As part of its long-term sustainability vision, BAFS Group remains committed to responsible operations and has set an objective to attain Net-Zero greenhouse gas emissions by 2050. This attempt emphasizes BAFS Group’s dedication to building a sustainable future for both the planet and society over the long term.



## BAFS ACHIEVES ISCC-CORSIA CERTIFICATION, STRENGTHENING COMMITMENT TO AVIATION SUSTAINABILITY



*“Collaboration with AOT reinforces our role in advancing standardized carbon management in aviation.”*

Bangkok Aviation Fuel Services (BAFS) has been awarded the International Sustainability and Carbon Certification Carbon Offsetting and Reduction Scheme for International Aviation (ISCC-CORSIA). This achievement marks a significant milestone in the company’s sustainability journey and demonstrates its commitment to global carbon accountability.

The certification enables BAFS to actively support the supply of Sustainable Aviation Fuel (SAF), a key solution for reducing aviation-related greenhouse gas emissions. Through this initiative, BAFS reaffirms its leadership in advancing the aviation industry toward a low-carbon, sustainable future.



# NEWS AND ACHIEVEMENT

## RECOGNITION FROM AIRPORTS OF THAILAND (AOT) AIRPORT CARBON ACCREDITATION PROJECT

*“Collaboration with AOT reinforces our role in advancing standardized carbon management in aviation.”*

BAFS and TARCO received a Certificate of Appreciation from Airports of Thailand Public Company Limited (AOT) for their contribution to the Airport Carbon Accreditation Project at Suvarnabhumi Airport and Don Mueang Airport. The recognition was granted for the provision of organizational greenhouse gas emissions data in support of AOT's participation in this international initiative, which promotes standardized carbon management and reduction practices across the aviation sector.



## CERTIFICATION OF CARBON CREDITS – NBPT PROJECT

*“Certified for 44,844 tonnes of CO<sub>2</sub> equivalent, Phase 1 establishes BPT's role in verified carbon markets.”*

Bangkok Aviation Fuel Pipeline Transportation Co., Ltd. (BPT) has been formally certified for carbon credits by Verra, amounting to 44,844 tonnes of CO<sub>2</sub> equivalent as of 25 February 2025. The project is presently undergoing assessment for compliance with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), thereby enabling the potential sale of carbon credits to airlines.

PHASE 1

PHASE 2

*“Phase 2 projects an estimated 33,943 tonnes of CO<sub>2</sub> equivalent awaiting Verra verification.”*

The company has obtained the second-round audit report for carbon credits from the appointed verifier, indicating an estimated certified volume of 33,943 tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e). The project is presently under review by Verra for verification approval and the subsequent issuance of Verified Carbon Units (VCUs).

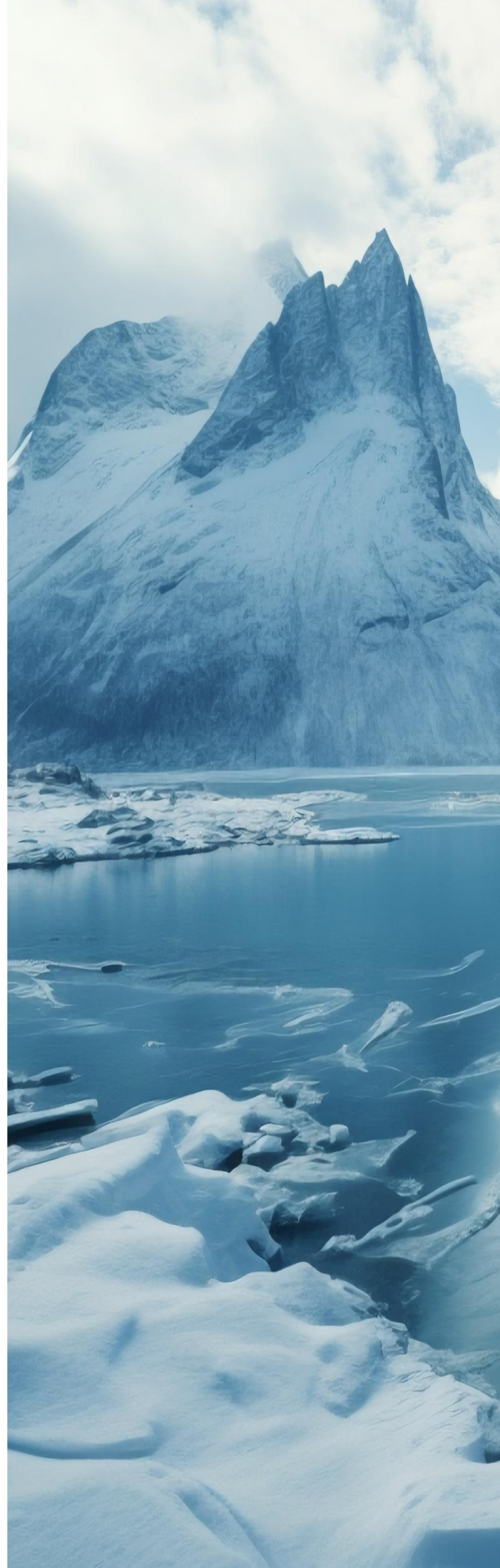




# CORPORATE TIMELINE

The Masterplan Corporate Timeline captures the milestones that define BAFS Group's sustainability journey. From the first steps in measuring our carbon footprint and forming the Green Committee in 2013, to achieving carbon neutrality across subsidiaries and committing to Net Zero by 2050, each moment marks a decisive step forward.

This timeline is more than a record of achievements it reflects our collective determination to transform ambition into action. It highlights the steady progress of BAFS and its companies, demonstrating how every milestone builds toward a future of resilience, responsibility, and sustainable growth.





# MILESTONES TO SUSTAINABILITY

steps toward Net Zero 2050





The beginning of  
Carbon Footprint  
reporting & Green  
Committee.

# 2013



# 2019

BAFS, TARCO,  
& BPT become  
carbon neutral  
company.

# 2017



BPT & TARCO  
Start CFO for  
the first year.





BC: Become Carbon Neutral Company & Plantation of 5,000 trees across an area of 50 rai under ATC Enviro Projects 1 - 3.

BAFS Group Committed toward Net Zero in 2050.

# 2022



BPT:NFPT  
Pipeline Welding

# 2024

BAFS Group become Carbon Neutral Company (6 companies)

# 2021



BC: Initial year of preparing the Carbon Footprint for Organization (CFO) report & applying for Carbon Neutrality certification.

# 2023



BAFS: The beginning of Climate Action Leading Organization (CALO)



BPT:  
Joining TCNN.



BC:  
Registration of the power plant.



BID:  
Start CFO for the first year.



# BAFS GROUP | ZERO STRATEGY





BAFS Group has developed the “ZERO” strategic plan as a comprehensive framework to drive greenhouse gas emission reductions across all affiliated entities. This strategy undergoes annual reviews to refine the master plan and update targets, ensuring consistent alignment with the Group’s long - term sustainability vision .

As of the latest update, BAFS Group is committed to achieving an annual reduction of 3.33% in greenhouse gas emissions across Scopes 1 and 2, based on the 2024 baseline, with a clear milestone of reducing overall emissions by 20% by 2030.





# BAFS



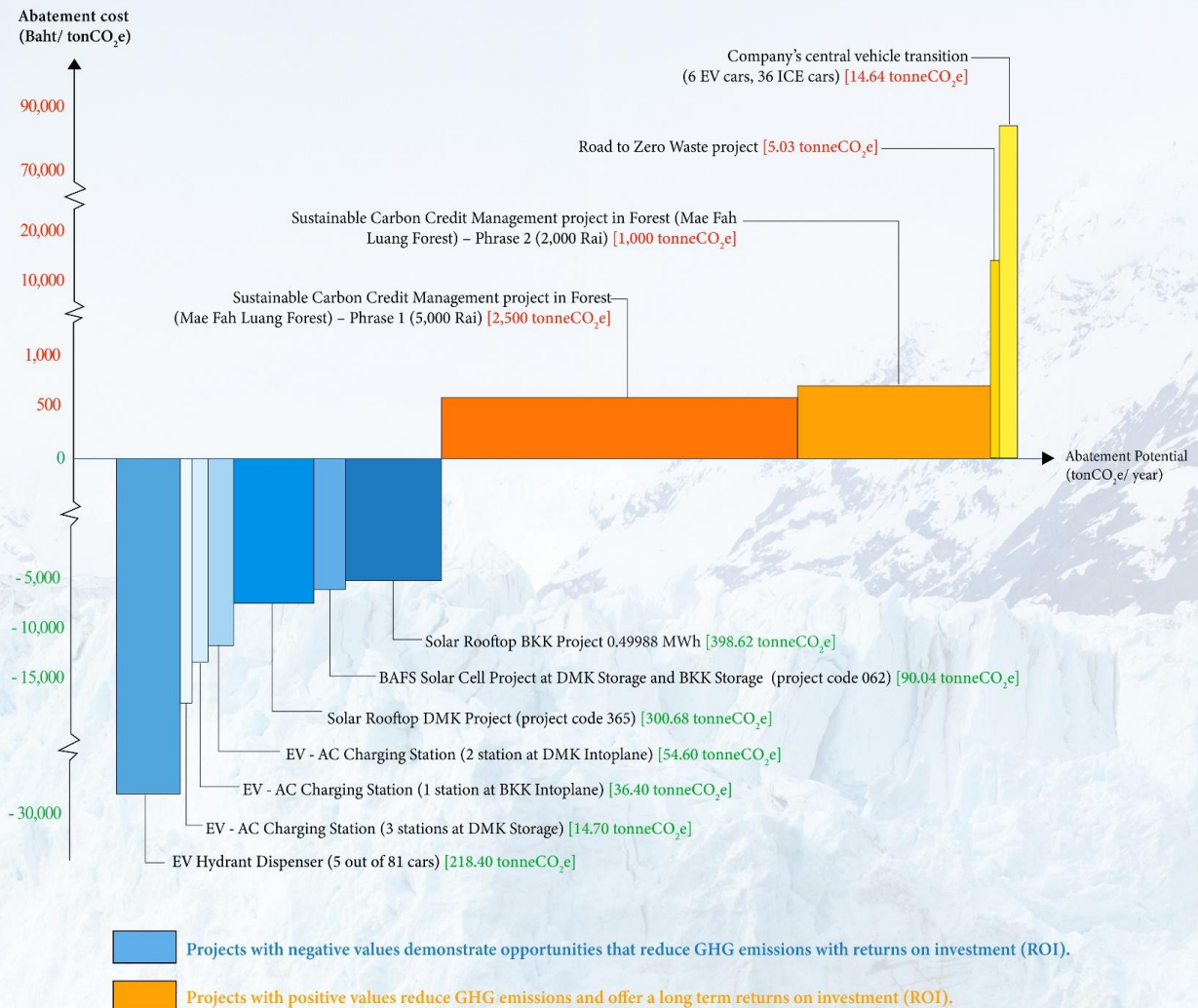
“Strengthening BAFS Group’s Sustainability Goals  
with Innovation Aviation Fuel Services.”



# BAFS'S CLIMATE PROGRESS

## MACC

### BAFS'S MARGINAL ABATEMENT COST CURVE



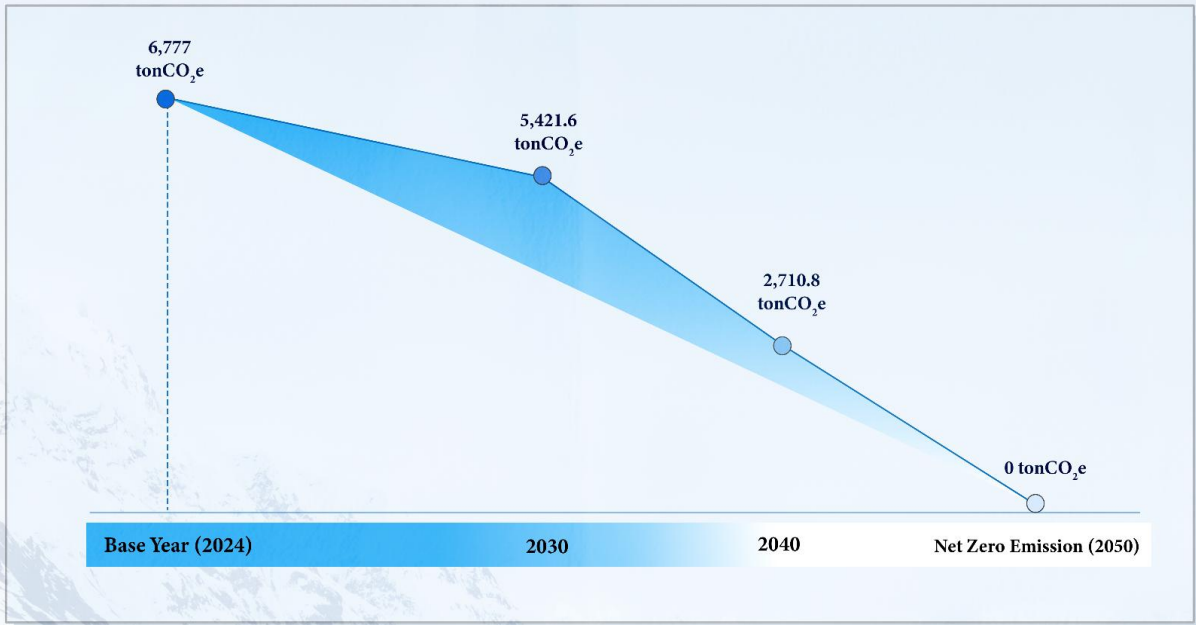
### Understanding the Marginal Abatement Cost Curve

The Marginal Abatement Cost Curve (MACC) provides a structured view of how BAFS evaluates greenhouse gas reduction projects in terms of both cost and potential impact. Each bar on the curve represents a project, where the width reflects the volume of emissions that can be reduced, and the height indicates the cost per ton of CO<sub>2</sub> reduced. By presenting projects in order of cost - effectiveness, the MACC highlights BAFS's systematic approach to balancing financial efficiency with environmental responsibility, ensuring that the pathway toward Net Zero is both strategic and sustainable.



## GHG REDUCTION PATHWAY TO NET ZERO 2050

2030: Reduce 20% from Base year  
2040: Reduce 60% by 2040 from Base year  
2050: Achieve Net Zero emissions



## GHG EMISSIONS BY OPERATION IN 2024





# LEADING THE ROAD TO NET ZERO



The table below outlines BAFS's decarbonization initiatives and climate projects, showing the period of implementation, budget, and estimated greenhouse gas (GHG) reductions where available. These projects range from disclosure and reporting to renewable energy, electric mobility, waste reduction, and forest carbon credits. Collectively, they demonstrate how BAFS is turning climate commitments into measurable actions, supporting Thailand's Net Zero 2050 pathway and strengthening our role as a leader in sustainable aviation fuel services.

## DECARBONIZATION REPORT

Project details	Year of conduct	Project Execution Budget (Baht)	Estimated Greenhouse Gas Emissions Reduction
Carbon Footprint for organization report & Carbon Neutral Organization	2019 - 2025	411,000 per year	N/A Note: These report cannot specify the greenhouse gas reduction.
Climate Action Leading Organization (CALO)	2023 - 2025	0	
Net Zero Pathway project	2024 - 2025	2,000 per year	
Carbon Disclosure Project (CDP)	2024 - 2025	125,000 per year	
Task Force on Climate – Related Financial Disclosures (TCFD)	2024 - 2025	0	40.64 tonCO <sub>2</sub> e
Low Emission Support Scheme project (LESS)	2023 - 2025	0	

## DECARBONIZATION PROJECT

Project details	Year of conduct	Project Execution Budget (Baht)	Estimated Greenhouse Gas Emissions Reduction
BAFS Solar Cell Project at DMK Storage and BKK Storage (project code 062)	2018 - 2025	5,500,000	724 tonCO <sub>2</sub> e
Solar Rooftop DMK Project (project code 365)	2023 - 2025	16,755,000	321 tonCO <sub>2</sub> e
Solar Rooftop at BKK Storage Project (0.49980 MWh)	2026	22,200,000	420 tonCO <sub>2</sub> e



# LEADING THE ROAD TO NET ZERO

## DECARBONIZATION PROJECT

Project details	Year of conduct	Project Execution Budget (Baht)	Estimated Greenhouse Gas Emissions Reduction
Company's central vehicle transition (6 EV cars, 36 ICE cars)	2024 - 2025	6,000,000 Note: 1,000,000 per vehicle	14.64 tonCO <sub>2</sub> e Note : 2.44 tonCO <sub>2</sub> e/vehicle/year
EV - AC Charging Station (3 stations at DMK Storage)	2022 - 2025	600,000	14.70 tonCO <sub>2</sub> e Note : Calculated based on the employee 's EV vehicle commuting 2024
EV - AC Charging Station (2 stations at DMK Intoplane)	2020 - 2025	140,000 Note: With the purchase of an EV Hydrant Dispenser, one charging station is provided free of charge	54.60 tonCO <sub>2</sub> e Note : Calculated based on the GHG emissions of ICE Hydrant Dispenser and EV Hydrant Dispenser.
EV - AC Charging Station (1 station at BKK Intoplane)	2024 - 2025	0 Note: With the purchase of an EV Hydrant Dispenser, one charging station is provided free of charge	36.40 tonCO <sub>2</sub> e Note : Calculated based on the GHG emissions of ICE Hydrant Dispenser and EV Hydrant Dispenser
EV Hydrant Dispenser (5 out of 81 cars)	2024 - 2025	82,500,000 Note : 16,500,000 per vehicle	91.00 tonCO <sub>2</sub> e Note : 18.20 tonCO <sub>2</sub> e/vehicle/year
Road to Zero Waste project	2020 - 2025	70,000 per year	5.03 tonCO <sub>2</sub> e per year
Sustainable Carbon Credit Management project in Forest (Mae Fah Luang Forest) – Phrase 1 (5,000 Rai)	2023 - 2025	13,500,000	7,500 tonCO <sub>2</sub> e Note: Calculated as 75% of carbon credits exceeding 1.5–2.10 tCO <sub>2</sub> e/rai over three years
Sustainable Carbon Credit Management project in Forest (Mae Fah Luang Forest) – Phrase 2 (2,000 Rai)	2024 - 2025	5,800,000	3,000 tonCO <sub>2</sub> e Note: Calculated as 75% of carbon credits exceeding 1.5–2.10 tCO <sub>2</sub> e/rai over three years





# ZERO EMISSION

The implementation of various activities and projects, together with the preparation of greenhouse gas reduction reports, constitutes a key component of the organization's strategic efforts toward achieving Net Zero greenhouse gas emissions by 2050. In parallel, BAFS has established its own more ambitious target to reduce annual greenhouse gas emissions by 3.46% across Scope 1, 2, and 3, reflecting the company's strengthened commitment to accelerating progress toward the achievement of Net Zero emissions.

## 01



## CARBON NEUTRAL ORGANIZATION



BAFS has consistently reported its greenhouse gas emissions. In 2024, The organization reported total emissions of 6,777 tons of carbon dioxide equivalent ( $\text{tCO}_2\text{e}$ ) from its operations, which were fully offset & neutralized to achieve net-zero emissions. This achievement has been officially certified with the Carbon Neutral Company label by the Thailand Greenhouse Gas Management Organization (TGO).



# 02



## CLIMATE ACTION LEADING ORGANIZATION (CALO)

BAFS has joined the Climate Leading Organization initiative under the Thailand Climate Neutral Network (TCNN). In 2024, the company was honored with a plaque of recognition for its outstanding performance in greenhouse gas reduction for the second consecutive year.

# 03



## NET ZERO PATHWAY PROJECT

The Company has joined the Net Zero Pathway initiative by officially declaring its commitment and submitting its mid and long-term greenhouse gas (GHG) reduction roadmap, aiming for Net Zero emissions by the year 2050.

# 04



## CARBON DISCLOSURE PROJECT (CDP)

BAFS is committed to transparent climate-related disclosures through recognized global platforms such as CDP, acknowledging that environmental risks and opportunities have a material impact on business performance. Participation in CDP and pursuit of high climate performance scores are key to driving continuous improvement and strengthening confidence among international investors. A performance-based compensation scheme linked to carbon reduction targets has been introduced across all employee levels, integrating climate goals into business operations and long-term sustainability strategies.

# 05



## TASK FORCE ON CLIMATE - RELATED FINANCIAL DISCLOSURES (TCFD)

BAFS has adopted the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) to enhance the integration of climate risks and opportunities into corporate governance, strategy, and risk management. Aligning with TCFD not only supports informed decision-making but also reinforces stakeholder trust by providing greater transparency and accountability in the company's climate-related actions.





# ENERGY TRANSITION



To align with our goal of achieving net-zero greenhouse gas emissions by 2050, the company has set a target to reduce electricity consumption from the grid by 30% by 2030. It also plans to transition to cleaner energy sources and actively promote the use of electric vehicles within the organization to minimize greenhouse gas emissions associated with employee transportation.

## 01



### SOLAR CELL PROJECT AT BKK & DMK FACILITY'S ROOFTOP



BAFS has actively participated in the Thailand Voluntary Emission Reduction Program (T-VER), initiated by the Thailand Greenhouse Gas Management Organization (Public Organization). At present, the company has implemented a total of four solar rooftop installation projects at its office buildings, covering both Don Mueang and Suvarnabhumi areas. These initiatives aim to promote the use of clean energy within the organization and to support its goal of reducing electricity consumption from the grid.



# 02



## COMPANY'S VEHICLE TRANSITION

The company plans to transition its internal fleet from internal combustion engine (ICE) vehicles to electric vehicles (EVs) in order to support greenhouse gas emissions reduction and promote the use of clean energy within the organization in a sustainable manner.

# 03



## SOLAR - POWERED EV CHARGING STATION

The company has installed electric vehicle (EVs) charging stations powered by solar energy generated through its in-house solar panel installation project. This initiative is designed to support and encourage BAFS Group employees who have transitioned to electric vehicles by providing complimentary access to clean, renewable energy for vehicle charging. It reflects the company's continued commitment to promoting clean energy adoption and reducing greenhouse gas emissions.

# 04



## EV HYDRANT DISPENSER

The company has transitioned its aircraft refueling vehicles from internal combustion engines to electric-powered vehicles in order to reduce greenhouse gas emissions and support the organization's commitment to sustainable environmental practices.







# RESPONSE TO NATURE AND LOW CARBON SOCIETY

BAFS Group are dedicated to reducing environmental & community impacts to achieve long-term sustainability. As part of this commitment, it has launched projects focused on comprehensive waste management and efficient resource utilization, aiming to maximize benefits for both the community and the environment in a sustainable manner.

## 01



### ROAD TO ZERO WASTE PROJECT



BAFS aims to achieving zero solid waste sent to landfill by establishing a comprehensive internal waste management system. This system emphasizes the clear segregation of waste by category and the identification of appropriate disposal channels to ensure effective recycling and proper end-of-life processing for each type of waste. Furthermore, the company collaborates with the Farm Hug project to promote resource efficiency and sustainability. Food and organic waste are directed to this project, where they are processed into fertilizer used for cultivating organic vegetables as part of the initiative.



To ensure continuous improvement, the company monitors waste management performance by recording the quantity of each waste type monthly to compile and maintain detailed waste statistics. The process also includes periodic random inspections of waste segregation practices across various areas, as well as the production of video materials to raise awareness and promote proper waste separation among employees at all levels. These initiatives support BAFS's long-term goal of achieving Zero Waste to Landfill by the year 2050.



## 02



### LOW EMISSION SUPPORT SCHEME PROJECT (LESS)

The company participated in the LESS project by building upon its existing environmental initiatives, including internal waste segregation for recycling and organic waste composting. The volume of waste managed through these activities was used to support the calculation and assessment of greenhouse gas emission reductions. Furthermore, through the implementation of the 'Road to Zero Waste' initiative and the organic waste composting activity under the Farm Hug Project, the company expanded its efforts under the LESS framework. In 2024, these combined initiatives were estimated to have resulted in a total reduction of 29.25 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) in greenhouse gas emissions.

## 03



### SUSTAINABLE CARBON CREDIT MANAGEMENT PROJECT IN FOREST (MAE FAH LUANG FOREST)

This project involves collaboration with Mae Fah Luang Foundation to accumulate carbon credits from 7,000 Rai of forest area. This project also promotes biodiversity conservation and distributes income to local communities. The estimated carbon credits expected to be generated from the project are approximately 6,300 tCO<sub>2</sub>e.





# OPPORTUNITY FOR GREEN INVESTMENT

The company places great importance on Environmental, Social, and Governance (ESG) issues by continuously supporting Thailand's Sustainable Development Goals (SDGs). The company has invested in green businesses or low-carbon businesses to promote sustainable business growth, alongside the development of sustainable community well - being.



**SAF** SUSTAINABLE  
AVIATION FUEL



The company actively supports the development and utilization of Sustainable Aviation Fuel (SAF) within the aviation industry, as part of a strategic approach to reducing greenhouse gas emissions in the atmosphere one of the primary contributors to global warming and climate change.



# TARCO

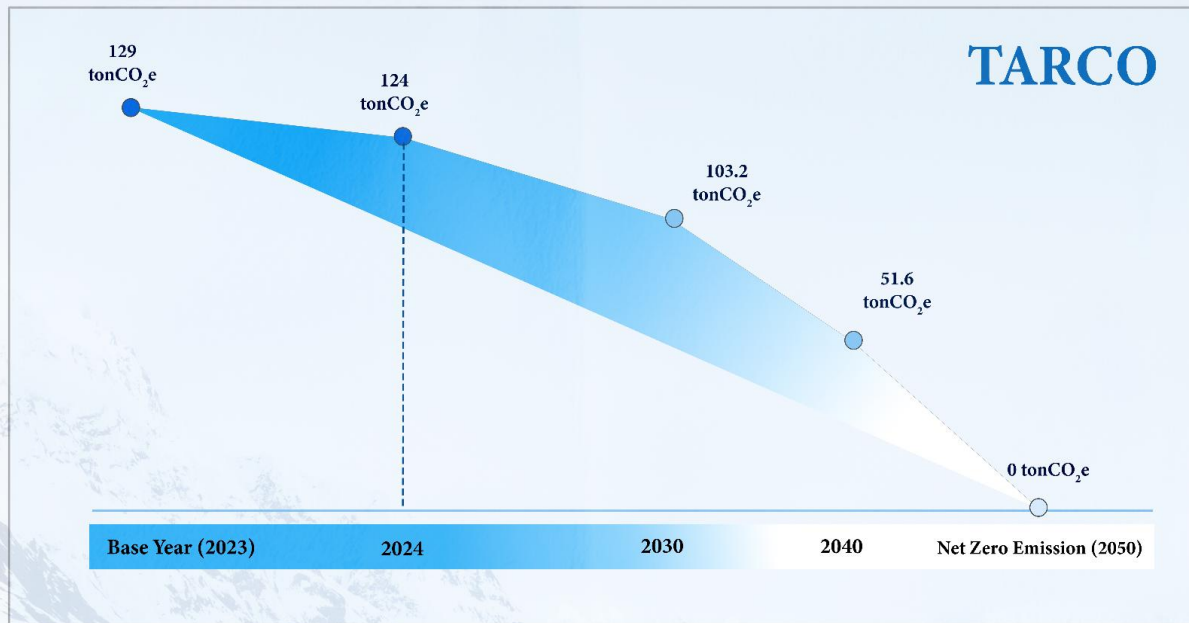


“Sustainable Refueling, Carbon Neutral Future”“



# GHG REDUCTION PATHWAY TO NET ZERO 2050

2030: Reduce 20% from Base year  
2040: Reduce 60% by 2040 from Base year  
2050: Achieve Net Zero emissions



## GHG EMISSIONS BY OPERATION IN 2024





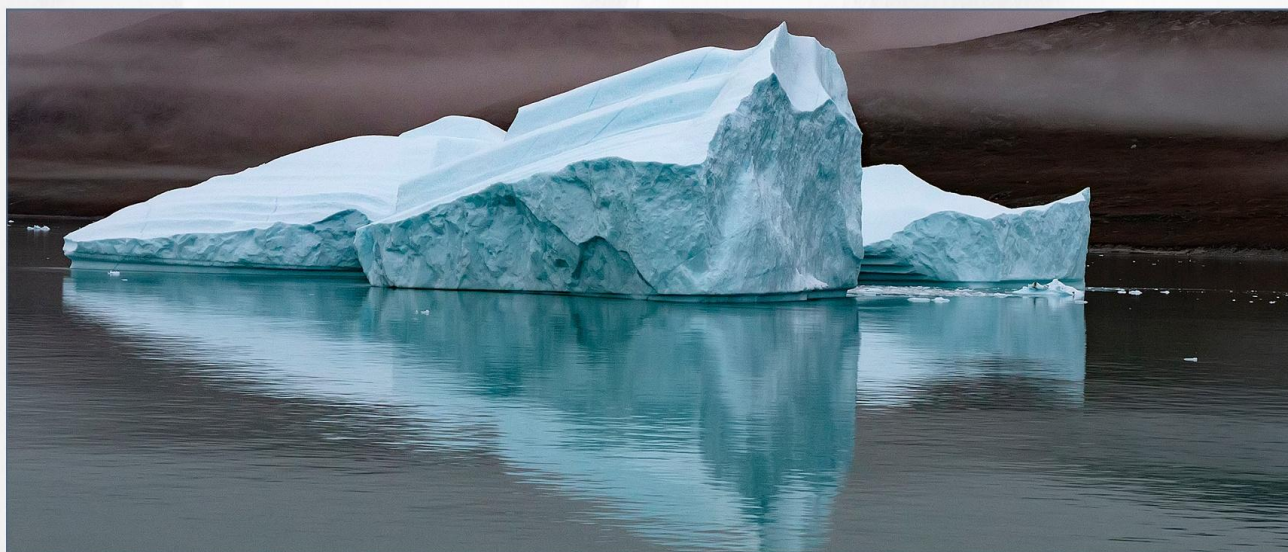
# LEADING THE ROAD TO NET ZERO

## DECARBONIZATION REPORT

Project details	Year of conduct	Project Execution Budget (Baht)	Estimated Greenhouse Gas Emissions Reduction
Carbon Footprint for organization report and Carbon Neutral Organization	2020 - 2025	80,000 per year	N/A Note : These report cannot specify the greenhouse gas reduction

## DECARBONIZATION PROJECT

Project details	Year of conduct	Project Execution Budget (Baht)	Estimated Greenhouse Gas Emissions Reduction
Operation vehicle transition (3 EV cars)	2019 - 2024	3,300,000 Note : 1,100,000 per vehicle	18.38 tonCO <sub>2</sub> e Note : 3.06 tonCO <sub>2</sub> e/vehicle/year
EV Hydrant Pit Cleaning/Low point (3 EV cars)	2025 - 2029	12,000,000 Note : 4,000,000 per vehicle	42.7 tonCO <sub>2</sub> e Note : 8.54 tonCO <sub>2</sub> e/vehicle/year
Sustainable Carbon Credit Management project in Forest (Mae Fah Luang Forest) – Phrase 2 (2,900 Rai)	2025 - 2027	1,450,000	3,900 tonCO <sub>2</sub> e Note: Calculated as 75% of carbon credits exceeding 1.5–2.10 tCO <sub>2</sub> e/rai over three years



The following table presents additional decarbonization projects undertaken by TARCO. It highlights both operational measures, such as the transition to electric vehicles and EVs hydrant systems, as well as nature-based solutions through forest carbon credit projects. Each project includes its implementation period, budget, and estimated greenhouse gas (GHG) reduction, reflecting the Group's integrated approach to lowering emissions and supporting Thailand's Net Zero 2050 target.





# ZERO EMISSION

The organization's strategic pathway toward achieving Net Zero greenhouse gas emissions by 2050 is supported through the implementation of diverse activities and projects, alongside the preparation of greenhouse gas reduction reports. Concurrently, the company has set a more ambitious internal target, committing to an annual reduction of 3.21% in Scope 1 and Scope 2 emissions, underscoring its determination to accelerate progress toward Net Zero.



**CARBON NEUTRAL  
ORGANIZATION**



TARCO reported 124 tCO<sub>2</sub>e of greenhouse gas emissions from its 2024 operations, all of which were fully offset. The organization was awarded the Carbon Neutral Company plaque by TGO in recognition of this achievement.

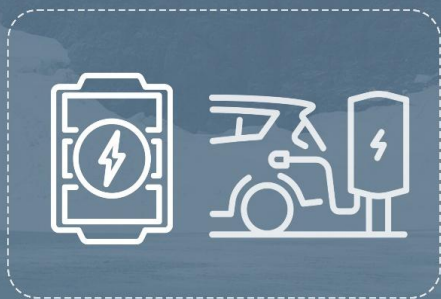




# ENERGY TRANSITION

In pursuit of the Net Zero 2050 target, the company has developed plans to transition toward cleaner energy sources and progressively integrate electric vehicles (EVs) into its operations to minimize greenhouse gas emissions.

## 01 | VEHICLE TRANSITION



To promote clean energy adoption and reduce greenhouse gas emissions, the company is committed to transitioning its fleet from internal combustion engine (ICE) vehicles to electric vehicles (EVs).

## 02 | EV HYDRANT PIT CLEANING & LOW POINT VEHICLE



The company plans to replace vehicles used for cleaning Hydrant Pits and Low point from internal combustion engines to electric vehicles, further reducing emissions & supporting the use of clean energy sustainably within the organization.





## RESPONSE TO NATURE AND LOW CARBON

Demonstrating its dedication to long-term sustainability, BAFS Group actively undertakes initiatives that reduce environmental and community impacts. These include projects centered on effective waste management and resource efficiency, designed to create lasting value for the community and the environment.

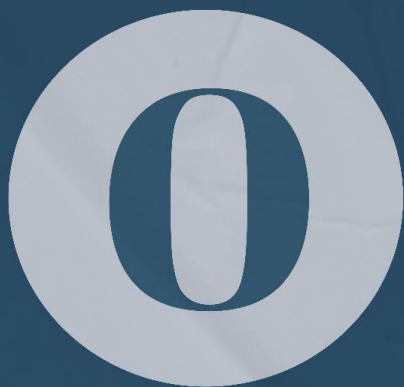


### SUSTAINABLE CARBON CREDIT MANAGEMENT PROJECT IN FORESTS (MAE FAH LUANG FOREST)



This project involves a partnership with the Mae Fah Luang Foundation to accumulate carbon credits from a 2,900-rai forest area. Not only does this project support the conservation of biodiversity, but it also generates income for local communities.





## OPPORTUNITY FOR GREEN INVESTMENT

The company prioritizes environmental, social, and governance (ESG) considerations by actively supporting Thailand's Sustainable Development Goals (SDGs). Through strategic investments in green & carbon - reduction initiatives, the company fosters sustainable business growth while contributing to the well - being of local communities.



### SAF SUSTAINABLE AVIATION FUEL



As part of its commitment to mitigating climate change, the company supports the development and implementation of Sustainable Aviation Fuel (SAF) in the aviation industry to lower greenhouse gas emissions.





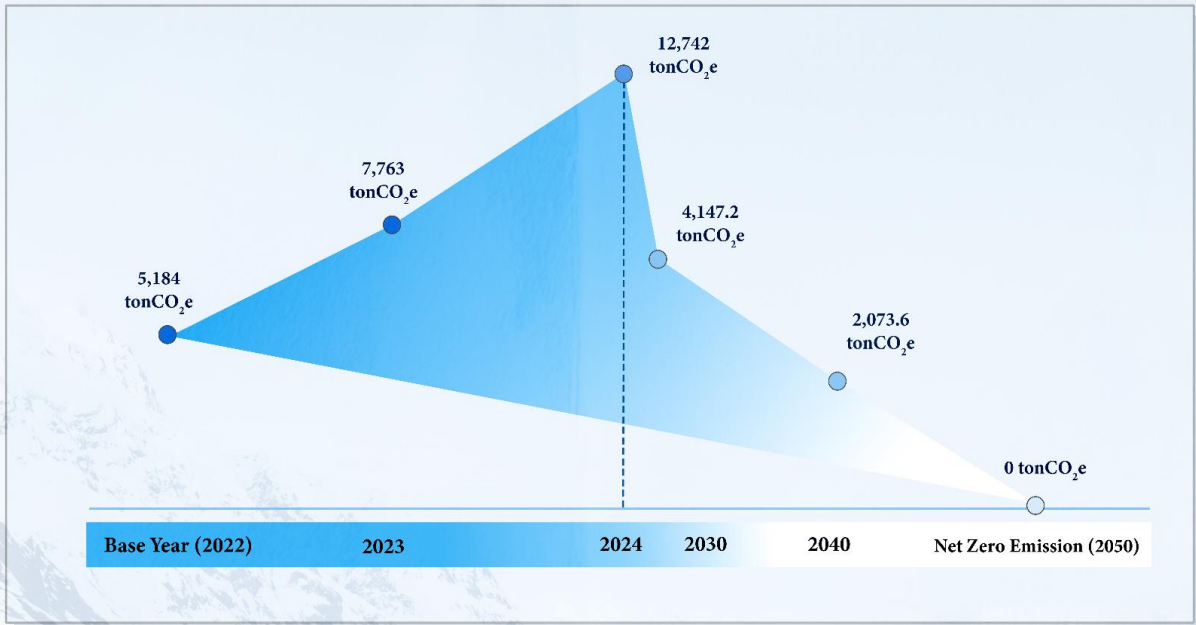
# BPT

“Pioneering low-carbon logistics with  
Thailand’s strategic fuel pipeline.”



## GHG REDUCTION PATHWAY TO NET ZERO 2050

2030: Reduce 20% from Base year  
2040: Reduce 60% by 2040 from Base year  
2050: Achieve Net Zero emissions



## GHG EMISSIONS BY OPERATION IN 2024

SCOPE 1

● 178

SCOPE 2

● 3,410

SCOPE 3

● 9,154

12,742



# LEADING THE ROAD TO NET ZERO



The table below outlines BAFS Pipeline Transportation targeted decarbonization initiatives, combining technology-driven solutions and nature-based measures. These projects include the replacement of conventional vehicles with electric alternatives, the introduction of EV hydrant systems, and forest-based carbon credit projects. Each entry specifies the timeframe, budget, and estimated greenhouse gas (GHG) reductions, underscoring BAFS's commitment to practical, measurable action in support of the Net Zero 2050 pathway.

## DECARBONIZATION PROJECT

Project details	Year of conduct	Project Execution Budget (Baht)	Estimated Greenhouse Gas Emissions Reduction
PCT Solar cell	2025	PPA BPT&BC	141 tonCO <sub>2</sub> e/ year
LMP Solar cell	2025	PPA BPT&BC	141 tonCO <sub>2</sub> e/ year
Ventilation Modification for BPI VSD Room	2025	400,000	0.025 tonCO <sub>2</sub> e/ year
Ventilation Modification for KPP VSD Room	2026	400,000	0.025 tonCO <sub>2</sub> e/ year





# ZERO EMISSION

Through a combination of project implementation and systematic greenhouse gas reduction reporting, the organization continues to advance its Net Zero 2050 vision. In addition, the company has established a more rigorous target of reducing Scope 1 & Scope 2 emissions by 3.21% annually, highlighting its enhanced commitment to achieving Net Zero ahead of schedule.



## CARBON NEUTRAL ORGANIZATION



In 2024, the company reported 12,742 tCO<sub>2</sub>e from its operations. These emissions were fully offset, achieving net-zero status and earning official certification from the Thailand Greenhouse Gas Management Organization (TGO).



# E

# ENERGY TRANSITION

To support the long-term objective of achieving Net Zero by 2050, the company is committed to adopting clean energy solutions & incorporating electric vehicles (EVs) within its operations as a means of reducing emissions.

## 01 | VEHICLE TRANSITION



In alignment with its sustainability objectives, the company will replace conventional internal combustion engine (ICE) vehicles with electric vehicles (EVs), contributing to lower emissions & greater reliance on renewable energy.

## 02 | SOLAR ROOFTOP INSTALLATION AT DMK OFFICE BUILDING



As part of its commitment to climate action, the company has implemented a solar rooftop system at its Don Mueang office buildings under the Thailand Voluntary Emission Reduction Program (T-VER), administered by TGO. The project supports clean energy adoption and minimizes electricity consumption from the grid, contributing to the organization's efforts to mitigate greenhouse gas emissions.





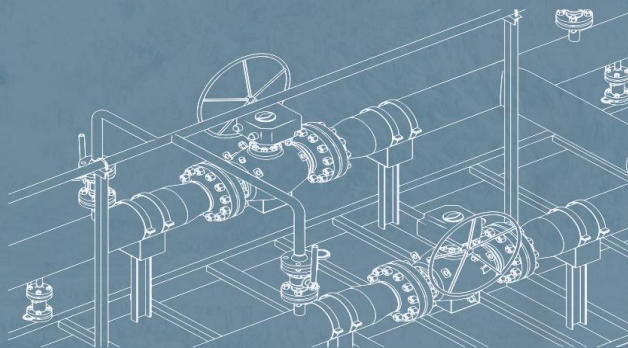
## RESPONSE TO NATURE AND LOW CARBON

With a strong focus on sustainability, BAFS Group strives to mitigate environmental and community impacts by introducing initiatives in waste management and resource optimization. These efforts aim to generate meaningful and enduring benefits for both society and the environment.



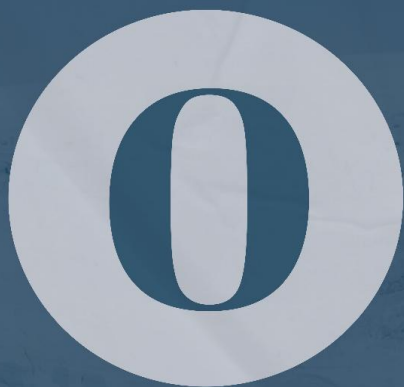
### NFPT

PIPELINE  
WELDING



BPT has made strategic investments to expand its oil pipeline network to the northern region, enabling the transportation of oil through the Northern Pipeline rather than by tanker trucks. This initiative is intended to reduce greenhouse gas emissions associated with oil transportation to various provinces, thereby supporting the company's environmental and sustainability objectives.



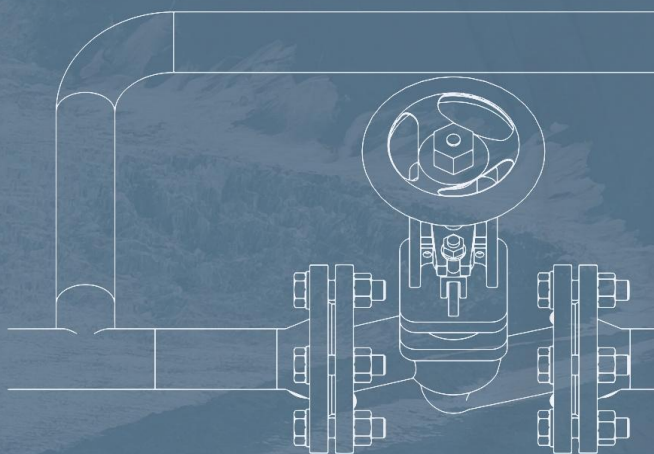


## OPPORTUNITY FOR GREEN INVESTMENT

Committed to ESG principles, the company advances Thailand's SDGs by investing in environmentally friendly and carbon-reducing ventures. These efforts promote long-term business sustainability while creating positive impacts for local communities.



### NORTHERN FUEL PIPELINE EXPANSION PROJECT (PHASE 3)



Construction of Phase 3 of the Northern Oil Pipeline, extending from Ang Thong to Saraburi, is currently in progress. The project is scheduled to commence commercial operations in the fourth quarter of 2026.



A full-page background image of a majestic mountain range with snow-covered peaks and a large glacier flowing down into a calm body of water. Numerous icebergs are floating in the water, reflecting the clear blue sky. A thin white vertical line runs down the center of the image, passing through the 'C' of the 'BC' text.

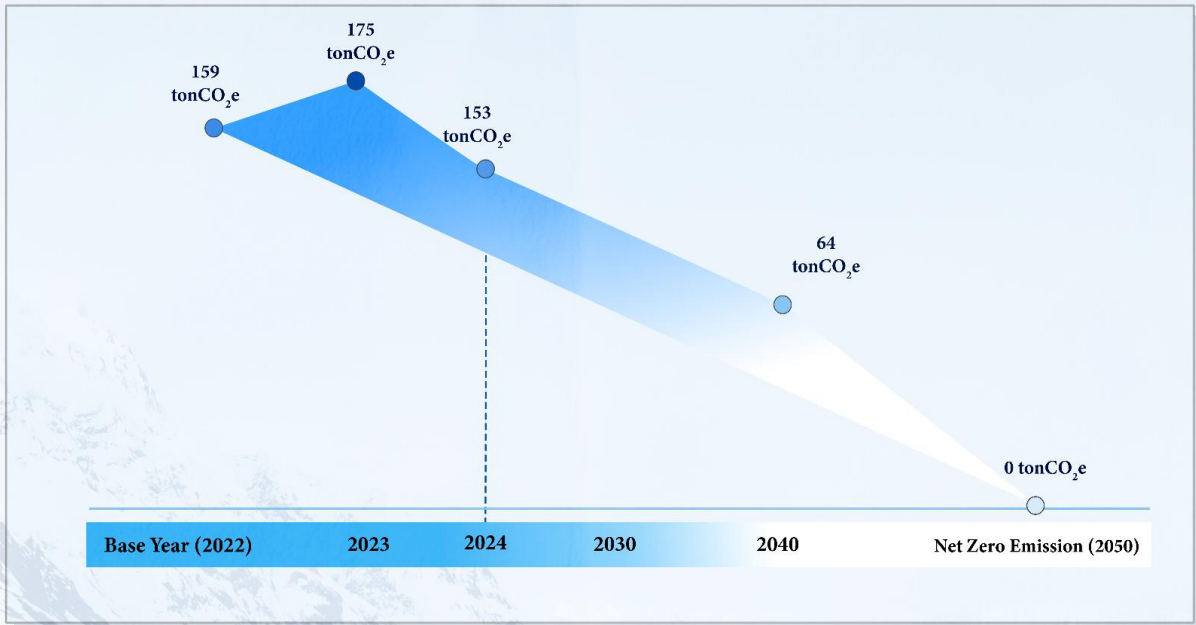
# BC

“Driving eco-efficiency through sustainable  
utilities and operations.”



## GHG REDUCTION PATHWAY TO NET ZERO 2050

2030: Reduce 20% from Base year  
2040: Reduce 60% by 2040 from Base year  
2050: Achieve Net Zero emissions



## GHG EMISSIONS BY OPERATION IN 2024

SCOPE 1

22

SCOPE 2

74

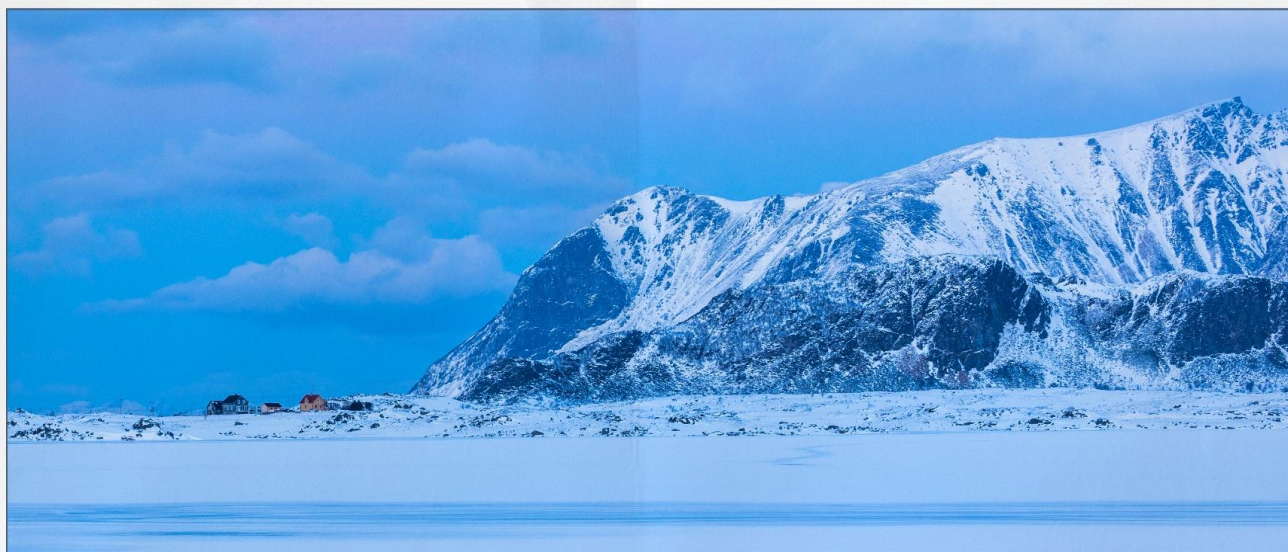
SCOPE 3

57

153



# LEADING THE ROAD TO NET ZERO



BAFS Clean Energy has implemented key initiatives to reduce greenhouse gas emissions in support of its Net Zero target. These include the annual CFO & Carbon Neutral Company program, ensuring ongoing emissions assessment and certification; the Shared Van Policy (2025), which encourages employees to use company-provided vans for off-site work instead of personal cars, cutting an estimated 2.74 tCO<sub>2</sub>e per year; and the Waste Segregation Policy (2025), which promotes systematic waste separation at source and is expected to reduce a further 2.74 tCO<sub>2</sub>e per year. Together, these measures reflect the Company's commitment to integrating sustainability into both operations and employee practices.

## DECARBONIZATION PROJECT

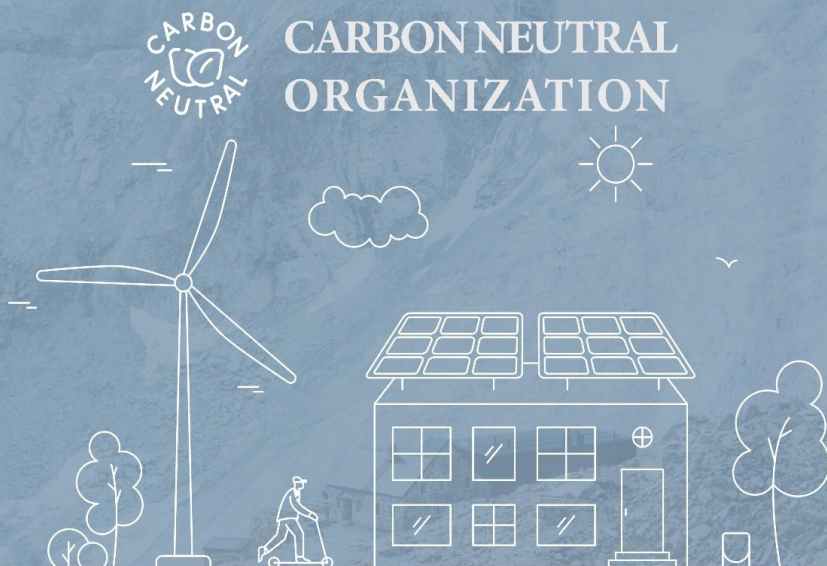
Project details	Year of conduct	Project Execution Budget (Baht)	Estimated Greenhouse Gas Emissions Reduction
CFO & Carbon Neutral Company	Annually	108,000	N/A <b>Note: These report cannot specify the greenhouse gas reduction</b>
Policy to use the company's shared vans for off-site work instead of personal cars.	2025	-	2.74 tonCO <sub>2</sub> e
Waste Management Policy	2025	-	1.6 tonCO <sub>2</sub> e





# ZERO EMISSION

The execution of targeted activities and projects, supported by the development of greenhouse gas reduction reports, forms a central element of the organization's strategy to achieve Net Zero emissions by 2050. At the same time, the company has introduced an enhanced objective of reducing Scope 1 and Scope 2 emissions by 3.21% per year, reinforcing its resolve to accelerate the transition toward Net Zero.



BC reported 153 tCO<sub>2</sub>e of greenhouse gas emissions from its 2024 operations, all of which were fully offset. The organization was awarded the Carbon Neutral Company plaque by TGO in recognition of this achievement.



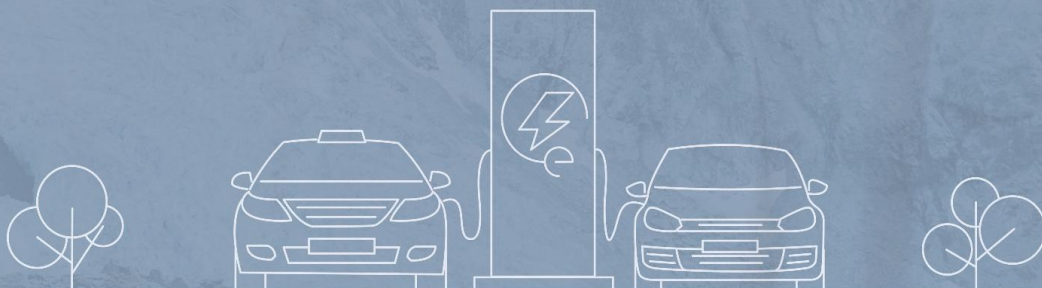


## OPPORTUNITY FOR GREEN INVESTMENT

In alignment with its Net Zero 2050 commitment, the company is advancing the shift to renewable energy and promoting the use of electric vehicles (EVs) across its operations to further reduce environmental impact.



### COMPANY'S VEHICLE TRANSITION



The company has outlined a plan to gradually replace internal combustion engine (ICE) vehicles with electric vehicles (EVs), thereby supporting greenhouse gas emission reductions and advancing the use of clean energy within the organization.





# RESPONSE TO NATURE AND LOW CARBON

BAFS Group is committed to minimizing environmental and community impacts as part of its long-term sustainability strategy. To this end, the Group has implemented projects emphasizing comprehensive waste management and efficient resource utilization, ensuring sustainable benefits for both the community and the environment.

01



## WASTE SEGREGATION PROJECT



To promote sustainable waste management, the company has defined objectives and protocols for segregating waste across its operations, with the dual goals of reducing landfill contributions and increasing the recycling of various waste types.

02



## ATC ENVIRO PROJECTS 1-3



The company has invested in planting 5,000 trees of various species across 50 rai, with the objective of supporting the company's long-term greenhouse gas reduction goals.

03

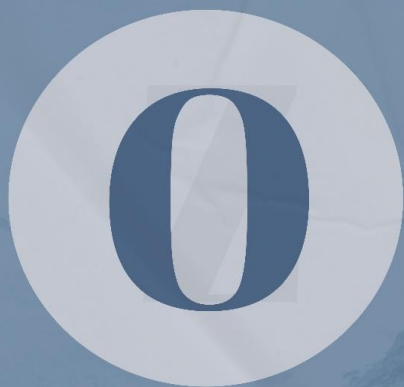


## ENERGY CONSERVATION POLICY



The company has instituted a policy to mitigate greenhouse gas emissions from electricity consumption by optimizing the operating hours of air conditioning systems at the head office.





## OPPORTUNITY FOR GREEN INVESTMENT

Placing strong emphasis on ESG and Thailand's SDGs, the company invests in green and carbon-reducing initiatives that promote sustainable growth and improve the quality of life in local communities.



### RENEWABLE ENERGY CERTIFICATES (RECS)



The company has invested in clean energy initiatives by registering its power plants for the issuance and sale of Renewable Energy Certificates (RECs).





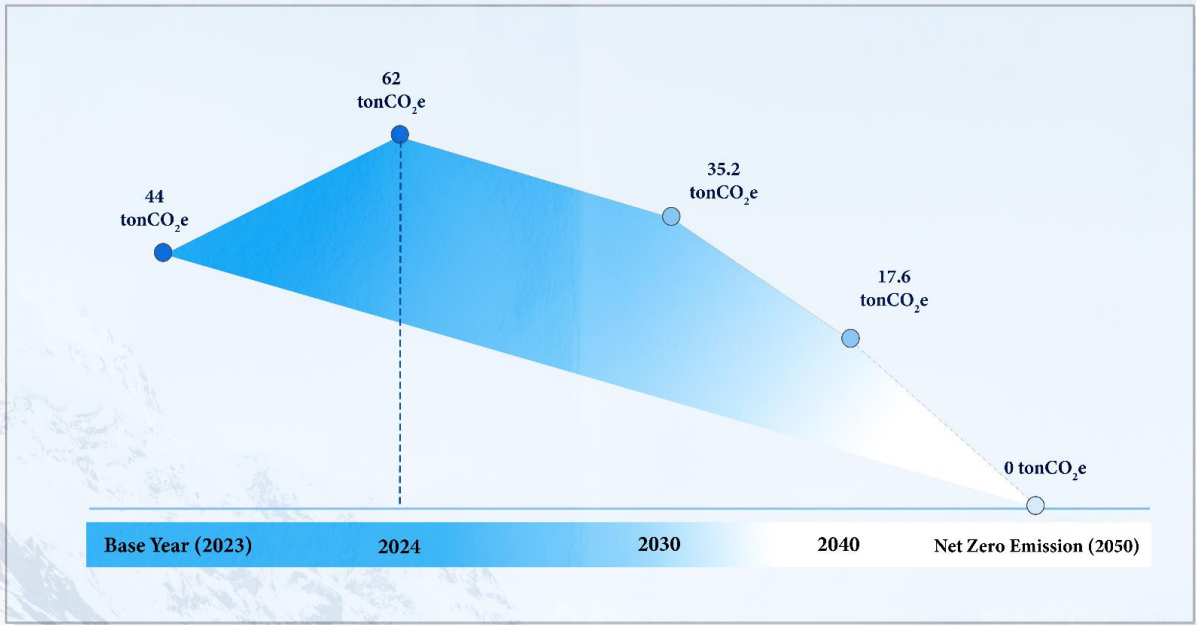
# BI

“Driving Green Innovation”

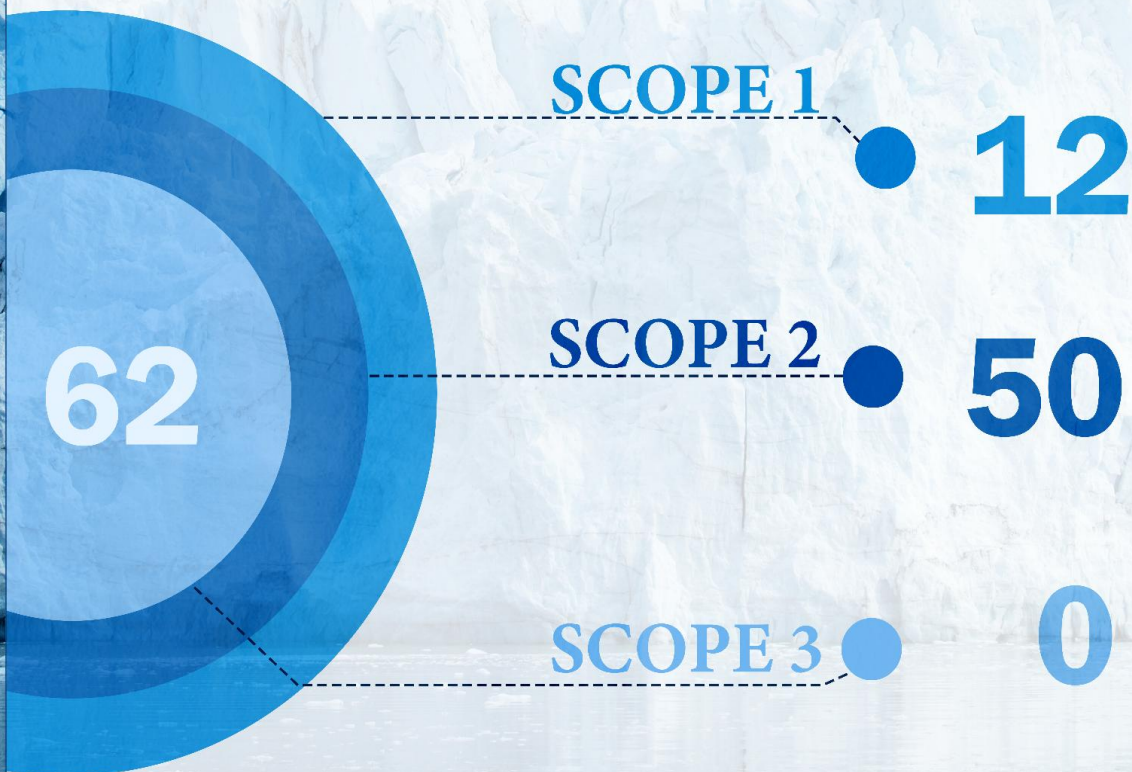


## GHG REDUCTION PATHWAY TO NET ZERO 2050

2030: Reduce 20% from Base year  
2040: Reduce 60% by 2040 from Base year  
2050: Achieve Net Zero emissions



## GHG EMISSIONS BY OPERATION IN 2024





# LEADING THE ROAD TO NET ZERO



BAFS Intech plans to implement Solar Rooftop - PPA Projects in 2028 and 2029 as part of its renewable energy transition strategy. Each installation is expected to reduce approximately 30 tons of CO<sub>2</sub> equivalent per year, contributing to the Company's overall greenhouse gas reduction targets. Since these projects are operated under the Power Purchase Agreement (PPA) model, there is no direct investment cost to the Company, while still generating measurable environmental benefits. These initiatives reflect BAFS Intech commitment adopting clean energy solutions and enhancing long-term sustainability performance.

## DECARBONIZATION PROJECT

Project details	Year of conduct	Project Execution Budget (Baht)	Estimated Greenhouse Gas Emissions Reduction
Sollar roof top-PPA	2028	0	30 tonCO <sub>2</sub> e
Sollar roof top-PPA	2029	0	30 tonCO <sub>2</sub> e





# ZERO EMISSION

The organization is advancing its Net Zero 2050 commitment through the execution of projects, activities, and greenhouse gas reduction reporting. Complementing this long-term target, the company has set a more ambitious goal of reducing Scope 1 and Scope 2 emissions by 3.21% annually, reflecting its leadership in sustainability and its commitment to expediting the achievement of Net Zero.



CARBON NEUTRAL  
ORGANIZATION



The company has compiled a greenhouse gas (GHG) emissions report for its operations. In 2024, total emissions from Scope 1 and Scope 2 reached 62 tCO<sub>2</sub>e, all of which were fully offset to achieve net-zero emissions. This accomplishment has been officially recognized with Carbon Neutral certification by the Thailand Greenhouse Gas Management Organization (TGO).



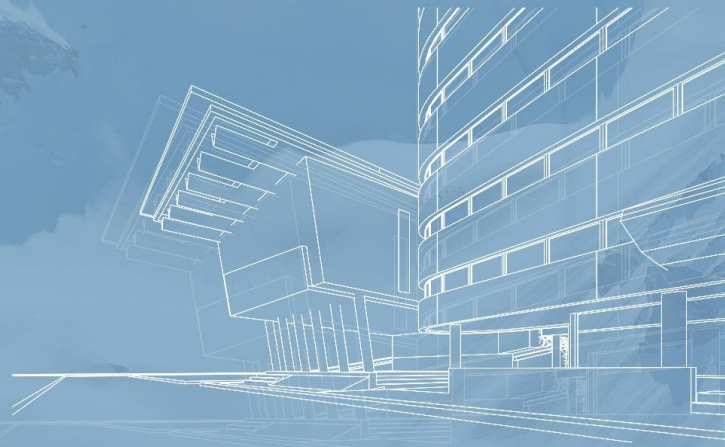


# ENERGY TRANSITION

To support the long-term objective of achieving Net Zero by 2050, the company is committed to adopting clean energy solutions and incorporating electric vehicles (EVs) within its operations as a means of reducing emissions.



## SOLAR ROOFTOP-PPA AT BAFS INTECH FACTORY



Prepare a report and verify its accuracy to request certification for the carbon credits from the project.





# RESPONSE TO NATURE AND LOW CARBON

BAFS Group is dedicated to achieving long-term sustainability by reducing its environmental and community impacts through projects in waste management and resource efficiency, delivering sustainable benefits to both people and the planet.



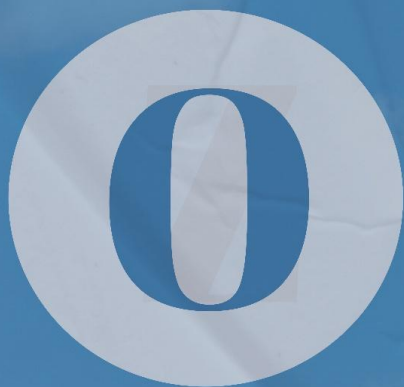
## ZERO WASTE PROJECT



Aiming to significantly cut the amount of general waste directed to landfills by implementing innovative waste reduction.







# OPPORTUNITY FOR GREEN INVESTMENT

The company prioritizes environmental, social, and governance (ESG) considerations by actively supporting Thailand's Sustainable Development Goals (SDGs). Through strategic investments in green and carbon-reduction initiatives, the company fosters sustainable business growth while contributing to the well-being of local communities.



## EV HYDRANT DISPENSER MANUFACTURING



The company is dedicated to advancing carbon neutrality within the aviation industry by manufacturing EV Hydrant Dispensers and incorporating clean energy technologies, thereby promoting a more sustainable future.





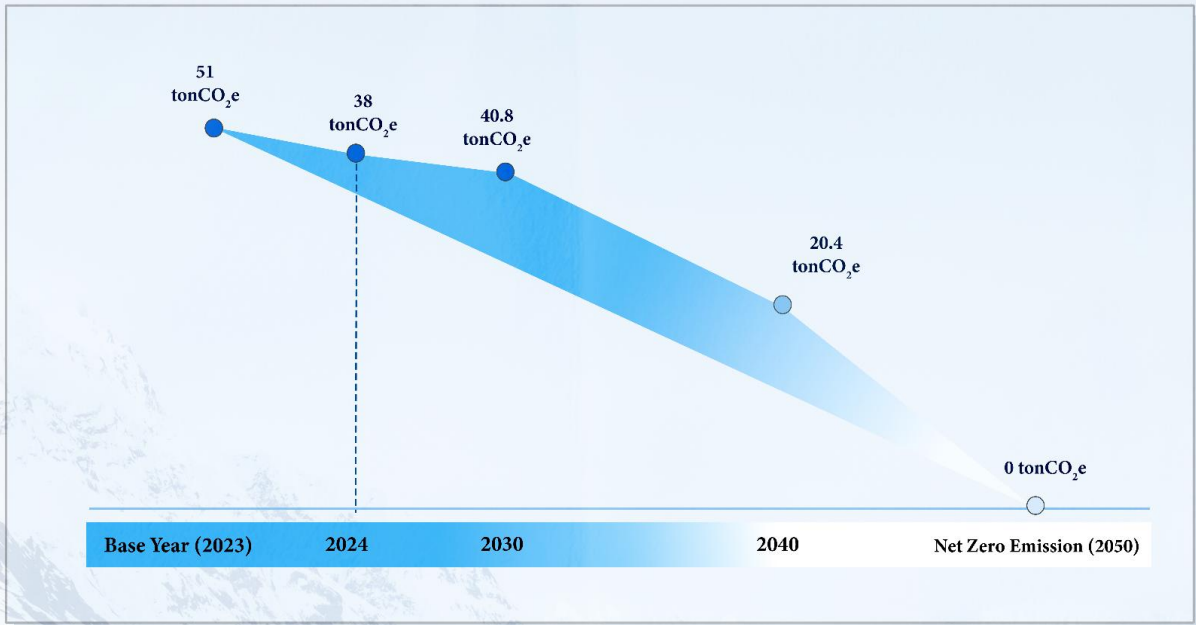
# BID

“Supporting the Group with sustainable business services  
and operational excellence.”

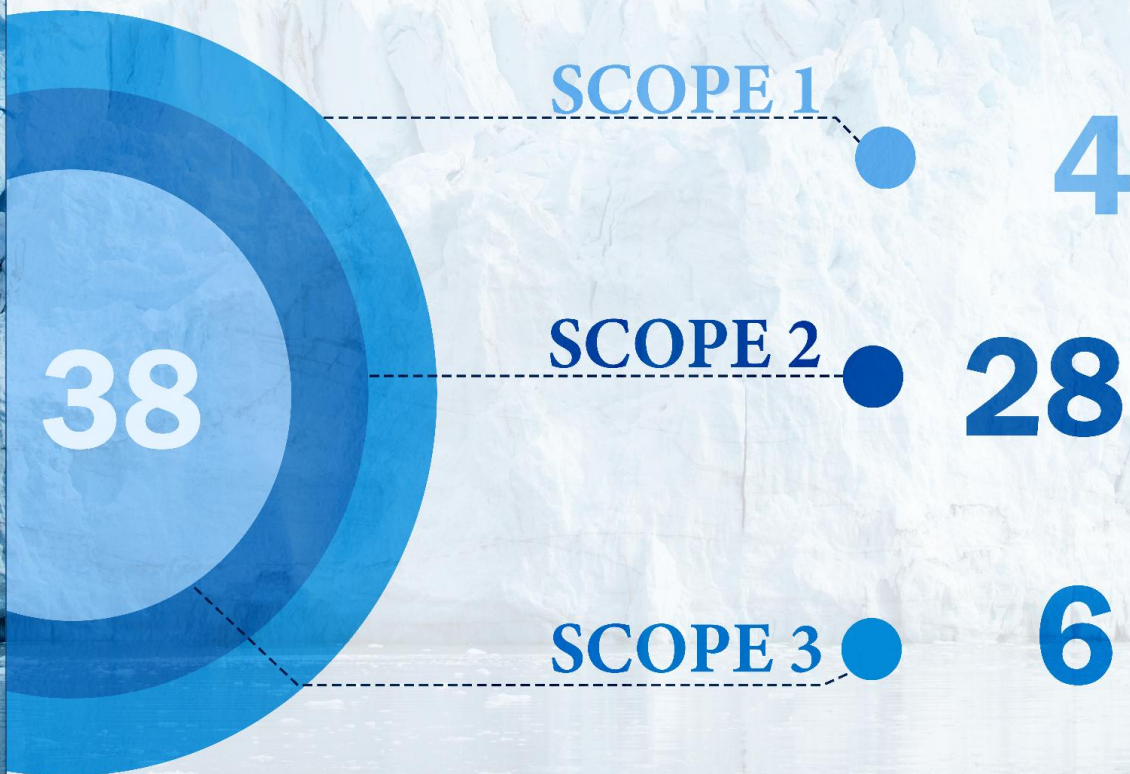


## GHG REDUCTION PATHWAY TO NET ZERO 2050

2030: Reduce 20% from Base year  
2040: Reduce 60% by 2040 from Base year  
2050: Achieve Net Zero emissions



## GHG EMISSIONS BY OPERATION IN 2024







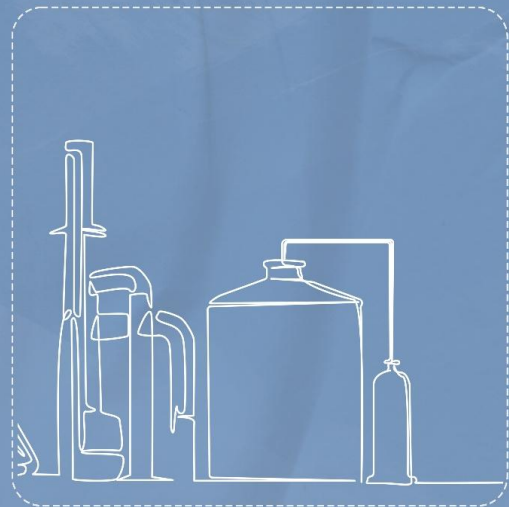
# ZERO EMISSION

The organization's strategic pathway toward achieving Net Zero greenhouse gas emissions by 2050 is supported through the implementation of diverse activities and projects, alongside the preparation of greenhouse gas reduction reports. Concurrently, the company has set a more ambitious internal target, committing to an annual reduction of 3.21% in Scope 1 and Scope 2 emissions, underscoring its determination to accelerate progress toward Net Zero.



## CARBON NEUTRAL ORGANIZATION

BID has demonstrated its strong commitment to environmental responsibility by achieving carbon neutrality through verified carbon offsetting. The company successfully compensated for its greenhouse gas emissions across Scope 1, 2, and 3, totaling 51 tCO<sub>2</sub>e, by purchasing carbon credits from a certified renewable energy project.





The offset was made through the T-VER program, utilizing credits from the 133.6 MW Biomass Thermal Generation Project at Mitr Phol Bio-Power, Phu Khiao (Block 2). This project represents a clean energy initiative that contributes to reducing reliance on fossil fuels and supports Thailand's transition to sustainable energy sources.

In recognition of this effort, BID was awarded the Carbon Neutral Organization Certificate by the Thailand Greenhouse Gas Management Organization (Public Organization) on 26 November 2024. This certification affirms BID's proactive role in climate action and its alignment with national and global goals for greenhouse gas reduction.

BID remains committed to sustainable development and continues to integrate environmental stewardship into its business operations, contributing meaningfully to the fight against climate change.







# ENERGY TRANSITION

In pursuit of the Net Zero 2050 target, the company has developed plans to transition toward cleaner energy sources and progressively integrate electric vehicles (EVs) into its operations to minimize greenhouse gas emissions.



## COMPANY'S VEHICLE TRANSITION



The company has outlined a plan to gradually replace internal combustion engine (ICE) vehicles with electric vehicles (EVs), thereby supporting greenhouse gas emission reductions and advancing the use of clean energy within the organization.





## RESPONSE TO NATURE AND LOW CARBON

BAFS Group is committed to minimizing environmental and community impacts as part of its long-term sustainability strategy. To this end, the Group has implemented projects emphasizing comprehensive waste management and efficient resource utilization, ensuring sustainable benefits for both the community and the environment.

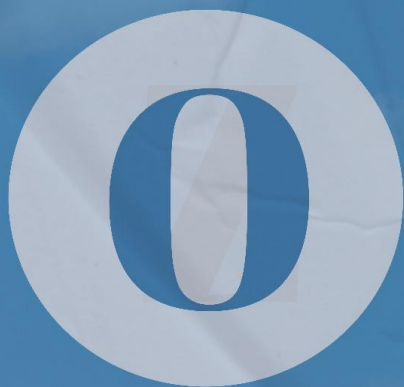


### ZERO WASTE PROJECT

Focused on substantially reducing the volume of general waste sent to landfills through the implementation of innovative waste minimization strategies.







# OPPORTUNITY FOR GREEN INVESTMENT

The company emphasizes ESG responsibility by integrating support for Thailand's SDGs into its operations. Investments in green and low-carbon businesses are designed to drive sustainable growth and enhance community welfare.







*"Step by step, BAFS Group is advancing on the Road to Net Zero 2050. Through innovation, collaboration, and responsible operations, we are reducing emissions, creating sustainable value, and contributing to a cleaner, stronger future for Thailand and the aviation industry."*

**BAFS GROUP NET ZERO**