

# Sustainable Service and Revenue

# Sustainable Service

# Introduction

AOT operates a comprehensive aviation infrastructure portfolio that plays a critical role in regional connectivity and economic development. As the aviation sector evolves toward greater environmental responsibility, AOT is positioned to integrate potentially sustainable activities in line with both national policies and international climate goals, including the EU Taxonomy for sustainable economic activities. Accordingly, this overview assesses the sustainable revenue potential of AOT's core airport operations and infrastructure services in accordance with the EU Taxonomy definition\*. The analysis focuses on two key activities: **(1) Low carbon airport infrastructure** and **(2) Air transport ground handling operations**. Each activity is evaluated based on alignment with the EU Taxonomy's technical screening criteria, its substantial contribution to climate change mitigation, compliance with 'Do No Significant Harm' (DNSH) requirements, and respect for minimum social safeguards. This assessment underscores AOT's strategic alignment with global sustainability standards while supporting Thailand's transition toward a low-carbon and climate-resilient aviation sector.





# Low carbon airport infrastructure

# Low carbon airport infrastructure



เรื่อง ผอ.ผส.

ทศ. 2.1 การให้บริการระบบไฟฟ้า 400 Hz และระบบปรับอากาศ PC-Air ซึ่งให้บริการ ณ อาคารผู้โดยสารหลักและอาคาร SAT-1 ณ ทสภ. เพื่อลดการเปิดใช้เครื่องกำเนิดพลังงานไฟฟ้าจากอากาศยาน (Auxiliary Power Unit: APU) ซึ่งจะลดเสียงรบกวนและมลพิษทางอากาศจากอากาศยานระหว่างการบินขึ้น – ลง เครื่องของผู้โดยสาร ทั้งนี้ การให้บริการระบบ 400 Hz และระบบปรับอากาศ PC-Air จะช่วยให้สายการบินลดการใช้เชื้อเพลิงและต้นทุนการบำรุงรักษาสำหรับสายการบินด้วย

ทศ. 2.2 การประกอบกิจการของบริษัท ผลิตไฟฟ้าและน้ำเย็น จำกัด (DCAP) ซึ่งผลิตไฟฟ้า โอน้ำ และน้ำเย็นสำหรับระบบปรับอากาศและการให้บริการอื่นที่เกี่ยวข้องของ ทสภ. และหน่วยงานที่เกี่ยวข้อง โดยการผลิตพลังงานไฟฟ้ามาจากระบบ Co-Generation ที่ใช้ก๊าซธรรมชาติ และมีการผลิตจากพลังงานแสงอาทิตย์ร่วมด้วย

ทศ. 2.3 การประกอบกิจการของบริษัท ท่าอากาศยาน หลังงานบริษัท จำกัด ซึ่งให้บริการสถานีอัดประจุไฟฟ้า (EV Charging Station) ณ ทสภ. ทกภ. และ สนข. เพื่อลดมลพิษทางอากาศ ด้วยการสนับสนุนการใช้รถยนต์ไฟฟ้า (Electric Vehicle: EV) ทั้งในเขตการบิน (Airside) ซึ่งมีการนำ EV มาใช้ในบริการภาคพื้น (Ground Service) และนอกเขตการบิน (Landside) เพื่อรองรับผู้โดยสาร ผู้ใช้บริการที่ใช้ EV และรถแท็กซี่ EV

จึงเรียนมาเพื่อพิจารณา หากเห็นชอบกรุณานำเรียน รัฐธ. เพื่อพิจารณาเสนอ ผอ. ดำเนินการในส่วนที่เกี่ยวข้องต่อไป

ผอ.สพ.ผส.  
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AOT piloted electric taxis to provide services to passengers and users at Suvarnabhumi Airport, as well as installed EV Charge service stations for member electric taxis. The long-term parking area in Zone E is moving towards becoming the first green airport in Thailand.

Dr. Kirati Kijmanawat President Airports of Thailand Public Company Limited or AOT said that AOT, which manages six major airports in Thailand, namely Suvarnabhumi Airport (TSA); Don Mueang Airport, Chiang Mai Airport, Mae Fah Luang Airport, Chiang Rai Airport, Phuket Airport, and Hat Yai Airport are aiming to meet Mr. Suriya's policies. Minister of Transport In promoting Thailand's transportation cooperation towards becoming a carbon society, the company focuses on community-friendly operations. Society and Environment

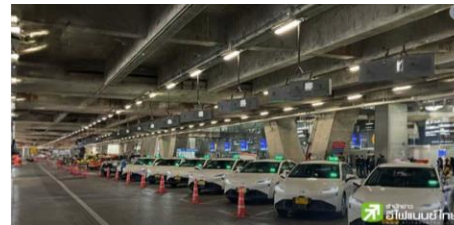
The aim is to drive the TSA to become the first green airport in Thailand. so if the vehicles serviced by the TSA can be converted into electric vehicles (EVs), it will reduce carbon dioxide emissions by more than 50 million tons per year.

In terms of public electric vehicle (EV taxi) services, there are currently members of public taxi drivers. Therefore, AOT initially installed a wired electric vehicle charger service station by DC fast charging. DC Fast Charge with a charging capacity of 40 kW per unit. 16 units and 150 kW each. 2 units in the long-term parking lot of Zone E of the TSA. To support the service for taxis that will increasingly change to electric vehicles now and in the future.

In addition, the TSA is in the process of installing a DC Fast Charge machine with a charging capacity of 360 kW per unit. 10 units and 150 kW each. 2 machines to support the service for shuttle buses, public service buses, Public transportation and AOT division vehicles in the Support Facilities area opposite the Public Transportation Administration Center. In addition, AOT has a project to install EV Charging Stations in the Airside, Landside, and Custom Free Zone areas at a total of 7 points to support the trend of electric vehicles becoming popular on a large scale.

AOT is committed to conducting business responsibly under the principles of good governance. Taking into account society and the environment under the principles of good governance, and aiming to become an "environmentally friendly airport" or Green Airport for stable and sustainable corporate growth.

## AOT pilots EV taxis-installation of charging stations to serve passengers at Suvarnabhumi Airport, towards Green Airport



AOT has established a plan to penetrate both **Fixed Electrical Ground Power (FEGP)** and **Ground Power Unit (GPU)** across six airport operation of AOT. The FEGP and GPU support 400 Hz power to run aircraft systems to avoid running on an on-board Auxiliary Power Unit (APU) of the airplane. The integrated system is used together with the **Pre-Conditioned Air System (PCA)** to provide conditioned air to the aircraft. It is an advanced air conditioning system designed to transfer conditioned air directly to the aircraft, augmenting the electrical power supply obtained from the FEGP/GPU.

AOT also embeds the charging station at the airports to supplier electric-based equipment and vehicle – Battery Electric Vehicle (BEV) – including airside, landside, and custom free zone areas to support the transitioning to electric vehicle (EV) use for the operation, passenger car, and taxi.

The airport of AOT uses the electricity from both non-renewable and renewable energies to operate the airports. This supports the economic activity of AOT that aligns with EU Taxonomy to be lower climate change impact through lower emission generation from the operation.

Through these implementations, it is identified as aligned with EU Taxonomy activity –“**Low carbon airport infrastructure**” – which contributes directly to environmental objective of climate change mitigation under the EU Taxonomy technical screening criteria.

# 2

## Air transport ground handling operations

# Air transport ground handling operations



AOT has gradually implemented the transitioning from fossil-based consumption to electric-based consumption through all the relevant equipment and vehicle in the ground handling activity. This alleviates the emission tail pipe from fossil fuel consumption in line with the EU Taxonomy activity, “**Air transport ground handling operations**,” which contributes directly to environmental objective of climate change mitigation under the EU Taxonomy technical screening criteria.



# Sustainable Revenue

# Summary of Sustainable Revenue in 2025



| Company                                                                  | Business Activity                                                                                                                  | Revenue Received by AOT                                                            | Potential Taxonomy Activity                                                                                                                                                         |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| District Cooling System and Power Plant Co., Ltd.                        | Operates district cooling and central utility systems supplying chilled water and electricity to airport facilities.               | Concession fee or lease for operating airport utility and energy infrastructure.   | <b>Low-carbon airport infrastructure</b> (energy infrastructure supporting airport operations)                                                                                      |
| Airport Facilities Co., Ltd.                                             | Provides airport facility management and operational support services within terminal or airport buildings.                        | Concession or lease for airport facility operation and infrastructure services.    | <b>Low-carbon airport infrastructure</b>                                                                                                                                            |
| Worldwide Flight Services Bangkok Air Ground Handling Co., Ltd. (WFSBGH) | Provides passenger handling, baggage handling, cargo handling, ramp services and aircraft turnaround.                              | Concession for operating ground handling services within the airport.              | <b>Air transport ground handling operations</b>                                                                                                                                     |
| AOT Ground Aviation Services Company Limited (AOTGA)                     | Comprehensive ground handling services including passenger, baggage, cargo and ramp operations.                                    | Concession for providing ground handling services at AOT airports.                 | <b>Air transport ground handling operations</b>                                                                                                                                     |
| Thai Ground Handling Company Limited (TGH)                               | Ground handling services for airlines including ramp and baggage operations.                                                       | Concession for ground handling operation.                                          | <b>Air transport ground handling operations</b>                                                                                                                                     |
| Chiang Mai Ground Handling Service Company Limited                       | Ground handling operator serving regional airports.                                                                                | Concession for providing ground handling services.                                 | <b>Air transport ground handling operations</b>                                                                                                                                     |
| BAGS Ground Services Co., Ltd.                                           | Passenger handling, baggage handling and aircraft ramp services.                                                                   | Concession for ground handling services.                                           | <b>Air transport ground handling operations</b>                                                                                                                                     |
| H.S. Aviation Co., Ltd.                                                  | Airport ground support and passenger service operations.                                                                           | Concession for airside operational services.                                       | <b>Air transport ground handling operations</b>                                                                                                                                     |
| EV Society Co., Ltd.                                                     | Installation and operation of EV charging infrastructure and electric mobility services.                                           | Concession for EV charging facilities located within airport premises.             | <b>Low-carbon airport infrastructure</b>                                                                                                                                            |
| DAN-THAI Equipment Co., Ltd.                                             | Supplies and maintains ground support equipment (GSE) used for aircraft servicing.                                                 | Lease or concession for operating and maintaining GSE within airport premises.     | <b>Air transport ground handling operations</b> (supporting infrastructure)                                                                                                         |
| Thai Airways International PLC                                           | Airline operations, including check-in counters, passenger lounges, ticket offices and potentially self-handled ground operations. | Concession for terminal space, operational facilities or self-handling operations. | <b>Potentially Air transport ground handling operations</b> (only where the concession relates to self-handling or airport operational facilities; otherwise requires confirmation) |

Based on the concession revenue analysis, AOT's airport-related activities can be broadly categorized into two groups aligned with the proposed EU Taxonomy activities. Revenue generated from companies such as District Cooling System and Power Plant Co., Ltd., Airport Facilities Co., Ltd., and EV Society Co., Ltd. is primarily associated with airport utility systems, facility management, and electric mobility infrastructure, which are considered supporting infrastructure for low-carbon airport operations. Meanwhile, concession revenue received from ground handling operators, including AOT Ground Aviation Services, Worldwide Flight Services Bangkok Air Ground Handling, Thai Ground Handling, BAGS Ground Services, Chiang Mai Ground Handling, and H.S. Aviation, is associated with passenger handling, baggage handling, cargo handling, ramp services, and aircraft turnaround activities, aligning with the Air transport ground handling operations taxonomy activity. Certain customers, such as Thai Airways International PLC and DAN-THAI Equipment Co., Ltd., may perform mixed operational activities; therefore, the specific scope of their concession agreements should be further reviewed to confirm the appropriate taxonomy classification.

# Summary of Sustainable Revenue



| Revenue                            | Revenue and Percentage    | Revenue Generated (FY 2022) | Revenue Generated (FY 2023) | Revenue Generated (FY 2024) | Revenue Generated (FY 2025) |
|------------------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Total Revenue                      | Total Revenue (MTHB)      | 17,891,860,000              | 48,445,503,319              | 67,827,790,000              | 68,586,380,000              |
| Sustainable Revenue                | Sustainable Revenue (THB) | 599,770,000                 | 1,973,920,000               | 3,006,810,000               | 11,295,806,618              |
| Percentage of sustainable revenues | %                         | 3.35                        | 4.10                        | 4.43                        | 16.46                       |



# Sustainable Product Program

# Specific, time-bound and quantified target for increasing revenues from sustainable products and services, or number of sustainable products and services

## **SAT-1 400 Hz Ground Power Unit (GPU) and Pre-Conditioned Air (PC-Air) programme**

AOT has expanded its **400 Hz electrical power and PC-AIR services** to Suvarnabhumi Airport's SAT-1 building following approval of the associated service fees by the Civil Aviation Authority of Thailand. These services provide electricity and air conditioning to parked aircraft, helping reduce reliance on ground-based generators and associated emissions and noise.

Since their launch at SAT-1 on **28 September 2023**, the services have been used by approximately **30 airlines, covering around 2,000 flights per month**. **AOT expects the services to generate more than THB 300 million in annual revenue**, demonstrating the potential for environmentally supportive airport services to contribute to AOT's non-aviation revenue while delivering environmental benefits.



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

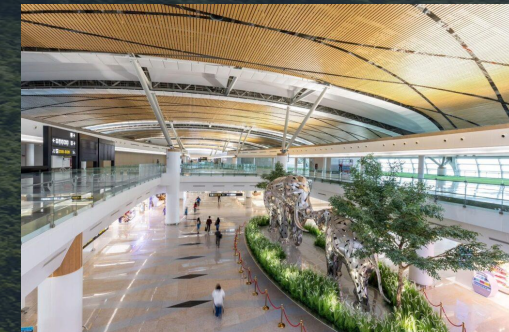
*R&D resources to develop sustainable products or services*



## Green Building as part of low carbon infrastructure

AOT allocates financial resources to engage specialized technical expertise that supports the development and improvement of more sustainable airport infrastructure and services. As part of its project personnel investment, AOT has specifically engaged a Green Building Specialist, **with approximately THB 9.8k person-months allocated to the project**. The specialist provides technical expertise related to green building considerations, supporting the integration of sustainability principles into airport infrastructure planning and development.

This investment in specialized human resources demonstrates AOT's allocation of expenditure toward technical knowledge and expertise that can support the development of more energy-efficient and environmentally sustainable airport facilities and services, contributing to the expansion and improvement of AOT's sustainable service portfolio.



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



## Infrastructure improvements to ensure products and services are produced/manufactured/maintained sustainably

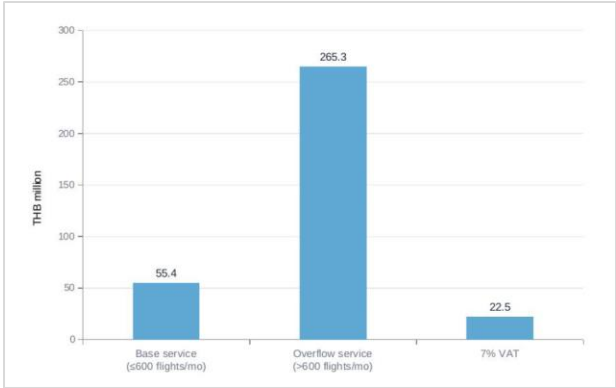
To support implementation of its climate transition plan, AOT has allocated approximately THB 1.43 billion in capital investment (CAPEX) and THB 343.1 million in committed operational expenditure (OPEX, Sep 2026–Mar 2029) to airport infrastructure and associated ground-handling services that support lower-carbon aircraft operations while aircraft are stationary at the airport. The investment covers the installation, operation, maintenance, and continued availability of electrified ground-support infrastructure, supporting the transition from fuel-consuming onboard equipment toward electricity-based services where applicable.

A key initiative is the SAT-1 400 Hz Ground Power Unit (GPU) and Pre-Conditioned Air (PC-Air) programme – THB 1.43 billion of installed CAPEX plus a further THB 78.4 million in planned spare-parts investment for FY2025–FY2026. The programme provides fixed electrical ground power and pre-conditioned air to stationary aircraft at the gate, allowing aircraft to reduce or avoid the operation of onboard Auxiliary Power Units (APUs) while connected to these services. This type of infrastructure is consistent with the activities described under the taxonomy category "Low carbon airport infrastructure," which includes the construction, modernisation, maintenance, and operation of infrastructure for the provision of fixed electrical ground power and pre-conditioned air to stationary aircraft.

The programme also supports AOT's provision of airport ground services associated with aircraft turnaround. Its ongoing operation and maintenance – funded through the THB 343.1 million service and maintenance contract – are relevant to the taxonomy concept of "Air transport ground handling operations," which encompasses the operation, maintenance, repair, retrofitting, upgrading, and other service activities associated with ground-handling equipment and airport ground services.

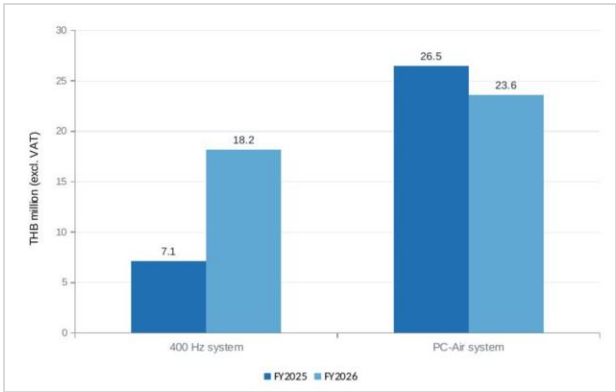
Through these investments – approximately THB 421.5 million in quantified, time-bound OPEX and CAPEX allocated for 2025–2029, on top of the THB 1.43 billion already installed – AOT supports the continued provision and maintenance of electrified aircraft ground-support services and infrastructure that can reduce reliance on aircraft APUs during gate operations. The initiative therefore represents an investment in infrastructure and services that contribute to the progressive decarbonisation of airport ground operations and AOT's broader climate transition objectives.

Total Contract Value (Incl. VAT)  
฿343,102,72



FY2025 planned spend  
฿33.6 m

FY2026 planned spend  
฿41.8 m



฿1.43 bn  
Historical CapEx installed at SAT-1 (2017)

฿343.1 m  
Forward O&M service contract, Sep 2026 – Mar 2029

฿78.4 m  
Spare-part CapEx/ OpEx planned, FY2025 – 2026

฿421.5 m  
Total quantified, time-bound OPEX + CAPEX (2025–2029)

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

*Internal training on sustainable design principles for functions developing products or services (e.g. R&D, innovation)*

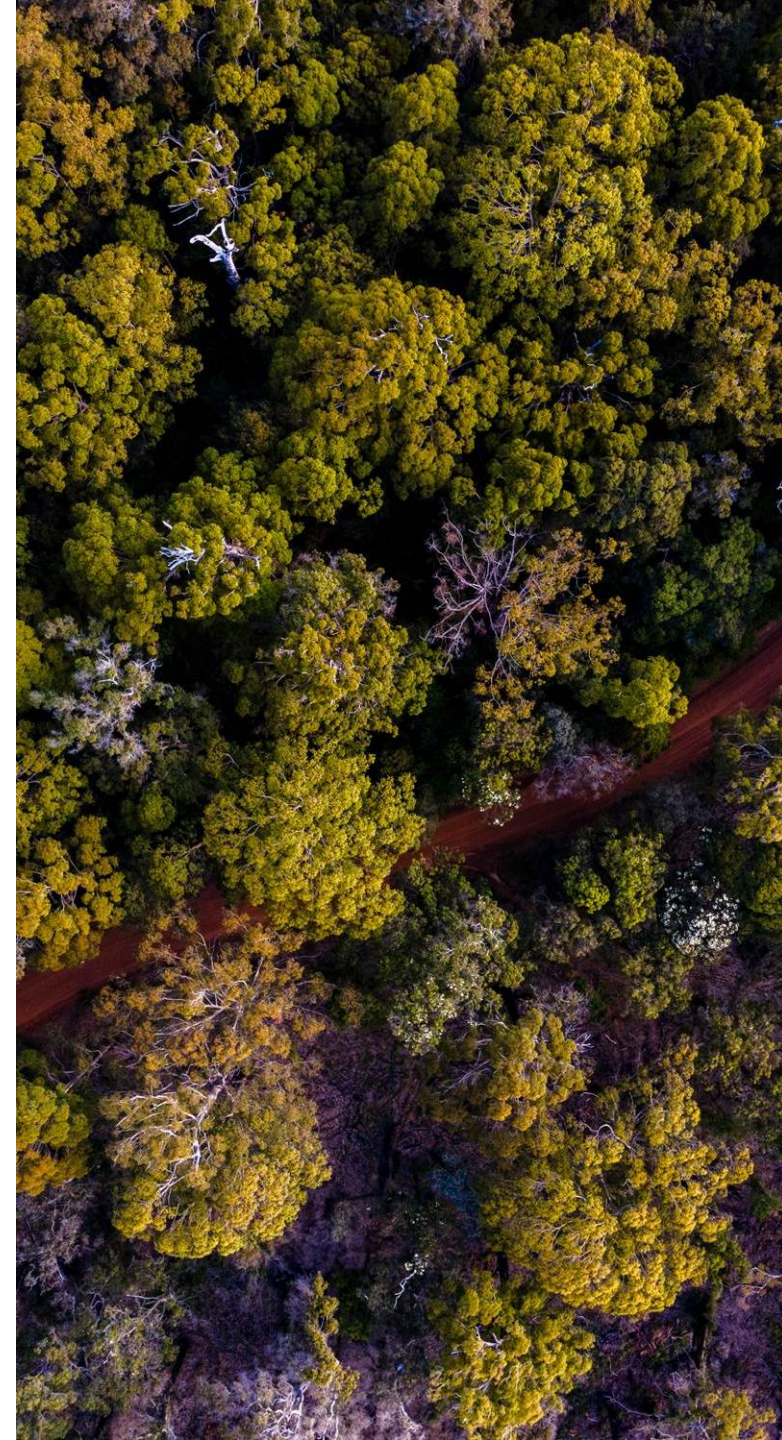
Climate change, the transition to a low-carbon economy, and rising stakeholder expectations are reshaping infrastructure development globally. In the aviation sector, airports are critical infrastructure supporting economic growth, tourism, connectivity, and national development.

AOT recognizes that **“design is the starting point of sustainability.”** Decisions made during planning and design have long-term implications for energy and resource efficiency, GHG emissions, operating costs, climate resilience, and asset performance. AOT therefore applies **Sustainable Design** as a life-cycle approach, integrating energy-efficient and passive design, sustainable materials, water management, indoor environmental quality, appropriate technologies, and climate-resilient solutions.

Through its **Green Airport Building approach**, AOT seeks to balance sustainability with operational efficiency, safety, passenger experience, and responsible resource use. Sustainable Design also supports the long-term value of airport commercial buildings and retail spaces by improving energy and utility efficiency, indoor environmental quality, space utilization, and tenant attractiveness.

To strengthen internal capabilities, AOT invested approximately **THB 27,000** in the training program **“Sustainable Architecture for Airports and Large Buildings: Key Design Considerations 2026.”** The program targeted employees involved in planning, design, construction, project management, and infrastructure development.

The training covered energy-efficient and passive design, environmentally preferable materials, water efficiency and reuse, indoor environmental quality, climate-resilient design, green building standards, and relevant case studies. The knowledge gained will support future development, renovation, and enhancement of passenger terminals, offices, supporting facilities, and commercial spaces, strengthening AOT’s ability to improve resource efficiency, environmental performance, operational effectiveness, and long-term asset value.



# Thank you

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