SOFIA AIRPORT | OPERATED BY SOF Connect

Decarbonization Roadmap of Sofia Airport

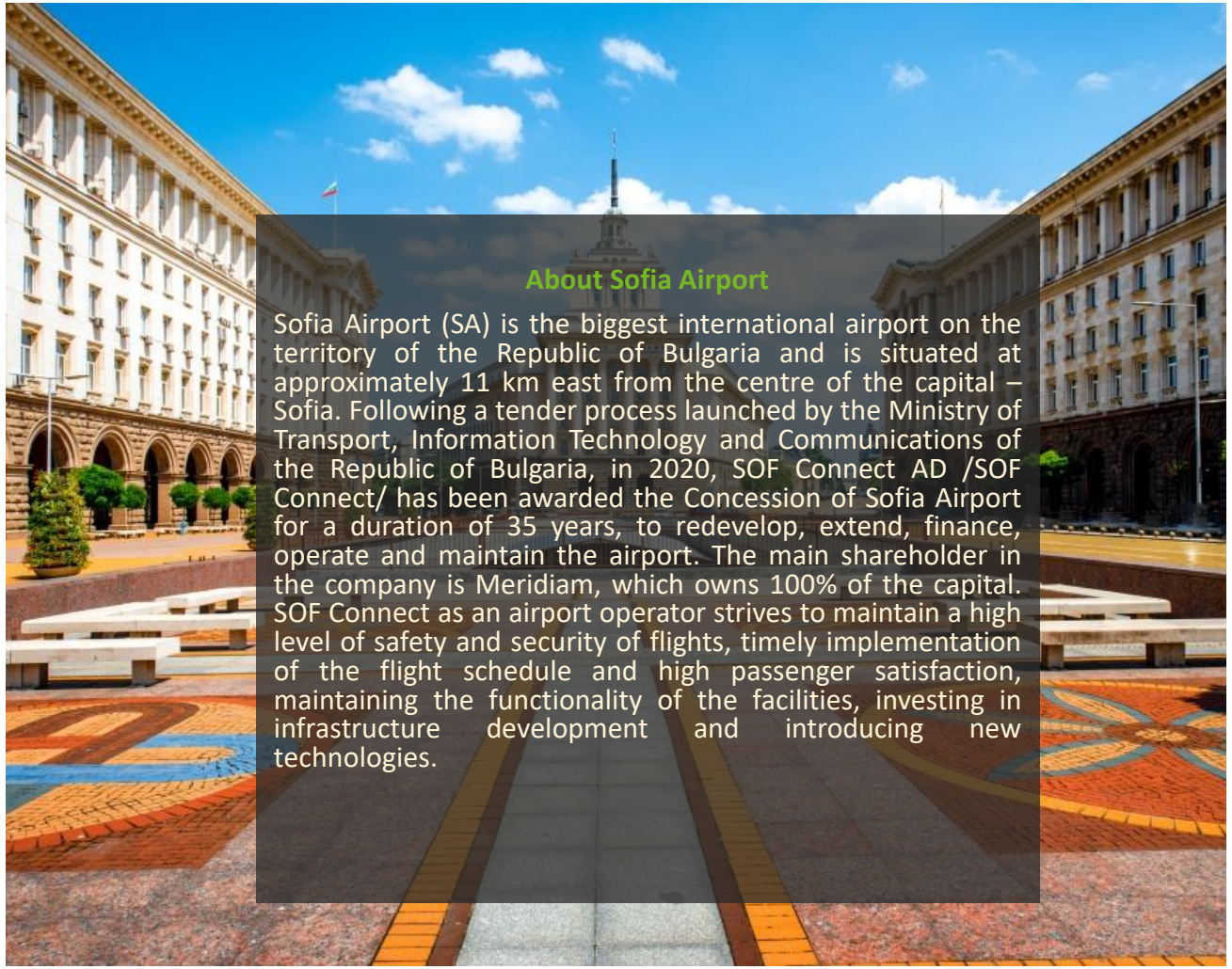
Goals and Actions for Sustainable Airport Operations

Sofia Airport's Vision & Mission.

Sofia Airport's Vision

SOF Connect's vision is to become a 5-star regional airport by achieving leadership in five strategic pillars:

- Customer experience: Use modern technology, operations and commercial facilities
- Efficiency: For airlines, passengers and airport stakeholders
- Environment: Put positive environmental impact at the heart of our operations
- Social and economic contribution: Achieve a positive social impact and act as a hub for the economic development of Sofia and Bulgaria
- ESG Focus: Our efforts are presented publicly to raise awareness among passengers and attract sustainability-oriented customers.



About Sofia Airport

Sofia Airport (SA) is the biggest international airport on the territory of the Republic of Bulgaria and is situated at approximately 11 km east from the centre of the capital – Sofia. Following a tender process launched by the Ministry of Transport, Information Technology and Communications of the Republic of Bulgaria, in 2020, SOF Connect AD /SOF Connect/ has been awarded the Concession of Sofia Airport for a duration of 35 years, to redevelop, extend, finance, operate and maintain the airport. The main shareholder in the company is Meridiam, which owns 100% of the capital. SOF Connect as an airport operator strives to maintain a high level of safety and security of flights, timely implementation of the flight schedule and high passenger satisfaction, maintaining the functionality of the facilities, investing in infrastructure development and introducing new technologies.

Baseline.

Since 2016 Sofia Airport has been affiliated with ACI EUROPE's Airport Carbon Accreditation Program at Level 1 (Mapping). The basis for the Airport Carbon Accreditation at Level 1 (Mapping) was Sofia Airport's report on carbon emissions in Scopes 1 & 2 of the year 2014. This will serve as a baseline to compare the overall decarbonization success against.

In recent years, the aforementioned voluntary climate change initiative has established itself as the international standard for the aviation industry in managing greenhouse gas emissions and energy efficiency. Level 2 (Reduction) accreditation has been achieved in 2018 based on the Carbon Management Plan covering the period 2017-2020.

In 2022 Sofia Airport advanced to Level 3 (Optimization) of the Airport Carbon Accreditation Program. This achievement includes reporting on Scope 3 emissions for the first time.

Sofia Airport actively participates in Carbon Management.

Airport Carbon Accreditation Program

Since 2016 Sofia Airport has been affiliated with ACI EUROPE's Airport Carbon Accreditation Program, the international standard for managing greenhouse gas emissions and energy efficiency in the airport industry. In May 2022, SOF Connect achieved ACA Level 3 accreditation (Optimization). According to the requirements of ACI, we have prepared a Carbon Management Plan and a Stakeholder Engagement Plan.

Carbon Management Plan

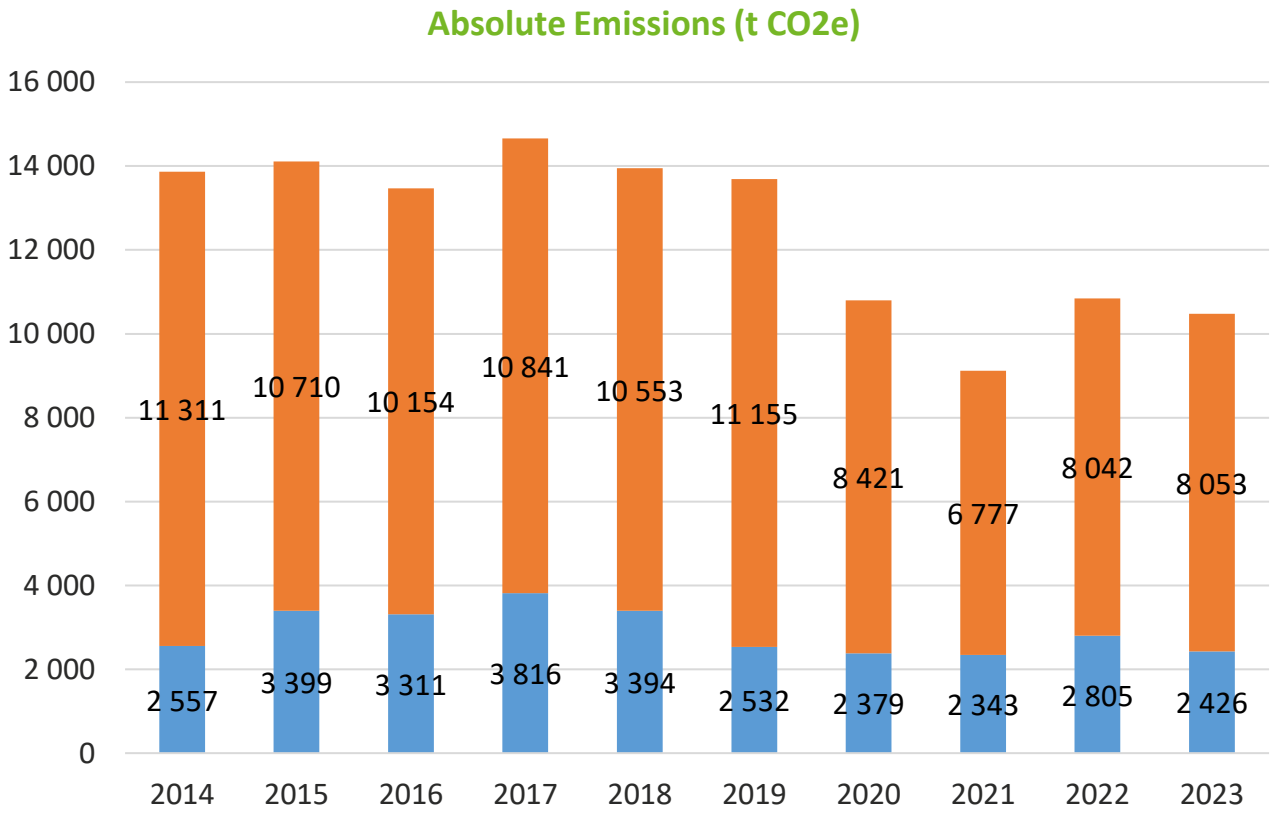
In 2022 SOF Connect developed the second edition of Sofia Airport's Carbon Management Plan outlining the strategic direction of carbon management from January 2021 until December 2023. The Plan is aligned with the Greenhouse Gas Protocol (GHGP) for Scope 1 (direct carbon emissions) and Scope 2 (indirect emissions related to electricity consumption) as well as GHGP for airports and ACI's Guidance. The plan aims to demonstrate the airport's efforts in reducing its GHG emissions in line with the targets set and in line with the adopted Environmental and Energy Efficiency and Greenhouse Gas Emissions Management Policy. It includes carbon footprint improvement targets, specific initiatives, measures, and an implementation strategy to achieve the targets set.

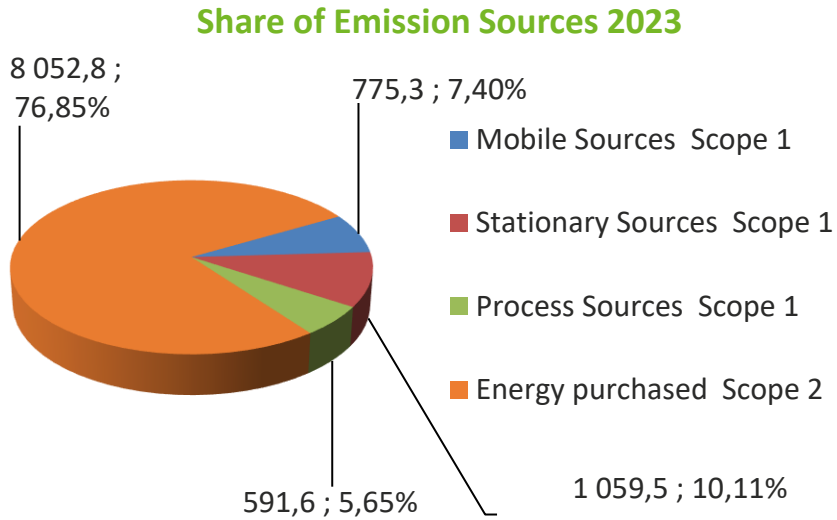
Carbon Stakeholder Engagement Plan

In 2022, Sofia Airport developed a Stakeholder Engagement Plan (SEP) (2022-2024) which is in line with the Carbon Management Plan (CMP) of SOF Connect for the period 2021-2023. The SEP provides identification, categorization, and prioritization of all relevant stakeholders to Scope 3, outlining how the airport plans to engage with them to achieve carbon reduction targets. The plan includes concrete measures, timeframe, responsibilities, and output indicators to measure carbon management efforts. A stakeholder analysis was conducted to assess their impact and influence, resulting in targeted actions focused on priority groups A and B. The commitments of SOF Connect to its Stakeholders are described in the company's Code of Ethics.

SOFIA AIRPORT OPERATED BY SOF Connect

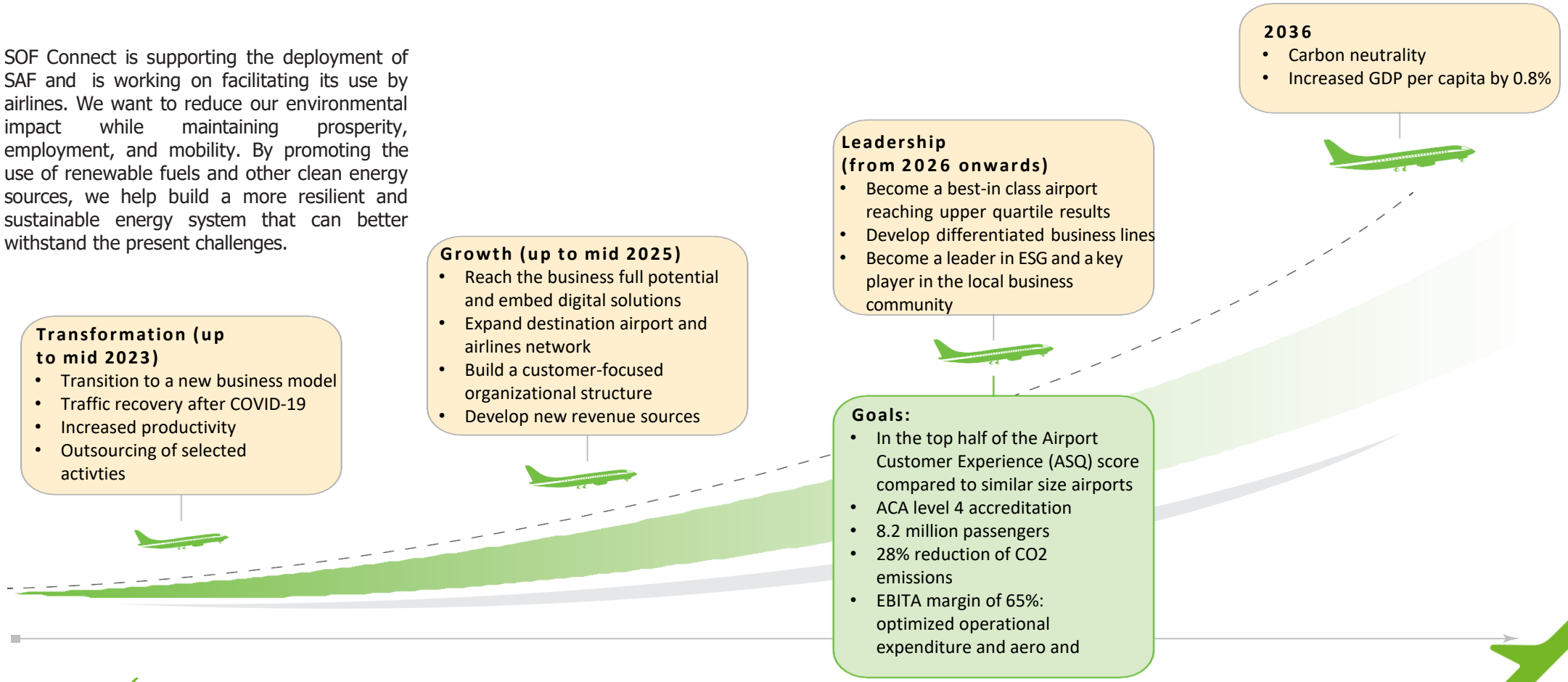
Sofia Airport‘s Carbon Emissions show Potential for Reduction.





Sofia Airport‘s Runway to Sustainability.

SOF Connect is supporting the deployment of SAF and is working on facilitating its use by airlines. We want to reduce our environmental impact while maintaining prosperity, employment, and mobility. By promoting the use of renewable fuels and other clean energy sources, we help build a more resilient and sustainable energy system that can better withstand the present challenges.



SOFIA AIRPORT | OPERATED BY SOF Connect

Sofia Airport and its Approach to Environmental Sustainability.

Environmental Management at Sofia

Sofia Airport has developed an Environmental policy statement and an Energy and Carbon Management Policy. For the year 2023, it has allocated 2.2% of its CAPEX budget toward the environment, life safety, and sustainability. Sofia actively engages in collaborative environmental management (CEM) with other Bulgarian civil airports, Bulgarian Airlines, Bulgarian Civil Aviation Administration, and regional stakeholders to maximize its positive impact on the environment. As part of its Integrated Management System (IMS), Sofia Airport has developed an Environmental and social management system based on SOF Connect's policies and in line with the general requirements of ISO 14001 and ISO 45001 standards as well as the guidelines of the European Bank for Reconstruction and Development, the International Finance Corporation.

Current Status at Sofia Airport

Currently, Sofia Airport experiences and is forecasting an increase in CO2 emissions in various areas. Main reason being an increase in airport operations and passenger numbers and therefore the correlating expenditure in e.g. the number of vehicles and machinery, buildings, waste and energy. To counteract this carbon build-up, Sofia Airport is actively working on minimizing this effect in order to sustainably increase its capacity and operations. The measure include but are not limited to the introduction of a newer fleet, newer infrastructure components and renovations of older buildings. Moreover, Solar Farms are build to increase the usage of sustainable power. Sofia Airport therefore aims at taking effective action to combat climate change and its impacts in accordance with the UN Department of Economic and Social Affairs SDGs.

Strategic Transformation

The strategic transformation of SOF Connect is guided by four main pillars one of which is "ESG evolution", encompassing the following objectives:

1. Reduce emissions generated by SOF Connect through energy efficiency and transitioning towards cleaner energy sources.
2. Enhance waste reduction and recycling efforts, as well as optimize water usage.
3. Implement social policies aimed at equal opportunities and fair working conditions.
4. Increase the integration of ESG considerations throughout the entire airport ecosystem.

SOF Connect has set two ambitious main goals:

1 **Environmental Protection Goal by 2026**
Reduction of own GHG emissions by 28% (considering 2019 as a base year) by 2026 and promoting GHG reductions in the airport ecosystem.

2 **Environmental protection long-term goal**
Achieving climate neutral operations in Scopes 1 & 2 of its GHG emissions by 2036 with 15% compensation buy-ins and by 2050 with no compensation buy-ins. Further Sofia Airport aims to influence third parties at the airport to reduce their emissions as well.

Highlights:

- The Scope 1&2 emissions per passenger dropped from 3,63 kg/CO2e/PAX to 1.45 kgCO2e/PAX, while the passenger flow increased significantly in comparison to 2014.
- SOF reduced the amount of the general non-hazardous waste by almost 10% compared to last year.

SOFIA AIRPORT | OPERATED BY SOF Connect

Main Performance Targets for Decarbonization at Sofia Airport.

For a more detailed approach towards Decarbonization, six specific performance targets are derived that serve as a guideline for the implementation of actions:

- **Decarbonization of Aircraft Operations**
- **Zero-Emission Land Mobility**
- **Energy positive Buildings and Systems**
- **Renewable Energy**
- **Reusing, Upcycling and Waste Management.**
- **Supply Chain & Stakeholder Engagement Optimization**

SOFIA AIRPORT | OPERATED BY SOF Connect

Implemented Actions in Accordance with the main Performance Targets. (1)

For a more detailed approach towards Decarbonization, six specific performance targets are derived that serve as a guideline for the implementation of actions:

Decarbonization of Aircraft Operations

- Advocate the use of sustainable aviation fuels (SAFs).
- Investigate and increase the efficiency of aircraft operations, e.g. through more fuel efficient landing and take-off procedures.

Measures in places at SOF in 2024:
Survey for possible suppliers; planned reconstruction of the fuel farm to provide suitable storage for SAF

Zero-Emission Land Mobility

- Shift to a more modern fleet with the main goal of zero-emissions.

Measures in places at SOF in 2024:
Purchased 23 new e-vehicles and 10 hybrid ones, an e-ambulift for PRM and an e-shuttle bus; electrification of ground handling equipment; Project ESAGO (Electrification of Sofia Airport Ground Operations) won EU funding for installation of e-vehicle charging stations and purchase of GO equipment.

Energy positive Buildings and Systems

- Invest in more energy efficient and new infrastructure of old and new buildings as well as systems.
- Design energy-positive buildings when investing in new infrastructure.

Measures in places at SOF in 2024:
Amongst others: New apron flood LED lighting and upgrade of the ground lighting control software, Terminal renovations, Introduction of a temperature band for heating and cooling.

Implemented Actions in Accordance with the main Performance Targets. (2)

For a more detailed approach towards Decarbonization, six specific performance targets are derived that serve as a guideline for the implementation of actions:

Renewable Energy

- Reduce the use of fossil fuels, e.g. shift from fuel and gas to electricity.
- Reduce the use of energy as much as possible.
- Produce and use renewable energy such as solar power.

Measures in places at SOF in 2024:
1st stage of PV plant (5 MVp) in design phase.

Reusing, Upcycling and Waste Management.

- Investigate and implement glycol recycling.
- Implement effective waste management and possibly recycling or upcycling opportunities.
- Implement measures for water management and reusing.

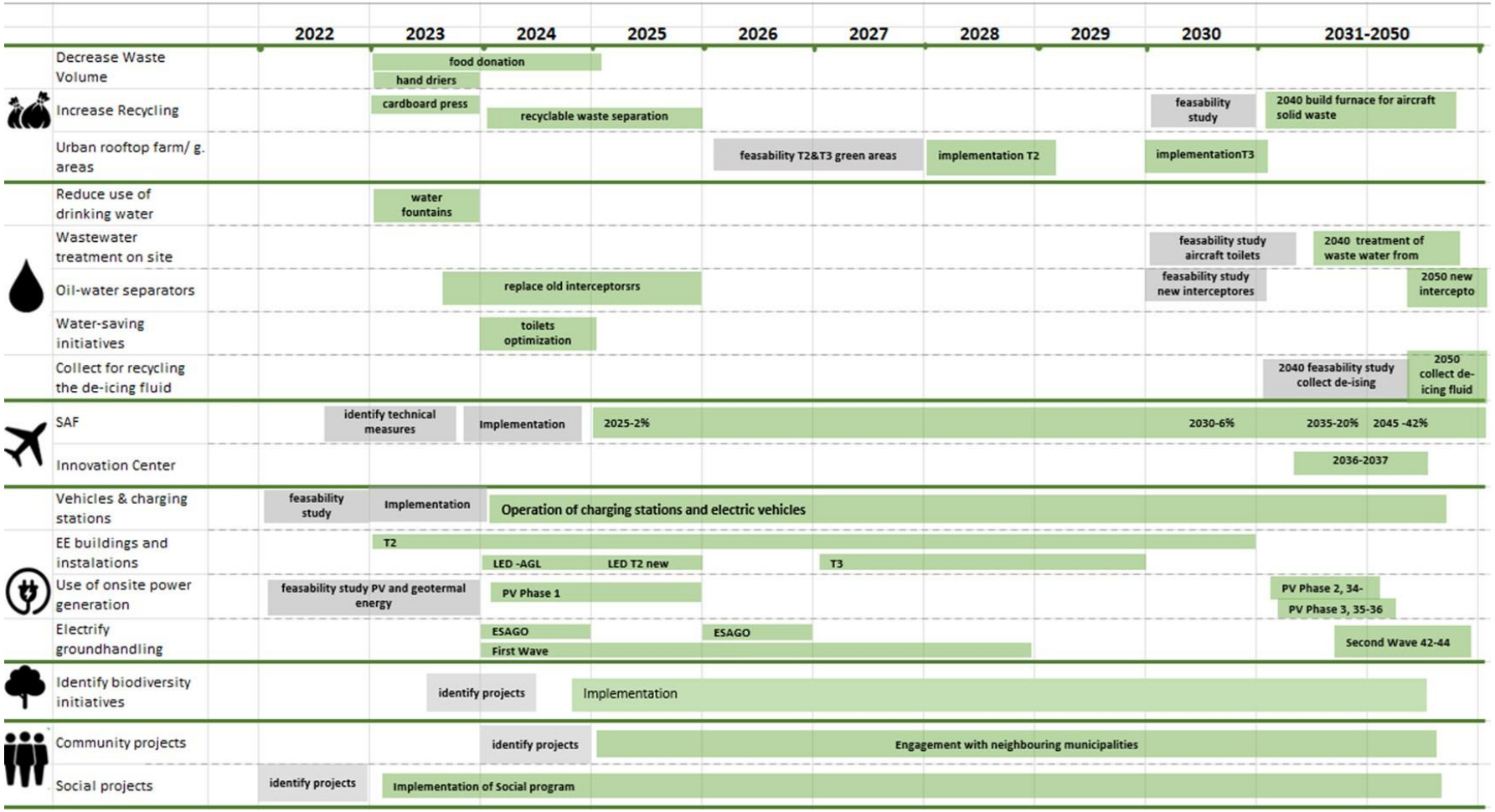
Measures in places at SOF in 2024:
Resources Consumption Policy at place; increased cardboard and glass recycling; increasing the recycling rate of waste from public areas.

Supply Chain & Stakeholder Engagement Optimization

- Improve supply chain processes and support stakeholders that are actively engaged in cutting carbon.

Measures in places at SOF in 2024:
New Procurement Policy - ESG requirements for contractors; Environmental and Social Management and Monitoring Plan for Contractors and Subcontractors in place

SUSTAINABILITY ROADMAP



Most effective Decarbonization Measures.

Apron flood lighting

2024
New apron flood LED lighting
- 382 t CO_2

Airport

2023 - 2028
Replacement of air conditioners split system
- 413 t CO_2

Terminal 2 renovations

2023
Introduction of temperature bands for heating and cooling
- 444 t CO_2

2024
New street lighting systems
- 53 t CO_2

2026
Gradual exchange of T2 lighting system
- 478 t CO_2

Solar Farm & Battery Storage

2026
5 MW planned
- 2.839 t CO_2

2035
5 MW + 10 MWh storage planned
- 2.292 t CO_2

2035
10 MW + 10 MWh storage planned
- 4.488 t CO_2

Electric Vehicles

2023
Purchase of electric vehicles including shuttle bus
- 250 t CO_2

Advertising

2024
New advertising program
- 54 t CO_2

SOFIA AIRPORT | OPERATED BY SOF Connect

Summary

Expected annual growth of passenger numbers		
	PAX	Growth
2023	7.200.000	20 %
2024		15 %
2025		6,4 %
2026 … 2030		5,7 %
2031 … 2040	17.000.000	3,8 %

Due to the growth of the passenger numbers outlined in the masterplan, emissions from vehicles fueling, electricity consumption and de-icing are increasing as well.

Decarbonization Trajectory:

Reduction of electricity consumtion: -4.343 t CO_2

Reduction of use of fossil sources for heating: -1.052 t CO_2

Renewable energy projects (PV): -7.619 t CO_2

Emission increase according due to growth of Sofia Airport:
(if operations continued as is)

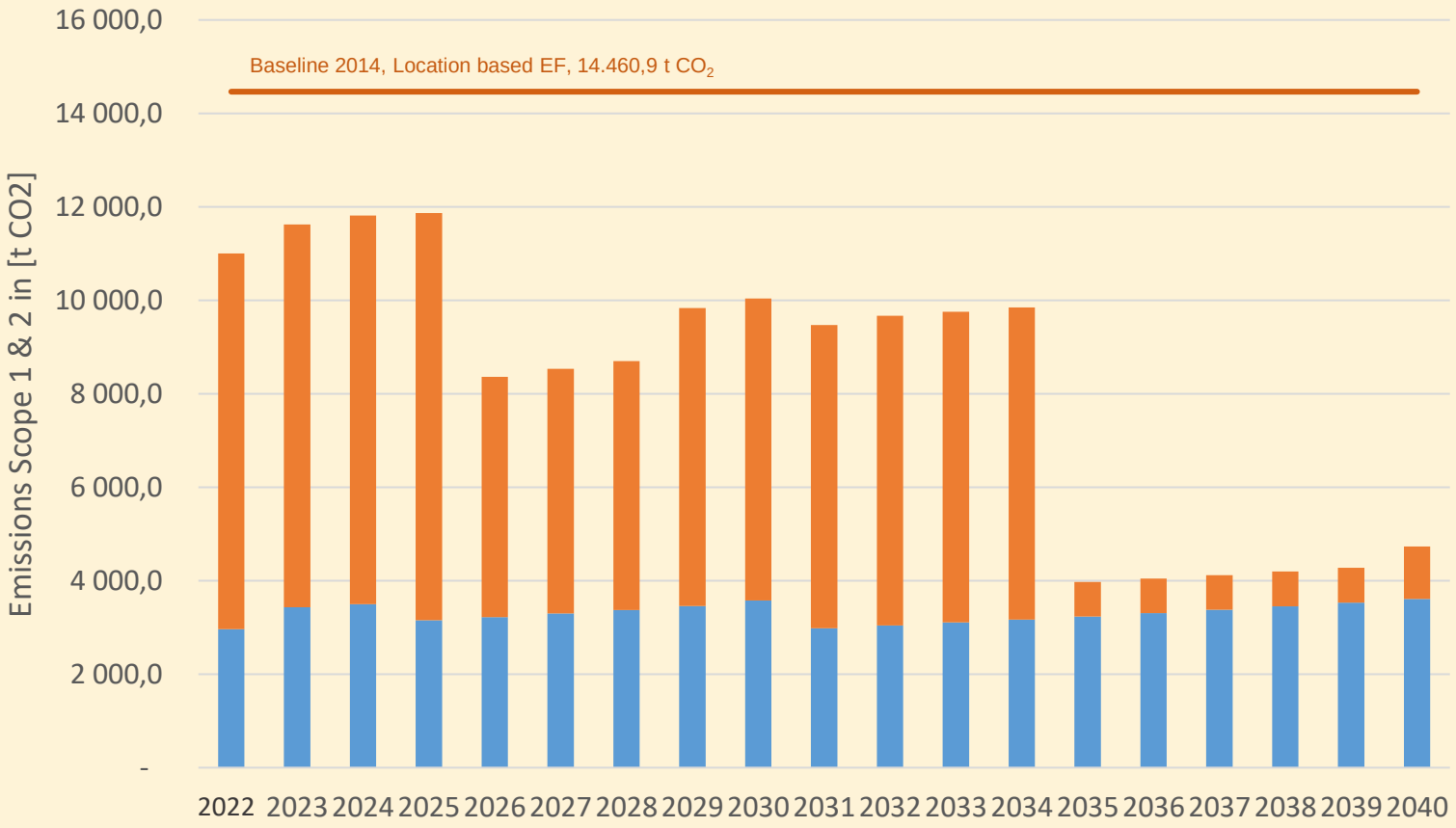
Overall increase due to growing passenger numbers:
3.299 t CO_2

Overall increase due to new buildings:
3.198 t CO_2

Overall decrease with decarbonization actions:
13.014 t CO_2

SOFIA AIRPORT | OPERATED BY SOF Connect

Sofia Airport‘s Carbon Trajectory.



Future Achievements

Through the implemented strategic transformation of the ESG approach as well as the corresponding goals and performance targets, Sofia Airport will be able to implement structured decarbonization actions that will lead to a decrease in carbon emissions.

Reduction Targets

Sofia Airport strives at Climate Neutrality in Scopes 1 & 2 by 2036 (85 % reduction – 15 % offsetting). It wants to achieve NetZero by 2050 (100 % reduction). While the current carbon trajectory would only mean a reduction of 68 %, it is Sofia Airport’s goal to develop new measures to meet the abovementioned targets. We have adopted targets following the 2°C IPCC pathway. Therefore, our current target is to reduce carbon emissions by 70 % by 2035. This has been verified in the process of the Airport Carbon Accreditation Level 4 certification. However, as SOF Connect wishes to go beyond this, we have ambitious goals for the future and in 2024. We will work on adding more investments in reduction projects to achieve the ambitious targets set.

Additional Chances

More drastic decarbonization results could be achieved by implementing actions especially in the area of Reusing, Upcycling and Waste Management. Further actions currently elaborated on are large scale vehicle electrification, such as 100 % electric GSE by 2030 and decommissioning of diesel oil heaters.

SOFIA AIRPORT | OPERATED BY SOF Connect

Thank you!