

# ✈️ Flight Plan to Net Zero Strategy 2050

Roadmap for a Greener Future –  
“George Enescu” International  
Airport Bacău



## Mission Statement – Our Sustainable Flight Path

At “George Enescu” International Airport Bacău, we have set our course towards a clear destination: **Net Zero Emissions.**

As a responsible regional airport, we align with international best practices in sustainable aviation and are committed to operating an infrastructure that is more efficient, energy-independent, and environmentally friendly.



## ✈ Flight Deck Overview – Key Sustainability Initiatives

### Runway to Renewables – Project 1: Solar Energy Deployment

**Objective:** Power the airport with clean, in-house generated energy to reduce the carbon footprint and dependence on external resources.

#### Project Configuration:

- Installation of a photovoltaic park with a capacity of **1.25 MW**
- Energy storage system of **2,064 MWh**
- Available land: **20,910 sqm**
- Annual CO<sub>2</sub> emissions reduction: **>1,200 tons**
- **70%** of the produced energy to be used directly for airport operations
- Estimated execution time: **18 months**
- Eligible value (excluding VAT): **€3,353,435**

**Impact:** This project will serve as a green “Auxiliary Power Unit” (APU), providing clean energy for most airport operations.





## ✈️ Fleet Modernization – Project 2: 100% Green Equipment Transition

**Objective:** Fully replace fossil fuel-powered equipment and vehicles with electric, zero-emission solutions

### Project Configuration:

- More efficient and zero-emission ground support equipment and vehicles
- Significant reduction of local pollution
- A decisive step towards climate neutrality by 2050
- Maximum eligible amount: **€18,000,000** (through the State Aid Scheme – Modernization Fund)

**Impact:** This upgrade represents a complete “retrofit” of the airport’s ground equipment fleet, optimizing operational performance while minimizing environmental impact.



## ✈ Reference Year

- **2024** – calculation of current emissions: 21,642.00 liters of diesel annually, generating a cumulative level of **57.134,88 kg CO<sub>2</sub>/year** (**≈ 57,13 tons CO<sub>2</sub>/year**)

## ✈ Intermediate Targets

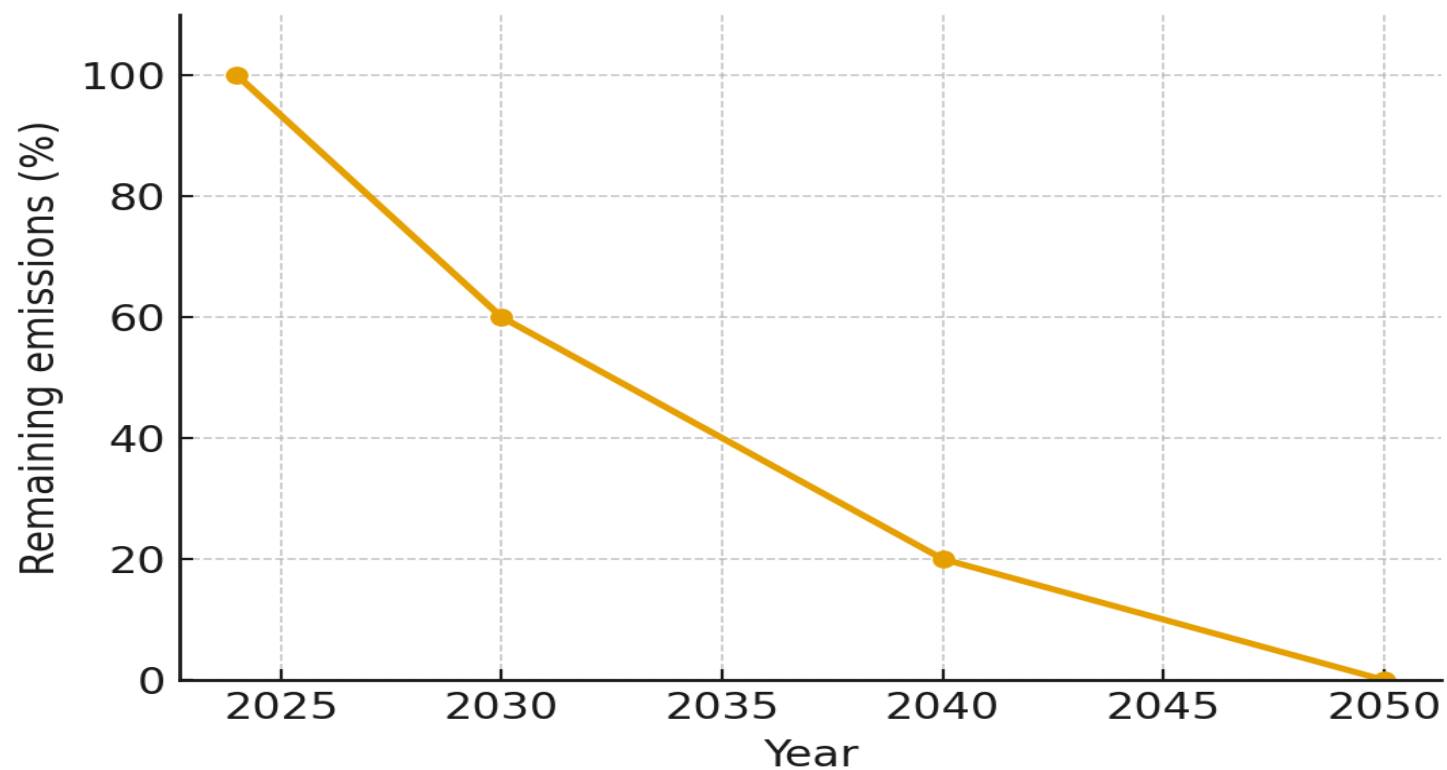
- **2030**: 40% reduction of emissions (vs. 2024)
- **2040**: 80% reduction
- **2050**: Achieving Net Zero

## ✈ Projects and Timeline

- **2025 – 2026**: Photovoltaic park 1,25 MW + 2,064 MWh storage  
→ >1.200 t CO<sub>2</sub>/year avoided, 70% of consumption covered
- **2027 – 2028**: Transition to 100% electric equipment and vehicles  
→ additional reduction of 500–800 t CO<sub>2</sub>/year
- **2030**: –40% emissions vs. 2024 (possible PV expansion, green hydrogen)
- **2035**: Energy infrastructure modernization (LED, heat pumps, smart grid)  
→ –60% emissions
- **2040**: –80% emissions, integration of large-scale storage
- **2050**: Net Zero (0 net CO<sub>2</sub> emissions)

## CO<sub>2</sub> Emissions Reduction Pathway

### Emissions Reduction



#### Reference Data:

2024: 100% (» 57.13 t CO<sub>2</sub>/year)

2030: 60% (» 34.28 t CO<sub>2</sub> /year)

2040: 20% (» 11.43 t CO<sub>2</sub> /year)

2050: 0% (Net Zero)

## ✈ Final Approach – Commitment to the Future

By implementing these projects and maintaining a clear “flight plan” toward sustainability, “George Enescu” International Airport Bacău is not only optimizing its operational performance but also becoming a **regional pilot of the green transition**.

