



ICAO EUR/NAT and ACI EUROPE



ICAO

REGIONAL GREEN AIRPORTS SEMINAR

Hosted by the Ministry of Transport of the Republic of
Uzbekistan



Alat Airport

Connecting the World-Conserving the nature





Presenter name

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Alat Airport CEO



ACI EUROPE AND ICAO EUR/NAT ENVIRONMENTAL PROTECTION SEMINAR



 Renewable Energy

 Aircraft CO2 Reduction

 Aircraft Noise Reduction

 Airport Emissions Reduction

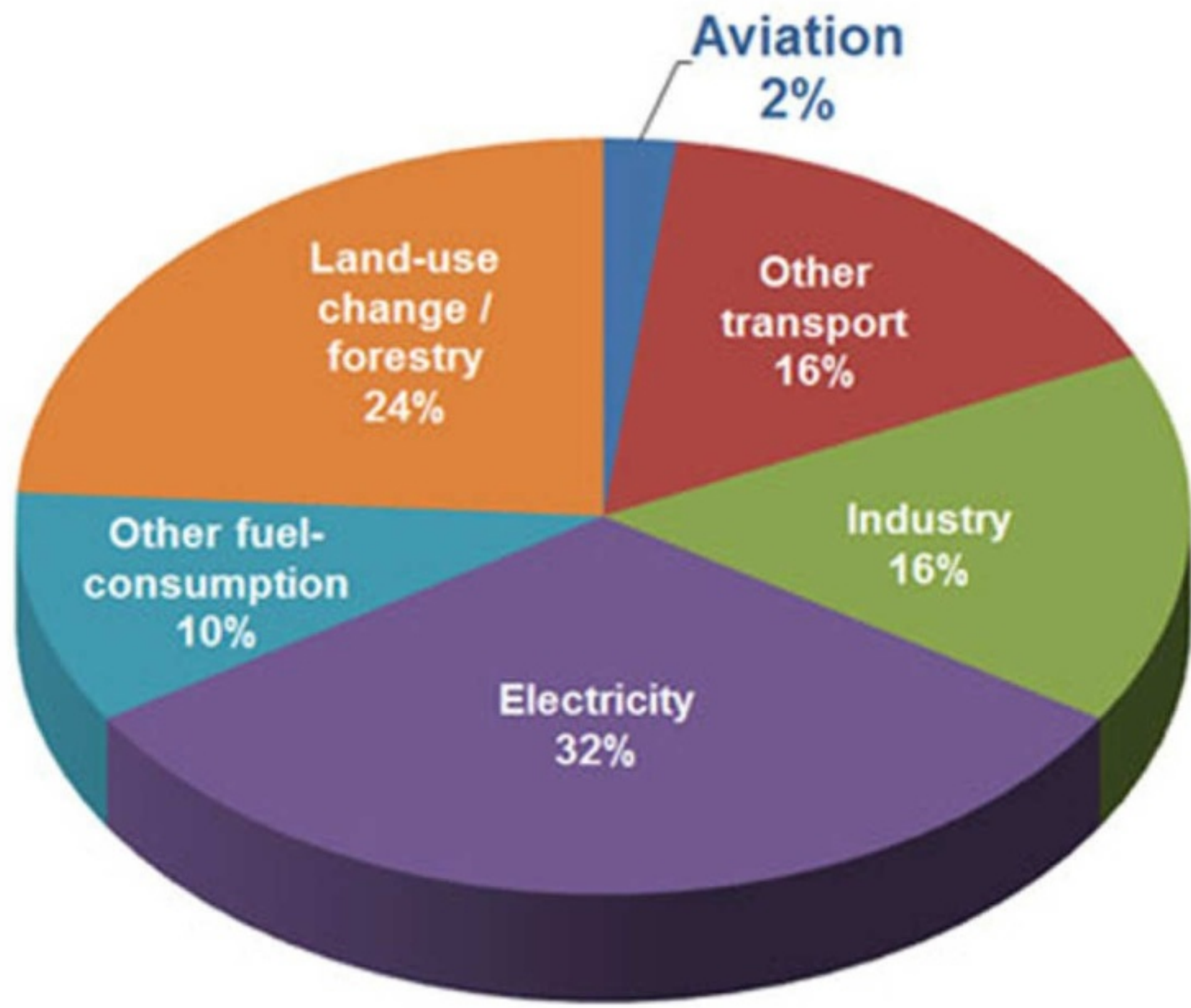
 Alat Green Airport

 Wildlife Management

 Airport Pollution Reduction

 Habitat Rehabilitation

 Sustainable Ground Transportation



How much aviation participate in CO₂ emissions?

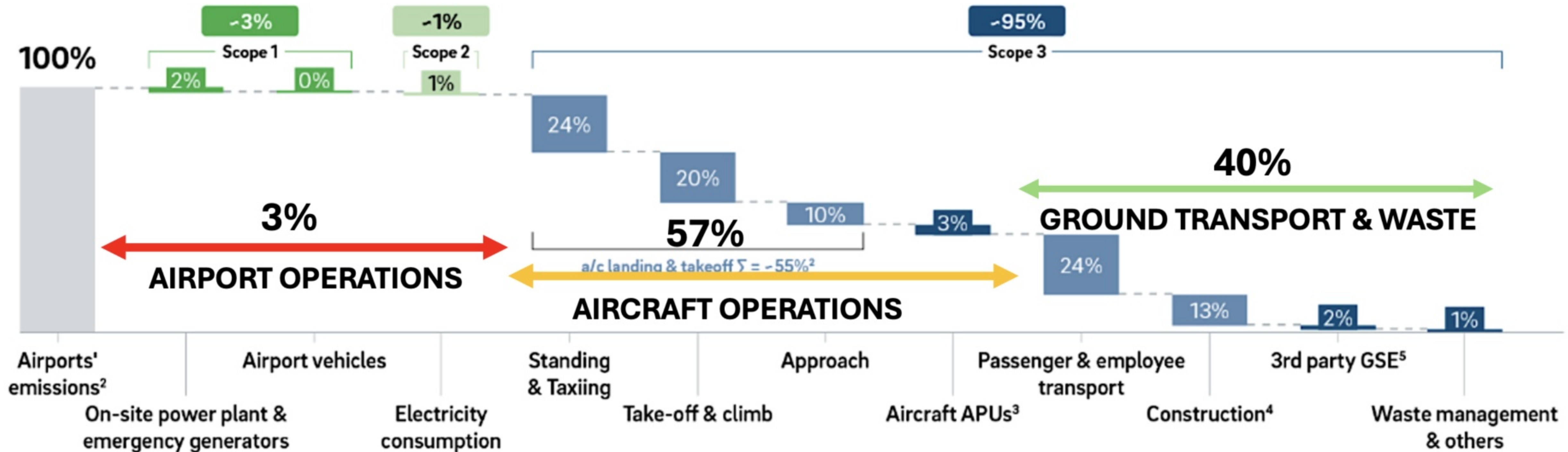
- Aviation: 2% of global man-made CO₂ emissions.
- In the European Union, greenhouse gas emissions from aviation increased by 87% between 1990 and 2006.
- Today's aircraft are 70% more fuel-efficient than the jets of the 1960s .
- Today's aircraft are typically 75% quieter (minus 20 decibels) than first jets in

Despite that, we care!

Airport emissions by source

Airport emissions by source for large, advanced airports¹

source: Roland Berger



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WE ARE ALAT-GREEN AIRPORT

- Greenfield first private airport 60km SW from Baku
- Part of SilkwayWest airline
- Free Economic Zone including Cargo village
- Runway 4000X60m
- State of the art airport technology
- Focused on safety, security, efficiency and sustainability.
- 12 parking stands for category “F” aircrafts
- Fully automatic Cargo terminal 30.000m²
- Affordable JET A-1/SAF fuel price
- Competitive airport and handling prices
- Homebase for Silkway and partnering airlines
- Excellent technical/fueling stopover point

ICAO-Silkway AAA

contract to build AND CERTIFY Green Airport

- Habitat rehabilitation
- Wildlife management
- Decarbonization of operations
- Renewable energy
- Pollution reductions
- Sustainable ground transportation
- Aircraft noise

ReFuelEU aviation

- Convert standards for aviation fuel from TS-1 to JET A-1
- Prepare infrastructure to deliver Jet A-1 to aircraft
- Preparation for SAF introduction as per Refuel EU initiative
- Silkway CORSIA program
- Silkway fleet replacement to fuel efficient aircrafts.

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Aircraft CO₂ Reduction



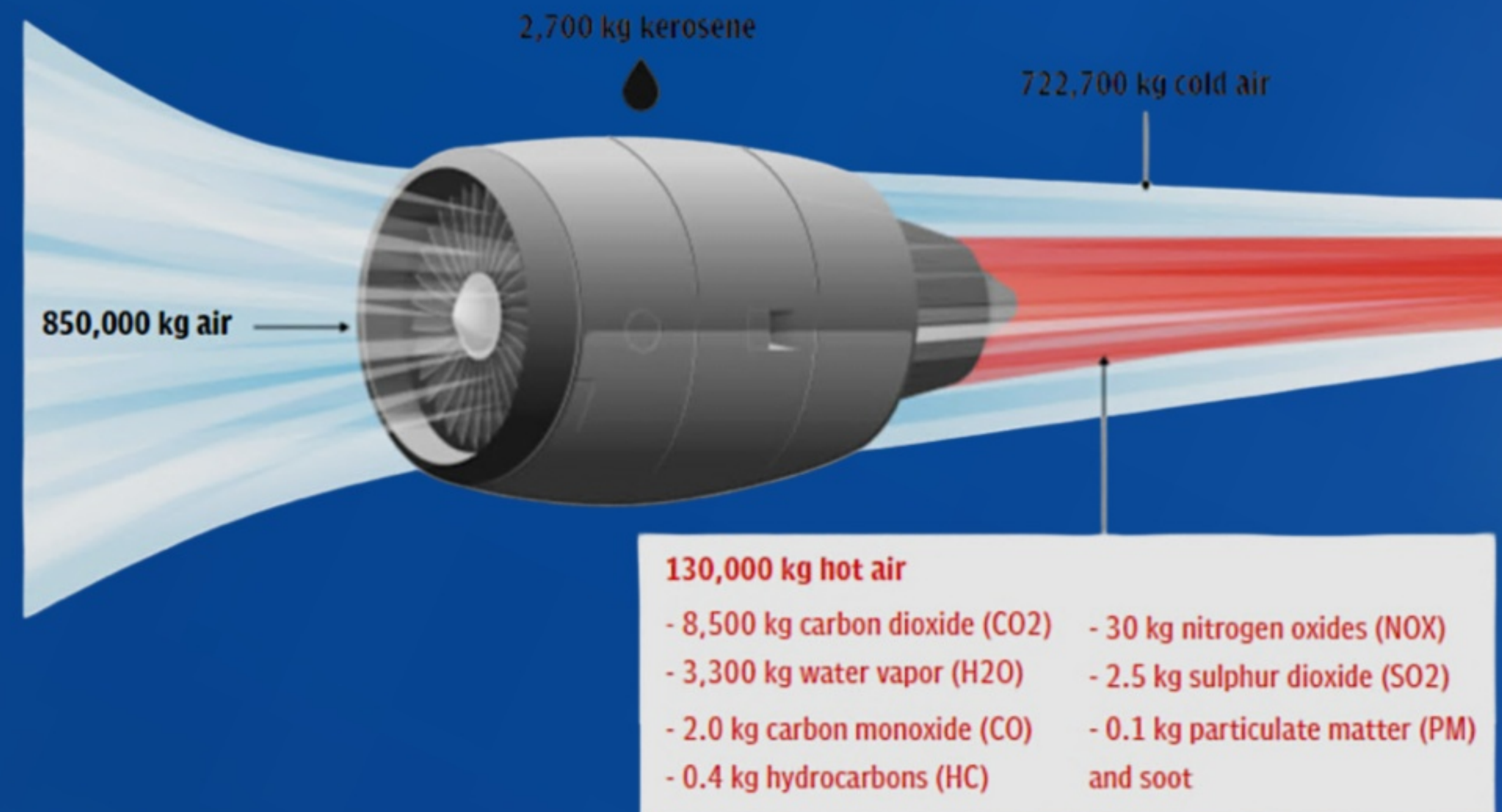
- SOCAR will ensure the delivery of JET A1 standard fuel from its distilleries
- Fuel plan uplift yearly 300.000t Silkway and 100.000t other airlines
- SAF guidelines for the EU called "Refuel EU" will be followed, which foresees the blending of SAF fuel with fossil aviation fuels in the following ratios:

EU climate goal for
2030 – minus 55% net
greenhouse gas

- By 2030 6% SAF
- By 2040 34% SAF
- By 2050 70% SAF

1 hour flight, two engines 150 seats
2,7 t kerosene + 850t air

130 t Hot air
8,5 t CO₂
3,3 t H₂O



- Twin-engine replacement of four-engine 747-400s should yield large fuel and emissions reductions per tonne carried, reinforced by SWWA's ISO 14001 environmental certification obtained in September 2025.[5]
- Phased approach (six 777Fs now, eight new-technology freighters from 2028) spreads capital exposure and lets the airline retire 747-400s incrementally rather than all at once.
- Dual-sourcing Airbus 350 and Boeing 777 for the second phase reduces single-supplier and single-program delivery risk — relevant given the 777-8F's history of schedule

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Aircraft Noise Reduction



- Baseline noise levels in the project area and settlements of Alat and Khydyrly range from 37 to 55 dBA during the day; levels adjacent to the M119 (E119) Baku-Astara highway reach approximately 75 dBA.

A comprehensive Noise Management Plan will be developed , applying the ICAO Balanced Approach to aircraft noise management, incorporating preferential runway systems and noise abatement flight procedures. Baku-Astara highway reach approximately 75 dBA.

1. Operational flight procedures Optimized flight paths:
 - Continuous Descent Approach (CDA):
 - Performing arrivals with minimal engine thrust, thereby significantly reducing noise in surrounding areas
 - Specific take-off operational procedures (Noise Abatement Departure Procedures)
2. Installation of permanent and mobile real-time noise measurement systems to monitor and adjust flight paths
3. Quieter aircraft: The airline is replacing Boeing 747F with Boeing 777F and adding Airbus A350F freighters, which it states are the only freighter type fully meeting ICAO's enhanced CO2 emissions standards taking effect in 2027, delivering up to 40% lower fuel burn and CO2 emissions versus older freighters (powered by Rolls-Royce Trent XWB-97 engines)

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Habitat Rehabilitation

Baseline surveys classify the site into two categories: Modified habitat (the predominant 750-hectare footprint, altered by historical oil/gas infrastructure, dirt roads, and grazing) and Fragmented natural habitat pockets of semi-desert vegetation and ephemeral stream corridors that, while degraded, retain native species composition.

Under IFC Performance Standard 6 (PS6), the airspace above the site qualifies as Temporal Critical Habitat because it serves as a non-substitutable corridor for roughly 20 million migratory birds annually, while the terrestrial footprint itself does not trigger Critical Habitat status.

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Wildlife Management

Wildlife Protection

Wildlife management will protect biodiversity while reducing bird and animal strike risks along the Caspian Flyway.

A dedicated Bird Control Unit, supported by avian radar and intensified seasonal patrols, will apply non-lethal deterrence as the primary response.

Pre-clearance ecological surveys, fauna relocation procedures and wildlife-sensitive lighting will protect tortoises, migratory birds and other vulnerable species.

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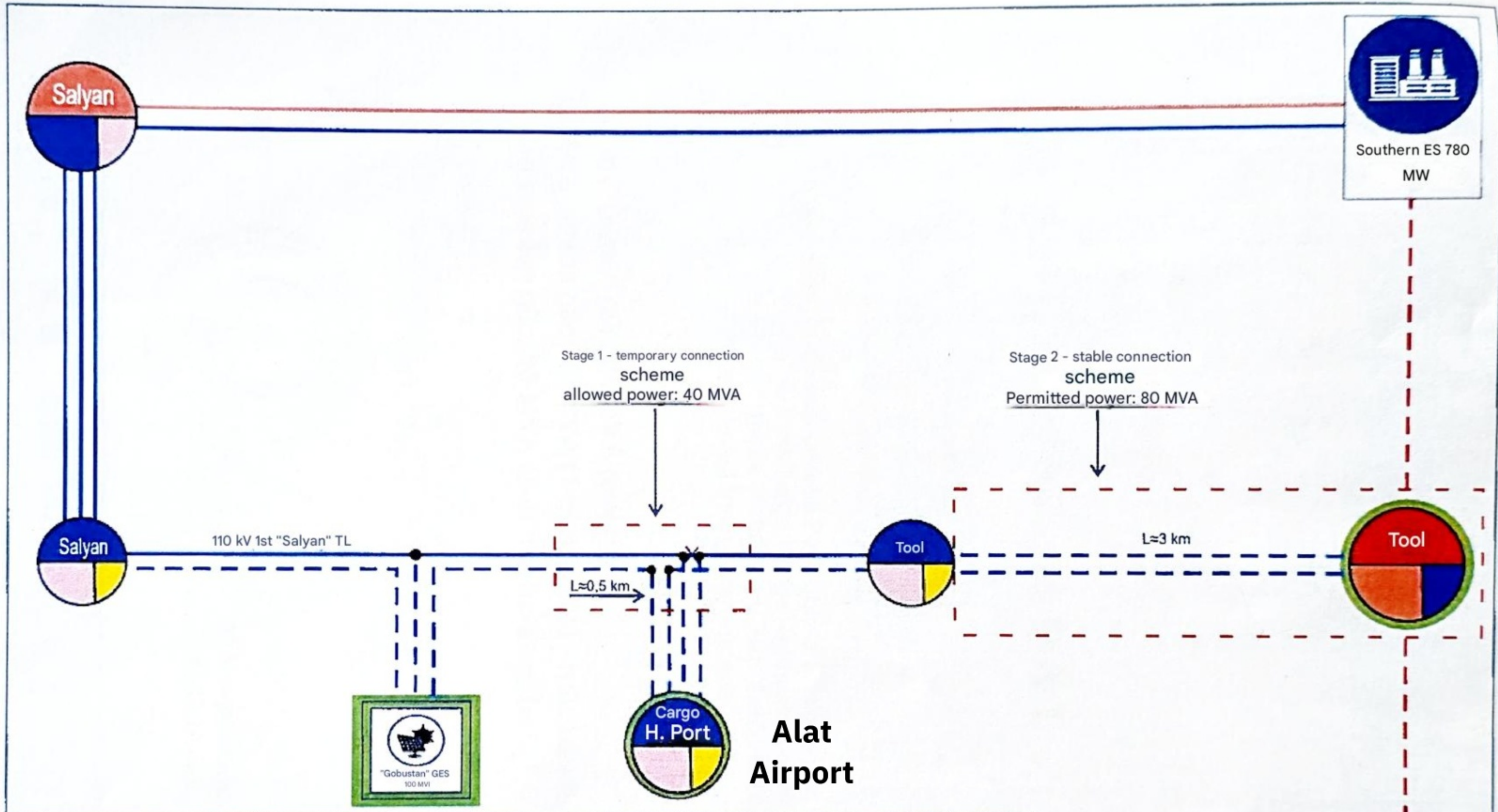
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Renewable Energy





Conventional Signs:

Current IES	Existing 220 kV HV	330 kV substation to be built	330 kV overhead transmission line to be built
GES to be built	Existing 110 kV substation	110 kV substation to be built	Existing 220 kV overhead line
			Existing 110 kV overhead line
			110 kV overhead transmission line to be built

Gobustan Solar Power plant



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Airport Pollution Reduction



The airport will use an integrated drainage and wastewater system to protect soil, groundwater and the Caspian coastal environment.

Domestic sewage and deicing effluent will be treated on site, with suitable treated water reused for landscaping, and deicing fluid reused after recycling.

Runoff from aprons, workshops and vehicle-washing areas will pass through impermeable drainage, oil-water separators and dedicated treatment controls.

Waste will be segregated, recycled and digitally tracked, while hazardous waste will be contained and transferred only to licensed facilities.

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Sustainable Ground Transportation



The surface-access strategy will reduce dependence on single-occupancy vehicles and lower passenger- and employee-related emissions.

Public transport links, dedicated employee electric shuttles and shared-mobility incentives will connect the airport with Baku, Alat and nearby communities.

Electric-vehicle charging will be provided for employees, passengers, taxis and rideshare operators, with increasing use of renewable electricity.

Access planning will integrate road, rail, port and airport connections to support an efficient multimodal logistics hub.

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Airport Emissions Reduction



Airport Vehicles & Equipment

Electrification strategy (~90% electric GSE), a comparison table of emissions/cost/noise metrics (~25-30% CO₂ reduction, 28-35% cost savings), fixed electrical ground power vs. APUs

- Energy Efficiency
- Low Emissions-powered by electricity
- Sustainable Materials
- Lifecycle Impact and Recyclability
- Renewable Energy Compatibility
- Noise Reduction
- Water Efficiency
- Compliance with environmental Standards

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