



400 KV INTERCONNECTION LINE

New interconnection line between Albania and Greece

CURRENT STATUS

Kardia (Gr) – Zemblak (Al)

- Single Circuit 400 kV OHL of 2-bundled conductors
- Total length 95.751 km
- Thermal limit 1588 A / 1100 MVA (summer)

Mourtos (Gr) – Bistrice (Al)

- Single Circuit 150 kV OHL 63,4 km
- ACSR 170.45/39.81 mm² (Linnet)
- Thermal limit 240 A / 62,5 MVA

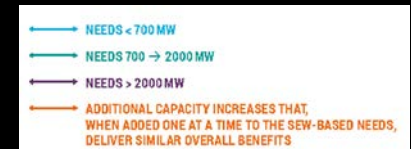


Fig. ENTSO-e continental Europe Map snapshot

REGIONAL INVESTMENT PLAN 2020 CSE

• NTC at current and for the future

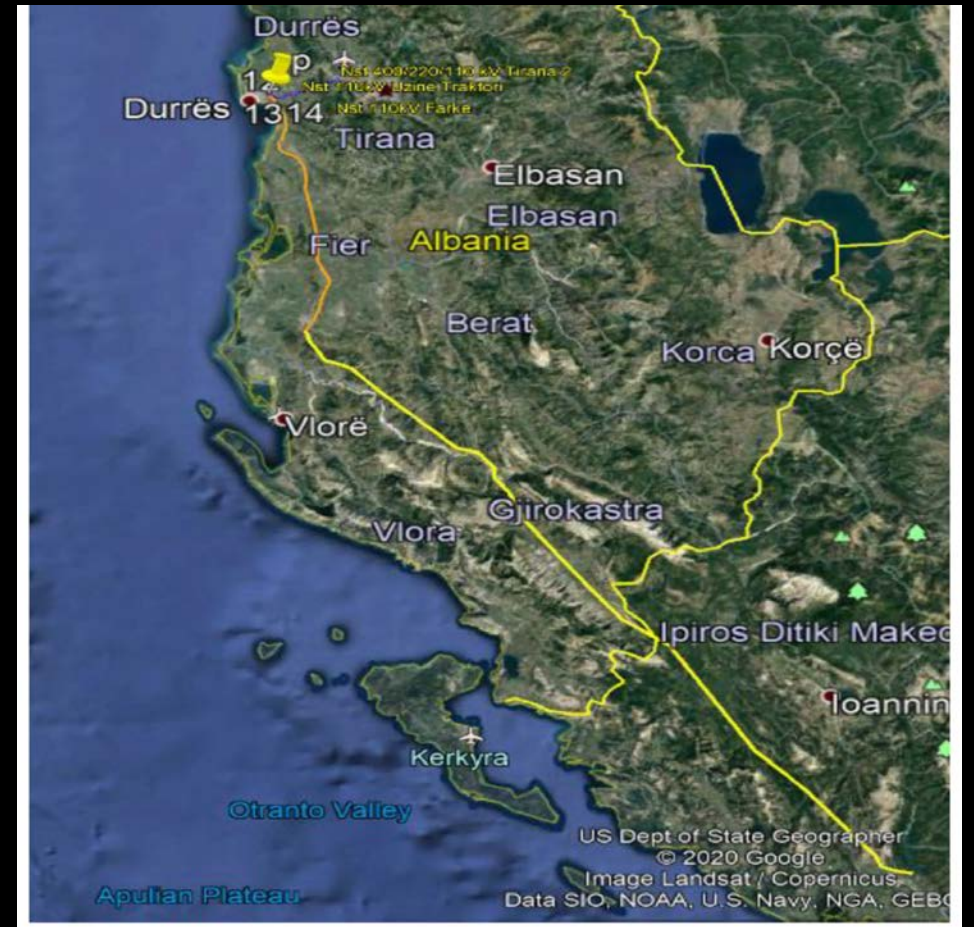
- Current Net Transfer Capacity between GR-AL: 400 MW
- The study investigated the combination of potential increases in cross-border network capacity that minimizes the total system costs. These capacity increases are additional to the 2025 network (composed of projects under construction or in advanced stage and expected to be in service in 2025).
- In Social-Economic Welfare (SEW)-based needs for 2030 a 1500 MW (NTC increase) need between Greece and Albania was identified .



OST PROPOSAL

New 400 kV OHL Greece – Albania, Draft Proposal

- ACSR 2x490/65 mm²
- Capacity 1350 MVA
- Total length 294 km
- The project consists of:
New 400 kV OHL line Fieri Albania – Arachthos Greece



ALTERNATIVES TO BE CONSIDERED (PRELIMINARY INVESTIGATION)

Possible connection points in Greece

- 400/150 kV Arachthos substation
- 400/150 kV Kardias substation
- New 400/150 kV substation in Western Greece (Region of Epirus) connected with AC new 400 kV OHL to Arachthos substation

Type of Overhead Line

- Single-circuit overhead 400kV line with 3 bundled conductors
- ACSR Cardinal 3x954 MCM
- Capacity 1600/2000 MVA (summer/winter)

SCOPE OF WORK

TARGET AND FACT

Market Studies

- 8760-hour day-ahead market simulation
- Reference year 2030
- South-East Regional model

Facts

✓ Done

Network Studies

- Point in time snapshots selection
- Detailed HV & EHV network models for Greece and Albania
- South-East Regional model

✓ Under way for all the points

High level environmental assessment

- Routing

✓ Under way

Preliminary economic analysis

✓ To be done

SCOPE OF WORK

TARGET AND FACT

March-September 2022

	Facts
• An overall period of 6 months for the completion of the studies is considered	✓ Mostly accomplished
• Phase 1: Data Collection & selection of scenarios (Market & Network)	✓ Done
• Phase 2: Modelling (PSS/E & Antares) and simulation runs	✓ Done
• Phase 3: Analysis of Results	✓ Antares OK. PSSE under way
• Phase 4: High-level environmental assessment	✓ To be done
• Phase 5: Preliminary economic analysis	✓ To be done

2nd semester 2022

• Finalization of the project (e.g. MOU between IPTO and OST for the realization of the project)	✓ Done
• Finalization of Development Timeline	✓ On going. End of this week
• Submission of project to the ENTSO-E TYNDP 2024	✓ To be done
• Inclusion in the National Development plans of IPTO and OST to take approval by NRAs	✓ To be done



I THANK YOU