

**Public**

## Environmental and Social Data Sheet

### Overview

Project Name:	TERNA - NETWORK MODERNISATION AND DEVELOPMENT
Project Number:	2020-0826
Country:	Italy
Project Description:	Multi scheme investment programme for the reinforcement and the modernisation of the electricity transmission network of Italy during the period 2020-2024. The Project will increase security of supply and facilitate the integration of additional renewable generation capacity into the national transmission system.
EIA required:	Yes for the schemes: 1) 150 kV line Foiano-Ginestra-Ariano and associated Foiano substation, 2) 380 kV line Colalunga-Calenzano and rationalisation of the nearby 132/220 kV networks,
Project included in Carbon Footprint Exercise <sup>1</sup> :	Yes

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

### Environmental and Social Assessment

The Project includes the following main schemes:

- Nine Synchronous Condensers (SC) each with a capacity of 250 MVA installed within the boundaries of existing substations: Maida (2 SC), Matera (2 SC) and one for each location in Foggia, Garigliano, Candia, Fano and Brindisi Pigliacelle.
- Mixed OH /UG<sup>2</sup> 150 kV line Foiano-Ginestra-Ariano (17.5 km), the associated Foiano substation and other substations works.
- 380 kV OH line Colalunga–Calenzano (84 km), rationalisation of the nearby 132/220 kV networks and associated substations works.
- 132 kV UG line Udine Sud-Udine F.S. (7.3 km) and 220 kV UG line (7.1 km) and associated substations works.
- Improvement of the 132 kV network in the Modena area (6.2 km of UG/OH lines).

<sup>1</sup> Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO<sub>2</sub>e/year absolute (gross) or 20,000 tonnes CO<sub>2</sub>e/year relative (net) – both increases and savings.

<sup>2</sup> OH: overhead. UG: underground

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- Improvement of the Alto Bellunese network comprising 4.6 km of 220 kV OH lines and 23.2 km of 132 kV UG lines.
- Improvement of the network in the Penisola Sorrentina including the 150 kV line Solofra - Mercato San Severino (10 km of UG cable, 5.5 km of OH line) and the extension of Torre Annunziata substation.
- Extension of Roma Sud and Aprilia substations.
- Extension to 150 kV of Catania Nord 220 kV substation and associated 150 kV UG connections (13 km).
- Installation of a 132 kV UG cable in Colle Salvetti substation (500 m) and associated substation works.
- Extension to 132 kV of Schio 220 kV substation and associated 132 kV connections (7km OH, 8 km UG).

## Environmental Assessment

The 380 kV, 84-km long OH line Colalunga–Calenzano and the rationalisation of the nearby 132/220 kV networks fall under Annex I of Directive 2014/52/EU amending the EIA Directive 2011/92/EU. It underwent an Environmental Impact Assessment, including an integrated Appropriate Assessment<sup>3</sup>, and was granted favourable EIA opinion by the Ministry of Environment with the Decision D.M. 275 dated 17 November 2014.

Other Project schemes fall under Annex II of the EIA directive leaving it to the competent authority to determine whether or not an Environmental Impact Assessment (EIA) is required. Based on the EIA screening criteria set-out under National legislation, only the Project scheme involving the erection of the 150 kV line Foiano-Ginestra-Ariano and associated Foiano substation underwent a full EIA and was granted favourable EIA opinion by the Regione Campania with Decision n° 440 dated 26/03/2014 .

The remainder Project schemes comprising substations works and short OH/UG lines falling below the national EIA screening threshold set out according to article 4(3) of the EIA Directive did not undergo either an EIA-screening or an EIA. They have however been subjected, as appropriate, to environmental analyses (e.g. landscape, archaeological assessments, appropriate assessment) in the process for the authorization to build and operate.

The environmental impact analyses carried out and the favourable opinions issued by the relevant competent authorities indicate that, subject to the implementation of appropriate mitigating measures, no significant impacts are expected to result from the construction and the operation of the Project schemes. Additionally none of the Project schemes would adversely affect the integrity of any European site on view of the site's conservation objectives.

Environmental considerations have been incorporated in the design of the Project schemes from the earliest stages. Lines routes and substations locations have been selected so to minimise as much as possible proximity and crossing of human settlements, sensitive areas,

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<sup>3</sup> The transmission line will interfere directly with the following Sites of Community Importance (SCI) and Special Areas of Conservation (SAC): Gessi Bolognesi, Calanchi dell'Abbadessa for 4 km (IT4050001), Monte dei Cucchi Pian di Balestra for 2.3 km (IT4050032), La Martina Monte Gurlano for 3.5 km (IT4050015), Monte Morello for 5 km (IT5140008) and Passo della Raticosa, Sassi di San Zenobi e della Mantessa for 3.2 km (IT5140001).

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and hydrogeological risk areas. All schemes have been designed to comply with EMFs exposure limits and corona audible noise limits.

Further to that, appropriate mitigating measures have been planned and will be implemented to minimise the impacts of the Project schemes. These include containing noise, dust vibrations and traffic disruption during the construction works, proper management of soil and aggregates resulting from excavation, minimising felling and trimming of trees, visual impact mitigation, routing underground cables in certain sections, cable markers to avoid bird collisions and, as necessary, realising compensatory plantations and relocating quality trees. Furthermore, tubular supports were considered mandatory in certain areas of the Colalunga-Calenzano line to minimise the impact.

The Project is expected to provide positive environmental impacts by supporting the connection and higher penetration of renewable energy generation into the Italian electricity grid, ultimately enabling investments that reduce air pollution and CO2 emissions.

### **Social Assessment, where applicable**

The Project is expected to provide short-term positive socio-economic impacts in the form of temporary employment opportunities.

The compensation process is well defined in the Italian legislative structure, mainly D.P.R. n° 327/2001 and relevant jurisprudence that define the compensation for expropriation or easement. The law describe that compensation is necessary in accordance to the type of land, the agricultural production and includes compensation for damages during construction.

The Promoter is Health & Safety ISO 45001 certified regarding occupational health and safety (OH&S) to proactively improve its OH&S performance in preventing injury and ill-health.

### **Public Consultation and Stakeholder Engagement**

The consultation process of the subcomponent regarding the upgrade of 380 kV Colunga – Calenzano involved two regions (Emilia Romagna and Toscana) plus 12 municipalities, for a total of 90 meetings performed. During the authorisation process further 54 meetings have been performed including relevant Ministries.

The public was invited to participate in the process, with notices on major national and local newspapers and in the public authorities' website. The period to file comments and observation was 60 days. The observation received could be grouped in the main areas: genera observation, level of electromagnetic fields, impact on tourism, hydrogeological impact, analysis of alternatives and value of land in subproject proximity. The observation produced were considered and in some cases resulted into changes of design while in other cases led to further analysis and studies.

### **Other Environmental and Social Aspects**

The Promoter has Environmental certification according UNI EN ISO 14001:2015 and BS OHSAS 18001:2007 that sets out the requirements for an environmental management system to improve the environmental performance through more efficient use of resources and reduction of waste.

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The promoter is experienced as developer of electricity transmission infrastructures; environmental and social capacity including organisation, processes and procedures, is deemed to be good.

### **EIB Carbon Footprint Exercise**

The source of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) emissions for the programme is the ohmic losses of the new network plus the losses of the synchronous condensers. At programme completion, the corresponding absolute emissions are estimated at 44 kt CO<sub>2</sub>e per year, relative emissions estimated at 20 kt CO<sub>2</sub>e per year.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

## **Conclusions and Recommendations**

Based on the information available, taking into consideration the E&S impacts, the planned mitigants and the capacity of the Promoter to implement them the Project is acceptable to the Bank in E&S terms.