

Public

Environmental and Social Data Sheet

Overview

Project Name:	TELEFONICA ADVANCED MOBILE BROADBAND 5G
Project Number:	2019-0072
Country:	GERMANY
Project Description:	The project concerns the initial 5G rollout, the strengthening of rural mobile 4G coverage and the 4G capacity increase. The project will result in a higher 5G population coverage and an increase to 99% for 4G in Germany. The project implementation is planned for the years 2020 to 2021.
EIA required:	No
Project included in Carbon Footprint Exercise ¹ :	Yes
(details for projects included are provided in section: "EIB Carbon Footprint Exercise")	

Environmental and Social Assessment

Environmental Assessment

The project concerns mainly the expansion of the existing mobile access network through new 4G as well as 5G nodes at existing sites, the erection of a limited number of new sites (+1%) in rural areas and the installation of microwave backhaul links. The project does not fall under the Annexes of the EU Directive 2014/52/EU amending the EIA Directive 2011/92/EU, and is therefore not subject to a mandatory screening on environmental impacts.

Mobile telecommunications networks cause radiation emissions with potentially harmful effects for the environment. Most of the activities financed by this project require a site certificate for the installation of new and additional radio equipment and – if applicable - a construction permit issued by the local authorities. The site certificates are issued by the federal Telecom agency (BNetzA). The certificate will assess the operational parameters of the radio equipment under a "worst-case" scenario and specify the required safety distances. The sites will be checked by the agency through site inspections, which are complemented by regular radiation emission measurements to assess the cumulative radiation exposure.

Through this operational permit, the regulator makes sure, that a new sender together with existing senders do not create joint radiation emissions above the German radiation thresholds. The Germany exposure limits for such radiation emissions are stipulated in the related emission law (26. BImSchV), which is based on the EU recommendation (1999/519/EC / ICNIRP² principles).

The new 5G bands, the modulation schemes and the specific antenna technologies are relatively new for the sector and will require some more scientific analysis.

¹ 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 CO₂e/year absolute (gross) or 20,000 tonnes CO₂e/year relative (net) – both increases and savings.

Luxembourg, 16 December 2019

New studies to better understand the specific impact of the emerging 5G technology on radiation emissions to the general public are under preparation. Still the general assumption is that the ICNIRP thresholds are sufficient also for 5G mobile networks. First preliminary measurements carried out in the Netherlands, resulted in a 5G field strength 10 to 20 times below the limits.

The visual impact represents another residual environmental impact. However, the number of new sites in the project is very limited compared the installed base. Also, the promoter is experienced in mitigating the visual impact through specific measures or the use of site sharing possibilities.

EIB Carbon Footprint Exercise

The estimated annual emissions of the project in a standard year of operation are:

- Absolute emissions: 154 kt CO₂/year
- Relative emissions: 0 kt CO₂/year.

The calculations are considering only the emissions of the financed components. The project foresees the installation of new equipment at existing and additional new sites but no replacement of outdated components, which would generate some energy savings. Therefore, the relative emissions have been assessed to be zero.

The promoter utilises a share of renewable energy higher than 70% as it has no control over the power supply at rented sites. Still the above calculation does not consider this energy mix but applies the emission factor of the German grid instead.

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.

Other Environmental and Social Aspects

The promoter has a well-developed and comprehensive corporate social responsibility (CSR) policy in place, which includes a regular reporting on defined indicators. The CSR principles feed into the business plan 2020, which aims at a continued reduction of CO₂ emissions, strengthening of a digital world and a responsible business operation. The promoter's successful CSR efforts are also reflected in a growing number of index listings such as ISS Oekom, Sustainalytics, FTSE4Good and the MSCI ESG Indexes.

The group wide Corporate Responsibility performance is monitored and reports are prepared under the supervision of the executive directors in accordance with the principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative.

Conclusions and Recommendations

Considering the above, the project is acceptable for the Bank's financing in environmental and social terms.