

SAFEGUARDS AND SOCIAL DIMENSIONS SUMMARY

A. Safeguards

1. In compliance with the Safeguard Policy Statement (2009) of the Asian Development Bank (ADB), the Eastern Indonesia Renewable Energy Project is classified as *category B* for the environment, and *category C* for both involuntary resettlement and indigenous peoples.

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2. To meet the requirement in the Safeguard Policy Statement for an environment category B project, EBJ has prepared environmental and social impact assessments for both the wind power project and power transmission line,¹ identifying and assessing the project's environmental and social impacts and risks. It also prepared an environmental management plan outlining appropriate measures to avoid, minimize, and mitigate any impacts.² Most of the project components, such as wind turbines and transmission towers, will be situated on rice fields that are largely rain-fed and produce only one crop each year. The project site is neither a habitat of terrestrial or avian faunal species, nor it is situated along the global route of migratory birds. An important bird area, Karaeng-Lompobattang, is 20 kilometers northeast of the project site. The transmission line route was designed to avoid sensitive areas and minimize disruption and inconvenience to the community. The project's potential impacts were identified and characterized with respect to their nature, reversibility, geographical extent, severity, and likelihood during construction and operation. Short-term impacts during construction will likely be limited within the project site and include dust, noise, traffic disturbance due to the frequency of delivery trucks, and solid waste generated by construction workers. Related occupational health and safety risks, including exposure to excessive noise, vibration, working at heights, and the risk of falling objects, are also anticipated. Potential impacts during operation are noise and shadow flicker effects. Wind turbines have been selected to ensure minimal operational noise using IEC type-certified turbines with industry best practice sound level guarantees. A noise modeling assessment showed that operational noise is compliant with government requirements and World Bank Guidelines for residential areas.³ The shadow flicker assessment concluded that 10 out of 57 groups of receptors exceeded the World Bank Guidelines of 30 hours per year. At the start of operations, EBJ will conduct visual observations of the area potentially affected by shadow flicker and will use video recording to identify the area and time of impact, and number of affected households. If complaints arise, EBJ will implement appropriate mitigating measures such as planting trees and hedges, and installing architectural and structural screening (e.g., blinds, window shades, window tinting, awnings, or fences) at affected receptors to minimize the effect of shadow flicker.⁴ The

¹ The transmission line will be built by EBJ and directed to a PLN substation in Jeneponto. This line is approximately 3.5 km long, and the average tower height is around 40 m. Rights of way will be at least 20 m wide (10 m to the right and 10 m to the left), taking into account the height of the tower and government regulations in force in the Indonesia National Standard SNI 04-6908-2002.

² EBJ has also completed the required Indonesian environmental impact assessment (AMDAL) for the wind power project, and obtained an environmental permit on 6 March 2017. Based on the Regulation of the Minister of Environment No. 5/2012, no AMDAL is required for the construction of the 150-kilovolt electricity transmission line since the planned activities do not significantly impact the environment. Instead, EBJ is required to prepare a study of the Usaha Pengelolaan Lingkungan (Environmental Management Efforts) - Usaha Pemantauan Lingkungan (Environmental Monitoring Efforts) as a prerequisite to obtaining an environmental permit, as stated in the Indonesian Government Regulation No. 27/2012. EBJ finalized and submitted the UKL-UPL to the correct government agency, and an environmental permit was issued on 15 March 2017.

³ DNV GL Wind Farmer software (version 5.2.11), which was used for noise modeling, has a typical error of plus or minus three decibels in accordance with the International Organization for Standardization 9613-2:1996 (ISO9613:2)—Acoustics—Attenuation of Sound during Propagation Outdoors. This software is also used for shadow flicker assessment.

⁴ The majority of these receptors are residential houses that have no windows facing the shadow direction of the

EPC contractor will be required to prepare site-specific environmental management and monitoring plans and designate its own environmental, health, and safety officer to ensure compliance with the site-specific Environmental and Social Management and Monitoring Plan and document its progress.

3. The project area is spread across eight villages in four districts of Jeneponto Regency, and is not situated in or overlapping any traditionally owned land or lands with customary rights. People in the project area are either from the dominant ethnic Makassar group or are in-migrants. Due diligence confirmed that the Makassarese of Jeneponto Regency are not separate from mainstream South Sulawesi society and are neither distinct nor vulnerable.

4. The project footprint is 44 hectares (ha) comprising (i) approximately 13 ha for the 20 wind turbines; (ii) gravel-surfaced access roads to various turbines 14 kilometers (km) long and about 5–8 meters (m) wide, including road shoulders equivalent to approximately 20 ha; (iii) a 3.5-kilometer, 150-kilovolt transmission line from the wind farm's pooling substation to the Perusahaan Listrik Negara Jeneponto substation, consisting of 10 towers (having a footprint 20 m by 20 m, or 15 m by 15 m) equivalent to around 2,400 square meters (m²); (iv) a substation equivalent to approximately 3 ha; and (v) a laydown area equivalent to 9 ha for construction as well as the contractor's temporary office and related facilities.

5. To expedite the project, EBJ procured project land using a willing buyer–willing seller process without using the provisions of National Land Agency Law No. 2/2012 on land procurements for development in public interest. A land survey of the 400 ha identified in the location permit was conducted to mark the location of the project components. Alternative siting was simplified by the fact that the terrain on which the wind farm is situated is a gently ascending plateau where the easterly wind rises. The final location of the EBJ components shows that siting was adjusted based on land made available to EBJ by landowners who agreed to sell their land.

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6. The land procurement process (i.e., mechanism, land price determination, compensation, and eligibility) and the grievance mechanism were disclosed to landowners as early as September 2016 at the commencement of land acquisition procedures. Most grievances during this process required clarification as to the price of land parcels, land measurements, and land boundary disputes. The community development program developed by EBJ in coordination with project villages will include targeted measures for landowners and sharecroppers. This will be included in EBJ's environment and social management action plan, and will be monitored throughout the duration of ADB's loan period.

B. Other Social Dimensions

7. EBJ and its contractors will comply with ADB's Social Protection Strategy and report annually to ADB on their compliance with national labor laws and internationally recognized core labor standards.⁵ The environment and social management action plan will include provisions requiring EBJ and its contractors and subcontractors to comply with national labor laws and

turbines. Houses with windows facing the shadow direction are equipped with awnings, ensuring that shadow flicker will not be an issue for the owners. Natural barriers in the form of trees covering the receptor group area can reduce shadow flicker impact.

⁵ ADB. 2003. *Social Protection*. Manila (adopted in 2001).

regulations consistent with internationally recognized core labor standards. The project is categorized as *no gender elements*, but will monitor the employment of women during construction.