Draft Environmental and Social Impact Assessment Report (ESIA) – Appendices 14 and 15

Project No.: 51209-001
October 2017

INO: Eastern Indonesia Renewable Energy Project

Prepared by ESC for PT Energi Bayu Jeneponto (EBK) (Republic of Indonesia)

Appendix 14

Non-Technical Summary

PT ENERGI BAYU JENEPONTO
72 MW TOLO I WIND FARM PROJECT
NON-TECHNICAL SUMMARY

EQUIS ENERGY

September 2017

This Non-Technical Summary (NTS) is prepared by PT Energi Bayu Jeneponto ("EBJ"). This NTS outlines the necessary information to be disclosed to related stakeholders. This document may be revised/updated intermittently to reflect changes or modifications implemented during the implementation of the project.

Document Revision Control

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1 Introduction

1.1 Project Description

The development, construction, commissioning, and operation of a 72 MW wind farm in Jeneponto, South Sulawesi, Indonesia. The Project will benefit from a 30-year power purchase agreement with state-owned enterprise PT Perusahaan Listrik Negara (Persero) as the offtaker.

This Project is expected to have a highly developmental impact by expanding Indonesia's capacity to generate clean energy by 72 MW. Indonesia's electricity generation capacity growth has been lower than electricity demand, leading to power shortages and a low electrification ratio. The Project will connect to the South Sulawesi grid, which has an installed generation capacity of approximately 1.4 GW. Rising population, per-capita incomes, and structurally low electrification will contribute to an estimated 8% annual growth in energy demand in South Sulawesi from 2015 to 2025. Eastern Indonesia lags behind the western area of the country in terms of electrification ratio, with some provinces only providing electricity to 43% of its population. The Project aligns with the Government of Indonesia's energy goals, which aim to increase renewable energy's contribution to the generation mix from 6.8% in 2016 to 23% by 2025, and will help Indonesia achieve UN Sustainable Development Goal #7 (Affordable and Clean Energy) for a total of 600 GW in 2050 as shown in Figure 1.

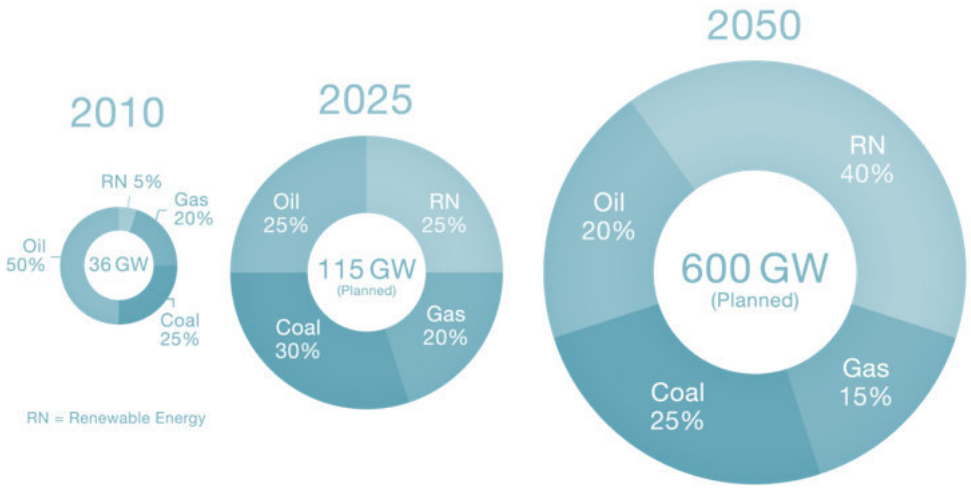

Figure 1 – Indonesia Mix Electricity Generation (Source: RUPTL 2014)

1.2 Project Location

EBJ intends to construct the Project in the Empoang and North Empoang villages in Binamu District; East Kayuloe, West Kayuloe, Bontomatene, and Parasangan Beru villages in Turatea District; Maccini Baji village in Batang District; and Kalumpangloe village in Arungkeke District, all villages are under the jurisdiction of Kabupaten Jeneponto (Regency). The project location is shown in Figure 2. The Project obtained a Location Permit from Jeneponto Regency in the form of Letter No. 001/IL/KPT/JP/2016 on Location Permit for Development of Wind Power Plant (PLTB) in Jeneponto.

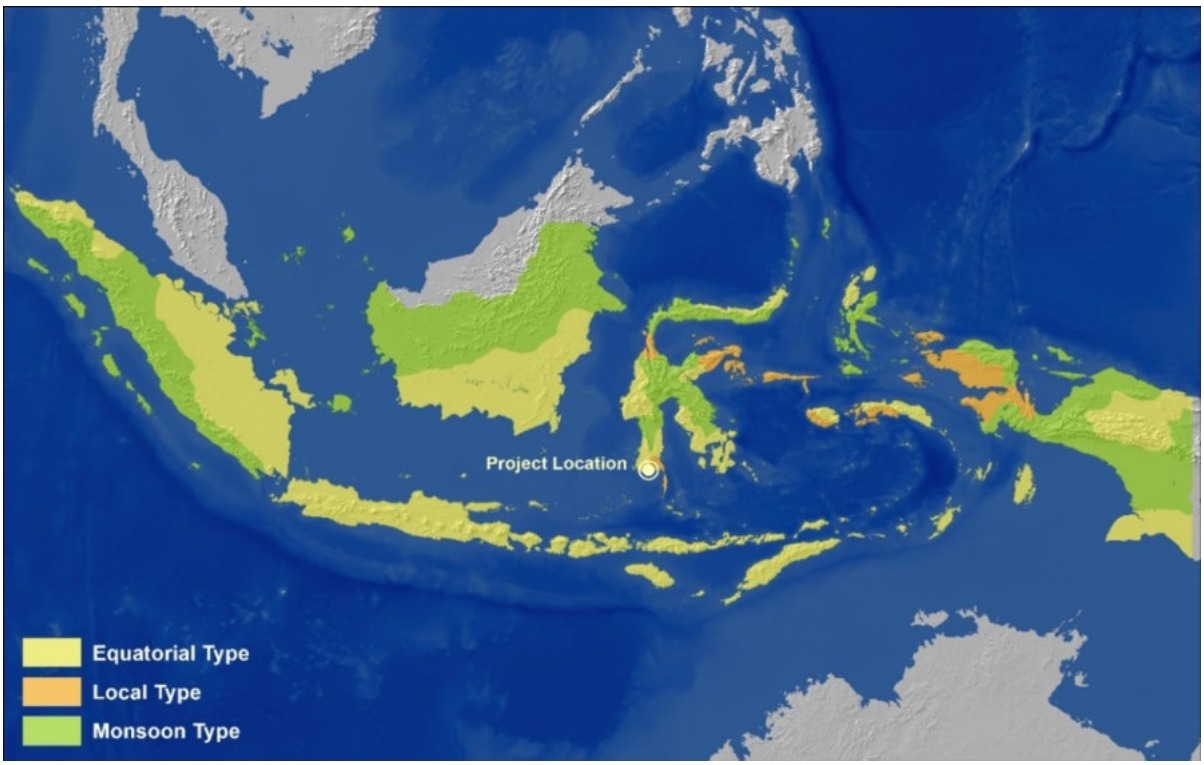

Figure 2 – Project Location and Climate Zone

1.3 Project Components and Associated Facilities

Main Project components and associated facilities include turbine towers with generator and rotor, access roads, local electrical network together with interconnection to the electricity grid (Figure 3 and Figure 4). These components are detailed as follows:

- 20 wind turbine with a hub-height of 135 meters;
- Rotor diameter 130 meters;
- Crane hardstand areas (about 44 x 144 meters each);
- Permanent Project roads, 14 km in length and about 5 to 8 meters in width (including road shoulders);
- Pooling substation occupying an area of about 1.2 to 4 ha;
- Operations and Maintenance facilities (O&M facilities) of about 2 ha;
- 33 kV underground collector system connecting the wind turbines; and
- 150 kV overhead transmission line to PLN Jeneponto substation with a length of 3.5 km.

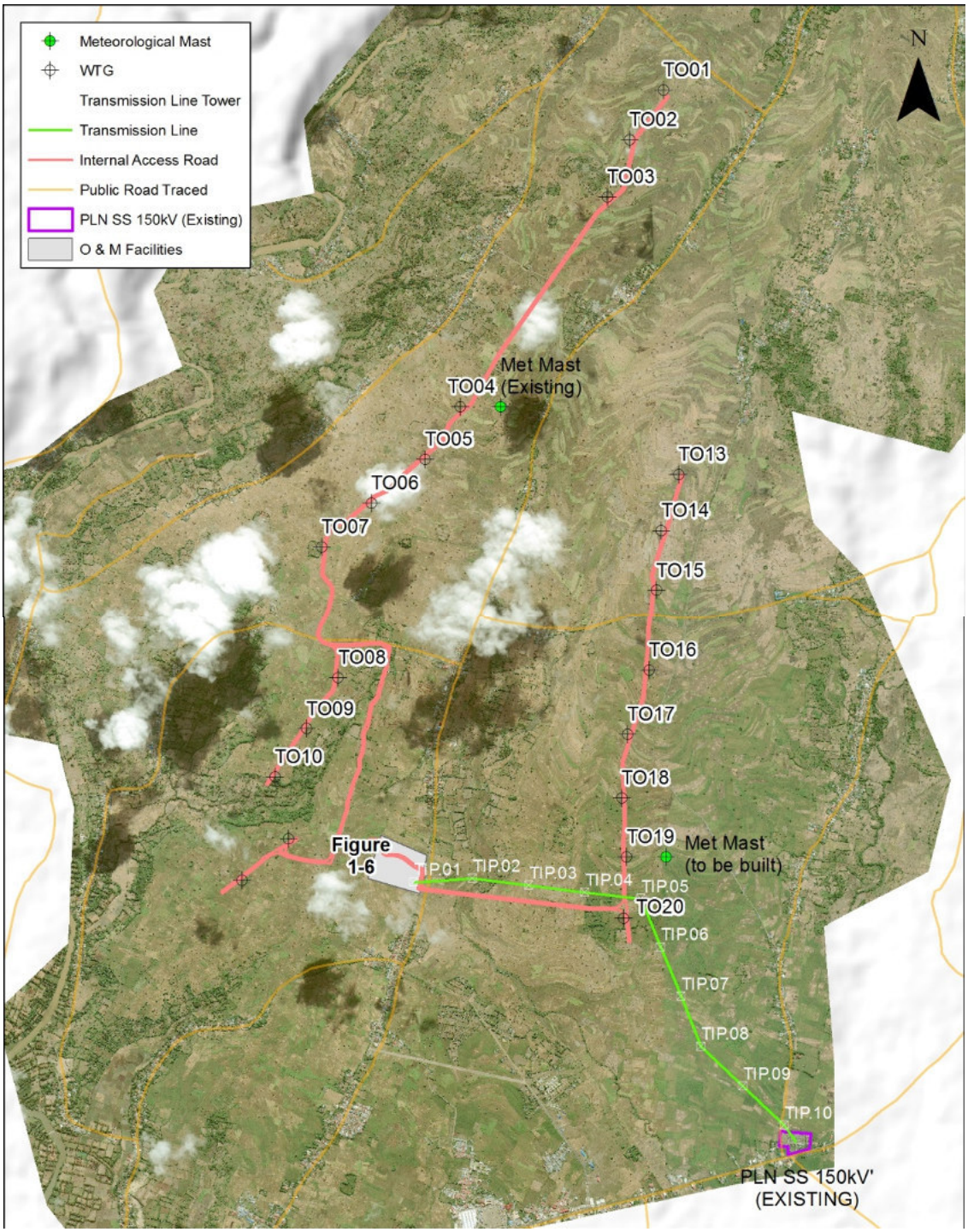

Figure 3 – Project Layout

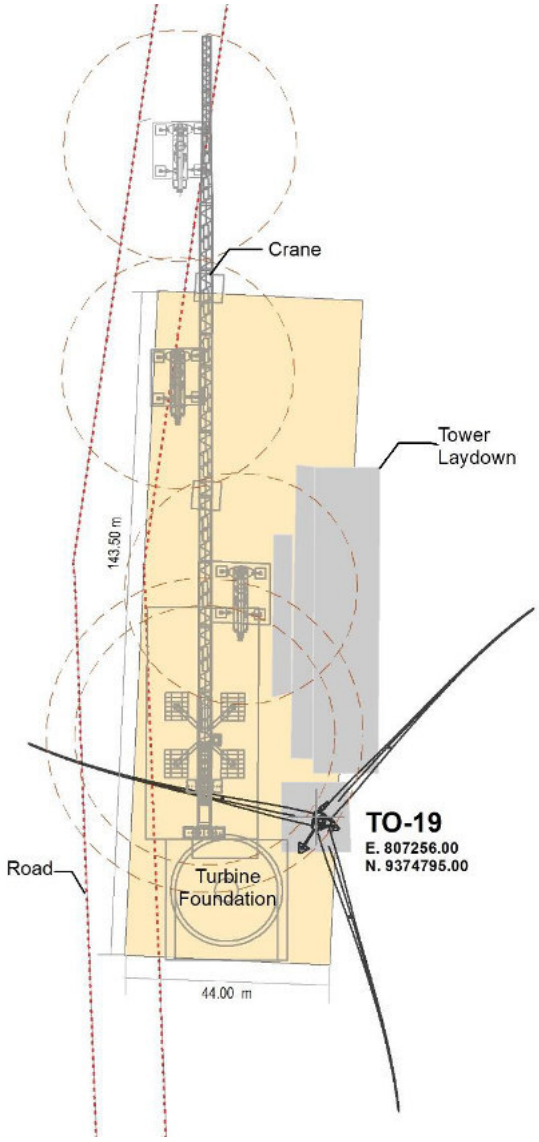

Figure 4 – Project Layout (zoomed in to turbine hardstand)

1.4 Project Phases

The pre-construction phase comprises project planning, engineering, and site preparation and was completed in mid 2017. It is followed by construction activities, which are scheduled to last 12-18 months (early works followed by 12 months post-NTP), including commissioning (Figure 5).

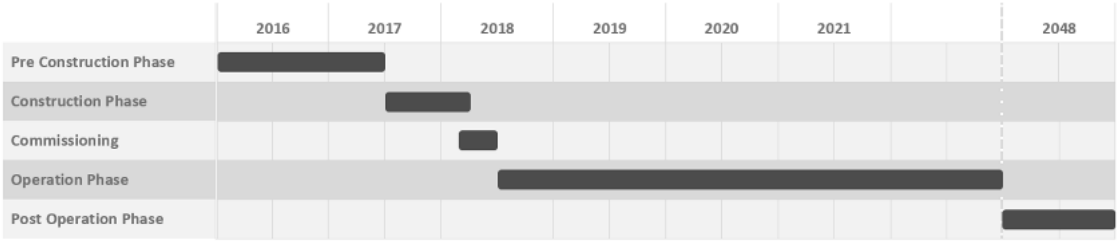

Figure 5 – Implementation Timeline

Production of wind energy is scheduled to commence by Q2 2018 and to last for 30 years. Decommissioning is expected to begin in 2048 following transfer to PLN, but the Project may continue to operate beyond this time.

2 Environment and Social Consideration

2.1 Environment Screening

This Project has been reviewed against IFC's categorical prohibitions and determined to be categorically eligible. Wind farms that are not located in sensitive ecological areas and demonstrate minimal potential for significant adverse impacts on wildlife and community are typically screened as Category B under IFC's environmental and social guidelines because impacts are site specific and readily mitigated. The major concerns related to the Project are potential impacts to the community both during construction and operation (e.g., noise and shadow flicker), appropriate occupational health and safety measures, and proper management of waste and hazardous materials.

2.2 Applicable Standards:

Based on the IFC's screening, it indicates that the Project will have impacts that must be managed in a manner consistent with the following Performance Standards:

- PS1: Assessment and Management of Environmental and Social Risks and Impacts;
- PS2: Labor and Working Conditions;
- PS3: Resource Efficiency and Pollution Prevention;
- PS4: Community Health, Safety and Security; and
- PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

In addition to the Performance Standards listed above, the World Bank Group's version August 7, 2015, Environmental, Health, and Safety (EHS) Guidelines for Wind Energy, International Finance Corporation's (IFC) April 30, 2007 EHS Guidelines for Electrical Transmission and Distribution and relevant sections of the IFC's April 30, 2007 regarding General EHS Guidelines are applicable to this project. Furthermore, should the project obtain funding from the Asian Development Bank (ADB), the ADB's Safeguards Policy Statement (SPS) will also be applicable.

2.3 Environmental and Social Risks and Mitigation

A Project-specific Environmental, Social, Health and Safety Management System (ESHS-MS) has been prepared to identify the environmental and social management and mitigation actions required to implement the Project in accordance with the IFC Performance Standards and applicable Indonesian national and local laws, standards, and regulations. This document has been prepared in the basis of the Project's AMDAL (local EIA) as well as ESIA documents. The Project-specific requirements for environmental and social management have been incorporated into the EPC and O&M contracts and are utilized by the Project's EPC and O&M contractors to develop site-specific management plans, including occupational health and safety plans, for both the construction and operating phases of the Project.

3 Pre-Construction Impacts

Land for the Project has been acquired on a willing seller willing buyer basis from private landowners. The Project developed a Land Acquisition Standard Operating Procedure to guide acquisition and

minimize adverse social impacts related to land acquisition activities. The Project acquired ~1,700 parcels (~44 ha) for the turbine layout, on-site roads and transmission line. These parcels are almost exclusively used for rice paddy cultivation. The project has conducted a socioeconomic census to the ~411 land owners to confirm the level of economic impact. This census informs the baseline conditions for the basis of a Community Development Program (CDP). The CDP will ensure that all Affected Communities (ACs) that are considered as significantly impacted by land acquisition activities are at least restored to their baseline conditions. Land around the turbines may return to agricultural use, post-construction, and the CDP will address this process. As of September 2017, the Project has signed sales agreements for all required land parcels.

4 Impact During Construction

Water use during construction is expected to be minimal and is only required for drinking water for the employees, construction of turbine foundations, and dust suppression. Water will be sourced from groundwater, which is plentiful in the area. The Project site includes 7 catchments, 6 major drainage courses, and primary and secondary irrigation canals. Although the site is relatively flat, construction of on-site roads and foundations represents the potential for increased erosion, soil compaction, runoff and sedimentation. Because the Project is located in the midst of paddy fields, the Project must be vigilant in maintaining water flows from the irrigation channels and reducing sedimentation to the maximum degree possible. A hydrology assessment by PT GRM was completed in October 2016 which results are utilized to aid road design, maintain irrigation flows and protect potable water sources.

Dust generation from construction activities during the dry season may be high, particularly during periods of high winds. The Project will implement dust suppression mitigation as per requirements set out in the AMDAL, such as provision of water truck to spray the road surface during the dry season.

Figure 6 – Typical Water truck at the project area

Furthermore, a robust Health and safety Management System and plans has been developed to ensure the Project activities are conducted in a safemanner. Provision of Job Safety Assessment ("JSA"), toolbox meeting, daily site inspection, equipment check list has been implemented to ensure the work is implemented in the safest practice.

Figure 7 – Daily safety briefing and equipment inspection conducted at the site

Major equipment will be delivered to Makassar Port and transported through Makassar City, Gowa, Takalar and Jeneponto. Some road modifications are expected to be required along the transport route to meet the size and weight requirements of the delivery vehicles. A detailed logistic plan will be prepared prior to equipment mobilization to the site.

Furthermore, the Project is required to operate in a manner compliant with the International Finance Corporation (IFC) Performance Standards, in addition to compliance with local laws and ADB's SPS, as applicable. The Project requires contractors to adhere to the IFC Performance Standards with regards to the human resource and human rights. IFC's statutory labor rights language is supplemented with provisions concerning the rights of association, gender equality, organization and collective bargaining, minimum age of employment, prohibition against the use of forced labor, non-discrimination, hours of work, the timely payment of wages, and hazardous working conditions.

5 Impact During Operation

Noise modelling undertaken for the Project indicates that noise levels at all receptors will meet Indonesian and IFC noise standards. The Project will monitor noise levels and implement mitigation measures, such provision of grievance channel(s) should any exceedance occurrs.

The Project area is relatively flat with little topographic relief. For this reason, there will be visual impact as a result of the wind turbines and transmission line being visible for some distance by residents. Shadow flicker modeling indicates that 10 residences group may experience shadow flicker more frequently than the IFC guideline (i.e. 30 hours/year). The project has developed a mitigation strategy in the event that legitimate grievances are raised by affected residents in relation to shadow flicker.

The Project undertook two bird and bat surveys: one during the dry season (October 2016) and one during the rainy season (January 2017). Based on the findings of the surveys, the Project is not expected to result in significant impacts on biodiversity. Under the terms of the environmental permit, the Project is required to monitor for the presence of birds and bats for at least the first two years of operations, with subsequent monitoring as required by Provincial authorities.

6 Project Socialization and CSR

The Project has undertaken public consultations in the communities of the affected villages and has developed and implemented a public grievance mechanism. In addition, the project has also undergone some consultation with the local government authorities. Furthermore, the Project has developed near-, medium-, and long-term Corporate Social Responsibility (CSR) plans. The Project has already begun construction on a mother and child health clinic (Posyandu) and completed two community centers, with several activities requested through consultations with the locally affected villages.

Figure 8 - Amdal Public Consultation

Figure 9 - Project presentation and consultation with Bupati of Jeneponto and its staff

Figure 10 – CSR Activities undertaken at the site

Appendix 15

Indigenous People Screening Assessment

APPENDIX 16 - Indigenous Peoples Impact Screening Checklist

KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
A. Indigenous Peoples Identification				
1. Are there socio-cultural groups present in or use the project area who may be considered as "tribes" (hill tribes, schedules tribes, tribal peoples), "minorities" (ethnic or national minorities), or "indigenous communities" in the project area?		√		It is confirmed through several interviews with local villagers at the project site during the AMDAL Study that they identify themselves as descendants of the Makassarese ethnic group derived from Bone Kingdom who came to Jeneponto in about the 15th century AD. In the period of more than three centuries, this community has undergone various processes of social change and culture due to the influence of colonialism, Islamic culture, and modernization. Community representative (several head of villages) also confirms that no tribal people are living in the eight (8) affected villages. Furthermore, the Makassarese is the majority of the ethnic group in Jeneponto and South Sulawesi region at large. Generally speaking, communities in the villages of the project site are devout Muslims. Islamic teachings have influenced and been integrated into the institutions of political, social, economic since the colonial period until the present time. Having this information at hand, the Project can confirm that the community living in the vicinity of the project area is not considered as indigenous people or belonging to any tribes/minorities.
2. Are there national or local laws or policies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes, tribal peoples, national minorities, or cultural communities?		√		The Government of the Republic of Indonesia through Ministry of Social Affairs has its definition related to Indigenous People as stated in Presidential Decree Number 111 of 1999 regarding isolated Indigenous Communities. Through this decree, indigenous people are often called isolated Indigenous Communities. It is defined as socio-cultural groups that are local, not involved in social services, economics, and politics. Data from AMAN (*Aliansi Masyarakat Adat Nasional* - National Indigenous People Alliance) on indigenous community locations in South Sulawesi shown in the Figure 1 below confirmed that there is no indigenous community present near the project area. Based on the information mentioned above, the Project can confirm that none of the community living in the vicinity of project area belongs to any indigenous community.

KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
3. Do such groups self-identify as being part of a distinct social and cultural group?		√		N/A as per answer to question no. 2 there is no indigenous community present in the vicinity of the project area. However, as has been observed in the project area, none of the local community distinguish themselves as separate social/cultural groups from the rest of the broader community in Jeneponto regency.
4. Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?		√		N/A as per answer to question no. 2 there is no indigenous community present in the vicinity of the project area. However, no such practices have been observed at the project area. There is no ancestral territories or natural resources being collectively used by a certain group of people. In addition, all the land acquired by the project is privately owned land and has only been attributed to individual use.
5. Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?		√		N/A as per answer to question no. 2 there is no indigenous community present in the vicinity of the project area. As has been observed, the community living around the project area does not have any distinctive way of conducting their cultural, economic, social, and political practices from the broader community in Jeneponto – Makassar regions.
6. Do such groups speak a distinct language or dialect?		√		The local community living around the project area identified themselves as Makassarese people which form part of the broader South Sulawesi region. Therefore, the language being spoken by the community around the project area is Makassarese language, which is also largerly spoken by the people in South Sulawesi. However, as has been observed and told by locals, Jeneponto people in general, and people at the project location, has a specific accent which distinguish them from other Makassarese people living in South Sulawesi province.
7. Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?		√		N/A as per answer to question no. 2 there is no indigenous community present in the vicinity of the project area. However, there is no evidence found during the continuous public consultation during the development of the project of such discriminative actions have taken place in the community in the project area.

KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
8. Are such groups represented as "Indigenous Peoples" or as "ethnic minorities" or "scheduled tribes" or "tribal populations" in any formal decision-making bodies at the national or local levels?		√		N/A as per answer to question no. 2 there is no indigenous community present in the vicinity of the project area. As has been observed, there is no local community at the site that represent themselves as tribal/indigenous people in any formal decision-making bodies (government) at national or local level.
B. Identification of Potential Impacts				
9. Will the project directly or indirectly benefit or target Indigenous Peoples?		√		No indigineous people have been identified at the project location
10. Will the project directly or indirectly affect Indigenous Peoples' traditional socio-cultural and belief practices? (e.g. child-rearing, health, education, arts, and governance)		√		No indigineous people have been identified at the project location
11. Will the project affect the livelihood systems of Indigenous Peoples? (e.g., food production system, natural resource management, crafts and trade, employment status)		√		No indigineous people have been identified at the project location
12. Will the project be in an area (land or territory) occupied, owned, or used by Indigenous Peoples, and/or claimed as ancestral domain?		√		No indigineous people have been identified at the project location
C. Identification of Special Requirements *Will the project activities include:*				
13. Commercial development of the cultural resources and knowledge of Indigenous Peoples?		√		No indigineous people have been identified at the project location
14. Physical displacement from traditional or customary lands?		√		No physical displacement has been and will be performed by the project to any structures belonging to the community or other party at the project location
15. Commercial development of natural resources (such as minerals, hydrocarbons, forests, water, hunting or fishing grounds) within customary lands under use that would impact the livelihoods or the cultural, ceremonial, spiritual uses that define the identity and community of Indigenous Peoples?		√		No costumary land has been identified at the project site. All land acquired is privately owned land.

KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
16. Establishing legal recognition of rights to lands and territories that are traditionally owned or customarily used, occupied or claimed by indigenous peoples ?		√		N/A as per answer to question no. 15 above.
17. Acquisition of lands that are traditionally owned or customarily used, occupied or claimed by indigenous peoples?		√		N/A as per answer to question no. 15 above.

Appendix 1 – Indigineous Community Location at South Sulawesi
(based on the AMAN Map – accessed in 28 September 2017 through this link http://www.aman.or.id/peta/)