



NON-TECHNICAL SUMMARY (NTS) INTERNATIONAL ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA B) REPORT FOR THE RIYAH 2 WIND FARM PROJECT, SULTANATE OF OMAN

1 INTRODUCTION

TotalEnergies Renewables Development Middle East LLC (TTE) and OQ Alternative Energy LLC (OQAE) are working together to develop the proposed Riyah 2 Windfarm Project, to be located in the Wilayat of Al-Jazer, Governorate of Al-Wusta, Sultanate of Oman. These two companies, referred to as the "Project Proponent" or "Project Company," will form a joint venture (JV) registered in Oman (name to be confirmed) that will manage the development of the Project (see Figure 1-1).

The Project will include an onshore windfarm of 18 turbines, with an installed capacity of 117 MW. Other project components will include an underground cabling network, a step-up construction and operation facilities. Generated electricity from the windfarm will be evacuated to the grid of Petroleum Development Oman LLC (PDO, the "Off-taker"). Therefore, power evacuation from the Project's step-up substation to the existing PDO's Nimr West substation will require a 132 kV interface yard and a transmission line of about 22 km long. Power evacuation components are not part of the Project' scope, but are considered associated facilities; their design, construction, operation, and decommissioning will be carried out by PDO as a separate transmission project, with the corresponding environmental assessment and permitting process.

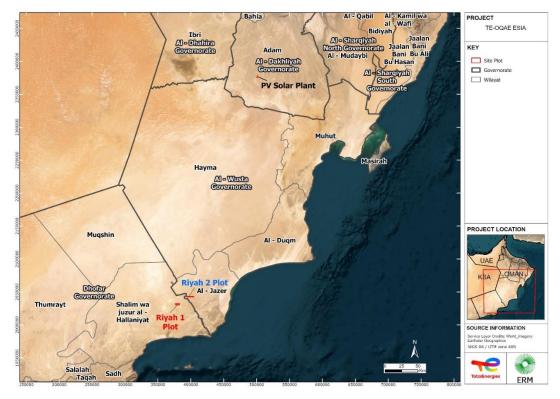


FIGURE 1-1 PROJECT LOCATION

Source: ERM, 2024

A local Environmental Impact Assessment (EIA) that complies with Omani regulations, known as "ESIA A," was prepared by Five Oceans Environmental Services (5OES) and followed the requirements outlined in the Scoping Report. Local ESIA A was approved by the Environmental Authority (EA) in June 2024 and the corresponding EA's local permit conditions were issued in July 2024. It is noteworthy the applicability of some permit conditions was discussed between the Project Proponent and EA on 23rd September 2024¹. On that same meeting, an update in the R2 site plot was also announced by TTE/OQAE. Initially, R2's plot was partially located in Tethys Oil's Block 56; however, after PDO's decision, a 3.3-km plot boundary shift to the west was applied in order to be fully within PDO's Block 6 concession area. As a result, TTE/OQAE will submit ESIA B report to EA to inform on these changes. The final version of R2's permit conditions are still pending to be issued by EA by the time of this report; nevertheless, the current ESIA B report has been updated applying R1's final permit conditions issued on 17th October 2024 as both wind projects (R1 and R2) originally held the same permit conditions. Once issued, final permit conditions will be integrated into ESIA C.

The current document is the Non-Technical Summary (NTS) of the International Environmental and Social Impact Assessment Report, referred to as "ESIA B," which was developed by Environmental Resources Management (ERM) in collaboration with 50ES. ESIA B is focused on meeting international standards for potential international financing. It also considers the permit conditions issued by the Environmental Authority (EA) in October 2024 as a result of the local ESIA A approval.

Finally, it is important to note that ESIA B will be updated later by ERM/50ES, under the name "ESIA C," to include the outcomes of social disclosure events and latest biodiversity surveys.

2 LEGISLATION CHAPTER

Environmental protection within Oman is primarily governed by the "*Law for the Conservation of the Environment and the Prevention of Pollution*" (Royal Decree, RD, 114/2001) administered by the Environmental Authority (EA; previously called the Ministry of Environment and Climate Affairs, MECA). The environmental permitting process is regulated by the Authority Decision 107/2023 issued in August 2023.

In accordance with national legislation (MD 48/2017), the Project is classified as a Category 'A' activity and requires an Environmental Impact Assessment (EIA). The EIA A (also known as ESIA A) was approved by Oman's Environmental Authority (EA) in July 2024 as described in the previous section.

Since international financing is necessary for the Project to proceed, the guidelines set by the International Finance Corporation (IFC) regarding Environmental, Health and Safety (EHS) standards and the Equator Principles (EP4) will be followed. As part of this process, three key studies have been prepared, among others: a screening Physical Climate Change Risk Assessment (CCRA), which assesses potential physical climate-related risks; a Human Rights Risk Assessment (HRRA), which evaluates potential human rights risks; and a screening Critical Habitat Assessment (CHA), which assesses if there are potential critical habitats that need to be considered by the Project.

TotalEnergies' corporate standards will also be implemented in the development of the ESIA.

¹ The discussions involved the permit conditions issued by EA for the three TTE/OQAE's renewable projects in Oman: R1 and R2 wind projects and a solar PV project (see Figure 1-1).

3 PROJECT DESCRIPTION

The Project involves an onshore windfarm with an installed capacity of 117 MW, and maximum delivered capacity of 111 MW. The production will be met through the installation of 18 turbines, with a capacity of 6.5 MW.

Electricity from the turbines will travel through buried cables to a step-up substation, located in the north centre of the windfarm, where it will be transformed to meet PDO's requirements. To connect to PDO's Nimr West, a 132 kV transmission line will be constructed, although these elements are part of a separate project to be managed directly by PDO.

The Project site plot will occupy 266 hectares of leased land in the Wilayat of Al Jazir, Governorates of Al-Wusta, with elevations between 222 m and 228 m. The flat desert site is home to scattered shrubs.

The Project is located within PDO's Block 6 concession area and close to PDO's Nimr and Amal camps, at approximately 16.8 km and 39.46 km, respectively. The nearest well is approximately 1.8 km away and the closest airport (Marmul) is about 93.8 km southeast.

The location of the Project Site and key components of the project are shown in Figure 3-1.

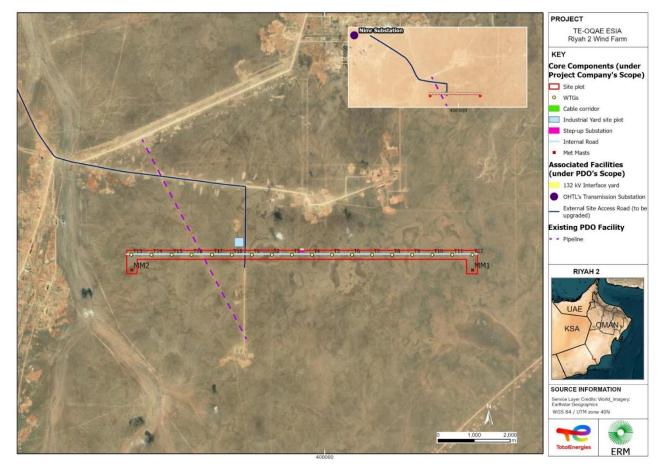


FIGURE 3-1 PROJECT LAYOUT

Source: ERM, 2024.

The Project comprises the construction and operation of an onshore windfarm and associated infrastructure. Key Project components are summarised in Table 3.1.

TABLE 3.1 KEY PROJECT COMPONENTS

Element	Details
Wind turbine generators (WTG) and foundations	 18 turbines, each with a capacity of 6.5 MW. Each turbine consists of a tower, a nacelle (which houses the equipment), and three large blades. The turbines will stand about 200 meters tall at their highest point, with a hub height of 108 meters and blade length of around 90 meters. Each turbine will sit on a circular foundation roughly 23 meters wide. Each turbine will have a transformer to step-up the voltage from 1.14 to 33 kV.
Crane hardstandings and auxiliary crane areas for crane assembly and blade laydown	 A firm, flat area next to each turbine (about 726 square meters or 0.07 hectares) will be used for crane operations during construction. Additional temporary flat areas (around 0.39 hectares) will be set up nearby for assembling cranes and laying down turbine blades. Together, the main and auxiliary crane areas for each turbine will cover about 0.466 hectares.
External site access road (Associated facility)	• The Project site will be accessed from public paved Road 39 via a graded access road to be constructed by PDO as part of Project agreements and is outside the scope of this Project. The anticipated length of the new external site access road is 18 km.
Internal roads	 The internal road network will consist of approximately 9.85 km of newly constructed tracks. These will have a width of approximately 6 m, which includes 0.5 m shoulder on each side. As agreed between TTE/OQAE and PDO, PDO will be responsible for the necessary design and civil engineering works for the crossing of the Project's internal road over PDO's pipeline located in the Project area (for both light and heavy weight vehicles).
On-site electrical connections and step- up substation	 On-site medium-voltage (MV) cabling will be laid underground within the internal road corridor, linking the 1.14/33 kV turbine transformers to the 33kV switchgear in the step-up substation. The step-up substation will be located in the north centre of the windfarm plot. Two high-voltage (HV) transformers in the step-up substation will be used to step-up the voltage of the electricity for evacuation into PDO's grid to 132 kV. As agreed between TTE/OQAE and PDO, PDO will be responsible for the necessary design and civil engineering works for the cable crossing over PDO's pipeline located in the Project area.
Interface yard and overhead Transmission line (OHTL) (Associated facilities)	• An interface yard (including AIS bay and OHL tower), and an OHTL of approximately 22 km long (in straight line) from the Project's step-up substation to PDO's Nimr West substation will be constructed by PDO as part of Project agreements and is outside the scope of this Project.
Temporary industrial yard	• A temporary industrial yard will be required during the construction phase of the Project, and it will comprise approximately 6.28 ha, respectively
Met masts	• 2 permanent met masts for power curve measurement test and future meteorological condition measurement will be installed. The location and height of these masts are yet to be determined but will be located within the site plot.

The Project schedule comprises of the following three phases:

Construction, pre-commissioning and commissioning phase (Phase 1):

This includes site preparation; construction of temporary industrial yard and of internal roads & drainage system; vehicle movement; influx of workers; construction of crane hardstanding; blade laydown areas and turbine foundations; installation of transformers, step-up substation, met masts, wind turbines, electrical infrastructure and signa cables; excavation of trenches for cable laying; enhancement works to the public road network (if required); resource consumption (water, energy, etc.); waste and wastewater management; removal of construction equipment and temporary facilities and reinstatement; and commissioning of site equipment. The Project's construction and commissioning phase is expected to start in Q1 of 2025 and last for <u>20 months.</u>

During the peak of construction, it is expected there will be about 600 workers on the Project site. The Project will source locally based construction workers where feasible (e.g. low-skilled labourers). The Project will adhere to applicable Omani labour regulations and Omanisation quotas. Working schedule will be 10 hours per day with overtime of 2 hours for some sections. Work will be implemented on a rotation or shift system basis.

Internationally recognised and local worker conditions, health, safety, and environment standards for workers will be applied. These will include full-time doctors and paramedics employed to provide 24-hour medical cover by direct presence or on call.

The Project will use existing facilities and infrastructure at the region. Some facilities are expected to be used directly (e.g. existing PDO accommodation camp and existing roads). Other roads will be slightly modified in order to reach the site.

Operations and maintenance phase (Phase 2):

This includes workers management, vehicle movement, routine inspections and site maintenance, resource consumption, waste and wastewater management, remote monitoring and activation of turbines during excessive winds. The Project's operational lifetime will be <u>18-20 years.</u>

During operation, the Project will require up to five full-time staff to keep the facility maintained and working and about 15 site engineers/technicians to be outsourced from local third parties for schedule maintenance.

Decommissioning phase (Phase 3):

At the end of the planned operational lifetime, the operation of the assets will either be repowered or decommissioned. Decommissioning will involve the removal and reuse / recycling / disposal of surface structures and the reinstatement and restoration of the affected sites.

4 ASSESSMENT OF ALTERNATIVES

The site selection process was part of PDO's scope, considering the potential wind resource and their demand/load centers. Post-assessing the feasibility study, PDO identified the Project site for further development with defined capacity (in Mega Watts) and released the Bid documents accordingly. Minimum Functional Specifications (MFS) and certain design limits were also set by PDO as part of their bidding process for this renewable energy project. The Project Proponent participated in the bidding process and proposed the Project layout and design indicated in this chapter and Chapter 3 within the defined site boundaries and respecting the requirements in the PDO's Request for Proposal (RfP). The option of not proceeding with the development is discarded when considered against the benefits of establishing a new renewable energy source and against national strategies and global tendencies.

5 STAKEHOLDER ENGAGEMENT

The preparation of a Stakeholder Engagement Plan (SEP) is crucial for sustainable development and the Environmental and Social Impact Assessment (ESIA) process. This plan involves engaging those who are interested in or affected by the proposed project to identify opportunities, risks, and concerns. Effective engagement and public consultation are essential for successful project development. TTE/OQAE is dedicated to engaging with stakeholders throughout the project's lifecycle.

The SEP outlines the project's stakeholders, previous engagement activities, and the commitments of the Project Proponent regarding stakeholder engagement and addressing grievances as the project progresses.

The main goals of stakeholder engagement are to:

- Maintain openness and transparency.
- Be accountable for potential impacts associated with the project.
- Foster a relationship based on listening, dialogue, trust, and commitment.
- Respect stakeholders' interests and ensure safe participation.
- Collaborate with stakeholders to find solutions that benefit everyone.
- Respond promptly to stakeholders' needs and concerns.
- Act proactively to anticipate information needs or potential issues.
- Ensure fair treatment of all stakeholders and consider their concerns based on equal rights.
- Be accessible to stakeholders, making sure they feel heard and informed.
- Include all relevant stakeholders in the engagement process.

5.1 ENGAGEMENT PROCESS TO DATE

The Project has identified stakeholders who may be directly or indirectly affected by the Project, positively or negatively, or may influence how it is carried out. These stakeholders include individuals and organisations with an interest in the Project, those who could be impacted by it, or those who can share valuable feedback and concerns about its development.

Engagement activities were conducted as part of the baseline process for preparing the ESIA report. These activities took place from July 9th to 10th, 2024, and were led by the Project Team, with fieldwork conducted by 50ES.

The main goals of this engagement were to:

- Collect local-level socioeconomic health data; and
- Make initial contact with key stakeholders and introduce the Project

Meetings were held in July 2024 with the Walis of Al Jazer and Saleem, along with other local government representatives. These meetings aimed to share basic information about the Project, gather feedback, and request baseline data.

Initial stakeholder feedback was largely positive, with recognition of the benefits the Project would bring to PDO, a leading exploration and production company with a 60% government stake. Stakeholders noted the potential impacts but did not raise any major concerns. Many referenced other wind and solar projects in the region, agreeing that these had not resulted in significant negative impacts.

Discussions primarily focused on the potential benefits of the Project. While there is a general expectation for oil and gas companies operating in the region to invest in local communities, it was acknowledged that these companies often have their own standards and strategies for social investment, which may not always align with community expectations.

Employment was highlighted as a priority for the region, with each Wilayah focused on reducing the number of registered jobseekers. This remains an important consideration for all involved in the Project.

5.2 ESIA DISCLOSURE

EIA Rev A was disclosed with relevant stakeholders in July 2024. Details about how the feedback of the ESIA disclosure process has shaped this version B of the ESIA are included in Section 5 of the Stakeholder Engagement Plan, and in Appendix G to the ESIA. The feedback provided by stakeholders is summarised below:

Subject	Al-Wusta	Dhofar
Project's perception	 Overall positive welcoming of the project Query regarding location selection rationale 	 Overall positive welcoming of the project Query regarding the expected start date of construction phase Reference and comparison to a similar recent existing wind project (Harweel)
Local economy and livelihoods	 Locals are employed various sectors, including freelance business and the private sector with PDO and contractors High number of jobseekers, most with high school certificates and some with bachelor's degrees. Many locals are involved in animal rearing and fishing. Oil and gas companies use a centralized system for employment which does not enable prioritization for local employment 	 Locals are employed mostly in the government and private sector with PDO and contractors High number of jobseekers, most with high school certificates and some with bachelor's degrees. Many locals are involved in animal rearing and fishing. Oil and gas companies do prioritise local employment however the opportunities are limited
Community land uses (e.g., grazing, access rights)	 Shaybun and Wadi Shaybun are located in the Wilayat of Al Jazer and are areas used for grazing during and after rains 	 Shaybun and Wadi Shaybun are located in the Wilayat of Shaleem wa Juzor Al Hallaniyat and were abandoned in the 1990's, only used for grazing since A worker accommodation for a local company is located in Shaybun

TABLE 5.1 OVERVIEW OF THE KEY FEEDBACK RECEIVED DURING THE ESIA DISCLOSURE PHASE HELD IN JULY 2024

Subject	Al-Wusta	Dhofar
Community health, safety and development needs	 No severe diseases are common in the area Health services are sufficient 	 Traffic accidents on current roads occur frequently
Unique regional culture and heritage (e.g., language, traditions of local tribes, handicrafts)	• Al Mehri root	• Al Mehri and Al Shahri languages
Environmental, Health and Social Impacts	 Safeguarding animals during construction phase it is suggested the project site be completely fenced. Safeguarding groundwater reserves, a dedicated drainage system is suggested 	 Query regarding employment opportunities whether they would be temporary or permanent Concern raised regarding potential impact on grazing activities
Project Social Investment and Responsibility	• Emphasis on the importance of focusing on social and economic returns/benefits to the Wilayah, with priority to locals and LCCs	 Emphasis on the importance of focusing on social and economic returns/benefits to the Wilayah, with priority to locals and LCCs Extending the project's output supply to serve the nearby settlements is suggested
Grievance mechanism	No Feedback received	 Adding Municipal Council Representative to the mechanism was suggested

The final International ESIA B Report in English language along with a Non-Technical Summary in Arabic language, will be made available to stakeholders and general public for a period of 30 calendar days. The disclosure will be facilitated through electronic access via a link.

Other means by which stakeholders will be able to provide feedback include:

- Using feedback forms which will be available via the same link where the ESIA B and the Non-Technical Summary in Arabic language will be uploaded.
- Calling to the phone number: 00968 92120082, during the entire ESIA disclosure period;
- Electronic communication, via email at <u>NOS.Grievance@oq.com</u>, during the entire disclosure period.

Anonymous feedback will be also accepted.

6 PROJECT BASELINE CONDITIONS

6.1 PHYSICAL ENVIRONMENT

The climate in Oman is extremely dry, with significant temperature changes throughout the year. The region where the Project is located experiences the effects of the Indian monsoon, which starts in May, peaks in June, and tapers off by mid-September. Temperatures range from an average low of 12.3°C in January to an average high of 42.7°C in July. Rainfall is rare and unpredictable, with an annual average of about 42 mm. Winds are consistent, with speeds exceeding 10 km/h almost daily.

There are no permanent sources of air pollution at the project site, although some oil and gas infrastructure may release emissions. Air quality in the area is within the acceptable limits set by both international and Omani standards.

Noise levels at the Project site are generally below the standard limits for industrial areas (70 dB), with wind being the primary source of sound. Some brief exceedances of the noise threshold were recorded but are attributed to natural wind conditions, given the site's remote location.

The project is part of the central desert plateau, consisting of flat sand and gravel plains. The surface is mainly made up of loose, sandy gravel. No signs of soil contamination have been found.

The project will not draw directly on groundwater as groundwater abstraction to supply water is not considered as part of the Project activities at this stage. The Project overlaps with the Wadi Rawnab well-field protection zone, where certain activities are restricted to protect groundwater. The main aquifer below the site is located about 100 meters underground and is separated from the surface by limestone.

There are no permanent bodies of water on the project site, though during heavy rainfall, water can collect in shallow depressions on the land.

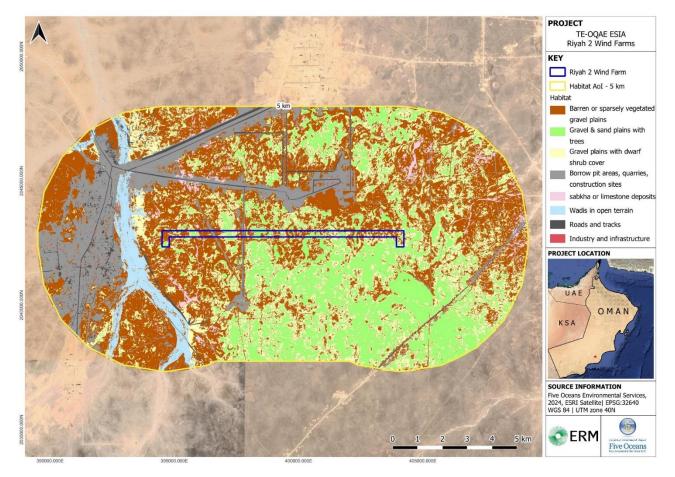
The landscape is largely flat and barren, with no significant features, and it is not part of any designated national landscape area.

6.2 TERRESTRIAL ECOLOGY

The Project site is not located in or near a National Nature Reserve (NNR) or other level of protection or interest that would indicate that the site has specific conservation value. The closest Natural Reserve to the Project site is Jebal Samhan NNR, 137 km to the south-west, and the nearest IBAs to Riyah 2 are located further than 50 km away: Jiddat al Harasis (50 km to the north), Khawr Ghawi (59 km to the east) and Jabal Samhan (95 km to the south-west). In addition, there are no World Heritage Sites, or Alliance for Zero Extinction sites within a 50 km radius of the project site.

The distribution of habitats in the 5 km includes eight types, with barren gravel plains and sparsely vegetated gravel plains, and gravel and sand plains with trees being the most common habitat types found on the project site.

FIGURE 6-1 HABITAT DISTRIBUTION IN THE TERRESTRIAL ECOLOGY AOI (5KM)



Source: 50ES, 2024.

A Critical Habitat Assessment (CHA) has been prepared and is specifically intended to address the requirements of *IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources* ("IFC PS6"). IFC PS6 requires that projects identify the presence and extent of **modified, natural and/or critical habitat** (as defined by the standard) in the Project's Area of Influence. The assessment concludes that one endangered plant *Searsia gallagheri* was identified as potential trigger to Criterion 1 and Criterion 2; however, it should be noted that up to date only one specimen has been observed in the AOI, located approximately 2.5 km to the east of the Riyah 2 project boundary and impacts can be avoided with a high level of certainty. In addition, future observations are required to confirm if indeed *Uromastyx thomasi* (Omani Spiny-Tailed Lizard, IUCN EN, Local VU) is present in the AOI, with search effort directed to rocky outcrops present in Riyah 2 project site. Given the nature of open gravel desert habitat in which these species are found it is recommended that these biodiversity features are managed at the species level rather than at the habitat level. Finally, other critical habitat criteria were not met.

The plant life in the area consists of hardy shrubs suited to dry conditions, such as *Searsia gallagheri* and *Ochradenus harsusiticus*. While the overall number of plant species is low, this area is home to some plants found only in Oman or the Arabian Peninsula.

The species of lizard were observed at the project area: Carter's Rock Gecko and Yellowspotted Agama, both of which are native to the Arabian Peninsula and are not of conservation concern. Larger mammals such as the Arabian Fox and Arabian Gazelle are also likely to be present but are not of conservation concern. No bat calls were detected at the ultra-sonic bat call detector and static bat call detectors deployed at project site. No flying mammals of conservation concern have been identified at the project site.

The project area is not considered high-value habitat for birds due to its low vegetation and lack of water sources. However, migratory birds may pass through the site on their way to or from other areas, particularly during the migration seasons. No bird species of conservation concern have been observed at the site, though further surveys during autumn and winter may provide more information on migratory species.

6.3 SOCIOECONOMICS

The Project is situated in Block 6, an oil and gas concession area in central and southern Oman operated by PDO. The site is undeveloped, lacking permanent structures or utilities, and the surrounding areas have been used for PDO's hydrocarbon production activities.

While the oil and gas industry operate in these regions, its contribution on local employment is limited. The industry primarily supports the local economy through the procurement of services from local businesses rather than direct employment.

The area of influence for Riyah 2 extends 15 km around the site, located in the Wilayat of Al Jazer (Al Wusta Governorate), with a portion extending towards the southwest into the Wilayat of Shaleem (Dhofar Governorate). Unemployment is an issue of concern in both the Wilayat of Al Jazer and the Wilayat of Shaleem.

The social AoI has no permanent residents or settlements, such as villages typically inhabited by Omani citizens as their primary residence. Even in the areas extending up to 15 km (the defined social AoI), the population remains sparse. Within the AoI, residents are categorized as either long-term or short-term.

Long-term residents in the area include expatriate labourers who live in a walled compound at Shaybun, located 1.93 km from the nearest turbine. The compound houses between one and five labourers, who stay for six months or more, and it is considered the only regular residence in the area. Apart from these labourers, there are no permanent residents, as confirmed by the Wali offices of Wilayat Al Jazer and Shaleem. Short-term residents are mainly oil and gas workers and contractors, who stay in temporary camps in Nimr for up to 30 days during their work rotations.

The livelihood and income-generating activities in the Project's social AoI and areas beyond, include:

- **Small Businesses**: Small business ownership is an important source of income, with activities ranging from retail and tailoring to restaurants.
- **Employment in Public and Private Sectors**: Employment opportunities in both the public and private sectors are key income sources.
- **Agriculture and Livestock Husbandry**: Some households rely on animal husbandry, particularly the raising of camels, goats, and sheep. Livestock not only provides income and sustenance but also holds significant social and cultural importance, especially camels and goats.

Surrounding communities have traditionally used the Project site and the nearby Concession Area for pastoral grazing, with herders bringing their livestock when conditions are favourable. Livestock graze over the desert rangelands, including in the vegetated wadis near the Project site. Depending on rainfall, livestock often require supplementary feeding, which adds significant costs for the herders.

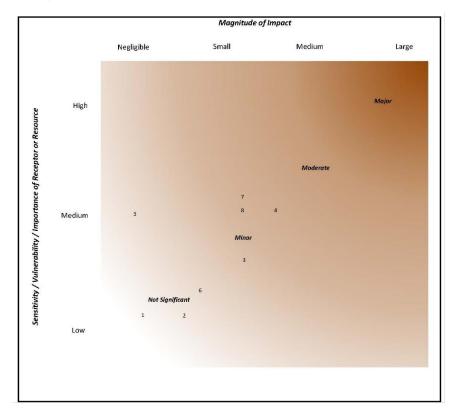
Several azbahs, which are informal structures used for seasonal purposes like camel husbandry, are present in the area, although their usage status was unclear at the time of the report. Up to October 2024, the nearest azbah, located 1.7 km northwest of the site, is abandoned. Azbahs are typically used for less than six months a year and have no legal rights associated with them.

Recently, two new azbahs were observed about 500 m from the Project site during ecological surveys in November 2024. Due to limited information on their use, especially regarding their permanence or seasonality, the potential social impacts cannot be fully assessed at this time. Further updates and impact assessments will be provided in ESIA C, with appropriate mitigation measures if necessary.

7 IMPACT ASSESSMENT

Visual summaries of the impact assessment results, shown in Figure 7-1 and Figure 7-2, illustrate the residual impact significance after implementing mitigation and management measures. All impacts are deemed tolerable following the application of appropriate mitigation measures.

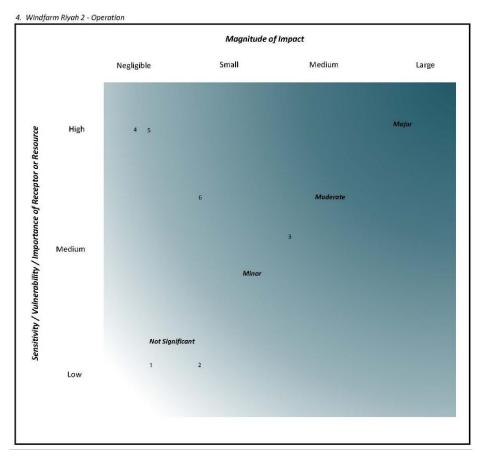
FIGURE 7-1 SUMMARY OF RESIDUAL IMPACTS FOR PROJECT CONSTRUCTION/ DECOMMISSIONING/ REPOWERING



ID	Receptor	Impact
1.	Geology and soils	Increase of soil compaction and decrease of soil quality Minor spills/leaks
2.	Surface water	Changes to drainage and surface water flows during construction
3.	Air quality	Dust from construction activities and emissions from construction related traffic
4	Landscape and visual	Turbines visibility – Visual Construction
5.	Terrestrial habitats, flora, and fauna	Site Clearance Resulting in Loss and Fragmentation of Habitats
	(excluding birds)	Accidental Leaks/Spills Resulting in Degradation of Habitat
6.	Public infrastructure and services	Increased traffic volume
7.	Community health and safety	Increased incidence of communicable or infectious diseases during construction
8.	Labour and working Conditions	Impacts associated to labour rights and working conditions (vulnerable groups)

Impact significance	Definition
Not significant	A resource/receptor (including people) will not be affected by a particular activity, or the predicted effect is deemed to be 'imperceptible' or is indistinguishable from natural background variations.
Minor	A resource/receptor will experience a noticeable effect, but the impact magnitude is sufficiently small (with mitigation) and/or the resource/receptor is of low sensitivity/ vulnerability/ importance. In either case, the magnitude will be well within applicable standards.
Moderate	Has an impact magnitude that is within applicable standards but falls somewhere in the range from a threshold below which the impact is minor, up to a level that might be just short of breaching a legal limit.
Major	An accepted limit or standard may be exceeded, or large magnitude impacts occur to valued/sensitive resource/receptors.

FIGURE 7-2 SUMMARY OF RESIDUAL IMPACTS FOR PROJECT OPERATION



ID	Receptor	Impact
1.	Geology and soils	Increase of soil compaction and decrease of soil quality Minor spills/leaks
2.	Surface water	Changes to drainage and surface water flows during operation
3.	Landscape and visual	Turbines visibility – Visual Operation
4.	Terrestrial habitats, flora, and fauna	Accidental leaks/spills resulting in degradation of habitat
5.	Birds	Raptor collisions with wind turbine blades
		Sandgrouse collisions with wind turbine blades
6.	Community health and safety	Increased incidence of communicable or infectious diseases during construction

Impact significance	Definition
Not Significant	A resource/receptor (including people) will not be affected by a particular activity, or the predicted effect is deemed to be 'imperceptible' or is indistinguishable from natural background variations.
Minor	A resource/receptor will experience a noticeable effect, but the impact magnitude is sufficiently small (with mitigation) and/or the resource/receptor is of low sensitivity/ vulnerability/ importance. In either case, the magnitude will be well within applicable standards.
Moderate	Has an impact magnitude that is within applicable standards but falls somewhere in the range from a threshold below which the impact is minor, up to a level that might be just short of breaching a legal limit.
Major	An accepted limit or standard may be exceeded, or large magnitude impacts occur to valued/sensitive resource/receptors.

8 ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING FRAMEWORK

The Framework Environmental and Social Management and Monitoring (ESMM) Framework is a key component of the ESIA Report, serving as a foundation for developing a detailed Environmental and Social Management and Monitoring Plan (ESMMMP) for the Project.

The ESMM Framework enables the identification, assessment, and management of environmental and social risks, including community health and safety, throughout the construction and operational phases. It helps TTE/OQAE comply with relevant authorisations, legal requirements, and International Project Standards systematically.

The ESMM framework outlines how the Project will meet IFC Performance Standard 1 (PS1) and other relevant guidelines, including the IFC Environmental, Health, and Safety Guidelines, the Equator Principles 4, and TTE's own standards. It also incorporates the Environmental Authority's (EA) permit conditions (see Chapter 1 for more details).

The ESMM Framework outlines specific management plans that will be operational before Project activities commence to address potential environmental and social impacts. A Design Change Management procedure will also be implemented to identify and manage any impacts of any changes effectively.

Following the ESIA stage, the following specific management plans will be developed:

- Traffic Management Plan
- Pollution Prevention and Control Plan
- Waste Management Plan
- Hazardous Materials Management Plan
- Water and Wastewater Management Plan
- Climate Change Risk Management Plan
- Stakeholder Engagement Plan (including an updated community grievance mechanism)
- Human Resources Policy
- Local Content and Procurement Policy
- Workers' Management Plan (including a Code of Conduct and Camp Management Procedure)
- Occupational Health and Safety Plan
- Community Health and Safety Management Plan
- Emergency Preparedness and Response Plan
- Decommissioning Management Plan

Environmental, social, and health management activities will occur throughout the Project's lifecycle. Monitoring guidelines will be established in the CEMMP and OEMMP to evaluate the effectiveness of environmental management plans and identify areas for improvement, aiming to minimise significant negative impacts.