Environmental and Social Management and Monitoring Plan (ESMMP)

Responsibilities

The Project is being implemented by Shamol Zarafshan Energy FE LLC (the Company), a special purpose company, incorporated in Uzbekistan and wholly owned by Masdar. The Company has the overall responsibility for the delivery of the ESMMP during the pre-construction, construction and operational phases of the Project. The ESMMP will provide the framework of the Project Environmental and Social Management System (ESMS) The Company shall monitor the implementation of the ESMMP on a monthly basis and will undertake an annual review of the implementation of the ESMMP. Specific roles are set out in the table below. The Company will provide appropriate training for their staff in relation to implementing the ESMMP.

The Project Management Company (PMC) appointed by the Company as Owners Engineer, will be responsible for overseeing the implementation of the ESMMP and the obligations placed on the contractors. Specific roles are set out in the table below.

The EPC Contractor shall be responsible for management of the construction site and their activities in compliance with the ESMMP within the pre-construction and construction phases of the Project. The EPC must ensure compliance with all relevant laws and regulations and the international standards set out in the ESMMP, including taking the required precautions and actions to minimise environmental and social impacts that may occur during the construction of Zarafshan Wind Farm. The EPC will be responsible for providing the required personnel and shall ensure that they are trained appropriately. Specific roles are set out in the table below.

The Operations and Maintenance (O&M) Contractor shall be responsible for ensuring that their activities on site are undertaken in compliance with the ESMMP during the operational phase of the Project. The O&M Contractor must ensure compliance with all relevant laws and regulations and the international standards set out in the ESMMP, including taking the required precautions, carrying out the necessary actions to minimise environmental and social impacts that may occur during the operation of Zarafshan Wind Farm. Specific roles are set out in the table below.

ESMMP Table

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
Ornithology	Direct loss of vegetation & habitat (including food sources). Indirect damage to habitats & disturbance of birds from feeding, roosting or nesting places as a result of presence of people, machinery, traffic and noise. Indirect impacts associated with pollution.	Pre-Construction Construction Operation	Mitigation has been included within the design process for the Project and, based on the survey information obtained to date, a total of 15 wind turbine generators (WTGs) have been moved within the layout. Of these, four have been moved over 4 km and the remainder have been moved to maximise the distances between blade tips and sensitive receptors/terrain. In addition to the above, WTG T96A will be relocated by an additional 90 m to the south-east such that it will be positioned 570 m from the locations of all known historic nests potentially pertaining to sensitive raptor/vulture species. WTG T106A will be relocated by an additional 195 m to the south such that it will be positioned 577 m from the locations of all known historic nests potentially pertaining to sensitive raptor/vulture species. Monitoring is ongoing at the site through the pre-construction phase with nesting raptor surveys being completed between February and July 2022 and surveys for breeding Macqueens Bustard being completed in March, April and May 2022. Timing work to remove suitable	Pre-construction survey. Programme review. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	Site Mobilisation Plan (EPC Contractor) Biodiversity Management Plan (BMP) (EPC Contractor). Construction Environmental Management Plan (CEMP) (EPC Contractor).	Site inspection reports.	Prior to site preparation (clearing and topsoil removal). Weekly site inspections. Daily oversight by ecologist during site preparation works.	The Company / PMC (verification). EPC Contractor

[1] Key Performance Indicators

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			nesting habitat to focus away from the most sensitive times of year for ground nesting species to be done under the supervision of an on-site ecologist. This will be included and expanded upon in the site mobilization plan. No construction activities will take place within 500 m of active nesting locations of species of conservation concern (unless following below protocol). Where works commence between January and June in a given year, checks prior to construction will take place and works will not commence if raptors are found to be nesting in the 500 m buffer. During operation, For WTG T108A, as far as it remains inside the 500 m buffer zone, the Project will implement additional operational curtailment by feathering the blades to maintain the turbine in idle mode, under the following protocol: A. Implement a compulsory curtailment from March 1st through April 15th for two years. Note this date range has been selected to include a potentially sensitive period of early spring, during which certain sensitive species that could potentially nest within close proximity to these turbines, specifically Cinereous Vulture, Saker Falcon, Golden Eagle, and Egyptian Vulture, would be expected to be searching for, and					

			selecting nesting sites for the ensuing breeding season, thereby mitigating the risk of these species being deterred from nesting in their preferred sites due to the activity of the turbines. B. The curtailment will only be in effect during daylight hours (sunrise to sunset). C. Outside of the time windows specified under "point A and B" for the compulsory curtailment of turbine T108A, all 111 wind turbines in the Project will operate normally at all times, under the automated SDOD curtailment regime regulated by the IdentiFlight system. This condition does not preclude the implementation of other mitigation measures, including other curtailment, that might be required in the future on the basis of the results of fatality monitoring at the project site and per the Adaptive Management framework, which will be developed as part of the BMP. D. The value of and need for the compulsory curtailment of turbines T108A will be re-evaluated under the auspice of the Project's adaptive management measures subsequent to the first three years of compulsory spring curtailment. For T108A, given that it remains in extreme proximity to a nest, construction and O&M activities must be avoided during the breeding season (which may vary depending on the species) if breeding is confirmed					

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			through the breeding bird surveys. A Biodiversity Offsetting Plan will be prepared prior to the construction phase.					
			Mitigation measures for indirect impacts will include dust suppression activities (e.g. watering of tracks in dry periods, adherence to site speed limits, etc.) and banning of site workers from using vehicles away from the established transport routes.	No signs of off-road driving. Adherence to dust particles / air pollution international limits. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	Traffic and Transportation Management Plan (TTMP) (EPC Contractor). CEMP (EPC Contractor).	Site inspection reports.	Weekly site inspections.	EPC Contractor
Ornithology	Risk of bird collisions during operation of the WTGs.	Prior to Operation	Update and refinement of the ornithological management plan documents (Shutdown on Demand Protocol, Livestock Management Plan & Post-Construction Fatality Monitoring Plan) prior to operation informed in part by on-going survey effort.	Update of ornithological management plan documents.	BMP (Shutdown on Demand Protocol, Livestock Management Plan & Post-Construction Fatality Monitoring Plan) Stakeholder Engagement Plan (SEP) (the Company).	Site inspection reports.	Weekly site inspections.	The Company

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Ornithology	Collision risk of birds with WTGs.	Operation.	Adherence to mitigation and monitoring requirements as presented in the: • Raptor and Bustard Breeding Survey Protocol • Livestock Management Plan • Post Construction Fatality Monitoring Plan • Shutdown on Demand Framework. The plans will begin with detailed monitoring requirements for the first year of Project operation but will then be updated at regular intervals (annually to start with) in discussion with the Project Lenders Team. Proposed mitigation for risk to soaring birds is led by shutdown on demand. This involves targeted shut down of WTGs in the event that any individual priority species or significant flock of non-priority species flies within 600 m of WTGs and is on a flight path that would bring the bird into close proximity of the WTG blades. The IdentiFlight system will be utilized. A robust, long term post construction monitoring plan will be implemented, this includes fatality monitoring, ongoing nest monitoring throughout the lifespan of the Project, general activity monitoring (via the outputs from IdentiFlight), and studies into the feeding habits of sensitive species in	Number of collisions of key bird species during operation.	BMP (Shutdown on Demand Protocol, Livestock Management Plan, Post-Construction Fatality Monitoring Plan & Biodiversity Offset Plan). SEP.	Site inspection reports. Annual review.	Weekly site inspections. Annual review of monitoring.	O&M Contractor (implementation of shutdown). The Company / PMC (provision of surveyors / verification)

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			the area. Shutdown will be monitored by a number of experienced field surveyors during the initial phase of operation to verify that the technology is working effectively and, only once it has been proven, will WTG curtailment be solely triggered by IdentiFlight. Given the status of the bird species present on site, shut down on demand protocols would be required for the entirety of the operational period of the Project unless data to suggest the contrary is collected and further agreement is reached. The SOD document will be live for the lifetime of the Project and the key to the success of the work is the flexibility to update the protocol with any changes in situation on site at any time. An initial methodology will be undertaken and reviewed monthly during the first year of the Project however this will not limit the changes should they be needed. Further mitigation could include: • Investigate the feasibility of livestock management on site. • Carcass clearing from the Project site and wider area for the duration of the Project life to deter carrion feeders from feeding within the Project boundary.					

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			• The commitment to perform a study into the feasibility of off-site feeding stations. • The mitigation strategy would however be reviewed annually to take in to account any natural changes in the baseline value of the ornithological receptors. Enhancement and Offset – examples include: Undertake a campaign to stop persecution of raptors and other species groups (e.g., reptiles) by locals as well as educating shepherds in the use of animal treatments or poisons used for pests which are potentially harmful to raptors, particularly vulture species. Restriction of human access to certain areas of the Project site to allow for natural vegetation to grow and a programme to discourage locals from removing vegetation or hunting in the area. Erection of nest boxes suitable for falcon species (such as Saker Falcon and Lesser Kestrel) on pylons outside of the Project area (to the west and northwest). The monitoring of collisions on site and of breeding populations of all raptor species within the Project area and surrounds will allow the impacts					

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			of the Project to be measured. The ongoing monitoring will also enable the success of any offsetting to be determined and adjusted if appropriate.					
Ornithology.	Collision risk of birds with OHLs (including potential cumulative impact).	Construction.	There will be a 300 cm minimum horizontal separation between energized conductors and/or energized conductors and grounded hardware and a vertical separation of at least 120 cm. Flight diverters will be added on to the new sections of OHL, with a firefly "flapper" type device every 10 m considered to the most appropriate in this instance as they mark above and below the line. Mitigation to reduce collisions on new OHLs is proposed within the project ESIA in key locations by the nearby Navoi – Besopan OHL upgrade project.	Number of OHL bird collisions. Consultations with OHL Developer. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	BMP. SEP.	Site inspection reports.	Weekly site inspections. Engagement with OHL Developer prior to operation.	EPC Contractor. The Company (verification).
Ecology	Direct loss of vegetation and habitat (including food sources). Damage to habitats and disturbance of fauna from presence of people, machinery, traffic, and noise, both within and outside of	Pre-construction Construction.	WTGs and access roads will be micro-sited to avoid more valuable habitat features such as plant species of conservation concern. Pre-construction surveys will identify sensitive areas and species so that areas are cleared by the time work commences so that they can be captured and moved to safe areas of	Implementation of pre-construction survey. Number of toolbox talks completed during construction. Regular	Site mobilisation plan. BMP. CEMP.	Site inspection reports.	Daily visual inspections during preparation works reported weekly.	EPC Contractor (EHS Manager / Qualified Ecologist). The Company/PMC (verification)

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	the Project area.		the site. Five populations of *Ferula kyzylkumica* which were found at locations between 50 and 100 m from proposed working areas and a single specimen of *Silene tomentella* which is within approximately 20 m of a proposed road. The locations of each plant will be marked before construction begins and appropriate buffer distances and exclusion areas will be created so that these specimens can be protected. The proposed road will be re-directed to leave at least a 75 m buffer around the individual S. tomentella plant. Any areas of higher plant species diversity, areas containing red listed plants and general ecological interest which attracts a variety of species will be avoided and demarked using barrier fencing. If this is not possible harvesting of the bulbs and/or seeds of species of conservation concern will take place to allow the replanting and restoration of surrounding areas and protect populations of these species long term. Site preparation will occur around each WTG location, substation, pylon and other areas requiring ground-breaking works during the Spring, Summer and early Autumn months when temperatures are consistently above approximately 18°C and	equipment maintenance to ensure no excessive noise emissions. Implementation of all management actions. No accidents involving fauna during construction. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.				

			animals are active. Excavation works will be typically be avoided between late Autumn and Winter and in the peak of Summer to avoid causing harm to species which may hibernate/aestivate below ground unless in line with the specified protocols (see herpetofauna mitigation below). On site roads, the control compound and other site facilities will be clearly demarcated before construction begins. Equipment should also be confined to the demarcated areas. All site preparation works will take place under the direction of a qualified ecologist. Site preparation works during the targeted months will clear vegetation from the proposed working areas and make those areas unsuitable for use by species which may dig or burrow into the ground. Any burrows present will be dug by hand to ensure any individuals present are moved safely away from work areas. One-way exclusion fencing will be implemented to prevent passage of animals back into these areas prior to construction. Vegetation clearance outside the targeted months will be in line with the specified protocols (to be detailed within the CEMP and BMP as appropriate prior to Contractor mobilization and commencement of site preparation works).					

			Excavations for WTG bases and cable routes will be protected, either with sloping trench walls, sloping planks or fencing, etc and regular morning inspections should be completed before works commence each day. This will prevent sensitive species such as Russian Tortoise, Caspian Monitor or hedgehog species falling into excavations and becoming trapped/injured. The loss and damage of small areas of natural habitats will be offset so that the Project achieves no net loss of biodiversity (most likely a net gain). Habitat loss in the areas of WTG and road construction will be compensated by restoring and replanting land formerly used for agriculture with native species. In addition, the areas with man-made parallel lines will be replanted with vegetation removed or seed harvested from vegetation during WTG base clearance. Improvements/restoration will take placed in a phased manner to allow regeneration of habitats in some parts of the site (up to 10 ha at a time) whilst not limiting ongoing activities such as livestock grazing in others. When areas have established to a satisfactory level, restrictions will be removed, and the restoration efforts moved to the next location. This will create a mosaic of habitats in varying stages of recovery. A full restoration plan will be					

			developed and included in the BMP in order to ensure that the offsets more than equal the loss of habitat. As part of the restoration, plants in these areas not native to the habitat type will be removed to help recreate and rehabilitate suitable native habitat. Bio-security measures will be adhered to by construction traffic to limit the risk of introducing alien or invasive species to the Project area. Dust suppression activities (e.g. watering of tracks in dry periods, adherence to site speed limits) and banning of site workers from using vehicles away from the established transport routes. <u>Enhancements:</u> Offsets will be completed to improve the quality of the habitats being retained as well as ensure that suitable refuge habitats are present for a range of mammals, reptiles and invertebrates. Enhancements will include seed harvesting from native vegetation along with planting away from proposed WTG bases and roads to increase the amount of cover and improve opportunities for wildlife to move through the Project site. Any additional planting and associated habitat improvement will also replace areas of habitat that are being lost to the development. Forming a partnership with the Institute of Botany in Uzbekistan will also allow the Project to harvest seed					

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			from the rarer species of plant which have been identified on site.					
Ecology	Direct and indirect impacts on herpetofauna.	Pre-Construction. Construction.	WTGs and access roads will be micro-sited to avoid any locations of Russian Tortoise burrows (should they present during pre-construction survey), areas of high activity and more valuable habitat features. Habitat suitable for use by reptiles will be removed under the road and WTG bases prior to construction. The construction timetable will be designed so that excavation work in will be focused around avoiding the most sensitive times (i.e. mid-October to March (or sooner if conditions allow) when vulnerable species of reptile, such as Russian Tortoise may be hibernating below ground) as well as June and July during aestivation unless recent survey data confirms no presence of protected species or there are exceptional circumstances. Where works are required to take place during sensitive times, they will be in line with the protocol below. Site preparation works during the targeted months will clear vegetation from the proposed working areas and make those areas unsuitable for use by species which may dig or burrow into the ground. Any burrows present will be dug by hand to ensure any individuals present are moved safely	Implementation of pre-construction survey. Number of toolbox talks completed during construction. Regular equipment maintenance to ensure no excessive noise emissions. Implementation of all management actions. No accidents involving fauna during construction. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	Site mobilisation plan. BMP. CEMP. TTMP.	Site inspection reports.	Daily visual inspections during preparation works reported weekly.	EPC Contractor (EHS Manager / Qualified Ecologist). The Company/PMC (verification)

			away from work areas. In addition one-way exclusion fencing will be implemented to prevent passage of animals back into these areas prior to construction. Vegetation clearance outside the targeted months will be in line with the below protocol (to be detailed within the CEMP and BMP as appropriate prior to Contractor mobilization and commencement of site preparation works). This will include survey information, proposed methods of capture and marking, ensuring individual tortoises do not return to work areas and details of best practice for animal care during handling. The protocol of the pre-construction works are broadly that, exceptional circumstances aside (in such instances, works would be guided by a qualified ecologist), works can only begin in each construction area where a pre-construction survey by a qualified ecologist confirms either: • The area has no suitable locations/habitat for use for Russian Tortoise. • There are no occupied Russian Tortoise burrows present, established by either: o burrows being present but having been fenced off with one-way exclusion fencing during target months;					

			○ appropriate methods for checking burrow occupation are used. Where exclusion fencing is in place regular checks will be completed by qualified personnel and any tortoises present above ground will be captured and moved / translocated away from the working area to an appropriate safe location. In order to ensure the effectiveness of the exercise, tortoise mitigation and relocation procedures will be included within the site mobilization plan, CEMP and BMP as appropriate prior to Contractor mobilization and commencement of site preparation works. This will include survey information, proposed methods of capture, ensuring individual tortoises do not return to work areas and details of best practice for animal care during handling. All site preparation works will take place under the direction of a qualified ecologist. Loss of suitable reptile habitat will be mitigated with the restoration of a larger area of degraded and former agricultural land. This will improve the habitat quality with the intention to move habitat from low quality former agricultural or degraded to good or high quality and as such allow populations of reptile species to increase and guarantee no net loss over the lifespan of the Project.					

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			Post-construction monitoring surveys for Russian Tortoise, Derafshi Snake, Sand Boas and Caspian Monitor will be completed in years 1, 3 and 5 following works to compare reptile activity and populations across the site with the pre-construction baseline.					
Ecology	Direct and indirect impacts to mammals.	Pre-construction. Construction.	WTGs and access roads will be micro-sited to avoid any locations of large animal burrows (should they present during pre-construction survey), areas of high activity and more valuable habitat features such as plant species of conservation concern. Pre-construction surveys will identify sensitive areas and species so that areas are cleared by the time work commences so that they can be captured and moved to safe areas of the site. Timings and details for these surveys will be incorporated into the site mobilisation plan and BMP as appropriate. Timing construction works to avoid the most sensitive areas for breeding Goitered Gazelle will take place. These animals prefer rocky slopes to give birth amongst and such areas are present at points throughout the whole site. It is considered that animals will avoid the areas of current works due to short-term disturbance impacts. It is required that suitable	Implementation of pre-construction survey. Number of toolbox talks completed during construction. Regular equipment maintenance to ensure no excessive noise emissions. Implementation of all management actions. No accidents involving fauna during construction. Number of EPC Contractor	Site mobilisation plan. BMP. CEMP. TTMP.	Site inspection reports.	Daily visual inspections during preparation works reported weekly.	EPC Contractor (EHS Manager / Qualified Ecologist). The Company/PMC (verification)

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			habitat for breeding is present throughout the construction period. Given the phased construction of the Project, it can be confirmed that all suitable areas will not be impacted by construction activities at once between 20 April and 20 May in each year of construction allowing breeding to take place over the majority of site during this period and freeing up suitable habitat in the vicinity of earlier construction phases as the construction progresses.	warnings and fines (as levied by the Company) for non-compliance.				
Ecology	Indirect impacts associated with pollution.	Construction Operation. Decommissioning.	Pollution control measures will be put into place to avoid these impacts in accordance with requirements of IFC Performance Standard (PS) 3. Limits on night-time driving should be enforced as it is likely that light-shine from vehicles would illuminate a very large area due to the relative 'open' nature of the construction area. Machinery should also be regularly maintained to reduce potential noise disturbance as well as reduce air pollution. The construction programme will focus on daytime working hours to avoid impacting on potentially sensitive nocturnal species of mammal and reptile including the removal of associated light shine which would impact bat foraging across the site.	Implementation of management plan actions. Number of incidents requiring clean-up operations – spill kits Toolbox talks surrounding night-time driving limitations. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	CEMP (pollution prevention and control procedures). Hazardous Materials & Waste Management Plan (EPC Contractor). TTMP. Operational Environmental Management Plan (OEMP) (O&M Contractor).	Site inspection reports.	Weekly site inspections.	EPC Contractor (construction implementation) O&M Contractor (operation implementation)

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Ecology	Damage to vegetation and habitats through use of on site and off-site roads.	Operation.	Mitigation measures to reduce damage to habitats through use of on-site and off-site roads include: • All vehicles confined to roadways. • Speed limits enforced around the Project site and notices warning of the potential presence of animals crossing roads placed in strategic locations. • Road condition to be monitored regularly and damaged and rutted roads repaired rather than bypassing damaged sections. • Monitoring of erosion controls and repair as needed. Further mitigation to reduce damage associated with off-road vehicle trafficking include prohibiting the use of vehicles and equipment off prepared roads and re-stabilizing existing eroded tracks with restoration of vegetation cover as required.	No signs of off-road driving. Number of erosion incidences. Number of road inspections to assess if in good condition. Number of speed limit signs installed. Number of signs warning of potential animal crossings installed.	TTMP. BMP (Biodiversity Offset Plan).	Site Inspection Reports.	Monthly	O&M Contractor.
Ecology	Impacts of the operational workforce on local natural resources.	Operation	The operational workforce may impact on local resources and so to reduce this risk, mitigation consists of: • Not collecting firewood from the site or the wider area. • Prohibiting hunting or collection of wild animals on the site and, where possible, in the	Toolbox talks for employees and sub-contractors to raise awareness.	BMP.	E&S performance reporting.	Monthly.	O&M Contractor.

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			surrounding areas by site staff.					
Ecology	Collision risk of bats with WTGs	Operations.	Post construction fatality monitoring for bats will be completed for at least the first three years of operation. This will be in accordance with the methods set out in the document, Post-Construction Fatality Monitoring Protocol and will allow changes in the predicted mortality rates of bats at the site to be detected, managed and the operation of WTGs modified if appropriate. If fatality levels are shown to be significantly higher than predicted ,. then the seasonal survey reports will be reviewed by the Lenders. The survey data will be assessed to understand the wind speeds and weather conditions at which most collisions are occurring and curtailment agreed accordingly (such as an increase in cut-in speed). The location of curtailed WTGs will be agreed based on monitoring results and high-risk locations. Throughout the operation of the Project some level of lighting will be used on the substation and office infrastructure, in order to minimise impacts to bat species this lighting will be placed on buildings so that light spill is minimised into the wider environment, this is likely to mean that all lighting will be downward	Number of bat fatalities recorded. Implementation of management plan actions.	BMP. OEMP. SEP.	Site Inspection Reports. Annual reporting.	Weekly site inspections.	O&M Contractor (qualified ecologist).

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			facing with hoods fitted over each light source to help direct the light. Any walkway lighting will be low level post type lights and any bulbs throughout the exterior of the buildings should be in the warmer white spectrum, rather than cool "blue" lights (ideally <2700Kelvin). Possible enhancement for bats in the region is in the process of being discussed with the Navoi Mining and Metallurgical Combinate (NGMC) as part of Biodiversity Management Plan provision and will include during construction a discussion on: • Survey of the installation of an iron grid (with a lock) with large gaps at the entrance of the mining gallery in the project area to completely fence off the mining gallery from visitors and help to preserve the habitat of bats should they use this in the future. • Discuss the importance of preserving mine galleries and shafts as key roots for the bat and promote the installation of iron grids at the entrances.					
Ecology	Potential increase in bat collision rates as a result of culvert installation which	Construction. Operation.	Any new culvert will be fitted with mesh with a hole diameter of less than 20mm at either end of the tunnel to prevent bats colonising new structures and increasing collision risk	Number of roosts identified within installed culverts.	BMP.	Site Inspection Reports. Annual	Weekly site inspections.	O&M Contractor (qualified ecologist).

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	attract bat species.		from the operational WTG. Monitoring will also take place to ensure that these pipes remain excluded following periods of heavy rain etc.			reporting.		
Ecology	Quality of habitats following construction of the Project.	Operation.	Enhancements will include seed harvesting from native vegetation along with planting away from proposed WTG bases and roads to increase the amount of cover and improve opportunities for wildlife to move through the Project site. Any additional planting and associated habitat improvement will also replace areas of habitat that are being lost to the development. In total approximately 21 ha are being lost as a result of the construction of WTG bases and roads and it is proposed that the Project restores at least 27 ha of land within the more severely degraded parts of the site – this gives an offset target of 6ha of improved quality habitat within the Project area. The proposed offset areas are within parts of the site which are currently not grazed by herders (Sub-Lease Areas 3 and 4) so it is unlikely that these areas would require fencing. If herding practices change then smaller parcels of land will be fenced (c. 1ha) so that restoration areas can grow alongside the livestock grazed areas.	Implementation of enhancement measures. Undertaking of discussions held with Institute of Botany Uzbekistan. Success of restored areas through monitoring.	OEMP (biodiversity offset) (O&M Contractor). SEP.	Site inspection report.	Annual.	O&M Contractor (qualified ecologist). The Company (consultation)

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			The improved habitat will also increase suitable habitat for species such as Russian Tortoise and surveys will be done post construction to monitor population numbers of these and inform the need for any further interventions or protection. The ongoing surveys will also be used to identify if flights from species such as Egyptian Vulture are significantly increased as a result of the improvements in habitat. It is likely that increases in populations within the areas of better habitat will act as a source population for animals dispersing into the wider landscape and as such do not result in a concentrated area of risk for bird species such as Egyptian Vulture. Forming a partnership with the Institute of Botany in Uzbekistan will also allow the Project to harvest seed from the rarer species of plant which have been identified on site. With the Institutes' expertise and nursery facilities it is anticipated that *Astragalus centralis, Ferula kyzylkumica, Lappula aktaviensis, Silene tomentella, Stipa aktauensis, Lagochilus inebrians and Tulipa lehmanniana* will be able to propagate and increase the wild populations in the region. Ongoing monitoring of habitats (including existing populations of rare					

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			plants and restored areas) on site will be done throughout the lifespan of the Project to ensure that restored areas are reaching the appropriate condition and inform any additional support they may need to become established. Enhancements will also be completed once the Project has been decommissioned and this will involve removing construction materials and re-planting the WTG base and road areas of the site, full measurements of land usage will be taken during the construction phase so that an equivalent area can be reinstated post works, but this is likely to be approximately 21 ha of land in total across the Project area.					
Ecology	Vehicle traffic and earth movements during decommissioning activities resulting in potential damage to vegetation and impacts on sensitive species.	Decommissioning.	Measures to reduce / enhance impacts include: • Confine vehicles, equipment and foot traffic to demarcated areas. • After roads or other compacted areas are removed and / or abandoned, scarify and preferably allow natural vegetation to recolonise although it is anticipated that the land will be returned to agricultural production. Shelter belts should not be adversely impacted by these activities and these should	Restoration of all disturbed areas. No evidence of vehicle/ equipment use outside of designated areas.	BMP (restoration).	Site inspection report.	Weekly.	The Company

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			also be left as wide as possible. Enhancements will be completed once the Project has been decommissioned and this will involve re-planting the WTG base and road areas of the site.					
Community perceptions towards the Project	Potential negative impacts through inaccurate perceptions towards Project impacts or unrealistic expectations of potential benefits such as local electrification or the quantity of jobs available.	Pre-construction Construction Operation	Development of SEP and grievance mechanism. Ongoing consultation prior to and during construction and operation to include sessions specifically for elderly people, women, people who have knowledge of vulnerable groups in the Project Area, and others as defined in the SEP. The Project will hire the services of a female and male Community Liaison Officer who will have responsibilities associated with recording, investigating and resolving grievances (the Company's Community Liaison Manager will oversee the assessment of grievances and deal with any worker-harassment complaints).	Completion of updates and implementation of SEP and updates for each Project Phase. Number of public consultation meetings held aimed at providing accurate updates on Project status and managing expectations regarding jobs and local electrification. Engagement activities (consultation and information disclosure) are conducted according to	SEP. Community grievance mechanism	Weekly during site inspections. Monitoring of SEP implementation. Monitoring of grievance mechanism functioning.	Weekly site inspections. Monitoring of SEP implementation – quarterly. Monitoring of grievance mechanism functioning – monthly.	The Company – Community Liaison Officer (CLO) (both male and female).

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
				SEP. Number of grievances raised and closed per month. Number of unresolved grievances per month.				
Regional & National Economy	Positive impact during construction from direct procurement and supply of materials and services from SMEs based in Tamdy District, Zarafshan City and the wider Navoi region.	Construction.	Enhancement: Where possible, (i.e. the suppliers are competitive and can meet the technical requirements which need to be achieved), the Project Company (and their contractors) will seek to procure materials and services from SMEs based in Tamdy District, Zarafshan City and the wider Navoi region to ensure that the positive effects of using SMEs are experienced as close to the Project site as possible to enhance the positive benefits of the Project at this location. This includes SMEs owned by women which shall be identified by the Company during the Project execution stage. Details will be included within the Contractor and Supply Chain Management Plan.	Number of SMEs based in the region used during construction. Number of women's SMEs based in the region used during construction. Number of EPC Contractor warnings and fines for non-compliance.	Contractor & Supply Chain Management Plan (EPC Contractor).	Environmental, social, health and safety (ESHS) performance reporting (prepared by EPC Contractor).	Monthly.	EPC Contractor.
Regional & National Economy	The Project will use SMEs for ongoing support during operations, such as	Operation	The Project will record the capital spend and location of SMEs used during the operational period so that an accurate record is available of the	Number of SMEs utilised during operation. Number of	Contractor & Supply Chain Management Plan (O&M	ESHS performance reporting (prepared by	Monthly.	O&M Contractor.

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
	consulting, legal, and accounting companies. Energy will be provided to the national grid which will benefit other electricity users (households, businesses and government buildings), pay taxes, purchase materials and services which will lead to the growth of small and medium business.		companies involved, broken down by their geographical location. The Project will record the Project's generation of energy and contribution to the national grid. This information will be collated and compiled into future Environmental and Social Performance Reports to provide stakeholders with accurate information about the Project's contribution towards the countries energy generation sector.	women's SMEs based in the region used during operation.	Contractor).	O&M Contractor).		
Crime and conflict from opportunistic influx.	Potential for people from outside the Tamdy District, Zarafshan City and the wider Navoi Region to turn up without invitation, seeking employment and other types of economic opportunities from the Project. The results of influx are wide-ranging and could result in a variety of environmental, social and health outcomes.	Pre-construction. Construction.	Preparation of influx management details for inclusion in relevant management plans (including the Labour and Working Conditions Management Plan, Worker Accommodation Management Plan, Security and Human Rights Management Plan and SEP (as appropriate) and using the relevant content of World Bank Guidance on Influx Management (2006) and IFC's Projects and People: A Handbook for Addressing Project-Induced In-Migration (2009). Public disclosure of the local employment process. No employment at the construction gate / work sites. Public announcements in local and regional media to inform people job	Number of grievances raised and closed broken down by gender and affected community. Number of newcomers identified in Project area. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	Labour and Working Conditions Management Plan (EPC Contractor). Worker Accommodation Management Plan (EPC Contractor). Security and Human Rights Management Plan (EPC Contractor). SEP. Community grievance mechanism (the	ESHS performance reporting (prepared by EPC Contractor).	Communicated prior to construction. Monthly. Weekly during site inspections. In the event of receipt of grievance(s).	EPC Contractor. The Company (verification)

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			seekers should not move towards the Project site. Monitor arrival of newcomers to track if influx is occurring during construction. Should the grievance mechanism or the regular stakeholder engagement reveal any crime of problem related to the Project, it will be documented, investigated and address in coordination with relevant stakeholders.		Company).			
Land Use.	Six out of 10 Sub-Lease Agreements will experience changes in land use and land access restrictions. This will impact the farmers and their households, the herders and their household, and farm workers and their households. None of the herder shelters shall be impacted by land-use change arising from the Project, from the generation of noise or shadow flicker after mitigation measures have been adopted. Restrictions in land	Pre-construction.	Implementation of the Livelihood Restoration Plan (LRP). Engagement with all nine farmers in the Project area utilising the CLO to inform them of: • The start of construction works and presence of activities at specific locations within the Project Area. • The grievance mechanism that can be used to raise a concern about any aspect associated with the Project, request compensation or other matter. (See also Community Health and Safety Mitigation addressed below)	Number of meetings held with farmers and land owners/users. Number of people attending each meeting, broken down by gender. Number of grievances open and closed, broken down by gender. In line with LRP.	SEP LRP (the Company) Community grievance mechanism. Corrective Action Plan (CAP).	In line with LRP. In line with SEP. In line with CAP.	Prior to construction. In line with LRP. In line with SEP. In line with CAP.	The Company (HSE manager / CLO) EPC Contractor (livestock management)
		Construction	Implementation of the Livelihood Restoration Plan (LRP).	Success of implementation	SEP.	Three-monthly	Monthly. Community	The Company (CLO)

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
	access and changes inland use will impact local residents using this land for the collection of medicinal plants, hunting, the collection of fuel for fires during winter months, and other purposes. The area that is to be used by the Project during both construction and operation, represents a very small proportion of the regional land available, and it is unlikely to result in any significant impacts from occurring.	Operation.	Continuing engagement and implementation during construction and implementation of the LRP. The location of any areas of temporary land use which will be fenced off during construction, shall be located to avoid (to the extent possible) areas that could be used for animal grazing activities, and the collection of medicinal plants. (See also Community Health and Safety Mitigation addressed below)	of SEP and LRP consultation programme. Number of times the LRP Committee has met since start of LRP implementation. Implementation of livestock management measures. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	LRP. BMP (livestock management) (EPC Contractor).	internal monitoring. LRP regular audits and Completion Audit.	Development meetings – six monthly (construction).	EPC Contractor (livestock management)
Local employment & training.	Construction impact is largely major positive as local employment is a key expectation amongst local village residents and their representatives, and this has been recorded during numerous stakeholder engagement activities.	Pre-Construction.	Human resources (HR) management system to be developed which contains policies and procedures using documentation that is clear and understandable, reflecting labour rights under national labour and employment law, details of the ability of workers to create collective agreements, and include details of worker's right relating to their hours of work, wages, overtime, compensation, and any additional benefits that workers are entitled to.	Adherence to management plan provisions. Number of EPC Contractor warnings and fines for non-compliance.	HR management system (the Company and EPC Contractor). Construction labour and working conditions management plan (EPC Contractor).	ESHS reporting (prepared by EPC Contractor)	Monthly	The Company/ PMC (implementation of HR system). EPC Contractor (implementation of HR system / Construction labour management plan).

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			Development of construction labour and working conditions management plan.					
		Construction	Implementation of HR management and construction Labour and Working Conditions Management Plan. A local employment office in Zarafshan City will be used to advertise and recruit skilled workers. The Labour and Working Conditions Management Plan description will include details of the way in which positions are to be publicly advertised. Expectations associated with local employment will be managed through timely and accurate information which will be provided to local communities through implementation of the Project's SEP. The Constitution provides the legal right for all citizens to seek employment, irrespective of their gender and this will be used as a basis for any required mediation. If necessary, community representatives could be asked to intervene, so that opportunities are provided to men and women.	Number of grievances raised and closed. Number of public consultation meetings held. Number of local people hired. Number of local skilled workers hired through local employment office. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	SEP. Construction Labour and Working Conditions Management Plan Community grievance mechanism. Workers' grievance mechanism.	ESHS reporting (prepared by EPC Contractor)	Communicated prior to construction (Grievance Mechanism & Management Plans) . Monthly (Community meetings)	The Company/ PMC (implementation of HR management system / community engagement activities). EPC Contractor (implementation of HR system / Construction labour management plan).
Local employment & training.	Positive impact through employment during operation of the Project for local people with	Operation	The Project will develop and implement an Operational Labour and Working Conditions Management Plan that contains many of the same	Number of local people hired. Number of	Operational Labour and Working Conditions	ESHS reporting	Quarterly.	O&M Contractor.

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
	potential skills enhancement.		measures included in the version used for the construction stage. Targets for females to occupy both low-skilled and skilled roles during the operational stage will be included in the Plan.	grievances raised and closed.	Management Plan (O&M Contractor). SEP. Community grievance mechanism. Workers' grievance mechanism.			
Incoming workforce and worker accommodation.	Construction workforce shall be potentially exposed to a variety of risks arising from the use of accommodation facilities.	Pre-construction. Construction.	The incoming, non-local construction workforce will be provided with accommodation in the form of the 'Golden Group building' located at the outskirts of Zarafshan City. In advance of the Golden Group building being used, the Project Company will prepare a Worker Accommodation Management Plan and Labour and Working Conditions Management Plan including COVID-19 management measures and procedures. The accommodation shall be refurbished if necessary and operated in accordance with the applicable content of the IFC/EBRD publication entitled: 'Workers' accommodation: processes and standards - A Guidance Note (2010)'. This includes details of minimum specifications of sanitation	Adherence to International food standards. Employee health screening. Number of reported health /COVID-19 incidents. Health awareness training to workforce. Number of accidents and near misses. Adherence to IFC/ EBRD Guide for Workers	Emergency response and preparedness plan (EPC). Worker Code of Conduct (EPC). Worker accommodation plan (including COVID-19 management). Workers' grievance mechanism. Hazardous Materials & Waste Management Plan (EPC).	Weekly site inspection reports. Reported in monthly ESHS reports. Recording of reported health / COVID-19 incidents Record of accidents and near misses.	Communicated prior to construction. Weekly site inspections Monthly. Mitigation carried out as and when required.	EPC Contractor.

			facilities, fire safety, electrical safety, sanitation, security, food safety and recreational activities. Where there are any differences between sanitary norms for temporary housing under national legislation and guidance, and the content of the IFC/EBRD publication, then the stricter standard shall apply. The Worker Accommodation Management Plan will include details of the typical gaps between Uzbekistan sanitary norms and IFC/EBRD guidance, and the steps taken by the Company to address them. The Worker Accommodation Plan will contain the following measures: A detailed audit/examination of the building design before the EPC Contractor mobilises to the site, to check that the accommodation will meet the applicable standards (see below). This aims to ensure that the accommodation provides decent living conditions to the workers, in a culturally appropriate way. The findings of the audit shall be used to prepare a Corrective Action Plan that reflects the steps required to bring the accommodation facility up to the required standard, indicating the steps that absolutely must be undertaken in advance of the building being used for the non-local workforce. The provision of separate rooms and washing areas for male and female	Accommodation Percentage of employees signing the Worker Code of Conduct. Number of grievances raised and closed, broken down by gender and affected community. Number of Worker grievances raised and closed. Completion of accommodation audit after first month and every 6 months thereafter. The number of findings noted during accommodation audits. The number of meetings between workers and Project Senior Management to	CEMP.			

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			workers. A separate eating and recreational area for women shall also be provided so that females have a dedicated space available for them to spend time after working hours without the company of men. The prohibition of non-local workers moving outside into local communities, seeking nightlife outside of the working day. This shall be prohibited to prevent the spread of COVID-19 and adverse interactions with local communities. If a worker wishes to leave during non-working hours, then they will need to obtain the permission of a senior manager in advance. The Construction Labour Management Plan will make it clear to the incoming, non-local workforce that they will be expected to reside in the accommodation during non-working hours. A Worker Code of Conduct will be used to prohibit sexual interactions inside the workforce accommodation, and between the incoming workforce and local people. Any workers seeking to obtain sexual services will be immediately terminated from their employment. Security personnel will be used to control the entry and exit of people in/out of the accommodation units. The Code of Conduct will also be used to conduct a campaign to workers	discuss the quality of the workforce accommodation. The number of meetings between the Project Company and local community leaders to discuss the behaviour of the incoming workforce. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.				

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			about prevention of COVID-19, and their level of good behaviour during non-working hours. Adequate recreational facilities shall be provided inside the accommodation area, so that workers can relax outside of working hours. The worker grievance mechanism will be disclosed inside the working accommodation facilities. Information associated with worker's labour rights under national legislation will also be clearly disclosed in open areas to raise awareness. The Project's grievance mechanism that can be used by local people or any other party to raise a concern or complaint about the behaviour of resident workers. Regular meetings between workers and Project Senior Management will take place to discuss the quality of the workforce accommodation. Similar meetings will also be held between the Project Company and local community leaders to discuss the behaviour of the incoming workforce. A range of reporting and monitoring indicators will be used to ensure that the above controls are being effectively implemented within the rental accommodation. This shall include an initial audit after the first 1 month of operation, and 6 monthly					

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			audits thereafter during operation of the accommodation.					
Use of security personnel	Presence and behaviour of security staff may result in a rise in local tensions if they behave in an inappropriate manner.	Pre-construction. Construction.	Development of security management plan prior to construction to include: A summary of current human rights issues for Uzbekistan associated with the behaviour of security forces. A risk assessment associated with the use of security personnel by the Project to identify the types of incidents that could occur, how they may be generated/triggered, and the potential ways in which security personnel could respond to provocation. Details of a screening procedure to ensure that all security personnel involved in the Project have not been implicated in past human rights abuses. This screening procedure will be applied during their original recruitment so that only screened personnel are selected. Details of training that will be provided to all security personnel to ensure that they are trained in the rules of force, culturally appropriate engagement, and the Project's grievance mechanism. Details of the uniform to be used so that they are easily identified as security personnel, including a unique reference/label that can be used to	Number of security breaches / incidents. Number of related grievances raised and closed. Percentage of security personnel screened during recruitment process. Percentage of security personnel signing Code of Conduct. Percentage of security personnel receiving all necessary training (rules of force, grievance mechanism, etc.) The number of	Security and Human Rights Management Plan (EPC). Code of conduct for security personnel (EPC). Workers' grievance mechanism. Community grievance mechanism.	Monthly ESHS Reporting. Weekly inspection reports.	Communicated prior to construction. Weekly site inspections. In the event of a grievance.	EPC Contractor.

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			make a grievance about a specific person. Details of communications equipment so that personnel are able to request support during the start of any incident, and PPE that will be provided free-of-charge to all personnel, along with training on its usage. A cross-reference to the Project's grievance mechanism that can be used to address any concerns promptly associated with the actions of security personnel, and details as to how this is to be disclosed. Reporting and monitoring indicators which will include periodic audits of third-party security companies used to provide personnel, to check that the provisions above have been adequately implemented.	audits of security companies providing personnel, to check all mitigation measures being implemented by the companies. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.				
Health & Safety involving the workforce	The use of a workforce and construction activities generates a variety of occupational health and safety risks to the workforce	Pre-construction. Construction. Operation. Decommissioning.	The Project will develop an Occupational Health and Safety Plan ("OHSP"), community H&S measures (incorporated into a Traffic and Transportation Management Plan, Security and Human Rights Management Plan) and an Emergency Response and Preparedness Plan. The OHSP will include the following: Risk assessment to identify potential health and safety risks during construction and operation, to the	Completion of hazard identification workshop and risk register (the Company and EPC Contractor). Number of health and safety incidents. EU Water Quality drinking	Occupational H&S Plan including COVID-19 management (EPC) Workers' grievance mechanism. Emergency preparedness and response	ESHS reporting (prepared by EPC Contractor). Minutes of workshop.	Monthly. Monitoring during weekly site inspections. In the event of receipt of grievance(s). Emergency drills One hazard identification	EPC Contractor (construction implementation). O&M Contractor (operations implementation). The Company/ PMC (verification).

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			workforce and local communities. The risk assessment will be informed through a hazard identification workshop which will be attended by Masdar and the EPC Contractor. A Risk Register will be prepared using the outcome of the workshop and compiled into a Risk Register Report that describes the control measures and monitoring activities required. Alongside each control measure recorded the roles and responsibilities between the Project and the EPC Contractor will be clearly defined. Ensure effective oversight of the health and safety performance of the EPC Contractor and their internal network of supply chain companies. Oversight activities undertaken by Masdar shall include audits, inspections, review of method statements and other activities. The provision, free of charge, of PPE to workers including safety shoes, helmet, goggles, earmuffs, and safety harnesses for working at height. PPE will be provided alongside safe drinking water and adequate protection from the sun. PPE will also be provided in relation to the COVID-19 management measures also detailed within the OHSP. Training activities to generate a culture of safety amongst the workforce. This will include the correct	water parameters. Number of H&S audits undertaken by EPC contractor. Number of oversight audits and inspections undertaken by the Company. Completion of a job competency matrix. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	plan. Security and Human Rights Management Plan Occupational Health and Safety Plan. Traffic and Transportation Management Plan.		workshop. In event of an incident.	

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			use of PPE, identification of risks, reporting unsafe acts and near misses, and rewards for safety observations. A job competency matrix will be prepared to identify the type of training required for each job description. Ensuring that electrical work is not carried out during poor weather when lightning strikes may occur. Certification and pre-use inspections for all lifting equipment used, such as cranes, and checking that they are operated by competent and trained personnel. An up to date first aid box will be provided at all construction sites and a trained person will be appointed to manage it. Monitoring and evaluation framework to record all training activities, tool-box-talks, risk assessments, provision of PPE, and the investigation of all incidents and near-misses. Community health and safety measures will include: Restricting public access to construction areas. The temporary storage area and substation shall be fenced off and will have signs with warning notices (in both Uzbek, Kazak and Russian) to deter people from entering. Contact details will also be placed on the fences that use the					

			details in the grievance mechanism so that any person can request additional information on the fence lines, should they wish to do so. Security personnel will be used at the gate of each fenced off area to control the entry and exit of people. This will be included in the Security and Human Rights Management Plan. The presence of HSE inspectors and or security officer at all times during the works. A system implemented so that names and numbers of works and their location is known and is accounted for at all times. All security officers shall have radio communication to report any incidents that occur. Continuous security patrol implemented during working hours. The internal roads will be available for local people to use. The Company shall engage with children and young people attending schools in Zarafshan City to inform them about the start of construction works in advance, to educate them on the dangers inside the fenced-off area at the substation, and the danger of approaching construction works at other locations. Checks will be made during the engagement with schools to ensure that the attendance of girls is representative of the local population. Where girls are not regularly attending the school, then					

			additional efforts shall be made (refer to the mitigation measures in Section 7.6.7). A prohibition on the use of pop-up camps at the site, where workers chose to sleep outside of the main accommodation area A commitment to engage with land users to warn them of the risk of approaching close to construction working areas; this shall include engagement with elderly people in the local communities, the farmers and herders. Warning signs indicating the presence of the Project along access roads (to be installed during both construction and operation) to inform local people of the dangers posed by the Project. This will include the potential for ice throw to occur during Winter months. Details of the nearest hospital, ambulance, fire station and police station will be identified in the Emergency Preparedness and Response Plan, along with details of the procedure for the medivac of workers who need hospital treatment. A copy of the Emergency Preparedness and Response Plan will be shared with the relevant authorities so that it is clear what a coordinated response should be following a major incident, and the associated roles and responsibilities.					
Health & Safety	The use of a workforce and construction	Pre-	Development of Community H&S measures within Security and Human	Number of grievances	Community H&S measures within	ESHS reporting	Prior to	EPC Contractor (construction

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
involving the local communities	activities generates a variety of occupational health and safety risks to local people.	construction Construction. Operation.	Rights Management Plan. The temporary storage area and substation shall be fenced off and will have signs with warning notices (in both Uzbek and Russian) to deter people from entering. Contact details will also be placed on the fences that use the details in the grievance mechanism so that any person can request additional information on the fence lines, should they wish to do so. Security personnel will be used at the gate of each fenced off area to control the entry and exit of people. HSE inspectors and/ or security officer present at all times during works. System of permit to work implemented so that names and numbers of works and their location is known and is accounted for at all times. All security officers to have radio communication. Continuous Patrol implemented during working times. Children and young people engaged with in local schools in the settlements in the vicinity of the Project Area, to inform them about the start of construction works in advance, to educate them on the dangers inside the fenced-off area at the substation, and the danger of approaching construction works at	raised and closed, broken down by gender and affected community. Number of security breaches. Minutes of community meetings. Confirmation of notification of land users in advance of construction works commencing / new project phases commencing. Number of signs/warning notices installed. Number of H&S workshops completed in local schools. Number of warning notices given to nearby land users regarding H&S risks during	Security and Human Rights Management Plan. Communicable Diseases management within Security and Human Rights Management Plan. Community grievance mechanism. Emergency preparedness and response plan. SEP.	(prepared by EPC Contractor).	construction. Monthly. Monitoring during weekly site inspections. Emergency drills. In the event of receipt of grievance(s).	implementation. O&M Contractor (operations implementation). The Company/ PMC (verification).

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			other locations. Checks will be made during the engagement with schools to ensure that the attendance of girls is representative of the local population. Where girls are not regularly attending the school, then additional efforts shall be made. A commitment to engage with land users to warn them of the risk of approaching close to construction working areas; this shall include engagement with elderly people in the local communities, the farmers and herders. Advice will be given so that they can avoid areas where construction works are ongoing and where works will start in the next few weeks, to maintain the safety of themselves and their livestock. Warning signs indicating the presence of the Project along access roads (to be installed during both construction and operation) to inform local people of the dangers posed by the Project. This will include the potential for ice throw to occur during Winter months. During the operation of the windfarm, livestock will be able to graze in between the WTGs although particular care will need to be taken during winter periods, when snow and ice throw could occur. Land users should not construct new shelters in the close vicinity to WTGs as hese shelters could be exposed to	construction and operation. Number of instances where permit to work system has not been implemented correctly. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance. Livestock Management measures.				

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			shadow flicker and noise impacts that exceed applicable thresholds. The Project shall engage with representatives from Tamdy District / New Committee to discuss the best way to prevent farmers from constructing new shelters in the future, within their farming area, so that they are not too close to the WTGs during operations. Details of the nearest hospital, ambulance, fire station and police station will be identified in the Emergency Response Plan, along with details of the procedure for the medivac of workers who need hospital treatment. A copy of the Emergency Response Plan will be shared with the relevant authorities so that it is clear what a coordinated response should be following a major incident, and the associated roles and responsibilities.					
Labour violations within the supply chain.	The use of a supply chain increases the potential for labour violations to occur. This includes, for example, poor working conditions, a lack of written worker contracts being used, low-levels of occupational health and safety, child labour,	Pre-construction. Construction. Operation.	Development of contractor and supply chain management plan for the main suppliers. This Plan will include, amongst other measures, the application of the Company's human resources policies and procedures (including the Worker Code of Conduct). The Plan should include specific measures to prevent gender-based violence, labour violations associated with forced/child labour, and harassment of women amongst	Success of implementation of management plan measures. Sub-contractor performance monitoring on child and forced labour. Number of EPC Contractor	Contractor and supply chain management plan.	ESHS reporting (prepared by EPC Contractor). Audits. Review of supplier's audit and inspection	Monthly.	The Company (overall implementation). EPC Contractor (adherence to contractual terms in EPC supply chain). O&M Contractor (adherence to

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
	forced labour and other forms of labour-related exploitation. Labour violations could result in injury or fatality, mental distress and anxiety, protests and worker stoppages. Violations could also result in regulatory enforcement action being undertaken against the relevant supplier and potentially, the Company. There is also the potential for reputational impacts to occur is the Project receives negative attention from the international media over the use of suppliers based in China and elsewhere.		the workforce. The contracts between the Company and all suppliers will include legally binding obligations for them to undertake their contracted scope in accordance with the ESMS (this includes adherence to IFC and ADB standards/policy requirements).	warnings and fines (as levied by the Company) for non-compliance.		records.		contractual terms in O&M supply chain).
Community health & safety.	Increase in community health and safety risks from road traffic.	Pre-construction Construction. Operation.	Road safety campaign / awareness raising and development of construction Traffic and Transportation Management Plan (TTMP). During implementation of the road safety campaign, specific attention shall be given to vulnerable people, including illiterate girls and women, so that they also are informed about	Number of road safety awareness sessions held with communities, women and school children. Number of road safety complaints	TTMP. Community grievance mechanism. SEP.	Inspection reports. Records of accidents & near misses. Grievance mechanism. Toolbox	Prior to the start of construction (Development of TTMP and road safety campaign and awareness raising). During construction (implementation	The Company (implementation of road safety campaign / awareness through CLO) EPC Contractor (implementation through development of

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			the potential risks and impacts arising from road transportation. Additional meetings will be held in the villages to target women and children that do not regularly attend school. Community health and safety training to be provided to relevant workforce.	received. Number of related grievances raised and closed. Percentage of relevant project personnel receiving community health and safety training. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.		talks.	of road safety campaign / training). Mitigation as and when identified. Weekly toolbox talks.	TMP / provision of workforce training). O&M Contractor (implementation through provision of workforce training).
Local communities.	Implementation of the community development plan is expected to provide a range of benefits to local residents and benefit women, children and the elderly too.	Pre-construction Construction. Operation.	Implementation of community development plan with initiatives for community development.	Number of community initiatives implemented.	Community development plan.	ESHS reporting (prepared by EPC Contractor).	Monthly.	The Company (CLO)
Transportation	Damage to road edges & general wear & tear.	Construction.	Prior to construction, the EPC should : •Following the logistics survey carried out in December 2021, identify	Number of road safety complaints	TTMP	Inspection reports. Records of	Prior to the start of construction. Mitigation as	EPC Contractor. The EPC Contractor will

			appropriate stop over points en-route for driver overnight stays. •Obtain all relevant permits for use of the proposed route (particularly for abnormal loads) and for customs clearance points where required. Various checkpoints are present along the route and appropriate documentation for these points will be in place. •Develop a Construction TTMP to manage potential impacts on the road network and its users. •Consultation with local authorities regarding proposals and any authorisations / escorts required for the movement of abnormal loads. •Consultation will be required with services / utility providers to determine the exact location of any underground and overhead services / utilities and prior to removal or re-alignment of any overhead cables. Immediately after completion of construction phase, undertake a post-construction road survey to establish any damage caused by the Project traffic. The EPC Contractor will be responsible for any repairs required to the satisfaction of the local authority's highway department. Consultation with local communities / road authorities to notify of commencement of construction and delivery of materials, particularly in relation to abnormal loads.	received. Number of notification meetings held. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.		accidents & near misses. Grievance mechanism. Meeting records.	and when identified. Consultation prior to construction and prior to delivery of materials / abnormal loads.	be responsible for undertaking identified required works on the public highway including any works required at border crossing points.

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
Traffic / Transport	Increase in road accidents due to construction traffic travelling along the identified route.	Construction	Good practise measures incorporated into the TTMP including: • Driver awareness training • Vehicle and driver safety checks. • Wheel washing facilities. • No driving in icy conditions nor at night. • Signage where appropriate to make other road users aware of construction traffic and turnings.	Number of road safety complaints received. Percentage of project drivers receiving H&S awareness training. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	TTMP.	Inspection reports. Records of accidents & near misses. Community grievance mechanism.	During construction. Weekly inspections. Mitigation as and when identified.	EPC Contractor.
Traffic / Transport	Potential minor impacts relating to severance and driver and pedestrian delay.	Pre-Construction / Construction.	Consultation with local communities / road authorities in close proximity to the proposed transportation route (i.e where the routes pass through settlements) to notify of commencement of construction and delivery of materials, particularly in relation to abnormal loads. The TMP (outlined below) will also be developed in consultation with local authorities and communities. Reduction of risks to drivers, communities and other road users along the proposed route. The TTMP will include: • Details of the proposed route	Number of consultations with local communities to communicate project schedule. Number of driving incidents including speed violations. Number of road safety complaints raised and closed (grievance	TTMP. SEP.	Inspection reports. Records of accidents & near misses. Community grievance mechanism.	During construction. Weekly inspections. Mitigation as and when identified.	EPC Contractor.

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			and allocated stop-over points. • Details regarding the Customs Points (Korgas, China and Tashkent). • Commitment to all construction vehicles only using approved access routes to site. All drivers are prohibited from undertaking any off-road driving and are not permitted to make deviations off designated routes unless authorised to do so. • No night-time driving. • Workers must not use own transport to arrive onto the Project site each day. A bus will be provided for any workers not residing on the Project site. • Driving will not be permitted in icy conditions. • Verification of all drivers taking the required number of stops and not exceeding the safe driving limits. • Driving times, distances and overnight accommodation to be documented on a daily basis. • All drivers will prevent the idling of engines whilst they are stationary unless it is necessary to do so. The aim is to avoid the unnecessary generation of air and noise emissions from idling	monitoring). Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.				

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			vehicles (which could generate community nuisances) whilst they are not in active use. • The wearing of safety belts by the driver and occupants whilst travelling in any project vehicle is mandatory. All belts (for all occupants) will be of the 3-point configuration (only). • All drivers of Project vehicles must: • Have in their possession a valid driving licence issued by the Uzbekistani authorities. • Passed a defensive driving safety course organised by the HSE Manager. • Conform to the Project's Drug and Alcohol Policy. • Not make or answer a mobile telephone call while driving a vehicle. This restriction also applies to the use of text or mobile data services found on smart phones. Mobile telephones can be left on during a trip to alert the driver of any incoming calls but must not be actively used whilst driving. If the driver wishes to use their phone, then they should safely leave the road and bring the vehicle to a complete and safe stop, in a safe area,					

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			before initiating or answering a call. • All vehicles used by the Project will be fit for purpose based on an assessment of usage and be maintained in safe working order in line with manufacturers' specifications and all applicable national legal requirements. This includes the repair of all minor defects that have an implication to safety, such as the presence of cracked glass windscreens, unlit bulbs, etc. All vehicles will also have a reverse alarm system installed that activates automatically. Regular checks will be made to all vehicles to ensure of safety. • Speed restrictions along the route and within the Project site. • When required, on-coming traffic halted to enable abnormal load transporters to negotiate any pinch points along the route. • Parking requirements / restrictions on site. • Toolbox talk and training details regarding road safety, driver obligations, social and cultural awareness etc. • The above requirements will apply to all Project vehicles,					

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			which extends to all sub-contractors used for the purpose of transporting materials or people to the project area. No exceptions or exclusions will be granted by the Project. • Details of notifications to local communities / signage. • Movement of abnormal loads restricted to outside of peak traffic periods. • The requirement (if any) for escort of abnormal loads. • Temporary direction signs indicating local routes to site and site entrances (statutory and site identification boards) provided along with advisory speed limit (to be agreed) signs along the length of the access route. • Maintenance of the access routes during construction by the main contractor to a condition suitable for use. • Development of Incident and Contingency Plan within the TTMP. • Consultation with local authorities regarding proposals and any authorisations / escorts required for the movement of					

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			abnormal loads. • Consultation will be required with services / utility providers to determine the exact location of any underground and overhead services / utilities and prior to removal or re-alignment of any overhead cables. • Prior to construction of the Project, a series of leaflets and notices should be posted making local residents and businesses aware of any likely disruption. In addition to the TTMP, a road safety campaign will be implemented in local schools within Zarafshan City settlements. During implementation of the road safety campaign, specific attention shall be given to vulnerable people, including illiterate girls and women, so that they also are informed about the potential risks and impacts arising from road transportation. Consequently, additional meetings will be held in the villages to target women and children that do not regularly attend school. For all upgrade / improvement works to the proposed transport route, the Occupational Health and Safety Plan and TTMP will be adhered to. A safety training programme will be in place to					

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			manage worker safety during works.					
Transportation	Potential conflict with use of the road network whilst the Project is constructed alongside the Navoi to Besapan OHL upgrade works.	Construction.	Consultation with EPC contractor for the OHL to confirm if any traffic movements will occur concurrently. Programme scheduled thereafter to avoid conflict as so far as possible.	Number of grievances raised and closed. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	TTMP. SEP. Community grievance mechanism.	Inspection reports. Community grievance monitoring.	During construction. Weekly inspections. Mitigation as and when identified.	EPC Contractor.
Landscape	Potential impacts to the landscape as a result of construction activities.	Construction. Decommissioning.	Limiting damage to any vegetation by keeping the construction areas and roads to a minimum and maintaining strict requirements for vehicles to remain on the roads at all times. Reinstating vegetation with native plant species where construction areas and roads are no longer required. This would reduce the duration of the visual impact. Mitigation to reduce the adverse impact resulting from litter and garbage (plastic bags, bottles etc.) include: • Provision of adequate facilities for the disposal of garbage. • Training of the workforce in waste management. • Reduce the amount of waste to	Number of toolbox talks with employees and sub-contractors. Restoration of all areas temporarily used during construction and following operation. Quantity of hazardous waste generated. Quantity of non-hazardous waste generated. Number of EPC Contractor	Hazardous & non-hazardous waste management plan (EPC). BMP. TTMP. Community development plan.	Site inspection reporting. Monthly ESHS reporting.	Weekly inspections. Monthly reporting.	EPC Contractor.

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			the maximum extent possible. • Collect all solid waste and store until transported to an appropriate waste disposal facility and disposed. • Organization of clean-ups for existing garbage.	warnings and fines (as levied by the Company) for non-compliance.				
Landscape & visual	Impacts to visual amenity resulting from operation of the WTGs.	Operation.	Implementation of the community development plan. Community grievance mechanism in place.	Number of grievances raised and closed.	SEP. CDP. Community grievance mechanism.	Quarterly ESHS reporting.	Quarterly.	The Company (CLO)
Wastes	Potential for visual, contamination, pollution and health and safety issues relating to inappropriate storage and handling of wastes.	Construction. Decommissioning.	Mitigation to reduce the adverse impact resulting from litter and garbage (plastic bags, bottles etc.) include: • Provision of adequate facilities for the disposal of garbage. • Training / toolbox talks for the workforce in waste management and handling of hazardous and non-hazardous wastes. • Reduce the amount of waste to the maximum extent possible. • Collect all solid waste and store until transported to an appropriate waste disposal facility and disposed. • Organization of clean-ups for	Quantity of waste removal. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	Hazardous & non-hazardous waste management plan. CEMP. Decommissioning EMP.	Site inspection reporting. Monthly ESHS reporting.	Weekly inspections. Monthly reporting.	EPC Contractor.

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			existing garbage. Sanitary waste collected in containers below portable toilets and transported for disposal. The waste will be disposed of by a licenced contractor. Waste management measures must be in place prior to any early construction works commencing.					
Archaeology & cultural heritage.	The Project area has not been well studied with respect to archaeology and so there remains the potential to uncover previously buried archaeology (chance finds) during construction works.	Construction	Toolbox talks to ensure that workers are alert of any signs of past cultural activity in the area. Implementation of chance finds procedure during construction. During construction, toolbox talks and training sessions will be provided to ensure that workers will be alert to any signs of past cultural activity in the area. A national archaeologist is recommended to be involved in the development of training material. Should any artefacts or evidence of past activity be discovered, the Company will notify the appropriate authorities and await direction before taking action that would disturb the resources.	Number of toolbox talks undertaken. Number of finds. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	Change finds procedure (EPC).	Site inspection reports.	Weekly site inspection.	EPC Contractor.
Noise	Noise emissions from construction works.	Pre-construction. Construction. Decommissi	Restrict all construction activities to daytime during normal working hours. Construction activities will be scheduled from Monday to Saturday	Number of noise-related grievances raised and	Noise management procedures within CEMP	Noise monitoring as specified in the management	Monthly monitoring or in the event of a complaint.	EPC Contractor - EHS Manager - implementation. The Company

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
		oning.	08:00 to 22:00 Unattended plant equipment should be kept to a minimum. Construction activities outside of these times, short term high transient noise events, or activates relatively close to NSRs should be scheduled in consultation with the residents to minimise their inconvenience. Implementation of noise management plan within the CEMP.	closed. Number of exceedances in construction noise levels (in event of a compliant). Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	(EPC). OEMP. Decommissioning EMP.	plan. Monthly reporting.		verification.
Noise	Noise emissions from WTGs.	Operation.	Community grievance mechanism in place.	Number of noise-related grievances raised and closed. Compliance with sound levels in Leq dBA for day-time and night-time.	Community grievance mechanism. OEMP.	Quarterly ESHS Reporting.	Quarterly.	The Company CLO
Shadow flicker	Impacts resulting from shadow flicker effects of WTGs during operation.	Operation.	Consultation with local communities and potentially affected people to inform the affected peoples and the wider community with regards to potential effects during operation. Implementation of grievance mechanism during operations. Installation of shadow flicker modules	Number of related grievances raised and closed.	SEP. Community grievance mechanism.	ESHS reporting	Prior to construction (consultation). Quarterly (operation).	The Company/ PMC

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			on identified WTGs.					
Hydrology & hydrogeology	Erosion of drainage channels through construction processes.	Construction	Detailed design for internal roads should avoid ephemeral drainage channels where present. Culverts or other drainage control features should be installed where crossings of drainage routes are unavoidable. There will be excavation of a drainage ditch along uphill sides of internal roads where appropriate, and placement of low berms on downhill sides where necessary.	Visual inspections of erosion incidents. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	CEMP (EPC).	Site inspection reports.	Prior to the start of construction. Weekly inspections.	EPC Contractor.
Hydrology & groundwater	Potential for contamination / pollution of surface water and / or groundwater during construction.	Construction. Operation. Decommissioning.	Storage of all materials within designated areas. Supplies should also be provided for the clean-up of minor spills. Establishment of a designated storage area with an impervious base and impermeable bund walls. Capacity must be sufficient to contain the full volume within a bund and secured area. All fuel, oil and chemical storage is stored in a designated secure area. Hoses and valves are checked regularly for signs of wear and ensure that they are turned off and securely locked when not in use. Diesel pumps and similar items are placed on drip trays to collect minor	Quantity of wastewater generated. Number of spills identified. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	Hazardous & non-hazardous waste management plan. CEMP (pollution prevention & control measures) Emergency preparedness & response plan.	Site inspection reports. Monthly ESHS reporting.	Daily site inspections. Monthly.	EPC Contractor (construction implementation). O&M Contractor (operation implementation).

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			spillages. Trays should be checked regularly, and accumulated oil removed. Sanitary waste collected in containers below portable toilets and transported for disposal. The waste will be disposed of by a licenced contractor. Measures should be in place prior to any construction works, including early works, commencing.					
Wastewater	Potential pollution due to improper storage of wastewater.	Construction Operation. Decommissioning.	Ensure temporary storage of wastewater at the site before disposal to a designated facility by a contracted waste handler. Where third party wastewater disposal & transport companies are to be utilized, the Company / EPC will ensure all required licenses / permits are in place and that they facilities are audited to ensure that they are fit for purpose. Prohibit illegal disposal of wastewater into the canals around the project site. Ensure regular inspection of wastewater management practices within the Project site to check for compliance. Ensure there is proper and adequate sanitation facilities at the site during construction.	Number of spills identified. Number of inspections completed. Number of illegal disposal incidents. Waste transfer records in place. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	Hazardous & non-hazardous waste management plan.	Site inspection reports. Monthly ESHS reporting. Quarterly ESHS reporting (operation).	Daily site inspections. Monthly.	EPC Contractor (construction implementation). O&M Contractor (operation implementation).

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
Hydrology & hydrogeology	Potential impacts on water supplies and their users.	Pre-construction. Construction.	The Project will deliver water to the Project site via tankers from Zarafshan City. The batching plant and accommodation have their own water supply. Appropriate permits for use of municipal water supply will be obtained prior to construction.	Quantity of water utilised during construction. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	CEMP (water resources management).	Site inspection reports. Monthly ESHS reporting.	Weekly site inspections. Monthly ESHS reporting.	EPC Contractor.
Hydrology – cumulative.	Potential for cumulative impacts relating on pressure on water sources for use during construction of both this Project and the OHL upgrade works.	Pre-construction. Construction.	Consultation with OHL upgrade developer to ensure no conflict of use.	Quantity of water utilised during construction. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	SEP. CEMP.	Site inspection reports.	Weekly site inspections.	EPC Contractor.
Soils & Geology	Increased vulnerability to erosion during construction.	Pre-construction. Construction. Decommissioning.	To reduce damage to soils and risks of soil erosion, the length and width of the on-site and off-site roads should be with the route optimized to reduce the need for cut-and-fill material. Run-off and erosion control features should be included in designs. There will be excavation of a drainage ditch along uphill sides of internal	Visual inspections of erosion incidents. Fugitive dust particles (SPM, PM10, PM2.5, emissions) levels detailed in IFC EHS General	CEMP (pollution prevention & control measures) CEMP and OEMP (dust management measures). TTMP.	Site inspection reports. Monthly ESHS reporting.	Weekly site inspections. Monthly	EPC Contractor.

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			roads where appropriate, and placement of low berms on downhill sides where necessary Clearly demarcate storage and staging areas and store all materials, equipment and vehicles in demarcated area to reduce soil damage. Furthermore, vehicles should be confined to demarcated roadways. Establish native grasses in erosion control channels and in other areas immediately after final disturbance. Salvage and store topsoil and subsoil before areas are excavated, with topsoil stripped and stockpiled separately. Segregate excavated soils into stockpiles dependant on material type and provide erosion control while stockpiled. On completion of earthworks, backfill material in the same stratigraphic sequence. When wide roads are narrowed after WTG construction, scarify compacted areas and establish native plant species. Use of water bowsers on roads during dusty conditions (likely summer months). Once construction and road-building are complete, scarify all areas compacted by off-road vehicle /	Guidelines – Air Emissions and Ambient Air Quality. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	BMP.			

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			equipment movements and establish native plant species. Confine all vehicles and equipment to the roadway and, to extent possible, minimize activities during wet conditions. When activities must occur in wet conditions, control storm water by using fabric, straw bales and other measures to impede storm water flow and prevent erosion. When damage to wet soil occurs, repair once dry conditions return. Measures should be adhered to during all construction works, including early works.					
Soils	Potential for contamination of soils due to spills and liquid wastes	Construction Operation. Decommisioning.	Store all materials within designated areas of temporary storage facilities and provide supplies to clean-up of minor spills. For storage of oil, establish a designated storage area, with impervious base and impermeable bund walls. Capacity must be sufficient to contain full volume within a bund and secured area. Store all fuel, oil and chemical storage in the designated storage area. Check hoses and valves regularly for signs of wear and ensure they are turned off and securely locked when not in use. Place diesel pumps and similar items	Incidents requiring clean-up operations – spill kits. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	Hazardous & non-hazardous waste management plan. CEMP, OEMP and Decommissioning EMP (pollution prevention & control measures) Emergency preparedness & response plan.	Site inspection reports. Monthly ESHS reporting.	Daily site inspections. Monthly	EPC Contractor.

Component	Potential Impact	Project Phase	Mitigation / Enhancement	KPI[1]	Management Plan	Monitoring	Frequency	Responsibility
			on drip trays to collect minor spillages. Check trays regularly and remove any accumulated oil. Reduce the amount of waste to the maximum extent possible. Collect all solid waste and store until transported to the designated disposal site. Measures should be adhered to during all construction works, including early works.					
Aviation and Radar	Potential impacts on Zarafshan Airport and radars in the vicinity of the Project.	Pre-construction.	Once the final Project layout is agreed, consultation will need to take place with the CAA to provide the information required to obtain a permit for the Project.	Aviation permit obtained.	SEP.	n/a	n/a	The Company
Climate Change	Increases in the number of high temperature days could damage Project infrastructure and maintenance activities would likely be restricted on these days. Furthermore, high temperatures result in lower air density thereby potentially reduced energy output.	Pre-construction. Construction. Operation	Insurance cover for extreme events. Consideration of the following: • Securing a grid connection rather than use of generators. • Use of recycled materials where possible for construction. • Design of buildings and placement of windows so as to reduce air conditioning cooling requirements or potentially heating requirements in winter. • Water conservation measures. • WTGs with lightning protection	Number of extreme climatic events. Frequency of maintenance of equipment and vehicles. Number of EPC Contractor warnings and fines (as levied by the Company) for non-compliance.	CEMP (dust management measures). Hazardous & non-hazardous waste management plan.	Site inspection reports.	Weekly site inspections.	EPC Contractor.

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			system. • WTG blades with hydrophobicity layer of paint, which prevents water accumulation on the blades. The analysis shows that the climatic conditions on site combined with this feature will prevent the vast majority of ice build-up. • Physical and visual warnings for ice throw are provided for site workers during operation and local farmers / herders.					