ENN Energy Biodiversity Risk and Opportunity Assessment Report

Introduction

ENN Energy Holdings Limited (Stock code: 02688.HK) is the flagship business of ENN Group and one of the largest clean energy distributors in China. Rooted in our core city gas business, we also deliver integrated energy solutions for businesses and value added business for families. We actively seize the opportunities for national low-carbon development. By optimizing our own energy use structure and leveraging clean energy technologies, the Company advances our low-carbon transformation. At the same time, we continuously upgrade energy-smart management capabilities and provide customers with lower-carbon and cleaner products and services, contributing to the realization of the national Dual-Carbon goals and co-creating a low-carbon future.

Currently, biodiversity loss has become a global ecological crisis on a par with climate change. ENN Energy recognizes that engaging in biodiversity conservation is not only a sign of respect for the balance of the natural ecosystem and its carrying capacity, but also a strategic line of defense to ensure the resilience of its own supply chain and avoid compliance and reputation risks. It is a core path to creating long-term business value and, more importantly, an inevitable choice for achieving healthy and sustainable development with nature. ENN Energy is committed to the goals of "No-net Loss (NNL)" of biodiversity and "Net Positive Impact (NPI)" on the environment. It continuously pays attention to the natural ecology and biodiversity in its operation areas and promotes the sustainable development and utilization of natural resources. We have completed biodiversity impact assessments in our main operating locations, as well as the screening and evaluation of impact and dependency factors across all links of the value chain. Furthermore, we have formulated response measures targeting the identified risks and opportunities.

Biodiversity Risks and Opportunities Assessment

ENN Energy refers to the disclosure framework recommended by the Task force on Nature-related Financial Disclosures (TNFD). It conducts biodiversity risk and opportunity assessments in core operating areas, including the scope of the value chain, in accordance with the four-step approach of Locate, Evaluate, Assess, Prepare (LEAP). Furthermore, it formulates biodiversity conservation strategies and response measures based on the principle of "Avoid, Mitigate, Restore and Remediate".

Identification of Ecologically Sensitive Areas

Based on operational control, we used the IBAT and BIA tools to conduct ecological sensitivity identification for 300 operating locations, including the company's headquarters and major operating sites. We surveyed the status of endangered species within the 10km, 20km, and 50km radius around these locations, as well as the distribution of Key Biodiversity Areas (KBAs) and World Database on Protected Areas (WDPA). In the future, we will prioritize focus on the impact of 4 operating sites with high ecological sensitivity on the surrounding ecosystems and implement effective risk prevention measures.

Evaluation Indicators of Ecologically Sensitive Areas	Number
The operating sites that are near protected areas and biodiversity-imoprtant areas within 10km	4
The operating sites with weighted count of critically endangered and endangered species more than 5 within 10km	0
The operating sites with weighted count of critically endangered and endangered species more than 10 within 20km	0
The operating sites with weighted count of critically endangered and endangered species more than 20 within 50km	0

The Materiality Assessment of Dependence and Impact Factors

We used the ENCORE (Explore Natural Capital Opportunities, Risks, and Exposures) tool to identify dependence factors and impact factors for operating sites with high ecological sensitivity. We then analyzed and evaluated the importance of these factors across multiple dimensions, including resource utilization, pollution, greenhouse gas emissions, climate regulations, surface water, and species invasion. Going forward, we will prioritize dependence factors and impact factors rated as high or medium in importance, and implement targeted mitigation measures.

	Category	Sheyang LNG Storage and Distribution Station	Hai'an Xinao Binhai New Area Natural Gas Comprehensive Station	Dachong Storage and Distribution Station	Shuangmin Chenjiagang Storage and Distribution Station
Impact	Disturbances (noise and light pollution, etc.)	VL	L	VL	VL
	Freshwater ecosystem use	VL	VL	VL	VL
	GHG emissions	L	L	L	L
	Emissions of non-GHG air pollutants	VL	VL	VL	VL
	Generation of solid waste	VL	VL	VL	VL
	Land use	M	M	M	M
	Discharge of toxic soil and water pollutants	VL	VL	VL	VL
	Freshwater use	L	L	L	L
	Extraction of other abiotic resources	VL	VL	VL	VL
Dependency	Water supply	L	L	L	L
	Global climate regulation	L	L	L	L
	Rainfall pattern regulation	L	L	L	L
	Local (micro and meso-scale) climate regulation	M	M	M	M
	Water purification	VL	VL	VL	VL
	Flood control	H	H	M	H

VL: Very Low
L: Low
M: Medium
H: High

Area of land use

Land resources serve as a crucial carrier and material foundation for the ecological environment, providing irreplaceable support for the structural integrity, functional stability, and service capacity of ecosystems. Operating sites and distribution pipelines occupy land resources, disrupting the ecological continuity of land. This disruption hinders the migration and foraging of some organisms, potentially leading to a decline in regional biodiversity or impairing the ability of organisms to adapt to their environment. Additionally, the soil structure damaged by pipeline trench excavation during the construction period is difficult to fully restore. Coupled with the

compaction from inspection vehicles in the later stage, the soil in backfilled areas experiences reduced air permeability and water retention, with fertility lower than that of the original soil. Regular pipeline maintenance (such as inspection and emergency repair) involves temporary small-scale activities like excavation and vehicle traffic, which may disturb the soil again and affect the activities of surrounding organisms in the short term.

Flood mitigation services

Operating sites and distribution pipelines located along coasts, rivers, and around lakes and reservoirs are vulnerable to floods. Flood control ecosystems can provide reliable protection for these sites and other related infrastructure through methods such as wetlands storing excess water, riparian vegetation stabilizing soil, blocking water, and reducing flood flow velocity. This protection prevents flood damage and mitigates the financial and operational impacts on the enterprise. We have referenced the water risk map from the World Resources Institute (WRI) to conduct a flood risk inventory for 4 operating sites with high ecological sensitivity. Combined with our actual operational conditions, while improving the flood control and disaster mitigation management mechanism and response measures, we also comprehensively consider a variety of biodiversity conservation measures, including avoidance, minimization, restoration, and offsetting, to reduce the ecological impact on the surrounding areas of the operating regions.

Local (micro and meso) climate regulation services

Local climate regulation functions—such as stabilizing the local temperature and adjusting the local humidity—provide guarantees for the normal operation of operating sites and distribution facilities while extending their service life. For instance, in terms of temperature regulation, vegetation around operating sites and distribution facilities can prevent equipment issues like thermal expansion and deformation of materials, as well as reduced joint sealing caused by high temperatures, relying on transpiration. Additionally, this vegetation can act as a windbreak to weaken cold air, minimizing problems such as valve freezing and blockage, and reduced instrument accuracy caused by low temperatures. In terms of humidity regulation, wetlands and vegetation can control the surrounding humidity within a range suitable for equipment: this not only prevents electrochemical corrosion of pipelines triggered by high humidity but also alleviates phenomena like seal aging and metal cracking caused by low humidity, providing crucial support for the normal operation of operating sites and distribution facilities.

Assessment and Responses of Biodiversity Risks and Opportunities

We analyze and assess biodiversity-related risks and opportunities across different time horizons (short-term, medium-term, and long-term). In accordance with the classification framework recommended by the TNFD (Task Force on Nature-related Financial Disclosures), we summarize the potential impacts on operating sites. Meanwhile, we comprehensively consider a variety of biodiversity conservation measures, including avoidance, minimization, restoration, and offsetting, to develop targeted response initiatives and establish a biodiversity risk prevention and control mechanism. This ensures the efficient management of such risks and strengthens ecological protection.

Assessment and Responses of Biodiversity Risks and Opportunities					
Risk/ Opportunity	**Risk/ Opportunity description**	**Period**	**Scope**	**Potential impact on business**	**Response**
Physical risk	Acute risk	Short term	Own operations	During the construction and operation phases of a project, increased surface and underground activities may cause disturbances to the original flora and fauna on the land.	We conduct thorough pre-project surveys, fully incorporate biodiversity conservation requirements into the project's environmental impact assessment (EIA), and identify and avoid ecologically sensitive areas for flora and fauna. Additionally, we optimize operation timelines and workflows to minimize construction disturbances, and implement supporting measures such as ecological restoration and ex situ conservation, thereby avoiding negative impacts on flora and fauna to the greatest extent possible.
	Chronic risk	Medium-long term	Own operations	During the project operation phase, pollutants may be generated; improper handling of these pollutants could lead to the degradation of biological habitats and soil pollution.	During the project operation phase, a comprehensive pollutant monitoring system is established to monitor the discharge of pollutants such as waste gas, wastewater, and noise, ensuring compliance with environmental protection standards. Meanwhile, through measures including process optimization, resource recycling, and end-of-pipe treatment, pollutant generation is reduced at the source. Additionally, emergency response plans are formulated to address sudden environmental incidents.
Transition risk	Policy risk	Short term	Own operations	There has been an increase in compliance requirements for policy and supervision—such as strengthened oversight related to zero deforestation and environmentally friendly materials—requiring additional resource investment to meet compliance standards.	We have deployed a team of experts including legal professionals to track regulatory updates, and collaborate with internal departments of ENN Energy to develop response strategies; meanwhile, we conduct regular biodiversity management training to enhance awareness of biodiversity conservation.
	Reputational risk	Medium-long term	Own operations	Stakeholders such as communities, investors, and customers are imposing increasingly higher requirements on enterprises regarding biodiversity conservation; poor management in this area may adversely affect an enterprise's reputation and market value.	We respond to stakeholders' concerns through transparent disclosure channels such as official websites, ESG reports, and ratings; meanwhile, we proactively communicate our biodiversity conservation concepts and performance.