



BIODIVERSITY Progress Report

The Electricity Generating Public Company Limited

May 2021

Biodiversity Statement of Commitments

Aspirations

- We have a long-term aspiration to achieve **a no net loss of biodiversity** relative to 2021 levels by 2030, and are determined to prevent and minimize the impact of our activities across the lifecycle of our power plants¹. We will aim to achieve this by applying the mitigation hierarchy to avoid and minimize any negative impacts, restore impacted areas, and finally offset any residual impacts that remain.
- Our future power plants¹ in close proximity to World Heritage areas and IUCN Category I-IV protected areas will have a **net positive impact** on biodiversity, starting implementation in 2021.
- From 2021, we are committed to avoid **all deforestation (no gross deforestation)** for future power plant¹ developments, and to compensate with future reforestation (**net zero deforestation**)¹ for all existing power plants¹. For existing power plants¹ that have already impacted on areas which was previously covered in forest³, our ambition is to return these altered areas back to a better condition than it once was.

Scope of Commitments

1. EGCO Group's biodiversity statement will cover all existing and future power plants located in nationally or internationally recognised areas of high biodiversity value that the company has majority control over, until the end of their operations located. Our commitments focuses on areas that are owned, leased or operated for energy production as these are where we can make the biggest positive difference in our supply chain.
2. Nationally or internationally recognised areas of high biodiversity value refer to areas in close proximity to World Heritage areas, IUCN Category I-IV protected areas and national reserved forest.
3. Forests are defined and spanning more than 0.5 hectares with trees higher than five meterman a canopy cover of more than 10%, or trees able to reach these thresholds in situ' (FAO, 2020)
4. Partners in businesses that are not directly under EGCO operational responsibility, such as associate companies, principal contractors, suppliers tier 1 & non tier 1, and group companies in which EGCO has a substantial involvement, are expected to maintain their own performance standards that align with the EGCO Biodiversity Commitments.

EGCO's Mitigation Strategy

EGCO will employ the mitigation hierarchy (avoid, minimise restore and offset) to manage potential biodiversity risks related to our power plants. Iterative application of the mitigation hierarchy will be undertaken to ensure that residual impacts are reduced to as low as reasonable possible.

Avoidance - EGCO is committed to implementing avoidance measures, i.e., measures to 'design out' an impact or risk to prevent impacts expected on biodiversity. We will also employ design criteria to evaluate all infrastructure development options and look at alternatives when significant impacts to biodiversity are likely. The key good practice avoidance measures include:

- Avoid developing in nationally or internationally recognised areas of high biodiversity value which include:
 - UNESCO World Heritage Sites;
 - Wetlands listed in the Ramsar list of sites;
 - UNESCO Man and the Biosphere (MAB) reserves;
 - Key Biodiversity Areas; and
 - Alliance for Zero Extinction (AZE) sites
 - IUCN Category I-IV protected areas

- Relocate project facilities away from areas containing critical biodiversity, where feasible.
- Avoid clearing forested areas for the development of project facilities, where possible.

Minimisation - EGCO is committed to implementing minimisation measures to reduce the severity of impacts on biodiversity by controlling or limiting the source of impact at power plant in development/operation.

Restoration/Rehabilitation - We will seek to restore/rehabilitate areas where impacts cannot be prevented. Where existing power plant(s) were developed on degraded forest areas, we intend to restore such areas to a better quality to enable us to make a positive contribution to the landscape.

Offset - EGCO will seek to assess the need for, and feasibility of achieving no net loss of biodiversity for its operational facilities with negative biodiversity impacts through compensation/offset measures. Such measures will be developed in line with international best practice such as the Principles on Biodiversity Offsets developed by the Business and Biodiversity Offset Program (BBOP).

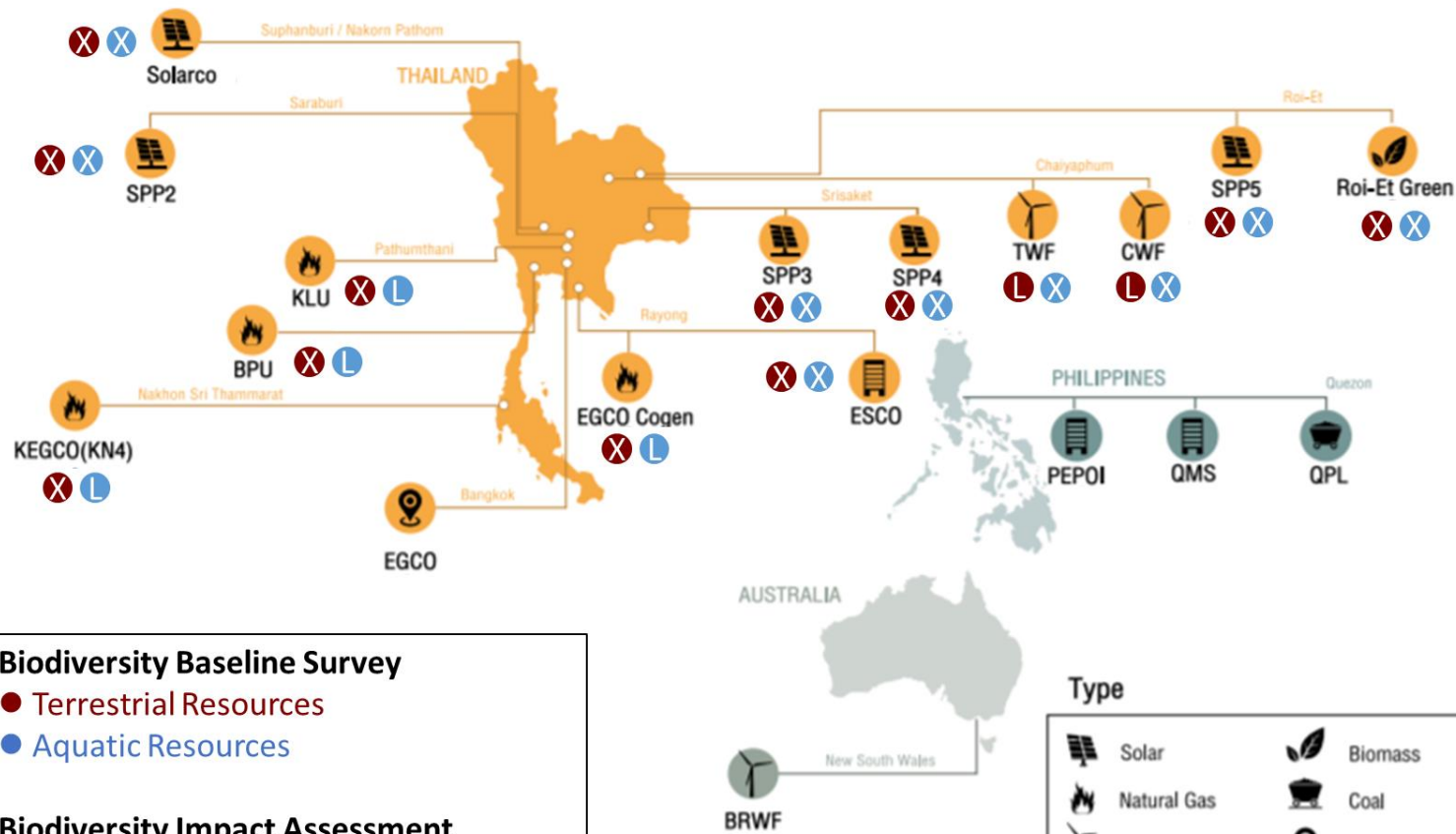
External Partners

We are committed to collaborating with external partners such as biodiversity experts to support the biodiversity assessment and management process. These individuals/organizations form a part of the expert committee EGCO has established to regularly monitor the progress of projects and inform adaptive management where appropriate.

Managing Biodiversity Impacts

EGCO's Environmental and Social Management System (ESMS) manual ensures adoption of good biodiversity mitigation and management practices across all of EGCO's power plants. The ESMS manual serves as a guide to ensure the systematic integration of biodiversity considerations across the power plant lifecycle, from the design phase to decommissioning phase

EGCO's Operation Location



Biodiversity Baseline Survey

- Terrestrial Resources
- Aquatic Resources



Biodiversity Impact Assessment




- ⊗ No Impact
- Ⓛ Low Impact



Type




- ☀ Solar
- 🔥 Natural Gas
- 🌬 Wind Farm
- 🏢 Other business
- 🌿 Biomass
- 🏠 Coal
- 📍 Holding







Biodiversity Progress







Sites				Exposure		Assessment	Management Plans
Power Plant	Fuel	Location	Areas (Hectares)	National Reserved Forest	World Heritage areas and IUCN Category I-IV protected areas	Baseline Study / Impact Assessment	Mitigation & Monitoring
Khanom (KEGCO) [1]		Nakhon Si Thammarat	86.72	Yes ^[2]	No	<p>Scope: Terrestrial and aquatic resources</p> <p>Impact Assessment: EIA</p> <ul style="list-style-type: none"> • Terrestrial: No impact • Aquatic: Low impact 	<ul style="list-style-type: none"> • Monitoring of aquatic biological resources including phytoplankton, zooplankton, fish larvae & fish egg and benthos every six months • Consider implementing biodiversity offset activities by considering (1) new or expanded protected areas or (2) improved management of existing protected areas.
Klongluang (KLU) [1]		Pathum Thani	2.08	No	No	<p>Scope: Terrestrial and aquatic resources</p> <p>Impact Assessment: EIA</p> <ul style="list-style-type: none"> • Terrestrial: No impact • Aquatic: Low impact 	<ul style="list-style-type: none"> • Monitoring of surface water quality every six months • Monitoring cooling water discharge via online system

Sites				Exposure		Assessment	Management Plans
Power Plant	Fuel	Location	Areas (Hectares)	National Reserved Forest	World Heritage areas and IUCN Category I-IV protected areas	Baseline Study / Impact Assessment	Mitigation & Monitoring
EGCO Cogen [1]		Rayong	5.51	No	No	<p>Scope: Terrestrial and aquatic resources</p> <p>Impact Assessment: EIA</p> <ul style="list-style-type: none"> • Terrestrial: No impact • Aquatic: Low impact 	<ul style="list-style-type: none"> • Monitoring of surface water quality every six months
Banpong (BPU) [1]		Ratchaburi	5.60	No	No	<p>Scope: Terrestrial and aquatic resources</p> <p>Impact Assessment: EIA</p> <ul style="list-style-type: none"> • Terrestrial: No impact • Aquatic: Low impact 	<ul style="list-style-type: none"> • Monitoring of surface water quality every six months • Monitoring water discharge via online system
G-Power Source (GPS)		Chainart	10.88	No	No	Plant is required to conduct an Environmental and Safety Assessment (ESA). Scope of ESA study does not cover biodiversity baseline survey and impact assessment.	N/A

Sites				Exposure		Assessment	Management Plans
Power Plant	Fuel	Location	Areas (Hectares)	National Reserved Forest	World Heritage areas and IUCN Category I-IV protected areas	Baseline Study / Impact Assessment	Mitigation & Monitoring
G-Power Source (GPS)		Nakhonsawan (Located in <i>Rural and Agriculture Zone</i> prescribed by Department of Public Works and Town & Country Planning)	28.88	No	No	Plant is required to conduct an ESA. Scope of ESA study does not cover biodiversity baseline survey and impact assessment.	N/A
G-Power Source (GPS)		Phetchaboon	15.09	No	No	Plant is required to conduct an ESA. Scope of ESA study does not cover biodiversity baseline survey and impact assessment.	N/A

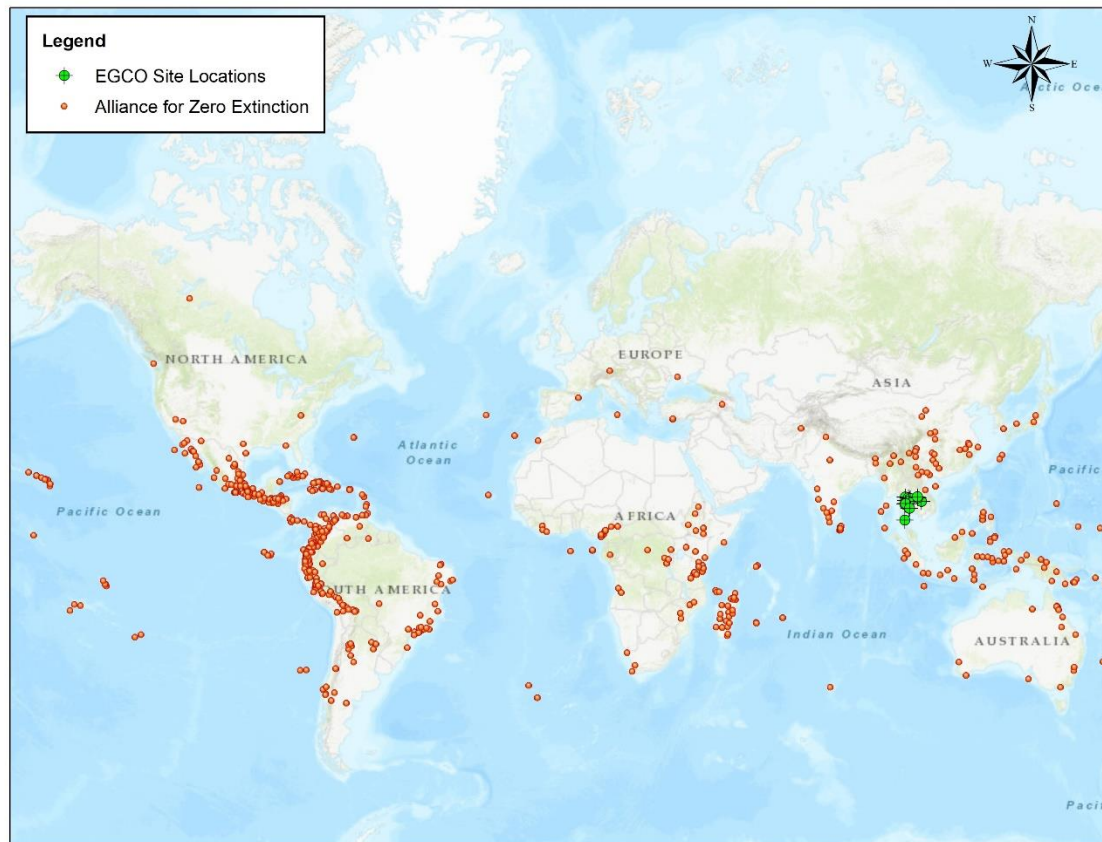
Sites				Exposure		Assessment	Management Plans
Power Plant	Fuel	Location	Areas (Hectares)	National Reserved Forest	World Heritage areas and IUCN Category I-IV protected areas	Baseline Study / Impact Assessment	Mitigation & Monitoring
Theppana Wind Farm (TWF)		Chaiyaphum	0.91	Yes	No	<p>Scope: Terrestrial resources</p> <p>Impact Assessment: IEE</p> <ul style="list-style-type: none"> • Terrestrial: Low impact <p>Remark: Wind turbines are located in area where land use is proposed for establishment of renewable power plant.</p>	<ul style="list-style-type: none"> • Consider implementing biodiversity offset activities by considering (1) new or expanded protected areas or (2) improved management of existing protected areas.
Chaiyaphum Wind Farm (CWF)		Chaiyaphum	6.88	Yes	No	<p>Scope: Terrestrial resources</p> <p>Impact Assessment: IEE</p> <ul style="list-style-type: none"> • Terrestrial: Low impact <p>Remark: Wind turbines are located in area where land use is proposed for establishment of renewable power plant.</p>	<ul style="list-style-type: none"> • Consider implementing biodiversity offset activities by considering (1) new or expanded protected areas or (2) improved management of existing protected areas.
SPP Two (SPP2)		Saraburi	32.80	No	No	Plant is required to conduct an ESA. Scope of ESA study does not cover biodiversity baseline survey and impact assessment.	N/A

Sites				Exposure		Assessment	Management Plans
Power Plant	Fuel	Location	Areas (Hectares)	National Reserved Forest	World Heritage areas and IUCN Category I-IV protected areas	Baseline Study / Impact Assessment	Mitigation & Monitoring
SPP Three (SPP3)		Srisaket	33.76	No	No	Plant is required to conduct an ESA. Scope of ESA study does not cover biodiversity baseline survey and impact assessment.	N/A
SPP Four (SPP4)		Srisaket and Ubonratchathani	25.76	No	No	Plant is required to conduct an ESA. Scope of ESA study does not cover biodiversity baseline survey and impact assessment.	N/A
SPP Five (SPP5)		Roi Et	29.60	No	No	Plant is required to conduct an ESA. Scope of ESA study does not cover biodiversity baseline survey and impact assessment.	N/A
Roi-Et Green (RG)		Roi Et	5.44	No	No	N/A	N/A
Solarco		Nakhon Pathom	150.41	No	No	Plant is required to conduct an ESA. Scope of ESA study does not cover biodiversity baseline survey and impact assessment.	N/A
Solarco		Suphanburi	25.24	No	No	Plant is required to conduct an ESA. Scope of ESA study does not cover biodiversity baseline survey and impact assessment.	N/A

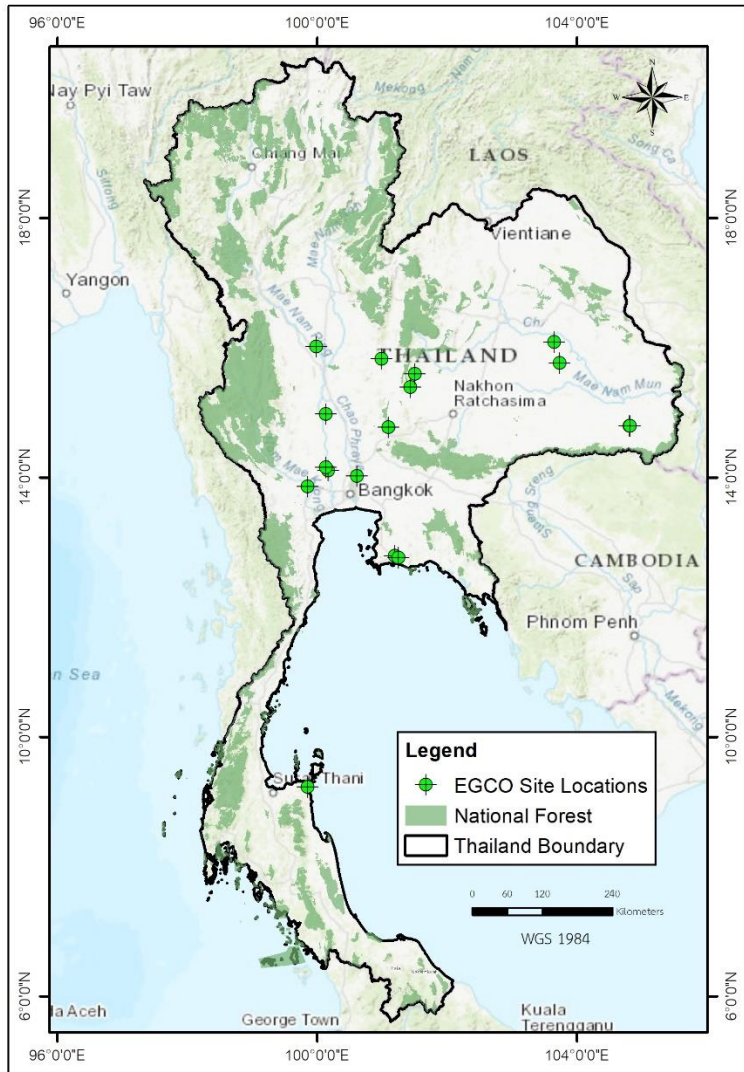
Sites				Exposure		Assessment	Management Plans
Power Plant	Fuel	Location	Areas (Hectares)	National Reserved Forest	World Heritage areas and IUCN Category I-IV protected areas	Baseline Study / Impact Assessment	Mitigation & Monitoring
EGCO Engineering and Service		Rayong	0.77	No	No	N/A Remark: The engineering and maintenance service provider <i>does not</i> impact to biodiversity.	N/A
Legend:	 Natural Gas  Solar  Wind farm  Biomass  Services						
Remarks:	<p>N/A refers to not applicable information. The operations are not required to conduct baseline survey or impact assessment.</p> <p>[1] Power Plant which located in Industrial Zone prescribed by Department of Public Works and Town & Country Planning.</p> <p>[2] Area within 1 km radius from Khanom Power Plant is located in the National Reserved Forest.</p>						

Biodiversity Baseline Study

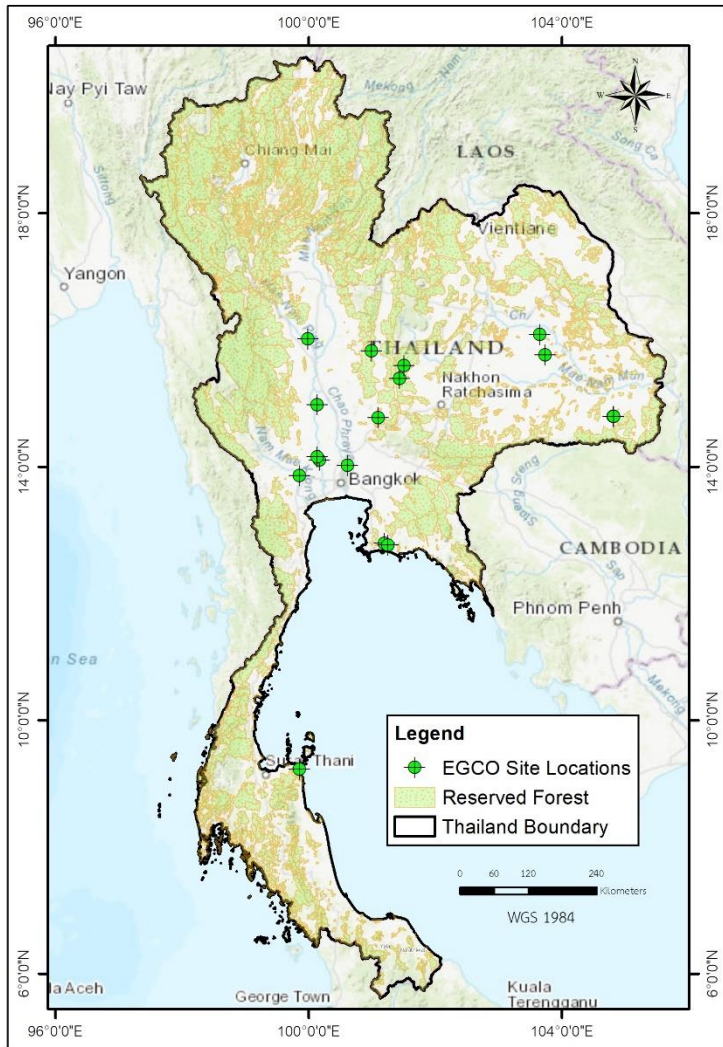
Biodiversity Map (Alliance for Zero Extinction)



Biodiversity Map (National Forest)



Biodiversity Map (Reserved Forest)



Biodiversity Map (Protected Areas)



Biodiversity Map (World Heritage)

