JCM Sustainable Development and Safeguards Assessment Report Form

Project description	
Title	Introduction of 5MW Floating Solar Power System on Industrial Water Reservoir in Thailand
Project participant (Thai)	TSB Bangkok Co., Ltd.
Project participant (Japanese)	TSB GreeNex Co., Ltd.
Project location	Kabinburi Industrial Zone, Kabinburi Province, Thailand
Latitude, longitude	N14°03'35.1" E101°50'54.6"
Project status	Operated since 20/01/2020

Report description		
Date of report completion	14 January 2025	
Version	1.0	
Corresponding author	Name	Yoichi Kaburagi
	Title	President
	Organization	TSB GreeNex Co., Ltd.
	Telephone	[redacted]
	E-mail	[redacted]

Note:

- Related figures, documents, evidence related to the description may be attached as attachment.
- In the case where there is any other relevant issue that needs to be considered, it is specified in the last row of each area of assessment.

Certification letter

14/1/2025

I, the undersigned, hereby certify that TSB GreeNex Co., Ltd. is the author of the "Sustainable Development and Safeguards Assessment Report Form" of the project titled Introduction of 5MW Floating Solar Power System on Industrial Water Reservoir in Thailand developed by TSB Co., Ltd. and TSB Bangkok Co., Ltd. located at Kabinburi Industrial Zone, Kabinburi Province, Thailand.

The report was prepared by the team members as follows:

No.	Name	Position	Signature
1	Yoichi Kaburagi	President	[redacted]
2	Hisao Kakibuchi	Engineer of TSB Bangkok	
3	Ayumi Inukai	Sales of TSB Bangkok	

Signature [redacted]

(Yoichi Kaburagi)

Position President

Seal (if any)

Part 1: General information of the project area before project implementation

Area of Assessment	Description
1. Environment and natural resources	
1.1 Air pollution	The project is located inside Kabinburi industrial zone. No air pollution was found in the area.
1.2 Water pollution	The solar panels were installed on the pond of Kabinburi industrial zone, TSB applied outsourcing water quality check laboratory, and there was no surface water and ground water pollution problems were found in the area.
1.3 Soil pollution	No soil pollution was found in the area.
1.4 Noise pollution	No point sources of noise pollution were found in the area.
1.5 Odor pollution	No odor was found in the area.
1.6 Water consumption	The industrial water in the industrial zone was stored in a pond on the premises.
1.7 Solid waste/municipal solid waste	The industrial zone regularly collected industrial solid waste from the industrial zone. So, there is no leftover problem in the area.
1.8 Hazardous waste/infectious waste/electronic waste	No pollution from hazardous waste/ infectious waste /electronic waste was found in the area.
1.9 Energy (i.e. Wasted Energy, Renewable Energy)	The industrial zone used electricity from power grid.
1.10 Land Use	The project is located inside Kabinburi industrial zone.
1.11 Biodiversity	Biodiversity was not relevant in the industrial zone.
1.12 Wild animal/ Aquatic ecosystem	No wild animal or aquatic ecosystem was found in the area.
1.13 Other (Please specify…)	-
2. Society	
2.1 Socio-cultural characteristics	The sociocultural characteristics were those of a typical farming village. Society is made up mainly of the working class, who are engaged in agriculture, manufacturing and the service industry.
2.2 Health and safety	There was no major concern in terms of health and safety in the area.
2.3 Traditions, cultures and/or	The tradition and cultural values of the people in the

Area of Assessment	Description
valuable places worthy of conservation	area are commonly found in the central region of Thailand. There were no distinctive places of high conservation values.
2.4 Race, religion, and ethnic group	Most of the population in the area were of Thai origin who practice Buddhism.
2.5 Transportation	The primary mode of transportation in the area was public buses and private motorbikes.
2.6 Other (Please specify…)	-
3. Economic	
3.1 Overall local economy (i.e. income, expenditure, etc.)	The local economy in the area is largely driven by manufacturing and agriculture.
3.2 Employment/Career	Factory workers, farmers, service industry workers.
3.3 Major agricultural activity in the area	Rice, vegetables and fruit cultivation.
3.4 Major industry in the area	Manufacturing
3.5 Major service sector in the area	Retail, small restaurants and transportation were the main service sector in the area.
3.6 Basic infrastructure (i.e. road, school, etc.)	The basic infrastructure in the area included transportation (road network), utilities (electricity, water supply, waste management), as well as telecommunications.
3.7 Other (Please specify…)	-

**Project Participant explains in detail of provenance and importance of issue consider about before project implement and specify if the project is rightful/environmental law, social, and economy. To have Negative impact assessment (Do-no-net-harm) with supporting documents.*

Part 2 Sustainable Development Goals

2.1 Sustainable Development Contributions Assessment

Please mark ✓ in ☐ to identify the contributions of the proposed project to specific SDG. The project is required to contribute to **at least two SDGs, in addition to** SDG13: Climate Action.

Project Contributions to SDGs	Indicator (Please specify)	Description of Indicator
☐ SDG 1: No Poverty		
☐ SDG 2: Zero Hunger		
☐ SDG 3: Good Health and Well-being		
☐ SDG 4: Quality Education		
☐ SDG 5: Gender Equality		
☐ SDG 6: Clean Water and Sanitation		
☑ SDG 7: Affordable and Clean Energy	Amount of generated clean energy (Unit: MWh)	Increase share of renewable energy in national energy mix
☐ SDG 8: Decent Work and Economic Growth		
☐ SDG 9: Industry, Innovation and Infrastructure		
☐ SDG 10: Reduced Inequality		
☐ SDG 11: Sustainable Cities and Communities		
☐ SDG 12: Responsible Consumption and Production		
■ SDG 13: Climate Action		
☐ SDG 14: Life Below Water		
☐ SDG 15: Life on Land		

Project Contributions to SDGs	Indicator (Please specify)	Description of Indicator
☐ SDG 16: Peace and Justice Strong Institutions		
☑ SDG 17: Partnerships to achieve the Goal	Last progress report submission date	Operational continuity of the JCM project, which mobilizes additional financial resources, disseminates low-carbon technologies, and reduces GHG emissions in Thailand

**Project Participant provides the description for each indicator of the selected SDGs and presents currently available datasets along with supporting documents.*

Part 3 Do no net harm

3.1 'Do no net harm' Risk Assessment and Safeguards

Potential Impact of Project Activity	Level of Impact Severity				Description of Impact	Action Plan to mitigate harmful impacts
	None	Low	Moderate	High		
1. Impacts on Environment and Natural Resources						
1.1 Physical resources						
Water pollution	✓					
Soil pollution	✓					
Air pollution	✓					
Noise pollution	✓					
Odor pollution	✓					
Soil erosion, coastal/river erosion	✓					
Vulnerability to natural disaster	✓					
Other	✓					
1.2 Waste management						
Increase in solid waste/municipal solid waste	✓					

Potential Impact of Project Activity	Level of Impact Severity				Description of Impact	Action Plan to mitigate harmful impacts
	None	Low	Moderate	High		
Increase in hazardous waste such as waste contaminated with oil, chemicals and used oil etc.	✓					
Increase in infectious waste	✓					
Increase in electronic waste	✓					
Other	✓					
1.3 Biological resources						
Impacts on forest areas and land-use change	✓					
Loss of land and wildlife ecosystem	✓					
Loss of water resources and aquatic ecosystem	✓					
Foraging	✓					
Food	✓					
Other	✓					
1.4 Human livelihood						

Potential Impact of Project Activity	Level of Impact Severity				Description of Impact	Action Plan to mitigate harmful impacts
	None	Low	Moderate	High		
Water drainage or waterway diversion	✓					
Change in water consumption	✓					
Change in land ownership	✓					
Other	✓					
2. Social impacts						
Public security such as increase in crime risks	✓					
Health impacts	✓					
Relocation or temporary/permanent loss of land	✓					
Loss of housing	✓					
Impact on public utilities such as electricity, telephone service etc.	✓					
Impact on traffic	✓					
Community conflict	✓					
Employment and labor	✓					

Potential Impact of Project Activity	Level of Impact Severity				Description of Impact	Action Plan to mitigate harmful impacts
	None	Low	Moderate	High		
Impact on people of certain race, religion and ethnic groups	✓					
Damage to areas of high conservation value, such as religious sites, historic sites, monuments, important places of the community etc.	✓					
Impact on human rights such as education, freedom of thought, religion etc.	✓					
Gender inequality such as in employment opportunities, salary, promotion, benefits, termination of contract etc.	✓					
Other	✓					
3. Economic impacts						
Increase unemployment /loss of income of people in local communities	✓					

Potential Impact of Project Activity	Level of Impact Severity				Description of Impact	Action Plan to mitigate harmful impacts
	None	Low	Moderate	High		
Other	✓					

Criteria for assessing the level of impact severity

1. None: The proposed activity has no direct/indirect impacts on the environment, society and economy.

2. Low: The proposed activity causes some changes to the existing conditions but has no implication on the quality of the environment, society and economy. The impact is short-lived and temporary, and the extent of the affected area is not large (1km perimeter).

3. Moderate: The proposed activity causes some changes to the existing conditions and has implications on values or qualities of the environment, society and economy. The impact is short-lived and temporary. The extent of the affected area is large but confined to the related area (2km perimeter).

4. High: The proposed activity causes some changes to the existing conditions and has implications on value or quality of the environment, society, economy, and potentially the ecosystem. The impact is permanent and the extent of the affected area id extensive (3km perimeter).