

JCM Sustainable Development and Safeguards Assessment Report

Project description	
Title	Introduction of 3.4MW Rooftop Solar Power System to Air-conditioning Parts Factories
Project participant (Thai)	SNC Former Public Co., Ltd.
Project participant (Japanese)	Sharp Energy Solutions Corporation
Project location	Moo 2, Tambon Makhamkoo, Amphur Nikhmpattana, Rayong Province, Thailand
Latitude, longitude	12°53'05.2"N 101°05'38.7"E
Project status	Operated since 01/12/2017

Report description		
Date of report completion	01-July-2025	
Version	1.0	
Corresponding author	Name	Mr. Sawang Bootmanee
	Title	General Affairs Manager
	Organization	SNC SERENITY CO., LTD.

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 be specified in the last row of each area of assessment.

Certification letter24/7/2025

I, the undersigned, hereby certify that SNC SERENITY CO., LTD is the author of the “Sustainable Development and Safeguards Assessment Report Form” of the project titled Introduction of 3.4MW Rooftop Solar Power System to Air-conditioning Parts Factories developed by SNC Former Public Co., Ltd. and Sharp Energy Solutions Corporation located at Moo 2, Tambon Makhamkoo, Amphur Nikhmpattana, Rayong Province, Thailand

The report was prepared by the team members as follows:

No.	Name	Position	Signature
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1	<u>Mr. Sawang Bootmanee</u>	<u>General Affairs Manager</u>	
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2	<u>Mr. Pipat Polsen</u>	<u>QA&QC Manager</u>	
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3	<u>Ms. Wanvisa Chante</u>	<u>General Affairs</u>	
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Signature

(Mr.Sawang Bootmanee)

Position General Affairs Manager

Seal (if any)

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

Provide baseline information describing the conditions before project implementation. This data is essential for assessing the project's environmental, social, and economic impacts. Ensure the details are accurate and comprehensive to support a thorough evaluation.

Area of Assessment	Description
1. Environment and natural resources	
1.1 Air pollution	There is a dust treatment system before releasing it outside.
1.2 Water pollution	There is a wastewater treatment system before releasing it outside
1.3 Soil pollution	We have protected with leak-proof bases at storage points
1.4 Noise pollution	There is a protective room for noisy areas.
1.5 Odor pollution	There are some odors at manufacturing sites of heating and cooling parts
1.6 Water consumption	There is production of tap water for own use.
1.7 Solid waste/municipal solid waste	There is a sort of waste and we are reusing.
1.8 Hazardous waste/infectious waste/electronic waste	Dispose of properly according to the law.
1.9 Energy (i.e. Wasted Energy, Renewable Energy)	Electricity consumption is increased.
1.10 Land Use	Plant more trees
1.11 Biodiversity	There are birds, squarrels, and snakes around the site.
1.12 Wild animal/ Aquatic ecosystem	There are fewer animals.
1.13 Other (Please specify...)	-
2. Society	
2.1 Socio-cultural characteristics	Socio-cultural characteristics are those of a typical Thailand residential area (ex. Greeting way).
2.2 Health and safety	We are committed to ISO14001, ISO45001 compliances.
2.3 Traditions, cultures and/or valuable places worthy of conservation	The tradition and cultural values of the people in the area are those commonly found typically in Thailand. There are no distinctive places of high conservation values.

Area of Assessment	Description
2.4 Race, religion, and ethnic group	The majority of the area's inhabitants are Buddhist, but there are also Christians and Muslims.
2.5 Transportation	Truck is one of the main transportation methods.
2.6 Other (Please specify...)	-
3. Economic	
3.1 Overall local economy (i.e. income, expenditure, etc.)	Agriculture is the main economy in this area.
3.2 Employment/Career	Farmers are the main employments.
3.3 Major agricultural activity in the area	Pineapple and Cassava are main products.
3.4 Major industry in the area	Production of automotive parts and electrical appliance are major in this area.
3.5 Major service sector in the area	House for rent, Room for rent are major service sector in this area.
3.6 Basic infrastructure (i.e. road, school, etc.)	Infrastructure is well served by the support from the government.
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
<input type="checkbox"/> SDG 1: No Poverty		
<input type="checkbox"/> SDG 2: Zero Hunger		
<input type="checkbox"/> SDG 3: Good Health and Well-being		
<input type="checkbox"/> SDG 4: Quality Education		
<input type="checkbox"/> SDG 5: Gender Equality		
<input type="checkbox"/> 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
<input type="checkbox"/> SDG 8: Decent Work and Economic Growth		
<input type="checkbox"/> SDG 9: Industry, Innovation and Infrastructure		
<input type="checkbox"/> SDG 10: Reduced Inequality		
<input type="checkbox"/> SDG 11: Sustainable Cities and Communities		
<input type="checkbox"/> SDG 12: Responsible Consumption and Production		
■ SDG 13: Climate Action		
<input type="checkbox"/> SDG 14: Life Below Water		
<input type="checkbox"/> SDG 15: Life on Land		

Project Contributions to SDGs	Indicator (Please specify)	Description of Indicator
<input type="checkbox"/> SDG 16: Peace and Justice Strong Institutions		
<input checked="" type="checkbox"/> 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.*

2.2 Details on Monitoring Parameters for Demonstrating SDG Contributions

Provide details on how to monitor the indicators identified in Section 2.1.

(Tables can be added based on the number of selected SDGs.)

SDG Number	7
SDG Target	Affordable and clean energy
Variable or Indicator	Amount of generated electricity (Unit: MWh)
Duration/Frequency	Monthly
Method/Tool	Power meter
Responsible person	Staff of SNC Former Public Co., Ltd.

SDG Number	17
SDG Target	Partnerships to achieve the goal
Variable or Indicator	Last annual progress report submission date
Duration/Frequency	Yearly
Method/Tool	-
Responsible person	Staff of SNC Former Public Co., Ltd.

Part 3 Do no net harm

3.1 'Do no net harm' Risk Assessment and Safeguards

Specify impacts and mitigation plans to mitigate negative impacts.

Potential Impact of Project Activity	Severity Level of Impact				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	Severity Level of Impact				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		✓			A small increase in e-waste is expected from equipment replacement, but the impact is minimal and manageable.	E-waste will be properly collected and handled by certified recyclers in accordance with local regulations.
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	✓					

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

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

Potential Impact of Project Activity	Severity Level of Impact				Description of Impact	Action Plan to mitigate harmful impacts
	None	Low	Moderate	High		
Increase unemployment /loss of income of people in local communities	✓					
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).*

3.2 Details on Monitoring Parameters for Ensuring No Negative Impacts

Provide details on how to monitor the impacts identified in Section 3.1.

(Tables can be added based on the number of negative impacts identified)

Category of negative impact	1.2 Waste Management
Subcategory of negative impact	Increase in electronic waste
Vulnerable group	None identified
Possible negative impact	A small amount of electronic waste may be generated after years of operation due to equipment replacement. However, the impact is expected to be minimal and manageable.
Parameter/indicator	Estimated amount of electronic waste (1,000 kg/year)
Reference	Based on SNC's policy https://www.sncformer.com/th/sustainability/corporate-governance/company-policy
Duration/frequency	As required (e.g. upon replacement or decommissioning of equipment) (1-2 time/year)
Method/Tools	Certified e-waste recycler; disposal tracking by SNC
Responsible person	Staff of General Affairs Department in SNC Former Public Co., Ltd.
Expected outcome	Proper collection and disposal of e-waste in accordance with regulations. No significant environmental or social harm expected.

Category of negative impact	
Subcategory of negative impact	
Vulnerable group	
Possible negative impact	
Parameter/indicator	
Reference	
Duration/frequency	
Method/Tools	
Responsible person	
Expected outcome	