Environmental Monitoring Report

For

Thapyaywa (3) 30 MW Ground Mounted Solar Power Plant Project

(Operation Phase)

(4th Time)

(18th July 2025 – 18th January 2026)

Proposed by

Natural Solar Power Co., Ltd.

Prepared by

E Guard Environmental Services

January 2026

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စီမံကိန်းအဆိုပြုသူ၏ ကတိကဝတ်ပြုမှု

မန္တလေးတိုင်းဒေသကြီး၊ မိတ္ထီလာခရိုင်၊ သာစည်မြို့နယ်၊ ဝက်တိုးကျေးရွာအုပ်စု နှင့် ဟံဘေးကျေးရွာအုပ်စု၊ ကွင်းအမှတ် (၁၆၈၅၊ ၁၆၈၆၊ ၁၆၈၇)တွင် Natural Solar Power Co., Ltd. မှဆောင်ရွက်လျက်ရှိသည့် ၃၀ မဂ္ဂါဝပ် နေရောင်ခြည်စွမ်းအင်သုံး လျှပ်စစ်ဓာတ်အားထုတ်လုပ်ရေးစီမံကိန်းနှင့်ပတ်သက်၍ လုပ်ငန်း လည်ပတ်သည့်ကာလနှင့် လုပ်ငန်းပိတ်သိမ်းပြီးကာလအထိ စောင့်ကြပ်ကြည့်ရှုမှု အစီအစဉ်များကို ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ်တွင်ကတိကဝတ်ပြုဖော်ပြချက်များနှင့်အညီ အကောင်အထည် ဖော်ဆောင်ရွက်မည် ဖြစ်ပါကြောင်း နှင့် အတည်ပြုပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်တွင် ဖော်ပြထားသည့် အစီအစဉ်ခွဲများအား ဆက်လက်လိုက်နာ အကောင်အထည်ဖော်မည်ဖြစ်ပါကြောင်း ကတိကဝတ်ပြု ဖော်ပြအပ်ပါသည်။

လေးစားမှုဖြင့်

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ပတ်ဝန်းကျင်ဆိုင်ရာ အကြံပေးအဖွဲ့၏ ကတိကဝတ်ပြုမှု

မန္တလေးတိုင်းဒေသကြီး၊ မိတ္ထီလာခရိုင်၊ သာစည်မြို့နယ်၊ ဝက်တိုးကျေးရွာအုပ်စု နှင့် ဟံဘေးကျေးရွာအုပ်စု၊ ကွင်းအမှတ် (၁၆၈၅၊ ၁၆၈၆၊ ၁၆၈၇) တွင် Natural Solar Power Co., Ltd. က ဆောင်ရွက်လျက်ရှိသည့် ၃၀ မဂ္ဂါဝပ် နေရောင်ခြည် စွမ်းအင်သုံး လျှပ်စစ်ဓာတ်အား ထုတ်လုပ်ရေးလုပ်ငန်းစီမံကိန်း၏ စတုတ္ထအကြိမ် စောင့်ကြပ်ကြည့် ရှုမှုအစီရင်ခံစာအား တာဝန်ယူ ရေးသားပြုစုသည့် ပတ်ဝန်းကျင်ဆိုင်ရာ တွဲဖက်အကြံပေး ပုဂ္ဂိုလ်မှ အောက်ပါ တို့ကို ကတိပြုအပ်ပါသည်-

(က) EMR မှာ အဆိုပြုစီမံကိန်း၏ အတည်ပြု EMP တွင်ဖော်ပြထားသည့် စောင့်ကြပ်ကြည့်ရှုမှု အစီအစဉ် များအား တိကျစွာလိုက်နာ၍ရေးသားပြုစုထားပါကြောင်း၊

(ခ) လိုအပ်သည့်ကိန်းဂဏာန်းအချက်အလက်များအား ၂၀၂၅ခုနှစ် နိုဝင်ဘာလအတွင်း စီမံကိန်း တည်နေရာသို့ ကွင်းဆင်း၍ တိုင်းတာမှတ်တမ်းယူခြင်း၊ နမူနာများရယူ၍ ဓာတ်ခွဲခန်းသို့ ပေးပို့စမ်းသပ်ခြင်း နည်းလမ်းများ ဖြင့် ကောက်ယူထားပါကြောင်း၊

(ဂ) ကိန်းဂဏာန်းအချက်အလက်ကောက်ယူခြင်းအား သင့်တော်သည့်ကိရိယာနှင့် မှန်ကန်သည့် နည်းလမ်း များ အသုံးပြု၍ ဆောင်ရွက်ထားပါကြောင်း၊

(ဃ) EMR အား ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အပိုဒ် (၁၀၉) တွင် ပြဋ္ဌာန်းထား ချက်များနှင့်အညီ လိုက်နာဆောင်ရွက်ပြီးလေ့လာပြုစု ထားပါကြောင်း၊

(င) EMR အတွက်လေ့လာမှုနှင့် အစီရင်ခံစာရေးသားပြုစုမှုအား တတိယအဖွဲ့အစည်း၏ ကျင့်ဝတ်အပေါ် အ ခြေတည်၍ ကောင်းမွန်မှန်ကန်စွာရေးသားပြုစုထားပါကြောင်း။

အောင်မိုးဦး

ပတ်ဝန်းကျင်ဆိုင်ရာ တွဲဖက်အကြံပေးပုဂ္ဂိုလ်

(EIA/AC 010/2023)

1. Introduction

This environmental monitoring report is prepared for Thapyaywa (3) 30 MW ground mounted solar power plant project connected to Thapyaywa Substation, proposed by Natural Solar Power Co., Ltd., which is formed by Gold Energy Co., Ltd. The project proponent won tender from the Ministry of Electricity and obtained permit for construction and electricity generation from solar energy of the proposed project.

This project is located at Wet Toe Village Tract and Hanza Village Tract, Thazi Township, Meiktila District, Mandalay Region, Myanmar. Its coordinate points are 20° 59' 19.36" N, 96° 0' 57.37" E and the average altitude of the site is 158 m. The total capacity of capacity of AC side of the proposed project is 33 MW and DC side is 40.887 MWp, it will consist of 5 sets of 6.6 MW PV sub-arrays in the project. This project is developed Natural Solar Power Co., Ltd., which is formed by the Gold Energy Co., Ltd (100% full investment). After construction period, proposed project will generate electricity from solar energy and distribute to the Thapyaywa Substation via 33 kV overhead transmission line and proposed operation period is 20 years. As the proposed project is a Build, Own and Operate (BOO) basis project, project proponent will extend operation period at relevant authorities and continue operation activities after 20 years.

Environmental quality monitoring team included U Aung Myint Myat, U Aung Moe Oo, U Ye Chit Zaw and U Wanna Zaw. The environmental quality monitoring report includes air, water and noise. Air quality monitoring was carried out in one location as source (Project Site) and also water quality test was carried out in three places as surface water (SW- Hanza Inn), ground water (GW- project site) and waste water (WW- Outlet of waste water cannel from the project site). Noise are also measured in two locations as source (Project Site) and receptor (staff housing). Most of the environmental monitoring results (air, water and noise) are within the guidelines.

Table 1. 1 Monitoring Study Team and their Responsibilities

Sr.	Name	Position	License No.	Expertise
1	U Aung Myint Myat	Team Member	EIA-C 008/2023	1. Ecology and Biodiversity, 2. Noise and Vibration
2	U Aung Moe Oo	Deputy Team Leader	EIA-AC 010/2023	1. Air Pollution Monitoring, 2. Solid Waste and Hazardous Waste Management
3	U Aung Myint Myat	Supporting Team Member	-	1. Air Pollution Prevention and Control 2. Water Pollution Prevention, Control, Monitoring and Prediction of Impacts

Sr.	Name	Position	License No.	Expertise
4	U Aung Moe Oo	Supporting Team Member	-	1. Air Pollution Prevention and Control 2. Water Pollution Prevention, Control, Monitoring and Prediction of Impacts
5	U Ye Chit Zaw	Supporting Team Member	-	1. Noise and Vibration
6	U Wanna Zaw	Supporting Team Member	-	1. Environmental Quality Surveyor

Environmental Monitoring Plan for EMP Approved Report

C.	Operation Phase					
1.	Air quality	PM_{10}, $PM_{2.5}$, CO, CO_2, SO_2, NO_2, Temperature	Twice a year	In front of power station 20°59'1.72"N, 96°01'0.48"E	Already included in cost estimation for EMP	Natural Solar Power Co., Ltd.

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Proposed by Natural Solar Power Co., Ltd.

EMP Report for Thapyaywa (3) 30 MW Ground Mounted Solar Power Plant Project;
Connected to Thapyaywa Substation

No.	Environmental Concerns	Parameters	Frequency	Location	Estimated Cost	Responsible Party
2.	Groundwater quality	pH, Color (true), Turbidity, Conductivity, Total Alkalinity, Iron, Chloride, Manganese, Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Oil and Grease, Total Coliform Bacteria, Total Nitrogen, Total Phosphorus, Total Suspended Solids	Twice a year	An outlet from a tube well within the project site 20°59'9.99"N, 96°01'3.34"E	Already included in cost estimation for EMP	Natural Solar Power Co., Ltd.
3.	Surface water quality	pH, EC, TDS, Salinity, DO, Turbidity, Oxidation Reduction Potential (ORP), Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Nitrogen, Total Phosphorus, Potassium, Oil and Grease, Total Suspended Solid (TSS)	Twice a year	Hanza Inn 20°59'13.99"N, 96°01'43.72"E	Already included in cost estimation for EMP	Natural Solar Power Co., Ltd.
4.	Discharged water quality	pH, Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Oil and Grease, Total Coliform Bacteria, Total Nitrogen, Total Phosphorus, Total Suspended Solids	Twice a year	At final outlet of drainage system 20°58'49.08"N, 96°01'35.41"E	Already included in cost estimation for EMP	Natural Solar Power Co., Ltd.

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Proposed by Natural Solar Power Co., Ltd.

No.	Environmental Concerns	Parameters	Frequency	Location	Estimated Cost	Responsible Party
5.	Noise level	Equivalent Noise Level dB (A)	Twice a year	In front of power station 20°59'1.72"N, 96°01'0.48"E and staff quarter 20°59'27.74"N, 96°01'26.50"E	Already included in cost estimation for EMP	Natural Solar Power Co., Ltd.
6.	Waste Quantity	Amount of domestic solid waste and hazardous waste disposal	Quarterly	All operation area 20°59'1.27"N, 96°01'2.25"E	Already included in cost estimation for EMP	Natural Solar Power Co., Ltd.
7.	Environmental auditing	Assess the compliances with this EMP as well as laws, rules, policies and regulations	Once a year	At the project office 20°59'1.27"N, 96°01'2.25"E	Already included in cost estimation for EMP	Natural Solar Power Co., Ltd.

Note: Coordinate Points for monitoring locations may be changed as the project is currently under construction phase.

ECC Letter of Thapyaywa 3 Solar Power Project

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ
သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာလိုက်နာဆောင်ရွက်မှု သက်သေခံလက်မှတ်
(Environmental Compliance Certificate - ECC)

သက်သေခံလက်မှတ်အမှတ်။ ECC (၇၂၀) ရက်စွဲ။ ၂၀၂၄ ခုနှစ်၊ ဖေဖော်ဝါရီလ ၁၃ ရက်

၁။ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ (ပြည်ထောင်စုလွှတ်တော်ဥပဒေအမှတ် ၉/၂၀၁၂) နှင့် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း (အမိန့်ကြော်ငြာစာအမှတ် ၆၁၆/၂၀၁၅) တို့အရ နောက်ဆက်တွဲ(က)တွင် ဖော်ပြထားသော အဆိုပြုစီမံကိန်းအား နောက်ဆက်တွဲ(ခ)ပါ စည်းကမ်းချက်များကို လိုက်နာဆောင်ရွက်စေလျက် ဤပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာဆောင်ရွက်မှုသက်သေခံလက်မှတ် (Environmental Compliance Certificate - ECC) ကို ထုတ်ပေးလိုက်သည်-

(က)	**စီမံကိန်းအဆိုပြုသူ**	- ဦးဇော်ဝင်း၊ အုပ်ချုပ်မှုဒါရိုက်တာ Natural Solar Power Co., Ltd.
(ခ)	**ဆက်သွယ်ရန် လိပ်စာ**	- အခန်း (၅၀၁)၊ (၅) လွှာ၊ လှည်းတန်းစင်တာ၊ ပြည်လမ်းနှင့် လှည်းတန်းလမ်းထောင့်၊ ကမာရွတ်မြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး
(ဂ)	**စီမံကိန်းအမျိုးအစား**	- ၃၀ မဂ္ဂါဝပ် နေရောင်ခြည်စွမ်းအင်သုံး လျှပ်စစ်ဓာတ်အားထုတ်လုပ်ရေးလုပ်ငန်းစီမံကိန်း
(ဃ)	**စီမံကိန်းကာလ**	- အခွင့်အမိန့်ရအဖွဲ့အစည်းက ခွင့်ပြုသည့်ကာလ
(င)	**စီမံကိန်း၏ အရွယ်အစား**	- ၃၀ မဂ္ဂါဝပ် နေရောင်ခြည်စွမ်းအင်သုံး လျှပ်စစ်ဓာတ်အားထုတ်လုပ်ရေးလုပ်ငန်းစီမံကိန်း
(စ)	**စီမံကိန်းတည်နေရာ**	- ဝက်တိုးကျေးရွာအုပ်စုနှင့် ဟံဘေးကျေးရွာအုပ်စု၊ သာစည်မြို့နယ်၊ မိတ္ထီလာခရိုင်၊ မန္တလေးတိုင်းဒေသကြီး
(ဆ)	**ECC သက်တမ်း**	- (၅)နှစ် စတင်ထုတ်ပေးရက် - ၁၈-၁-၂၀၂၄ သက်တမ်းကုန်ဆုံးရက် - ၁၇-၁-၂၀၂၉
(ဇ)	အတည်ပြုအစီရင်ခံစာ အမျိုးအစား	- ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP)
(ဈ)	အတည်ပြုအစီရင်ခံစာ	- လျှပ်စစ်ဓာတ်အားထုတ်လုပ်ရေးလုပ်ငန်း၏ ၁၃-၁၁-၂၀၂၃ ရက်စွဲပါ စာအမှတ်၊ ဂ၃၁၈/လစထလ/ပစရအ/စ-၅၆/၂၀၂၃

စည်းကမ်းချက်များသတ်မှတ်ခြင်း

၂။ အောက်ဖော်ပြပါ ရည်ရွယ်ချက်များ ရရှိနိုင်ရေးအတွက် ဤသက်သေခံလက်မှတ်၏ နောက်ဆက်တွဲပါ စည်းကမ်းချက်များကို လိုက်နာဆောင်ရွက်ရန် သတ်မှတ်ထားခြင်းဖြစ်ပါသည်-

(က) ပတ်ဝန်းကျင်နှင့်လူမှုဆိုင်ရာ ဆိုးကျိုးသက်ရောက်မှုများကို ကြိုတင်ကာကွယ်ရေး၊ အနိမ့်ဆုံးဖြစ်စေရေးနှင့် ထိခိုက်မှုများကို ပြန်လည်ကုစားရေး ဆောင်ရွက်ပေးရန်၊

(ခ) စီမံကိန်းအဆိုပြုသူ၏ စီမံကိန်းဆိုင်ရာ ကတိကဝတ်များနှင့် လိုက်နာထမ်းဆောင်ရမည့် တာဝန်များကို သတ်မှတ်ရန်၊

(ဂ) လက်ခံနိုင်သော ပတ်ဝန်းကျင်အရည်အသွေး ဖြစ်စေရေးအတွက် စံချိန်စံညွှန်းများနှင့် အရည်အသွေးတိုင်းတာရေးနည်းလမ်းများ သတ်မှတ်ရန်၊

(ဃ) စောင့်ကြပ်ကြည့်ရှုခြင်းနှင့် အစီရင်ခံခြင်းတို့ကို ပုံမှန်ဆောင်ရွက်စေရန်၊

(c) စီမံကိန်းတွင် စဉ်ဆက်မပြတ် ဆောင်ရွက်သွားရမည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲရေး အစီအမံတစ်ရပ်ကို ရေးဆွဲဆောင်ရွက်ရန်။

၃။ အထက်ဖော်ပြပါ စည်းကမ်းချက်များအပြင် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနမှ အခါအား လျော်စွာထုတ်ပြန်သော အမိန့်၊ ညွှန်ကြားချက်များကို လိုက်နာဆောင်ရွက်ရန်။

၄။ ဤပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာဆောင်ရွက်မှုသက်သေခံလက်မှတ်သည် လုပ်ငန်းဆောင်ရွက်ရန် ခွင့်ပြုမိန့်မဟုတ်ကြောင်း၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ စည်းကမ်းချက်များအား လိုက်နာဆောင်ရွက်ရန်ဖြစ်ကြောင်း၊ မြေအသုံးပြုခွင့်နှင့် လုပ်ငန်းဆောင်ရွက်ခွင့်ပြုမိန့်မှာ သက်ဆိုင်ရာဝန်ကြီးဌာန သို့မဟုတ် အခွင့်အမိန့်ရ အဖွဲ့အစည်းများ၏ မူဝါဒ၊ ဥပဒေ၊ နည်းဥပဒေများ၊ လုပ်ထုံးလုပ်နည်း၊ လမ်းညွှန်ချက်များနှင့်အညီ လိုက်နာဆောင်ရွက်ရန်။

၅။ သက်ဆိုင်ရာခွင့်ပြုမိန့်ထုတ်ပေးသည့် ဌာနမှ ခွင့်ပြုမိန့်ပယ်ဖျက်လျှင်သော်လည်းကောင်း၊ သက်တမ်းတိုးပေးခြင်း မရှိလျှင်သော်လည်းကောင်း၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာဆောင်ရွက်မှုသက်သေခံလက်မှတ်သက်တမ်းရှိစေကာမူ ဤသက်သေခံလက်မှတ်၏ သက်တမ်းသည်လည်း အလိုအလျောက်ကုန်ဆုံးသည်ဟု မှတ်ယူရမည်။

ပြည်ထောင်စုဝန်ကြီး (ကိုယ်စား)
(လှမောင်သိန်း၊ အမြဲတမ်းအတွင်းဝန်)
သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန

2. Environmental Quality Measurement and Results (18th July 2025 – 18th January 2026)

Baseline environmental parameters and sampling locations were defined according to the objectives for environmental impact assessment, and monitoring purposes. Locations for sampling and analysis of water quality, ambient air quality and noise level of the project site were identified by e Guard Environmental Services Co., Ltd.

2.1 Ambient Air Quality (18th July 2025 – 18th January 2026)

2.1.1 Methodology for Air Quality

The emissions of dust particles and gases were measured for 24hrs continuously at the selected sites using the Micro air quality monitoring system (YF-IAQM-V1). The results were compared with National Environmental Quality Guidelines NEQG, American Conference of Governmental Industrial Hygienists (ACGIH) and National Ambient Air Quality Standards (NAAQS). EPAS provides direct readings in real time with data-logging capabilities. Air quality is composed of dust and gas emissions of the ambient air.

Table 2. 1 Ambient Air Quality Measurement

Ambient Air Quality (1 locations)	
Gas Emission	CO, CO_2, SO_2, NO_2
Dust Emission	PM_{10}, $PM_{2.5}$

Table 2. 2 Equipment used to measure ambient air measurement

Micro air quality monitoring system (YF-IAQM-V1) CO, CO_2, NO_2, O_3, SO_2, VOC, H_2S, PM_{10}, $PM_{2.5}$, TSP, Temperature, Humidity, Wind Speed, Wind Direction, Noise	

2.1.2 Monitoring Location for Air Quality

Sampling locations were confirmed by environmental specialist on site before doing the sampling. Air quality was monitored at the selected one location (Thapyaywa 3 solar power project site (source) that can get results of the existing ambient air quality.

Figure 2. 1 Air Quality Monitoring Locations of Thapyaywa 3 Solar Power Project

Table 2. 3 Locations of Environmental Quality sampling points

Locations No.	Points	Coordinate	Locations
Ambient Air Quality Monitoring Location			
1.	AQ1	Lat - 20°59'1.72"N, Long - 96°01'0.48"E	Project Site

Figure 2. 2 Air Quality Measuring during Operation Period

	Air quality measuring at Thapyaywa 3 Solar Power Project 26.11.2025 - 27.11.2025 (Project Site)

2.1.3 Measurement Results and Comparison for Air Quality

The air quality monitoring was done at selected locations from 26th to 27th November 2025. During this survey, these parameters were measured with adequate devices named Micro air quality monitoring system (YF-IAQM-V1) viz; Particulate Matters (PM_{10} and $PM_{2.5}$) and gases

CO_2, CO, SO_2 and NO_2 via 24-hour basis. The results and guidelines of all emission pollutants are shown in table.

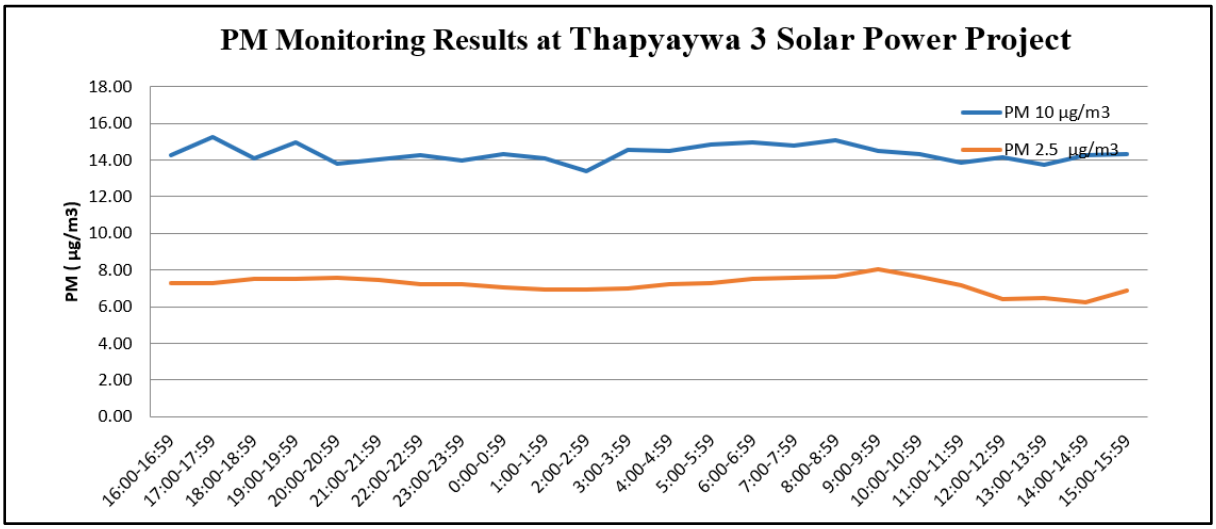


Figure 2. 3 PM Monitoring Results at Thapyaywa 3 Solar Power Project

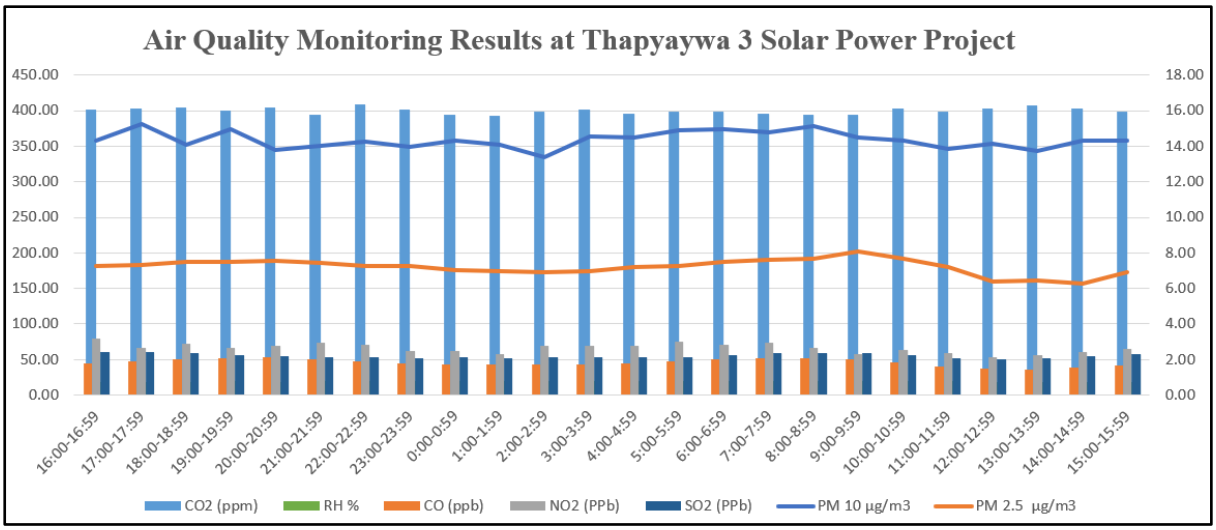


Figure 2. 4 Fluctuation of Air Pollutants during Dial Cycle at Thapyaywa 3 Solar Power Project

Particulate matters (PM_{10} and $PM_{2.5}$) results are with in guideline values as shown in table. Atmospheric particulate matters such as PM_{10} and $PM_{2.5}$ have their ability to reach the deepest part of lungs and so affect respiratory process. In this air quality survey of the project site, the surveyed results of these particulate matters gathered from EPAS. The results with one-hour interval are shown in the following table.

Sulfur Dioxide (SO_2) is generated from combustion of fuels such as oil and coal, and as by-product from some chemical production or wastewater treatment processes. On-road and off-road vehicles are also emission source of SO_2. SO_2 irritates the respiratory tract, injures lung tissues and reduces visibility and level of sunlight. The emission can be controlled by implementation of manufacturer recommended engine maintenance programs, good driving practices, installing and maintaining emissions control devices, and implementing a regular

vehicle maintenance and repair program.

Nitrogen Oxides (NO_X) in the ambient air consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O). NO_2 is formed by chemical reaction of NO and ozone. The main sources of NO_2 are combustion of fuel and on-road and off-road vehicles. NO_2 decreases lung function and resistance to infection. The gas emission can be monitored by combustion modification, flue gas recirculation, water/ steam injection and the same measures for SO_2 reduction.

Likewise, **Carbon Monoxide (CO) and Carbon dioxide (CO_2)** have the same emission sources and mitigation measures for SO_2 and NO_2. They are poisonous gas and cause damage to the respiratory organ. Guidelines 2013, adopted threshold limit values of CO_2 is 5,000 ppm for 8-hour, time-weighted average. Thus, it can be concluded that the existing CO_2 level is acceptable for human health.

Detail results and variation patterns with one-hour interval of pollutants are shown in tables and figures below. Results of average, peak and minimum of a day are calculated in the table.

Table 2. 4 Air Monitoring Results (Project Site)

Date	Time		CO_2 (ppm)	CO (ppb)	NO_2 (ppb)	PM_{10} µg/m^3	$PM_{2.5}$ µg/m^3	RH%	SO_2 (ppb)
26.11.2025	16:00-16:59	Average	401.58	1.77	3.21	14.29	7.26	18.96	2.41
26.11.2025	17:00-17:59	Average	403.54	1.89	2.64	15.27	7.30	18.91	2.40
26.11.2025	18:00-18:59	Average	404.87	2.02	2.88	14.08	7.51	18.95	2.35
26.11.2025	19:00-19:59	Average	400.21	2.09	2.68	14.98	7.51	19.10	2.26
26.11.2025	20:00-20:59	Average	404.19	2.11	2.75	13.77	7.56	18.96	2.17
26.11.2025	21:00-21:59	Average	393.81	2.02	2.93	14.05	7.46	19.08	2.12
26.11.2025	22:00-22:59	Average	409.13	1.89	2.82	14.25	7.26	19.28	2.13
26.11.2025	23:00-23:59	Average	401.50	1.79	2.48	13.98	7.25	19.18	2.10
27.11.2025	0:00-0:59	Average	394.57	1.71	2.51	14.34	7.03	19.30	2.11
27.11.2025	1:00-1:59	Average	392.57	1.72	2.31	14.08	6.94	19.37	2.09
27.11.2025	2:00-2:59	Average	398.08	1.71	2.76	13.37	6.93	19.24	2.11
27.11.2025	3:00-3:59	Average	402.04	1.73	2.76	14.53	6.98	19.49	2.11
27.11.2025	4:00-4:59	Average	396.03	1.79	2.76	14.50	7.23	19.39	2.13
27.11.2025	5:00-5:59	Average	398.55	1.90	3.01	14.87	7.29	19.44	2.15
27.11.2025	6:00-6:59	Average	398.25	2.01	2.82	14.98	7.50	19.42	2.25
27.11.2025	7:00-7:59	Average	395.92	2.10	2.93	14.78	7.61	19.26	2.34
27.11.2025	8:00-8:59	Average	394.28	2.09	2.67	15.11	7.65	19.20	2.38
27.11.2025	9:00-9:59	Average	395.06	1.99	2.32	14.47	8.07	19.36	2.34
27.11.2025	10:00-10:59	Average	402.69	1.82	2.54	14.34	7.64	19.18	2.22
27.11.2025	11:00-11:59	Average	398.60	1.63	2.34	13.88	7.19	19.19	2.05
27.11.2025	12:00-12:59	Average	403.00	1.48	2.12	14.13	6.39	19.03	2.00
27.11.2025	13:00-13:59	Average	407.02	1.46	2.27	13.72	6.45	18.93	2.07
27.11.2025	14:00-14:59	Average	402.45	1.54	2.44	14.29	6.24	18.98	2.21
27.11.2025	15:00-15:59	Average	398.11	1.66	2.58	14.30	6.91	18.78	2.32
Average			**399.84**	**1.83**	**2.65**	**14.35**	**7.22**	**19.17**	**2.20**
1 hour Minimum			392.57	1.46	2.12	13.37	6.24	18.78	2.00

1 hour Maximum	409.13	2.11	3.21	15.27	8.07	19.49	2.41

Table 2. 5 Air Emission Levels (Standard)

No.	Parameter	Unit	Maximum Concentration	
			National	Average Period
1.	Carbon monoxide	mg/m^3	9	8-hour
2.	Carbon dioxide	ppm	5000	8-hour
3.	Sulfur dioxide	$\mu g/m^3$	20 500	24-hour 10-minute
4.	Nitrogen dioxide	$\mu g/m^3$	40 200	1 year 1 hour
5.	Particulate matter PM_{10}	$\mu g/m^3$	20 50	1-year 24-hour
6.	Particulate matter $PM_{2.5}$	$\mu g/m^3$	10 25	1-year 24-hour

Source: Myanmar National Environmental Quality (Emission) Guidelines, National Ambient Air Quality Standards (NAAQS), American Conference of Governmental Industrial Hygienists (ACGIH).

Detail results with one-hour interval of pollutants are shown in **Table 2. 4**. The average, peak and minimum values of results per day are calculated. All results are under the Myanmar National Environmental Quality (emission) Guidelines.

Table 2. 6 Observed Ambient Air Quality Results from Selected Points

Parameters	4th Time Monitoring Results	3rd Time Monitoring Results	EMP Baseline Results	NEQG Guidelines Value	ACGIH Guidelines Value	NAAQS Guidelines Value	Unit	Averaging Period
PM_{10}	14.35	13.68	16.28	50	-	-	$\mu g/m^3$	24hrs
$PM_{2.5}$	7.22	6.91	9.21	25	-	-	$\mu g/m^3$	24hrs
CO	0.0019	0.00114	0	-	-	9	ppm	8hrs
CO_2	402.35	382.24	1542.91	-	5000	-	ppm	8hrs
SO_2	5.77	4.69	3.96	20	-	-	$\mu g/m^3$	24hrs
NO_2	6.03	5.14	23.11	200	-	-	$\mu g/m^3$	1hrs

2.2 Ambient Noise (18th July 2025 – 18th January 2026)

2.2.1 Methodology for Noise

Noise level LAeq (dBA) will be measured at the selected locations that can reflect the exposure of the nearest local community and sensitive locations. Duration and frequency were measured for 24hrs continuously at the selected site using the Sound Pressure Level Meter and Micro air quality monitoring system (YF-IAQM-V1).

The monitoring procedures, data analysis and interpretation were carried out in accordance with the instrument's manufacture and National Environmental Quality (Emission) Guidelines, World Health Organization (WHO) and International Finance Corporation (IFC) guidelines in order to be in line with Environmental Conservation Department, Ministry of Natural Resources and Environment Conservation (MONREC). "National Environmental Quality (Emission) Guidelines" for Myanmar was also presented the value of noise level as LAeq (dBA).

Table 2. 7 Noise level monitoring

Noise monitoring (2 locations)	
Noise Emission	LAeq (dBA) (1hrs, 24 hrs.)

Table 2. 8 Equipment used to measure ambient noise measurement

Digital Sound Level Meter Noise	
Micro air quality monitoring system (YF-IAQM-V1) CO, CO_2, NO_2, O_3, SO_2, VOC, H_2S, PM_{10}, $PM_{2.5}$, TSP, Temperature, Humidity, Wind Speed, Wind Direction, Noise	

2.2.2 Measurement Results and Comparison for Noise

Ambient noise level for the proposed project was measured with Digital Sound Level Meter at the project site. The noise level measurement is conducted at Thapyaywa 3 solar power project points: these points are near the air monitoring points and staff housing on 26th to 27th November 2025. Measuring period is 24 hours continuously. The observed values are

described in Table 2. 9 and Table 2. 10 and the following figures are noise level measurement at the proposed project.

Table 2. 9 Observed Values of Noise Level Measurement at Project Site

No.	Date	Time	Observed Mean Value (Source)	Weight	Day/Night	Average
1	27.11.2025	7:00:20-7:59:20	48.05	A	Day	
2	27.11.2025	8:00:20-8:59:20	48.15	A	Day	
3	27.11.2025	9:00:20-9:59:20	51.82	A	Day	
4	27.11.2025	10:00:20-10:59:20	48.65	A	Day	
5	27.11.2025	11:00:20-11:59:20	46.79	A	Day	
6	27.11.2025	12:00:20-12:59:20	50.79	A	Day	
7	27.11.2025	13:00:20-13:59:20	50.52	A	Day	
8	27.11.2025	14:00:20-14:59:20	48.35	A	Day	48.44
9	27.11.2025	15:00:20-15:59:20	49.08	A	Day	
10	26.11.2025	16:00:20-16:59:20	50.48	A	Day	
11	26.11.2025	17:00:20-17:59:20	49.54	A	Day	
12	26.11.2025	18:00:20-18:59:20	45.49	A	Day	
13	26.11.2025	19:00:20-19:59:20	47.77	A	Day	
14	26.11.2025	20:00:20-20:59:20	46.86	A	Day	
15	26.11.2025	21:00:20-21:59:20	44.26	A	Day	
16	26.11.2025	22:00:20-22:59:20	40.90	A	Night	
17	26.11.2025	23:00:20-23:59:20	48.98	A	Night	
18	27.11.2025	0:00:20-0:59:20	46.05	A	Night	
19	27.11.2025	1:00:20-1:59:20	41.02	A	Night	
20	27.11.2025	2:00:20-2:59:20	41.35	A	Night	47.54
21	27.11.2025	3:00:20-3:59:20	49.61	A	Night	
22	27.11.2025	4:00:20-4:59:20	53.62	A	Night	
23	27.11.2025	5:00:20-5:59:20	50.58	A	Night	
24	27.11.2025	6:00:20-6:59:20	55.78	A	Night	
Average			**48.10**			

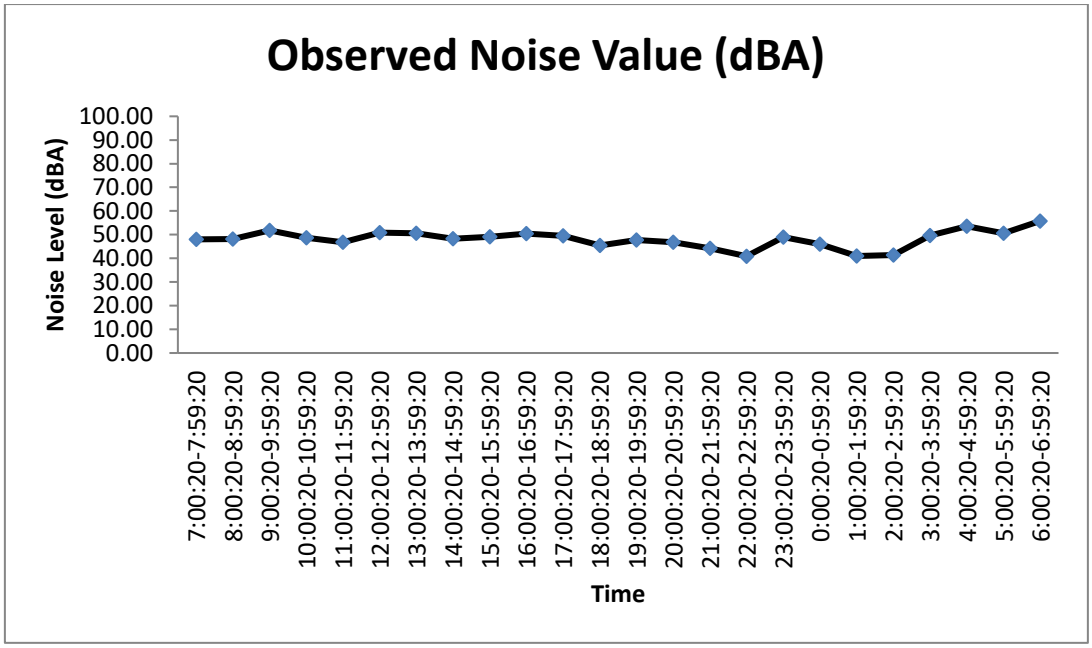


Figure 2. 5 Noise Level at Project Site

Table 2. 10 Observed Values of Noise Level Measurement at Staff Housing

No.	Date	Time	Observed Mean Value (Source)	Weight	Day/Night	Average
1	27.11.2025	7:00:22-7:59:22	45.38	A	Day	48.40
2	27.11.2025	8:00:22-8:59:22	47.38	A	Day	
3	27.11.2025	9:00:22-9:59:22	50.66	A	Day	
4	27.11.2025	10:00:22-10:59:22	51.29	A	Day	
5	27.11.2025	11:00:22-11:59:22	54.20	A	Day	
6	27.11.2025	12:00:22-12:59:22	51.47	A	Day	
7	27.11.2025	13:00:22-13:59:22	50.67	A	Day	
8	27.11.2025	14:00:22-14:59:22	48.05	A	Day	
9	27.11.2025	15:00:22-15:59:22	45.67	A	Day	
10	26.11.2025	16:00:22-16:59:22	46.62	A	Day	
11	26.11.2025	17:00:22-17:59:22	48.83	A	Day	
12	26.11.2025	18:00:22-18:59:22	47.10	A	Day	
13	26.11.2025	19:00:22-19:59:22	46.43	A	Day	
14	26.11.2025	20:00:22-20:59:22	47.52	A	Day	
15	26.11.2025	21:00:22-21:59:22	44.74	A	Day	
16	26.11.2025	22:00:22-22:59:22	45.53	A	Night	43.03
17	26.11.2025	23:00:22-23:59:22	40.35	A	Night	
18	27.11.2025	0:00:22-0:59:22	42.67	A	Night	
19	27.11.2025	1:00:22-1:59:22	40.94	A	Night	
20	27.11.2025	2:00:22-2:59:22	39.09	A	Night	

No.	Date	Time	Observed Mean Value (Source)	Weight	Day/Night	Average
21	27.11.2025	3:00:22-3:59:22	42.47	A	Night	
22	27.11.2025	4:00:22-4:59:22	44.35	A	Night	
23	27.11.2025	5:00:22-5:59:22	45.65	A	Night	
24	27.11.2025	6:00:22-6:59:22	46.22	A	Night	
Average			**46.39**			

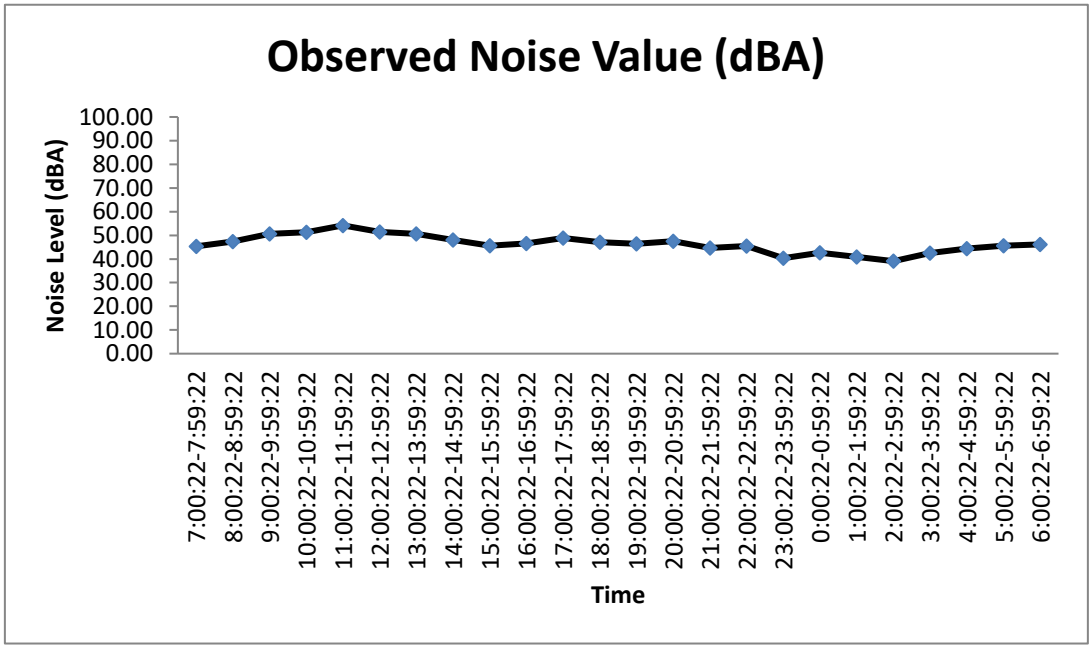


Figure 2. 6 Noise Level at Staff Housing

Table 2. 11 National Environmental Quality (Emission) Guidelines Values for Noise Level

Receptor	One Hour LAeq (dBA)	
	Daytime 07:00 - 22:00 (10:00 - 22:00 for Public Holidays)	Nighttime 22:00 - 07:00 (22:00 - 10:00 for Public Holidays)
Residential, institutional, educational	55	45
Industrial, commercial	70	70

The values observed are compared with the National Environmental Quality (Emission) Guidelines as shown in

Table 2. 12 which indicates the separate level for residential and industrial points.

Table 2. 12 Observed Ambient Noise Level Results from Selected Points

Point	Thapyaywa 3 Solar Power Project	
	Day Time	Night Time
Project Site (Source)	**48.44**	**47.54**
3rd Time Monitoring Results (Project Site) (Source)	**35.97**	**33.28**
EMP Baseline Results (Point 1)	**51.27**	**50.72**
Guideline Values for Industrial	**70**	**70**
Staff Housing (Receptor)	**48.40**	**43.03**
3rd Time Monitoring Results (Staff Housing) (Receptor)	**47.81**	**39.08**
EMP Baseline Results (Point 2)	**41.20**	**44.64**
Guideline Values for Residential	**55**	**45**

The observed values of the proposed project for daytime at Thapyaywa 3 Solar Power Project Site (source) and Staff Housing (Receptor) are 48.44 dB (A) and 48.40 dB (A). The observed values of the proposed project for nighttime at Thapyaywa 3 Solar Power Project Site (source) and Staff Housing (Receptor) are 47.54 dB (A) and 43.03 dB (A). So, the observed daytime value and night time value for Thapyaywa 3 Solar Power Project Site (source) and Staff Housing (Receptor) are lower than the guideline value.

2.3 Weather Condition (18th July 2025 – 18th January 2026)

2.3.1 Wind Speed and Direction

The following figures describe the wind speed and wind direction of the proposed project site (Thapyaywa 3 solar power project Site at source) from 26th to 27th November 2025 respectively. According to the data, the wind direction is following Figure 2. 7 and Figure 2. 8.

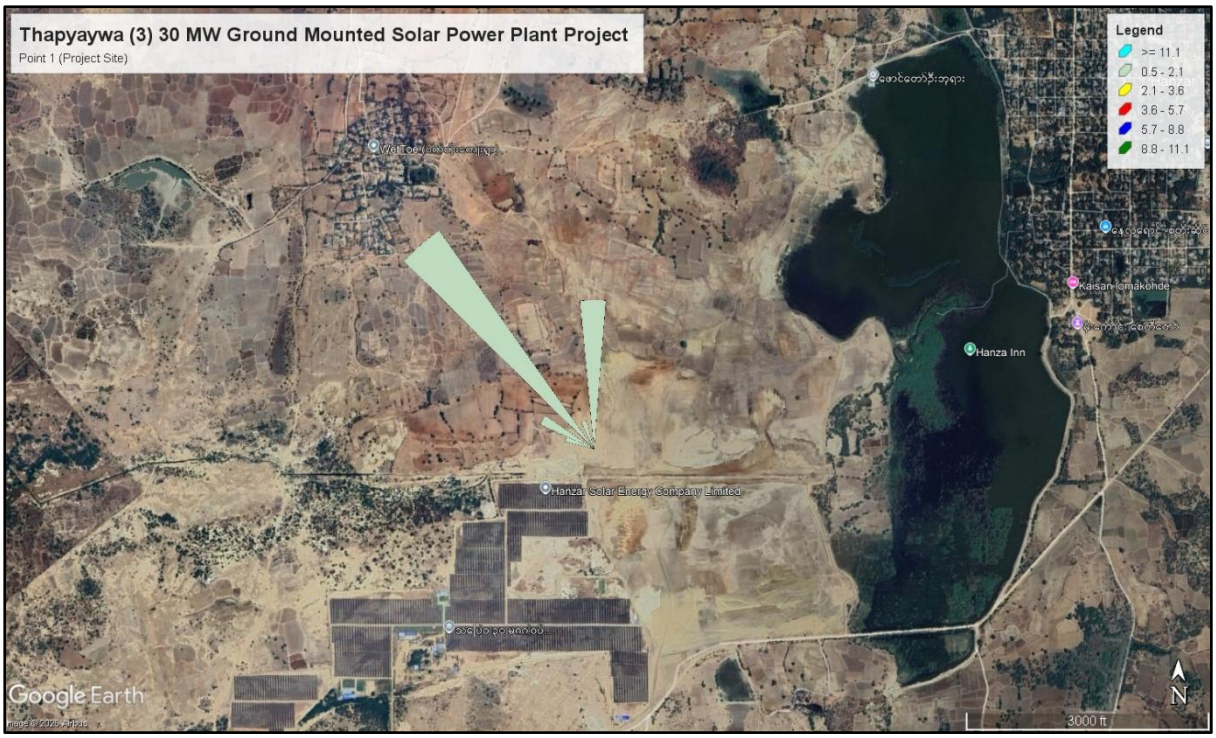


Figure 2. 7 Wind Speed and Wind Direction (Blowing From) at Project Site

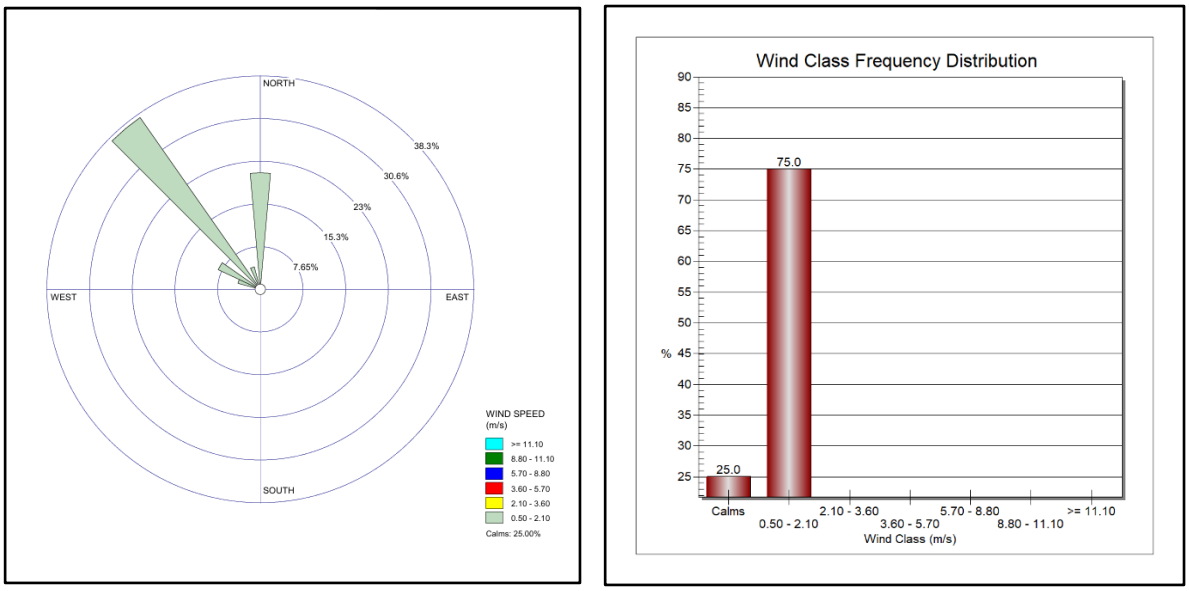


Figure 2. 8 Wind Class Frequency Distribution at Project Site

2.3.2 Significant natural or manmade disaster (18th July 2025 – 18th January 2026)

Earthquake effects persisted into later 2025, with structural damage in parts of Thazi Township still needing assistance.

Local infrastructure disruptions particularly rail service interruptions due to flooding impacted transport.

Severe flooding across central Myanmar was significant nationally in mid-2025 and may have indirectly affected conditions in and around Thazi.

Security-related violent incidents were significantly close by but not specifically reported inside Thazi Township during the period.

2.4 Water Quality (18th July 2025 – 18th January 2026)

2.4.1 Monitoring Location for Noise

Sampling locations were confirmed by environmental specialist on site before doing the sampling. Noise quality was monitored at the selected four locations as source as NQ 1- Project Site and NQ 2- staff housing that can get results of the existing noise.

Figure 2. 9 Noise Quality Monitoring Locations of Thapyaywa 3 Solar Power Project

Table 2. 13 Locations of Environmental Quality sampling points

Locations No.	Points	Coordinate	Locations
Noise Monitoring Location			
1.	NQ1	Lat - 20°59'1.72"N, Long - 96°01'0.48"E	Project Site
2.	NQ2	Lat - 20°59'27.74"N, Long - 96°01'26.50"E	Project Site (Receptor)

Figure 2. 10 Noise Quality Measuring during Operation Period

	Noise quality measuring at Thapyaywa 3 Solar Power Project 26.11.2025 - 27.11.2025 (Project Site)
	Noise quality measuring at Thapyaywa 3 Solar Power Project 26.11.2025 - 27.11.2025 (Staff Housing)

2.4.2 Methodology for Water Quality

Water samples were collected on site with appropriate sampling equipment and procedures. The sampling team has pre-arranged with the labs in Yangon for analysis and logistic arrangement made to reach the preserved samples with unique IDs to the designated labs within 48hrs.

The sampling and survey team has a list of local laboratories providing analytical services for ground water, waste water and surface water quality analysis. Up to this date, there is no laboratory having accredited certification for water quality testing (environmental analysis) in Myanmar. PRO Lab (Myanmar), Water Quality Laboratory (Forest Research Institute). Laboratories have used for water quality analysis among the list of laboratories. These laboratories have been recognized as a long-term establishment in Myanmar and employed qualified technical staffs.

The following laboratories were used for analysis of water.

1. PRO Lab, No. (9), Sabae Housing, Pyi Htaung Su Road, (26) Ward, South Dagon Tsp, Yangon, Myanmar. Tel: 09 893 767424

2. Water Quality Laboratory, Forest Research Institute, Yezin, Nay Pyi Taw. Tel: 09 430 19169, 09 420 705131

Water samplings are conducted using the following equipment as shown in figure.

Table 2. 14 Environmental Quality Parameters for Water quality

Waste Water Parameters (1 location)	
Physical Parameter	Total Suspended Solids
Chemical Parameter	BOD, COD, pH
Biological Parameter	Total Coliform Bacteria
Nutrients	Total Nitrogen, Total Phosphorus
Compounds	Oil & grease
Ground Water Parameters (1 location)	
Physical Parameter	Total Suspended Solids, Turbidity, Total Dissolved Solids, Dissolved Oxygen
Chemical Parameter	BOD, COD, pH, EC, Salinity, Oxidation Reduction Potential (ORP)
Biological Parameter	Total Coliform Bacteria
Metal	Potassium
Nutrients	Total Nitrogen, Total Phosphorus
Compounds	Oil & grease
Surface Water Parameters (1 Location)	
Physical Parameter	Total Suspended Solids, Turbidity, Total Dissolved Solids, Dissolved Oxygen
Chemical Parameter	BOD, COD, pH, EC, Salinity, Oxidation Reduction Potential (ORP)
Biological Parameter	Total Coliform Bacteria
Metal	Potassium
Nutrients	Total Nitrogen, Total Phosphorus
Compounds	Oil & grease

Figure 2. 11 Equipment for Water Sampling

Water Sampling Bottle	

2.4.2 Monitoring and Sampling Locations

Sampling locations were confirmed by environmental specialist on site before doing the sampling. Water quality sampling locations consist of one waste water locations (WWQ: outlet

of wastewater cannel from the project site) and one ground water location (GWQ: Project Site) which is situated near the project site).

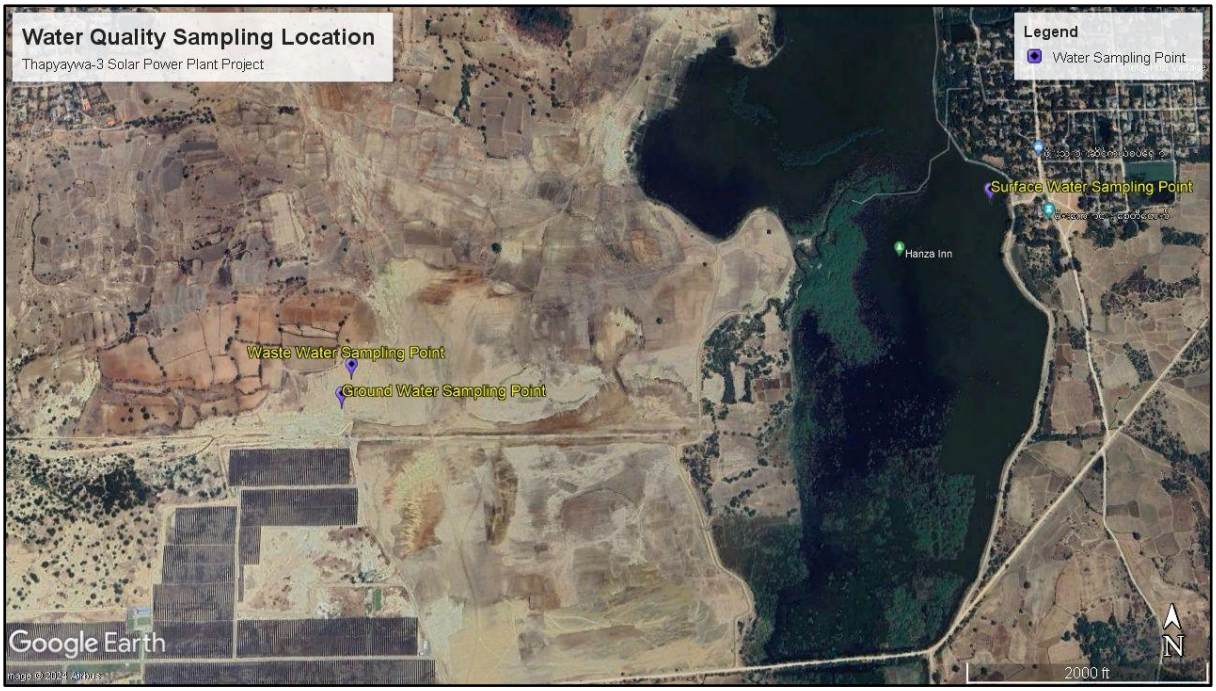


Figure 2. 12 Water Quality Sampling Locations of Thapyaywa 3 Solar Power Project

Table 2. 15 Locations of Environmental Quality sampling points

Locations No.	Points	Coordinate	Locations
Waste Water Quality Monitoring Location			
1.	WWQ	Lat - 20°58'49.08"N, Long - 96°01'35.41"E	Outlet of wastewater cannel from the project site
Ground Water Quality Monitoring Location			
1.	GWQ	Lat - 20°59'9.99"N, Long - 96°01'3.34"E	Project Site
Surface Water Quality Monitoring Location			
1.	SWQ	Lat - 20°59'13.99"N, Long - 96°01'43.72"E	Hanza Inn

Figure 2. 13 Water Quality Measuring during Operation Period

	Ground Water Quality Sampling at Thapyaywa 3 Solar Power Project 26.11.2025 (Project Site)
	Surface Water Quality Sampling at Thapyaywa 3 Solar Power Project 26.11.2025 (Hanza Inn)
	Waste Water Quality Sampling at Thapyaywa 3 Solar Power Project 26.11.2025 (Outlet of wastewater cannel from the project site)

2.4.3 Water quality

The project proponent is responsible for ensuring the drainage or runoff from the project or its related activities do not deteriorate the existing surface water and ground water quality before

the project implementation. Waste water and ground water quality were recorded by laboratory analysis at two selected locations systematically. The field surveys for environmental quality monitoring and sampling were done during 26th November 2025.

Objectives of the sampling and analysis of wastewater and ground water is to understand the existing water quality at the selected locations and to monitor the impacts during operation period.

Table 2. 16 Ground Water Quality of Thapyaywa 3 Solar Power Project

Item	Unit	Ground Water	Ground Water (3rd Time)	WHO Drinking Water Guideline	NDWQS (2014), MOH, Myanmar.
Biological Oxygen Demand (BOD)	mg/l	0.62	0.74	-	-
Chemical Oxygen Demand (COD)	mg/l	2.8	6.8	-	-
Dissolved Oxygen (On-site)	mg/l	13.32	11.27	-	-
Electrical Conductivity (On-site)	mS/cm	1.04	0.992	-	-
pH (On-site)	-	7.73	8.71	6.5-8.5	-
Oil & Grease	mg/l	2	10	-	-
Oxidation Reduction Potential (ORP) (On-site)	ORPmV	245	300	-	-
Salinity (On-site)	ppt	0.5	0.5	-	-
Turbidity (On-site)	NTU	77.1	23.3	-	-
Total Dissolved Solids (On-site)	g/l	0.663	0.635	-	-
Total Nitrogen	mg/l	2.38	1.54	-	-
Total Phosphorus	mg/l	0.00929	0.02883	-	-
Total suspended solid (TSS)	mg/l	1.8	9	-	-
Total coliform bacteria	MPN/ml	<0.3	9.3	Not detected	3
Potassium	mg/l	1.26	1.36	-	-

Table 2. 17 Surface Water Quality of Thapyaywa 3 Solar Power Project

Item	Unit	Surface Water	Surface Water (3rd Time)	EMP Baseline Results	Australian and Newzeland guidelines for fresh and marine water quality	NDWQS (2014), MOH, Myanmar.
Biological Oxygen Demand (BOD)	mg/l	0.85	1.2	3.48	-	30
Chemical Oxygen Demand (COD)	mg/l	8	8	8.6	-	100
Dissolved Oxygen (On-site)	mg/l	12.79	7.14	5.66	-	>2

Electrical Conductivity (On-site)	mS/cm	0.339	0.333	-	-	-
pH (On-site)	-	7.82	8.70	-	-	-
Oil & Grease	mg/l	1	4	2	Substantially absent, no iridescent sheen	-
Oxidation Reduction Potential (ORP) (On-site)	ORPmV	374	416	-	-	-
Salinity (On-site)	ppt	0.2	0.2	-	-	-
Turbidity (On-site)	NTU	10.6	63.1	-	-	-
Total Dissolved Solids (On-site)	g/l	0.22	0.217	-	-	-
Total Nitrogen	mg/l	3.78	2.66	0.73	-	-
Total Phosphorus	mg/l	0.00929	0.16559	0.0830	-	-
Total suspended solid (TSS)	mg/l	16.8	153	23.3	10	150
Total coliform bacteria	MPN/ml	0.92	430	240	-	-
Potassium	mg/l	4.15	4.53	2.81	-	-
Chromium	mg/l	-	-	0.004	-	-
Aluminum	mg/l	-	-	0.01	-	-

Table 2. 18 Wastewater Quality of Thapyaywa 3 Solar Power Project

Item	Unit	Waste Water	Waste Water (3rd Time)	National Environmental Quality (Emission) Guideline for Electric Power Transmission and Distribution
Biological Oxygen Demand (BOD)	mg/l	0.71	1.15	30
Chemical Oxygen Demand (COD)	mg/l	4.4	5.6	125
pH	-	8.57	8.7	6-9
Total Nitrogen	mg/l	2.38	1.68	10
Total Phosphorus	mg/l	0.00929	0.03722	2
Oil and grease	mg/l	3	14	10
Total suspended solid (TSS)	mg/l	1.8	14	50
Total coliform bacteria	CFU/100ml	2.3	110	400

3. ENVIRONMENTAL MONITORING PLAN (18th July 2025 – 18th January 2026)

3.1 Monitoring Records for Safety Plan (18th July 2025 – 18th January 2026)

Monitoring Records for Safety Plan

Monthly Record					
Date	**Place**	**Activity**	**Organization**	**Number of Attends**	**Remarks**
August, 2025	PV Field	Hazard and Safety Training	Thapyaywa 3 Solar Power Plant	30	
September, 2025	Working Area	Aware Training About PPE	Thapyaywa 3 Solar Power Plant	30	
October, 2025	Power Station	Fire Safety Training	Thapyaywa 3 Solar Power Plant	75	
November,2025	Working Area	Electrical Safety Training	Thapyaywa 3 Solar Power Plant	30	
December, 2025	Power Station	Provide PPE Safety Equipment	Thapyaywa 3 Solar Power Plant	35	
January, 2026	Office Meeting Room	Health Care	Thapyaywa 3 Solar Power Plant	15	

Monitoring Record for Occupational Safety Equipment

Date	Place	Type	Quantity	Inspected By	Supervisor	Remark
3-August-2025	Store	Safety Shoe	30	U Kyaw Htun Lin	U Toe Toe	
3-August-2025	Store	Safety Helmet	30	U Kyaw Htun Lin	U Toe Toe	
3-August-2025	Store	Safety Gloves	30	U Kyaw Htun Lin	U Toe Toe	
3-August-2025	Store	Safety Belt	30	U Kyaw Htun Lin	U Toe Toe	

Records Photo of Health and Safety Plan Activities


REDMI NOTE 12 PRO


REDMI NOTE 12 PRO


REDMI NOTE 12 PRO

အရေးပေါ်အခြေအနေတုန့်ပြန်မှုအခြေအနေ			
စီမံကိန်းလုပ်ငန်းအတွင်းမှ အရေးကြီးဆက်သွယ်ရမည့် ဖုန်းနံပါတ်များ			
စဉ်	အမည်	ရာထူး	ဖုန်းနံပါတ်
၁	ဦးစည်သူဖြိုးဆွေ	စက်ရုံမှူး	09-777464755
၂	ဦးဇော်ရဲမောင်	ဒုစက်ရုံမှူး	09-260083285
၃	ဦးမြတ်မင်းဖြိုး	အန္တရာယ်ကင်းရှင်းရေးအရာရှိ	09-974863643
၄	ဦးတိုးတိုး	ကြီးကြပ်ရေးမှူး	09-978876757
၅	ဦးကျော်ထွန်းလင်း	ရှေးဦးသူနာပြု	09-258255775
၆	ဦးစိုးလင်းထိုက်	အရေးပေါ်အခြေအနေထိန်းချုပ်ရေးမှူး	09-975686801
အရေးကြီးဆက်သွယ်ရမည့် ဒေသတွင်းဖုန်းနံပါတ်များ			
စဉ်	အမည်/ဌာန	အကြောင်းအရာ	ဖုန်းနံပါတ်
၁	မြို့နယ်မီးသတ်ဦးစီးဌာန	မီးလောင်ခြင်းအတွက်	09-402665664
၂	တိုက်နယ်ရဲစခန်း	လုံခြုံရေးကိစ္စရပ်များအတွက်	09-450337701
၃	အနီးဆုံးတိုက်နယ်ဆေးရုံ	ထိခိုက်ဒဏ်ရာရရှိသူများအတွက်	09-449872690
၄	မြို့နယ်လျှပ်စစ်ဌာန	လျှပ်စစ်မီးကိစ္စ	09-256592220
၅	မြို့နယ်အထွေထွေအုပ်ချုပ်ရေးဦးစီးဌာ	အထွေထွေအုပ်ချုပ်ရေးကိစ္စ	

Fire Extinguisher Check List

	Date	Description	Location	Existing	Unit
1	10.11.2025	Fire Extinguisher (5) kg	Primary	2	nos
2	10.11.2025	Fire Extinguisher (3) kg	Primary	4	nos

	Date	Description	Location	Existing	Unit
3	10.11.2025	Fire Extinguisher (5) kg	Secondary	2	nos
4	10.11.2025	Fire Extinguisher (3) kg	Secondary	4	nos
5	10.11.2025	Fire Extinguisher (5) kg	BESS	12	nos
6	10.11.2025	Fire Extinguisher (3) kg	SVG	3	nos
7	10.11.2025	Fire Extinguisher (5) kg	Control Room	2	nos
8	10.11.2025	Fire Extinguisher (3) kg	Control Room	4	nos
9	10.11.2025	Fire Extinguisher (5 & 3) kg	MV Station- 1	3	nos
10	10.11.2025	Fire Extinguisher (5 & 3) kg	MV Station- 2	3	nos
11	10.11.2025	Fire Extinguisher (5 &3) kg	MV Station- 3	3	nos
12	10.11.2025	Fire Extinguisher (5 & 3) kg	MV Station- 4	3	nos
13	10.11.2025	Fire Extinguisher (5 & 3) kg	MV Station- 5	3	nos

4. Records for CSR activities (18th July 2025 – 18th January 2026)

Records for CSR Activities

Place	Type	Received
ဟံဇား	ဟံဇားစာသင်ကျောင်းအတွက်မိုးရေသိုလှောင်ကန်ဆောက်လုပ်လှူဒါန်းခြင်း။	
ဟံဇား	ဟံဇားစာသင်ကျောင်းစိမ်းလန်းစိုပြေရေးအတွက်လိုအပ်သည်များကိုပေးအပ်လှူဒါန်းခြင်းနှင့် ကလေးကစားကွင်းဆောက်လုပ်ပေးခြင်း။	
မြို့ကြီးကုန်းရွာ	မြို့ကြီးကုန်းစာသင်ကျောင်းစိမ်းလန်းစိုပြေရေးအတွက်လိုအပ်သည်များကိုပေးအပ်လှူဒါန်းခြင်းနှင့် ပညာရေးထောက်ပံ့ငွေလှူဒါန်းခြင်း။	
သာစည်မြို့နယ်	သာစည်မြို့နယ် အတွင်း သောက်သုံးရေလှူဒါန်းပေးခြင်း။	
ဟံဇား	ဟံဇားဆေးရုံအတွက်လိုအပ်သောဆေးများလှူဒါန်းခြင်း။	
ဟံဇား	ဟံဇားဘုန်းကြီးကျောင်းအသံမစဲပဋ္ဌာန်းပွဲတွင် နေ့ဆွမ်းကပ်လှူခြင်း။	

Photo Record for CSR Activities

ဝမ်းသာကျေးရွာစာသင်ကျောင်းအတွက်ပညာရေးထောက်ပံ့ငွေလှူဒါန်းခြင်း

ဝမ်းသာကျေးရွာနှင့်ဟံဇားဆွမ်းဆန်စိမ်းလောင်းပွဲတွင် ပါဝင်လှူဒါန်းခြင်း

ဟံဇားစာသင်ကျောင်းအတွက်မိုးရေသိုလှောင်ကန်ဆောက်လုပ်လှူဒါန်းခြင်း

ဟံဇားစာသင်ကျောင်းစိမ်းလန်းစိုပြေရေးအတွက် လိုအပ်သည်များကိုပေးအပ်လှူဒါန်းခြင်း

5. Records for GRM (18th July 2025 – 18th January 2026)

Monitoring Records for GRM

Monthly Record					
Date	**Place**	**Issue**	**Organization Or Individual**	**Action Plan**	**Recorded by**
August, 2025	**Natural Solar Power Plant**	**-**	**-**	**-**	**U Si Thu Phyo Swe**
September, 2025	**Natural Solar Power Plant**	**-**	**-**	**-**	**U Si Thu Phyo Swe**
October, 2025	**Natural Solar Power Plant**	**-**	**-**	**-**	**U Si Thu Phyo Swe**
November, 2025	**Natural Solar Power Plant**	**-**	**-**	**-**	**U Si Thu Phyo Swe**
December, 2025	**Natural Solar Power Plant**	**-**	**-**	**-**	**U Si Thu Phyo Swe**
January, 2026	**Natural Solar Power Plant**	**-**	**-**	**-**	**U Si Thu Phyo Swe**

GRM Organization of Thapyaywa 3 Solar Project

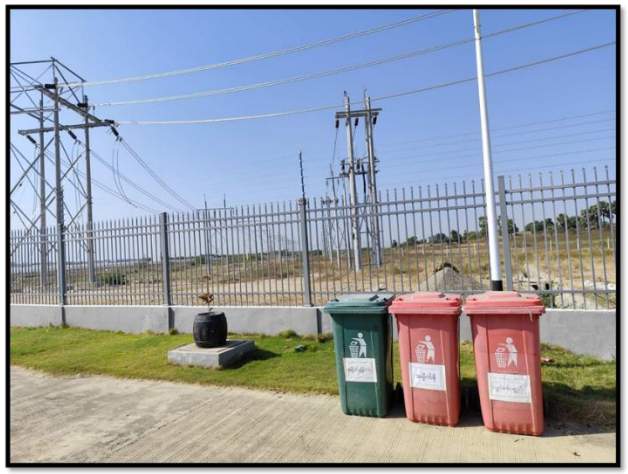
မကျေလည်မှုများ ဖြေရှင်းပေးရေးကော်မတီ			
စဉ်	အမည်	တာဝန်	ဌာန
၁	ဦးတိုးမြင့်	ဥက္ကဋ္ဌ	ဟံဝေးကျေးရွာ
၂	ဦးအောင်ကျော်ခိုင်	အတွင်းရေးမှူး	CPE Co., Ltd & NSP Co.; Ltd
၃	ဦးအောင်ထွန်း	အဖွဲ့ဝင်(၁)	ဟံဝေးကျေးရွာ
၄	ဦးဝင်းမြင့်	အဖွဲ့ဝင်(၂)	ဟံဝေးကျေးရွာ
၅	ဦးဖိုးမောင်	အဖွဲ့ဝင်(၃)	NSP Co., Ltd

6. Records for Waste Disposal (18th July 2025 – 18th January 2026)

Records for Waste Disposal

Date	Place	Type	Amount	Inspected By
15-August, 2025	ဝန်ထမ်းလိုင်းများရုံး	အမှိုက်စို/အမှိုက်ခြောက်	30 Kg	U Toe Toe
31-August, 2025	ဝန်ထမ်းလိုင်းများရုံး	အမှိုက်စို/အမှိုက်ခြောက်	32 Kg	U Toe Toe
15-September, 2025	ဝန်ထမ်းလိုင်းများရုံး	အမှိုက်စို/အမှိုက်ခြောက်	35 Kg	U Toe Toe
30-September, 2025	ဝန်ထမ်းလိုင်းများရုံး	အမှိုက်စို/အမှိုက်ခြောက်	30 Kg	U Toe Toe
15-October, 2025	ဝန်ထမ်းလိုင်းများရုံး	အမှိုက်စို/အမှိုက်ခြောက်	40 Kg	U Toe Toe
31-October, 2025	ဝန်ထမ်းလိုင်းများရုံး	အမှိုက်စို/အမှိုက်ခြောက်	35 Kg	U Toe Toe
15-November, 2025	ဝန်ထမ်းလိုင်းများရုံး	အမှိုက်စို/အမှိုက်ခြောက်	45 Kg	U Toe Toe
30-November, 2025	ဝန်ထမ်းလိုင်းများရုံး	အမှိုက်စို/အမှိုက်ခြောက်	30 Kg	U Toe Toe
15-December, 2025	ဝန်ထမ်းလိုင်းများရုံး	အမှိုက်စို/အမှိုက်ခြောက်	35 Kg	U Toe Toe
31-December, 2025	ဝန်ထမ်းလိုင်းများရုံး	အမှိုက်စို/အမှိုက်ခြောက်	20 Kg	U Toe Toe
15-January, 2026	ဝန်ထမ်းလိုင်းများရုံး	အမှိုက်စို/အမှိုက်ခြောက်	30 Kg	U Toe Toe

Records Photo for Waste Disposal



Appendix 1 (Water Results) (18th July 2025 – 18th January 2026)

PRO LAB
ANALYTICAL LABORATORY

Myanmar Innovation Group of Co., Ltd
Address : No. (9), Sabae Housing, Pyi Htaung Su Road,
(26) Ward, South Dagon Tsp, Yangon, Myanmar.
Tel : 09-893 767 424
E-mail : info@prolabmyanmar.com

LABORATORY ANALYSIS REPORT

1	Client Name	: Thapyaywa 3 Solar Power Project
2	Location	: Thazi,Towship
3	Type of Sample	: Ground Water
4	Sample No.	: 01574/2025
5	Contact Person	: Eguard Environmental Services
6	Phone No.	: 09-797005212
7	Date Received	: 28.11.2025
8	Date of Test Performed	: 28.11.2025
9	Date of Issued	: 15.12.2025
10	Result	:

No.	Parameter	Result	Unit	WHO STD 2018	Method
1	Oil and Grease	2	mg/L	NA	[a] 5520D, Soxhlet Extraction Method
2	Total Coliform	< 0.3	MPN/ml	ND per 100 mL	FDA-BAM: MPN Method

This certificate is issued only for the receipt of the test sample.

[a] American Public Health Association, Standard Methods for the Examination of Water and Wastewater.

Tested By
Name : THIN THIN SAN
Position : Laboratory Technician
Signature :.....

Approved By
Name : KYAWT KYAWT YIN
Position : Technical Consultant Manager
Signature :.....

Myanmar Innovation Group of Co., Ltd. PRO LAB

LAB-FO-024-00

The Government of the Republic of the Union of Myanmar

Ministry of Natural Resources and Environmental Conservation

Department of Forest

Forest Research Institute

Water Quality Laboratory, Yezin

Ref: WQL/0930/2025
Date: 29-12-2025

ANALYTICAL TEST REPORT

Project Name: **Thapyaywa 3 Solar Power Project**

Customer Address: **E Guard Environmental Service Co.,Ltd**

Assignment number	2025-205-1	Sampling Location	Thazi Township
Sample name	GW	Sampling Date	-
Sample type	**Ground Water**	Sample received date	27-11-2025
Comments			

Parameter	Result	Unit	Method reference	Instruments
Biological Oxygen Demand	0.62	mg/L	Potentiometric	YSI Pro DO Tester
Chemical Oxygen Demand	2.8	mg/L	Titrimetric	Titrator
Total Nitrogen	1.96	mg/L	Kjeldahl	Kjeldahl Digestion & Distillation Unit
Total Phosphorus	10.2	µg /L	NS 4725	SFA(SKALAR SAN plus Analyzer)SA 3000/5000,SA 1100
Potassium	1.26	mg/L	Spectrophotometric	Atomic Absorption Spectrophoto-meter,AA 7000,SHIMADZU
Total Suspended Solid	0.2	mg/L	NS 4733:1983/NS-EU 872:2005	Circulation and Filtration System

Remark: This certificate is issued only for the receipt of the test sample.

Tested by

Signature:

Name: Dr. Thida Cho
Assistant Research Officer

Approved by

Signature:

Name: Dr. Thida Swe
Research Officer

PRO LAB
ANALYTICAL LABORATORY

Myanmar Innovation Group of Co., Ltd
Address : No. (9), Sabae Housing, Pyi Htaung Su Road,
(26) Ward, South Dagon Tsp, Yangon, Myanmar.
Tel : 09-893 767 424
E-mail : info@prolabmyanmar.com

LABORATORY ANALYSIS REPORT

1	Client Name	: Thapyaywa 3 Solar Power Project
2	Location	: Thazi Towship
3	Type of Sample	: Surface Water -1
4	Sample No.	: 01575/2025
5	Contact Person	: Eguard Environmental Services
6	Phone No.	: 09-797005212
7	Date Received	: 28.11.2025
8	Date of Test Performed	: 28.11.2025
9	Date of Issued	: 15.12.2025
10	Result	:

No.	Parameter	Result	Unit	WHO STD 2018	Method
1	Oil and Grease	1	mg/L	NA	[a] 5520D, Soxhlet Extraction Method
2	Total Coliform	0.92	MPN/ml	ND per 100 mL	FDA-BAM: MPN Method

This certificate is issued only for the receipt of the test sample.

[a] American Public Health Association, Standard Methods for the Examination of Water and Wastewater.

Tested By
Name : THIN THIN SAN
Position : Laboratory Technician
Signature :.....

Approved By
Name : KYAWT KYAWT YIN
Position : Technical Consultant Manager
Signature :.....

Myanmar Innovation Group of Co., Ltd
PRO LAB

LAB-FO-024-00

The Government of the Republic of the Union of Myanmar

Ministry of Natural Resources and Environmental Conservation

Department of Forest

Forest Research Institute

Water Quality Laboratory, Yezin

Ref: WQL/0932/2025
Date: 29-12-2025

ANALYTICAL TEST REPORT

Project Name: **Thapyaywa 3 Solar Power Project**

Customer Address: **E Guard Environmental Service Co.,Ltd**

Assignment number	2025-205-3	Sampling Location	Thazi Township
Sample name	SW	Sampling Date	-
Sample type	**Surface Water**	Sample received date	27-11-2025
Comments			

Parameter	Result	Unit	Method reference	Instruments
Biological Oxygen Demand	0.85	mg/L	Potentiometric	YSI Pro DO Tester
Chemical Oxygen Demand	8	mg/L	Titrimetric	Titrator
Total Nitrogen	3.78	mg/L	Kjeldahl	Kjeldahl Digestion & Distillation Unit
Total Phosphorus	9.29	µg /L	NS 4725	SFA(SKALAR SAN plus Analyzer)SA 3000/5000,SA 1100
Potassium	4.15	mg/L	Spectrophotometric	Atomic Absorption Spectrophoto-meter,AA 7000,SHIMADZU
Total Suspended Solid	16.8	mg/L	NS 4733:1983/NS-EU 872:2005	Circulation and Filtration System

Remark: This certificate is issued only for the receipt of the test sample.

Tested by

Signature:

Name: Dr. Thida Cho
Assistant Research Officer

Approved by

Signature:

Name: Dr. Thida Swe
Research Officer

PRO LAB
ANALYTICAL LABORATORY

Myanmar Innovation Group of Co., Ltd
Address : No. (9), Sabae Housing, Pyi Htaung Su Road,
(26) Ward, South Dagon Tsp, Yangon, Myanmar.
Tel : 09-893 767 424
E-mail : info@prolabmyanmar.com

LABORATORY ANALYSIS REPORT

1	Client Name	: Thapyaywa 3 Solar Power Project
2	Location	: Thazi Township
3	Type of Sample	: Waste Water -1
4	Sample No.	: 01576/2025
5	Contact Person	: Eguard Environmental Services
6	Phone No.	: 09-797005212
7	Date Received	: 28.11.2025
8	Date of Test Performed	: 28.11.2025
9	Date of Issued	: 15.12.2025
10	Result	:

No.	Parameter	Result	Unit	WHO STD 2018	Method
1	Oil and Grease	3	mg/L	-	[a] 5520D, Soxhlet Extraction Method
2	Total Coliform	2.3	MPN/ml	-	FDA-BAM: MPN Method

This certificate is issued only for the receipt of the test sample.
Dispose treated waste water according to state and local regulations.
[a] American Public Health Association, Standard Methods for the Examination of Water and Wastewater.

Tested By
Name : THIN THIN SAN
Position : Laboratory Technician
Signature :.....

Approved By
Name : KYAWT KYAWT YIN
Position : Technical Consultant Manager
Signature :.....

Myanmar Innovation Group of Co., Ltd. PRO LAB ANALYTICAL LABORATORY

LAB-FO-024-00

The Government of the Republic of the Union of Myanmar

Ministry of Natural Resources and Environmental Conservation

Department of Forest

Forest Research Institute

Water Quality Laboratory, Yezin

Ref: WQL/0931/2025
Date: 29-12-2025

ANALYTICAL TEST REPORT

Project Name: **Thapyaywa 3 Solar Power Project**

Customer Address: **E Guard Environmental Service Co.,Ltd**

Assignment number	2025-205-2	Sampling Location	Thazi Township
Sample name	WW	Sampling Date	-
Sample type	**Waste Water**	Sample received date	27-11-2025
Comments			

Parameter	Result	Unit	Method reference	Instruments
Biological Oxygen Demand	0.71	mg/L	Potentiometric	YSI Pro DO Tester
Chemical Oxygen Demand	4.4	mg/L	Titrimetric	Titrator
pH	8.57	-	Potentiometric	HACH HQ40d Multiparameter Field Case
Total Nitrogen	2.38	mg/L	Kjeldahl	Kjeldahl Digestion & Distillation Unit
Total Phosphorus	9.29	µg /L	NS 4725	SFA(SKALAR SAN plus Analyzer)SA 3000/5000,SA 1100
Total Suspended Solid	1.8	mg/L	NS 4733:1983/NS-EU 872:2005	Circulation and Filtration System

Remark: This certificate is issued only for the receipt of the test sample.

Tested by

Signature:

Name: Dr. Thida Cho
Assistant Research Officer

Approved by

Signature:

Name: Dr. Thida Swe
Research Officer