Environmental Monitoring Report

For

30 MW Ground Mounted Solar Power Plant Project Connected to Thazi Substation

(Operation Phase)

(3rd Time)

(18th January 2025 – 18th July 2025)

Proposed by

Great Success Energy Co., Ltd.

Prepared by

E Guard Environmental Services

July, 2025

Table of Contents

List of Figure

List of Table

1. Introduction

This Environmental Monitoring report is prepared by E Guard Environmental Services Co., Ltd., in collaboration with SMEC Myanmar, a subsidiary of Surbana Jurong Group for the 30 MW ground mounted solar power plant project connected to Thazi Substation proposed by Great Success Energy Co., Ltd. The project proponent won tender from the Ministry of Electricity (EPGE PV03/2022-23) and obtained permit for construction and electricity generation from solar energy of the proposed project and it will be implemented by Great Success Energy Co., Ltd., a subsidiary of gold energy. This project is located at Ywa-Gyi Village-tract and Ywa Pale Village-tract, Thazi Township, Meiktila District, Mandalay Region. Its coordinate points are 20° 53' 6.10" N, 96° 2' 5.74" E, and the average altitude of the site is 202m.

The total capacity of capacity of AC side of the proposed project is 33 MW and DC side is 40.887 MWp, including five photovoltaic power generation units. The photovoltaic power station is connected to the 33 kV bus side of the 230 kV main transformer in the Thazi Substation. The project proponent possesses the land slot to construct the solar power plant and total land requirement for the project is 213.97 acres (86.59 hectares) purchased by the project proponent. A total of 74340 Pieces of bifacial mono-crystalline silicon solar PV modules (peak power 550Wp), 110 string inverters, 5 sets of 6600 KVA box transformers, 7 sets of Battery Energy Storage system, and 886 sets of horizontal single-axis tracking bracket will be installed in this proposed project to generate electricity from solar energy.

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 two places as 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
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	Twice a year	In front of power station 20°52'56.59"N, 96°02'8.04"E	Already included in cost estimation for EMP	Great Success Energy Co., Ltd.

193

Proposed by Great Success Energy Co., Ltd.

No.	Environmental Concerns	Parameters	Frequency	Location	Estimated Cost	Responsible Party
2.	Groundwater 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), Total Coliform Bacteria	Twice a year	An outlet from tube well within the project site 20°53'3.93"N, 96°2'15.97"E	Already included in cost estimation for EMP	Great Success Energy Co., Ltd.
3.	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°52'58.48"N, 96° 2'16.47"E	Already included in cost estimation for EMP	Great Success Energy Co., Ltd.
4.	Noise level	Equivalent Noise Level dB (A)	Twice a year	In front of power station 20°52'56.59"N, 96°02'8.04"E and staff quarter 20°52'59.232"N, 96°2'20.561"E	Already included in cost estimation for EMP	Great Success Energy Co., Ltd.

EMP Report for 30 MW Ground Mounted Solar Power Plant Project;
Connected to Thazi Substation

No.	Environmental Concerns	Parameters	Frequency	Location	Estimated Cost	Responsible Party
5.	Waste quantity	Amount of domestic solid waste and hazardous waste disposal	Quarterly	All operation area 20°52'56.91"N, 96°02'8.11"E	Already included in cost estimation for EMP	Great Success Energy Co., Ltd.
6.	Environmental auditing	Assess the compliances with this EMP as well as laws, rules, policies and regulations	Once a year	At the project office 20°52'56.91"N, 96°02'8.11"E	Already included in cost estimation for EMP	Great Success Energy Co., Ltd.

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

ECC Letter of Thazi Solar Power Project

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ
သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာလိုက်နာဆောင်ရွက်မှု သက်သေခံလက်မှတ်
(Environmental Compliance Certificate – ECC)

သက်သေခံလက်မှတ်အမှတ်။ ECC (၁၁၅) ရက်စွဲ ။ ၂ ၀ ၂ ၃ ခု နှစ် မတ် လ ၃၁ ရက်

၁။ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ (ပြည်ထောင်စုလွှတ်တော် ဥပဒေအမှတ် ၉/၂၀၁၂) နှင့် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း (အမိန့်ကြော်ငြာစာအမှတ် ၆၁၆/၂၀၁၅) တို့အရ နောက်ဆက်တွဲ(က) တွင် ဖော်ပြထားသော အဆိုပြုစီမံကိန်းအား နောက်ဆက်တွဲ(ခ) ပါ စည်းကမ်းချက်များကို လိုက်နာဆောင်ရွက်စေလျက် ဤပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာဆောင်ရွက်မှု သက်သေခံလက်မှတ် (Environmental Compliance Certificate – ECC) ကို ထုတ်ပေးလိုက်သည်-

(က) **စီမံကိန်းအဆိုပြုသူ** - ဦးဇော်ဝင်း
မန်နေဂျင်းဒါရိုက်တာ
Green Power Energy ကုမ္ပဏီလီမိတက်

(ခ) **ဆက်သွယ်ရန် လိပ်စာ** - အမှတ် (၅၁၁-ဘီ)၊ 5th Floor, ပြည်လမ်းနှင့် လှည်းတန်းလမ်းထောင့်၊ လှည်းတန်းစင်တာ၊ ကမာရွတ်မြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး၊ ၀၉- ၄၄၄၈၀၅၅၁၁၊ ၀၉- ၂၀၀၀၉၅၀
greenpowerenergycoltd@gmail.com

(ဂ) **စီမံကိန်းအမျိုးအစား** - နေရောင်ခြည်စွမ်းအင်သုံး ဓာတ်အားပေးစက်ရုံ

(ဃ) **စီမံကိန်းကာလ** - အခွင့်အမိန့်အရ အဖွဲ့အစည်းက ခွင့်ပြုကာလ

(င) **စီမံကိန်း၏ အရွယ်အစား** - ၂၀ မီဂါဝပ်

(စ) **စီမံကိန်းတည်နေရာ** - မန္တလေးတိုင်းဒေသကြီး၊ ကျောက်ဆည်ခရိုင်၊ မြစ်သားမြို့နယ်၊ တောင်းကျေးရွာအုပ်စု

(ဆ) **ECC သက်တမ်း** - (၅)နှစ်
စတင်ထုတ်ပေးရက် - ၃-၈-၂၀၂၂
သက်တမ်းကုန်ဆုံးရက် - ၂- ၈-၂၀၂၇

(ဇ) **အတည်ပြုအစီရင်ခံစာ** - လျှပ်စစ်စွမ်းအားဝန်ကြီးဌာန၊ လျှပ်စစ်ဓါတ်အား ထုတ်လုပ်ရေးလုပ်ငန်း၏ ၂၁-၆-၂၀၂၂ ရက်စွဲပါ စာအမှတ်၊ ၂၇၁၈ / လစထလ / ပစရအ / ၈ (၅၆)/ ၂၀၂၂
ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်

စည်းကမ်းချက်များသတ်မှတ်ခြင်း

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

(က) ပတ်ဝန်းကျင်နှင့် လူမှုဆိုင်ရာ ဆိုးကျိုးသက်ရောက်မှုများကို ကြိုတင်ကာကွယ်ရေး၊ အနိမ့်ဆုံးဖြစ်စေရေးနှင့် ထိခိုက်မှုများကို ပြန်လည်ကုစားရေး ဆောင်ရွက်ပေးရန်၊

(ခ) စီမံကိန်းအဆိုပြုသူ၏ စီမံကိန်းဆိုင်ရာ ကတိကဝတ်များနှင့် လိုက်နာထမ်းဆောင်ရမည့် တာဝန်များကို သတ်မှတ်ရန်၊

(ဂ) လက်ခံနိုင်သော ပတ်ဝန်းကျင်အရည်အသွေး ဖြစ်စေရေးအတွက် စံချိန်စံညွှန်းများနှင့် အရည်အသွေးတိုင်းတာရေးနည်းလမ်းများ သတ်မှတ်ရန်၊

(ဃ) စောင့်ကြပ်ကြည့်ရှုခြင်းနှင့် အစီရင်ခံခြင်းတို့ကို ပုံမှန်ဆောင်ရွက်စေရန်၊

(င) စီမံကိန်းတွင် စဉ်ဆက်မပြတ် ဆောင်ရွက်သွားရမည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲရေး အစီအမံတစ်ရပ်ကို ရေးဆွဲဆောင်ရွက်ရန်။

(လှမောင်သိန်း)
အမြဲတမ်းအတွင်းဝန်
သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန

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

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 January 2025 – 18th July 2025)

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 Environmental Perimeter Air Station (EPAS). 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 and noise measurement

Davis Vantage Pro2 Wireless Weather Station Provides detailed current weather conditions and expanded forecasts - all at a glance The Vantage Pro2 uses a frequency-hopping spread spectrum radio from 902 MHz to 928 MHz to transmit and receive data up to 1,000' (300m) line of sight. In addition, the weather station features a bubble level, improved anemometer base, redesigned wind cups, and factory-calibrated wind direction. The integrated sensor suite combines temperature and humidity sensors, rain collector with an aluminum-plated tipping bucket, and anemometer into one package for easy setup. Measure inside and outside temperature and humidity, heat index, barometric pressure, dew point, rainfall, wind direction and speed, and wind chill.	
Haz-Scanner EPAS PM_{10}, PM $_{2.5}$, NO_2, SO_2, CO, CO_2, Temperature, and Relative Humidity	

2.1.2 Monitoring Location for Air Quality

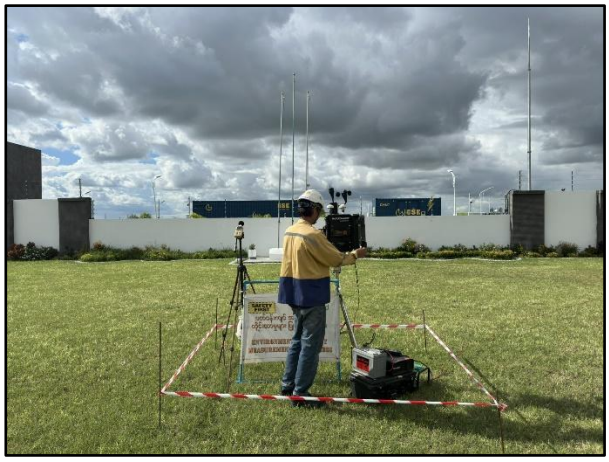
Sampling locations were confirmed by environmental specialist on site before doing the sampling. Air quality was monitored at the selected one location (Thazi solar power project site (source) that can get results of the existing ambient air quality.

Figure 2. 1 Air Quality Monitoring Locations of Thazi 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°52'54.07"N, Long - 96° 2'6.83"E	Project Site

Figure 2. 2 Air Quality Measuring during Operation Period

	Air quality measuring at Thazi Solar Power Project 13.06.2025 - 14.06.2025 (Project Site)

2.1.3 Measurement Results and Comparison for Air Quality

The air quality monitoring was done at selected locations during 13th to 14th June 2025. During this survey, these parameters were measured with adequate devices named Environmental Perimeter Air Station (EPAS) 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.

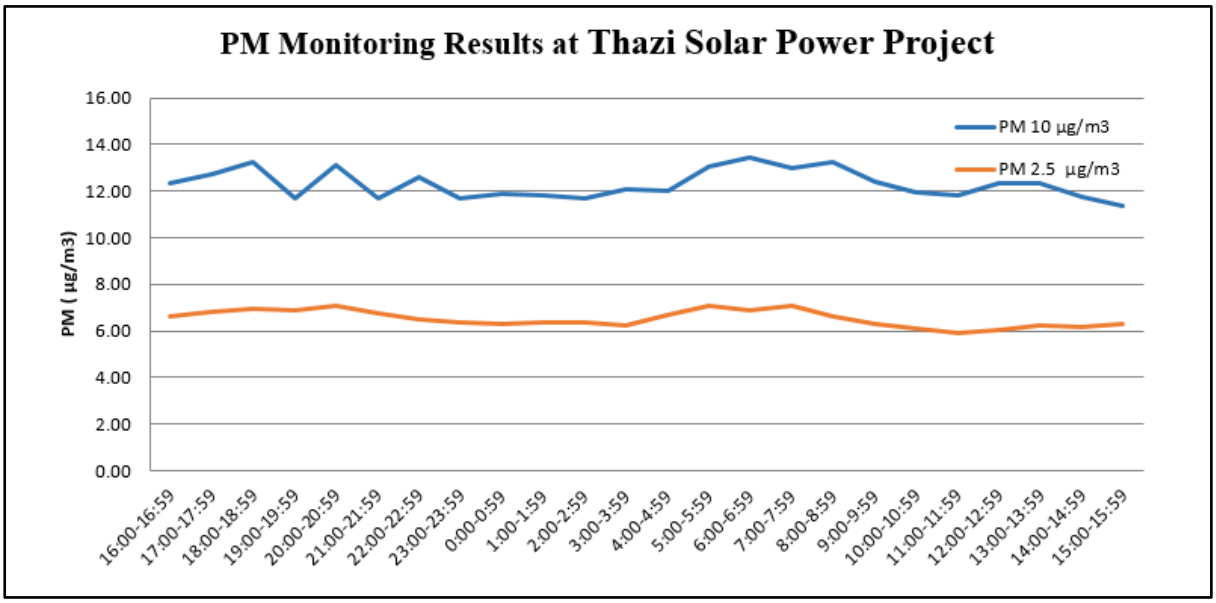


Figure 2. 3 PM Monitoring Results at Thazi Solar Power Project

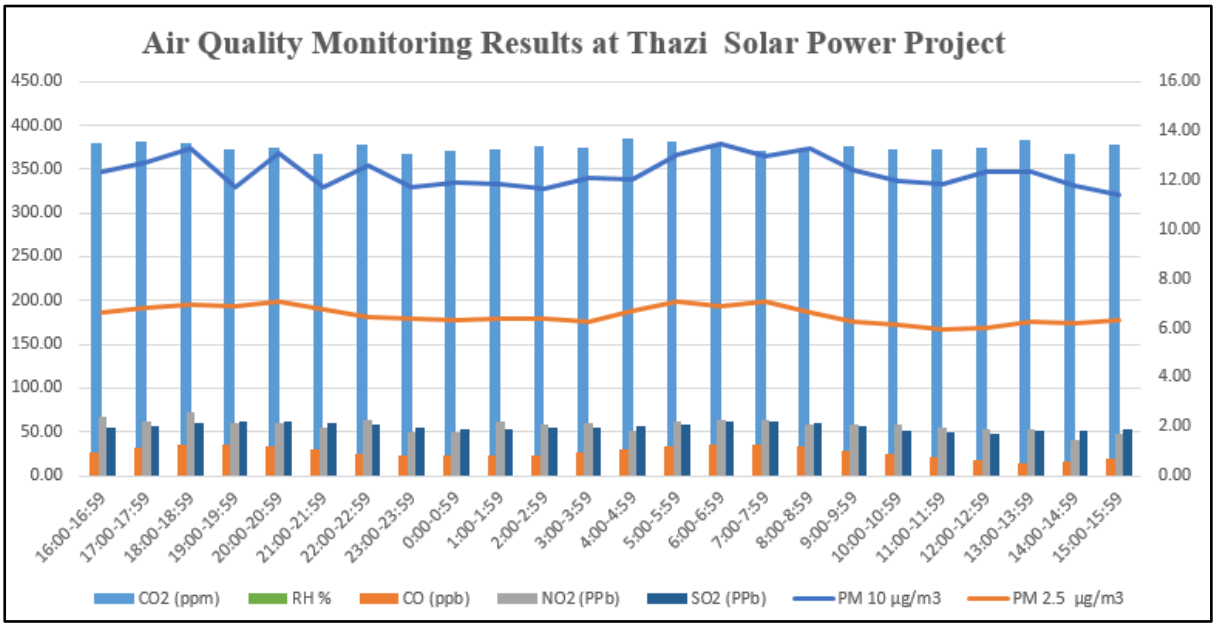


Figure 2. 4 Fluctuation of Air Pollutants during Dial Cycle at Thazi Solar Power Project

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)
13.06.2025	16:00-16:59	Average	379.74	0.94	2.38	12.32	6.63	22.40	1.95
13.06.2025	17:00-17:59	Average	381.69	1.15	2.20	12.72	6.82	22.29	2.03
13.06.2025	18:00-18:59	Average	380.01	1.28	2.58	13.26	6.97	22.46	2.14
13.06.2025	19:00-19:59	Average	372.27	1.28	2.17	11.71	6.86	21.68	2.19
13.06.2025	20:00-20:59	Average	373.58	1.17	2.11	13.10	7.07	22.53	2.19
13.06.2025	21:00-21:59	Average	367.83	1.04	1.95	11.71	6.73	21.98	2.12
13.06.2025	22:00-22:59	Average	377.77	0.91	2.28	12.60	6.47	21.97	2.04
13.06.2025	23:00-23:59	Average	368.09	0.85	1.78	11.71	6.35	21.93	1.97
14.06.2025	0:00-0:59	Average	371.37	0.81	1.74	11.88	6.32	21.85	1.91
14.06.2025	1:00-1:59	Average	372.23	0.83	2.21	11.84	6.35	21.57	1.90
14.06.2025	2:00-2:59	Average	376.56	0.85	2.09	11.68	6.39	21.98	1.93
14.06.2025	3:00-3:59	Average	373.84	0.92	2.16	12.08	6.23	20.83	1.96
14.06.2025	4:00-4:59	Average	385.85	1.04	1.81	12.03	6.71	20.58	2.04
14.06.2025	5:00-5:59	Average	381.37	1.17	2.18	13.05	7.08	20.90	2.11
14.06.2025	6:00-6:59	Average	375.36	1.28	2.25	13.48	6.90	20.58	2.19
14.06.2025	7:00-7:59	Average	371.59	1.29	2.24	12.98	7.07	21.29	2.18
14.06.2025	8:00-8:59	Average	370.30	1.18	2.07	13.26	6.61	21.58	2.11
14.06.2025	9:00-9:59	Average	376.83	1.03	2.09	12.40	6.28	21.84	2.00
14.06.2025	10:00-10:59	Average	373.49	0.88	2.07	11.95	6.10	21.57	1.85
14.06.2025	11:00-11:59	Average	373.44	0.76	1.95	11.82	5.92	21.81	1.74
14.06.2025	12:00-12:59	Average	374.89	0.62	1.91	12.36	6.02	22.37	1.72
14.06.2025	13:00-13:59	Average	383.20	0.50	1.89	12.35	6.22	21.86	1.80
14.06.2025	14:00-14:59	Average	367.08	0.54	1.42	11.79	6.20	22.26	1.85
14.06.2025	15:00-15:59	Average	378.03	0.70	1.70	11.40	6.30	22.68	1.89
Average			375.27	0.96	2.05	12.31	6.52	21.78	1.99
1 hour Minimum			367.08	0.50	1.42	11.40	5.92	20.58	1.72

1 hour Maximum	385.85	1.29	2.58	13.48	7.08	22.68	2.19

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	3rd Time Monitoring Results	2nd Time Monitoring Results	EMP Baseline Results	NEQG Guidelines Value	ACGIH Guidelines Value	NAAQS Guidelines Value	Unit	Averaging Period
PM_{10}	12.31	7.35	39.52	50	-	-	$\mu g/m^3$	24hrs
$PM_{2.5}$	6.52	3.65	20.42	25	-	-	$\mu g/m^3$	24hrs
CO	0.00108	0.00053	0.00	-	-	9	ppm	8hrs
CO_2	376.02	434.83	1506.84	-	5000	-	ppm	8hrs
SO_2	5.22	0.15	3.09	20	-	-	$\mu g/m^3$	24hrs
NO_2	4.85	9.44	23.12	200	-	-	$\mu g/m^3$	1hrs

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

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.

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	

2.2.2 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. 5 Noise Quality Monitoring Locations of Thazi Solar Power Project

Table 2. 9 Locations of Environmental Quality sampling points

Locations No.	Points	Coordinate	Locations
Noise Monitoring Location			
1.	NQ1	Lat - 20°52'54.07"N, Long - 96° 2'6.83"E	Project Site
2.	NQ2	Lat - 20°52'50.71"N, Long - 96° 2'1.56"E	Project Site (Receptor)

Figure 2. 6 Noise Quality Measuring during Operation Period

	Noise quality measuring at Thazi Solar Power Project 13.06.2025 - 14.06.2025 (Project Site)
	Noise quality measuring at Thazi Solar Power Project 13.06.2025 - 14.06.2025 (Staff Housing)

2.2.3 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 Thazi solar power project points: these points are nearly the air monitoring points and staff housing on 13th to 14th June 2025. Measuring period is 24 hours continuously. The observed values are described in Table 2. 10 and Table 2. 11 and the following figures are noise level measurement at the proposed project.

Table 2. 10 Observed Values of Noise Level Measurement at Project Site

No.	Date	Time	Observed Mean Value (Source)	Weight	Day/Night	Average
1	14.06.2025	7:00:11-7:59:11	70.75	A	Day	
2	14.06.2025	8:00:11-8:59:11	72.18	A	Day	
3	14.06.2025	9:00:11-9:59:11	69.64	A	Day	
4	14.06.2025	10:00:11-10:59:11	61.87	A	Day	
5	14.06.2025	11:00:11-11:59:11	56.44	A	Day	
6	14.06.2025	12:00:11-12:59:11	65.51	A	Day	
7	14.06.2025	13:00:11-13:59:11	62.39	A	Day	
8	14.06.2025	14:00:11-14:59:11	63.23	A	Day	61.55
9	14.06.2025	15:00:11-15:59:11	61.26	A	Day	
10	13.06.2025	16:00:11-16:59:11	70.26	A	Day	
11	13.06.2025	17:00:11-17:59:11	48.96	A	Day	
12	13.06.2025	18:00:11-18:59:11	46.74	A	Day	
13	13.06.2025	19:00:11-19:59:11	58.02	A	Day	
14	13.06.2025	20:00:11-20:59:11	65.41	A	Day	
15	13.06.2025	21:00:11-21:59:11	50.56	A	Day	
16	13.06.2025	22:00:11-22:59:11	50.26	A	Night	
17	13.06.2025	23:00:11-23:59:11	50.24	A	Night	
18	14.06.2025	0:00:11-0:59:11	50.14	A	Night	
19	14.06.2025	1:00:11-1:59:11	48.94	A	Night	
20	14.06.2025	2:00:11-2:59:11	48.48	A	Night	52.08
21	14.06.2025	3:00:11-3:59:11	48.02	A	Night	
22	14.06.2025	4:00:11-4:59:11	50.14	A	Night	
23	14.06.2025	5:00:11-5:59:11	54.34	A	Night	
24	14.06.2025	6:00:11-6:59:11	68.13	A	Night	
Average			**58.00**			

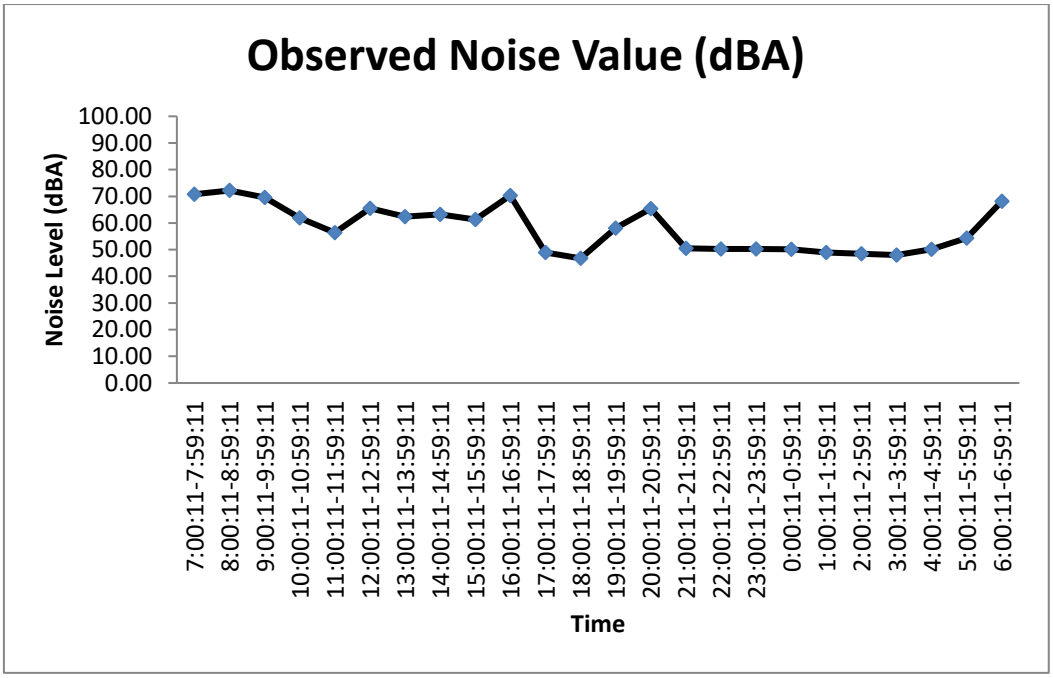


Figure 2. 7 Noise Level at Project Site

Table 2. 11 Observed Values of Noise Level Measurement at Staff Housing

No.	Date	Time	Observed Mean Value (Source)	Weight	Day/Night	Average
1	14.06.2025	7:00:53-7:59:53	70.59	A	Day	
2	14.06.2025	8:00:53-8:59:53	68.18	A	Day	
3	14.06.2025	9:00:53-9:59:53	64.54	A	Day	
4	14.06.2025	10:00:53-10:59:53	63.61	A	Day	
5	14.06.2025	11:00:53-11:59:53	60.65	A	Day	
6	14.06.2025	12:00:53-12:59:53	70.77	A	Day	
7	14.06.2025	13:00:53-13:59:53	65.10	A	Day	
8	14.06.2025	14:00:53-14:59:53	68.50	A	Day	66.83
9	14.06.2025	15:00:53-15:59:53	61.53	A	Day	
10	13.06.2025	16:00:53-16:59:53	77.30	A	Day	
11	13.06.2025	17:00:53-17:59:53	82.41	A	Day	
12	13.06.2025	18:00:53-18:59:53	59.00	A	Day	
13	13.06.2025	19:00:53-19:59:53	61.41	A	Day	
14	13.06.2025	20:00:53-20:59:53	70.81	A	Day	
15	13.06.2025	21:00:53-21:59:53	58.09	A	Day	
16	13.06.2025	22:00:53-22:59:53	55.36	A	Night	
17	13.06.2025	23:00:53-23:59:53	55.85	A	Night	
18	14.06.2025	0:00:53-0:59:53	54.92	A	Night	57.64
19	14.06.2025	1:00:53-1:59:53	55.40	A	Night	
20	14.06.2025	2:00:53-2:59:53	53.74	A	Night	

21	14.06.2025	3:00:53-3:59:53	59.57	A	Night	
22	14.06.2025	4:00:53-4:59:53	59.56	A	Night	
23	14.06.2025	5:00:53-5:59:53	56.06	A	Night	
24	14.06.2025	6:00:53-6:59:53	68.27	A	Night	
Average			**63.38**			

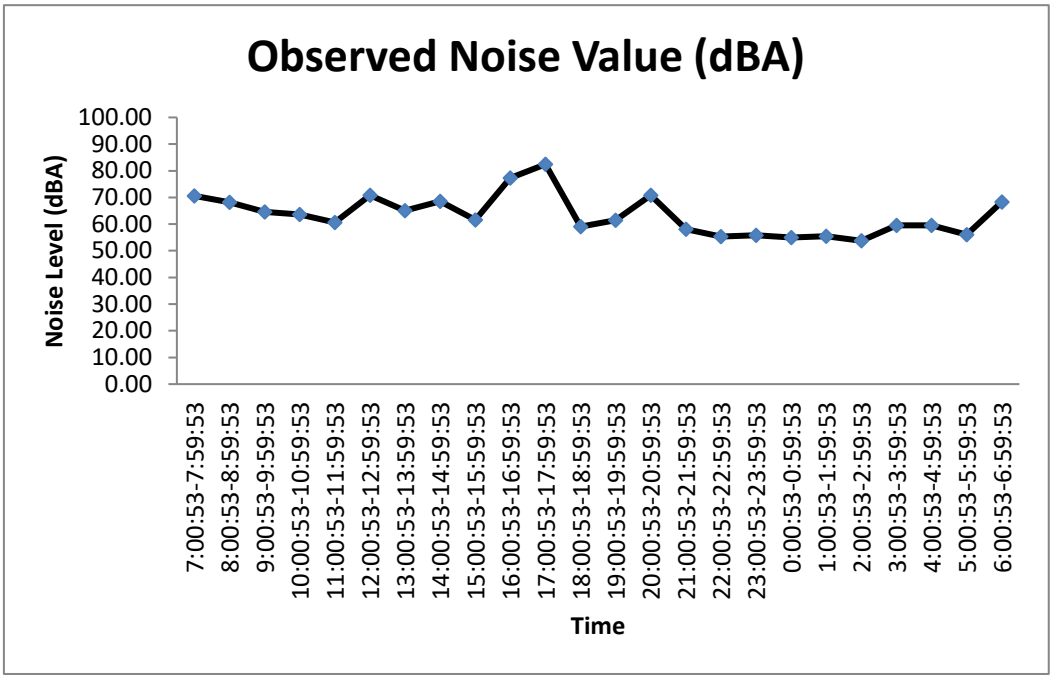


Figure 2. 8 Noise Level at Staff Housing

Table 2. 12 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 observed values are compared with the National Environmental Quality (Emission) Guidelines as shown in Table 2. 13 which indicates the separate level for residential and industrial points.

Table 2. 13 Observed Ambient Noise Level Results from Selected Points

Point	**Thazi Solar Power Project**	
	Day Time	Night Time
Project Site (Source)	**61.55**	**52.08**

2nd Time Monitoring Results (Project Site) (Source)	**54.49**	**53.65**
EMP Baseline Results (Point 1)	**41.95**	**53.51**
Guideline Values for Industrial	**70**	**70**
Staff Housing (Receptor)	**66.83**	**57.64**
2nd Time Monitoring Results (Staff Housing) (Receptor)	**48.17**	**44.54**
EMP Baseline Results (Point 2)	**51.12**	**60.08**
Guideline Values for Residential	**55**	**45**

The observed values of the proposed project for daytime at Thazi Solar Power Project Site (source) and Staff Housing (Receptor) are 61.55 dB (A) and 66.83 dB (A). The observed values of the proposed project for nighttime at Thazi Solar Power Project Site (source) and Staff Housing (Receptor) are 52.08 dB (A) and 57.64 dB (A). So, the observed daytime value and night time value for Thazi Solar Power Project Site (source) are lower than the guideline value. But, the observed daytime value and night time value for staff housing (receptor) are higher than the guideline value because of heavy raining at the time of measurement.

2.3 Weather Condition (18th January 2025 – 18th June 2025)

2.3.1 Wind Speed and Direction

The following figures describe the wind speed and wind direction of the proposed project site (Thazi solar power project Site at source) on 13th to 14th June 2025 respectively. According to the data, the wind direction is following Figure 2. 9 and Figure 2. 10.

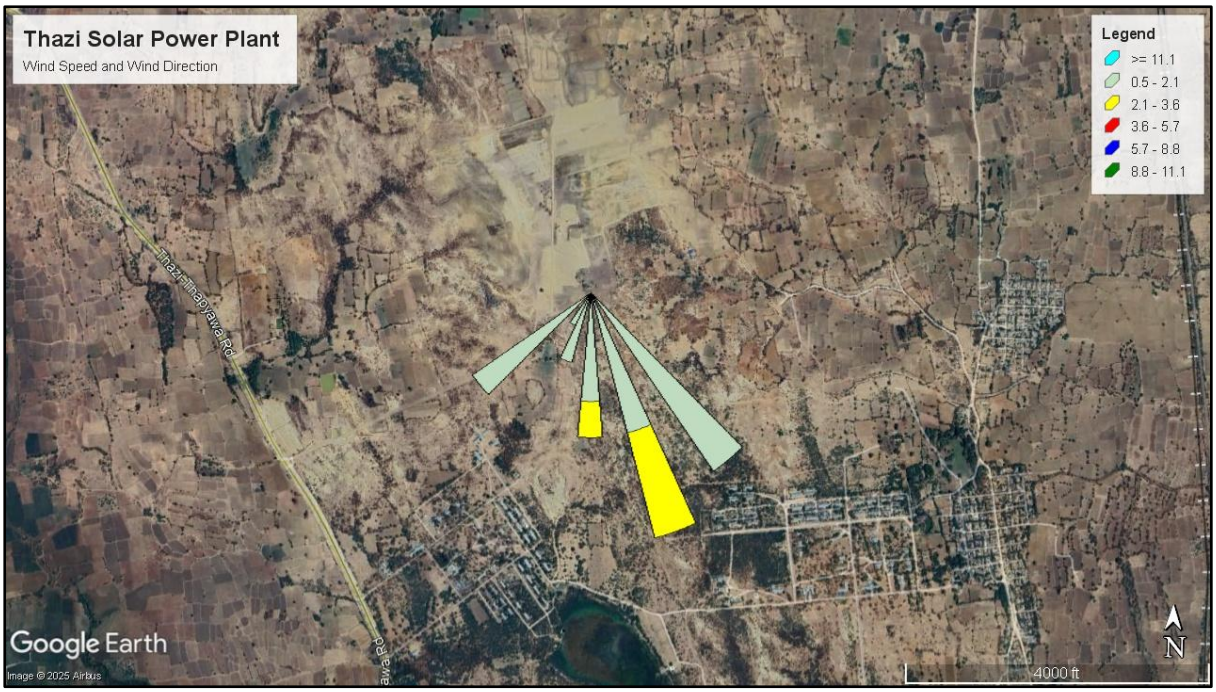


Figure 2. 9 Wind Speed and Wind Direction (Blowing From) at Project Site

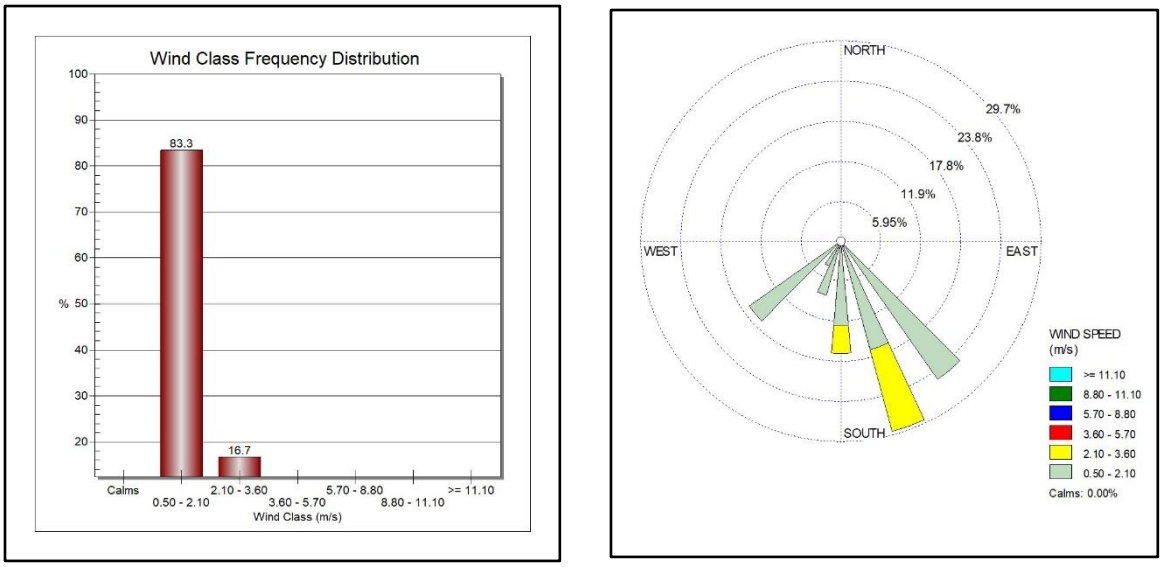


Figure 2. 10 Wind Class Frequency Distribution at Project Site

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

Strong Windstorm (Apr 26–27, 2020)

On the night of April 26, 2020, a powerful wind swept through eight villages in Thazi Township, damaging the roofs of 29 houses—fortunately with no fatalities. Local officials promptly delivered relief supplies the next day. During the monitoring period, there is no strong windstorm in Thazi Township from 18th January 2025 – 18th June 2025.

Flood from Samon Dam Wall Collapse (Sept 11–16, 2024)

The Samon Dam's regulatory wall burst, flooding downstream communities within Thazi Township. Entire villages were submerged, with one person drowning and thousands displaced. Homes, schools, roads, bridges, and monasteries were destroyed. During the monitoring period, there is no flood in Thazi Township from 18th January 2025 – 18th June 2025.

The 2025 Central Myanmar Earthquake (Magnitude 7.7)

On March 28, 2025, a 7.7-magnitude quake struck just northeast of Mandalay along the Sagaing Fault—the strongest in Myanmar since 1912. The impact was devastating:

- Fatalities: Approximately 5,300–5,450 nationwide; 3,325 deaths and 2,642 injuries in Mandalay Region (including Thazi Township)

Infrastructure damage in Thazi:

- Thazi railway station building collapsed, tracks warped and twisted
- Disruption of Yangon–Mandalay railway and closure of important routes; restoration completed by early April
- Nearby power infrastructure like the Thazi 30 MW solar plant was impacted, though later partially restored

During the monitoring period, there is earthquake in Thazi Township from 18th January 2025 – 18th June 2025.

Earthquake Damage Lists

No.	Description	Model Number	Damage		Remark
			Qty	Unit	
1	PV Module	LR5-72HBD-550M	116	Nos	Total = 47 rows
		LR5-72HBD-550H	6	Nos	
2	Pie Cap		18	Nos	
3	Drive Post	T0W001561H	10	Nos	
4	General Post1	T0W001571H	64	Nos	
5	General Post2	T0W001581H	51	Nos	
6	General Post3	T0W001591H			
7	Post Top 172	T0B000721E	48	Nos	
8	Bearing Base 120	T0W000281E	48	Nos	
9	Plastic Bearing 120	T0M0001700	368	Nos	
10	Torque Tube 2	T0S0093944	2	Nos	Total = 24 Nos
11	Torque Tube 3	T0S0094044	4	Nos	
12	Torque Tube 4	T0S0094144	3	Nos	

13	Torque Tube 5	T0S0094244	26	Nos	
14	Torque Tube 6	T0S0094344	18	Nos	
15	Torque Tube 7	T0S0094444	7	Nos	
16	Bearing Baffle 120	T0B000741E	3	Nos	
17	Damper 430	T0R0000770	112	Nos	
18	Damper Arm- Upper	T0B000811E	11	Nos	
19	Damper Arm clamp-Upper	T0B000821E	11	Nos	
20	Damper Fixing Base	T0W000351E	5	Nos	
21	Damper Adjusting Base	T0B000831E	7	Nos	
22	Purlin	T0B0028944	15	Nos	
23	U Bolt M10	JBW009021A	15	Nos	
24	Purlin Reinforcing Plate	T0B000731E	15	Nos	
25	String Inverter	SUN 2000/330 KTL	1	No	
26	3C x 185 mm2 (Inverter to Box X'mer Cable)		9	Nos	

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

2.4.1 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

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

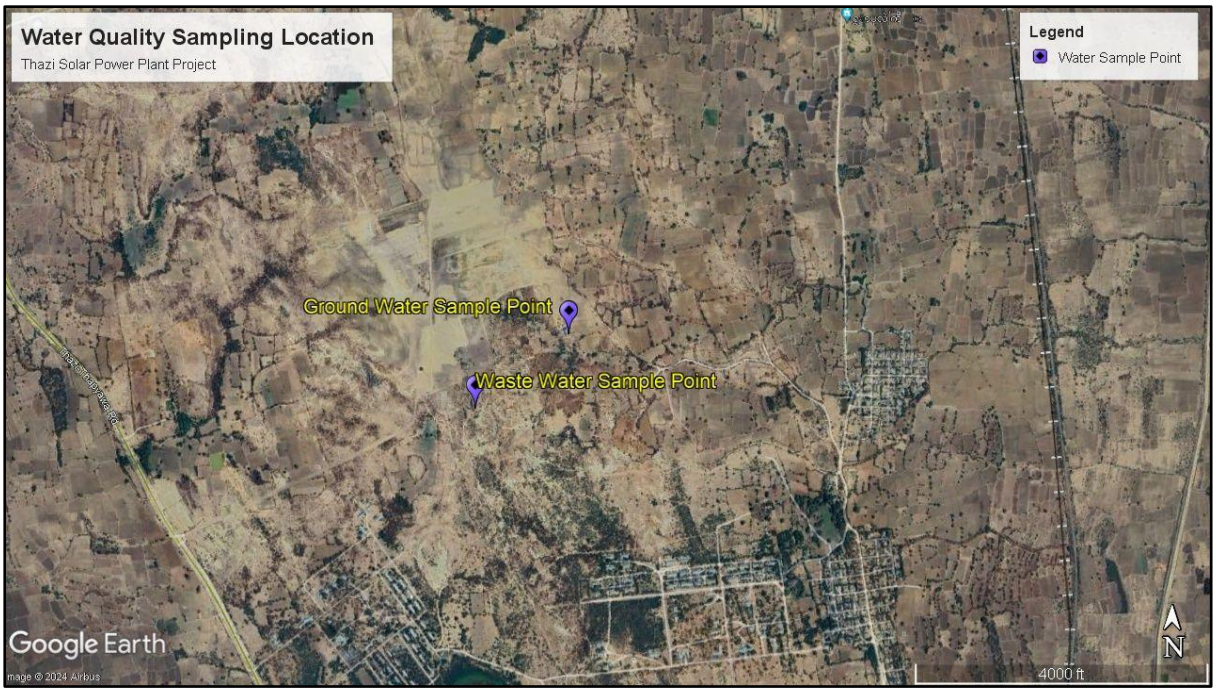


Figure 2. 12 Water Quality Sampling Locations of Thazi Solar Power Project

Table 2. 15 Locations of Environmental Quality sampling points

Locations No.	Points	Coordinate	Locations
Waste Water Quality Monitoring Location			
1.	WWQ	Lat - 20°52'59.01"N, Long - 96° 2'20.93"E	Outlet of waste water cannel from the project site
Ground Water Quality Monitoring Location			
1.	GWQ	Lat - 20°52'49.04"N, Long - 96° 2'7.74"E	Project Site

Figure 2. 13 Water Quality Measuring during Operation Period

	Waste Water Quality Sampling at Thazi Solar Power Project 14.06.2025 (Outlet of waste water cannel from the project site)
	Ground Water Quality Sampling at Thazi Solar Power Project 14.06.2025 (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 14th June 2025.

Objectives of the sampling and analysis of waste water 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 Thazi Solar Power Project

Item	Unit	Ground Water	Ground Water (2nd Time)	EMP Baseline Results	WHO Drinking Water Guideline	NDWQS (2014), MOH, Myanmar.
Biological Oxygen Demand (BOD)	mg/l	0.45	0.73	1.71	-	-

Item	Unit	Ground Water	Ground Water (2nd Time)	EMP Baseline Results	WHO Drinking Water Guideline	NDWQS (2014), MOH, Myanmar.
Chemical Oxygen Demand (COD)	mg/l	7.6	2	4.2	-	-
Dissolved Oxygen (on-site)	mg/l	12.78	8.98	5.77	-	-
Electrical Conductivity (on-site)	mS/cm	1.39	1.61	1.66	-	-
pH (on-site)	-	8.40	8.02	7.73	6.5-8.5	-
Oil & Grease	mg/l	10	3	3	-	-
Oxidation Reduction Potential (ORP) (on-site)	ORPmV	289	264	327	-	-
Salinity (on-site)	ppt	0.7	0.8	0.8	-	-
Turbidity (on-site)	NTU	15.2	238	245	-	-
Total Dissolved Solids (on-site)	g/l	0.892	1.03	1.06	-	-
Total Nitrogen	mg/l	1.12	0.84	1.22	-	-
Total Phosphorus	mg/l	0.0165	0.01943	0.02569	-	-
Total suspended solid (TSS)	mg/l	24	111	110.33	-	-
Total coliform bacteria	MPN/ml	<0.3	<0.3	4.3	Not detected	3
Potassium	mg/l	1.32	<0.02	21	-	-
Chromium	mg/l	-	-	0.01278	-	-
Aluminum	mg/l	-	-	0.008	-	-

Table 2. 17 Waste Water Quality of Thazi Solar Power Project

Item	Unit	Waste Water	Waste Water (2nd Time)	National Environmental Quality (Emission) Guideline for Electric Power Transmission and Distribution
Biological Oxygen Demand (BOD)	mg/l	1.17	1.6	30
Chemical Oxygen Demand (COD)	mg/l	6.8	6	125
pH	-	7.89	8.66	6-9
Total Nitrogen	mg/l	1.96	2.25	10
Total Phosphorus	mg/l	0.06252	0.16438	2
Oil and Grease	mg/l	9	4	10
Total suspended solid (TSS)	mg/l	25	6	50
Total coliform bacteria	CFU/100ml	46	4.3	400

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

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

Monitoring Records for Safety Plan

Monthly Record					
Date	**Place**	**Activity**	**Organization**	**Number of Attends**	**Remarks**
10.2.2025	Working Area	Aware Training About PPE	Thazi Solar Power Plant	20	
6.4.2025	Power Staion	Provide PPE Safety Equipment	Thazi Solar Power Plant	20	
15.3.2025	PV Field	Electrical Safety Training	Thazi Solar Power Plant	20	
2.5. 2025	Working Area	Electrical Safety Training	Thazi Solar Power Plant	20	
24.6.2025	Power Staion	Fire Safety Training	Thazi Solar Power Plant	50	
3.7.2025	PV Field	Electrical Safety Training	Thazi Solar Power Plant	20	

Monitoring Record for Occupational Safety Equipment

Date	Place	Type	Quantity	Inspected By	Supervisor	Remark
1.Apr.2025	Store	Safety Shoe	18	U Sai Bo Bo	U Kyaw Zin Htet	
1.Apr.2025	Store	Safety Gloves	60	U Sai Bo Bo	U Kyaw Zin Hte	
1.Apr.2025	Store	Safety Helmet	25	U Sai Bo Bo	U Kyaw Zin Htet	
1.Apr.2025	Store	Safety Belt	18	U Sai Bo Bo	U Kyaw Zin Htet	

Records Photo of Health and Safety Plan Activities

 SUNTEN	 SUNTEN 2025/06/24 15:20
	

အရေးပေါ်အခြေအနေတုံ့ပြန်ခိုင်မှု အစီအစဉ်

စီမံကိန်းအလုပ်ငန်းခွင်အတွင်းမှ အရေးကြီး ဆက်သွယ်ရမည် ဖုန်းနံပါတ်များ		
အမည်	ရာထူး	ဖုန်းနံပါတ်
ဦးကျော်ဇင်ထက်	စက်ရုံမှူး	09-259201955
ဦးစိုင်းဘိုဘို	ဒု-စက်ရုံမှူး	09-420732352
ဦးကျော်ဝင်းနိုင်	လုပ်ငန်းခွင်အန္တရာယ်ကင်းရှင်းရေးအရာရှိ	09-685309064
ဦးအောင်ကျော်မင်း	ကြီးကြပ်ရေးမှူး	09-690566676
ဦးရှုခိုင်	ရှေးဦးသူနာပြု	09-677786911
ဦးသိန်းစိုး	အရေးပေါ်အခြေအနေ ထိန်းချုပ်ရေးမှူး	09-459946678

အရေးကြီး ဆက်သွယ်ရမည် ဒေသအတွင်းဖုန်းနံပါတ်များ		
အမည် (ဌာန)	အကြောင်းအရာ	ဖုန်းနံပါတ်
မြို့နယ်မီးသတ်ဌာန	မီးလောင်ခြင်းအတွက်	064-2069191
မြို့နယ်ရဲစခန်း	လုံခြုံရေးကိစ္စများအတွက်	09-428325491
မြို့နယ်ဆေးရုံ	ထိခိုက်ဒဏ်ရာရသူများအတွက်	09-420174467
မြို့နယ်လျှပ်စစ်ဌာန	လျှပ်စစ်မီးကိစ္စ	09-441255505
မြို့နယ် အထွေထွေ အုပ်ချုပ်ရေးဌာန	အထွေထွေ အုပ်ချုပ်ရေးကိစ္စ	09-265005096

Fire Extinguisher Check List

No	Date	Description	Location	Number	Unit	Remarks
1	24/6/2025	Fire Extinguisher (50Kg)	Power Station	1	Nos	
2	24/6/2025	Fire Extinguisher (5Kg)	Power Station	5	Nos	
3	24/6/2025	Fire Extinguisher (5Kg)	Briefing Hall	3	Nos	
4	24/6/2025	Fire Extinguisher (5Kg)	6Unit	2	Nos	
5	24/6/2025	Fire Extinguisher (5Kg)	Messing	2	Nos	
6	24/6/2025	Fire Extinguisher (5Kg)	Kitchen Room	3	Nos	
7	24/6/2025	Fire Extinguisher (5Kg)	Main Gate	2	Nos	
8	24/6/2025	Fire Extinguisher (5Kg)	Gate (1)	2	Nos	
9	24/6/2025	Fire Extinguisher (50Kg)	Primary Cabin	1	Nos	
10	24/6/2025	Fire Extinguisher (10Kg)	Primary Cabin	2	Nos	
11	24/6/2025	Fire Extinguisher (10Kg)	Secondary Cabin	2	Nos	
12	24/6/2025	Fire Extinguisher (5Kg)	SVG X'mer	2	Nos	
13	24/6/2025	Fire Extinguisher (5Kg)	Station X'mer	2	Nos	
14	24/6/2025	Fire Extinguisher (5Kg)	BESS (1)	2	Nos	
15	24/6/2025	Fire Extinguisher (5Kg)	BESS (2)	2	Nos	
16	24/6/2025	Fire Extinguisher (5Kg)	BESS (3)	2	Nos	

No	Date	Description	Location	Number	Unit	Remarks
17	24/6/2025	Fire Extinguisher (5Kg)	BESS (4)	2	Nos	
18	24/6/2025	Fire Extinguisher (5Kg)	BESS (5)	2	Nos	
19	24/6/2025	Fire Extinguisher (5Kg)	BESS (6)	2	Nos	
20	24/6/2025	Fire Extinguisher (5Kg)	BESS (7)	2	Nos	
21	24/6/2025	Fire Extinguisher (5Kg)	STS	2	Nos	
22	24/6/2025	Fire Extinguisher (5Kg)	Box X'mer (1)	3	Nos	
23	24/6/2025	Fire Extinguisher (5Kg)	Box X'mer (2)	3	Nos	
24	24/6/2025	Fire Extinguisher (5Kg)	Box X'mer (3)	3	Nos	
25	24/6/2025	Fire Extinguisher (5Kg)	Box X'mer (4)	3	Nos	
26	24/6/2025	Fire Extinguisher (5Kg)	Box X'mer (5)	3	Nos	
27	24/6/2025	Fire Extinguisher (5Kg)	Mechanic	2	Nos	
28	24/6/2025	Firefighting Water tank (2000L)	Box X'mer (4 & 5)	2	Nos	
29	24/6/2025	Firefighting Water tank (1500L)	Box X'mer (1 & 2)	2	Nos	
30	24/6/2025	Firefighting Water tank (1500L)	Box X'mer (3)	1	Nos	
	Total			**67**	**Nos**	

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

Records for CSR Activities

Date	Place	Type	Amount (MMK) / Activities	Received by
22.2.2025	ရွာပုလဲလေးကျေးရွာ	ဆွမ်းဆန်စိမ်းလောင်းလှူခြင်း	-	
8.3.2025	ရွာကြီးကျေးရွာ	ဆွမ်းဆန်စိမ်းလောင်းလှူခြင်း	-	
28.3.2025	ငါးဆူဘုရား	Earthquake Fault အတွက် စက်ယဉ်ယန္တရားများကူညီခြင်း	-	
28.3.2025	သာစည်မြို့ (ဘူတာ)	Earthquake Fault အတွက် စက်ယဉ်ယန္တရားများကူညီခြင်း	-	
23.4.2025	ကျီတိုင်ကုန်ဘုန်းကြီးကျောင်း	Earthquake Fault အတွက် စက်ယဉ်ယန္တရားများကူညီခြင်း	-	
5.5.2025	ကျီတိုင်ကုန်းကျေးရွာ	အသံမစဲမဟာပဋ္ဌာန်းပွဲတွင်ဝတ္ထုငွေလှူဒါန်းခြင်း	-	
14.5.2025	သဲပုတ်ကုန်ဘုန်းကြီးကျောင်း	Earthquake Fault အတွက် စက်ယဉ်ယန္တရားများကူညီခြင်း		

Photo Record for CSR Activities

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

Monitoring Records for GRM

Monthly Record					
Date	Place	Activity	Organization Or	Action Plan	Recorded by
January, 2025	Great Success Energy Plant	-	-	-	U Kyaw Zin Htet
February ,2025	Great Success Energy Plant	-	-	-	U Kyaw Zin Htet
March, 2025	Great Success Energy Plant	-	-	-	U Kyaw Zin Htet
April, 2025	Great Success Energy Plant	-	-	-	U Kyaw Zin Htet
May, 2025	Great Success Energy Plant	-	-	-	U Kyaw Zin Htet
June, 2025	Great Success Energy Plant	-	-	-	U Kyaw Zin Htet

GRM Organization of Thazi Solar Power Project

မကျေလည်မှုများ ဖြေရှင်းရေး ကော်မတီ			
စဉ်	အမည်	တာဝန်	ဌာန
၁	ဦးစိုးဝင်း	ဥက္ကဋ္ဌ	
၂	ဦးရှုခိုင်	အတွင်းရေးမှူး	GSE Co., Ltd
၃	ဦးနိုင်လင်း	အဖွဲ့ဝင် (၁)	ကျီတိုင်ကုန်းကျေးရွာ
၄	ဦးဆယ်ကြည်	အဖွဲ့ဝင် (၂)	ရွာပုလဲကြီးကျေးရွာ
၅	ဦးသန်းစိုးအောင်	အဖွဲ့ဝင် (၃)	GSE Co., Ltd

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

Records for Waste Disposal

Date	Place	Type	Amount	Inspected By
24.1.2025	ဝန်ထမ်းလိုင်းများ / ရုံး	အမှိုက်စို / အမှိုက်ခြောက်	52 Kg	U Sai Bo Bo
5.2.2025	ဝန်ထမ်းလိုင်းများ /ရုံး	အမှိုက်စို / အမှိုက်ခြောက်	50 Kg	U Sai Bo Bo
16.2.2025	ဝန်ထမ်းလိုင်းများ /ရုံး	အမှိုက်စို / အမှိုက်ခြောက်	48 Kg	U Sai Bo Bo
9.3.2025	ဝန်ထမ်းလိုင်းများ /ရုံး	အမှိုက်စို / အမှိုက်ခြောက်	53 Kg	U Sai Bo Bo
24.3.2025	ဝန်ထမ်းလိုင်းများ /ရုံး	အမှိုက်စို / အမှိုက်ခြောက်	50 Kg	U Sai Bo Bo
1.4.2025	ဝန်ထမ်းလိုင်းများ / ရုံး	အမှိုက်စို / အမှိုက်ခြောက်	48 Kg	U Sai Bo Bo
30.4.2025	ဝန်ထမ်းလိုင်းများ / ရုံး	အမှိုက်စို / အမှိုက်ခြောက်	40 Kg	U Sai Bo Bo
12.5.2025	ဝန်ထမ်းလိုင်းများ / ရုံး	အမှိုက်စို / အမှိုက်ခြောက်	30 Kg	U Sai Bo Bo
20.5.2025	ဝန်ထမ်းလိုင်းများ / ရုံး	အမှိုက်စို / အမှိုက်ခြောက်	56 Kg	U Sai Bo Bo
2.6.2025	ဝန်ထမ်းလိုင်းများ / ရုံး	အမှိုက်စို / အမှိုက်ခြောက်	38 Kg	U Sai Bo Bo
30.6.2025	ဝန်ထမ်းလိုင်းများ / ရုံး	အမှိုက်စို / အမှိုက်ခြောက်	42 Kg	U Sai Bo Bo
10.7.2025	ဝန်ထမ်းလိုင်းများ / ရုံး	အမှိုက်စို / အမှိုက်ခြောက်	62 Kg	U Sai Bo Bo

Records Photo for Waste Disposal

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

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	: Thazi Solar Power Project
2	Location	: Thazi Township
3	Type of Sample	: Ground Water
4	Sample No.	: 00758/2025
5	Contact Person	: Eguard Environmental Services
6	Phone No.	: 09-797005212
7	Date Received	: 16.06.2025
8	Date of Test Performed	: 16.06.2025
9	Date of Issued	: 24.06.2025
10	Result	:

No.	Parameter	Result	Unit	WHO STD 2018	Method
1	Oil and Grease	10	mg/L	-	[a] 5520D, Soxhlet Extraction Method
2	Total Coliform	< 0.3	MPN/ml	-	FDA-BAM: MPN Method

Remark:
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 : PHYO PHYO AUNG
Position : Laboratory Technician
Signature :.....

Approved By
Name : THEMAR WINT
Position : Laboratory 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/0365/2025
Date: 30-6-2025

ANALYTICAL TEST REPORT

Project Name: **Thazi Solar Power Project**
Customer Address: **Ko Aung Moe Oo**

Assignment number	2025-83-4	Sampling Location	Thazi Township
Sample name	GW	Sampling Date	
Sample type	**Ground Water**	Sample received date	15-6-2025
Comments			

Parameter	Result	Unit	Method reference	Instruments
Biological Oxygen Demand	0.45	mg/L	Potentiometric	YSI Pro DO Tester
Chemical Oxygen Demand	7.6	mg/L	Titrimetric	Titrator
Potassium	1.32	mg/L	ISO 14911: 1998	Ion Chromatography (Thermo Scientific, DIONEX AQUION
Total Phosphorus	16.5	µg /L	NS 4725	SFA(SKALAR SAN plus Analyzer)SA 3000/5000,SA 1100
Total Nitrogen	1.12	mg/L	Kjeldahl	Kjeldahl Digestion & Distillation Unit
Total Suspended Solid	24	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	: Thazi Solar Power Project
2	Location	: Thazi Township
3	Type of Sample	: Waste Water
4	Sample No.	: 00759/2025
5	Contact Person	: Eguard Environmental Services
6	Phone No.	: 09-797005212
7	Date Received	: 16.06.2025
8	Date of Test Performed	: 16.06.2025
9	Date of Issued	: 24.06.2025
10	Result	:

No.	Parameter	Result	Unit	WHO STD 2018	Method
1	Oil and Grease	9	mg/L	-	[a] 5520D, Soxhlet Extraction Method
2	Total Coliform	46	MPN/ml	-	FDA-BAM: MPN Method

Remark:
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 : PHYO PHYO AUNG
Position : Laboratory Technician
Signature :.....

Approved By
Name : THEMAR WINT
Position : Laboratory 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/0366/2025
Date: 30-6-2025

ANALYTICAL TEST REPORT

Project Name: **Thazi Solar Power Project**
Customer Address: **Ko Aung Moe Oo**

Assignment number	2025-83-5	Sampling Location	Thazi Township
Sample name	WW	Sampling Date	
Sample type	**Waste Water**	Sample received date	15-6-2025
Comments			

Parameter	Result	Unit	Method reference	Instruments
Biological Oxygen Demand	1.17	mg/L	Potentiometric	YSI Pro DO Tester
Chemical Oxygen Demand	6.8	mg/L	Titrimetric	Titrator
pH	7.89	-	Potentiometric	HACH HQ40d Multiparameter Field Case
Total Phosphorus	62.52	µg /L	NS 4725	SFA(SKALAR SAN plus Analyzer)SA 3000/5000,SA 1100
Total Nitrogen	1.96	mg/L	Kjeldahl	Kjeldahl Digestion & Distillation Unit
Total Suspended Solid	25	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