

Electronic Freedom of Information (eFOI) – Requested by Mr. E. Abcede

1. Peak Loading of all BUSECO's substation 2017-2021, forecasted to 2026

- Each substation's MVA capacity
- MW capacity at x% power factor
- Actual peak kW demand and % loading every year
- Forecasted peak kW demand and % loading every year

Per latest CAPEX Application of BUSECO: ¹

Year	Lunocan SS			Capacity	PF	Aglayan SS			Capacity	PF
	Demand (MW)	Spot Loads (MW)	Demand (MVA)	25 MVA	0.9525	Demand (MW)	Spot Loads (MW)	Demand (MVA)	20 MVA	0.9991
				Rated Capacity 25MVA	Maximum Capacity 31.25MVA				Rated Capacity 20MVA	Maximum Capacity 25MVA
2021	14.40	-	15.12	60.47%	48.38%	7.71	-	7.72	38.58%	30.87%
2022	16.49	7.66	25.35	101.41%	81.13%	7.94	2.23	10.18	50.89%	40.71%
2023	17.63	13.56	32.74	130.95%	104.76%	8.48	5.80	14.29	71.45%	57.16%
2024	18.99	13.56	34.17	136.67%	109.33%	9.14	5.80	14.95	74.73%	59.78%
2025	20.61	13.56	35.87	143.49%	114.79%	9.92	5.80	15.73	78.64%	62.91%
2026	22.53	13.56	37.89	151.54%	121.24%	10.84	5.80	16.65	83.26%	66.61%

Year	Sumilao SS			Capacity (MVA)	PF	Casisang SS			Capacity (MVA)	PF
	Demand (MW)	Spot Loads (MW)	Demand (MVA)	10	0.9352	Demand (MW)	Spot Loads (MW)	Demand (MVA)	10	0.9925
				Rated Capacity 10MVA	Maximum Capacity 12.5MVA				Rated Capacity 10MVA	Maximum Capacity 12.5MVA
2021	4.76	-	5.09	50.90%	40.72%	9.10	-	9.17	91.69%	73.35%
2022	5.20	0.36	5.96	59.55%	47.64%	8.01	1.58	9.66	96.61%	77.29%
2023	5.56	0.42	6.39	63.93%	51.15%	8.56	1.90	10.54	105.39%	84.32%
2024	5.99	0.42	6.85	68.52%	54.82%	9.22	1.90	11.21	112.05%	89.64%
2025	6.50	0.29	7.26	72.61%	58.09%	10.00	1.90	12.00	119.99%	95.99%
2026	7.11	0.29	7.91	79.09%	63.27%	10.94	1.90	12.94	129.38%	103.50%

Year	Shihlin (Damilag SS)			Capacity (MVA)	PF
	Demand (MW)	Spot Loads (MW)	Demand (MVA)	15	0.9178
				Rated Capacity 15MVA	Maximum Capacity 18.75MVA
2021	3.64	-	3.97	26.44%	21.15%
2022	3.69	-	4.03	26.84%	21.47%
2023	3.95	0.45	4.79	31.95%	25.56%
2024	4.25	0.45	5.12	34.16%	27.33%
2025	4.62	0.45	5.52	36.80%	29.44%
2026	5.05	0.45	5.99	39.93%	31.94%

¹ Lifted from ERC Case No. 2022-034 RC entitled "In the Matter of the Application for Approval of the Proposed Capital Expenditure for the Years 2023 to 2025 with Prayers for the Issuance of Provisional Authority and to Secure Loan from the National Electrification Administration (NEA) and/or Other Financing Institutions".

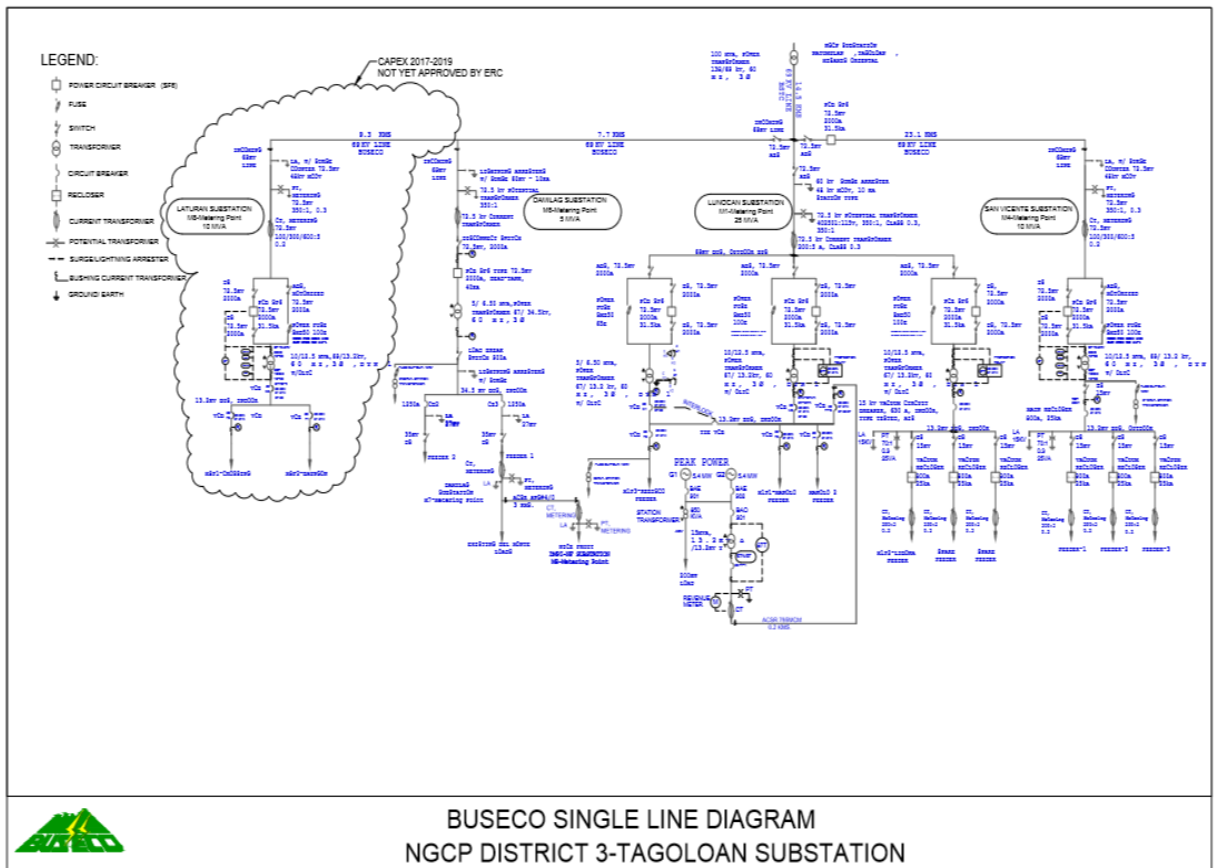
Per CAPEX Update of BUSECO:

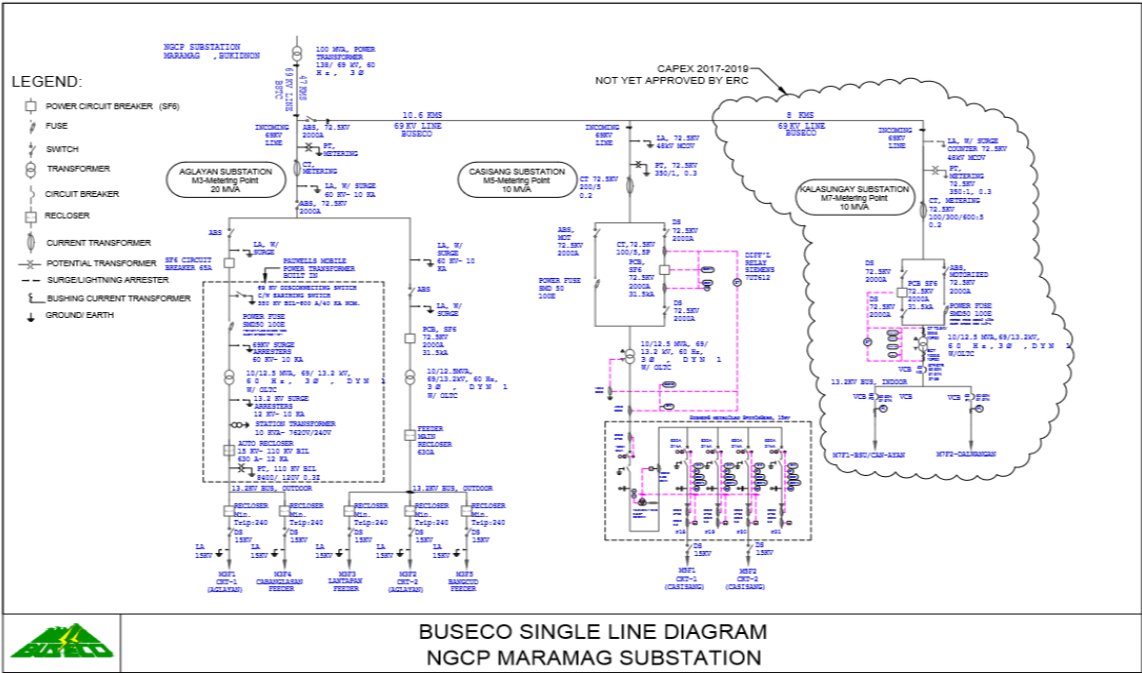
Year	Lunucan SS			Aglayan SS		Sumilao SS	Casisang SS	Damilag SS
	Shihlin (10/12.5 MVA)	Shihlin (10/12.5 MVA)***	Changzou (5/6.25MVA)	Tatung (10/12.5 MVA)	Pauwells (10/12.5MVA)	Shihlin (10/12.5 MVA)	LEEC (10/12.5MVA)	Shihlin (10/12.5 MVA)
	Demand (MW)	Demand (MW)	Demand (MW)	Demand (MW)	Demand (MW)	Demand (MW)	Demand (MW)	Demand (MW)
2017	7.38	-	3.65	4.74	1.10	4.04	6.47	2.37
2018	5.60	3.81	2.10	4.94	1.15	4.21	6.75	2.47
2019	6.03	4.10	2.26	5.32	1.24	4.54	7.27	2.66
2020	6.46	4.39	2.41	5.69	1.32	4.85	7.77	2.85
2021	6.88	4.68	2.57	6.06	1.41	5.17	8.28	3.03
2022	7.29	4.96	2.73	6.43	1.49	5.48	8.78	3.22
2023	7.70	5.24	2.88	6.79	1.58	5.79	9.27	3.40
2024	8.10	5.51	3.03	7.14	1.66	6.09	9.75	3.57
2025	8.50	5.77	3.17	7.49	1.74	6.38	10.22	3.74
2026	8.87	6.03	3.32	7.82	1.82	6.67	10.68	3.91

Note: *** CAPEX 2017-2019 Project

2. BUSECO Existing Simple and Geographic Single Line Diagram that showcases 500 kV, 69 kV, 34.5 kV, 13.8 kV, and other kV ratings.

- a. Indicate the name of the distribution line and corresponding substation which these lines connected.





**BUSECO SINGLE LINE DIAGRAM
NGCP MARAMAG SUBSTATION**