

Project:	ETAP	Page:	1
Location:	19.0.1C	Date:	01-14-2025
Contract:		SN:	
Engineer:	Study Case: LF	Revision:	Base
Filename:	AS-BUILT-INITIAL	Config.:	Normal

### Electrical Transient Analyzer Program

#### Load Flow Analysis

Loading Category (1): Design  
Generation Category (1): Design  
Load Diversity Factor: Bus Minimum

	Swing	V-Control	Load	Total
Number of Buses:	2	0	66	68

	XFMR2	XFMR3	Reactor	Line/Cable/ Busway	Impedance	Tie PD	Total
Number of Branches:	1	0	0	56	0	9	66

Method of Solution:	Adaptive Newton-Raphson Method
Maximum No. of Iteration:	9999
Precision of Solution:	0.0001000
System Frequency:	60.00 Hz
Unit System:	English
Project Filename:	AS-BUILT-INITIAL
Output Filename:	C:\ETAP 1901\TEST\CAPTONE-1\AS-BUILT-INITIAL\INITIAL LOAD FLOW.lfr

Project: ETAP  
Location: 19.0.1C  
Contract:  
Engineer:  
Filename: AS-BUILT-INITIAL  
Study Case: LF

Page: 2  
Date: 01-14-2025  
SN:  
Revision: Base  
Config.: Normal

**Adjustments**

<u>Tolerance</u>	<u>Apply Adjustments</u>	<u>Individual /Global</u>	<u>Percent</u>
Transformer Impedance:	Yes	Individual	
Reactor Impedance:	Yes	Individual	
Overload Heater Resistance:	No		
Transmission Line Length:	No		
Cable / Busway Length:	No		
<u>Temperature Correction</u>	<u>Apply Adjustments</u>	<u>Individual /Global</u>	<u>Degree C</u>
Transmission Line Resistance:	Yes	Individual	
Cable / Busway Resistance:	Yes	Individual	

Project:	ETAP	Page:	3
Location:	19.0.1C	Date:	01-14-2025
Contract:		SN:	
Engineer:	Study Case: LF	Revision:	Base
Filename:	AS-BUILT-INITIAL	Config.:	Normal

**Bus Input Data**

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	V	Sub-sys	V	Ang.	kW	kvar	kW	kvar	kW	kvar	kW	kvar
01 B	240	1	228	-30.0	4.1	2.6	5.7	3.5				
02 B	240	1	228	-30.0	27.8	17.2	7.0	4.3				
03 B	240	1	228	-30.0			11.7	7.3				
3F4F B	240	1	232	-30.0								
04 B	240	1	233	-30.0			1.5	0.9				
05 B	240	1	230	-30.0	22.3	13.8						
06 B	240	1	231	-30.0	11.9	7.4						
07 B	240	1	231	-30.0	22.3	13.8						
ACU B	240	1	228	-30.0	2.2	1.4						
ACU1 B	240	1	232	-30.0	2.2	1.4						
ACU2 B	240	1	232	-30.0	2.2	1.4						
ACU3 B	240	1	233	-30.0	2.2	1.4						
ACU4 B	240	1	232	-30.0	2.2	1.4						
ACU5 B	240	1	232	-30.0	2.2	1.4						
ACU6 B	240	1	232	-30.0	2.2	1.4						
ACU7 B	240	1	232	-30.0	2.2	1.4						
ACU8 B	240	1	232	-30.0	2.2	1.4						
BSMT B	240	1	232	-30.0			2.8	1.7				
CLINIC B	240	1	231	-30.0	6.3	3.9	11.7	7.3				
DP ML B	240	1	229	-30.0								
DP-01 B	240	1	233	-30.0								
DP-2 B	240	1	233	-30.0								
DP-3F B	240	1	232	-30.0								
EDP1 B	240	1	233	-30.0								
EDP2 B	240	1	233	-30.0								
EE/ECE B	240	1	232	-30.0	17.5	10.9	17.5	10.9				
G1 B	240	1	233	-30.0								
G2 B	240	1	233	-30.0								
HS LIB B	240	1	233	-30.0	8.7	5.4	2.2	1.4				
JHS ME B	240	1	233	-30.0								
L-ACU B	240	1	231	-30.0	28.7	17.8						
L4F B	240	1	231	-30.0								
L373 B	240	1	231	-30.0			14.0	8.7				

					Load							
Bus			Initial Voltage		Constant kVA		Constant Z		Constant I		Generic	
ID	V	Sub-sys	V	Ang.	kW	kvar	kW	kvar	kW	kvar	kW	kvar
L374 B	240	1	231	-30.0			14.0	8.7				
L375 B	240	1	230	-30.0			14.0	8.7				
L376 B	240	1	230	-30.0			14.0	8.7				
LG1 B	240	1	228	-30.0			17.3	10.7				
LG2 B	240	1	228	-30.0			2.3	1.4				
MAIN B	240	1	233	-30.0								
MDP DNY B	240	1	232	-30.0								
MDP SAL B	240	1	231	-30.0								
MDP-CLPH-B	240	1	232	-30.0								
ME LAB B	240	1	233	-30.0	2.7	1.7	2.7	1.7				
ME157 B	240	1	233	-30.0	3.0	1.9						
OB B	240	1	233	-30.0	2.3	1.5	5.5	3.4				
PB-ACU-1 B	240	1	232	-30.0	6.5	4.0						
PB-ACU-2 B	240	1	231	-30.0	14.3	8.9						
PB-LB B	240	1	229	-30.0								
PB-SAL-GF B	240	1	231	-30.0								
PERICAN B	240	1	233	-30.0			5.7	3.5				
PHYS B	240	1	231	-30.0	4.6	2.8	6.9	4.3				
PO B	240	1	233	-30.0			2.3	1.5				
PO B3	240	1	232	-30.0	21.2	13.1	9.1	5.6				
R163 B	240	1	233	-30.0			1.8	1.1				
R164 B	240	1	230	-30.0	1.0	0.6						
R165 B	240	1	230	-30.0	1.6	1.0						
RO B	240	1	233	-30.0			7.4	4.6				
SAL-2F B	240	1	231	-30.0			4.1	2.6				
SAL-3F B	240	1	231	-30.0			2.4	1.5				
SAL 4F B	240	1	230	-30.0			3.0	1.8				
SAL-STAIRS B	240	1	233	-30.0			1.0	0.6				
SALGF B	240	1	230	-30.0			1.7	1.0				
SGEN B	240	2	240	0.0								
TAC B	240	1	232	-30.0								
TR B	240	1	232	-30.0			3.6	2.3				
TR/AUDI B	240	1	233	-30.0								
VECO B	23000	1	23000	23.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	V	Sub-sys	V	Ang.	kW	kvar	kW	kvar	kW	kvar	kW	kvar
XFORMER B	240	1	235	-30.0								
Total Number of Buses: 68					230.529	142.869	195.187	120.966	0.000	0.000	0.000	0.000

Generation Bus				Voltage		Generation			kvar Limits	
ID	V	Type	Sub-sys	V	Angle	kW	kvar	% PF	Max	Min
SGEN B	240	Swing	2	240	0.0					
VECO B	23000	Swing	1	23000	23.0					
						0.000	0.000			

Project:	ETAP	Page:	6
Location:	19.0.1C	Date:	01-14-2025
Contract:		SN:	
Engineer:	Study Case: LF	Revision:	Base
Filename:	AS-BUILT-INITIAL	Config.:	Normal

### Line/Cable/Busway Input Data

ohms or siemens/1000 ft per Conductor (Cable) or per Phase (Line/Busway)

Line/Cable/Busway	Length									
	ID	Library	Size	Adj. (ft)	% Tol.	#/Phase	T (°C)	R	X	Y
04 C		0.6MCUN1	4	176.8	0.0	3	75	0.310000	0.060000	
ACU C		0.6MCUN1	8	23.0	0.0	3	75	0.780000	0.065000	
ACU6 C		0.6MCUN1	8	509.3	0.0	3	75	0.780000	0.065000	
ACU7 C		0.6MCUN1	8	547.2	0.0	3	75	0.780000	0.065000	
ACU8 C		0.6MCUN1	8	551.9	0.0	3	75	0.780000	0.065000	
DP-01 C		0.6MCUN1	500	12.7	0.0	3	75	0.029000	0.048000	
DP-02 C		0.6MCUN1	500	7.9	0.0	3	75	0.029000	0.048000	
EDP1 C		0.6MCUN1	500	7.9	0.0	3	75	0.029000	0.048000	
EDP2 C		0.6MCUN1	500	11.8	0.0	3	75	0.029000	0.048000	
EE/ECE C		0.6MCUN1	250	247.4	0.0	3	75	0.054000	0.052000	
HS LIB C		0.6MCUN1	250	244.4	0.0	3	75	0.054000	0.052000	
L-ACU C		0.6MCUN1	1	3.4	0.0	3	75	0.160000	0.057000	
LG-01 C		0.6MCUN1	4	20.0	0.0	3	75	0.310000	0.060000	
LG-02 C		0.6MALN3	8	22.0	0.0	3	75	1.330000	0.057700	
LINK C		0.6MCUN1	250	156.2	0.0	3	75	0.054000	0.052000	
LRAC-ACU1 C		0.6MCUN1	8	464.0	0.0	3	75	0.780000	0.065000	
LRAC-ACU2 C		0.6MCUN1	8	471.5	0.0	3	75	0.780000	0.065000	
LRAC-ACU3 C		0.6MCUN1	8	145.1	0.0	3	75	0.780000	0.065000	
LRAC-ACU-04 C		0.6MCUN1	8	481.0	0.0	3	75	0.780000	0.065000	
LRAC-ACU-05 C		0.6MCUN1	8	489.2	0.0	3	75	0.780000	0.065000	
MAIN C		0.6MCUN1	500	49.2	0.0	3	75	0.029000	0.048000	
MAIN LIB C		0.6MALN3	250	407.0	0.0	3	75	0.090528	0.037900	
MDP-CLPH C		0.6MCUN1	250	156.2	0.0	3	75	0.054000	0.052000	
MDP-SAL C		0.6MCUN1	4	336.9	0.0	3	75	0.310000	0.060000	
ME C1		0.6MCUN1	8	39.0	0.0	3	75	0.780000	0.065000	
ME LAB C		0.6MCUN1	250	243.8	0.0	3	75	0.054000	0.052000	
ME157&158 C		0.6MCUN1	250	153.5	0.0	3	75	0.054000	0.052000	
OB C		0.6MCUN1	250	418.6	0.0	3	75	0.054000	0.052000	
PB-01 C		0.6MCUN1	4	196.9	0.0	3	75	0.310000	0.060000	
PB-02 C		0.6MCUN1	4	4.7	0.0	3	75	0.310000	0.060000	
PB-03 C		0.6MCUN1	6	6.0	0.0	3	75	0.490000	0.064000	
PB-05 C		0.6MCUN1	4	257.5	0.0	3	75	0.310000	0.060000	
PB-06 C		0.6MCUN1	8	177.2	0.0	3	75	0.780000	0.065000	
PB-07 C		0.6MCUN1	4	176.8	0.0	3	75	0.310000	0.060000	

Project:	<b>ETAP</b>	Page:	7
Location:	<b>19.0.1C</b>	Date:	01-14-2025
Contract:		SN:	
Engineer:	Study Case: LF	Revision:	Base
Filename:	AS-BUILT-INITIAL	Config.:	Normal

ohms or siemens/1000 ft per Conductor (Cable) or per Phase (Line/Busway)

Line/Cable/Busway	Library	Size	Length		#/Phase	T (°C)	R	X	Y
			Adj. (ft)	% Tol.					
PB-ACU-1 C	0.6MCUN1	1	176.5	0.0	3	75	0.160000	0.057000	
PB-ACU-2 C	0.6MCUN1	1	213.3	0.0	3	75	0.160000	0.057000	
PB-BSMT C-	0.6MCUN1	1	20.6	0.0	3	75	0.160000	0.057000	
PB-CLINIC C	0.6MCUN1	2	250.0	0.0	3	75	0.200000	0.057000	
PB-LINK-4F C	0.6MALN3	2	46.3	0.0	3	75	0.331280	0.044800	
PB-LINK-373 C	0.6MCUN1	10	4.9	0.0	3	75	1.200000	0.063000	
PB-LINK-374 C	0.6MCUN1	10	23.6	0.0	3	75	1.200000	0.063000	
PB-LINK-375 C	0.6MCUN1	10	47.6	0.0	3	75	1.200000	0.063000	
PB-LINK-376 C	0.6MCUN1	10	72.2	0.0	3	75	1.200000	0.063000	
PB-PHYS C	0.6MCUN1	4	280.5	0.0	3	75	0.310000	0.060000	
PB-PO C	0.6MCUN1	8	39.0	0.0	3	75	0.780000	0.065000	
PB-RO C	0.6MCUN1	8	39.0	0.0	3	75	0.780000	0.065000	
PB-SAL-2F C	0.6MCUN1	8	10.2	0.0	3	75	0.780000	0.065000	
PB-SAL-3F C	0.6MCUN1	6	20.5	0.0	3	75	0.490000	0.064000	
PB-SAL-4F C	0.6MCUN1	8	30.7	0.0	3	75	0.780000	0.065000	
PB-SAL-GF C	0.6MCUN1	8	114.8	0.0	1	75	0.780000	0.065000	
PB-SAL-GF-R163 C	0.6MCUN1	6	158.8	0.0	3	75	0.490000	0.064000	
PB-SAL-R164 C	0.6MCUN1	6	114.8	0.0	3	75	0.490000	0.064000	
PB-SAL-R165 C	0.6MCUN1	6	110.2	0.0	3	75	0.490000	0.064000	
PB-TROOM C	0.6MCUN1	8	38.6	0.0	1	75	0.780000	0.065000	
PERICAN C	0.6MCUN1	250	452.8	0.0	3	75	0.054000	0.052000	
SAL-STAIRS C	0.6MCUN1	8	13.1	0.0	3	75	0.780000	0.065000	

Line / Cable / Busway resistances are listed at the specified temperatures.

Project:

Location:

Contract:

Engineer:

Filename:

ETAP

19.0.1C

Study Case: LF

AS-BUILT-INITIAL

Page: 8

Date: 01-14-2025

SN:

Revision: Base

Config.: Normal

2-Winding Transformer Input Data

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	kVA	Prim. V	Sec. V	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
3-167 kVA	3-Phase	501.0	23000	240	2.80	3.96	0	0	0	0	0	2.8000	YNd	30.000



Project:	ETAP	Page:	9
Location:	19.0.1C	Date:	01-14-2025
Contract:		SN:	
Engineer:	Study Case: LF	Revision:	Base
Filename:	AS-BUILT-INITIAL	Config.:	Normal

**Branch Connections**

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
3-167 kVA	2W XFMR	VECO B	XFORMER B	136.84	541.87	558.88	
04 C	Cable	TR/AUDI B	04 B	3171.25	613.79	3230.10	
ACU C	Cable	DP ML B	ACU B	1036.65	86.39	1040.25	
ACU6 C	Cable	TR/AUDI B	ACU6 B	22990.03	1915.84	23069.72	
ACU7 C	Cable	TR/AUDI B	ACU7 B	24699.03	2058.25	24784.64	
ACU8 C	Cable	TR/AUDI B	ACU8 B	24912.28	2076.02	24998.63	
DP-01 C	Cable	G1 B	DP-01 B	21.34	35.31	41.26	
DP-02 C	Cable	G2 B	DP-2 B	13.32	22.05	25.76	
EDP1 C	Cable	MAIN B	EDP1 B	13.21	21.87	25.55	
EDP2 C	Cable	MAIN B	EDP2 B	19.82	32.81	38.33	
EE/ECE C	Cable	DP-01 B	EE/ECE B	773.05	744.42	1073.20	
HS LIB C	Cable	DP-2 B	HS LIB B	763.82	735.53	1060.39	
L-ACU C	Cable	MDP DNY B	L-ACU B	31.08	11.07	32.99	
LG-01 C	Cable	PB-LB B	LG1 B	358.80	69.44	365.46	
LG-02 C	Cable	PB-LB B	LG2 B	1693.29	73.46	1694.88	
LINK C	Cable	DP-01 B	MDP DNY B	488.08	470.00	677.58	
LRAC-ACU1 C	Cable	TR/AUDI B	ACU1 B	20946.34	1745.53	21018.95	
LRAC-ACU2 C	Cable	TR/AUDI B	ACU2 B	21283.99	1773.67	21357.77	
LRAC-ACU3 C	Cable	TR/AUDI B	ACU3 B	6547.40	545.62	6570.09	
LRAC-ACU-04 C	Cable	TR/AUDI B	ACU4 B	21710.50	1809.21	21785.76	
LRAC-ACU-05 C	Cable	TR/AUDI B	ACU5 B	22082.22	1840.19	22158.76	
MAIN C	Cable	XFORMER B	MAIN B	82.59	136.70	159.71	
MAIN LIB C	Cable	DP-2 B	DP ML B	2132.17	892.64	2311.48	
MDP-CLPH C	Cable	DP-01 B	MDP-CLPH-B	488.08	470.00	677.58	
MDP-SAL C	Cable	JHS ME B	MDP SAL B	6044.68	1169.94	6156.86	
ME C1	Cable	JHS ME B	PO B3	1762.31	146.86	1768.42	
ME LAB C	Cable	DP-01 B	ME LAB B	761.77	733.56	1057.54	
ME157&158 C	Cable	DP-2 B	ME157 B	479.82	462.05	666.12	
OB C	Cable	DP-01 B	OB B	1308.24	1259.78	1816.19	
PB-01 C	Cable	DP ML B	01 B	3531.46	683.51	3597.00	
PB-02 C	Cable	DP ML B	02 B	84.40	16.34	85.97	
PB-03 C	Cable	DP ML B	03 B	169.88	22.19	171.32	
PB-05 C	Cable	DP-2 B	05 B	4618.86	893.97	4704.57	
PB-06 C	Cable	TR/AUDI B	06 B	7997.05	666.42	8024.77	
PB-07 C	Cable	TR/AUDI B	07 B	3171.25	613.79	3230.10	
PB-ACU-1 C	Cable	MDP-CLPH-B	PB-ACU-1 B	1634.34	582.24	1734.96	

Project:  
Location:  
Contract:  
Engineer:  
Filename: AS-BUILT-INITIAL

ETAP  
19.0.1C

Study Case: LF

Page: 10  
Date: 01-14-2025  
SN:  
Revision: Base  
Config.: Normal

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
PB-ACU-2 C	Cable	MDP-CLPH-B	PB-ACU-2 B	1974.58	703.44	2096.14	
PB-BSMT C-	Cable	MDP DNY B	BSMT B	190.41	67.83	202.13	
PB-CLINIC C	Cable	TAC B	CLINIC B	2893.52	824.65	3008.74	
PB-LINK-4F C	Cable	3F4F B	L4F B	887.24	119.98	895.31	
PB-LINK-373 C	Cable	DP-3F B	L373 B	341.75	17.94	342.22	
PB-LINK-374 C	Cable	DP-3F B	L374 B	1640.42	86.12	1642.68	
PB-LINK-375 C	Cable	DP-3F B	L375 B	3303.62	173.44	3308.17	
PB-LINK-376 C	Cable	DP-3F B	L376 B	5012.40	263.15	5019.30	
PB-PHYS C	Cable	MDP-CLPH-B	PHYS B	5032.33	974.00	5125.72	
PB-PO C	Cable	JHS ME B	PO B	1762.31	146.86	1768.42	
PB-RO C	Cable	JHS ME B	RO B	1762.31	146.86	1768.42	
PB-SAL-2F C	Cable	MDP SAL B	SAL-2F B	462.20	38.52	463.80	
PB-SAL-3F C	Cable	MDP SAL B	SAL-3F B	580.53	75.82	585.46	
PB-SAL-4F C	Cable	MDP SAL B	SAL 4F B	1386.16	115.51	1390.96	
PB-SAL-GF C	Cable	PB-SAL-GF B	SALGF B	15549.81	1295.82	15603.71	
PB-SAL-GF-R163 C	Cable	JHS ME B	R163 B	4502.80	588.12	4541.05	
PB-SAL-R164 C	Cable	PB-SAL-GF B	R164 B	3256.16	425.29	3283.82	
PB-SAL-R165 C	Cable	PB-SAL-GF B	R165 B	3125.91	408.28	3152.46	
PB-TROOM C	Cable	TAC B	TR B	5233.62	436.14	5251.76	
PERICAN C	Cable	DP-01 B	PERICAN B	1414.86	1362.46	1964.21	
SAL-STAIRS C	Cable	JHS ME B	SAL-STAIRS B	592.37	49.36	594.43	
DP-3F CB	Tie Breakr	3F4F B	DP-3F B				
JHS/ME CB1	Tie Breakr	DP-2 B	JHS ME B				
LIC-G M	Tie Breakr	DP ML B	PB-LB B				
LINK3F4F M	Tie Breakr	MDP DNY B	3F4F B				
PB-SAL-GF M	Tie Breakr	MDP SAL B	PB-SAL-GF B				
PB-TAC CB	Tie Breakr	MDP-CLPH-B	TAC B				
TR/AUDI CB	Tie Breakr	DP-2 B	TR/AUDI B				
2SW1	Tie Switch	G1 B	EDP1 B				
2SW3	Tie Switch	G2 B	EDP2 B				

Project:  
Location:  
Contract:  
Engineer:  
Filename: AS-BUILT-INITIAL

ETAP  
19.0.1C  
  
Study Case: LF

Page: 11  
Date: 01-14-2025  
SN:  
Revision: Base  
Config.: Normal

### LOAD FLOW REPORT

Bus		Voltage		Generation		Load		Load Flow					XFMR	
ID	V	V	Ang.	kW	kvar	kW	kvar	ID	kW	kvar	Amp	%PF	%Tap	
01 B	240	227	-8.1	0.0	0.0	9.2	5.7	DP ML B	-9.243	-5.728	27.6	85.0		
02 B	240	228	-8.2	0.0	0.0	34.1	21.1	DP ML B	-34.090	-21.127	101.6	85.0		
03 B	240	228	-8.2	0.0	0.0	10.6	6.6	DP ML B	-10.593	-6.565	31.6	85.0		
3F4F B	240	231	-8.5	0.0	0.0	0.0	0.0	L4F B	0.943	0.584	2.8	85.0		
								DP-3F B	51.919	32.031	152.2	85.1		
								MDP DNY B	-52.862	-32.615	155.0	85.1		
04 B	240	233	-8.4	0.0	0.0	1.4	0.9	TR/AUDI B	-1.393	-0.863	4.1	85.0		
05 B	240	230	-8.1	0.0	0.0	22.3	13.8	DP-2 B	-22.312	-13.828	65.9	85.0		
06 B	240	230	-8.1	0.0	0.0	11.9	7.4	TR/AUDI B	-11.921	-7.388	35.1	85.0		
07 B	240	231	-8.2	0.0	0.0	22.3	13.8	TR/AUDI B	-22.312	-13.828	65.6	85.0		
ACU B	240	228	-8.2	0.0	0.0	2.2	1.4	DP ML B	-2.231	-1.383	6.6	85.0		
ACU1 B	240	232	-8.2	0.0	0.0	2.2	1.4	TR/AUDI B	-2.231	-1.383	6.5	85.0		
ACU2 B	240	232	-8.2	0.0	0.0	2.2	1.4	TR/AUDI B	-2.231	-1.383	6.5	85.0		
ACU3 B	240	233	-8.3	0.0	0.0	2.2	1.4	TR/AUDI B	-2.231	-1.383	6.5	85.0		
ACU4 B	240	232	-8.2	0.0	0.0	2.2	1.4	TR/AUDI B	-2.231	-1.383	6.5	85.0		
ACU5 B	240	232	-8.2	0.0	0.0	2.2	1.4	TR/AUDI B	-2.231	-1.383	6.5	85.0		
ACU6 B	240	232	-8.2	0.0	0.0	2.2	1.4	TR/AUDI B	-2.231	-1.383	6.5	85.0		
ACU7 B	240	232	-8.2	0.0	0.0	2.2	1.4	TR/AUDI B	-2.231	-1.383	6.5	85.0		
ACU8 B	240	232	-8.2	0.0	0.0	2.2	1.4	TR/AUDI B	-2.231	-1.383	6.5	85.0		
BSMT B	240	231	-8.5	0.0	0.0	2.6	1.6	MDP DNY B	-2.557	-1.585	7.5	85.0		
CLINIC B	240	231	-8.3	0.0	0.0	17.2	10.6	TAC B	-17.154	-10.631	50.5	85.0		
DP ML B	240	228	-8.2	0.0	0.0	0.0	0.0	ACU B	2.232	1.383	6.6	85.0		
								DP-2 B	-73.853	-45.735	220.0	85.0		
								01 B	9.290	5.737	27.6	85.1		
								02 B	34.105	21.130	101.6	85.0		
								03 B	10.596	6.565	31.6	85.0		
DP-01 B	240	233	-8.4	0.0	0.0	0.0	0.0	PB-LB B	17.630	10.920	52.5	85.0		
								G1 B	-190.274	-117.966	554.6	85.0		
								EE/ECE B	34.026	21.132	99.2	84.9		
								MDP DNY B	84.586	52.451	246.6	85.0		
								MDP-CLPH-B	53.619	33.194	156.2	85.0		

Bus		Voltage		Generation		Load		Load Flow				XFMR	
ID	V	V	Ang.	kW	kvar	kW	kvar	ID	kW	kvar	Amp	%PF	%Tap
DP-2 B	240	233	-8.4	0.0	0.0	0.0	0.0	ME LAB B	5.191	3.218	15.1	85.0	
								OB B	7.495	4.649	21.8	85.0	
								PERICAN B	5.357	3.322	15.6	85.0	
								G2 B	-224.921	-138.371	654.3	85.2	
								HS LIB B	10.809	6.703	31.5	85.0	
								DP ML B	75.635	46.482	220.0	85.2	
								ME157 B	3.689	2.287	10.8	85.0	
								05 B	22.659	13.895	65.9	85.2	
DP-3F B	240	231	-8.5	0.0	0.0	0.0	0.0	JHS ME B	58.122	35.793	169.1	85.1	
								TR/AUDI B	54.006	33.212	157.1	85.2	
								L373 B	13.008	8.056	38.2	85.0	
								L374 B	12.991	8.028	38.1	85.1	
								L375 B	12.971	7.992	38.0	85.1	
								L376 B	12.950	7.955	37.9	85.2	
EDP1 B	240	233	-8.3	0.0	0.0	0.0	0.0	3F4F B	-51.919	-32.031	152.2	85.1	
								MAIN B	-190.387	-118.154	554.6	85.0	
EDP2 B	240	233	-8.4	0.0	0.0	0.0	0.0	G1 B	190.387	118.154	554.6	85.0	
								MAIN B	-225.018	-138.535	654.3	85.2	
EE/ECE B	240	232	-8.4	0.0	0.0	33.9	21.0	G2 B	225.018	138.535	654.3	85.2	
G1 B	240	233	-8.3	0.0	0.0	0.0	0.0	DP-01 B	-33.894	-21.006	99.2	85.0	
G2 B	240	233	-8.4	0.0	0.0	0.0	0.0	DP-01 B	190.387	118.154	554.6	85.0	
								EDP1 B	-190.387	-118.154	554.6	85.0	
								DP-2 B	225.019	138.534	654.3	85.2	
HS LIB B	240	233	-8.4	0.0	0.0	10.8	6.7	EDP2 B	-225.018	-138.535	654.3	85.2	
								DP-2 B	-10.796	-6.690	31.5	85.0	
JHS ME B	240	233	-8.4	0.0	0.0	0.0	0.0	MDP SAL B	15.245	9.353	44.3	85.2	
L-ACU B	240	231	-8.5	0.0	0.0	28.7	17.8	PO B3	29.869	18.388	86.9	85.2	
								PO B	2.469	1.529	7.2	85.0	
								RO B	7.773	4.809	22.6	85.0	
								R163 B	1.669	1.034	4.9	85.0	
								SAL-STAIRS B	1.097	0.680	3.2	85.0	
								DP-2 B	-58.122	-35.793	169.1	85.1	
								MDP DNY B	-28.651	-17.756	84.1	85.0	

Project:  
Location:  
Contract:  
Engineer:  
Filename: AS-BUILT-INITIAL

ETAP  
19.0.1C  
  
Study Case: LF

Page: 13  
Date: 01-14-2025  
SN:  
Revision: Base  
Config.: Normal

Bus		Voltage		Generation		Load		Load Flow				XFMR	
ID	V	V	Ang.	kW	kvar	kW	kvar	ID	kW	kvar	Amp	%PF	%Tap
L4F B	240	231	-8.5	0.0	0.0	0.9	0.6	3F4F B	-0.943	-0.584	2.8	85.0	
L373 B	240	231	-8.4	0.0	0.0	13.0	8.1	DP-3F B	-12.999	-8.056	38.2	85.0	
L374 B	240	231	-8.4	0.0	0.0	13.0	8.0	DP-3F B	-12.950	-8.026	38.1	85.0	
L375 B	240	230	-8.3	0.0	0.0	12.9	8.0	DP-3F B	-12.888	-7.988	38.0	85.0	
L376 B	240	230	-8.2	0.0	0.0	12.8	7.9	DP-3F B	-12.825	-7.948	37.9	85.0	
LG1 B	240	228	-8.2	0.0	0.0	15.6	9.7	PB-LB B	-15.582	-9.657	46.5	85.0	
LG2 B	240	228	-8.2	0.0	0.0	2.0	1.3	PB-LB B	-2.034	-1.261	6.1	85.0	
MAIN B	240	233	-8.3	0.0	0.0	0.0	0.0	EDP1 B	190.457	118.270	554.6	85.0	
								EDP2 B	225.165	138.777	654.3	85.1	
								XFORMER B	-415.628	-257.042	1209.0	85.0	
MDP DNY B	240	231	-8.5	0.0	0.0	0.0	0.0	L-ACU B	28.654	17.757	84.1	85.0	
								DP-01 B	-84.073	-51.957	246.6	85.1	
								BSMT B	2.557	1.585	7.5	85.0	
								3F4F B	52.862	32.615	155.0	85.1	
MDP SAL B	240	230	-8.1	0.0	0.0	0.0	0.0	JHS ME B	-15.039	-9.313	44.3	85.0	
								SAL-2F B	4.261	2.640	12.6	85.0	
								SAL-3F B	2.490	1.543	7.3	85.0	
								SAL 4F B	3.070	1.901	9.0	85.0	
								PB-SAL-GF B	5.219	3.229	15.4	85.0	
MDP-CLPH-B	240	232	-8.4	0.0	0.0	0.0	0.0	DP-01 B	-53.413	-32.995	156.2	85.1	
								PB-ACU-1 B	6.461	4.001	18.9	85.0	
								PB-ACU-2 B	14.358	8.882	42.0	85.0	
								PHYS B	11.010	6.785	32.2	85.1	
								TAC B	21.585	13.327	63.1	85.1	
ME LAB B	240	233	-8.4	0.0	0.0	5.2	3.2	DP-01 B	-5.188	-3.215	15.1	85.0	
ME157 B	240	233	-8.4	0.0	0.0	3.7	2.3	DP-2 B	-3.688	-2.286	10.8	85.0	
OB B	240	233	-8.4	0.0	0.0	7.5	4.6	DP-01 B	-7.484	-4.638	21.8	85.0	
PB-ACU-1 B	240	232	-8.4	0.0	0.0	6.5	4.0	MDP-CLPH-B	-6.451	-3.998	18.9	85.0	
PB-ACU-2 B	240	231	-8.4	0.0	0.0	14.3	8.9	MDP-CLPH-B	-14.298	-8.861	42.0	85.0	
PB-LB B	240	228	-8.2	0.0	0.0	0.0	0.0	LG1 B	15.595	9.659	46.5	85.0	
								LG2 B	2.035	1.261	6.1	85.0	
								DP ML B	-17.630	-10.920	52.5	85.0	
PB-SAL-GF B	240	230	-8.1	0.0	0.0	0.0	0.0	SALGF B	1.812	1.119	5.3	85.1	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	V	V	Ang.	kW	kvar	kW	kvar	ID	kW	kvar	Amp	%PF	%Tap
PERICAN B	240	233	-8.4	0.0	0.0	5.4	3.3	R164 B	1.638	1.015	4.8	85.0	
								R165 B	1.769	1.096	5.2	85.0	
								MDP SAL B	-5.219	-3.229	15.4	85.0	
								DP-01 B	-5.351	-3.316	15.6	85.0	
								MDP-CLPH-B	-10.920	-6.767	32.2	85.0	
								JHS ME B	-2.467	-1.529	7.2	85.0	
								JHS ME B	-29.639	-18.368	86.9	85.0	
								JHS ME B	-1.668	-1.033	4.9	85.0	
								PB-SAL-GF B	-1.637	-1.014	4.8	85.0	
								PB-SAL-GF B	-1.768	-1.095	5.2	85.0	
RO B	240	233	-8.3	0.0	0.0	7.8	4.8	JHS ME B	-7.758	-4.808	22.6	85.0	
SAL-2F B	240	230	-8.1	0.0	0.0	4.3	2.6	MDP SAL B	-4.260	-2.640	12.6	85.0	
SAL-3F B	240	230	-8.1	0.0	0.0	2.5	1.5	MDP SAL B	-2.489	-1.543	7.3	85.0	
SAL 4F B	240	230	-8.1	0.0	0.0	3.1	1.9	MDP SAL B	-3.068	-1.901	9.0	85.0	
SAL-STAIRS B	240	233	-8.4	0.0	0.0	1.1	0.7	JHS ME B	-1.097	-0.680	3.2	85.0	
SALGF B	240	230	-8.0	0.0	0.0	1.8	1.1	PB-SAL-GF B	-1.804	-1.118	5.3	85.0	
TAC B	240	232	-8.4	0.0	0.0	0.0	0.0	CLINIC B	17.281	10.667	50.5	85.1	
TR B	240	231	-8.4	0.0	0.0	4.3	2.7	TR B	4.303	2.659	12.6	85.1	
								MDP-CLPH-B	-21.585	-13.327	63.1	85.1	
								TAC B	-4.289	-2.658	12.6	85.0	
								04 B	1.394	0.864	4.1	85.0	
								ACU6 B	2.248	1.384	6.5	85.2	
								ACU7 B	2.250	1.384	6.5	85.2	
								ACU8 B	2.250	1.384	6.5	85.2	
								ACU1 B	2.247	1.384	6.5	85.1	
								ACU2 B	2.247	1.384	6.5	85.1	
								ACU3 B	2.236	1.383	6.5	85.0	
* VECO B	23000	23000	23.0	421.2	274.2	0.0	0.0	ACU4 B	2.247	1.384	6.5	85.1	
								ACU5 B	2.248	1.384	6.5	85.1	
								06 B	12.092	7.402	35.1	85.3	
								07 B	22.548	13.874	65.6	85.2	
								DP-2 B	-54.006	-33.212	157.1	85.2	
								XFORMER B	421.163	274.181	12.6	83.8	

Project:ETAP

Location:19.0.1C

Contract:

Engineer:

Filename:AS-BUILT-INITIAL

Study Case:LF

Page:15

Date:01-14-2025

SN:

Revision:Base

Config.:Normal

Bus		Voltage		Generation		Load		Load Flow				XFMR	
ID	V	V	Ang.	kW	kvar	kW	kvar	ID	kW	kvar	Amp	%PF	%Tap
XFORMER B	240	235	-8.1	0.0	0.0	0.0	0.0	MAIN B	417.714	260.495	1209.0	84.9	
								VECO B	-417.707	-260.496	1208.9	84.9	

\* Indicates a voltage regulated bus ( voltage controlled or swing type machine connected to it)

# Indicates a bus with a load mismatch of more than 0.1 MVA

Project: ETAP  
Location: 19.0.1C  
Contract:  
Engineer:  
Filename: AS-BUILT-INITIAL  
Study Case: LF

Page: 16  
Date: 01-14-2025  
SN:  
Revision: Base  
Config.: Normal

**Bus Loading Summary Report**

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic		kVA	% PF	Amp	Percent Loading
ID	V	Rated Amp	kW	kvar	kW	kvar	kW	kvar	kW	kvar				
SGEN B	240.00													
01 B	240.00		4.134	2.562	5.110	3.167					10.874	85.0	27.6	
02 B	240.00		27.818	17.240	6.272	3.887					40.106	85.0	101.6	
03 B	240.00			0.000	10.593	6.565					12.462	85.0	31.6	
3F4F B	240.00										62.114	85.1	155.0	
04 B	240.00			0.000	1.393	0.863					1.639	85.0	4.1	
05 B	240.00		22.312	13.828							26.250	85.0	65.9	
06 B	240.00		11.921	7.388							14.025	85.0	35.1	
07 B	240.00		22.312	13.828							26.250	85.0	65.6	
ACU B	240.00		2.231	1.383							2.625	85.0	6.6	
ACU1 B	240.00		2.231	1.383							2.625	85.0	6.5	
ACU2 B	240.00		2.231	1.383							2.625	85.0	6.5	
ACU3 B	240.00		2.231	1.383							2.625	85.0	6.5	
ACU4 B	240.00		2.231	1.383							2.625	85.0	6.5	
ACU5 B	240.00		2.231	1.383							2.625	85.0	6.5	
ACU6 B	240.00		2.231	1.383							2.625	85.0	6.5	
ACU7 B	240.00		2.231	1.383							2.625	85.0	6.5	
ACU8 B	240.00		2.231	1.383							2.625	85.0	6.5	
BSMT B	240.00			0.000	2.557	1.585					3.008	85.0	7.5	
CLINIC B	240.00		6.321	3.917	10.833	6.714					20.181	85.0	50.5	
DP ML B	240.00										86.867	85.0	220.0	
DP-01 B	240.00		0.000	0.000							223.875	85.0	554.6	
DP-2 B	240.00										264.075	85.2	654.3	
DP-3F B	240.00										61.005	85.1	152.2	
EDP1 B	240.00										224.070	85.0	554.6	
EDP2 B	240.00										264.244	85.2	654.3	
EE/ECE B	240.00		17.521	10.858	16.374	10.147					39.876	85.0	99.2	
G1 B	240.00										224.070	85.0	554.6	
G2 B	240.00										264.245	85.2	654.3	
HS LIB B	240.00		8.741	5.417	2.054	1.273					12.701	85.0	31.5	
JHS ME B	240.00										68.259	85.1	169.1	
L-ACU B	240.00		28.651	17.756							33.707	85.0	84.1	
L4F B	240.00		0.101	0.062	0.842	0.522					1.109	85.0	2.8	
L373 B	240.00			0.000	12.999	8.056					15.293	85.0	38.2	
L374 B	240.00			0.000	12.950	8.026					15.236	85.0	38.1	
L375 B	240.00			0.000	12.888	7.987					15.163	85.0	38.0	
L376 B	240.00			0.000	12.825	7.948					15.088	85.0	37.9	
LG1 B	240.00			0.000	15.582	9.657					18.332	85.0	46.5	
LG2 B	240.00			0.000	2.034	1.261					2.393	85.0	6.1	



Project: ETAP  
Location: 19.0.1C  
Contract:  
Engineer:  
Filename: AS-BUILT-INITIAL  
Study Case: LF

Page: 17  
Date: 01-14-2025  
SN:  
Revision: Base  
Config.: Normal

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic		kVA	% PF	Amp	Percent Loading
ID	V	Rated Amp	kW	kvar	kW	kvar	kW	kvar	kW	kvar				
MAIN B	240.00		0.005	-0.005							488.689	85.0	1209.0	
MDP DNY B	240.00										98.833	85.1	246.6	
MDP SAL B	240.00										17.690	85.0	44.3	
MDP-CLPH-B	240.00										62.783	85.1	156.2	
ME LAB B	240.00		2.672	1.656	2.516	1.559					6.103	85.0	15.1	
ME157 B	240.00		2.985	1.850	0.703	0.436					4.339	85.0	10.8	
OB B	240.00		2.344	1.453	5.140	3.186					8.805	85.0	21.8	
PB-ACU-1 B	240.00		6.451	3.998							7.589	85.0	18.9	
PB-ACU-2 B	240.00		14.298	8.861							16.821	85.0	42.0	
PB-LB B	240.00										20.738	85.0	52.5	
PB-SAL-GF B	240.00										6.137	85.0	15.4	
PERICAN B	240.00			0.000	5.351	3.316					6.295	85.0	15.6	
PHYS B	240.00		4.582	2.839	6.338	3.928					12.847	85.0	32.2	
PO B	240.00		0.260	0.161	2.207	1.368					2.903	85.0	7.2	
PO B3	240.00		21.182	13.127	8.457	5.241					34.869	85.0	86.9	
R163 B	240.00			0.000	1.668	1.033					1.962	85.0	4.9	
R164 B	240.00		1.046	0.648	0.591	0.366					1.926	85.0	4.8	
R165 B	240.00		1.603	0.994	0.164	0.102					2.079	85.0	5.2	
RO B	240.00		0.820	0.508	6.937	4.299					9.127	85.0	22.6	
SAL-2F B	240.00		0.458	0.284	3.802	2.356					5.012	85.0	12.6	
SAL-3F B	240.00		0.268	0.166	2.222	1.377					2.929	85.0	7.3	
SAL 4F B	240.00		0.330	0.205	2.737	1.697					3.609	85.0	9.0	
SAL-STAIRS B	240.00		0.116	0.072	0.981	0.608					1.291	85.0	3.2	
SALGF B	240.00		0.291	0.181	1.513	0.937					2.122	85.0	5.3	
TAC B	240.00										25.367	85.1	63.1	
TR B	240.00		0.909	0.563	3.380	2.095					5.046	85.0	12.6	
TR/AUDI B	240.00										63.401	85.2	157.1	
VECO B	23000.00										502.547	83.8	12.6	
XFORMER B	240.00		-0.006	0.002							492.278	84.9	1208.9	

\* Indicates operating load of a bus exceeds the bus critical limit (100.0% of the Continuous Ampere rating).  
# Indicates operating load of a bus exceeds the bus marginal limit (95.0% of the Continuous Ampere rating).

Branch Loading Summary Report

CKT / Branch		Busway / Cable & Reactor			Transformer				
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (kVA)	Loading (input)		Loading (output)	
						kVA	%	kVA	%
DP-01 C	Cable	959.72	554.62	57.79					
DP-02 C	Cable	959.72	654.33	68.18					
EDP1 C	Cable	959.72	554.62	57.79					
EDP2 C	Cable	959.72	654.33	68.18					
EE/ECE C	Cable	498.56	99.23	19.90					
HS LIB C	Cable	498.56	31.51	6.32					
LG-02 C	Cable	57.73	6.06	10.50					
LINK C	Cable	498.56	246.57	49.46					
* MAIN C	Cable	1125.00	1208.95	107.46					
MAIN LIB C	Cable	575.22	219.97	38.24					
MDP-CLPH C	Cable	498.56	156.23	31.34					
ME LAB C	Cable	498.56	15.13	3.03					
ME157&158 C	Cable	498.56	10.75	2.16					
OB C	Cable	498.56	21.85	4.38					
PB-LINK-4F C	Cable	183.14	2.77	1.51					
PERICAN C	Cable	498.56	15.61	3.13					
3-167 kVA	Transformer				501.0	502.5	100.3	492.3	98.3

\* Indicates a branch with operating load exceeding the branch capability.

Project:	ETAP	Page:	19
Location:	19.0.1C	Date:	01-14-2025
Contract:		SN:	
Engineer:	Study Case: LF	Revision:	Base
Filename:	AS-BUILT-INITIAL	Config.:	Normal

### Branch Losses Summary Report

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	kw	kvar	kw	kvar	kW	kvar	From	To	
04 C	-1.4	-0.9	1.4	0.9	0.0	0.0	97.0	97.1	0.05
3-167 kVA	421.2	274.2	-417.7	-260.5	3.5	13.7	100.0	98.0	2.04
ACU C	-2.2	-1.4	2.2	1.4	0.0	0.0	95.0	95.0	0.03
ACU6 C	-2.2	-1.4	2.2	1.4	0.0	0.0	96.5	97.1	0.56
ACU7 C	-2.2	-1.4	2.2	1.4	0.0	0.0	96.5	97.1	0.60
ACU8 C	-2.2	-1.4	2.2	1.4	0.0	0.0	96.5	97.1	0.61
DP-01 C	-190.3	-118.0	190.4	118.2	0.1	0.2	97.1	97.2	0.08
DP-02 C	-224.9	-138.4	225.0	138.5	0.1	0.2	97.1	97.1	0.06
EDP1 C	-190.4	-118.2	190.5	118.3	0.1	0.1	97.2	97.2	0.05
EDP2 C	-225.0	-138.5	225.2	138.8	0.1	0.2	97.1	97.2	0.09
EE/ECE C	34.0	21.1	-33.9	-21.0	0.1	0.1	97.1	96.7	0.43
HS LIB C	10.8	6.7	-10.8	-6.7	0.0	0.0	97.1	97.0	0.14
L-ACU C	-28.7	-17.8	28.7	17.8	0.0	0.0	96.4	96.4	0.01
LG-01 C	-15.6	-9.7	15.6	9.7	0.0	0.0	94.9	95.0	0.07
LG-02 C	-2.0	-1.3	2.0	1.3	0.0	0.0	95.0	95.0	0.04
LINK C	84.6	52.5	-84.1	-52.0	0.5	0.5	97.1	96.4	0.68
LRAC-ACU-04 C	-2.2	-1.4	2.2	1.4	0.0	0.0	96.6	97.1	0.53
LRAC-ACU-05 C	-2.2	-1.4	2.2	1.4	0.0	0.0	96.5	97.1	0.54
LRAC-ACU1 C	-2.2	-1.4	2.2	1.4	0.0	0.0	96.6	97.1	0.51
LRAC-ACU2 C	-2.2	-1.4	2.2	1.4	0.0	0.0	96.6	97.1	0.52
LRAC-ACU3 C	-2.2	-1.4	2.2	1.4	0.0	0.0	96.9	97.1	0.16
MAIN C	-415.6	-257.0	417.7	260.5	2.1	3.5	97.2	98.0	0.72
MAIN LIB C	-73.9	-45.7	75.6	46.5	1.8	0.7	95.0	97.1	2.09
MDP-CLPH C	53.6	33.2	-53.4	-33.0	0.2	0.2	97.1	96.7	0.43
MDP-SAL C	15.2	9.4	-15.0	-9.3	0.2	0.0	97.1	96.0	1.06
ME C1	29.9	18.4	-29.6	-18.4	0.2	0.0	97.1	96.5	0.57
ME LAB C	5.2	3.2	-5.2	-3.2	0.0	0.0	97.1	97.0	0.07
ME157&158 C	3.7	2.3	-3.7	-2.3	0.0	0.0	97.1	97.1	0.03
OB C	7.5	4.6	-7.5	-4.6	0.0	0.0	97.1	96.9	0.16
PB-01 C	-9.2	-5.7	9.3	5.7	0.0	0.0	94.6	95.0	0.39
PB-02 C	-34.1	-21.1	34.1	21.1	0.0	0.0	95.0	95.0	0.03
PB-03 C	-10.6	-6.6	10.6	6.6	0.0	0.0	95.0	95.0	0.02
PB-05 C	-22.3	-13.8	22.7	13.9	0.3	0.1	95.9	97.1	1.20
PB-06 C	-11.9	-7.4	12.1	7.4	0.2	0.0	96.0	97.1	1.05

Project:	<b>ETAP</b>	Page:	20
Location:	<b>19.0.1C</b>	Date:	01-14-2025
Contract:		SN:	
Engineer:	Study Case: LF	Revision:	Base
Filename:	AS-BUILT-INITIAL	Config.:	Normal

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop
	kw	kvar	kw	kvar	kW	kvar	From	To	in Vmag
PB-07 C	-22.3	-13.8	22.5	13.9	0.2	0.0	96.3	97.1	0.82
PB-ACU-1 C	6.5	4.0	-6.5	-4.0	0.0	0.0	96.7	96.5	0.13
PB-ACU-2 C	14.4	8.9	-14.3	-8.9	0.1	0.0	96.7	96.3	0.36
PB-BSMT C-	-2.6	-1.6	2.6	1.6	0.0	0.0	96.4	96.4	0.01
PB-CLINIC C	-17.2	-10.6	17.3	10.7	0.1	0.0	96.1	96.7	0.61
PB-LINK-373 C	13.0	8.1	-13.0	-8.1	0.0	0.0	96.4	96.4	0.05
PB-LINK-374 C	13.0	8.0	-13.0	-8.0	0.0	0.0	96.4	96.2	0.23
PB-LINK-375 C	13.0	8.0	-12.9	-8.0	0.1	0.0	96.4	96.0	0.46
PB-LINK-376 C	12.9	8.0	-12.8	-7.9	0.1	0.0	96.4	95.7	0.69
PB-LINK-4F C	0.9	0.6	-0.9	-0.6	0.0	0.0	96.4	96.4	0.01
PB-PHYS C	11.0	6.8	-10.9	-6.8	0.1	0.0	96.7	96.0	0.64
PB-PO C	2.5	1.5	-2.5	-1.5	0.0	0.0	97.1	97.0	0.05
PB-RO C	7.8	4.8	-7.8	-4.8	0.0	0.0	97.1	96.9	0.15
PB-SAL-2F C	4.3	2.6	-4.3	-2.6	0.0	0.0	96.0	96.0	0.02
PB-SAL-3F C	2.5	1.5	-2.5	-1.5	0.0	0.0	96.0	96.0	0.02
PB-SAL-4F C	3.1	1.9	-3.1	-1.9	0.0	0.0	96.0	96.0	0.05
PB-SAL-GF C	1.8	1.1	-1.8	-1.1	0.0	0.0	96.0	95.7	0.31
PB-SAL-GF-R163 C	1.7	1.0	-1.7	-1.0	0.0	0.0	97.1	97.0	0.08
PB-SAL-R164 C	1.6	1.0	-1.6	-1.0	0.0	0.0	96.0	96.0	0.06
PB-SAL-R165 C	1.8	1.1	-1.8	-1.1	0.0	0.0	96.0	96.0	0.06
PB-TROOM C	4.3	2.7	-4.3	-2.7	0.0	0.0	96.7	96.4	0.24
PERICAN C	5.4	3.3	-5.4	-3.3	0.0	0.0	97.1	97.0	0.12
SAL-STAIRS C	1.1	0.7	-1.1	-0.7	0.0	0.0	97.1	97.1	0.01
					10.6	19.8			

\* This Transmission Line includes Series Capacitor.

Project:  
Location:  
Contract:  
Engineer:  
Filename: AS-BUILT-INITIAL

**ETAP**  
**19.0.1C**  
  
Study Case: LF

Page: 21  
Date: 01-14-2025  
SN:  
Revision: Base  
Config.: Normal

### Alert Summary Report

#### % Alert Settings

	<u>Critical</u>	<u>Marginal</u>
<u>Loading</u>		
Bus	100.0	95.0
Cable / Busway	100.0	95.0
Reactor	100.0	95.0
Line	100.0	95.0
Transformer	100.0	95.0
Panel	100.0	95.0
Protective Device	100.0	95.0
Generator	100.0	95.0
Inverter/Charger	100.0	95.0
<u>Bus Voltage</u>		
OverVoltage	110.0	105.0
UnderVoltage	90.0	95.0
<u>Generator Excitation</u>		
OverExcited (Q Max.)	100.0	95.0
UnderExcited (Q Min.)	100.0	

### Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
DP-3F CB	LV CB	Overload	100.000	Amp	152.196	152.2	3-Phase
MAIN C	Cable	Overload	1125.000	Amp	1208.952	107.5	3-Phase
STANDBY GEN	Generator	Under Excited	0.000	kvar	0.000	0.0	3-Phase
STANDBY GEN	Generator	Under Power	0.000	kW	0.000	0.0	3-Phase

### Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
01 B	Bus	Under Voltage	240.000	V	227.069	94.6	3-Phase
02 B	Bus	Under Voltage	240.000	V	227.915	95.0	3-Phase
03 B	Bus	Under Voltage	240.000	V	227.948	95.0	3-Phase
3-167 kVA	Transformer	Overload	501.000	kVA	492.278	98.3	3-Phase
ACU B	Bus	Under Voltage	240.000	V	227.935	95.0	3-Phase
DP ML B	Bus	Under Voltage	240.000	V	227.997	95.0	3-Phase
LG1 B	Bus	Under Voltage	240.000	V	227.838	94.9	3-Phase
LG2 B	Bus	Under Voltage	240.000	V	227.907	95.0	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
LINK-CB	LV CB	Overload	250.000	Amp	246.569	98.6	3-Phase
MDP DNY MAIN	LV CB	Overload	250.000	Amp	246.569	98.6	3-Phase
PB-LB B	Bus	Under Voltage	240.000	V	227.997	95.0	3-Phase

SUMMARY OF TOTAL GENERATION, LOADING & DEMAND

	kW	kvar	kVA	% PF
Source (Swing Buses):	421.2	274.2	502.5	83.81 Lagging
Source (Non-Swing Buses):	0.0	0.0	0.0	
Total Demand:	421.2	274.2	502.5	83.81 Lagging
Total Motor Load:	230.5	142.9	271.2	85.00 Lagging
Total Static Load:	180.0	111.6	211.8	85.00 Lagging
Total Constant I Load:	0.0	0.0	0.0	
Total Generic Load:	0.0	0.0	0.0	
Apparent Losses:	10.6	19.8		
System Mismatch:	0.0	0.0		

Number of Iterations: 4