TAS and TAL changes Familiarisation session

v1.0

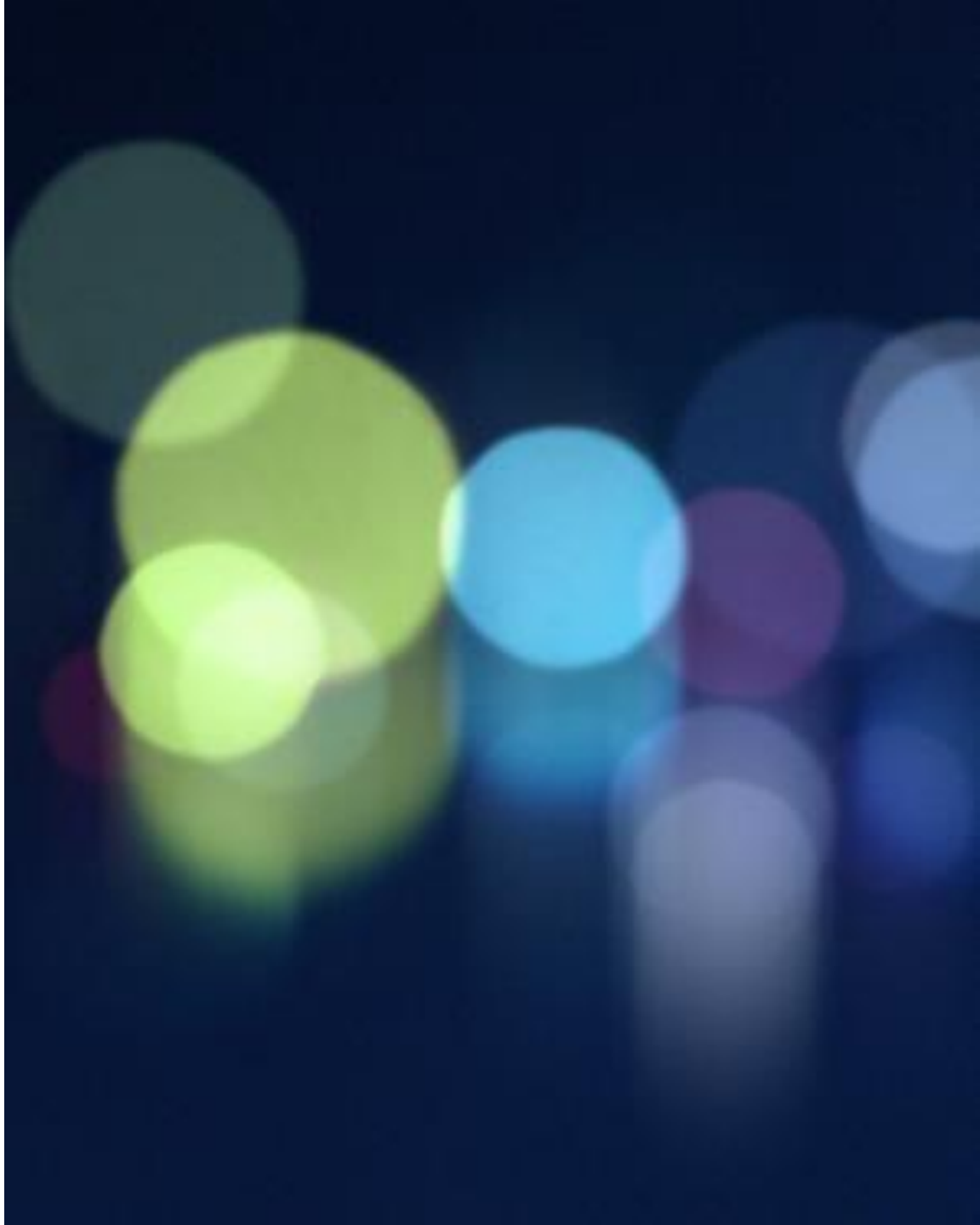
Audience: ASP

Date: August 2022

Endeavour Energy

Agenda

- Overview of changes made
- Examples of business scenarios
- Question and answer



Changes made – TAS and TAL

TAS

1. Added Retic and duct drawing numbers and tick boxes for requesting new drawing numbers.
2. Provided additional guidance as to cells to be filled by ASPs and Endeavour Energy
3. Sheet modified to allow the addition of new items whilst retaining the previously filled in blocks.
4. Changed fields names to be more descriptive.
5. Provided prompts and floating comments to assist users.
6. Busbars are now auto-populated and not shown in the TAS

TAL

1. Auto-populated default owner as Endeavour Energy when FLOC construction type is populated.
2. Removed outage requirement – ABC indicator.
3. Worksheets modified to allow copying and pasting of information.
4. Assemblies moved from assembly sheet to Poles, Columns and Pillars sheets.
5. Drop downs fine tuned to show only what is applicable for the asset class. (note some old descriptions remain to allow for legacy assets that are still in the network).
6. Additional info in relation to streetlights and billing information added.
7. Provided a row at the bottom of each sheet where and ASPs can add comments.

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SAP Master Data

PROJECT: N79 — CAMS Project Number
P.35645.6 — SAP PS Project Number
DRAWING NUMBER: 408327 — SAP Work Order Number

CAP APPLICATION NUMBER: H679

LOCATION: Hoxton Park FieldServiceCentre

PROCESSING: TAS+TAL — TAS Only or TAS+TAL

Person: Grace
eMail: WongJen.Yin@endeavourenergy.com.au

Functional Locations: Quantity — Version 1

Poles: 1

Poles: 1

Pole Structure	1
Pole Switch	
Pole Street Lighting	
Pole Assembly	1
Pole Streetlight Control Point	

Columns: 1

Columns: 1

Column Structure	1
Column Assembly	1
Column Street Lighting	1
Column Streetlight Control Point	
Column Switch	

Pillars: 1

Pillars: 1

LV Pillar Structure	1
Pillar Assembly	1
Pillar Switch	
-	

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SAP Master Data

PROJECT:
P.35645.6 — *Endeavour Use Only*

RETIC DRAWING NUMBER: 12345
☐ Request new Retic Drawing number

DUCT DRAWING NUMBER: 678910
☑ Request new Duct Drawing number

CAP APPLICATION NUMBER: TEST3003 — *ASP Use Only*

LOCATION: Hoxton Park FieldServiceCentre — *Endeavour Use Only*

PROCESSING: TAS+TAL — TAS Only or TAS+TAL *Endeavour Use Only*

Person: *Endeavour Use Only*
eMail:

Functional Locations: Quantity

Poles: 1

Poles: 1

Pole Structure	1
Pole Switch	
Pole Street Lighting	
Pole Assembly (1 per voltage level)	1
Pole Streetlight Control Point	

Columns: 1

Columns: 1

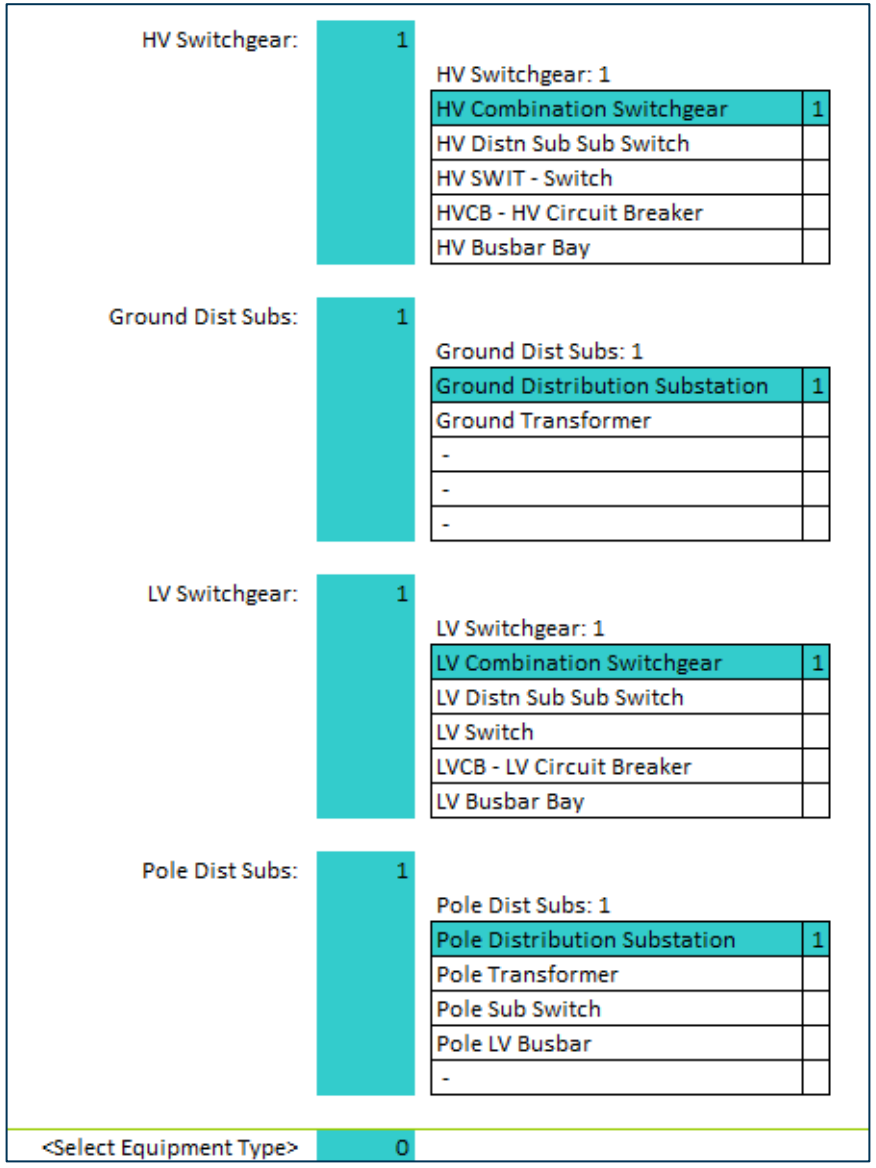
Column Structure	1
Column Internal Assembly	1
Column Street Lighting	1
Column Streetlight Control Point	
Column LV Switch	

Pillars: 1

Pillars: 1

LV Pillar Structure	1
Pillar Internal Assembly	1
Pillar LV Switch	
-	
-	

TAS Changes 2



HV Switchgear:	1

HV Switchgear: 1

HV Combination Switchgear	1
HV Distn Sub Sub Switch	
HV SWIT - Switch	
HVCB - HV Circuit Breaker	
HV Busbar Bay	

Ground Dist Subs:	1

Ground Dist Subs: 1

Ground Distribution Substation	1
Ground Transformer	
-	
-	
-	

LV Switchgear:	1

LV Switchgear: 1

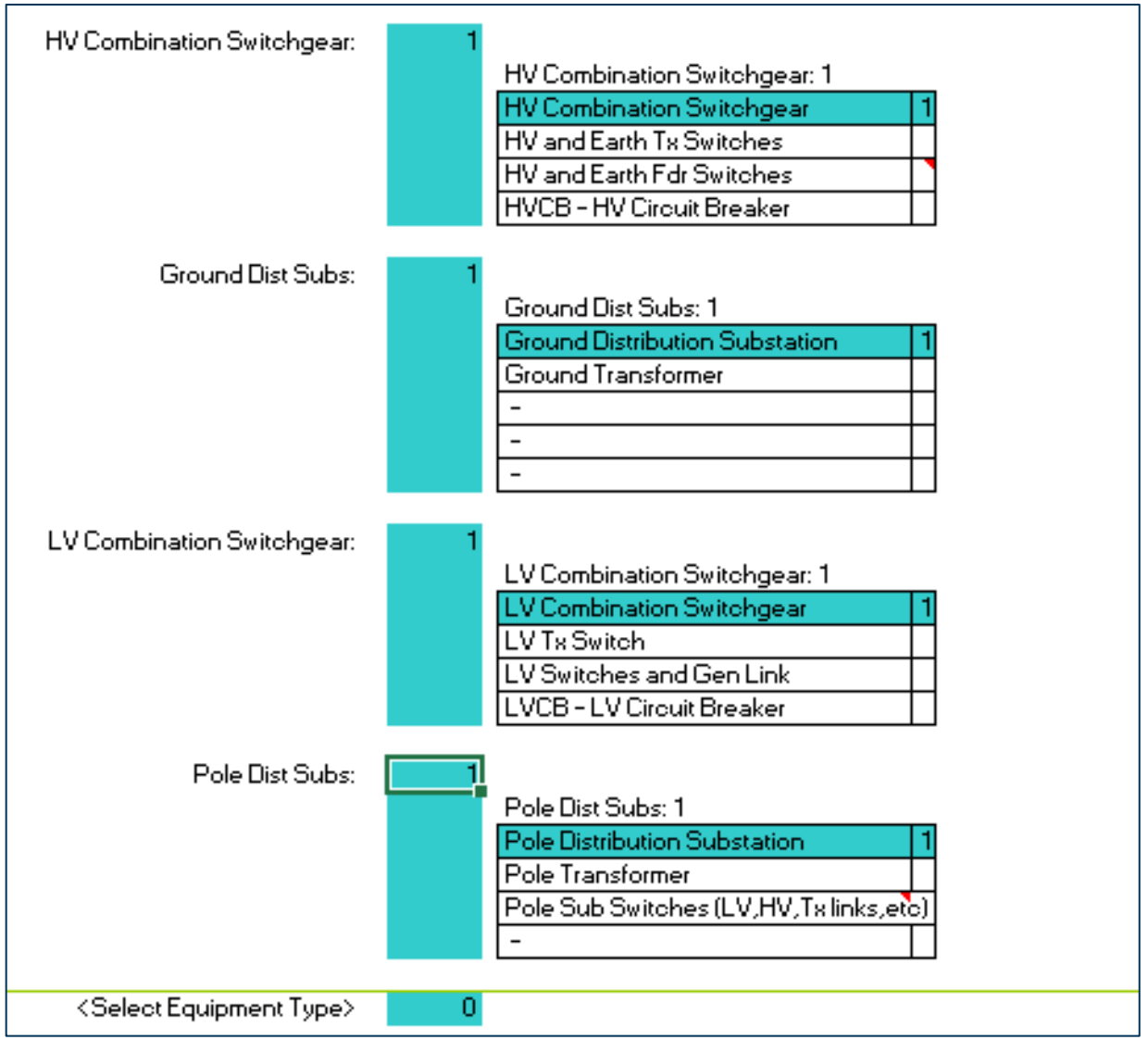
LV Combination Switchgear	1
LV Distn Sub Sub Switch	
LV Switch	
LVCB - LV Circuit Breaker	
LV Busbar Bay	

Pole Dist Subs:	1

Pole Dist Subs: 1

Pole Distribution Substation	1
Pole Transformer	
Pole Sub Switch	
Pole LV Busbar	
-	

<Select Equipment Type>	0



HV Combination Switchgear:	1

HV Combination Switchgear: 1

HV Combination Switchgear	1
HV and Earth Tx Switches	
HV and Earth Fdr Switches	
HVCB – HV Circuit Breaker	

Ground Dist Subs:	1

Ground Dist Subs: 1

Ground Distribution Substation	1
Ground Transformer	
-	
-	
-	

LV Combination Switchgear:	1

LV Combination Switchgear: 1

LV Combination Switchgear	1
LV Tx Switch	
LV Switches and Gen Link	
LVCB – LV Circuit Breaker	

Pole Dist Subs:	1

Pole Dist Subs: 1

Pole Distribution Substation	1
Pole Transformer	
Pole Sub Switches (LV,HV,Tx links,etc)	
-	

<Select Equipment Type>	0

Pole

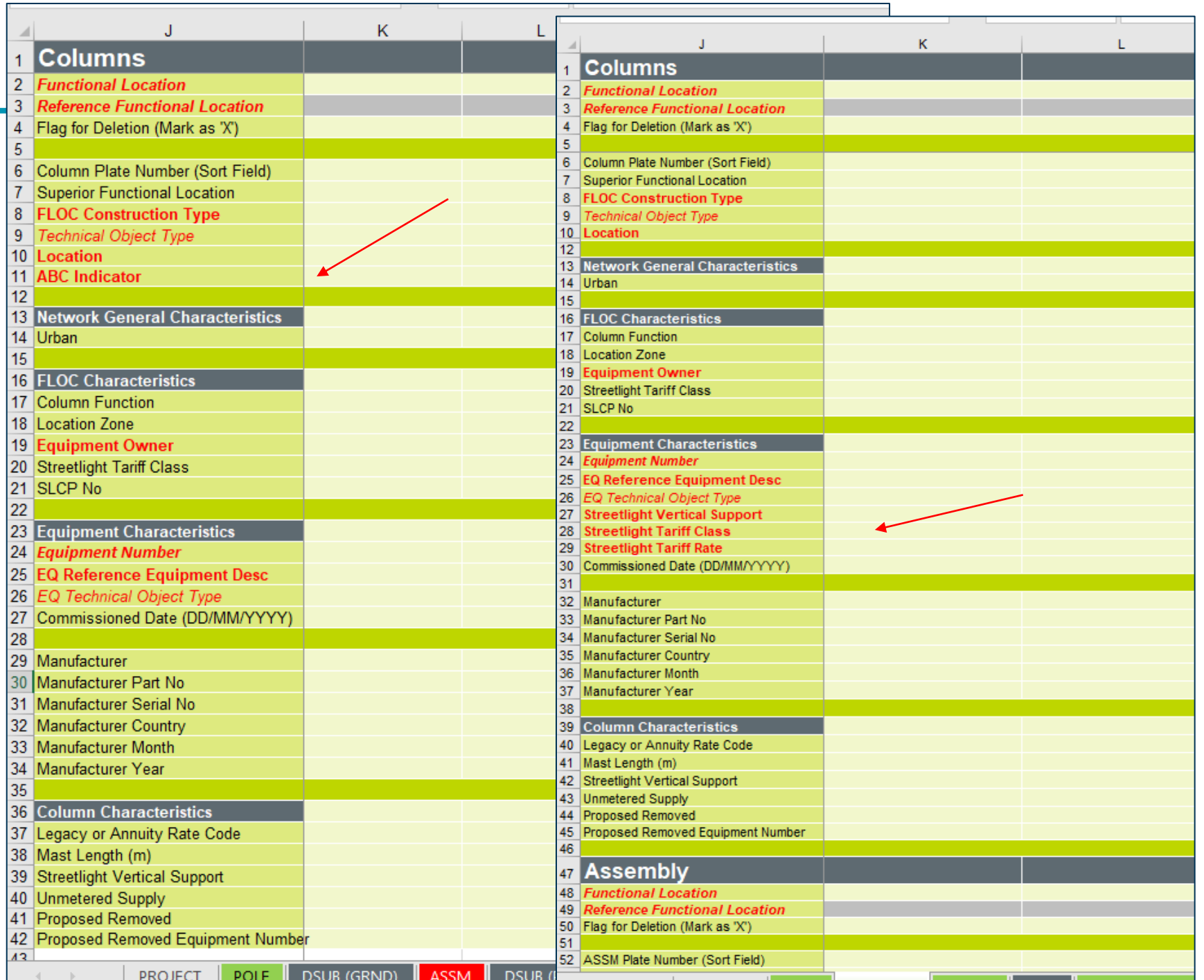
	J	K	L
1	**Poles**		
2	*Functional Location*		
3	*Reference Functional Location*		
4	Flag for Deletion (Mark as 'X')		
5			
6	Pole Plate Number (Sort Field)		
7	Superior Functional Location		
8	FLOC Construction Type		
9	*FLOC Technical Object Type*		
10	Location		
11	ABC Indicator		
12			
13	Network General Characteristics		
14	Urban		
15			
16	FLOC Characteristics		
17	Creek Crossing		
18	Equipment Owner		
19	Ice Loading Area		
20	Pole Equipment Function		
21	Pole Function		
22	River Crossing Navigable		
23	Structure No (Trans)		
24	Special Use Code		
25	Voltage - Nominal (V)		
26			
27	Equipment Characteristics		
28	*Equipment Number*		
29	EQ Reference Equipment Desc		
30	*EQ Technical Object Type*		
31	Commissioned Date (DD/MM/YYYY)		
32			
33	Manufacturer		
34	Manufacturer Part No		
35	Manufacturer Serial No		
36	Manufacturer Country		
37	Manufacturer Month		
38	Manufacturer Year		
39			
40	Pole Burial Depth (m)		
41	Pole length (m)		
42	Pole Strength on disc (kN)		
43	Pole Species		
44	Pole Type		
45	Original Pole Dia groundline (Wood Only)		
46	Proposed Removed		
47	Proposed Removed Equipment Number		
48			
49			
50			
51			
52			
53			
54			

PROJECT | POLE | DSUB (GRND) | ASSM | DSUB (POLE)

	J	K
1	**Poles**	
2	*Functional Location*	
3	*Reference Functional Location*	
4	Flag for Deletion (Mark as 'X')	
5		
6	Pole Plate Number (Sort Field)	
7	Superior Functional Location	
8	FLOC Construction Type	
9	*FLOC Technical Object Type*	
10	Location	
12		
13	Network General Characteristics	
14	Urban	
15		
16	FLOC Characteristics	
17	Creek Crossing	
18	Equipment Owner	
19	Ice Loading Area	
20	Pole Equipment Function	
21	Pole Function	
22	River Crossing Navigable	
23	Structure No (Trans)	
24	Special Use Code	
25	Voltage - Nominal (V)	
26		
27	Equipment Characteristics	
28	*Equipment Number*	
29	EQ Reference Equipment Desc	
30	*EQ Technical Object Type*	
31	Commissioned Date (DD/MM/YYYY)	
32	Streetlight Vertical Support	
33	Streetlight Tariff Class	
34	Streetlight Tariff Rate	
35		
36	Manufacturer	
37	Manufacturer Part No	
38	Manufacturer Serial No	
39	Manufacturer Country	
40	Manufacturer Month	
41	Manufacturer Year	
42		
43	Pole Burial Depth (m)	
44	Pole length (m)	
45	Pole Strength on disc (kN)	
46	Pole Species	
47	Pole Type	
48	Original Pole Dia groundline (Wood Only)	
49	Proposed Removed	
50	Proposed Removed Equipment Number	
51		
52	**Assembly**	
53	*Functional Location*	
54	*Reference Functional Location*	
55	Flag for Deletion (Mark as 'X')	
56		
57	ASSM Plate Number (Sort Field)	

PROJECT | POLE | COLUMN | PILLAR | SLCP

Column



	J	K	L
1	**Columns**		
2	***Functional Location***		
3	***Reference Functional Location***		
4	Flag for Deletion (Mark as 'X')		
5			
6	Column Plate Number (Sort Field)		
7	Superior Functional Location		
8	**FLOC Construction Type**		
9	*Technical Object Type*		
10	**Location**		
11	**ABC Indicator**		
12			
13	**Network General Characteristics**		
14	Urban		
15			
16	**FLOC Characteristics**		
17	Column Function		
18	Location Zone		
19	**Equipment Owner**		
20	Streetlight Tariff Class		
21	SLCP No		
22			
23	**Equipment Characteristics**		
24	***Equipment Number***		
25	**EQ Reference Equipment Desc**		
26	*EQ Technical Object Type*		
27	Commissioned Date (DD/MM/YYYY)		
28			
29	Manufacturer		
30	Manufacturer Part No		
31	Manufacturer Serial No		
32	Manufacturer Country		
33	Manufacturer Month		
34	Manufacturer Year		
35			
36	**Column Characteristics**		
37	Legacy or Annuity Rate Code		
38	Mast Length (m)		
39	Streetlight Vertical Support		
40	Unmetered Supply		
41	Proposed Removed		
42	Proposed Removed Equipment Number		

	J	K	L
1	**Columns**		
2	***Functional Location***		
3	***Reference Functional Location***		
4	Flag for Deletion (Mark as 'X')		
5			
6	Column Plate Number (Sort Field)		
7	Superior Functional Location		
8	**FLOC Construction Type**		
9	*Technical Object Type*		
10	**Location**		
12			
13	**Network General Characteristics**		
14	Urban		
15			
16	**FLOC Characteristics**		
17	Column Function		
18	Location Zone		
19	**Equipment Owner**		
20	Streetlight Tariff Class		
21	SLCP No		
22			
23	**Equipment Characteristics**		
24	***Equipment Number***		
25	**EQ Reference Equipment Desc**		
26	*EQ Technical Object Type*		
27	**Streetlight Vertical Support**		
28	**Streetlight Tariff Class**		
29	**Streetlight Tariff Rate**		
30	Commissioned Date (DD/MM/YYYY)		
31			
32	Manufacturer		
33	Manufacturer Part No		
34	Manufacturer Serial No		
35	Manufacturer Country		
36	Manufacturer Month		
37	Manufacturer Year		
38			
39	**Column Characteristics**		
40	Legacy or Annuity Rate Code		
41	Mast Length (m)		
42	Streetlight Vertical Support		
43	Unmetered Supply		
44	Proposed Removed		
45	Proposed Removed Equipment Number		
46			
47	**Assembly**		
48	***Functional Location***		
49	***Reference Functional Location***		
50	Flag for Deletion (Mark as 'X')		
51			
52	ASSM Plate Number (Sort Field)		

PROJECT | POLE | DSUB (GRND) | ASSM | DSUB (

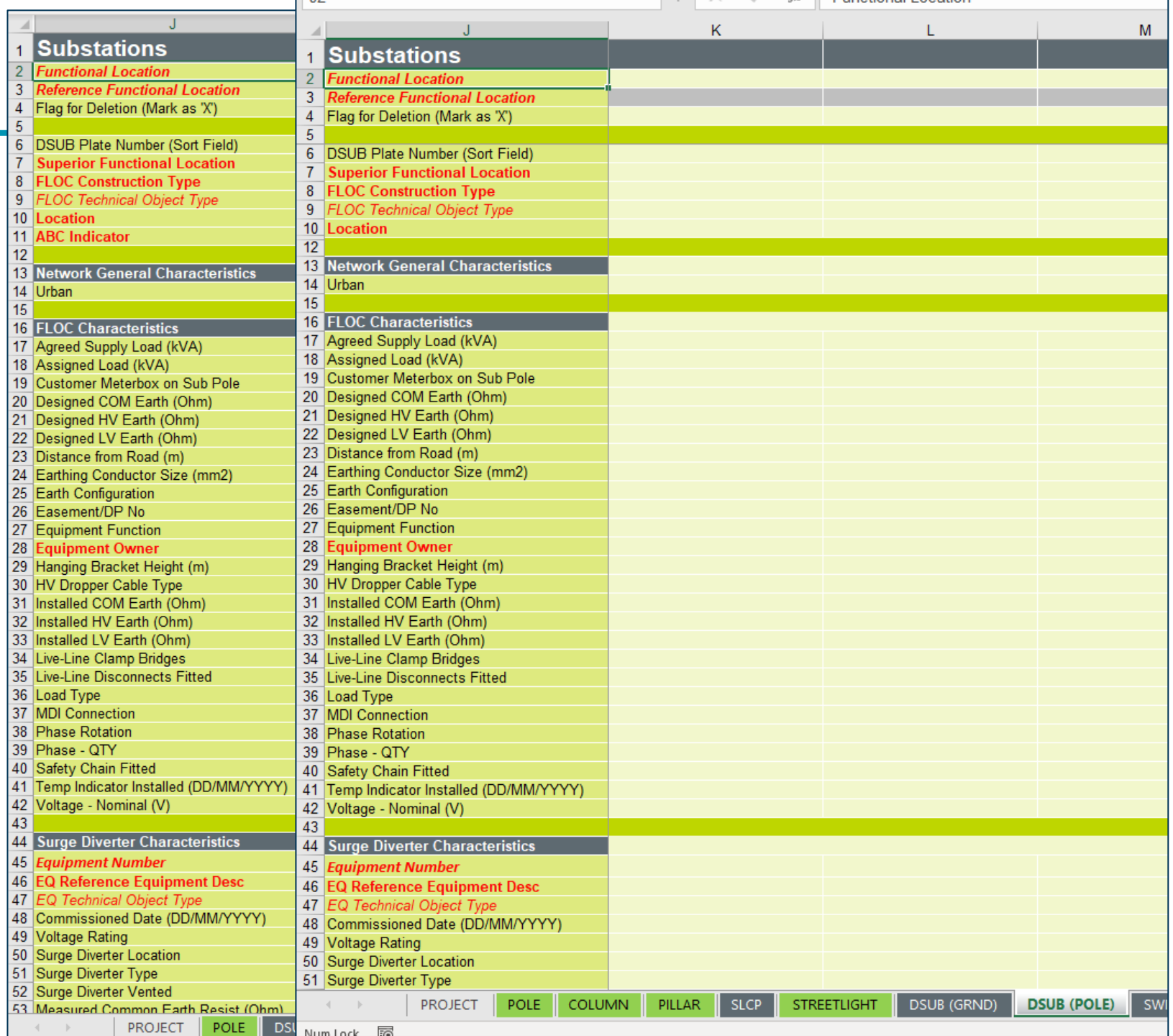
Pillar

	J	K
1	**Pillars**	
2	***Functional Location***	
3	***Reference Functional Location***	
4	Flag for Deletion (Mark as 'X')	
5		
6	Pillar Plate Number (Sort Field)	
7	Superior Functional Location	
8	**FLOC Construction Type**	
9	*Technical Object Type*	
10	**Location**	
11	**ABC Indicator**	
12		
13	**Network General Characteristics**	
14	Urban	
15		
16	**FLOC Characteristics**	
17	Connection Type	
18	**Equipment Owner**	
19	Location Zone	
20	Phase - Qty	
21	Unmetered Supply	
22		
23	**Equipment Characteristics**	
24	***Equipment Number***	
25	**EQ Reference Equipment Desc**	
26	*EQ Technical Object Type*	
27	Commissioned Date (DD/MM/YYYY)	
28		
29	Manufacturer	
30	Manufacturer Part No	
31	Manufacturer Serial No	
32	Manufacturer Country	
33	Manufacturer Month	
34	Manufacturer Year	
35		
36	Pillar Base	
37	Pillar Enclosure	
38	Pillar Function	
39	Pillar Mounting	
40	Proposed Removed	
41	Proposed Removed Equipment Number	
42		
43		

PROJECT | POLE | DSUB (GRND) | A

	J	K
1	**Pillars**	
2	***Functional Location***	
3	***Reference Functional Location***	
4	Flag for Deletion (Mark as 'X')	
5		
6	Pillar Plate Number (Sort Field)	
7	Superior Functional Location	
8	**FLOC Construction Type**	
9	*Technical Object Type*	
10	**Location**	
12		
13	**Network General Characteristics**	
14	Urban	
15		
16	**FLOC Characteristics**	
17	Connection Type	
18	**Equipment Owner**	
19	Location Zone	
20	Phase - Qty	
21	Unmetered Supply	
22		
23	**Equipment Characteristics**	
24	***Equipment Number***	
25	**EQ Reference Equipment Desc**	
26	*EQ Technical Object Type*	
27	Commissioned Date (DD/MM/YYYY)	
28		
29	Manufacturer	
30	Manufacturer Part No	
31	Manufacturer Serial No	
32	Manufacturer Country	
33	Manufacturer Month	
34	Manufacturer Year	
35		
36	Pillar Base	
37	Pillar Enclosure	
38	Pillar Function	
39	Pillar Mounting	
40	Proposed Removed	
41	Proposed Removed Equipment Number	
42		
43	**Assembly**	
44	***Functional Location***	
45	***Reference Functional Location***	
46	Flag for Deletion (Mark as 'X')	
47		

DSUB (POLE)



	J
1	**Substations**
2	***Functional Location***
3	***Reference Functional Location***
4	Flag for Deletion (Mark as 'X')
5	
6	DSUB Plate Number (Sort Field)
7	**Superior Functional Location**
8	**FLOC Construction Type**
9	*FLOC Technical Object Type*
10	**Location**
11	**ABC Indicator**
12	
13	**Network General Characteristics**
14	Urban
15	
16	**FLOC Characteristics**
17	Agreed Supply Load (kVA)
18	Assigned Load (kVA)
19	Customer Meterbox on Sub Pole
20	Designed COM Earth (Ohm)
21	Designed HV Earth (Ohm)
22	Designed LV Earth (Ohm)
23	Distance from Road (m)
24	Earthing Conductor Size (mm2)
25	Earth Configuration
26	Easement/DP No
27	Equipment Function
28	**Equipment Owner**
29	Hanging Bracket Height (m)
30	HV Dropper Cable Type
31	Installed COM Earth (Ohm)
32	Installed HV Earth (Ohm)
33	Installed LV Earth (Ohm)
34	Live-Line Clamp Bridges
35	Live-Line Disconnects Fitted
36	Load Type
37	MDI Connection
38	Phase Rotation
39	Phase - QTY
40	Safety Chain Fitted
41	Temp Indicator Installed (DD/MM/YYYY)
42	Voltage - Nominal (V)
43	
44	**Surge Diverter Characteristics**
45	***Equipment Number***
46	**EQ Reference Equipment Desc**
47	*EQ Technical Object Type*
48	Commissioned Date (DD/MM/YYYY)
49	Voltage Rating
50	Surge Diverter Location
51	Surge Diverter Type
52	Surge Diverter Vented
53	Measured Common Earth Resist (Ohm)

PROJECT | POLE | DSU

	J	K	L	M
1	**Substations**			
2	***Functional Location***			
3	***Reference Functional Location***			
4	Flag for Deletion (Mark as 'X')			
5				
6	DSUB Plate Number (Sort Field)			
7	**Superior Functional Location**			
8	**FLOC Construction Type**			
9	*FLOC Technical Object Type*			
10	**Location**			
12				
13	**Network General Characteristics**			
14	Urban			
15				
16	**FLOC Characteristics**			
17	Agreed Supply Load (kVA)			
18	Assigned Load (kVA)			
19	Customer Meterbox on Sub Pole			
20	Designed COM Earth (Ohm)			
21	Designed HV Earth (Ohm)			
22	Designed LV Earth (Ohm)			
23	Distance from Road (m)			
24	Earthing Conductor Size (mm2)			
25	Earth Configuration			
26	Easement/DP No			
27	Equipment Function			
28	**Equipment Owner**			
29	Hanging Bracket Height (m)			
30	HV Dropper Cable Type			
31	Installed COM Earth (Ohm)			
32	Installed HV Earth (Ohm)			
33	Installed LV Earth (Ohm)			
34	Live-Line Clamp Bridges			
35	Live-Line Disconnects Fitted			
36	Load Type			
37	MDI Connection			
38	Phase Rotation			
39	Phase - QTY			
40	Safety Chain Fitted			
41	Temp Indicator Installed (DD/MM/YYYY)			
42	Voltage - Nominal (V)			
43				
44	**Surge Diverter Characteristics**			
45	***Equipment Number***			
46	**EQ Reference Equipment Desc**			
47	*EQ Technical Object Type*			
48	Commissioned Date (DD/MM/YYYY)			
49	Voltage Rating			
50	Surge Diverter Location			
51	Surge Diverter Type			

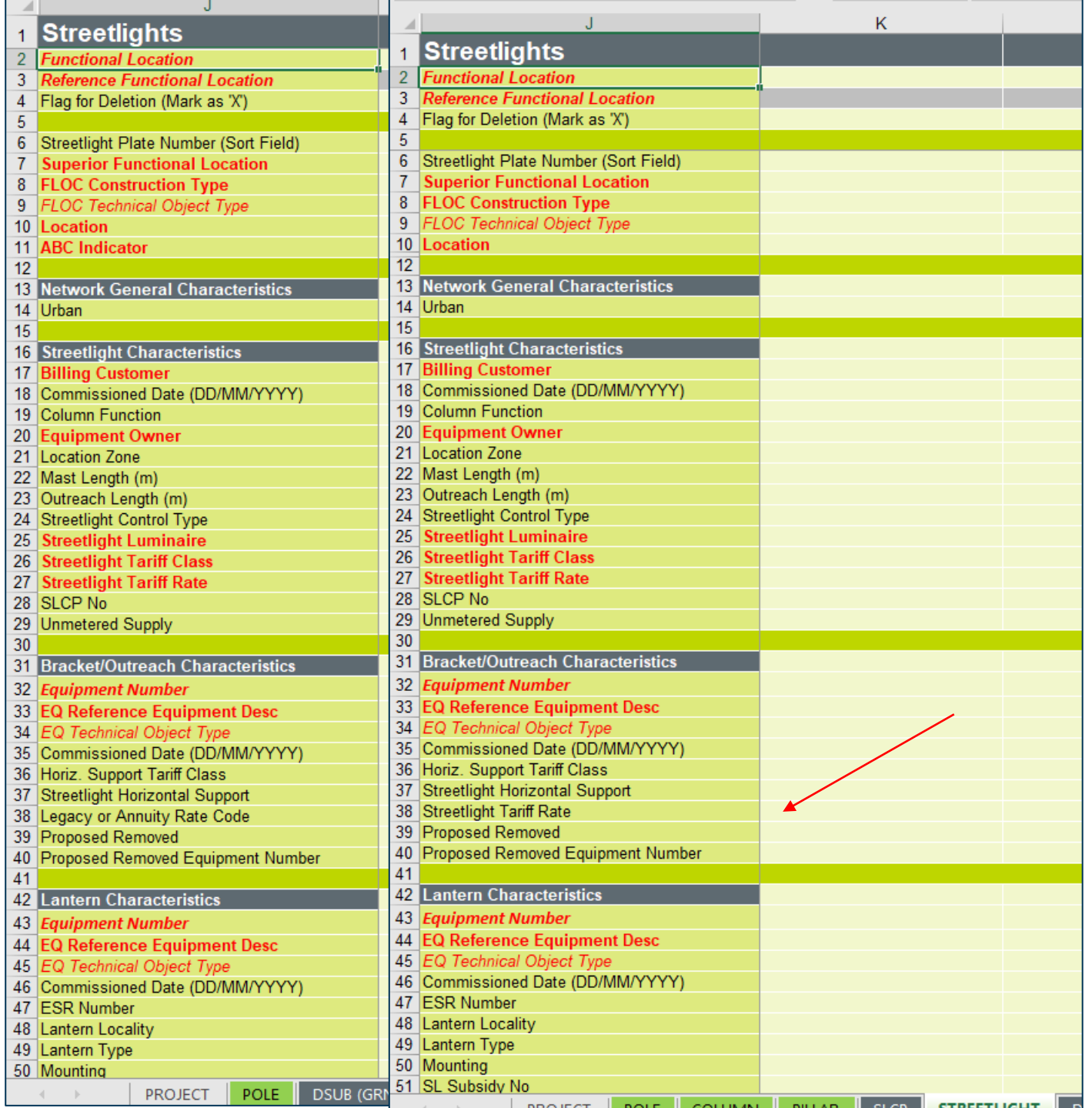
PROJECT | POLE | COLUMN | PILLAR | SLCP | STREETLIGHT | DSUB (GRND) | DSUB (POLE) | SWI

Num Lock

Streetlight

Essential components for Streetlight Billing :

1. Billing Customer
2. Commissioned date (ASP1)
3. Luminaire characteristics
4. Horizontal characteristics
5. Lantern characteristics and
6. Vertical characteristics (from pole or column)



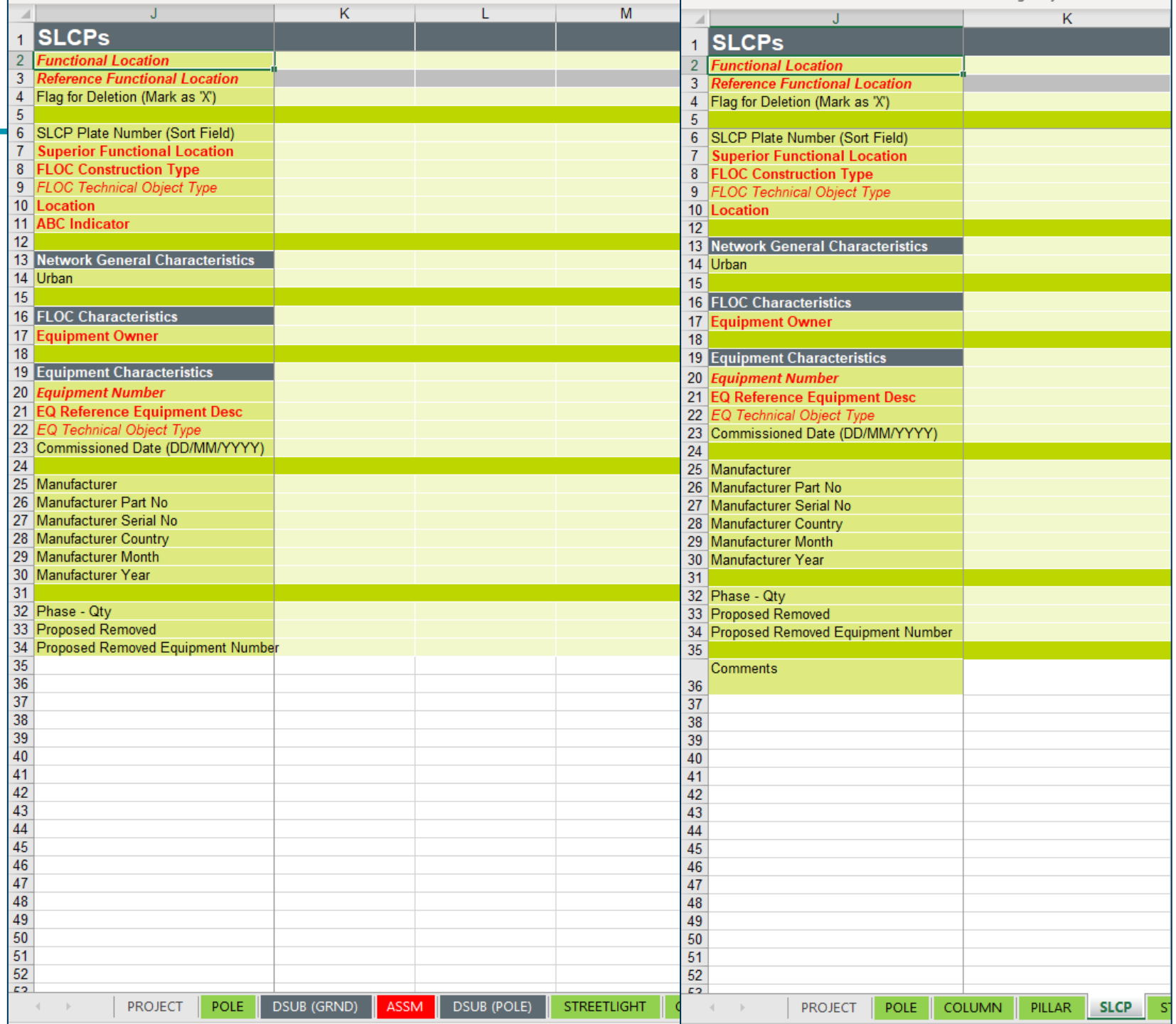
	J
1	**Streetlights**
2	*Functional Location*
3	*Reference Functional Location*
4	Flag for Deletion (Mark as 'X')
5	
6	Streetlight Plate Number (Sort Field)
7	Superior Functional Location
8	FLOC Construction Type
9	*FLOC Technical Object Type*
10	Location
11	ABC Indicator
12	
13	Network General Characteristics
14	Urban
15	
16	Streetlight Characteristics
17	Billing Customer
18	Commissioned Date (DD/MM/YYYY)
19	Column Function
20	Equipment Owner
21	Location Zone
22	Mast Length (m)
23	Outreach Length (m)
24	Streetlight Control Type
25	Streetlight Luminaire
26	Streetlight Tariff Class
27	Streetlight Tariff Rate
28	SLCP No
29	Unmetered Supply
30	
31	Bracket/Outreach Characteristics
32	*Equipment Number*
33	EQ Reference Equipment Desc
34	*EQ Technical Object Type*
35	Commissioned Date (DD/MM/YYYY)
36	Horiz. Support Tariff Class
37	Streetlight Horizontal Support
38	Legacy or Annuity Rate Code
39	Proposed Removed
40	Proposed Removed Equipment Number
41	
42	Lantern Characteristics
43	*Equipment Number*
44	EQ Reference Equipment Desc
45	*EQ Technical Object Type*
46	Commissioned Date (DD/MM/YYYY)
47	ESR Number
48	Lantern Locality
49	Lantern Type
50	Mounting

PROJECT | POLE | DSUB (GRN

	J	K
1	**Streetlights**	
2	*Functional Location*	
3	*Reference Functional Location*	
4	Flag for Deletion (Mark as 'X')	
5		
6	Streetlight Plate Number (Sort Field)	
7	Superior Functional Location	
8	FLOC Construction Type	
9	*FLOC Technical Object Type*	
10	Location	
12		
13	Network General Characteristics	
14	Urban	
15		
16	Streetlight Characteristics	
17	Billing Customer	
18	Commissioned Date (DD/MM/YYYY)	
19	Column Function	
20	Equipment Owner	
21	Location Zone	
22	Mast Length (m)	
23	Outreach Length (m)	
24	Streetlight Control Type	
25	Streetlight Luminaire	
26	Streetlight Tariff Class	
27	Streetlight Tariff Rate	
28	SLCP No	
29	Unmetered Supply	
30		
31	Bracket/Outreach Characteristics	
32	*Equipment Number*	
33	EQ Reference Equipment Desc	
34	*EQ Technical Object Type*	
35	Commissioned Date (DD/MM/YYYY)	
36	Horiz. Support Tariff Class	
37	Streetlight Horizontal Support	
38	Streetlight Tariff Rate	
39	Proposed Removed	
40	Proposed Removed Equipment Number	
41		
42	Lantern Characteristics	
43	*Equipment Number*	
44	EQ Reference Equipment Desc	
45	*EQ Technical Object Type*	
46	Commissioned Date (DD/MM/YYYY)	
47	ESR Number	
48	Lantern Locality	
49	Lantern Type	
50	Mounting	
51	SL Subsidy No	

PROJECT | POLE | COLUMN | PILLAR | SLCP | STREETLIGHT

SLCP



	J	K	L	M
1	**SLCPs**			
2	***Functional Location***			
3	***Reference Functional Location***			
4	Flag for Deletion (Mark as 'X')			
5				
6	SLCP Plate Number (Sort Field)			
7	**Superior Functional Location**			
8	**FLOC Construction Type**			
9	*FLOC Technical Object Type*			
10	**Location**			
11	**ABC Indicator**			
12				
13	**Network General Characteristics**			
14	Urban			
15				
16	**FLOC Characteristics**			
17	**Equipment Owner**			
18				
19	**Equipment Characteristics**			
20	***Equipment Number***			
21	**EQ Reference Equipment Desc**			
22	*EQ Technical Object Type*			
23	Commissioned Date (DD/MM/YYYY)			
24				
25	Manufacturer			
26	Manufacturer Part No			
27	Manufacturer Serial No			
28	Manufacturer Country			
29	Manufacturer Month			
30	Manufacturer Year			
31				
32	Phase - Qty			
33	Proposed Removed			
34	Proposed Removed Equipment Number			
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PROJECT | POLE | DSUB (GRND) | ASSM | DSUB (POLE) | STREETLIGHT

	J	K
1	**SLCPs**	
2	***Functional Location***	
3	***Reference Functional Location***	
4	Flag for Deletion (Mark as 'X')	
5		
6	SLCP Plate Number (Sort Field)	
7	**Superior Functional Location**	
8	**FLOC Construction Type**	
9	*FLOC Technical Object Type*	
10	**Location**	
12		
13	**Network General Characteristics**	
14	Urban	
15		
16	**FLOC Characteristics**	
17	**Equipment Owner**	
18		
19	**Equipment Characteristics**	
20	***Equipment Number***	
21	**EQ Reference Equipment Desc**	
22	*EQ Technical Object Type*	
23	Commissioned Date (DD/MM/YYYY)	
24		
25	Manufacturer	
26	Manufacturer Part No	
27	Manufacturer Serial No	
28	Manufacturer Country	
29	Manufacturer Month	
30	Manufacturer Year	
31		
32	Phase - Qty	
33	Proposed Removed	
34	Proposed Removed Equipment Number	
35		
36	Comments	
37		
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PROJECT | POLE | COLUMN | PILLAR | SLCP

Switchgear

	J	K
1	**Sub Switchgear**	
2	***Functional Location***	
3	***Reference Functional Location***	
4	Flag for Deletion (Mark as 'X')	
5		
6	SwitchGear Plate Number (Sort Field)	
7	**Superior Functional Location**	
8	**FLOC Construction Type**	
9	*FLOC Technical Object Type*	
10	**Location**	
11	**ABC Indicator**	
12		
13	**Network General Characteristics**	
14	Urban	
15		
16	**FLOC Characteristics**	
17	**Equipment Owner**	
18	Voltage Nominal (V)	
19	LV Switchgear Config	
20		
21	**Equipment Characteristics**	
22	***Equipment Number***	
23	**EQ Reference Equipment Desc**	
24	*EQ Technical Object Type*	
25	Commissioned Date (DD/MM/YYYY)	
26		
27	Manufacturer	
28	Manufacturer Part No	
29	Manufacturer Serial No	
30	Manufacturer Country	
31	Manufacturer Month	
32	Manufacturer Year	
33		
34	Arc Quenching Medium	
35	Control Method	
36	Rating - Current (A)	
37	Fault Rating Time (s)	
38	Fault Rating (kA)	
39	Heater Fitted	
40	Fuse Element (A)	
41	Krone 3PH Operation	
42	Phase - Qty	
43	Fuse Rating (A)	
44	Voltage Rating (V)	
45	SF6 Gas Quantity (kg)	
46	Switchgear Configuration	
47	Mass - Total (kg)	
48	Arc Quench/Insulating Vol (l)	
49	Voltage - Trip/Close Coil (V)	
50	Disposal Date	
51	Proposed Removed	
52	Proposed Removed Equipment Number	
53		

PROJECT | POLE | DSUB (GRND) | ASSM

	J	K
1	**Sub Switchgear**	
2	***Functional Location***	
3	***Reference Functional Location***	
4	Flag for Deletion (Mark as 'X')	
5		
6	SwitchGear Plate Number (Sort Field)	
7	**Superior Functional Location**	
8	**FLOC Construction Type**	
9	*FLOC Technical Object Type*	
10	**Location**	
12		
13	**Network General Characteristics**	
14	Urban	
15		
16	**FLOC Characteristics**	
17	**Equipment Owner**	
18	Voltage Nominal (V)	
19	LV Switchgear Config	
20		
21	**Equipment Characteristics**	
22	***Equipment Number***	
23	**EQ Reference Equipment Desc**	
24	*EQ Technical Object Type*	
25	Commissioned Date (DD/MM/YYYY)	
26		
27	Manufacturer	
28	Manufacturer Part No	
29	Manufacturer Serial No	
30	Manufacturer Country	
31	Manufacturer Month	
32	Manufacturer Year	
33		
34	Arc Quenching Medium	
35	Control Method	
36	Rating - Current (A)	
37	Fault Rating Time (s)	
38	Fault Rating (kA)	
39	Heater Fitted	
40	Fuse Element (A)	
41	Krone 3PH Operation	
42	Phase - Qty	
43	Fuse Rating (A)	
44	Voltage Rating (V)	
45	SF6 Gas Quantity (kg)	
46	Switchgear Configuration	
47	Mass - Total (kg)	
48	Arc Quench/Insulating Vol (l)	
49	Voltage - Trip/Close Coil (V)	
50	Disposal Date	
51	Proposed Removed	
52	Proposed Removed Equipment Number	
53		
	Comments	

PROJECT | POLE | COLUMN | PILLAR | SLCP

HV_LV Switches

	J	K
1	**HV/LV Switches**	
2	***Functional Location***	
3	***Reference Functional Location***	
4	Flag for Deletion (Mark as 'X')	
5		
6	Switch Plate Number (Sort Field)	
7	**Superior Functional Location**	
8	**FLOC Construction Type**	
9	*FLOC Technical Object Type*	
10	**Location**	
11	**ABC Indicator**	
12		
13	**Network General Characteristics**	
14	Urban	
15		
16	**FLOC Characteristics**	
17	**Equipment Owner**	
18	Voltage Nominal (V)	
19		
20	**Equipment Characteristics**	
21	***Equipment Number***	
22	**EQ Reference Equipment Desc**	
23	*EQ Technical Object Type*	
24	Commissioned Date (DD/MM/YYYY)	
25		
26	Manufacturer	
27	Manufacturer Part No	
28	Manufacturer Serial No	
29	Manufacturer Country	
30	Manufacturer Month	
31	Manufacturer Year	
32		
33	Arc Quenching Medium	
34	Control Method	
35	Rating - Current (A)	
36	Equipment Function	
37	Fuse Type	
38	Fuse Element (A)	
39	Recloser/Sect Interrupter	
40	Operating Handle Location	
41	Phase - Qty	
42	Voltage Rating (V)	
43	Switch Current Rating (A)	
44	Proposed Removed	
45	Proposed Removed Equipment Number	
46		
47	**Controller Characteristics**	
48	***Equipment Number***	
49	**EQ Reference Equipment Desc**	
50	*EQ Technical Object Type*	
51	Commissioned Date (DD/MM/YYYY)	
52	Date Installed	
53	Proposed Removed	

PROJECT | POLE | DSUB (GRND) | ASSM

	J	K
1	**HV/LV Switches**	
2	***Functional Location***	
3	***Reference Functional Location***	
4	Flag for Deletion (Mark as 'X')	
5		
6	Switch Plate Number (Sort Field)	
7	**Superior Functional Location**	
8	**FLOC Construction Type**	
9	*FLOC Technical Object Type*	
10	**Location**	
12		
13	**Network General Characteristics**	
14	Urban	
15		
16	**FLOC Characteristics**	
17	**Equipment Owner**	
18	Voltage Nominal (V)	
19		
20	**Equipment Characteristics**	
21	***Equipment Number***	
22	**EQ Reference Equipment Desc**	
23	*EQ Technical Object Type*	
24	Commissioned Date (DD/MM/YYYY)	
25		
26	Manufacturer	
27	Manufacturer Part No	
28	Manufacturer Serial No	
29	Manufacturer Country	
30	Manufacturer Month	
31	Manufacturer Year	
32		
33	Arc Quenching Medium	
34	Control Method	
35	Rating - Current (A)	
36	Equipment Function	
37	Fuse Type	
38	Fuse Element (A)	
39	Recloser/Sect Interrupter	
40	Operating Handle Location	
41	Phase - Qty	
42	Voltage Rating (V)	
43	Switch Current Rating (A)	
44	Proposed Removed	
45	Proposed Removed Equipment Number	
46		
47	**Controller Characteristics**	
48	***Equipment Number***	
49	**EQ Reference Equipment Desc**	
50	*EQ Technical Object Type*	
51	Commissioned Date (DD/MM/YYYY)	
52	Date Installed	
53	Proposed Removed	

PROJECT | POLE | COLUMN | PILLAR

Transformers

	J	K
1	**Transformers**	
2	***Functional Location***	
3	***Reference Functional Location***	
4	Flag for Deletion (Mark as 'X')	
5		
6	Transformer Plate Number (Sort Field)	
7	**Superior Functional Location**	
8	**FLOC Construction Type**	
9	*FLOC Technical Object Type*	
10	**Location**	
11	**ABC Indicator**	
12		
13	**Network General Characteristics**	
14	Urban	
15		
16	**FLOC Characteristics**	
17	Current Tap Voltage (V)	
18	KVA Rating (kVA)	
19	Phase - Qty	
20	Transformer Load Type	
21	Voltage - Nominal (V)	
22		
23	**Equipment Characteristics**	
24	***Equipment Number***	
25	**EQ Reference Equipment Desc**	
26	*EQ Technical Object Type*	
27	Commissioned Date (DD/MM/YYYY)	
28		
29	Manufacturer	
30	Manufacturer Part No	
31	Manufacturer Serial No	
32	Manufacturer Country	
33	Manufacturer Month	
34	Manufacturer Year	
35		
36	Bracket Height (m)	
37	Breather Type	
38	Class - CT	
39	Cooling Type	
40	Core Type	
41	CT Burden (VA)	
42	CT Position	
43	CT Primary (EA)	
44	CT Secondary (EA)	
45	Harmonics 3rd (HZ)	
46	Harmonics 5th (HZ)	
47	Harmonics 7th (HZ)	
48	Height (m)	
49	HV Bushing Location	
50	HV Bushing Type	
51	Insulating Medium	
52	KVAR Rating (kVA)	
53	Length (m)	

PROJECT | POLE | DSUB (GRND) | ASSN

	J	K
1	**Transformers**	
2	***Functional Location***	
3	***Reference Functional Location***	
4	Flag for Deletion (Mark as 'X')	
5		
6	Transformer Plate Number (Sort Field)	
7	**Superior Functional Location**	
8	**FLOC Construction Type**	
9	*FLOC Technical Object Type*	
10	**Location**	
12		
13	**Network General Characteristics**	
14	Urban	
15		
16	**FLOC Characteristics**	
17	Current Tap Voltage (V)	
18	KVA Rating (kVA)	
19	Phase - Qty	
20	Transformer Load Type	
21	Voltage - Nominal (V)	
22		
23	**Equipment Characteristics**	
24	***Equipment Number***	
25	**EQ Reference Equipment Desc**	
26	*EQ Technical Object Type*	
27	Commissioned Date (DD/MM/YYYY)	
28		
29	Manufacturer	
30	Manufacturer Part No	
31	Manufacturer Serial No	
32	Manufacturer Country	
33	Manufacturer Month	
34	Manufacturer Year	
35		
36	Bracket Height (m)	
37	Breather Type	
38	Class - CT	
39	Cooling Type	
40	Core Type	
41	CT Burden (VA)	
42	CT Position	
43	CT Primary (EA)	
44	CT Secondary (EA)	
45	Harmonics 3rd (HZ)	
46	Harmonics 5th (HZ)	
47	Harmonics 7th (HZ)	
48	Height (m)	
49	HV Bushing Location	
50	HV Bushing Type	
51	Insulating Medium	
52	KVAR Rating (kVA)	
53	Length (m)	
54	Load Loss (W)	

PROJECT | POLE | COLUMN | PILLAR | SLCP

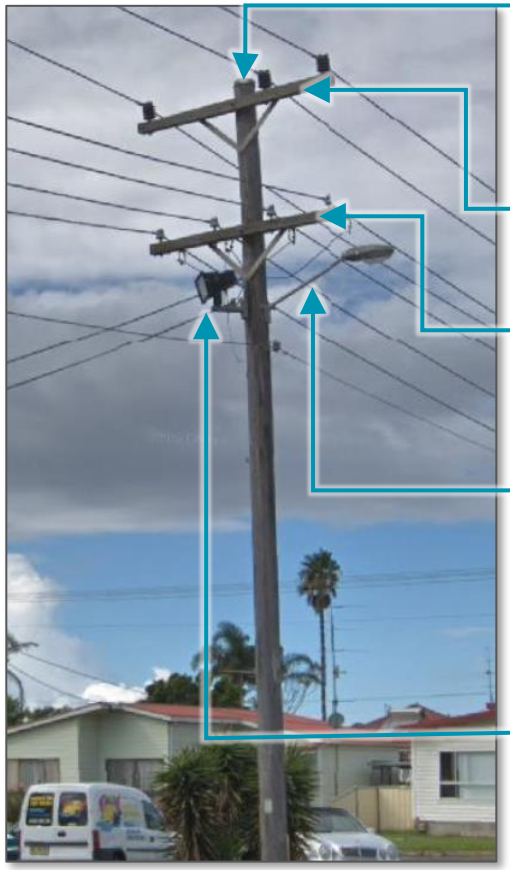
Questions?

The following slides are a brief review of the asset hierarchy and further explanations and examples of assets and how to request them using the TAS

Asset Hierarchy Overview – sample 1

In the Endeavour Energy SAP system, technical assets are arranged in a hierarchical structure which contain a combination of **Functional Locations (FLOCs)** and **Equipment**.

Example: Pole



Pole Structure

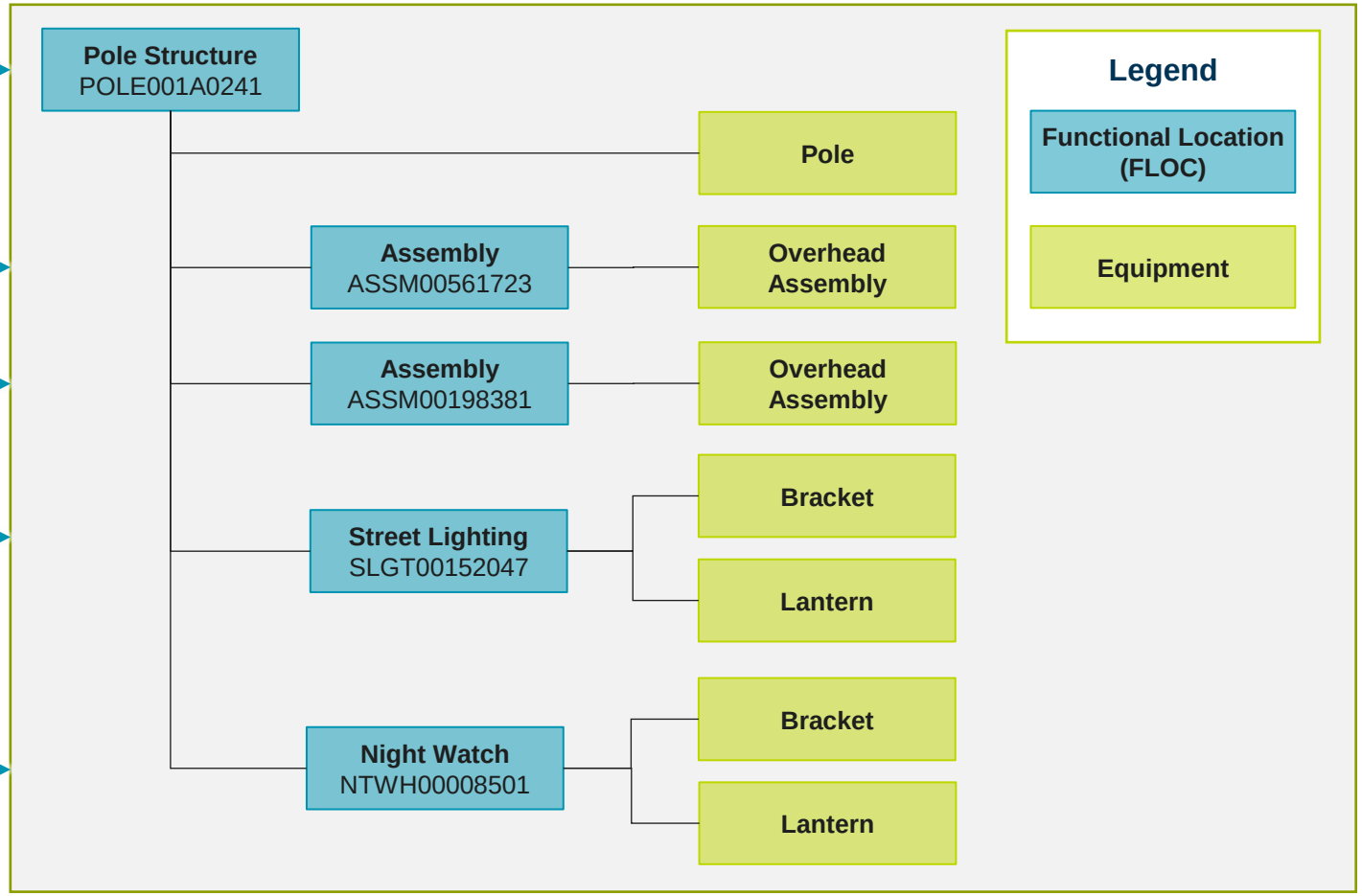
HV OH Assembly

LV OH Assembly

Street Lighting

Night Watch

SAP Asset Hierarchy



Asset Hierarchy Overview – sample 2

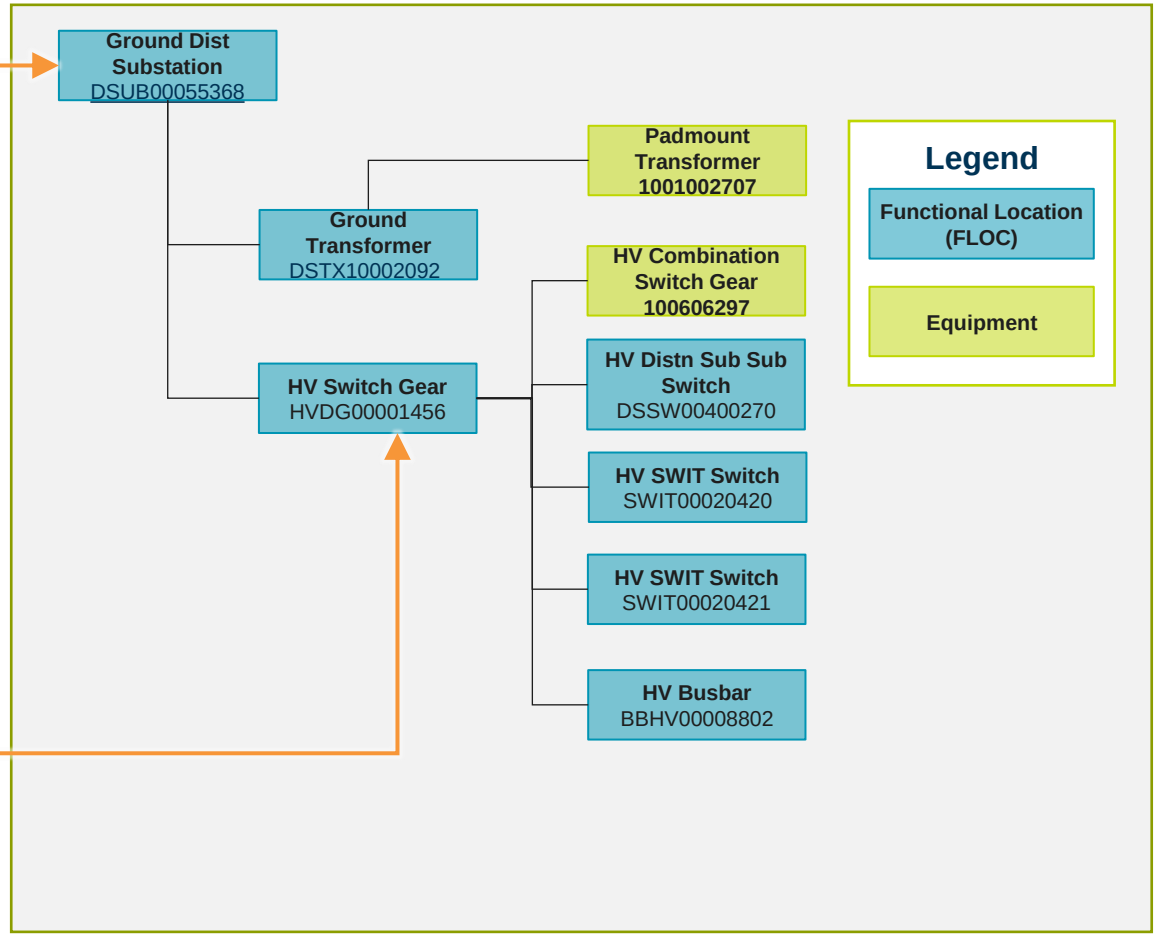
In the Endeavour Energy SAP system, technical assets are arranged in a hierarchical structure which contain a combination of **Functional Locations (FLOCs) and Equipment.** A FLOC does not represent a physical piece of equipment however, that is represented in SAP by an Equipment record.

Example: Ground Dist Substation

Ground Dist Substation Structure

HV Switch Gear

SAP Asset Hierarchy



Asset Hierarchy Overview – sample 3

In the Endeavour Energy SAP system, technical assets are arranged in a hierarchical structure which contain a combination of **Functional Locations (FLOCs)** and **Equipment**.

Example: Ground Dist Substation (Continued from previous slide).

Ground Dist Substation Structure

SAP Asset Hierarchy

- **Ground Dist Substation** DSUB0018358
  - **LV Switch Gear** LVDGG018358L1
    - **LV Distn Sub Sub Switch** DSSW000B7544
    - **LV Switch** 1001704619
    - **LV SWIT Switch** SWIT18358T1L
    - **LV Switch** 1002144339
    - **LV SWIT Switch** SWIT18358T2L
    - **LV Switch** 1002144319
    - **LV Busbar Bay** BBLV00010755
    - **LV Busbar Bay** 1002459418

Legend

- Functional Location (FLOC)
- Equipment

Assemblies – further details

An Assembly is needed for each circuit that touches a pole, tower.

The list below provides further clarification:

1. Each Transmission, HV or LV circuit on same pole require individual assemblies;
2. Dedicated lighting circuits require their own assembly;
3. Overhead earth wire or OPGW or Pilot Cable (generally, a pole will have only one of these, if any) require an assembly.
4. If there is an OHEW and an ADSS conductor on the same pole then each of them will require an assembly.
5. Instances where a Pilot/Hardex conductor that terminates/transitions to optical fibre comms on a pole then this is treated as one circuit and therefore one assembly ;
6. Each UGOH is to have a separate assembly;
7. Currently, only one assembly is required for Tee-off situations that are on the same circuit. (We hope to change this in future to two assemblies).
8. Columns and pillars have only one assembly.

Assemblies are not required for isolators or switch/fuses in a ground distribution substation.

LV with streetlight –POLE004KD380

LV circuit with service mains - assembly 1

Dedicated streetlight supply – assembly 2

Poles:	1

Poles: 1

Pole Structure	1
Pole Switch	
Pole Street Lighting	1
Pole Assembly (1 per voltage level)	2
Pole Streetlight Control Point	

POLE with LBS POLE00810510

11kV – assembly 1

Load break switch

LV – assembly 2

Service mains and streetlight in this case are part of LV circuit and therefore they do not require separate assemblies

Poles:	1

Poles: 1

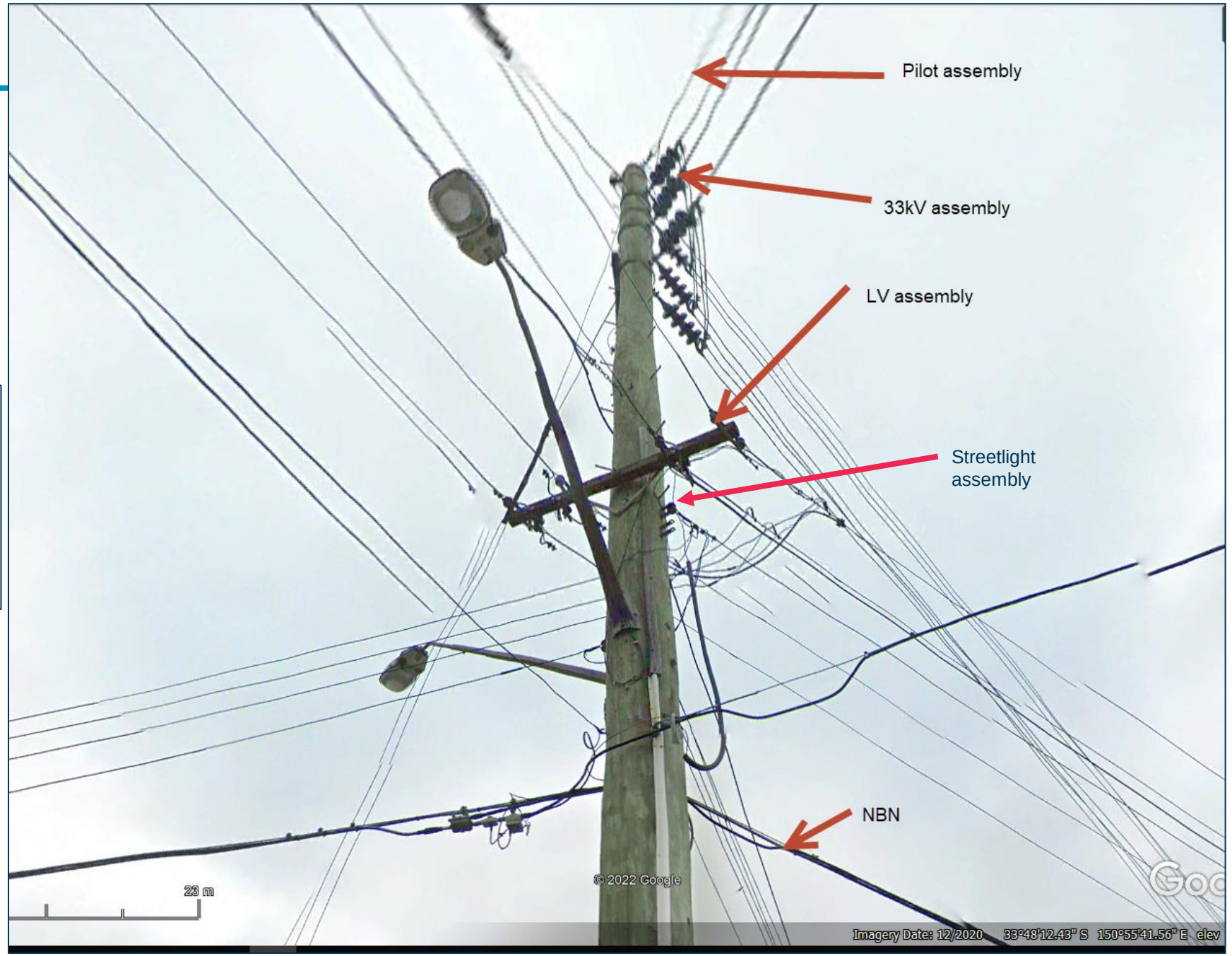
Pole Structure	1
Pole Switch	1
Pole Street Lighting	1
Pole Assembly (1 per voltage level)	2
Pole Streetlight Control Point	

Pole assemblies

Poles:	1

Poles: 1

Pole Structure	1
Pole Switch	0
Pole Street Lighting	2
Pole Assembly (1 per voltage level)	4
Pole Streetlight Control Point	0



Lighting

Lantern – luminaire component

Outreach – horizontal component

Steel column vertical component

Bracket – horizontal component

Pole vertical component

Columns:	1

Columns: 1

Column Structure	1
Column Internal Assembly	1
Column Street Lighting	1
Column Streetlight Control Point	
Column LV Switch	

Poles:	1

Poles: 1

Pole Structure	1
Pole Switch	
Pole Street Lighting	1
Pole Assembly (1 per voltage level)	1
Pole Streetlight Control Point	

Pole Substation

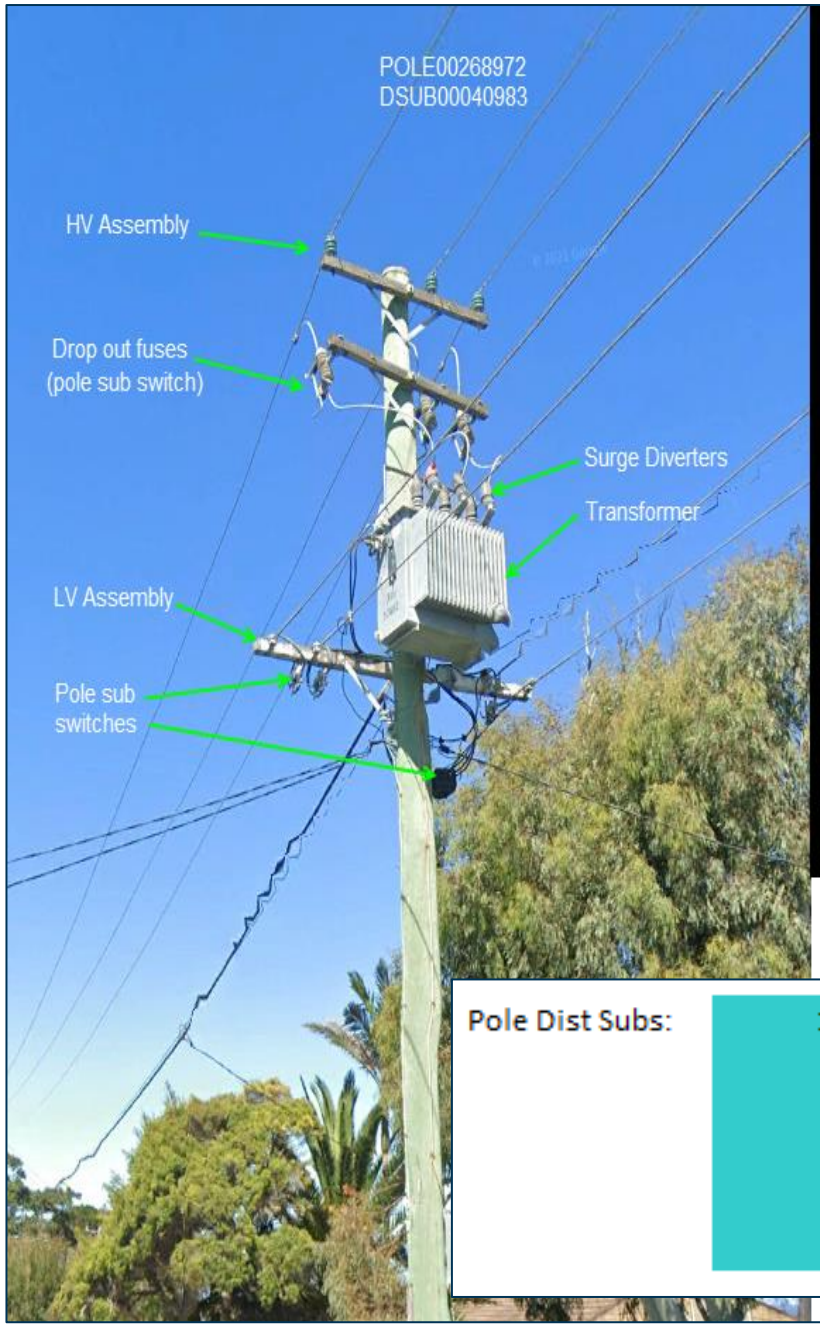
All switches in a distribution pole substation are treated as DSSWs unlike a normal DSUB.

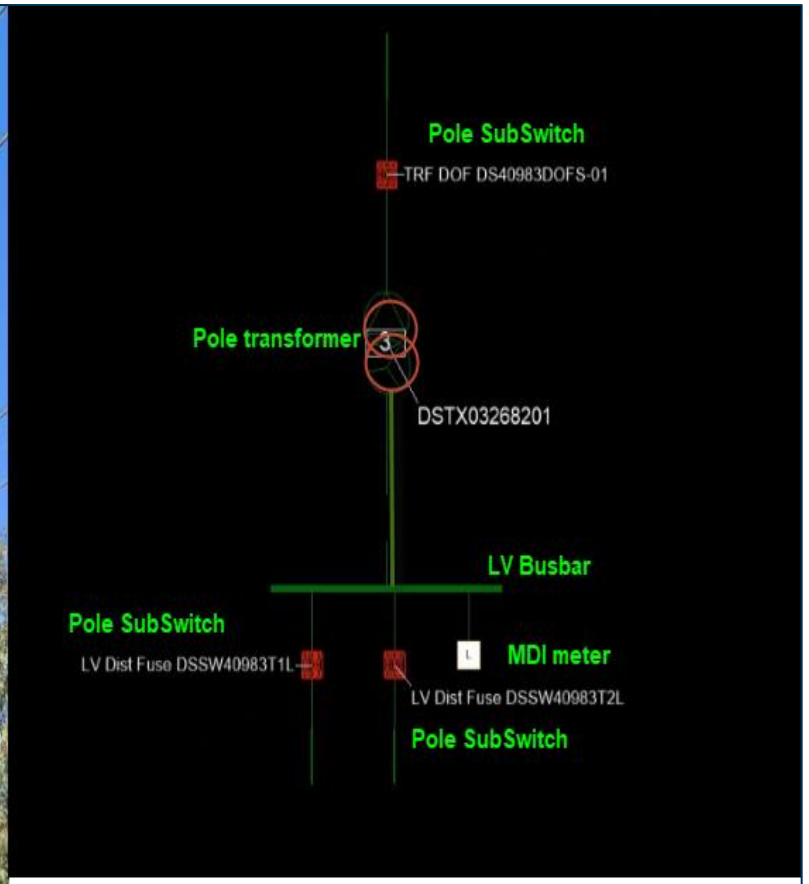
In a pole sub there is no:

- HVDG (HV Combination Switchgear) ,
- BBHV (HV busbar) or
- LVDG (LV Combination Switchgear) and

Therefore the BBLV (LV busbar), transformer and the switches are children of the DSUB.

- Note the pole sub data including the surge diverter equipment must be filled in for the auto upload of busbar details are filled





Pole Dist Subs: 1

Pole Dist Subs: 1

Pole Distribution Substation	1
Pole Transformer	1
Pole Sub Switches (LV,HV,Tx links,etc)	3
-	

Columns

Columns no longer have switches installed in them.

A column will have 1 assembly – generally SL mains

Nightwatch lanterns are normally installed under a special contract between EE and the customer

Columns:	1

Columns: 1

Column Structure	1
Column Assembly	1
Column Street Lighting	1
Column Streetlight Control Point	
Column Switch	

Pillars and Cubicles

Pillars will have 1 assembly and may have LV links.

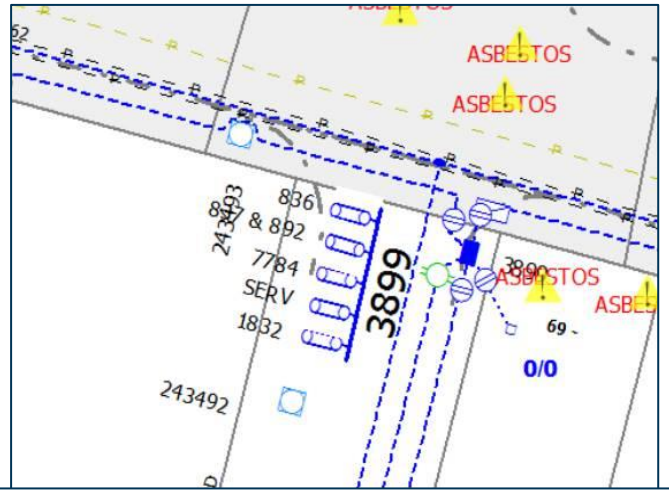
This is an example of a double link pillar

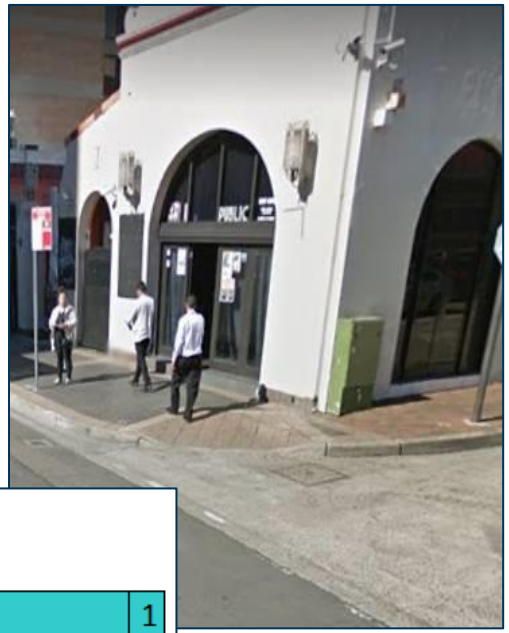
Pillars: 1

Pillars: 1

LV Pillar Structure	1
Pillar Internal Assembly	1
Pillar LV Switch	2
-	
-	

Cubicle or OG box with 5 links/fuse strips





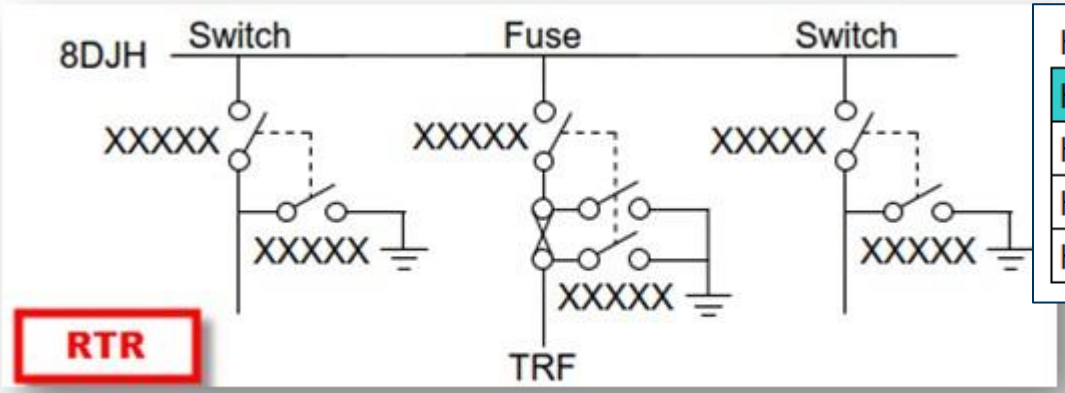
When filling in the switches for the cubicle in the TAS the designer is to fill in the required number of fuse-strips.

Pillars: 1

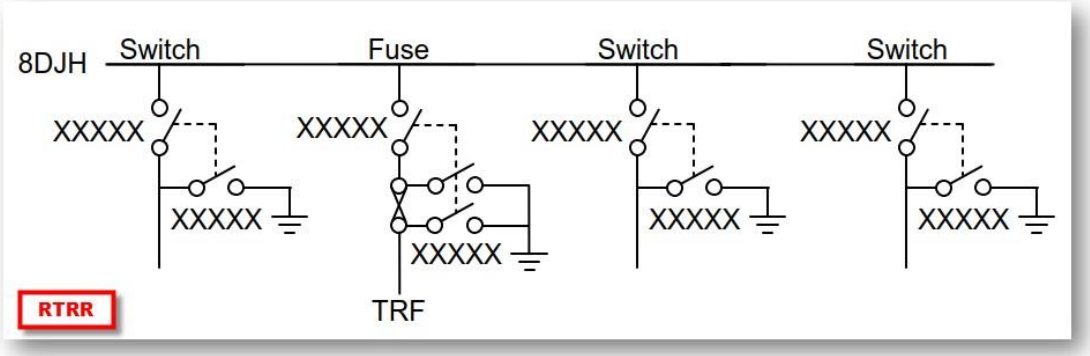
Pillars: 1

LV Pillar Structure	1
Pillar Internal Assembly	1
Pillar LV Switch	5
-	
-	

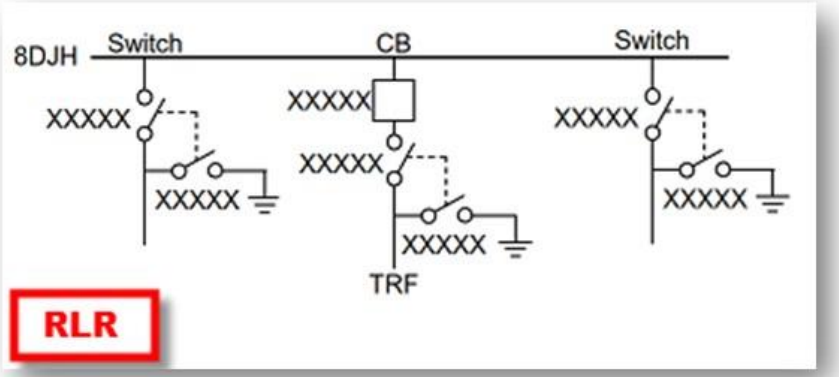
HV distribution switchgear 1



HV Combination Switchgear: 1	
HV Combination Switchgear	1
HV and Earth Tx Switches	2
HV and Earth Fdr Switches	4
HVCB - HV Circuit Breaker	0



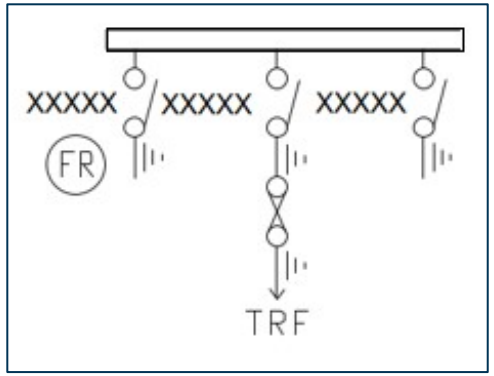
HV Combination Switchgear: 1	
HV Combination Switchgear	1
HV and Earth Tx Switches	2
HV and Earth Fdr Switches	6
HVCB - HV Circuit Breaker	0



HV Combination Switchgear: 1	
HV Combination Switchgear	1
HV and Earth Tx Switches	2
HV and Earth Fdr Switches	4
HVCB - HV Circuit Breaker	1

HV distribution switchgear 2

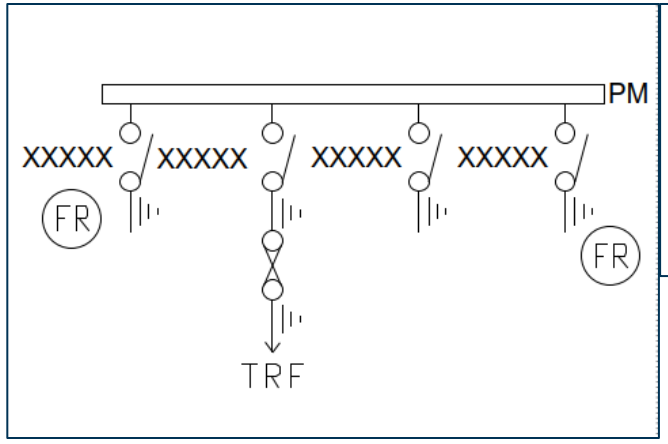
CFC



HV Combination Switchgear: 1

HV Combination Switchgear	1
HV and Earth Tx Switches	1
HV and Earth Fdr Switches	2
HVCB - HV Circuit Breaker	

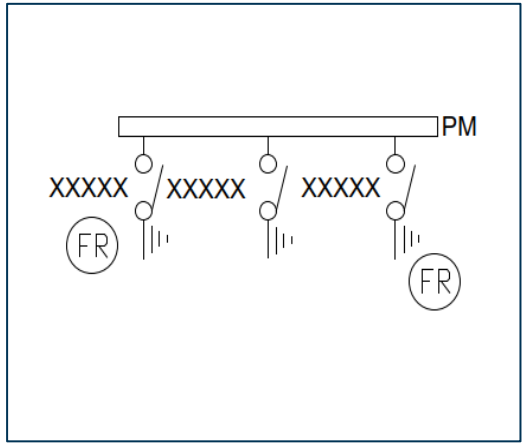
CFCC



HV Combination Switchgear: 1

HV Combination Switchgear	1
HV and Earth Tx Switches	1
HV and Earth Fdr Switches	3
HVCB - HV Circuit Breaker	

CCC



HV Combination Switchgear: 1

HV Combination Switchgear	1
HV and Earth Tx Switches	
HV and Earth Fdr Switches	3
HVCB - HV Circuit Breaker	

LV distribution switchgear

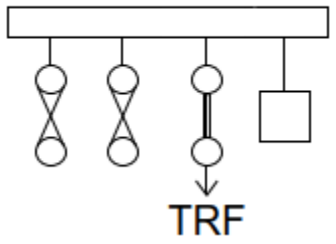
CAT 1 or CAT 2 Busbar LV, 4 feeders

NEW LABELS SUB XXXXXX	
'R' - PILLAR 95930	XXXXXX
'S' - PILLAR 95939	XXXXXX
'T' - TRANSFORMER	XXXXXX
'U' - PILLAR 95938	XXXXXX
'V' - PILLAR 95931	XXXXXX
'G' - GENERATOR FUSE STRIP	XXXXXX

LV Combination Switchgear: 1

LV Combination Switchgear	1
LV Tx Switch	1
LV Switches and Gen Link	5
LVCB - LV Circuit Breaker	

Busbar LV, CB with 2 feeders – no gen link shown in dwg



LV Combination Switchgear: 1

LV Combination Switchgear	1
LV Tx Switch	1
LV Switches and Gen Link	2
LVCB - LV Circuit Breaker	1

Refer to TAS and Tal guide for ASPs for further details

Conclusion

For queries and additional support on the **Technical Asset Shell (TAS) or Technical Asset Loader (TAL)**, contact Endeavour Energy's Customer Network Solutions Team.