

Standard Construction Drawings The STAG initiative

*AI image - Looks like
our jobs are safe for
now.*

May 2026



Introduction

- **STAG** what is STAG
- It was **STAWG** Standard Technical Arrangement Working Group
- Now it is **STAG** Standard Technical Arrangement Group
- The **STAG** group is just a collection of EDB's with an interesting name.



STAG



Starting out Challenges

- STAG group wanted to obtain or develop a set of rationalised standard construction drawings.
- The challenge is to do this under differing asset management strategies, risk profiles, and business drivers.
- Finding agreement on design options/philosophy, e.g.:
 - Modular vs assembly
 - Bill of materials and component information
 - Naming conventions

Why don't we just adopting PowerCo standards?

- Also, we need to think about impacts to procurement, tooling, spares and stockholdings

Many challenges!

STAG Group Formation

- Buller, MainPower, Marlborough Lines and Westpower initially working together
- These EDB's have worked together in the past or have had field teams working across networks.
- Beginning with a small number of EDB's may lead to easier decision making.
- A technical review of standard construction sets and practices of eight EDBs was undertaken by Carl at OLENZ.
- Through the review process an opportunity was identified with PowerNet in 2024.
- PowerNet joined with an agreement executed with the five companies in early 2025.



PowerNet

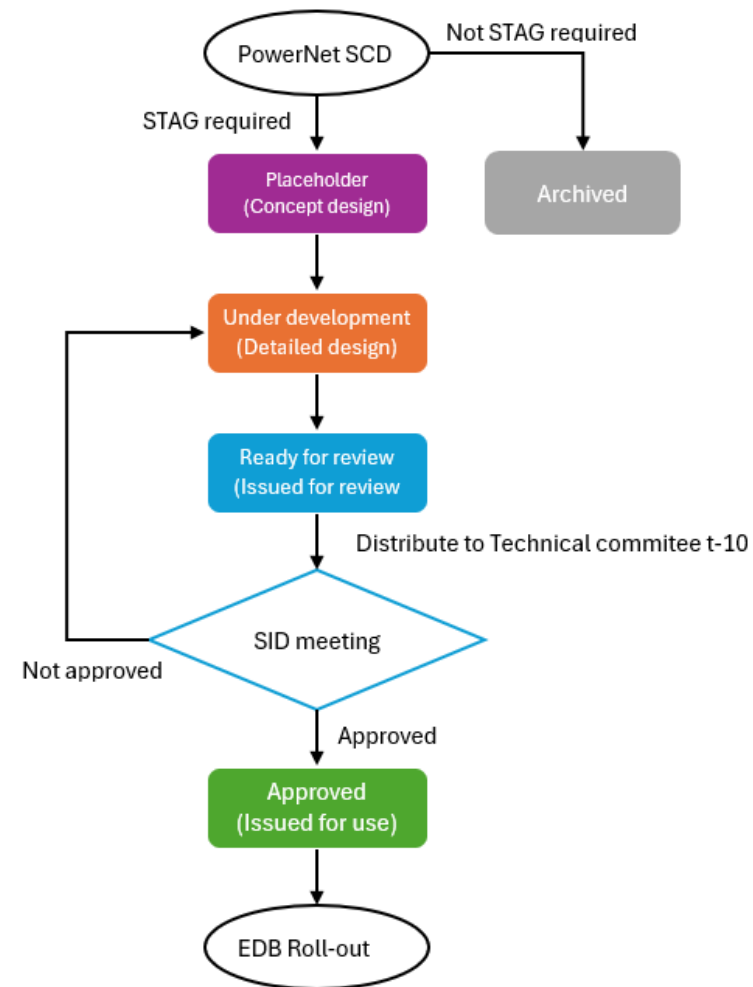
- PowerNet open to collaboration
- Comprehensive and mature standards and drawings. (Layout & naming conventions)
- Standard constructions already cater for multiple networks and a diverse range of geographic and environmental conditions.
- Industry-standard drawing management software to enable well-managed access and sharing.
- Drafting resource available.
- Mature Safety in Design and quality assurance processes for drawings development.
- **PowerNet keen to update, modify and develop their standard construction drawings with the group.**

Foundation of STAG

- The technical review took a broader view for the group and changed the target.
- This helped pave the way for collaboration with an understanding of the bigger picture.
- The need for a good naming convention, *we all know this industry loves a good naming convention!*
- Create assemblies comprised of modules, this removes duplication of information and provides a degree of flexibility that may assist finding common solutions.
- Use fungible component specifications, reduces drawings while allowing differing product type usage.
- Design optionality allows a module to be installed on varying poles, decreasing drawing numbers while adds flexibility

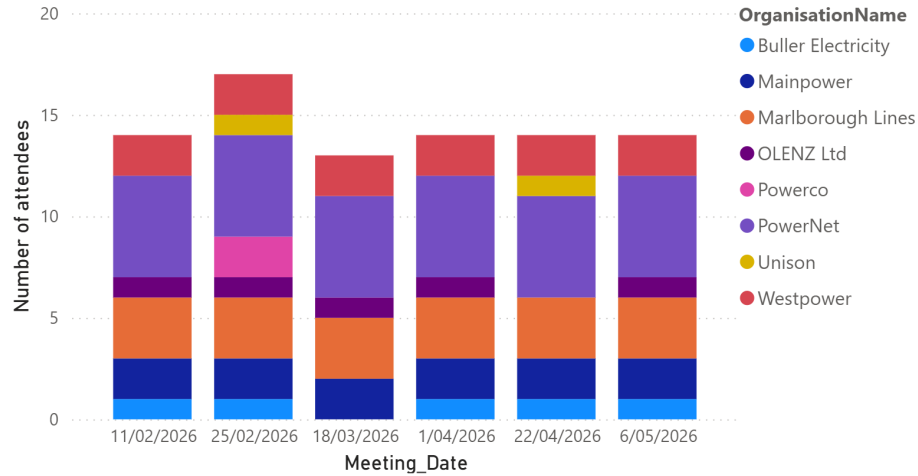
Progress so far...

- Independent consultant engaged as chair of technical committee.
Carl 😊
- Drawings classified and prioritised for adoption into STAG framework.
- Structured drawing review process created including Safety in Design sessions before approval.
- PowerBi recorded meeting sessions for all drawings, attendees, actions and approvals or rejections.
- New or additional drawings added to the drawing pool for later research and creation.
- Approved STAG drawings available to view and download from PowerNets online drawing register



Progress so far...

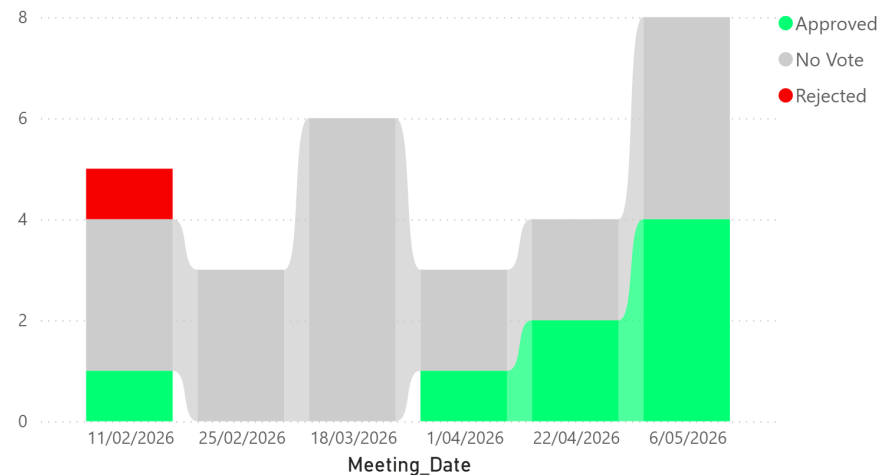
Organisation attendance



Meeting voting

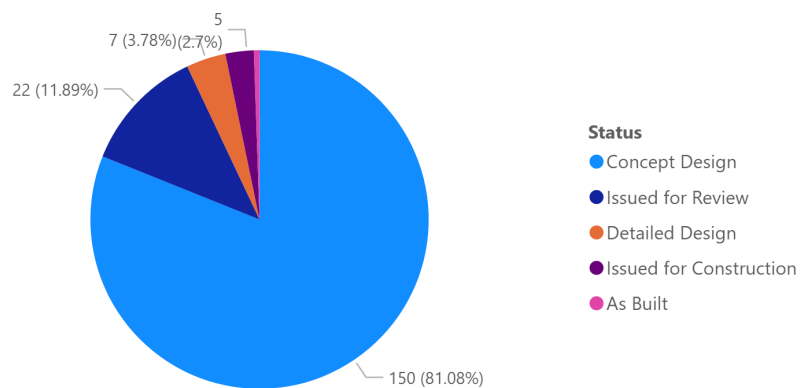
Artefact_Number	Meeting_Date	Approval_Status
CT-22-I2.0-S	6/05/2026	
P-H_-ALL-S	6/05/2026	Approved
P-PB-ALL-FT	6/05/2026	Approved
P-S_-ALL-S	6/05/2026	Approved
P-W-ALL-FT	6/05/2026	Approved
T-11-3-LV-3-M Design-CHILD-001	6/05/2026	
X-22-3-AF2.0-LS Design-CHILD-001	6/05/2026	
X-22-3-SF2.0-LS Design-CHILD-001	6/05/2026	
P-H_-ALL-S	22/04/2026	
P-PB095-S Design-CHILD-001	22/04/2026	Approved
P-PB125-S Design-CHILD-001	22/04/2026	Approved
T-11-3-LV-3-M Design-CHILD-001	22/04/2026	
P-PB110-S Design-CHILD-001	1/04/2026	Approved
T-11-2-LV-1-L Design-CHILD-001	1/04/2026	

Drawings reviewed

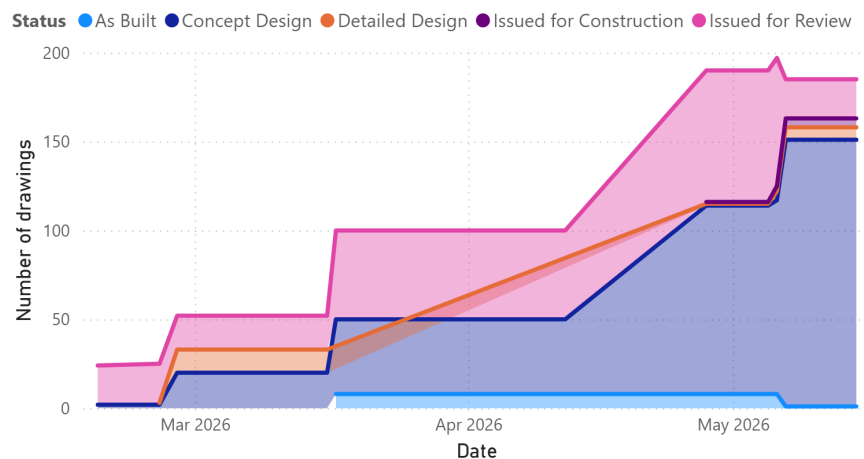


Progress so far...

STAG drawing status



STAG drawing collection over time



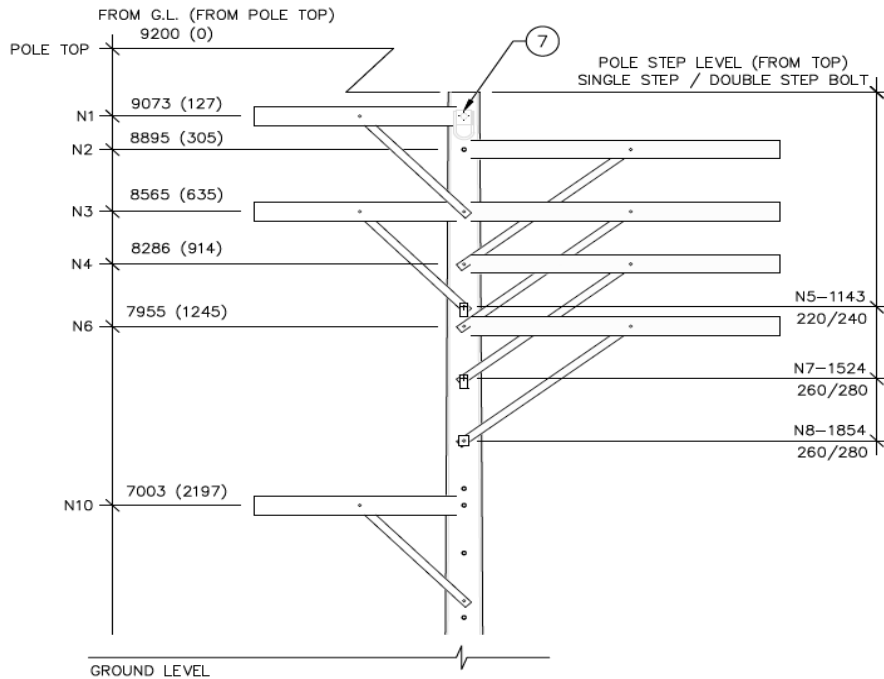
STAG drawings

Artefact_Number	Status	Approved_date
CT-22-I2.0-S	Issued for Review	
CT-22-I2.4-S	Issued for Review	
CT-22-I3.0-S	Issued for Review	
CT-22-S2.0-S	Issued for Review	
CT-22-S2.4-S	Issued for Review	
CT-22-S3.0-H	Concept Design	
CT-22-S3.0-S	Issued for Review	
F-11-_-ALL Design	Concept Design	
F-11-_-ALL Install	Concept Design	
F-11-1-_-FD	Concept Design	
F-11-2-_-FD Design-CHILD-001	Concept Design	
F-11-2-_-XO	Concept Design	
F-11-2-I-X Design-CHILD-001	Concept Design	
F-11-2-S-X	Concept Design	
F-11-2-T-X	Concept Design	
F-11-3-_-FD Design-CHILD-001	Concept Design	
F-11-3-_-OF Design	Concept Design	
F-11-3-I-X Design	Concept Design	
F-11-3-S-X Design	Concept Design	
F-11-3-T-X Design	Concept Design	
F-22-1-_-FD	Concept Design	
F-22-2-_-FD	Concept Design	
F-22-2-_-O	Concept Design	
F-22-2-I-X	Concept Design	
F-22-2-S-X	Concept Design	
F-22-2-T-X	Concept Design	
F-22-3-_-FD	Concept Desian	

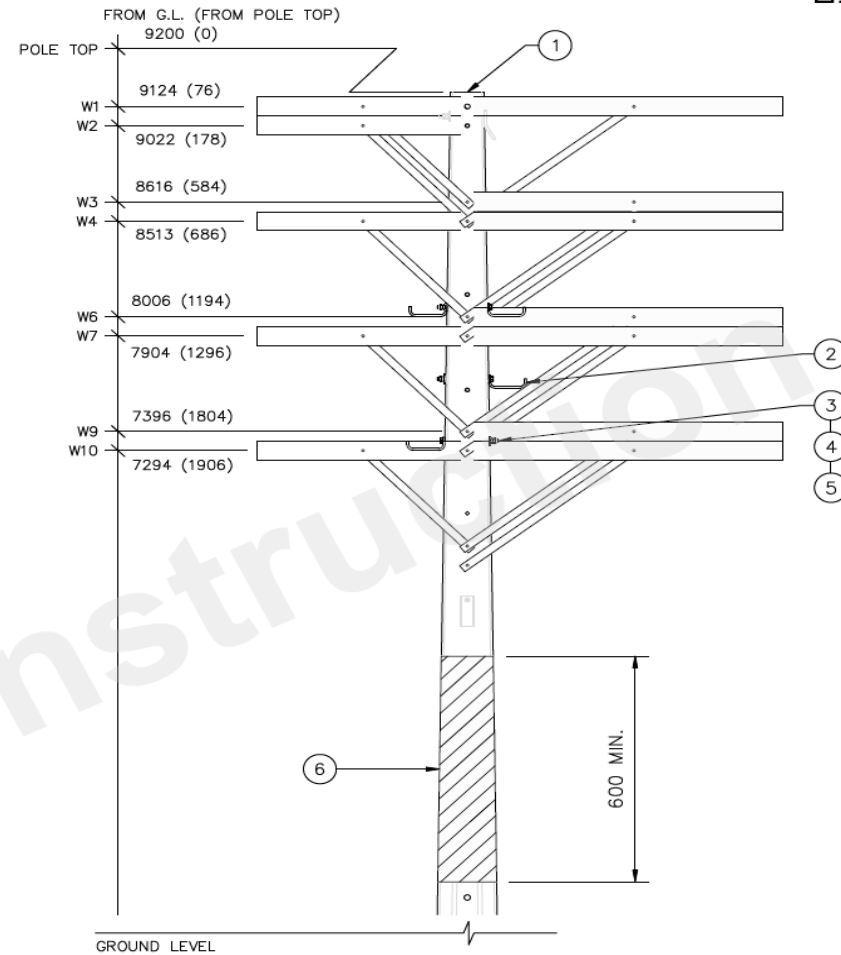
Status



NARROW SIDE (FACE) HOLE POSITION
2.0 & 2.4m ARMS 3.0m ARMS



WIDE SIDE (FACE) HOLE POSITION
2.0 & 2.4m ARMS 3.0m ARMS



ITEM	DESCRIPTION	REF.	QTY
1	POLE 11m PRESTRESSED CONCRETE	B110	1
2	POLE STEP (AS REQUIRED)	PS/S	UP TO 4
3	BOLT AND NUT M16 4.6/S	-	UP TO 3
4	NUT M16 4.6/S	-	UP TO 3
5	WASHER 16 mm 50 x 50 x 6	-	UP TO 2
6	POSSUM GUARD 1200 x 900 SHEET (600mm MIN. HEIGHT)	-	AS REQ.
OPTIONAL ITEMS			
7	BUSCK FALL ARREST BRACKET (WITH M16 BOLT, 2 NUTS AND WASHER)	UEF-1003	AS REQ.

NOTES:

- (a) BOTTOM OF POSSUM GUARD AT LEAST 5m ABOVE GROUND LEVEL.
POSSUM GUARDS ARE NOT REQUIRED ON LV POLES IN URBAN AREAS.
- (b) MASS OF BARE POLE APPROX. 1290kg.

- (c) HANDLE POLE IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.
- (d) FOR POLE FOOTING DETAILS REFER TO DRAWING P-PB-ALL-FT.

DO NOT SCALE - IF IN DOUBT CHECK
submit your markups to PowerNetLtd@redevadms.com

1:1

A3 ORIGINAL

NETWORK APPROVED

Issue	By	Checked	Approver	Company	Accepted	Date
03 FALL ARREST OPTIONAL ITEM ADDED, FOUNDATION DETAIL REMOVED -- FOR STAG REVIEW	OBG	CNR	-	STAG	-	03.26
A STAG APPROVED (IFC) - MINOR EDITS, W15, N9, N8 REMOVED, STEP LOCATIONS ADDED	OBG	CNR	STAG	STAG	STAG	04.26
B STAG APPROVED (IFC) - FALL ARREST DETAILS AMENDED	OBG	CNR	STAG	STAG	STAG	04.26

This drawing shall be read in conjunction with the Standard Construction Drawings Specification and interpreted with reference to the Fields Naming Practice spreadsheet.

STANDARDS MODULE - DESIGN			SCD LEVEL SC-MOD
POLE BUSCK 11m CROSSARM POSITIONS			MODULE TYPE DESIGN
OWNER STAG			SCALE 1:25
DRAWING REFERENCE CODE P-PB110-S		SHEET 01 of 01	ISSUE B

Questions?



Joining the STAG

- STAG Steering committee are monitoring the progress
 - Once the Technical Group have more runs on the board & individual EDB's have had a chance to embed STAG drawings into their networks
 - The intention is not to keep this a closed exercise
 - No timeframe at this stage
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- Future work – STAG addition to Neara templates