

Shared Asset Installations

[Table of Contents](#)

1 SCOPE

This Work Category Specification (WCS) documents the *Service Provider* requirements for the sharing of Ergon Energy and Energen electricity network infrastructure for *External Party* miscellaneous *Shared Asset Installations*.

1.1 General

- (a) As part of and in conjunction with this WCS, read WCS133 for the general standards and conditions that are relevant to, and are incorporated into this category of work.
- (b) As part of and in conjunction with this WCS, read WCS31 for the requirements to *Commission*, operate and access the network.
- (c) For the avoidance or doubt, a breach of a general standard or condition contained in WCS133, and the requirements and conditions of WCS31 is a breach of WCS59.

1.2 Application

The application of *Services* includes, but is not limited to, the following functions:

- (a) *Shared Asset Installation* component design, testing and certification.
- (b) Acceptance consideration of *Shared Asset Installations* by Ergon Energy and Energen.
- (c) Selection of eligible *Overhead Assets* and *Underground Assets* for *Shared Asset Installations*.
- (d) Installation, inspection, maintenance and recovery of *Shared Asset Installation* components.

1.3 Exclusions

This WCS59 excludes the following work and / or tasks:

- (a) Installations not installed on Ergon Energy and Energen electricity network infrastructure.
- (b) Graffiti on Ergon Energy and Energen electricity network infrastructure.
- (c) Painting of Ergon Energy and Energen electricity network infrastructure.
- (d) Establishing a point of electricity supply including:
 - (i) Consumers Mains attached to wood Poles.
 - (ii) Second point of supply to *Shared Asset Installations* on Columns.
- (e) Aerial and underground cable and wireless installations used for telecommunications.

2 AMENDMENT RECORD

Version	Release Date	Change
2	01/06/2026	Added dual branding and updated devices information.

Shared Asset Installations

3 AIMS / OBJECTIVES

The aims and objectives of this WCS is to ensure:

- (a) The overall aims and objectives detailed in WCS133, Section 3 - Aims and Objectives, are met by the application of procedures herein.
- (b) The aims and objectives specific to this WCS59 category of work below are met:
 - (i) *Shared Asset Installations* on *Overhead Assets* and *Underground Assets* are safe and do not unnecessarily interfere with Ergon Energy and Energex electricity network infrastructure integrity, performance, operations, reliability, and / or associated works programs.
 - (ii) *Shared Asset Installations* on *Overhead Assets* and *Underground Assets* are Authority approved and benefit the community.

4 COMPETENCIES, TRAINING AND QUALIFICATIONS

- (a) *Service Providers* and their *Operators* / subcontractors performing the *Services* are suitably licensed and trained in accordance with WCS133, Section 4 - Competencies, Training and Qualifications.
- (b) For competencies, training and qualification requirements specific to this category of work refer to the below included references and clauses.

4.1 Telecommunications Licensing

For all telecommunications installation related work under this WCS59, *Operators* are to be suitably and lawfully licensed, trained, and authorised to provide all *Client Services*.

4.2 EQL Competencies

[Table 1](#) specifies the EQL Competencies / *Authorisations* (or combinations thereof) that are EQL requirements to be held by *Operators*.

Shared Asset Installations

Table 1: Operator Competencies

Course Code	Competency Description	Operator Requirements
Operators hold the following competencies.		WCS59
A VIRO E295	General Environmental Awareness ¹ (Note 1)	Required
U OHAW	Overhead Safety Awareness ¹ (Note 3)	Required
T0911	Introduction to Electrical Network Infrastructure for Authorised Persons	Required
T0726/1691	Radio Frequency Awareness	Required
	Authorised Person (Non-Electrical) (as defined in Electricity Safety Regulation 2013)	Required
	Authorised Person (Electrical) (as defined in Electricity Safety Regulation 2013)	As Required
Operators hold the following competencies when the relevant work activity is being undertaken.		
A CONN M292/1961	Connections to Low Voltage Network ¹ (Note 2)	AR
A OILS E296	Oil Spill Management ¹ (Note 1)	MO
A SOIL E298	Sediment Control Awareness ¹ (Note 1)	MO
A WEED	Invasive Plants Management Awareness ¹ (Note 1)	MO
U UGAW	Underground Awareness ¹	AR
T0841/1017	Switching Operators Assistant in QLD	AR

Legend:

R Required.

AR As required; subject to the work activity being undertaken and the operating environment.

MO A minimum of one person on *Worksite* holds this competency.

Note 1: *Service Providers* with their own environmental training system equivalent as a minimum to the EQL environmental training system may train and assess their own *Operators* as competent.

¹ Or the Ergon Energy Network equivalent competency

Shared Asset Installations

Note 2: This competency is to be held by any *Operator* who performs part or all of the *Electrical Work* and is responsible for bringing the *Electrical Installation* to a state of readiness for connection to a source of electricity.

Note 3: This competency is to provide *Service Provider* and *Operators* with an understanding of electrical distribution network and the associated hazards.

4.3 Service Provider Accreditation Requirements

Table 2 below lists the requirements that a company must possess and be compliant to hold an accreditation in accordance with this Work Category Specification

Table 2: Accreditation Requirements

SERVICE PROVIDER ACCREDITATION REQUIREMENTS						
To hold a WCS59 Rating the Service Provider must be compliant in the following categories						
Work Category Specification	Business Management System	Design Capability	Field Capability	Safe Systems of Work	Process Management WCS59	
WCS59	Required	As Required	Required	Required	Required	

- (a) The potential *Service Provider* is to obtain the relevant Ergon Energy and Energex *Accreditation* specifically for this WCS59 prior to providing any *Services* under it based upon the combination of *Shared Asset Installation* type and associated Ergon Energy and Energex electricity network infrastructure asset type to be used by the *Service Provider*.
- (b) The potential *Service Provider* is to:
 - i. Contact the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Supplier Quality Assurance Adviser); and
 - ii. Be assessed by Ergon Energy and Energex for Ergon Energy and Energex *Accreditation*.

4.3.1 Registration as an Accredited Service Provider

- (c) Once Accredited as required by Ergon Energy and Energex, the *Service Provider* will be listed by Ergon Energy and Energex on a panel of WCS59 *Service Providers*.
- (d) A list of current registered suppliers with *Accreditations* for WCS59 will be made available by Ergon Energy and Energex to *Clients* (for example, councils) upon *Client* request.
- (e) Maintaining an *Accreditation* is dependent upon ongoing performance assessment of the *Service Provider* by Ergon Energy and Energex.
- (f) Loss of *Accreditation* will result in redemption of the relevant *Authority* by Ergon Energy and Energex and subsequent removal of the *Service Provider* from Ergon Energy and Energex's panel of suppliers with *Accreditation* for WCS59, until reinstated by Ergon Energy and Energex.

Shared Asset Installations

- (g) *Service Providers* are to advise their *Clients* of the requirements of this WCS59 for co-location of *Shared Asset Installations* on and within Ergon Energy and Energex network assets.
- (h) A *Client* may only utilise a WCS59 Accredited Service Provider (ASP) to perform all installation, maintenance, relocation and recovery work relating to the relevant combination of *Shared Asset Installation* type and associated *Overhead Asset* or *Underground Asset* type.

4.4 Authorised Persons

- (a) The Service Provider is to ensure all Operators are Authorised Persons where required under, and as defined in, Electricity Safety Regulation 2013
- (b) Ensure no work is undertaken on any Wireless Installation components that are within the relevant statutory exclusion zones that apply for each individual Operators as an Authorised Person, including to energisable conductors and uninsulated electrical equipment (plant), for example and not limited to:
 - (i) Public lighting supply circuits.
 - (ii) Column and Pole brackets / outreaches.
 - (iii) LV and HV energisable conductors and uninsulated electrical equipment (plant).
 - (iv) External Party broadband network strandwire and / or cabling. Once the *Service Provider* is accredited, the *Service Provider* will determine for each individual *Operator* of the *Service Provider* whether or not the *Operator* needs to be an Authorised Person (as defined in Electricity Safety Regulation 2013).
- (c) *Operators* will make an application to be an Authorised Person to the relevant *Ergon Energy and Energex Officer* in writing to obtain Authorised Person status to work on or in the vicinity of the Ergon Energy and Energex electricity network assets nominated by the *Service Provider*.

4.5 Operator Requirements

- (a) Only a suitably qualified *Operator*:
 - (i) Who is employed by a WCS59 Accredited Service Provider, and
 - (ii) Who is an Authorised Person where required under, and as defined in Electricity Safety Regulation 2013; and
 - (iii) Who has completed all required Operator Competencies as specified in Table 2 of WCS59, and have been assessed Ergon Energy and Energex as having completed the require competencies; and
 - (iv) With a safe system of work provided by their employer (*Service Provider*) for accessing and working on or in the vicinity of the relevant *Overhead Asset* or *Underground Asset* and for the works associated with each type of *Shared Asset Installation*;

will undertake works under this WCS59.

Shared Asset Installations

5 VEHICLES AND PLANT

For vehicles and plant requirements, refer to WCS133, Section 5 – Vehicles and Plant except for the following variation:

- (a) The Service Provider will not display any Energy Queensland logos on the vehicle(s) when not engaged in the activity of providing Services to or on behalf of Ergon Energy and Energex.

6 MATERIALS, TOOLS AND EQUIPMENT

- (a) For materials, tools, equipment requirements, refer to WCS133, Section 6 – Materials Tools and Equipment.
- (b) For materials, tools, equipment requirements specific to this category of work refer to the below included references and clauses.

6.1 Nominated Tools and Equipment

Table 3 Defines specific materials, tools and equipment required when providing Services for this category of work.

Table 3: Materials, Tools and Equipment

Description	Supplier
Suitable range of materials, tools and equipment for establishing and maintaining <i>Shared Asset Installations</i> .	<i>Service Provider</i>
Digital Low Impedance Volt Meters *	<i>Service Provider</i>
Phase Rotation Meters *	<i>Service Provider</i>
Loop Impedance Meters *	<i>Service Provider</i>
Low Voltage Proximity Testers *	<i>Service Provider</i>
*These items of equipment are required under WP1202 Specification, when bringing an electrical installation to a state of readiness for connection to a source of electricity.	

7 SAFETY

- (a) For safety requirements, refer to WCS133, Section 7 – Safety.
- (b) For safety requirements specific to this category of work refer to the below included references and clauses.
- (c) Implement control measures to eliminate and / or reduce the following (but not limited to) risk exposures:
 - (i) Work on / or in the vicinity of any parties RFR emitting telecommunications installation installed on Overhead Assets and other party adjacent infrastructure.
 - (ii) Work on / or in the vicinity of any parties aerial BBI network including:
 - i. Earthed / electrically conductive strand wire and electrically energised telecommunications cables; and

Shared Asset Installations

- ii. Laser light emitting fibre optic cables.
- (iii) Wood Poles and Columns being conductors of electricity.
- (iv) Wood Poles and Columns supporting multiple infrastructure components of Ergon Energy and Energex and External Parties at various attachment points including and not limited to energised (live) cables transitioning down wood Poles.
- (d) The Service Provider is to complete engineering design calculations and onsite Overhead Asset condition assessments, (certified by an RPEQ) when the physical loading of any Overhead Asset is impacted by a Shared Asset Installation, to ensure adequate structural integrity of the Overhead Asset and safety of Operators and other person(s) affected by installation works and the structural loading change caused by any Shared Asset Installation. RPEQ certification is not required if the total weight of attachments including mounting is less than 15kg. However, service provider must get RPEQ certification on banner attaching brackets during engineering design stage. Further, RPEQ certification is required if
 - (e) The total weight of attachments is more than 15kg
 - (f) The banner size of 3m(L)x0.9m(W) is exceeded
 - (g) Decorative banner size of 3m(L)x1.5m(W) is exceeded and
 - (h) The pole tip load exceeds 0.8kN due to the third-party attachments
- (i) The Service Provider is to ensure that as part of their safe system of work, it has a safety inspection procedure (including training) for working on Poles and Columns or works being carried out could affect the tip loading of any wood Pole or Column to ensure the structural integrity of the Overhead Asset is satisfactory for accessing the Overhead Asset and the intended performance of works on the Overhead Asset by visual inspection, testing, evaluation and certification for being suitable for intended works and the attachment of the proposed Shared Asset Installation. The Service Provider must carry out visual inspection of pole, from the foundation level to the height of installation and the pole/column surface for any noticeable damage, deformed surface etc and inform Ergon Energy/ Energex by stopping the work for further action to be taken.
- (j) The Service Provider is to ensure that as part of their safe system of work, that no Column is to be accessed by or used to support an extension ladder of any type as a minimum requirement.
- (k) For each Shared Asset Installation type proposed to be installed on, the Service Provider will have a safe system of work for each combination of Shared Asset Installation type and the accommodating Overhead Asset.
- (l) All Shared Asset Installations including individual components are subject to a manual handling risk assessment by the Operator and any lifting restrictions identified during the Service Provider's risk assessment and / or as part of the Service Provider's safe system of work.
- (m) The Service Provider is to abide by all Ergon Energy and Energex and relevant competent Authority safety, engineering and personnel training and competency requirements in relation to safely working on and in the vicinity of Ergon Energy and Energex assets and roadways as a minimum.

Shared Asset Installations

7.1 Working Near Overhead Conductors (Powerlines)

- (a) When operating mobile plant in the vicinity of Ergon Energy and Energex overhead conductors (powerlines), strict compliance with *Service Providers* safe system of work by mobile plant *Operator*, Dogger(s) and Rigger(s) is required.
- (b) All mobile plant, vehicles and equipment used in performance of work on or in the vicinity energised electrical plant, is to strictly comply with requirements of all relevant *Laws* including Electrical Safety Code of Practice 2010 – Working Near Overhead and Underground Electric Lines.
- (c) The *Service Provider* is to ensure as a minimum that their safe system of work for working in the vicinity of Ergon Energy and Energex overhead conductors (powerlines), is consistent with the practices set out in WP1323 as a minimum.

8 ENVIRONMENT

- (a) For environmental requirements, refer to WCS133, Section 8 - Environment.
- (b) For environmental requirements specific to this category of work, refer to the below included references and clauses.
- (c) Assess the additional environmental risks associated with this WCS59, including and not limited to:
 - (i) Visual impact management.
 - (ii) Energy (e.g. *RFR* management).

8.1 Environmental Precautions

Take all precautions necessary to minimise or eliminate the effects of noise, exhaust gases, hydraulic fluids, lubricants, fuel, dust and other environmental pollutants, and *RFR* emitted by plant and equipment during *Shared Asset Installation* related works.

9 EXTENT OF WORK

9.1 General

- (a) For extent of work requirements, refer to WCS133, Section 9 – Extent of Work.
- (b) For extent of work requirements specific to this category of work refer to the below included references and clauses.
- (c) Provide *Services* in accordance with (but not limited to):
 - (i) Work Category Specification WCS5.1 - Poles Inspect and Treatment.
 - (ii) Work Category Specification WCS6.2 - Public Lighting Maintenance.
 - (iii) Work Category Specification WCS12.3 – Overhead Low Voltage Service Lines.
 - (iv) Work Category Specification WCS25 – Overhead Mains Electrical Construction.
 - (v) Work Category Specification WCS31 – Commissioning and Operation.
 - (vi) Work Category Specification WCS59 - External Party Asset Installations on Ergon Energy and Energex Network.
 - (vii) Work Category Specification WCS59A - Assessment - External Party Asset Installations on Ergon Energy and Energex Network.

Shared Asset Installations

- (viii) Work Category Specification WCS133 - General Standards and Conditions.
- (ix) Energy Queensland Procedure 3058974 - Shared Network Asset Works Management .
- (x) Energy Queensland Manual 2912908 – Queensland Electricity Connection and Metering Manual.
- (xi) .00302 - Overhead Design Manual (South East).pdf
- (xii) Guidelines for Inspection of Property Pole by Electrical Inspector-21778950 Standard for Overhead Power lines 2933369 and Standard for Overhead Tower Lines 2933367
- (xiii) Energy Queensland Policy 00478 - Banner Advertising Policy.
- (xiv) - Lines Defect Classification Manual 2026 Q1.
- (xv) Energy Queensland Work Practice - Low Voltage Connections 2914128.
- (xvi) Energy Queensland Work Practice 2915457 - Electricity Entity Requirements, Working Near Overhead and Underground Electric Lines (Provides a guide to assist Service Provider with developing their own safe systems of work).
- (xvii) Energy Queensland Form2948462 – Electrical Work Request.
- (xviii) Energy Queensland Form 3068189 – Network Connection Application.
- (xix) The Service Provider's safe system of work.
- (xx) Documentation (with RPEQ certification) detailing the relevant procedures for the design, installation, maintenance and recovery of each type of Shared Asset Installation proposed to be installed by the Service Provider / Operator for each Client.
- (xxi) Measures designed to avoid contacting underground infrastructure based on obtained current plans detailing existing underground essential services infrastructure in the immediate area and surrounding the Worksite.
- (xxii) AS/NZS 1158 Set: 2010 - Lighting for roads and public spaces Set.
- (xxiii) AS/NZS 1170.2:2021 - Structural design actions - Wind actions.
- (xxiv) AS 1199.1:2003 - Sampling procedures for inspection by attributes - Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection.
- (xxv) Australian Standard AS 1418.5:2013 - Cranes, hoists and winches-Elevated work platforms (EN 13000:2010, MOD).
- (xxvi) AS/NZS 1418.10:2025 - Cranes, hoists and winches - Mobile elevating work platforms.
- (xxvii) AS 2550.10:2025 - Cranes, hoists and winches - Safe use - Mobile elevating work platforms.
- (xxviii) AS/NZS 3000:2018 - Wiring Rules (known as the Australian/New Zealand Wiring Rules).
- (xxix) AS/NZS 7000:2016 - Overhead line design - Detailed procedures.
- (xxx) Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) Radiation Protection Standard for Maximum Exposure Levels to Radio Frequency Fields – 3 kHz to 300 GHz.
- (xxxi) Electrical Safety Code of Practice 2020
- (xxxii) Workplace Health and Safety Queensland – Managing Risks of Plant in the Workplace - Code of Practice 2021.
- (xxxiii) Workplace Health and Safety Queensland – Plant Code of Practice 2021
- (xxxiv) Local Government Authority advertising Laws.

Shared Asset Installations

- (xxxv) Department of Main Roads; Guide to the Management of Roadside Advertising.
- (xxxvi) Civil Aviation Regulations (Cth) 1988.
- (xxxvii) Privacy Act 1988 (Cth).
- (xxxviii) The National Privacy Principles.
- (xxxix) The Privacy Amendment (Private Sector) Act 2000 (Cth).
- (xl) *Service Providers* own safe system of work.

9.2 Service Provider Responsibilities

The *Service Provider* is to:

- (a) Ensure all necessary notifications, approvals, permits, and licences have been obtained to co-locate, maintain and operate each *Shared Asset Installation*.
- (b) Ensure all owners and occupiers of land, *Clients*, relevant *Authorities*, and members of the public / local community have been notified, consulted and objections addressed (including as required by *Law*) regarding the proposed *Shared Asset Installation* to be installed and operated, and the work to be performed.
- (c) Obtain Ergon Energy and Energex *Authorisation* for each combination of *Shared Asset Installation* type and Ergon Energy and Energex electricity network infrastructure.
- (d) Immediately (or as soon as is practicable after the occurrence) notify in writing the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) in the event of any of the following:
 - (i) A *Shared Asset Installation* structural failure.
 - (ii) An event that has affected the health or safety of any party, or causes damage to, or an outage on, the electricity network or other party's infrastructure.
- (e) Provide one point of contact should Ergon Energy and Energex get into an operational situation which requires the *Shared Asset Installation* owner to undertake remedial works.

9.3 Public Relations

- (f) The maintenance of good *Client*, *Authority*, Ergon Energy and Energex and public relations is paramount.
- (g) *Service Providers* and their *Operators* are to ensure that they act appropriately while dealing with all effected parties at or in the vicinity of *Overhead Assets*.
- (h) The *Service Provider* will not display any Ergon Energy and Energex logos on any *Operator's* clothing or equipment, or the vehicle(s) when not engaged in the activity of providing these *Services* to or on behalf of Ergon Energy and Energex.

9.4 Commercial Arrangements

- (a) Commercial arrangements for *Shared Asset Installations* will be negotiated with the Ergon Energy and Energex Manager Facilities Access.
- (b) Generally the following guidelines will apply to *Shared Asset Installations*:
 - i. Ergon Energy and Energex may recover all Ergon Energy and Energex costs related to *Shared Asset Installations*, including design submission evaluation and *Overhead Asset* booking coordination.

Shared Asset Installations

- ii. An Ergon Energy and Energex asset use charge may not apply for the installation of the following *Authority*-approved, community benefit, non-commercial *Shared Asset Installations* including:
 - i. The co-location of *Authority* regulatory and warning signs, including those officially used for *Authority* regulatory and warning purposes, for example vehicular traffic management, street names, public transport route and community safety and crime prevention initiatives (for example public safety camera networks).
 - ii. Memorials.
- iii. Ergon Energy and Energex asset use charges may apply for the installation of the following *Shared Asset Installations*:
 - iv. CCTV Devices
 - i. Traffic Control Devices.
 - v. Parking Management Installations. Banner Installations.
 - vi. Banners and Decorative Installations.
 - ii. *Authority* owned *Public Lighting Installations*, including wireless enabled installations.
- (c) Contact the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) for further information on current commercial arrangements.

9.5 General Requirements For Poles and Columns

9.5.1 Selection of Eligible Poles / Columns for an Accepted Shared Asset Installation Attachment

- (a) The *Service Provider* will differentiate between *Overhead Assets* (wood *Poles* / steel *Columns* owned by Ergon Energy and Energex) and structures owned by *Authorities* (for example Councils, Queensland Department of Transport and Main Roads), or private bodies when selecting potential *Shared Asset Installation Sites*. If in doubt, the *Service Provider* will confirm Ergon Energy and Energex ownership via the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) and all other relevant parties (including *Authorities*) before proceeding with the attachment of the *Shared Asset Installations*.
- (b) *Overhead Assets* will only be used as a last resort for the attachment of *Shared Asset Installations* associated with *Authority* owned traffic and parking management infrastructure and signage, for example where no other suitable infrastructure exists, or the installation of an independent structure will impact pedestrian or vehicle flow or adversely impact existing essential services infrastructure above and below ground.
- (c) The relevant local *Authority* / *External Party Client* will arrange and pay for the inspection and testing of each candidate *Overhead Asset* (where nominated by Ergon Energy and Energex) to assess its suitability (including structurally integrity) for access and installation of the *Shared Asset Installation*.
- (d) All *Shared Asset Installations* installed on Ergon Energy and Energex electricity network infrastructure assets on State-Controlled Roads are to comply with all Department of Transport and Main Roads (Qld) requirements including:

Shared Asset Installations

- i. Transport and Main Roads - Roadside Advertising Guide.
 - ii. The submission of an Ancillary Works Encroachment (AWE) Order through the appropriate regional office. (Each such *Overhead Asset Site* is to also comply with clear zones and restriction areas as set out in that Guide's Appendix B, or it will not be an eligible *Overhead Asset* and is not to be used.)
- (e) No *Shared Asset Installations* will be installed on any *Overhead Asset* where there is any existing *External Party* attachment within the proposed mounting position, which may include:
- i. Broadband and telephony infrastructure
 - ii. *RFR* emitting / wireless network infrastructure
 - iii. *Security Camera Installations*
 - iv. *Authority Signage*
 - v. *Traffic Signal Installations*
 - vi. *Parking Management Transceiver Devices*
 - vii. Variable Speed Limit Signage
 - viii. *Speed Feedback Signage*
 - ix. *Authority Public Lighting Assets*
 - x. Power supplies
 - xi. Switchboards and *Consumers Mains*.
- (f) The above listed attachments will always take precedence over *Banner Installations* and *Decorative Installations*. Existing *Banner Installations* and *Decorative Installations sites* will have the *Banner Installations* and *Decorative Installations* including all attachment fittings removed to facilitate the installation of the above listed *Shared Asset Installations*.
- (g) *Shared Asset Installations* are not to be installed where not authorised by, or prohibited by the relevant *Authority(s)*.
- (h) Ergon Energy and Energex at its sole discretion may determine and advise the *Service Provider* that any Ergon Energy and Energex electricity network infrastructure asset (e.g. *Overhead Asset*) is not available for *Shared Asset Installation* use at any time, including due to replacement, recovery or other operational reasons.
- (i) *Shared Asset Installation* installed on ineligible Ergon Energy and Energex assets may be removed by Ergon Energy and Energex at the *Service Provider's* full cost.
- (j) The *Shared Asset Installation* is to be installed as close as possible to the *Overhead Asset* surface so as not to obstruct any workers when accessing or undertaking work on the *Overhead Asset*.

Note: Refer to the relevant specific *Shared Asset Installation* section below for additional specific requirements.

9.5.2 Assessment of Poles / Columns for Shared Asset Installation works

- (k) *Overhead Assets* marked on *Site* as either suspect or scheduled for replacement, or considered a risk to any party's safety by the *Service Provider*, or assessed by the *Service*

Shared Asset Installations

Provider as either unserviceable for *Shared Asset Installation* attachment or unfit for *Operator* to work on or in close vicinity to, are not to be accessed, worked upon, or have a *Shared Asset Installation* installed.

- (l) Overhead Assets are to be assessed for safe working prior to access in accordance with the Service Provider's own safe system of work and EQL's Guidelines for Inspection of Property Pole by Electrical Inspector-21778950 Standard for Overhead Power lines 2933369 and Standard for Overhead Tower Lines 2933367.
- (m) Each time an *Overhead Asset* is visited by an *Service Provider / Operator* an inspection is to be performed by the *Operator* of:
 - i. Each existing *Shared Asset Installation* for which they are responsible, including mounting hardware, point of attachment and all electrical wiring.
 - ii. The supporting wood *Pole* or *Column*.
- (n) *Overhead Assets* assessed by the *Service Provider* as structurally unserviceable for *Shared Asset Installation* works are to be immediately reported via email to the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) by the close of the next *Business Day*.

9.5.3 Accessing and working on Overhead Assets

Prior to access of any *Overhead Asset* to carry out a permitted work activity, or where proposed works could affect the structural loading of an *Overhead Asset*:

- (o) The *Operator* is to undertake an onsite *Overhead Asset* condition assessment by visual inspection, testing and evaluation in accordance with the *Service Provider's* safe system of work before accessing the *Overhead Asset*.
- (p) The *Service Provider* is to undertake, and have certified by an *RPEQ*, the required engineering calculations and assessments to ensure *Overhead Asset* structural integrity is maintained with the increased or otherwise altered structural loadings on the *Overhead Asset*, due to the proposed *Shared Asset Installation*. *RPEQ* certification is not required if the total weight of attachments including mounting is less than 15kg.

9.5.4 Attachment of Shared Asset Installations- General

- (q) At any *Overhead Asset Site*, all *Service Providers* utilising the same *Overhead Asset* are to jointly ensure that the total combined loads of the *Shared Asset Installation(s)* are not to exceed the maximum allowable applied loading on a single *Overhead Asset*.
- (r) Specific care will be taken when working on any *Overhead Asset* to avoid contact with existing internal and external cables and other attachments owned by Ergon Energy and Energex and other parties.
- (s) Existing *Overhead Asset* attachments, including those of Ergon Energy and Energex, any *Authority* or telecommunications carriers will not be removed, relocated, replaced, obstructed, powered down, or interfered with on any *Overhead Asset* to install *Shared Asset Installations*, without:
 - i. The relevant party's written approval;
 - ii. Evidence of such approval provided to Ergon Energy and Energex, prior to the commencement of onsite works;

Shared Asset Installations

- iii. Relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) confirming with the relevant party agrees that their assets may be removed, relocated, replaced, obstructed, powered down, or interfered with; and
 - iv. Relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) written approval to proceed.
- (t) Shared Asset Installations are not to:
- i. Cause damage to, or deterioration / corrosion of, any part of any *Overhead Asset*.
 - ii. Negatively impact on the safety, operations or property of any party, including Ergon Energy and Energex.
 - iii. Impede access to, or the repair or maintenance of, any Ergon Energy and Energex electricity network infrastructure asset (including *Overhead Asset*) or its attachments by Ergon Energy and Energex or any relevant authorised party or *Authority*.
 - iv. Be installed so as to interfere with, obscure or reduce the effectiveness of or impact:
 - i. *Overhead Asset* numbers.
 - ii. Public lighting components.
 - iii. The existing *Overhead Asset* attachments of any party, including roadway traffic and parking control signage.
 - iv. Operating mechanisms.
 - v. Locks.
 - vi. Electrical connections.
 - vii. Identification discs.
 - viii. Electrical cables (including earth down leads).
 - ix. Cable destination labels.
 - x. Electrical leakage test points.
 - xi. *Authority* owned installations, including *Signage*.
 - v. Detract visually from the streetscape.
 - vi. Adversely affect the local community or built environment.
 - vii. Obstruct the line of sight to *Authority* owned signage by approaching motorists and other road users.
 - viii. Contravene any Australian Standards and *Laws* (including *Authority* advertising / signage regulations, Codes of Practice, road rules, and traffic and vehicular parking requirements).
 - ix. Be installed over a footpath except where road side clearances cannot be achieved.
 - x. Require the drilling of any concrete *Overhead Asset*.
 - xi. Require the drilling (unless specifically permitted within this WCS 59 for wood *Poles* and steel *Columns*) or welding of any *Overhead Asset* to enable the attachment of a *Shared Asset Installation*.

Shared Asset Installations

- xii. Crush or otherwise damage any *Overhead Asset* by over tensioning of attachment system during installation.
- xiii. Damage the surface of any steel *Column*.
- xiv. On any wood *Pole*, have any method of attachment installed around or through any wood *Pole*, including:
 - i. Chain attachments.
 - ii. Strapping or ties of any type.
 - iii. Kingbolts installed through the wood *Pole*.
- xv. On any wood *Pole*, have any method of attachment installed around the circumference of any wood *Pole*, which is placed over or under existing:
 - i. Earthing down leads.
 - ii. Electrical cables.
 - iii. Telecommunications cables.
 - iv. *Conduits*.
 - v. Isolation switch handles.
- xvi. Have any current carrying, exposed and electrically conductive parts, located within 2.4 metres of ground surface level (which could be exposed to personal contact) or will need to be insulated or bonded to the *low voltage* neutral of the system.
- xvii. Have metallic / electrically conductive *pipes*, *Conduits* and / or cable guards used to mechanically protect any *Shared Asset Installation* cabling on / down any *Overhead Asset*, unless specifically agreed in writing by the relevant *Ergon Energy and Energen Officer*, via the Ergon Energy and Energen Manager Facilities Access.
- xviii. Be supported by or attached to any *Overhead Asset*, when strung across roadways or between adjacent *Overhead Assets* or from one *Overhead Asset* to any other structure owned by Ergon Energy and Energen or any other party, whether by insulated catenary wire or any other method. Specifically not permitted are the following:
 - i. Bunting.
 - ii. Cross-road *Banners*.
 - iii. Festoon lighting strings.
 - iv. Associated catenary wires of any type.
 - v. *Signage* of any type co-supported by an adjacent structure – including *Authority Signage*.

9.5.5 Steel Columns

- (u) If an aerial electrical service to a *Column* exists, there is to be no *Shared Asset Installation* installed unless a structural analysis determines that there is adequate structural capacity in the *Column* to support the *Shared Asset Installation*. RPEQ certification is not required if the total weight of attachments including mounting is less than 15kg. For more details, refer clause 7.0 (d) of this specification.

Shared Asset Installations

- (v) There are to be no *Shared Asset Installations* installed on *Columns* that are:
 - i. Minor road *Columns*, including those in suburban streets, due to excessive tip loads and / or ground clearance issues; and
 - ii. Painted or powder coated (including decorative / nostalgia types).
 - iii. Requiring the drilling (unless specifically permitted within this WCS 59 for steel *Columns*) or
 - iv. Requiring the welding of any *Column* or *Overhead Asset* component to enable the attachment of a *Shared Asset Installation*.
- (w) *Shared Asset Installations* are not to:
 - i. Crush or otherwise damage any *Column* or *Overhead Asset* component by over tensioning of attachment system during installation.
 - ii. Damage the surface of any steel *Column*.
- (x) As steel *Columns* are tapered and have either round or octagonal cross section, the preferred method of attachment of Ergon Energy and Energex authorised attachments to steel *Columns*, is via a bolted arrangement only.

9.5.6 Access to Columns

- (y) *Operators* may access eligible *Columns* using an elevated work platform only, and not by ladder.
- (z) Where a *Site* specific risk assessment by the *Service Provider* determines a control measure is to de-energise a section of the Ergon Energy and Energex electricity distribution or public lighting network, the *Service Provider* will arrange with the relevant *Ergon Energy and Energex Officer* for the de-energisation of the associated network section(s).
- (aa) The *Service Provider* will make the arrangements for the de-energisation by contacting the Ergon Energy and Energex Contact Centre a minimum of 15 *Business Days* prior to the planned *Shared Asset Installation(s)* attachment date.
- (bb) All associated Ergon Energy and Energex fees or charges for the de-energisation and the re-energisation of the network are the responsibility of the *Service Provider*.

9.5.7 Concrete Poles / Columns

- (cc) Unless specifically permitted within this WCS 59, *Shared Asset Installation* attachment to concrete *Poles / Columns* is typically not permitted due to potential for:
 - i. Concrete degradation and corrosion of metallic components that interface with the concrete surface.
 - ii. Damage to the concrete surface during the installation process.
 - iii. Potential electrical conductivity of concrete *Poles / Columns*.
- (dd) The initial attachment or subsequent refurbishment of any *Shared Asset Installation* on concrete *Poles / Columns* is only permitted with the written permission of the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) on a case by case basis.

Shared Asset Installations

- (ee) As concrete *Poles / Columns* are of tapered round section, the preferred method of attachment of *Ergon Energy and Energen* authorised attachments to concrete *Poles*, is via a bolted arrangement only, when permitted.
- (ff) *Shared Asset Installations* on concrete *Poles / Columns* (when permitted) are not to:
 - i. Require the drilling of any concrete *Overhead Asset*.
 - ii. Crush or otherwise damage any concrete *Overhead Asset* by over tensioning of attachment system during installation.
 - iii. Damage the surface of any concrete *Column*.

9.5.8 Alternative Installation For Steel Columns and Concrete Poles / Columns

- (gg) Alternatively, for steel *Columns* and concrete *Poles / Columns* the following options will be considered by Ergon Energy and Energen on a case by case basis, for low mass *Shared Asset Installations* only:
 - i. Stainless steel worm drive (hose clamp type) strapping.
 - ii. Stainless steel bolt-clamp strapping
- (hh) When replacing and / or maintaining existing *Shared Asset Installations* fixed to an *Overhead Asset* with stainless steel straps and matching seals / buckles reinstate the *Shared Asset Installations* with either a worm drive or a bolt clamp arrangement.

9.5.9 Wood Poles

- (ii) Unless specifically permitted within this WCS 59 including maintaining all nominated clearances, no *Shared Asset Installation* will be installed on any wood *Pole* which supports:
 - i. Any parties underground cable transitions from overhead to underground installed down the outside surface of the wood *Pole*, including:
 - i. *High Voltage*.
 - ii. *Low Voltage*.
 - iii. Earthing.
 - iv. Telecommunications carrier cabling.
 - ii. *HV* plant (for example, transformers, ABS.)
 - iii. Ground based operating handles associated with electrical plant, for example air-break switches.
- (jj) For *Shared Asset Installations* coach screws are to be carefully installed into the wood *Pole* so as not to damage any adjacent cables or other attachments.
- (kk) *Shared Asset Installations* are not to:
 - i. Require the drilling (unless specifically permitted within this WCS 59 for wood *Poles*) of any *Overhead Asset* to enable the attachment of a *Shared Asset Installation*.
 - ii. Crush or otherwise damage any wood *Pole Overhead Asset* by over tensioning of attachment system during installation.

Shared Asset Installations

- iii. On any wood *Pole*, have any method of attachment installed around or through any wood *Pole*, including:
 - i. Chain attachments.
 - ii. Strapping or ties of any type.
 - iii. Kingbolts installed through the wood *Pole*.

9.6 Electrical Exclusion Zones

As prescribed within the *Law* including the Queensland Electrical Safety Regulation 2013, as amended:

- (a) When performing any *Shared Asset Installation* related works, *Operators* are to comply with and maintain all relevant statutory exclusion zones to potentially energised apparatus and exposed parts (for example *HV* and *LV* mains, street lighting mains) that apply to untrained, instructed, or authorised persons.
- (b) The *Operator* is not to enter within any exclusion zones to exposed parts of *LV* and *HV* conductors and uninsulated electrical equipment, for example any bare and covered public lighting supply circuits and electrically untested wood *Pole* – mounted public lighting brackets.

9.7 Excavation and Working Around Ergon Energy and Energex Underground Assets

- (a) Prior to commencement of any excavation, for example ground penetration and / or mechanical excavation, the *Service Provider* is to ensure all underground *Services*, *Consumers Mains* and other infrastructure have been located and positively identified at the *Worksite*. Dial Before You Dig (DBYD), can be utilised for obtaining below ground essential service locations.
- (b) The *Service Provider* will either carefully hand or vacuum excavate to a suitable depth to locate and identify all *Underground Assets* and or infrastructure on and in vicinity of the *Site*, including Ergon Energy and Energex and all other parties' assets.
- (c) The *Service Provider* is ensure as a minimum that their safe system of work for excavating and working around Ergon Energy and Energex underground assets, is consistent with the practices set out in WP1323 as a minimum.

9.8 Site Conditions

- (a) For *Services* being provided during the night, excessive glare from vehicles and work lighting is not to impact on vehicles using adjacent roads or vessels in nearby water ways, or to nearby *Premises*.
- (b) *Services* being provided that cause, or are likely to cause, noise (for example the installation of *Banners* during non-daylight hours) cannot be carried out unless all reasonable and practicable measures to prevent or minimise the noise have been taken.

9.9 Project Control

- (a) Prior to installing a *Shared Asset Installation* to an *Overhead Asset*, the *Service Provider* will check with Ergon Energy and Energex for any programmed / planned Ergon Energy and Energex works. If there are any programmed works, the *Service Provider* will have to either:

Shared Asset Installations

- i. Delay the *Shared Asset Installation* works; or
 - ii. Request approval from the Ergon Energy and Energex Manager Facilities Access to relocate to an adjacent Ergon Energy and Energex *Overhead Asset*; or
 - iii. Remove the *Shared Asset Installation* during programmed works period.
- (b) In the case of Ergon Energy and Energex emergency works:
- i. The *Service Provider* is to provide a rapid response resource on a 24/7 basis to remove the *Shared Asset Installation*.
 - ii. The *Shared Asset Installation* is to be capable of easy removal from the *Overhead Asset* by an Ergon Energy and Energex field crew using general hand tools.
- (c) The *Service Provider* is to maintain and to provide evidence upon request to the *Client*, Ergon Energy and Energex, and all relevant *Authorities* of:
- i. *Overhead Asset* inspection, assessment and access to accommodate the *Shared Asset Installation* components.
 - ii. *Shared Asset Installation* certification, construction / installation, maintenance, routine inspection, and recovery programs.
 - iii. Where requested by an *Ergon Energy and Energex Officer* (for example, Ergon Energy and Energex Manager Facilities Access) supply high definition photographs of the as-constructed *Shared Asset Installation* enabling full *Site* details to be viewed, including attachment arrangement.

9.10 Radio Frequency Radiation Management

The *Shared Asset Installation* wireless telecommunications components and operations will comply with:

- (a) Requirements of *Law* and the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) for:
 - i. Radiation Management.
 - (ii) Standard for Maximum Exposure Levels to Radio Frequency Fields – 3 kHz to 300 Ghz.

and all radio frequency spectrum use requirements.

- (b) *Service Providers* are to have safe system for the management of *Radio Frequency Radiation* in the vicinity of any *Worksite*.
- (c) The *Client* (or the *Service Provider* if delegated by the *Client* to do so) is to provide Ergon Energy and Energex with a documented safe system of work and procedure they use for de energising or powering down any *RFR* emitting *Shared Asset Installation* installed on or in the vicinity of any impacted *Overhead Asset*, so that safe access for Ergon Energy and Energex or other *External Party* works can proceed.
- (d) Refer to WCS73 for additional requirements.

9.11 Ownership or Responsibility Identification Signage

Each *Shared Asset Installation* at every *Overhead Asset Site* is to bear a durable, weatherproof, UV resistant identification of the *Client* and associated contact details, the design and placement of which will be agreed by Ergon Energy and Energex on a case by case basis.

Shared Asset Installations

9.12 Privacy

The *Service Provider* is to comply with:

- (a) Privacy Act 1988 (Cth).
- (b) The National Privacy Principles.
- (c) The Privacy Amendment (Private Sector) Act 2000 (Cth).
- (d) Any *Laws* in relation to the collection, storage, transmission and disclosure of personal information, including in relation to *Security Camera* operations.

9.13 Other External Party Installations

- (a) Ergon Energy and Energex wood *Poles* or steel columns may have *External Party* assets, for example:
 - (i) Aerial broadband cable networks on wood *Poles*.
 - (ii) Telecommunications antennas installed on or adjacent to wood *Poles* or *Columns*.
- (b) *Operators* accessing these *Sites* are to strictly comply with the *Service Provider's* safe system of work and be trained and competent in wood *Pole* and steel column access procedures where these *External Party* assets are installed. Training learning outcomes will include:
 - (i) Broadband Infrastructure Awareness:
 - i. Identify aerial broadband cable network infrastructure and major components and network owner(s) on wood *Poles* from an on-site ground position.
 - ii. Determine safe working procedures in relation to various overhead work tasks to be performed on a variety of wood *Poles* which have broadband network installations.
 - iii. Demonstrate safe working procedures when performing overhead work on wood *Poles* which have broadband network installations.
 - (ii) *Radio Frequency Radiation (RFR)* Awareness:
 - i. Understand the basic properties of and potential health issues associated with *Radio Frequency Radiation*.
 - ii. Identify the various types of *RFR*-emitting equipment that may be installed on or in the vicinity of Ergon Energy and Energex assets, including *Overhead Assets*.
 - iii. Interpret signage associated with *RFR*-emitting equipment.
 - iv. Understand applicable regulations, standards and manuals pertaining to *RFR*-emitting equipment installations.
 - v. Understand minimum approach distances for *RFR*-emitting equipment.
 - vi. Understand procedures for antenna de-energisation, isolation and re-energisation.
- (c) *Shared Asset Installations* including *Banner Installations* and *Decorative Installations* will not be installed at any position on an *Overhead Asset* which already supports wireless telecommunications components.

Shared Asset Installations

9.14 Service Provider Authorisation and Subscriber Registration

9.14.1 Potential and Current Service Provider and Client - Subscriber Registration

- (a) Each party intending to become a *Service Provider* is to apply to Ergon Energy and Energex to become registered online subscriber via the Ergon Energy and Energex “SWP Online” (Internet system) and obtain access to copies of:
- WCS59, and
 - WCS133.

Note The “SWP Online” registration / subscription does not mean that a *Service Provider* has *Authorisation* or otherwise granted permission by Ergon Energy and Energex to undertake any *Services* under either WCS59 or WCS133.

- (b) This will enable potential *Service Providers* to assess Ergon Energy and Energex requirements.
- (c) Potential *Service Providers* may contact the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) for further details of the relevant WCS59 requirements.

9.15 Shared Asset Installation Engineering Design Certification and Fabrication - General

- (a) *Shared Asset Installations* are to be *RPEQ* designed, tested and certified, for the relevant combination of *Shared Asset Installation* type proposed to be installed and the associated *Overhead Asset* type to be utilised. *RPEQ certification is not required if the total weight of attachments including mounting is less than 15kg. For more details, please refer to clause 7.0 d of this specification.*
- (b) The *RPEQ(s)* is to hold all relevant electrical, mechanical and / or structural engineering qualifications to undertake each facet of the complete engineering certification of each proposed *Shared Asset Installation*.
- (c) The entire *Shared Asset Installation* incorporating all components and systems, including *Base Plates* and wood *Pole / Column* attachment systems (including *Shared Asset Installation* attachment and operation methods and electrical / electronic components), is to be designed and developed, tested and certified by an appropriate *RPEQ*.
- (d) Such certification is to include:
- The name, signature and the *RPEQ* number of the certifying *RPEQ*, which will be provided on each drawing and all documentation, which is part of the certification, unless otherwise agreed by Ergon Energy and Energex; and
 - Any additional documentation and certification required by *Law*, regulations and codes of practice, a copy of which are to be provided to the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) with the submission of the design drawing.
- (e) *Shared Asset Installations* are to:
- Comply with and be manufactured, installed and operated in accordance with the relevant *RPEQ* certified design, all relevant Australian Standards and / or other applicable industry codes.

Shared Asset Installations

- (ii) Have negligible probability of loosening or structural failure, under static and wind conditions, including due to fatigue and / or vibration, or wood *Pole* shrinkage of timber.
- (iii) Have all *Shared Asset Installation* components assembled by welded joints or bolted connections.
- (iv) Be designed to ensure that all stresses experienced by the *Shared Asset Installation* do not exceed the fatigue limits for the materials, welds and bolted connections used to manufacture the *Shared Asset Installation*.
- (v) Be designed to minimise wind flutter or any other type of rapid oscillation (including minimising the potential for reduced public lighting lamp life and the structural degradation of *Columns*).
- (vi) Be constructed and installed so that no component of the *Shared Asset Installation* will come adrift, completely release or fall to the ground from the *Overhead Asset*, including under high wind / adverse weather conditions.
- (vii) Be readily attached to and disconnected from any *Overhead Asset* using common hand tools and not require cutting.

Note Tensioned strap type fittings are **NOT** permitted on any *Overhead Asset*.

- (viii) Be of durable galvanised steel or alternative metallic or other proven material frameworks, fittings and attachments, with low structural stress in components using generous welds and durable sub-components, with a minimum of potential corrosion points.
 - (ix) Where possible, only utilise commercially available manufactured subassemblies, for example, eyebolts, chain links as opposed to the individual fabrication of these components.
 - (x) Have a sample selected in accordance with AS1199 from each batch of subassemblies manufactured, for example, eyebolts and chain links and a load test undertaken.
 - (xi) Ensure that components have no sharp edges or any sub-components that may shatter, for example, glass.
 - (xii) Due to a population of *Overhead Assets* of varying types, ages and structural capacities prevent excessive wind loads from being transferred to the *Overhead Asset* so as not to exceed the application of an applied safe working load of 0.8 kN to any *Overhead Asset*:
 - i. In any direction.
 - ii. Under any wind conditions.
 - iii. In any geographical location.
- (f) *Shared Asset Installation* components and fittings are not to:
- (i) Consist of any automated, remote controlled or motorised parts other than:
 - i. An internal, enclosed motorised part used to rotate / focus a fixed *Security Camera Installation*.
 - ii. Temporary climbable *Security Camera Installations* on *Columns* only.

Shared Asset Installations

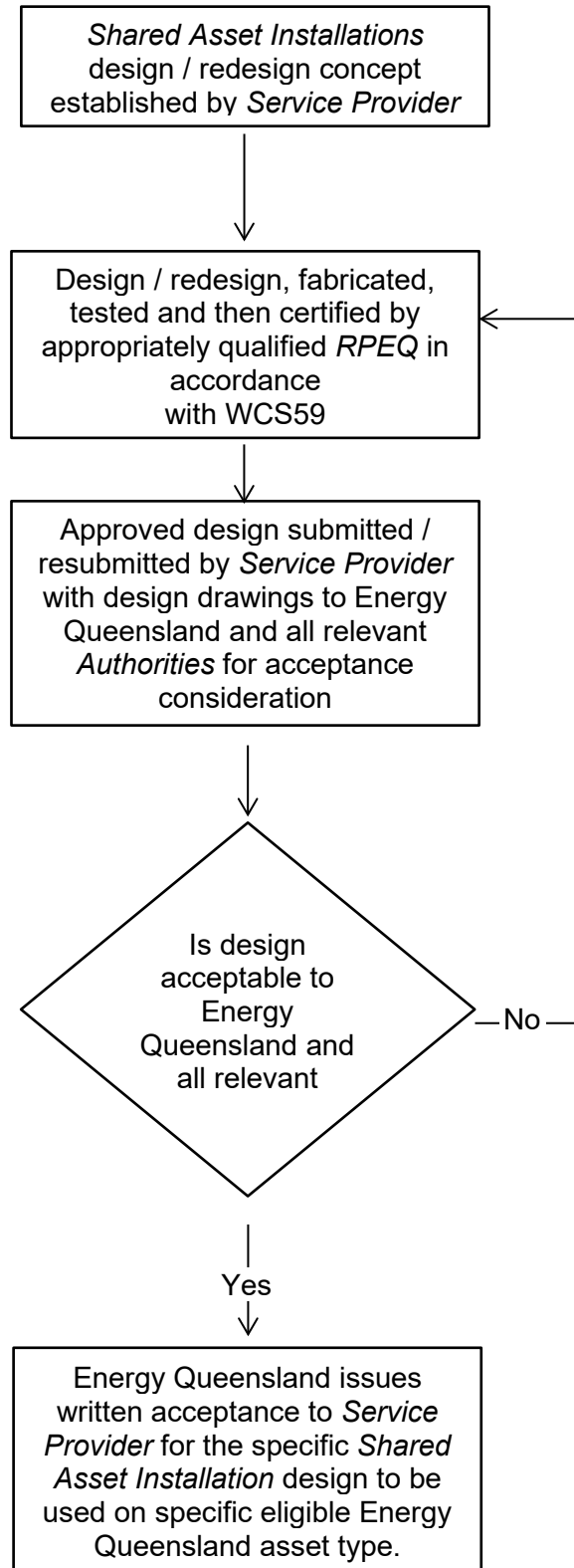
- (ii) Incorporate streamers or similar unrestrained attachments.
- (g) The *Shared Asset Installation* is to incorporate *Overhead Asset* attachment methods which are suited to the:
 - (i) Type, shape and size of the *Shared Asset Installation*.
 - (ii) The type of wood *Pole / Column* used.
- (h) *Base Plates* are to be designed such that they may accommodate their associated *Shared Asset Installations* on *Overhead Assets* of varying cross sections, and wood *Pole* surface inconsistencies, for example, knots.

9.16 Engineering Design Submission Consideration / Acceptance Process

- (a) Refer to WCS59 Flowchart 1 for *Shared Asset Installation* Engineering Design Acceptance Process.
- (b) All *RPEQ* designed, certified and tested individual components, associated drawings, and the overall design as intended to be installed on an *Overhead Asset* are to be submitted for consideration of acceptance to:
 - (i) The relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access).
 - (ii) All relevant *Authorities*.
- (c) Prior to the *Shared Asset Installation* being attached to any *Overhead Asset*, the *Service Provider* is to obtain written acceptance of each *RPEQ* certified *Shared Asset Installation* design from each of the following:
 - (i) Ergon Energy and Energex.
 - (ii) The relevant *Authority* (if, and as required by the relevant *Authority*).
- (d) The relevant *Authority's* acceptances are to be provided to the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access).
- (e) *Shared Asset Installation* design acceptance by Ergon Energy and Energex does not indicate or grant an engineering approval or certification or acceptance of any liability for the structural and electrical integrity of, or any activities or the operation of, or incidents associated with, or related to, any *Shared Asset Installation* under any circumstances.
- (f) The *Shared Asset Installation* design, certification, and submission to Ergon Energy and Energex process is to be repeated after any change in *Shared Asset Installation* design parameters, materials, fabrication or intended use.

Shared Asset Installations

Flowchart 1: Shared Asset Installation Engineering Design Acceptance Process



Shared Asset Installations

9.17 Site Telecommunications Interconnections

- (a) Telecommunications interconnections to and from each *Shared Asset Installation Site* on an *Overhead Asset* (e.g. for *Security Camera Installations*) is not the responsibility of Ergon Energy and Energex.
- (b) Interconnecting of *Sites* is to be achieved by one of the following methods:

9.17.1 Radio Frequency Transceivers Sites

- (a) Interconnection of *Sites* via low powered wireless telecommunications is the preferred option for installation on *Overhead Assets*.
- (b) The *Client* is to be made aware by the *Service Provider* of the *Clients* and the *Service Provider's* safety and other obligations in relation to ensuring every *Shared Asset Installation Site* owned / operated by the *Client* emitting *Radio Frequency Radiation*:
 - i. Conforms to all relevant Laws (including the telecommunications legislation).
 - ii. Is safe and has appropriate Radio Frequency Radiation Hazard signage installed to Ergon Energy and Energex's RFR management requirements.
 - iii. Is notified to the Ergon Energy and Energex Officer for Ergon Energy and Energex database recording purposes.
 - iv. Can be de-energised and re-energised if / as required, to enable Ergon Energy and Energex or other permitted parties to safely work on or in the vicinity of an *Overhead Asset*.
 - v. Refer to WCS73 for specific wireless telecommunications requirements.

9.17.2 Underground Optical Fibre Cable Network

- (c) Ergon Energy and Energex's underground pit and *Conduit* network may be available at Ergon Energy and Energex's sole discretion for limited installation of cabling to interconnect *Shared Asset Installation Sites* which are used or owned by *Authorities*, for example, Councils and Government Departments.
- (d) Alternatively, the *Client* may independently negotiate with other underground network asset owners (for example, telecommunications carriers) to install the *Client's* telecommunications cables.
- (e) Refer to WCS 72 and WCS 72.1 for specific underground cabling requirements.

9.17.3 Overhead Optical Fibre Cable Network

- (f) The use of separate stand-alone aerial optical fibre cable networks (for interconnection) installed on wood *Poles*, will not generally be permitted, due to:
 - i. Issues relating to ongoing maintenance of clearances to avoid vehicle impacts,
 - ii. Increased structural loading,
 - iii. Available wood Pole space for attachments,
 - iv. Contractual obligations to maintain space for existing External Parties using wood Poles,
 - v. Ergon Energy and Energex network access issues for Ergon Energy and Energex works,

Shared Asset Installations

- vi. Multi party works coordination and maintenance.
- (g) At Ergon Energy and Energex's sole discretion, limited aerial *Security Camera* related optical fibre cabling may be permitted for *Authority* use in exceptional circumstances only, if appropriately engineered, installed and maintained, and accepted in writing by the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access).
- (h) Where no other viable options exist AND only if agreed by the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) in writing as a last resort and at Ergon Energy and Energex's sole discretion, *Security Camera Installation* cable networks (for interconnection) may be able to be installed aerially, including directly onto existing broadband cable network catenary wires and cables (via wire lashing).
- (i) Ergon Energy and Energex is not responsible for negotiating, managing or maintaining such *Security Camera Installation* cabling arrangements in any way. The *Client* is to ensure that the relevant broadband network owner is contacted and is to negotiate any such arrangements directly with the broadband network owner.
- (j) The *Service Provider* is to advise the *Client* that, in such cases, the *Client* (and not Ergon Energy and Energex) is to bear the responsibility for structurally assessing all resulting wood *Pole* loadings and ensuring that all aerial *Security Camera Installation* cable network clearances are safely achieved and maintained.
- (k) Refer to WCS72 and WCS72.2 for specific aerial cabling requirements.

9.18 Identification of Shared Asset Installation Ownership

- (a) Each *Shared Asset Installation* (and not the wood *Pole / Column* or any other attachment) at each *Overhead Asset Site* is to bear durable identification of the *Shared Asset Installation* owner and relevant *Service Provider* and their contact details.
- (b) This identification is to be legible to the workers of any party when working aloft, and at ground level for the lowest mounted components.
- (c) These contact details may also be used by any party (for example, Ergon Energy and Energex or an *Authority*), to contact the relevant *Shared Asset Installation* owner or *Service Provider* regarding the *Shared Asset Installation*:
 - (i) Being damaged.
 - (ii) Requiring maintenance / repair.
 - (iii) Needing to be recovered, as a result of *Overhead Asset* works, for example wood *Pole / Column* relocation, replacement or recovery.

9.19 Generic Clearances for Shared Asset Installations

- (a) The *Shared Asset Installation* maximum and minimum mounting heights and positions, and above ground / footpath / walkway / bikeway / roadway clearances are to comply with requirements of the *Laws*, all relevant Australian Standards, Ergon Energy and Energex, and the *Authority* responsible for the associated roadway management.
- (b) The ground clearance requirement of the relevant road controlling *Authority* will take precedent with respect to clearances, where the clearances specified by Ergon Energy and Energex are less than those required by the road controlling *Authority*. In some cases this

Shared Asset Installations

may mean that *Shared Asset Installation* may not be able to be installed on certain *Overhead Assets*.

- (c) Should the road controlling *Authority* authorise a lower *Shared Asset Installation* clearance height than the minimum nominated Ergon Energy and Energex clearance height requirement, then the Ergon Energy and Energex clearance height requirement will apply.
- (d) Any conflicting clearance requirements are to be immediately reported to the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) for resolution with the relevant *Authority*.
- (e) *Shared Asset Installations*, are to be installed and maintained so that they:
 - (i) Are not easily accessible by the general public;
 - (ii) So as not to assist any unauthorised access to an *Overhead Asset* or the attachments which it supports; and
 - (iii) Are positioned clear of potential vehicle impact.
- (f) Every part of a *Shared Asset Installation* (excluding *Public Lighting Installations*), including *Base Plates*, frameworks, and signage, is to be installed and maintained at least a height that is being at least:
 - (i) 2.7 metres or higher above ground level if they are non-current carrying, exposed and electrically conductive parts, and not exposed to personal contact (or will otherwise need to be earthed).
 - (ii) 3.0 metres above any pedestrian footpath or walkway not used by vehicles.
 - (iii) 4.8 metres over any part of a designated minor road, vehicle parking lane or bay, driveway, bikeway or where a vehicle may normally park, or the kerb line or the edge of the roadway where there is no kerb line.
 - (iv) 4.9 metres over any part of a major road.
 - (v) 7.0 metres above any part of an *Authority* designated “over dimension” (for example, high load) route.
- (g) No parts of any *Shared Asset Installation* (excluding *Public Lighting Installations*), including radially and in the vertical planes, are to be less than:
 - (i) 0.3 metres from any part of any Ergon Energy and Energex or *Authority* pilot / supervisory cable.
 - (ii) 0.5 metres to any part of the horizontal section of any *Column* luminaire outreach arm.
 - (iii) 0.5 metres to any other Ergon Energy and Energex plant, for example pole transformers, sectionalisers, and reclosers.
 - (iv) 0.6 metres from any telecommunication carrier’s network components (including broadband strand wire and / or cabling and the aerial PSTN telephony network).
 - (v) 1 metre from any *LV* energisable conductors and uninsulated electrical equipment, including any bare and covered public lighting supply circuits, *LV* links and wood *Pole* – mounted public lighting brackets.
 - (vi) 2 metres from any 11 kV energisable conductors and associated uninsulated electrical equipment.

Shared Asset Installations

- (h) No parts of any *Shares Asset Installation* (excluding *Public Lighting Installations*) are to project horizontally out from any *Overhead Asset* by more than 1.2 metres from the *Overhead Asset* surface.

Note: In addition to the above, all *Operators* are to be appropriately instructed and or authorised in accordance with the *Law* including the Electrical Safety Regulation 2013 to access install maintain or recover *Shared Asset Installations*, so that the relevant exclusion zones to exposed conductors and plant are not breached.

9.20 Ergon Energy and Energex Electricity Network Switching

- (a) No electricity distribution network assets of Ergon Energy and Energex, including street lighting circuits, electricity customer services, conductors and / or any equipment, is to be isolated or de-energised for any proposed *Shared Asset Installation* related works, unless planned with and agreed by Ergon Energy and Energex (and the affected *External Party* if relevant).
- (b) De-energisation of any electricity distribution network assets is only to be undertaken by Ergon Energy and Energex or its Accredited Service Provider, and in accordance with Ergon Energy and Energex's WCS31 requirements.

9.21 Solar Powered Shared Asset Installations on wood Poles and Columns

- (a) Compact solar / battery *Powered Shared Asset Installations* are Ergon Energy and Energex's preferred option for *Powered Shared Asset Installations*.
- (b) Compact solar / battery *Powered Shared Asset Installations* may be installed on wood *Poles* and *Columns*.
- (c) These installations will generate and operate at *ELV* only.
- (d) All components including solar panels, battery, battery charger, photo electric switches and *ELV* luminaires and cabling are to be fully self-contained within, and, unless otherwise agreed in writing by the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) mounted on a single, removable *Powered Shared Asset Installations* assembly only.
- (e) The battery / energy storage device is to be only of type that is:
- (i) Light weight.
 - (ii) Fully sealed.
 - (iii) Fit for purpose.
- (f) Battery charging devices are to be compact with no voltage output above *ELV*.
- (g) All components as fitted are to be appropriately electrically insulated to Ergon Energy and Energex's requirements.
- (h) The complete installation is to be structurally and electrically certified by appropriately qualified *RPEQ(s)*.

9.22 General Requirements for Network powered Shared Asset Installation

- (a) The *Client's* electrical installation for the *Network Powered Shared Asset Installation* is to comply with AS / NZS 3000 (including for all *LV* and *ELV* parts of the electrical installations)

Shared Asset Installations

and Queensland Electricity Connection Manual - 2912908 and Low Voltage Connections manual - 2914128 as amended and any other Ergon Energy and Energex requirements.

- (b) Where ever practical, *Network Powered Shared Asset Installations* are to be installed on *Overhead Assets* that have existing onsite *Low Voltage* supply.
- (c) Where onsite electrical power supply is permitted by Ergon Energy and Energex for a directly attached, *LV fed Network Powered Shared Asset Installation*:
 - i. For a wood *Pole* - the electrical switchboard, mains connection box and other agreed electrical equipment are to be positioned in close proximity to the *Network Powered Shared Asset Installation* by the *Service Provider's* electrical contractor; or
 - ii. For a *Column* - Ergon Energy and Energex will supply an isolation switch and neutral link on the Din rail behind the *Column* access cover.
- (d) Other than the *Network Powered Shared Asset Installation* sub circuits supplying an accepted *LV* to *ELV* isolating transformer, there are to be no *LV* or *ELV* electrical equipment, sub circuits, socket outlets, or luminaries or electrical loads (including onsite power tools or extension leads) either temporarily or permanently able to be fed from any *Network Powered Shared Asset Installation's* electrical service.
- (e) The *Service Provider* is responsible for providing and installing the electrical installation and testing the installation beyond the consumer's terminals. This includes the *LV* mains connection box, *Consumers Mains*, main switchboard, main switch, fault limiting circuit breaker(s), residual current device, non-metallic *Conduits* (for wood *Poles*), MEN earthing and, where required, a photo electric cell, and associated load equipment for the *Network Powered Shared Asset Installation*.
- (f) All external *Conduits* installed on a wood *Pole* are to be grey, UV resistant, heavy duty, PVC and appropriately secured by U shaped saddles with two fixing screws to the wood *Pole*.
- (g) To facilitate *LV* supply on a wood *Pole* not supporting *LV* electricity infrastructure, either:
 - (i) Ergon Energy and Energex will install either an overhead aerial or underground *LV* electrical supply / service cable to the wood *Pole*;
 - (ii) Where an underground electrical service is to be installed by Ergon Energy and Energex from a *LV* supply pillar, the *Service Provider's* licensed electrical contractor will install underground *Consumers Mains* from the Ergon Energy and Energex nominated point of supply with:
 - i. Within heavy-duty electrical *Conduits* to AS/NZS 2053 requirements.
 - ii. At a minimum cover of 0.6 metres below the finished ground level.
 - iii. With cable protection cover strips in accordance with AS 4702, directly over *Conduits* to protect the underground cable installation.
- (h) Upon completion of installation, the *Service Provider* will provide an "As Constructed" drawing indicating the exact location(s) and route(s) of all underground *Network Powered Shared Asset Installation LV* consumers' mains within the public domain, including *Authority* approved footpath allocation / installations; with copies submitted to the *Ergon Energy and Energex Officer*, the relevant *Authorities*, "Dial Before You Dig" service (Australian Association of Dial Before You Dig Services Ltd) and the *Client*.

Shared Asset Installations

9.23 Extra Low Voltage (ELV) Circuits

9.23.1 Network Powered Decorative Installation ELV Supply

Note: This type of electrical power to a *Shared Asset Installation* will not be permitted without the prior written approval from the Ergon Energy and Energex Manager Facilities Access on a *Site by Site* basis.

- (a) If *ELV* energisation is authorised by Ergon Energy and Energex, the electrical power to the *Network Powered Decorative Installation* framework is to be provided at *ELV* via a double insulated *LV* to *ELV* transformer, which is supplied from the main switchboard as a final sub circuit in accordance with AS / NZS 3000.
- (b) This transformer and the associated *ELV* connector is to be mounted within an IP56 rated, UV resistant enclosure on the wood *Pole* adjacent to the main switchboard, to supply any *ELV Decorative Installation* sub-circuits (including those for decorative lighting).
- (c) The *Network Powered Decorative Installation ELV* sub-circuit is to be fitted with an *ELV* connection coupling compliant with AS / NZS 3000, for easy plug and socket connection and disconnection from the removable *Network Powered Decorative Installation* display frameworks, which may be installed and replaced on / or from the wood *Pole* – mounted *Base Plate* assemblies from time to time.
- (d) All *Network Powered Decorative Installation* framework mounted *ELV* luminaries and other attachments are to be securely attached onto the removable *Powered Decorative Installation* display framework, so that they will not detach under any environmental conditions.

9.23.2 Network Powered Security Camera Installation ELV Circuits

- (e) Incorporate any *LV* to *ELV* isolating transformer within the camera equipment enclosure.
- (f) Supply the transformer from the main switchboard as a final sub circuit in accordance with AS / NZS 3000.

9.24 No Final Sub-circuits to Remote Locations

Sub-circuits are not permitted to any remote locations away from the *Overhead Asset*, including:

- (a) Underground sub-circuits; and
- (b) Aerial *LV* or *ELV* sub-circuits strung on / to / or between wood *Poles* or *Columns*, or to any other structure, including any *LV* or *ELV* festoon lighting of any type.

9.25 Earthing Arrangements

- (a) The *Network Powered Shared Asset Installation* electrical installation's independent earthing system that includes an earth electrode placed at minimum of 2 metres in all common earthed areas and 4 metres in all separately earthed areas separation from the *Pole* face or any other Ergon Energy and Energex earth to a *Network Powered Shared Asset Installation* earth electrode and associated pit.
- (b) The earth electrode is to be suitably mechanically protected. Locate and avoid contacting any nearby underground cables and essential *Services* during electrode installation.
- (c) *Network Powered Shared Asset Installations* are not to have any earthed components, other than those associated with the electrical installation earth.

Shared Asset Installations

9.26 LV Supply Application Process

Service Provider shall make the power connection application via website portal. .

9.27 LV Drop Down Supply at Poles

Where Ergon Energy and Energex determines the *Network Powered Shared Asset Installation* will be supplied from the overhead electricity distribution network, Ergon Energy and Energex's standard service arrangement is a wood *Pole* mounted primary fuse and drop down service provided by Ergon Energy and Energex, to the *Customer's LV* mains connection box installed by the *Service Provider*.

9.28 LV Supply at Columns

9.28.1 Supply Options

Typical underground point of *LV* supply options are detailed below. Ergon Energy and Energex will nominate the required *LV* supply method on a *Site* by *Site* basis.

Option 1 – Dedicated Ergon Energy and Energex Underground Service:

- i. An additional dedicated *LV* electricity supply (to the *Network Powered Shared Asset Installation*) may be obtained, through the installation of a fused Ergon Energy and Energex service cable from a *Pillar* or service from a pit, (with this point of electricity supply determined by Ergon Energy and Energex), to the *Network Powered Shared Asset Installation* switchboard.
- ii. Where an unfused Ergon Energy and Energex service is provided, the *Service Provider* is to supply and install suitable fault current limitation (typically a DIN – rail mounted HRC fuse less than 100 amperes rating within the *Column*), electrically prior to the main switch of the *Network Powered Shared Asset Installation* and labelled as "Fault Current Limiter".

Option 2 – Existing Un-switched Public Light Supply:

- iii. Where a permanent, existing un-switched *LV* supply of adequate capacity (that is the supply is of sufficient size to accommodate both the maximum demand and voltage drop of the combined un-switched public lighting installation and the *Network Powered Shared Asset Installation*) is available to feed the *Column's* internally – mounted public lighting luminaire switchboard, *LV* supply may be made available directly from this internal luminaire switchboard position to supply an additional, separate *Network Powered Shared Asset Installation* switchboard.
- iv. The *Network Powered Shared Asset Installation's* switchboard is to be DIN rail – mounted internally, adjacent to the existing luminaire switchboard, and is to be mounted prior to the availability of the point of *LV* supply.
- v. Ergon Energy and Energex will determine the maximum load able to be connected to the public lighting circuit.

Option 3 – Consumers Mains:

Where an adjacent suitable and serviceable Ergon Energy and Energex *LV Pillar* or pit installed and maintained by Ergon Energy and Energex is available, or is to be made available, the point of *LV* supply is to be from the load side of the *Network Powered Shared Asset Installation's* primary fuse as installed by Ergon Energy and Energex within this Ergon Energy and Energex *Pillar* or pit.

Shared Asset Installations

- vi. The *Service Provider* is to provide, install and maintain the *Network Powered Shared Asset Installation's Consumers Mains* within appropriate underground non-metallic *Conduits* from this Ergon Energy and Energex *Pillar* or pit primary fuse to a DIN rail mounted, double insulated *Network Powered Shared Asset Installation* main switchboard (consumer's main switchboard) within the *Column* chamber.
- vii. Ergon Energy and Energex is not be responsible for any *Network Powered Shared Asset Installation* – related road reserve or footpath opening / civil works *Authorisation* and permit negotiations with any relevant *Authority*.
- viii. Installation of MEN earthing cable, non-metallic *Conduits* and *Consumers Mains* internally within the *Column*, will be undertaken by the *Service Provider*.

9.28.2 Supply Source Labelling At Columns

Where there are multiple sources of electricity supply to *Column* being the existing public lighting supply and a *Network Powered Shared Asset Installation* supply: This type of arrangement is not preferred, however, Energex may approve multiple sources of supply in special cases.

- (b) The *Service Provider* will install a suitable durable electrical warning label, acceptable to Ergon Energy and Energex, on the outside face of the *Column* (adjacent to the *Column's* internal access cover) and one internally within the *Column* (adjacent to the *Network Powered Shared Asset Installation's* switchboard position).
- (c) This label will have text indicating "Warning- **x** sources of electricity supply", with "**x**" being equal to the actual number of *LV* supply sources to the specific *Column Site* (including any public lighting luminaire supply circuit and the separate *Network Powered Shared Asset Installation's* electrical supply circuit).
- (d) In cases where the point of *LV* supply to the *Network Powered Shared Asset Installation's* electrical switchboard is not obvious at the *Site*, the *Service Provider* is to leave a laminated "as constructed route plan" drawing attached to the DIN rail within the *Column*. The drawing is to indicate the location of the point of *LV* supply and cable route to the *Network Powered Shared Asset Installation*.

9.29 LV Supply Energisation

- (a) For all *Network Powered Shared Asset Installation* on an *Overhead Asset*, an initial connection of *LV* electricity may then be made by Ergon Energy and Energex or the agreed rated *Service Provider*.
- (b) Upon *LV* supply connection by Ergon Energy and Energex or the agreed rated *Service Provider*, the *Network Powered Shared Asset Installation* may be energised to the line side of the main switch.
- (c) The main switch is to be left turned off and tagged by Ergon Energy and Energex or the agreed rated *Service Provider*.
- (d) The licensed electrical contractor is then responsible for energising the electrical components beyond the *Network Powered Shared Asset Installation's* main switch.
- (e) Where a change of electrical loading occurs, or an existing *Network Powered Shared Asset Installation* no longer requires the electricity supply, a completed Form 0002 will be submitted to Ergon Energy and Energex.

Shared Asset Installations

9.30 Maintenance Requirements for Shared Asset Installations

- (a) The responsible *Service Provider* is to inspect each *Shared Asset Installation Site*, including the *Shared Asset Installation* and the supporting *Overhead Asset* (wood *Pole / Column* owned by Ergon Energy and Energex) for damage, failure, deterioration, unsatisfactory or degenerated appearance, and / or defective operation of any component of the *Shared Asset Installation* and for its effect on the supporting *Overhead Asset*;
 - (i) For *Banners Installations*, routinely every 14 calendar days following attachment.
 - (ii) For all *Shared Asset Installations*, within 24 hours of any significant weather event / occurrence (for example, severe storm, and / or high winds) occurring to check and rectify any damage and / or deterioration.
- (b) The *Service Provider* will rectify / remove the effected *Shared Asset Installations* as required.
- (c) The *Service Provider* is to provide a current electronic written record of such *Shared Asset Installation Site* inspections and inspection results, upon receipt of a written request from the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) within 5 calendar days following the request. This record is to include details of the dates and locations of the above routine or emergency event inspections, including *Overhead Asset* identification of and any maintenance performed on any *Shared Asset Installation*.
- (d) In the event of an adverse weather warning (e.g. strong wind or severe storm warning) being issued by the Australian Bureau of Meteorology, the *Service Provider* is to assess whether it is safe to permit *Shared Asset Installation* components (except for *Base Plates* on a wood *Pole* unless directed by Ergon Energy and Energex or the relevant *Authority*), to remain attached to the affected *Overhead Assets*, until the adverse weather event subsides.
- (e) *Shared Asset Installations* will be removed on demand of the road controlling *Authority*.
- (f) Any *Shared Asset Installation* that tears, fades, soils, fails fractures or discolours, at any period during, which it is erected on any *Overhead Asset*, is to be removed and satisfactorily replaced or repaired within one week of inspection or discovery by the *Service Provider*, or reporting to the *Service Provider* by any party.
- (g) Recovery or replacement of a *Shared Asset Installation* component on an *Overhead Asset*, or maintenance works not affecting an *Overhead Asset* tip load requires an above ground inspection as a minimum and is to be consistent with the procedures and practices set out in the *Service Provider's* own safe system of work.
- (h) Network Powered Shared Asset Installation maintenance:
 - (i) *Network Powered Shared Asset Installations* are to remain connected to the LV electricity supply once initially commissioned (that is the *Network Powered Shared Asset Installation's* primary fuse is to remain installed). Undertake isolation and re-energisation of the LV supply to the *Network Powered Shared Asset Installation* through the operating of the *Network Powered Shared Asset Installation's* main switch.
 - (ii) All LV electrical components / items and permanently *Network Powered Shared Asset Installations* electrical installations, either installed or to be installed on *Overhead Assets* are to be inspected, certified and tagged as electrically safe by a licensed electrical contractor at least annually.
 - (iii) *Network Powered Shared Asset Installations* not inspected, certified and tagged within the 12 months, are not to be installed on any *Overhead Asset* or otherwise be

Shared Asset Installations

connected to the *LV* electricity supply until inspected, certified and tagged as electrically safe.

- (i) Ergon Energy and Energex may remove:
 - (i) Any non – conforming *Network Powered Shared Asset Installations* and will recover all costs from the *Service Provider*.
 - (ii) The temporary or permanent *Shared Asset Installation* or component thereof at any time without prior notice to allow Ergon Energy and Energex asset replacement, relocation, maintenance purposes or for any other Ergon Energy and Energex planned or emergency works related reason.

9.31 Powered Decorative Installation Maintenance Requirements

- (a) *Powered Decorative Installations* are to remain connected to the *LV* electricity supply once initially commissioned (for example, the *Powered Decorative Installation's* primary fuse is to remain installed).
- (b) Isolation and re-energisation of the *LV* supply to the *Powered Decorative Installation* is only to be undertaken through operating the *Powered Decorative Installation's* main switch.
- (c) All *LV* electrical components / items and permanent *Powered Decorative Installation* electrical installations either installed or to be installed on wood *Poles* are to be inspected, certified and tagged as electrically safe by a licensed electrical contractor at least annually.
- (d) *Powered Decorative Installations* not inspected, certified and tagged within the 12 months are not to remain installed on any wood *Pole* or otherwise be connected to the *LV* electricity supply until inspected, certified and tagged as electrically safe.
- (e) Ergon Energy and Energex may remove any non – conforming *Powered Decorative Installations* and will recover the costs from the *Service Provider*.

Shared Asset Installations

9.32 Authorised Signs – Specific Requirements

9.32.1 Authorised Signage Types

Only *Authority* owned signage installations will be permitted to be installed on *Overhead Assets*.



Figure 1: Representative Example - Authority Owned Signage Installation

9.32.2 Authorised Signs - Candidate Overhead Assets

- (a) Where ever practical the *Authority* will use its own support structure for the installation of *Authorised Signage*, except where duplication of street furniture is not economically or environmentally viable in the road reserve.
- (b) Steel *Columns* and Wood *Poles* may be used for the attachment of *Authorised Signage*.
- (c) Due to their potentially electrical conductive nature and potential for concrete spoiling (damage of surface), concrete *Columns* and *Poles* may only be used where approved by Ergon Energy and Energex on a *Site by Site* basis.

9.32.3 Installation of Authorised Signage

The following general conditions will apply:

- (a) The *Authority* is to ensure that all *Authorised Signs* and related works comply with all relevant Australian Standards, codes of practice, traffic engineering practices and legislation including the Traffic Act, the Electricity Act and Regulations, and the Electrical Safety Act and Regulations.

The Authorised Signage type and installation system for the relevant Overhead Asset is to be RPEQ designed and certified. .RPEQ certification is not required if the total weight of attachments including mounting is less than 15kg. *For more details, please refer to clause 7.0 d of this specification.*

- (b) With a 24 hour *Authority* contact number fixed to the back of the *Authorised Sign* in case of *Overhead Asset* work / replacement.
- (c) Wood Poles:

Shared Asset Installations

- i. The total surface area of all installed signs on any wood *Pole* is not to exceed 1 square metre.
 - ii. *Authorised Sign* attachment to a wood *Pole* will be securely made via:
 - For any *Authorised Sign* - a minimum of 2 coach screws.
 - For larger *Authorised Sign* – supporting horizontal backing brackets and securing coach screws are to be used to mount the sign at a maximum of 300 mm centres for the required fixing points.
- (d) Concrete Poles:
- i. The total surface area of all installed signs on any concrete *Pole* is not to exceed 1 square metre.
 - ii. The *Authorised Sign* itself is to be securely fastened to the *Column* attachment system, for example by set screws securing the sign to the raised "U" hat section mounting bracket(s).
- (e) Steel Columns - Minor Road:
- i. The total surface area of all installed signs on any minor road steel *Column* is not to exceed 0.4 square metres.
 - ii. The *Authorised Sign* itself is to be securely fastened to the *Column* attachment system, for example by set screws securing the sign to the raised "U" hat section mounting bracket(s).
- (f) Steel Columns - Major Road:
- i. The total surface area of all installed signs on any major road steel *Column* is not to exceed 0.8 square metres.
 - ii. The *Authorised Sign* itself is to be securely fastened to the *Column* attachment system, for example by set screws securing the sign to the raised "U" hat section mounting bracket(s).

9.32.4 Partial Support of Signage

No *Overhead Asset* is to be used to partly support any *Authorised Sign* in situations where the *Authorised Sign* is also supported by another structure (which could fail, be damaged or be removed and thus leave the *Authorised Sign* inadequately supported).

9.32.5 Authorised Signage – Protocols For Removal Or Relocation

- (g) During the initial negotiations and planning for the initial attachment of *Authorised Signs* on *Overhead Asset* the protocols for removal or relocation due to *Overhead Asset* replacement or recovery are to be established.
- (h) Should any Ergon Energy and Energex works need to occur on the *Overhead Asset* which would physically interfere with, or obstruct line of sight to the *Authorised Signs*, the Ergon Energy and Energex representative will contact the *Authority* responsible for the *Authorised Signs*, so that the *Authority* may attend the *Site* and perform the required works.
- (i) Ergon Energy and Energex will not remove, replace and or recover such *Authorised Signs*, unless specifically authorised by the owning *Authority* and at the *Authority's* cost.

Shared Asset Installations

9.33 Aviation Hazard Devices – Specific Requirements

The following clauses are included for providing advice only as Ergon Energy and Energex will likely be the owner of aviation hazard devices installed on Ergon Energy and Energex assets and not an *External Party*. Independently of this WCS59 Ergon Energy and Energex is to develop standards for aviation hazard devices owned by Ergon Energy and Energex.

9.33.1 Hazard Lighting

- (a) Under the Civil Aviation Regulations, CASA may determine and advise Ergon Energy and Energex that an object or a proposed object (for example an overhead transmission tower) which intrudes into navigable airspace requires, or will be required to be provided with, obstacle lighting. Responsibility for the provision and maintenance of obstacle lighting on a building or structure rests with the owner of the building or structure.
- (b) Aerodrome operators are also to liaise with local electricity and planning authorities, so that they can be alerted of lighting proposals in the vicinity of their aerodromes.

9.33.2 Hazard Markers

- (a) Under the Civil Aviation Regulations, CASA may determine that an object or a proposed object (for example an overhead distribution and transmission line conductors) which intrudes into navigable airspace requires, or will be required to be provided with, obstacle markers. Responsibility for the provision and maintenance of obstacle markers on overhead conductors rests with the owner of the overhead conductors. Refer request for Hazard Markers to the local Asset Management group.
- (b) Refer to Dwg 1634 in Ergon Energy and Energex Overhead Construction Manual Section 8 for details of aerial hazard markers.

9.34 Memorials

Due to safety concern, placing of memorials at pole base is not permitted either in Ergon Energy or Energex network.

9.35 Devices

Devices that may be attached to Overhead Assets include

- Parking Management Transceivers
- Passenger Counting Devices
- Traffic Monitoring Devices
- Weather Monitoring
- Water Main or Hydrant Leak Detection Transceivers
- Other devices as approved by Ergon Energy and Energex Manager Facilities Access

9.35.1 Devices – General Conditions

- (a) These devices are to be approved for installation by Ergon Energy and Energex and all relevant *Authorities* (e.g. local council and Road Management *Authority*).

Shared Asset Installations

- (b) Only attach *Devices* to wood *Poles* by the use of a *Base Plate* arrangement coach screwed to the wood *Pole* and by clamp or strap attachments to *Columns*.
- (c) All *Devices* on any Overhead Asset are to be self-powered (for example small integrated solar panel), with no requirement for an electricity supply from the electricity distribution network.
 - i. Telecommunications interconnections (e.g. from road installed sensors to the *Transceiver Devices*, and from the *Transceiver Devices* to the receiving station) is to be by wireless technology only. The use of communication cable is prohibited.
 - ii. Ergon Energy and Energex's preference is for a low powered compact wireless / cellular multimedia streaming system / transceiver, with a small, integrated, vertically orientated, omni – directional antenna. These will need to have adequate telecommunications capacity to wirelessly perform all functions, within the environment which they are to operate.

9.35.2 Maximum Dimensions and Weight

- (d) Unless otherwise approved in writing by the *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) on a *Site-by-Site* basis, no individual Device component, attached to the *Column*, is to exceed the following dimensions and weights:
 - i. Cantilever arm (where fitted) including the Device unit = 0.6 metres in length – (that is, total length of extension out from the *Column* face).
 - ii. The Device unit (including camera, sensors, antennae, and power supply components [where required]) contained within a housing = 400 mm length x 400 mm width x 300 mm depth nominal dimensions.
 - iii. 15.0 kg maximum in static weight of the Device unit. If the total weight of attachments is more than 15kg, RPEQ certified report on pole assessment is required.

9.36 Promotional Installations

9.36.1 Promotional Installations General

For any *Shared Asset Installation* that has a promotional aspect, for example, *Banners* and wrap around signage, the following requirements apply:

- (a) Each proposed promotion's decorative design, colours and message / wording / content is to comply with Ergon Energy and Energex requirements, including Energy Queensland Policy 00478² for *Banners*.
- (b) The actual intended promotion design (including fully detailed example), and not just a concept / outline, will be forwarded by the *Service Provider* or *Client* for their consideration directly to:
 - i. The relevant Ergon Energy and Energex contact nominated by Ergon Energy and Energex (for example Ergon Energy and Energex Facilities Access Group).

² For Energy Queensland Group related references refer to Section 13 – References

Shared Asset Installations

- ii. All other relevant *Authorities* (including the relevant Local Government *Authority* and road controlling *Authority*).
- (c) Before any *Overhead Asset* bookings on a *Service Provider's* installation list is provided to Ergon Energy and Energex for any *Shared Asset Installation* that has a promotional aspect, for example *Banners*, the *Service Provider* is to:
 - i. Be in possession of a genuine written request from the relevant *Client* for each promotion, including for:
 - i. Each specific booking period required; and
 - ii. Each requested *Overhead Asset*.
 - ii. Then obtain approval from Facilities Access team, Ergon Energy and Energex and all other relevant *Authorities* of the promotional message / design before any *Shared Asset Installation* that has a promotional aspect is installed on or around any *Overhead Asset*.
- (d)
 - i. There is no limit to banners booking period, however all banners must be removed/recovered by the service provider after the intended booking period. Banner booking duration for each event along with pole ID and street/suburb details must be included in the monthly reporting submissions.

9.36.2 Coordinated Use by Service Providers of Poles and Columns

- (a) Each *Banners*, *Decorative Installations* and *Service Provider* will provide Ergon Energy and Energex, all relevant *Authorities*, and all other relevant *Banners*, *Decorative Installations* *Service Providers* with their current key *Service Provider* contact to manage and coordinate:
 - i. Notifications of proposed *Overhead Asset Site* use.
 - ii. The onsite installation, maintenance, relocation and recovery of *Shared Asset Installations*.
- (b) Only bookings, already confirmed by the *Service Provider* in writing with each *Client*, for each *Overhead Asset Site*, promotion, and booking period, are to be included on the spread sheets emailed to Ergon Energy and Energex .
- (c) Such spread sheets are only to include bookings that have already been confirmed and finalised in writing with the *Client*, for the specific nominated *Sites*, promotion and booking period.
- (d) Booked *Overhead Asset Sites* are only to have the nominated, *Authorised Shared Asset Installations* and promotions attached during the booked period.
- (e) All banners must be removed/recovered by the service provider after the intended booking..
- (f) *Overhead Asset Sites* are not to have any *Shared Asset Installation* attached before or after the relevant original nominated period, for that specific *Banner*, *Decorative Installation* or *Trifold Signage* within the *Service Provider's* spread sheet.
- (g) If there is no confirmed booking with a *Client* for any *Overhead Asset Site* at any time, then that *Overhead Asset Site* is absolutely not to be booked on the spread sheets and / or physically used to install *Banners*, *Decorative Installations* or *Trifold Signage*, so that

Shared Asset Installations

the *Overhead Asset Site* is not blocked from legitimate use by other *Service Providers* who have confirmed bookings for that *Overhead Asset Site*.

- (h) Where no booking exists for an *Overhead Asset Site*, the *Overhead Asset Site* is to be immediately freed of the *Shared Asset Installation* for use by other *Service Providers*.
- (i) For promotional *Shared Asset Installations*, for example *Banners*, *Decorative Installations* and free standing *Trifold Signage*:
 - i. The *Service Provider* will manage, coordinate and be responsible for all of its *Client* bookings and obtaining Ergon Energy and Energex and *Authority Authorisations*.
 - ii. Once a month, each *Service Provider* is to provide the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) with an emailed electronic spreadsheet detailing:
 - i. The *Client* and promotion details.
 - ii. Identification and locations of all *Overhead Asset Sites* to be utilised.
 - iii. The associated confirmed booking dates.
 - iii. *Service Providers* shall self manage the site selection between themselves and see that there is no clash on duplication of banner bookings. Ergon Energy and Energex will not be involving themselves in this regard generally. However, Ergon Energy and Energex reserves the right to intervene in the site booking process if Ergon Energy and Energex determines that this system is not working.
 - iv. The above listed spread sheet from each service provider:
 - v. Is to include all bookings, for all *Overhead Asset Sites*, and for all geographic locations, utilised by the *Service Provider*.
 - vi. And, is to be strictly submitted whether there are any changes to any of the previously submitted data, or not.
- (j) Upon request from the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access), the *Service Provider* will provide written evidence to the *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) that there is a specific booking:
 - i. For a particular *Shared Asset Installation* (including for the specific *Banner*, *Decorative Installation*, accepted by Ergon Energy and Energex).
 - ii. With the nominated *Client*.
 - iii. For the specified booked period.
 - iv. On the specified *Overhead Asset Site(s)*.
 - v. And which was agreed in writing between the *Client* and the *Service Provider* prior to both:
 - i. The booking inclusion on the relevant *Service Provider's Site* booking spreadsheet.
 - ii. The onsite attachment of the specific relevant *Shared Asset Installation*.
- (k) Upon request from the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access), the *Service Provider* will provide written evidence to the *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities

Shared Asset Installations

Access) that there booking spread sheet has been sent to all other *Service Providers* undertaking *Banner, Decorative Installation*, installation related activities.

- (l) *Service Providers* are to attempt to resolve *Site* usage issues and disputes amongst themselves in the first instance, and prior to any elevation of any issue or dispute to Ergon Energy and Energex.
- (m) All requests for the Ergon Energy and Energex resolution of ongoing *Client* or *Service Provider* issues or disputes, including those involving concurrent, usage requests for the same *Overhead Asset*, are to be referred to the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) via email for determination.

Note: Any *Shared Asset Installations* that are not:

- i. Authorised by Ergon Energy and Energex or relevant *Authorities*; or
 - ii. Detailed on the *Service Provider's Overhead Asset* usage spread sheet; or
 - iii. In accordance with the requirements of this WCS59 in any way,
- may be removed by Ergon Energy and Energex or it's delegate at the *Service Provider's* cost.

9.36.3 Aesthetics

Shared Asset Installations on a row of adjacent *Overhead Assets*, for example *Banner Installations* and *Decorative Installations* installed along a roadway, are to be positioned on the *Overhead Assets* so as to have a uniform aesthetic appearance, orientation and mounting heights, although the actual displayed designs may vary if the appropriate Ergon Energy and Energex and *Authority* approvals are obtained.

9.36.4 Shared Usage Of Attachment Fittings

- (a) In order to minimise potential damage to *Overhead Assets*, Ergon Energy and Energex's preference is to limit the interchanging of *Shared Asset Installations* attachment components on *Overhead Assets*.
- (b) *Shared Asset Installations* attachment components left installed on an *Overhead Asset* after recovery of a *Banner* or a *Decorative Installation*, for example *Banner* arms, that are the property of another *Service Provider* may be removed to facilitate the installation of another *Shared Asset Installation* (excluding *Base Plates* mounted on any wood *Pole* and attached to a wood *Pole* by coach screws).
- (c) Arrangements for the use or removal of other *Service Provider's Shared Asset Installation* components are to be negotiated and an agreement reached between the *Service Providers* prior to using or removal of such *Shared Asset Installation* components owned or managed by another *Service Provider*.
- (d) Removed *Shared Asset Installations* components of another *Service Provider* are:
 - i. To be made available for collection by the component's owner or authorised representative; and
 - ii. Are not to be reused by any other party (for example a *Service Provider*) that is not the component owner.

Shared Asset Installations

- (e) Alternatively, *Service Providers* may choose to share attachment components, for example a *Service Provider* may utilise the *Banner* bracket attachment arms of another *Service Provider*.
 - i. Only if fit for purpose; and
 - ii. Where agreed between the *Service Providers*.
- (f) Modification of *Shared Asset Installation* components or ownership relabelling of another *Service Provider's Shared Asset Installation* is not permitted under any circumstance.

9.36.5 Attachment General

- (a) Up to 2 *Banners* or 2 *Decorative Installations* or the combination of one *Banner* and one *Decorative Installation* may be installed on a *Column* (only), provided that the wind loading limits, minimum clearances and all other WCS59 requirements are met.
- (b) Only one *Decorative Installation* may be installed on a wood *Pole*, provided that the wind loading limits, minimum clearances and all other WCS59 requirements are met.

9.36.6 Banner Installations

9.36.6.1 Banner Installations – Specific Requirements

Only *Authority* authorised *Banner Installations* will be permitted to be installed on *Overhead Assets* as specified below.



Figure 2: Representative Examples - Authority Banner Installations

9.36.6.2 Candidate Overhead Assets For Banner Installations

- (a) *Banner Installations* are only to be installed on *Columns*. Wood poles may also be allowed in regional areas. However, wood poles with LV/HV equipment such as transformers, ABS switch or overhead to underground cable termination on the pole are not suitable for banner attachment.
- (b) For a typical *Banner Installation* on a *Column* arrangement, refer to the Appendix A drawing.

Shared Asset Installations

9.36.6.3 Banner Installation Engineering Design and Fabrication

- (c) The Banner will be manufactured from durable; fibre reinforced white opaque block out / black core vinyl. The vinyl is to be weatherproof, UV-resistant, and exhibit good tear resistance, such that propagation of any tears are minimal and typically within the density range of 540 g / m² to 650 g / m².
- (d) Cloth and canvass *Banners* of any type are not permitted.
- (e) The *Banner* is to be adequately stitched / welded to ensure it will not come adrift from fittings.
- (f) All *Banners* are to be printed on both sides of the vinyl.
- (g) *Banner* length (height) is not to exceed 3 metres.
- (h) *Banner* width is not to exceed 0.9 metres.
- (i) *Banner Installation* is not to exceed 15 kg in static weight.
- (j) *Banners* will contain any *Banner* stiffening rods or similar which are inserted within any *Banner* pockets, under all wind conditions.
- (k) *Banner* stiffening rods are to remain completely concealed within the *Banner* pockets under all conditions and consists of light duty rigid PVC *Conduit* (with no sharp edges) and not manufactured from steel or timber.
- (l) *Banner* attachment apertures incorporate appropriately secured reinforced eyelets at both the bottom corners of each *Banner*.
- (m) *Banner Installation* components, for example *Banner* attachment arms and associated *Base Plates*, will provide *Banner* support and attachment to the *Column* at the top and the bottom of the *Banner* to hold it taut and minimise flapping or movement.
- (n) *Banner Installations* are to incorporate appropriately engineered, tested, and *RPEQ* – certified wind load release components and systems specifically suited to the size and type of *Banners* to be installed as part of the Banner Installation (e.g. wind load release links on the lower *Banner* attachment arm).
- (o) *Banners* to be compatible with the *Banner Installation* attachment system(s) and fittings used by the *Service Provider*. (That is, in order to suit the spacing of any *Banner* wind load release links on the lower *Banner* attachment arm, and the inside diameter of the top of the *Banner* sleeve for insertion of upper *Banner* attachment arm – where such arrangements are used.)
- (p) *Banner Installation* components are to be readily attached to and disconnected from the *Columns* without drilling or welding.
- (q) The preferred method of attachment of *Banner* attachment arm *Base Plates* to the *Columns* is via 2 tensionable PVC-coated, non-galvanised, Herc alloy type chains.
- (r) In order to protect the surface finish of the *Column*, any replacement chains and all newly manufactured *Decorative Installations* are to utilise chain that has a UV stabilised PVC coating.

Shared Asset Installations

9.36.6.4 Banner Installation Component Testing

- (a) Prior to attachment on Columns and before being submitted to Ergon Energy and Energex for acceptance consideration, all Banner Installation components and systems including Banners, brackets, attachment arms, chains, and Banner wind load release systems, are to be tested and certified by an RPEQ.
- (b) The procedure for load testing and certification will be repeated after any change in design of *Banner Installation* structural or operational components, including the *Banner Installation* attachment arms, wind load releasing links and *Banner* material (for example, the grade of vinyl used in *Banner* fabrication).
- (c) For each batch of wind load releasing links manufactured to the same specification, repeat the test procedure, document and retain a copy of results. Provide a copy of results to the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) upon request.
- (d) Wind load releasing links manufactured to a new specification require the submission of a new *RPEQ* certification to Ergon Energy and Energex for its acceptance / consideration.

9.36.6.5 Banner Installation Testing Procedure

- (a) The Banner, when laid horizontally and supported at each corner, is to be capable of supporting a point load of 80 kg weight at its centre without tearing. The test procedure consists of placing weights on a Banner, which has been arranged to hang horizontally, as detailed in the following steps:
 - i. Attach the two *Banner* attachment arms to a horizontal structure (for example, a section of wood *Pole*) and prevent them from rotating.
 - ii. Install the *Banner* material tautly between these two *Banner* attachment arms, with no more than 25 mm of sag at the *Banner's* centre (under its own weight).
 - iii. Apply a distributed load of 40 kg to the *Banner*. This should be in the form of a single 40 kg weight, placed centrally on the *Banner*. With this load applied, the *Banner* load release links are NOT to fail or release.
 - iv. Next apply a distributed load of 80 kg weight to the *Banner*. This should be in the form of two 40 kg weights. Set these symmetrically lengthwise along the longitudinal centre line of the *Banner*, either side of the lateral centre line. With this load applied, the *Banner* load release links are required to either break or deform to such an extent that it is clear that with some subsequent flapping, the *Banner* would be freed from the release link components. No part of the *Banner* load release link is to fall separately to the ground.
 - v. For systems utilising links of different strengths, for example, an outer *Banner* load release link designed to and which has released first, reapply the 80 kg load to the *Banner*, placing the weight centrally on the remaining 'triangle' of the *Banner*. This is required to cause the outer *Banner* load release link to break or release.
 - vi. After completion of step 5 above, replace the *Banner* load release links and repeat the above testing sequence up to the end of step 5 at least twice (conduct the test at least three times using different links) to ensure consistency of results with different *Banner* load release links of the same design and manufactured batch.

Shared Asset Installations

- (b) Ergon Energy and Energex may require that its nominated representative is present during the above test procedure.

9.36.6.6 Banner Installation Maintenance

The inspection of each *Banner Installation Site* is to occur every 2 weeks as a minimum, to look for evidence of *Banner* tears, fading, deterioration, wind-load release link failures and *Column* damage that requires immediate attention.

9.36.7 Decorative Installations

9.36.7.1 Decorative Installations – Specific Requirements

Only *Authority* requested *Decorative Installations* will be permitted to be installed on *Overhead Assets* as specified below.



Figure 3: Representative Examples - Authority Decorative Installations

9.36.7.2 Decorative Installations – Candidate Overhead Assets

- (a) *Decorative Installations* may be in the form of un-powered *Decorative Installations* installed on *Columns* and wood *Poles*.
- (b) *Solar Powered Shared Asset Installations* and *Network Powered Decorative Installations* including associated *ELV* equipment are generally not permitted on any *Overhead Assets*.
- (c) For a typical *Decorative Installation* on a *Column* arrangement, refer to the Appendix B drawing.

9.36.7.3 Decorative Installations – Engineering Design and Fabrication

- (a) Each *Decorative Installation* is to:
- Be designed, tested and certified (including structurally and electrically as required) by the relevant *RPEQ(s)*, including all framework components, *Column* and wood *Pole* attachment systems, *Base Plates*, *LV* and *ELV* apparatus, and solar powered related components (where permitted by Ergon Energy and Energex);

Shared Asset Installations

- ii. Be compatible with any existing Ergon Energy and Energex accepted *Decorative Installation* attachment system(s) and fittings used on each wood *Pole / Column*, including the spacing of existing *Base Plates* on wood *Poles*.
- (b) *Banner* arms will not generally be considered by Ergon Energy and Energex as an acceptable system for attaching *Decorative Installations*, unless *RPEQ* certified and tested for that purpose.
- (c) Where a *Decorative Installation* is proposed to be installed on *Banner* arms owned by any party / *Service Provider*, the *Decorative Installation* is to be:
 - i. Designed to attach to the *Banner* arms without modification to the *Banner* arms.
 - ii. Only using bolted clamping devices (acceptable to Ergon Energy and Energex) and not cable ties or ropes of any type; and
 - iii. The *Banner* arms are to be inspected, tested (as necessary) and *RPEQ* certified that they have the structural capacity to support the additional *Decorative Installation* weight / loads.
- (d) Cage – type installations fitted over, enclosing, built around, covering and / or supported by wood *Poles / Columns* are not permitted.
- (e) A *Decorative Installation* is not to exceed the physical structural limits within the following, unless otherwise approved in writing by the relevant *Ergon Energy and Energex Officer*, following the submission of a request through the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) on a case by case basis:
- (f) Device owner's name and contact details must be clearly displayed.
 - i. Decorative Installation maximum length – 1.5 metres.
 - ii. Decorative Installation maximum width – 1.0 metres.
 - iii. Decorative Installation maximum weight - 15 kg.

9.36.7.4 Decorative Installations – Base Plate Attachment on Pole

- (a) Ergon Energy and Energex may allow the permanent installation on wood *Poles* of one set of authorised *Base Plates* onto which removable components of permitted Shared Asset Installations may then be installed and removed as required on an Overhead Asset Site by Site basis, within agreed geographic areas.
- (b) Fix two *Base Plates* to a wood *Pole* at a maximum of 1 metre centres as a standard configuration to accommodate existing and future removable *Decorative Installation* framework designs of all *Service Providers*.
- (c) All fixing components for attaching *Base Plates* to the wood *Pole* are to be designed and certified to ensure adequate structural capacity and prevent any pulling out of the wood *Pole* under all structural load conditions, including wind.
- (d) As a minimum, attach each *Base Plate* mounting bracket to a wood *Pole* by 4 x M12 x 75 mm long galvanised or stainless steel coach screws.
- (e) Only one set of *Base Plates* will be permitted to be placed on any face of a wood *Pole*, for the attachment of any *Shared Asset Installation*. The aim is to prevent ongoing damage to the wood *Pole* surface and maintain the wood *Pole*'s structural integrity.

Shared Asset Installations

- (f) For any subsequent installation of *Shared Asset Installation* components onto a wood *Pole* upon which existing *Base Plates* are mounted; the new / replacement *Shared Asset Installation* framework is to be designed so that it is compatible with and fits onto the existing fixed *Base Plates* on the wood *Pole* to avoid ongoing *Base Plate* reattachments and associated redrilling and damage to wood *Poles*.
- (g) Each *Decorative Installation* is to have a compact non-metallic framework for mounting / supporting the display that is easily removed as a single installation from its wood *Pole* mounting *Base Plates* using common hand tools.

9.36.7.5 Decorative Installations – Base Plate Attachment on Column

- (a) For the attachment of *Base Plates* to a *Column*, only use a non-galvanised, Herc alloy chain in the manufacture of subassemblies requiring a chain.
- (b) In order to protect the surface finish of the *Column*, any replacement chains and all newly manufactured *Decorative Installations* are to utilise chain that has a UV stabilised PVC coating.

9.36.7.6 Powered Decorative Installation LV Supply Requirements

Where *Network Powered Decorative Installations* are permitted by Ergon Energy and Energex, they will only be installed on wood *Poles*, and not on any *Columns* and installed in accordance with the requirements of the *Network Powered Shared Asset Installation* clauses above.

9.36.8 Trifold Signage

Free Standing Trifold Signage – Specific Requirements

Only *Authority* authorised *Free Standing Trifold Signage* will be permitted to be installed at *Column* sites as specified below.

Free Standing Trifold Signage – Candidate Overhead Assets

Steel and concrete *Column Sites*

Free Standing Trifold Signage – General Requirements

- (a) Ergon Energy and Energex will only consider *Free Standing Trifold Signage* in exceptional circumstances and only for *Authority* use promoting community benefit activities in communal areas, for example, public space adjacent to city malls.
- (h) Acceptance by Ergon Energy and Energex and all other relevant *Authorities* is required prior to any installation.
- (h) *Free Standing Trifold Signage* is to promote non-commercial, community benefit initiatives only.
- (h) *Free Standing Trifold Signage* is to be fabricated from non-electrically conductive, non-flammable (where practical), self-supporting and weather resistant materials, for example corflute.
- (h) *Free Standing Trifold Signage* is to be secured by an easily removable method (e.g. zip ties through eyelets at one corner of adjoining edges) to allow Ergon Energy and Energex to gain access to the *Column* to undertake works (e.g. removing access cover to undertake luminaire isolation via the internal control panel, and inspection of the *Column* foundation).

Shared Asset Installations

- (h) The *Free Standing Trifold Signage* installation will be easily removed from the *Column Site* using general hand tools by an Ergon Energy and Energex field crew (i.e. the cutting of zip ties).
- (h) The *Free Standing Trifold Signage* is to stand on the ground surface when installed and not be structurally supported by the *Column*.
- (h) There is to be no climbing of the *Column* for installation of *Free Standing Trifold Signage*.

9.37 Free Standing Trifold Signage – Promotions

Each proposed Free Standing Trifold Signage design, colours and message / wording / content is to comply with Energy Queensland Policy 00478, and be forwarded by the Service Provider or Client directly to the Energy Queensland Corporate Communications Group, or other contact nominated by Ergon Energy and Energex, and to all other relevant Authorities (including the road controlling Authority) for their consideration.

Acceptance by Ergon Energy and Energex and all other relevant Authorities of the free standing Free Standing Trifold Signage promotional message / design is to be obtained by the Service Provider before Free Standing Trifold Signage for any promotion are included on the Service Provider's installation list provided to Ergon Energy and Energex or installed on any Columns.

9.38 Security Camera Installations – Specific Requirements

Only *Authority owned Security Camera Installations* will be permitted to be installed on *Overhead Assets* as specified below.

9.38.1 General

Security Camera Installations allowed on Overhead Assets are as follows:

- (a) Short term removable *Security Camera Installations* on *Columns* and wood *Poles*, and
- (b) Temporary climbable *Security Camera Installations* on *Columns* only.

9.38.2 Restrictions

Long term fixed attachment of *Security Camera Installations* on *Overhead Assets* will generally not be permitted except on a case by case basis where:

- (a) The installation is of a compact integrated design (including the solar panel where utilised) which is acceptable to Ergon Energy and Energex;
- (b) Does not require drilling of holes or any other structural changes to a *Column*; and
- (c) Does not require an electricity supply to be taken from the electricity distribution network.

9.38.3 Privacy

Security Camera Installations and associated use are to comply with *Laws* including those relating to privacy, surveillance and the collection, storage and disclosure of personal images and information.

Shared Asset Installations

9.39 Security Camera Installations – Temporary - Rapid Response – Specific Requirements



Figure 9: Representative Examples - Temporary - Rapid Response Security Camera Installation

9.39.1 General Requirements

- (a) Attachment of temporary, rapid response *Security Camera Installations* on *Overhead Assets* may be permitted on a case by case basis.
- (b) The installation is to be an integrated design (including the solar panel where utilised) which is acceptable to Ergon Energy and Energex.
- (c) Ergon Energy and Energex's requirement is that the temporary, rapid response *Security Camera Installation*:
 - i. Does not require drilling of holes or any other structural changes to a *Column*; and
 - ii. Does not require an electricity supply to be taken from the electricity distribution network or from an *External Party* source (installation is to be self-powered).

9.39.2 Candidate Overhead Assets

Temporary, rapid response *Security Camera Installations* may be attached to steel *Columns* only, if and as agreed by Ergon Energy and Energex.

9.39.3 Engineering Design

- (d) Ergon Energy and Energex will only accept the use of an integrated, proprietary system for the temporary, rapid response *Security Camera Installation*, specifically designed for external installation applications on *Overhead Assets* within the public domain which is easily removable by Ergon Energy and Energex using normal hand tools.

The use of individual adhoc components requiring multiple separate attachment points and installation methods to establish a complete temporary, rapid response *Security Camera Installation* on the *Overhead Asset* is not acceptable to Ergon Energy and Energex

Shared Asset Installations

9.39.4 Maximum Dimensions and Weight

- (e) Unless otherwise approved in writing by the relevant Ergon Energy and Energex Engineering Officer, following the submission of a request through the relevant Ergon Energy and Energex Officer (Ergon Energy and Energex Manager Facilities Access) on a Site by Site basis, no individual temporary, rapid response *Security Camera Installation* component, attached to the *Overhead Asset*, is to exceed the following dimensions and weights:
- i. Cantilever arm (where fitted) including the camera unit = 0.6 metres in length – (that is, total length of extension out from the *Overhead Asset* face).
 - ii. The integrated transceiver unit (including camera, antennae, power supply, battery [where required], and mounting bracket) = 450 mm length x 350 mm width x 350 mm depth (from the *Overhead Asset* interface).
 - iii. Solar panel (integrated with the transceiver unit) is not to exceed the area of the top of the transceiver unit in any plane.
 - iv. 15 kg maximum in static weight of the combined temporary, rapid response *Security Camera Installation* components, subject to a manual handling risk assessment by the *Operator*.
- (f) Telecommunications Architecture:
- i. Due to the development of wireless telecommunications capability, compact solar panels, and energy storage technology (for example compact and lightweight batteries) Ergon Energy and Energex's preference is for a low powered compact wireless / cellular multimedia streaming system / transceiver, with a small, integrated, vertically orientated, omni – directional antenna where on-board recording is not being employed. These will need to have adequate telecommunications capacity to wirelessly perform all functions, within the environment which they are to operate.
 - ii. Direct fibre optic cable interconnections will not be permitted for any temporary, rapid response *Security Camera Installation*.

9.39.5 Attachment of Security Camera Installations

Secure each temporary, rapid response *Security Camera Installation* to a *Column* by galvanised steel or stainless-steel bolted clamp assemblies accepted by the relevant *Ergon Energy and Energex Officer* (Manager Facilities Access) in writing.

9.39.6 No Drilling of Holes in Steel Columns

The drilling of holes in steel *Columns* for the attachment of temporary, rapid response *Security Camera Installation* will not be permitted due to:

- (g) The potential for structural weakening and corrosion;
- (h) Potential for physical contact with existing electrical cables; and
- (i) The availability of other options for power supply and telecommunications interconnections.

Shared Asset Installations

9.40 Security Camera Installations – Long Term Attachment – Specific Requirements



Figure 10: Representative Examples - Long Term Attachment Security Camera Installation

9.40.1 General Requirements

- (a) Long term attachment of larger *Security Camera Installations* on *Overhead Assets* may be permitted on a case by case basis.
- (b) Unless otherwise agreed by Ergon Energy and Energex on a case by case basis, the installation is to be an integrated design (including the solar panel where utilised) which is acceptable to Ergon Energy and Energex.
- (c) Ergon Energy and Energex's requirement is that the *Security Camera Installation*:
 - i. Does not require drilling of holes or any other structural changes to a *Column*; and
 - ii. Does not require an electricity supply to be taken from the electricity distribution network or from an *External Party* source (installation is to be self-powered).

9.40.2 Candidate Overhead Assets

- (d) Larger *Security Camera Installations* may be attached to wood *Poles* and steel *Columns*, if and as agreed by Ergon Energy and Energex.
- (e) For a typical *Security Camera Installation* on a wood *Pole* arrangement, refer to the Appendix C drawing.

9.40.3 Engineering Design

- (f) Ergon Energy and Energex will only accept the use of an integrated, proprietary system for the *Security Camera Installation*, specifically designed for external installation applications on *Overhead Assets* within the public domain which is easily removable by Ergon Energy and Energex using normal hand tools.
- (g) The use of individual adhoc components requiring multiple separate attachment points and installation methods to establish a complete *Security Camera Installation* on the *Overhead Asset* is not acceptable to Ergon Energy and Energex.

Shared Asset Installations

9.40.4 Maximum Dimensions and Weight

- (h) Unless otherwise approved in writing by the relevant Ergon Energy and Energex Engineering Officer, following the submission of a request through the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) on a *Site by Site* basis, no individual *Security Camera Installation* component, attached to the *Overhead Asset*, is to exceed the following dimensions and weights:
- Cantilever arm (where fitted) including the camera unit = 0.6 metres in length – (that is, total length of extension out from the *Overhead Asset* face).
 - The integrated transceiver unit (including camera, antennae, power supply, battery [where required], and mounting bracket) = 450 mm length x 350 mm width x 350 mm depth (from the *Overhead Asset* interface).
 - Solar panel (integrated with the transceiver unit) is not to exceed the area of the top of the transceiver unit in any plane.
 - 15 kg maximum in static weight of the combined *Security Camera Installation* components, subject to a manual handling risk assessment by the *Operator*.
- (i) Telecommunications Architecture:
- Due to the development of wireless telecommunications capability, compact solar panels, and energy storage technology (for example compact and lightweight batteries) Ergon Energy and Energex's preference is for a low powered compact wireless / cellular multimedia streaming system / transceiver, with a small, integrated, vertically orientated, omni – directional antenna. These will need to have adequate telecommunications capacity to wirelessly perform all functions, within the environment which they are to operate.
 - Therefore, direct fibre optic cable interconnections will generally not be permitted. Exceptions will only be considered on a case by case basis with the written permission of the relevant *Ergon Energy and Energex Officer* (Manager Facilities Access).
 - If telecommunications cabling is permitted by Ergon Energy and Energex to be installed, it is to be enclosed within an appropriate rigid corrugated *Conduit* within each *Column* or within appropriate rigid corrugated *Conduit* externally on a wood *Pole*, from ground level to the height of the *Security Camera Installation*. Rigid underground *Conduit* is to be used to protect incoming telecommunications cabling within the vicinity of the *Column* base.

9.40.5 Attachment of Security Camera Installations

Secure each larger *Security Camera Installation* to each wood *Pole* by at least 2 - M12 x 75 mm coach screws and to each *Column* by galvanised steel or stainless steel bolted clamp assemblies accepted by the relevant *Ergon Energy and Energex Officer* (Manager Facilities Access) in writing.

9.40.6 Drilling of Holes in Steel Columns

- (a) Generally the drilling of holes in steel *Columns* will not be permitted due to:
- The potential for structural weakening and corrosion;
 - Potential for physical contact with existing electrical cables; and

Shared Asset Installations

- iii. The availability of other options for power supply and telecommunications interconnections.
- (b) If drilling is permitted in writing by the *Ergon Energy and Energex Officer* (Manager Facilities Access), the following will apply:
 - i. The drilling of a single 25 mm diameter maximum hole, directly behind the camera installation for cable / *Conduit* access.
 - ii. The hole is to be drilled so as to prevent metal fragments falling inside the *Column*.
 - iii. Treat each hole with galvanising paint and insert a threaded spigot to ensure water proofing, so that there is no water ingress into the internal cavity of the *Column*.
- (c) Take care when drilling such holes to avoid contact with and damage to existing internal cables within the *Column*.

9.40.7 Separate Mounting Location Of The Camera

Mounting of an independent camera unit at a separate higher location on the wood *Pole* will require the written approval of the relevant *Ergon Energy and Energex Officer* (Manager Facilities Access) and will only be considered on a case by case basis.



Figure 11: Representative Example - Separate Mounting Location Of Camera

Shared Asset Installations

9.40.8 Security Camera Installations Not Acceptable To Ergon Energy and Energex

Security Camera Installations that incorporate:

- (a) Separate components attached individually around the *Pole* circumference.
- (b) Components that are larger than that nominated above, for example large solar panels (refer to below example).
- (c) Bolted clamps for mounting components to wood *Poles*.

are not to be installed on *Overhead Assets* under any circumstance.



Figure 12: Representative Example - Unacceptable Security Camera Installation

9.41 Traffic Management Displays

9.41.1 Traffic Management Displays – Specific Requirements



Figure 13: Representative Example - Traffic Management Display

- (a) Only *Authority* owned *Traffic Management Displays* will be permitted to be installed on agreed *Overhead Assets* excluding distribution wood *Poles* as specified below.
- (b) These *Traffic Management Displays* include:

Shared Asset Installations

- i. Portable speed warning / drive safely signs, which are typically rotated through particular local *Authority* areas to different *Sites* on a regular basis (approx. 8-10 weeks).
- ii. Variable speed limit signs.

9.41.2 Traffic Management Displays – Candidate Overhead Assets

- (c) Ergon Energy and Energex's preference is for stand-alone *Traffic Management Displays* to be installed on *Authority* owned structure and not on *Overhead Assets*.
- (d) Attachment of *Traffic Management Displays* on *Overhead Assets* will generally not be permitted.
- (e) If permission is granted by Ergon Energy and Energex, it will be on:
 - i. A case by case basis; and
 - ii. Only as a last resort dependent upon *Overhead Asset* structural capability and adequate clearances being achievable; and
 - iii. With written approval of the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) on a *Site* by *Site* basis; and
 - iv. Approved for installation by the relevant *Authorities* (e.g. Local Council, Police Department and Transport and Main Roads Department).
- (f) If accepted by Ergon Energy and Energex, these *Traffic Management Displays* are only to be a compact single unit design attached to *Columns* only.
- (g) *Traffic Management Displays* are not permitted on distribution wood *Poles* due to the potential for *Pole* surface damage and interference with existing electricity supply components (for example electricity cables transitioning from overhead to underground networks) and *External Party* infrastructure.

9.41.3 Traffic Management Displays – General Conditions

- (h) These *Traffic Management Displays* will have their own integrated electrical power supply and are not to be supplied from the electricity distribution network.
- (i) Solar powered *Traffic Management Displays* will be considered on a case by case basis and is dependent on the size weight and orientation of the solar panels.
- (j) The *Traffic Management Display's* illuminated speed feedback panel, including solar panel(s), control equipment, batteries and cabling are to be a single integrated unit, with:
 - i. The surface area of the illuminated *Traffic Management Displays* panel not exceeding 500mm x 500mm.
 - ii. The dimensions of the solar panel(s) will be contained within and integrated with the surface of the illuminated panel control box (a separate solar panel is not permitted).
 - iii. The static weight of the total *Traffic Management Displays* installation is not to exceed 20 kg.
 - iv. A permanent UV resistant sign providing details of ownership, identification and 24/7 contact details fixed to both the illuminated panel and the solar panel.

Shared Asset Installations

- v. Only one attachment point to the *Overhead Asset* unless agreed otherwise by the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) with Ergon Energy and Energex written permission, consisting of:
 - A permanent *RPEQ* certified and Ergon Energy and Energex accepted clamp arrangement for attachment to a *Column*.
- (k) Fixtures will enable fine tuning of the azimuth angle and tilt of the *Traffic Management Display* to best capture oncoming vehicles, without the need to adjust the mounting on the *Overhead Asset* surface interface.
- (l) *Traffic Management Display* is to be mounted in the following height zone above ground level of 2.5 metres minimum and 3.5 metres maximum.

9.42 Traffic Management Displays - Variable Speed Limit Sign - Fixed – Specific Requirements



Figure 14: Representative Example - Variable Speed Limit Sign

9.42.1 Variable Speed Limit Sign - Candidate Overhead Assets

- (a) Variable speed limit signs are not generally permitted.
- (b) These variable speed limit signs will generally be a *Network Powered Shared Asset Installation*.
- (c) If permitted as a last resort, variable speed limit signs are to be a compact single unit design attached to wood *Poles* only, using a separate intermediate wood *Pole* mounted *Base Plate* (to preserve the structural integrity of the wood *Pole* by eliminating the need for the redrilling of holes), with written approval of the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access) on a *Site by Site* basis, and approved for installation by the relevant *Authorities* (e.g. Local Council, Police Department).

Shared Asset Installations

9.43 Traffic Management Display Installations Not Acceptable To Ergon Energy and Energex

Traffic Management Display installations that incorporate:

- (a) Separate components attached individually around the *Pole* circumference.
- (b) Components that are larger than that nominated above, for example large solar panels (refer to below example).
- (c) Bolted clamps for mounting components to wood *Poles*.
- (d) Multiple separate signs as part of the installation.

are not to be installed on *Overhead Assets* under any circumstance.



Figure 15: Representative Examples – Unacceptable Traffic Management Display Installations

9.44 Traffic Signal Installations – Specific Requirements

Only *Authority* owned and operated traffic signal installations for vehicular traffic control, for example traffic lights are permitted to be installed.

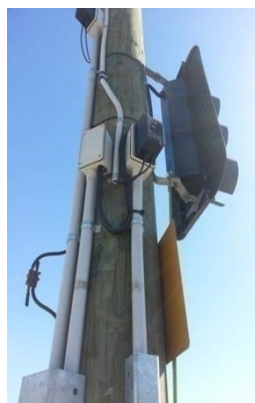


Figure 18: Representative Examples – Traffic Signal Installations

9.44.1 Traffic Signal Installations - Candidate Overhead Assets

- (a) Columns and concrete *Poles* are excluded from use for Traffic Signal Installation attachment.

Shared Asset Installations

- (b) Applications will only be accepted from the Department of Transport and Main Roads or Local *Authorities* (Councils) for wood *Pole* installations only, where it can be demonstrated that the installation of a dedicated supporting structure is either not possible or not practical at the desired location and with Ergon Energy and Energex written approval on a *Site by Site* basis.

9.44.2 Traffic Signal Installations - Exclusions

- (c) The following are not to be attached to any wood Poles:
- i. Pedestrian crossing signals equipment (including walk / do not walk indicator, pedestrian count down timer).
 - ii. Pedestrian crossing activation touch pads / push buttons and associated cabling and signage.
- (d) *Traffic Signal Installations* are not to be installed on wood *Poles* supporting any of the following:
- i. Ergon Energy and Energex air break switch and associated operating mechanisms.
 - ii. Existing *External Party* telecommunications carrier equipment (for example broadband network power supplies or wireless network transceiver units on the wood *Pole*) installed in the vicinity of the proposed *Traffic Signal Installation* location.
- (e) *Traffic Signal Installations* are not to be installed on wood *Poles* supporting underground cables of Ergon Energy and Energex or any other party, unless adequate clearances can be maintained to those cables.
- (f) Bandit strap attachment is not permitted.
- (g) Cantilever arms are not permitted.
- (h) No aerial cable installations (including catenary wire) are to be run to the wood *Pole* without specific Ergon Energy and Energex written *Authorisation* on a *Site by Site* basis.

9.44.3 Traffic Signal Installations - Installation Requirements

- (i) The placement of vehicular traffic light installations on a wood *Pole* are not to:
- i. Interfere with any existing Ergon Energy and Energex or *External Party* installations.
 - ii. Be attached over or obscure wood *Pole* numbering.
- (j) *Traffic Signal Installations* are to consist of traffic signal lantern assembly, multi core junction box, cables and *Conduits* only.
- (k) The maximum weight and dimensions of *Traffic Signal Installations* are to be:
- i. **Weight 15 kg.**
 - ii. Dimensions; 860 mm high x 300 mm wide x 300 mm deep.
- (l) The *Traffic Signal Installation* is to be installed on a wood *Pole* only as detailed below:
- i. With mounting heights and positioning to be in accordance with relevant *Authority* requirements, and within the range of 2.4 to 4.5 metres above ground level.
 - ii. As near as possible on the side of the wood *Pole* facing the roadway section to be controlled.

Shared Asset Installations

- iii. Maintain statutory clearances to energised conductors and plant.
- iv. Maintain at least 1 metre radial clearance to any telecommunications aerial network infrastructure including broadband cabling or equipment.
- (m) Two galvanised steel angle brackets, positioned at the top and bottom of the traffic lantern assembly are to be attached to the wood *Pole* each by drilling a single hole for the bracket in the wood *Pole* applying grease and installing a M12 x 100 mm long (minimum) galvanised coach screw into the wood *Pole*.

9.44.4 Traffic Signal Installations - Cable Installation

- (n) Signal cabling is to be installed from the nearest *Authority* underground traffic signal pit or footpath mounted control cabinet to a weather proof and UV resistant enclosure on the wood *Pole* via multi core signal cabling and protective UV resistant grey rigid *Conduit* of the minimum nominal diameter possible vertically up the wood *Pole* to the weather proof and UV resistant enclosure
- (o) A weather proof and UV resistant enclosure fixed by suitable galvanised or stainless steel screws is to be mounted at the end of the *Conduit* to house the connection of the cores of the incoming signal cable to the traffic signal lantern assembly.
- (p) From the weather proof and UV resistant enclosure to the traffic signal lantern assembly, all *Conduit* housing all interconnections between the multi core connection enclosure and the traffic signal lantern assembly is to be corrugated rigid grey UV resistant PVC *Conduit* (not flexible conduit that will easily collapse when compressed).
- (q) All *Conduit* on the wood *Pole* is to be fixed with 2 point attachment galvanised saddles secured by galvanised or stainless steel screws to the wood *Pole* (with no use of cable ties around wood *Pole*).
- (r) Where additional steel cable guards are required by the *Authority*, to mechanically protect either or both of the *Consumers Mains* and or signalling cabling near ground level, if the separate metal components are not separated by at least 150 mm, these are to be installed to a height of 2.4 meters above ground and equal potentially earthed to any other existing conductive metal components of any party exist at the wood *Pole Base*.
- (s) Provided that the Ergon Energy and Energex earthing downlead is insulated / covered and the *Traffic Signal Installation* steel cable guard is at least 150 mm away from the Ergon Energy and Energex earthing downlead the *Traffic Signal Installation* steel cable guard is not required to be earthed.

9.44.5 Traffic Signal Installations – Electricity Supply

Electrical supply to the separate remote traffic signal control enclosure installed on the footpath is to be undertaken in accordance with the established Ergon Energy and Energex unmetered supply application process and Ergon Energy and Energex requirements including Public Lighting Construction Manual, Section 4, Services-Unmetered Overhead Supply General Arrangement drawing, which includes the installation of a mains connection on the wood *Pole* by the *Service Provider*.

9.44.6 Traffic Signal Installations - Maintenance of Wood Pole

- (t) During the initial negotiations and planning for the initial attachment of *Traffic Signal Installation* on a wood *Pole* the protocols for removal or relocation due to wood *Pole* replacement or recovery are to be established.

Shared Asset Installations

- (u) Should any Ergon Energy and Energex works need to occur on the wood *Pole* which would physically interfere with, de-energise or obstruct line of sight to the *Traffic Signal Installation*, the Ergon Energy and Energex representative will contact the *Authority* responsible for the *Traffic Signal Installation*, so that the *Authority* may attend the *Site* and perform the required works.
- (v) The *Authority* is fully responsible for all traffic control throughout the works at their cost.

9.45 Unauthorised Attachments and Signage – Specific Requirements

9.45.1 General

- (a) Attachments and signage that are not authorised by Ergon Energy and Energex and the relevant *Authority(s)* are not permitted on any Ergon Energy and Energex assets.



Figure 19: Representative Examples – Unauthorised Attachments and Signage

- (b) In all cases Ergon Energy and Energex will be advised of such attachments and signage and their location, for removal by a party agreed by Ergon Energy and Energex on a case by case basis, depending on the height of the Unauthorised Attachments and Signage above ground level and the proximity to Overhead Assets attachments (e.g. exposed electrical parts and conductors, cable risers, handles for operating plant and External Party infrastructure).
- (c) Ergon Energy and Energex reserves the right to charge a fee to cover the cost of recovery of each unauthorised attachment and sign on Ergon Energy and Energex Overhead Assets.
- (d) Unauthorised Attachments and Signage types include:
 - (iii) Product or service / business advertising (e.g. roof restorations, property sales).
 - (iv) Political / election signage.
 - (v) Signage installed by the general public (e.g. garage sales, private no parking warnings).
 - (vi) Private lighting networks (e.g. festoon lighting, flood lighting for private property).
 - (vii) Private surveillance camera equipment.
 - (viii) Private telecommunications equipment.
 - (ix) Hardware to facilitate the playing of sport or recreational pursuits (e.g. basketball hoops).
 - (x) Garbage / waste receptacles.
 - (xi) Flags and bunting.

Shared Asset Installations

- (xii) Posters of any description.
- (xiii) Inflatable signs and displays.
- (xiv) Memorials that are highly decorative and consist of multiple artefacts (e.g. flowers, crosses, and signage) that could impede *Overhead Asset* inspection, access and authorised works.

9.45.2 Unauthorised Attachments and Signage Removal Protocols

The following should be followed upon advice of any *Unauthorised Attachments* and *Signage* placed on Ergon Energy and Energex *Overhead Assets*.

Advice email received from engage@energyq.com.au or other method (e.g. Local *Authority*).

- (j) *Unauthorised Attachments* and *Signage* to be reported to relevant Regional Area Manager and removed within the regular timeframes of operations.
- (k) Regional Area Manager to contact owner if known (candidate or political party) by phone and advise signage will be removed by Ergon Energy and Energex due to safety reasons (refer talking points below).
- (l) *Unauthorised Attachments* and *Signage* to be removed by crews and stored at the local hub or depot.
- (m) Ensure any damage to *Unauthorised Attachments* and *Signage* is minimised whilst removing.
- (n) Regional Area Manager to contact the *Unauthorised Attachments* and *Signage* owner and advise *Unauthorised Attachments* and *Signage* can be collected from the local area hub or depot during appropriate business hours (provide address and relevant hours of collection).

9.46 Completion of Work

Within 5 *Business Days* of installing each *Shared Asset Installation*, the *Service Provider* is to provide the Ergon Energy and Energex Manager Facilities Access with:

- (a) Other than for *Banner Installations*, *Decorative Installations*, *Public Lighting Installations* and *Authorised Signage*, high resolution photographs of the installation on any *Overhead Asset* / *Underground Asset* with front and side views at installation level and the overall installation from ground level.
- (b) *RPEQ* signed and certified "As Constructed Drawings" including all relevant test certificates when requested by the *Ergon Energy and Energex Officer*.
- (c) The as constructed routes and depths of all underground *Shared Asset Installation* cables / *Conduits* and run from / to any *Overhead Asset*.

Shared Asset Installations

10 RECORDS

- (a) For records requirements, refer to WCS133, Section 10 - Records.
- (b) For records requirements specific to this category of work refer to the below included references and clauses.
- (c) Maintain accurate records in reasonable detail of all training and testing undertaken in performing the Services and provide to Ergon Energy and Energex copies of all the records if and when required.
- (d) Ergon Energy and Energex may elect to record the types and locations of, and contact details for Shared Asset Installations installed on Overhead Assets and may require the Shared Asset Installation owner to provide this data in the Ergon Energy and Energex nominated format.

10.1 Overhead Asset Usage Records

- (a) Specifically for each *Overhead Asset Site* used, the relevant *Service Provider* is to maintain accurate records of:
 - (i) The *Overhead Asset* identification number and *Site* address at which the *Shared Asset Installation* is attached.
 - (ii) The type of *Shared Asset Installation* to be attached to the *Overhead Asset*.
 - (iii) The proposed period of *Shared Asset Installation* attachment on each *Overhead Asset*.
 - (iv) Identification of the *Client* (including the name / title of any approved *Banner* promotion).
 - (v) Identification of the owner of the *Shared Asset Installation*.
 - (vi) All relevant *Authority* approvals obtained.
 - (vii) All *Shared Asset Installation* and *Overhead Asset* inspections conducted.
 - (viii) Any operation of *Shared Asset Installation* electrical protective device and *Banner* wind load release systems.
 - (ix) The as constructed routes and depths of all underground *Shared Asset Installation* cables / *Conduits* and run from / to any *Overhead Asset*.
 - (x) Identification of any *Radio Frequency Radiation* produced by any *Shared Asset Installation*.
 - (xi) Dates and locations of *Shared Asset Installation* inspections and maintenance.
- (b) For any *Shared Asset Installation*, the *Service Provider* is to provide any of the above records to Ergon Energy and Energex upon request in an electronic format, for example Microsoft Excel.
- (c) For *Banner Installations* and *Decorative Installations* the *Service Provider* is to ensure that at least *Overhead Asset Site* usage records (i), (ii), (iii), (iv), and (v) above are maintained in an electronic format, for example Microsoft Excel, is updated and emailed monthly to the relevant *Ergon Energy and Energex Officer* (Ergon Energy and Energex Manager Facilities Access), Ergon Energy and Energex agency / contact, all relevant *Authorities* and upon request to other *Service Provider*.

Shared Asset Installations

- (d) *Overhead Asset* site usage records are used to register *Shared Asset Installation Sites* within Ergon Energy and Energex's databases and respond to any queries from within or external to Ergon Energy and Energex, including *Clients*, *Authorities* or other *Service Providers* concerning the status of any *Overhead Asset* used or proposed to be used for *Shared Asset Installation* attachment.

11 WORK VERIFICATION

- (e) *For work verification requirements, refer to WCS133, Section 11 – Work Verification.*
- (f) *For work verification requirements specific to this category of work refer to the below included references and clauses.*
- (g) *Ergon Energy and Energex reserves the right, and has no obligation, to audit any of the Service Provider's works and to require the Service Provider to rectify at the Service Provider's cost any non-conformance. Such Ergon Energy and Energex auditing does not remove the Service Provider's obligation to audit its own works to ensure compliance.*

12 GLOSSARY

- (a) *For standard definition of words, acronyms and abbreviations used in this WCS, refer to WCS133, Section 12 - Glossary.*
- (b) *For additional definitions of words, acronyms and abbreviations specific to this category of work, refer below.*

Term	Definition
Authorised Sign / Authorised Signage	Official <i>Authority</i> owned and Ergon Energy and Energex accepted traffic, public transport, parking management and directional signage.
Aviation Hazard Device	CASA mandated and Ergon Energy and Energex accepted aerodrome vicinity obstacle lighting and powerline markers.
Banner	Appropriately designed and graded flexible vinyl material displaying a <i>Client's</i> promotional message.
Banner Installation	The <i>Banner</i> , its wind load releasing system, <i>Banner</i> bracket arms, and the <i>Banner</i> to wood <i>Pole / Column</i> attachment systems (e.g. <i>Base Plate / chain</i>).
Base Plate	Permanently installed adaptor on an <i>Overhead Asset</i> that is appropriately designed for the attachment of a removable <i>Shared Asset Installation</i> component.
BBI	Broadband infrastructure.
CASA	The Civil Aviation Safety Authority, which is a competent public <i>Authority</i> for the purpose of these procedures and aviation regulations and orders.
Client	Any party acceptable to Ergon Energy and Energex to whom the <i>Service Provider</i> is providing <i>Shared Asset Installation</i> – related supply, installation, maintenance or recovery <i>Services</i> , and whom

Shared Asset Installations

Term	Definition
	may include Government, charitable organisations, community groups or Ergon Energy and Energex or the nominated responsible person in the case of <i>Memorials</i> .
Column	An eligible Ergon Energy and Energex owned public lighting column structure principally designed and installed to support public lighting.
Consumers Mains	Those conductors between the point of supply and the <i>Customers</i> electrical installation.
Decorative Installation	An <i>Authority</i> authorised, community benefit static framework installation.
External Party	Any party (e.g. <i>Authority</i> , company, organisation or individual) external to Ergon Energy and Energex.
Extra Low Voltage (ELV)	Voltages of 50 V or less AC RMS, or 120 V or less ripple-free DC.
Electrical Work	Means the: (a) connecting electricity supply wiring to electrical equipment or disconnecting electricity supply wiring from electrical equipment; or (b) manufacturing, constructing, installing, removing, adding, testing, replacing, repairing, altering or maintaining electrical equipment or an electrical installation; as defined in the Electrical Safety Act 2002 (as amended).
Low Voltage (LV)	Voltages greater than <i>ELV</i> but not more than 1000V AC RMS or 1500V ripple-free DC.
Memorial	An Ergon Energy and Energex and <i>Authority</i> authorised display in memory of persons, installed on or around an <i>Overhead Asset</i> , which does not obstruct <i>Overhead Asset</i> operations.
Network Powered	The relevant <i>Shared Asset Installation</i> supplied with <i>LV</i> electrical energy directly from the Ergon Energy and Energex electricity network infrastructure.
Overhead Asset	An Ergon Energy and Energex owned electricity distribution network <i>Column</i> or <i>Pole</i> .
Parking Management Transceiver Devices	An <i>Authority</i> owned and operated wireless device typically utilised to monitor public domain parking.
Pillar	An electricity supply pillar turret and base owned by Ergon Energy and Energex.
Pillar Art Work	Ergon Energy and Energex and <i>Authority</i> authorised community and cultural art fixed to a <i>Pillar</i> turret.
Pole	An Ergon Energy and Energex owned wood or concrete <i>Pole</i> structure which may support electricity distribution network

Shared Asset Installations

Term	Definition
	apparatus and conductors energised at up to and including <i>HV</i> , and Ergon Energy and Energex authorised <i>External Party</i> installations.
Pole Base	The area as measured from the standard digging depth (450 mm below ground level) to 2 metres above ground level.
Public Lighting Installation	Public lighting components, for example luminaire, outreach brackets, luminaire housing, and the associated electrical installation, installed on agreed Ergon Energy and Energex <i>Poles</i> which have been installed by the <i>Authority</i> or the ownership of which has been transferred to the <i>Authority</i> from Ergon Energy and Energex.
Registered Professional Engineer of Queensland (RPEQ)	Professional Engineer Queensland. (Electrical, Mechanical and/or Structural Division), relevant to undertake for the particular type(s) of engineering assessment and/or certification of <i>Shared Asset Installations</i> .
Radio Frequency Radiation / RFR	Radio frequency radiation emitted by a <i>Shared Assets Installation</i> or an <i>External Party</i> installation
Security Camera Installation	An <i>Authority</i> owned, community safety – based security / surveillance camera installation (for example a Council/Police Department).
Shared Asset Installation	An <i>RPEQ</i> – designed, tested and certified installation under WCS59 owned by a party external to Ergon Energy and Energex, manufactured to be safely attached to, maintained on and recovered from an Ergon Energy and Energex authorised <i>Overhead Asset</i> or <i>Underground Asset</i> .
Solar Powered Shared Asset Installation	A <i>Shared Asset Installation</i> permitted to be installed on <i>Poles</i> and <i>Columns</i> and which is designed to accommodate and operate as an electrically powered installation by direct sourcing its <i>ELV</i> electrical supply from immediately adjacent dedicated solar panel and battery storage source and may include components, for example solar panels, battery, battery charger, photo electric switches and <i>ELV</i> luminaires and cabling.
Speed Feedback Display	Ergon Energy and Energex authorised, <i>Authority</i> owned electronic speed display.
Traffic Access Mirror	Reflective device enabling safe vehicular entry onto and from public roadways.
Traffic Monitoring And Data Collection Device	Traffic monitoring and data collection device used by <i>Authorities</i> to measure vehicular traffic volumes.

Shared Asset Installations

Term	Definition
Traffic Signal Installation	<i>Authority</i> owned and operated <i>Network Powered Installation</i> for vehicular traffic control, for example traffic lights (but not <i>Authority Signage</i>).
Unauthorised Attachments	Attachments that Ergon Energy and Energex has not accepted.
Unauthorised Signs	Signage that Ergon Energy and Energex has not accepted.
Underground Asset	Ergon Energy and Energex owned underground electricity distribution network infrastructure (e.g. underground <i>Pillar</i>).
Wi-Fi	Means a facility allowing computers, smartphones, or other devices to connect to the internet or communicate with one another wirelessly within a particular area.

Shared Asset Installations

13 REFERENCES

- (a) For reference requirements, refer to WCS133, Section 13 - References.
- (b) For additional reference requirements specific to this category of work refer to the below included references and clauses.

13.1 Available Documents

For any *Services* being provided under this WCS59, the *Service Provider* is to make available (at all times) to infield *Operators*, all of the documents / forms listed in [Table 4](#).

Table 4: Available Documents

Document Reference	Detail / Description
Work Category Specification WCS5.1	Poles Inspect and Treat.
Work Category Specification WCS59	External Party Miscellaneous Installations on Electricity Network.
Work Category Specification WCS133	General Standards and Conditions.
Guideline for Inspection of Private Property Pole by an Electrical Contractor - 21778950 , Standard for Overhead Pole Lines - 2933369 , Standard for Overhead Tower Lines - 2933327 and Energen Pole Inspection Guidelines.	
Energy Queensland Manual	Energen Lines Defect Classification Manual 2026 Q1.
Document reference not applicable.	Documentation (with <i>RPEQ</i> certification) detailing the relevant procedures for the design, installation, maintenance and recovery of each type of <i>Shared Asset Installation</i> proposed to be installed by the <i>Service Provider / Operator</i> for each <i>Client</i> .
Document reference not applicable.	The <i>Service Provider's</i> safe system of work.
Policy 000478	Banners Advertising Policy

13.2 Recommended Documents

Refer below for the recommended documents that are of relevance for undertaking secondary activities associated with *Shared Asset Installation* sites.

13.2.1 Ergon Energy and Energen Documents

Table 5: Recommended Documents

Document Reference	Detail / Description
Work Category Specification WCS 6.2	Public Lighting Maintenance.
Work Category Specification WCS12.3	Overhead Low Voltage Service Lines.
Work Category Specification WCS 25	Overhead Mains Electrical Construction.
Work Category Specification WCS31	Commissioning and Operation.

Shared Asset Installations

Document Reference	Detail / Description
Work Category Specification WCS59A	Assessment – External Party Miscellaneous Installations on Electricity Network.
Work Category Specification WCS72	Third Party Telecommunications Cables.
Work Category Specification WCS72.1	Third Party Underground Telecommunications Cables.
Work Category Specification WCS73	Third Party Communications Installation On Overhead Assets
Energy Queensland Procedure 3058974	Energex Shared Network Asset Works Management.
Energy Queensland Manual 2912908	Energex Queensland Electricity Connection and Metering Manual.
Energy Queensland Manual 00302	Energex Overhead Design Manual – SouthEast.
Energy Queensland Policy 00478	Energex Banner Advertising Policy.
Energy Queensland Work Practice WP 2914128	Energex Low Voltage Connections
Energy Queensland Work Practice WP2915457	Energex Electricity Entity Requirements, Working Near Overhead and Underground Electric Lines.
Energy Queensland Form 2948462	Energex Electrical Work Request.
Energy Queensland Form 3068189	Energex Network Connection Application.
	Current plans detailing existing underground essential services infrastructure in the immediate area and surrounding the Worksite.

13.2.2 Queensland Acts Regulations and Codes of Practice

- (a) For Queensland Acts and Regulations, refer to WCS133, Section 13.2.2 – Queensland Acts and Regulations.
- (b) For additional Australian Standards and other documents specific to this category of work, refer below:
 - i. Workplace Health and Safety Queensland – Rural Plant Code of Practice 2024.
 - ii. Electrical Safety Code of Practice 2010 – Working Near Overhead and Underground Electric Lines.
 - iii. Workplace Health and Safety Queensland – Managing Risks of Plant in the Workplace - Code of Practice 2013.

13.2.3 Australian Standards and Other Documents

- (c) For Australian Standards and other documents, refer to WCS133, section 13.2.3 – Australian Standards and other documents.

Shared Asset Installations

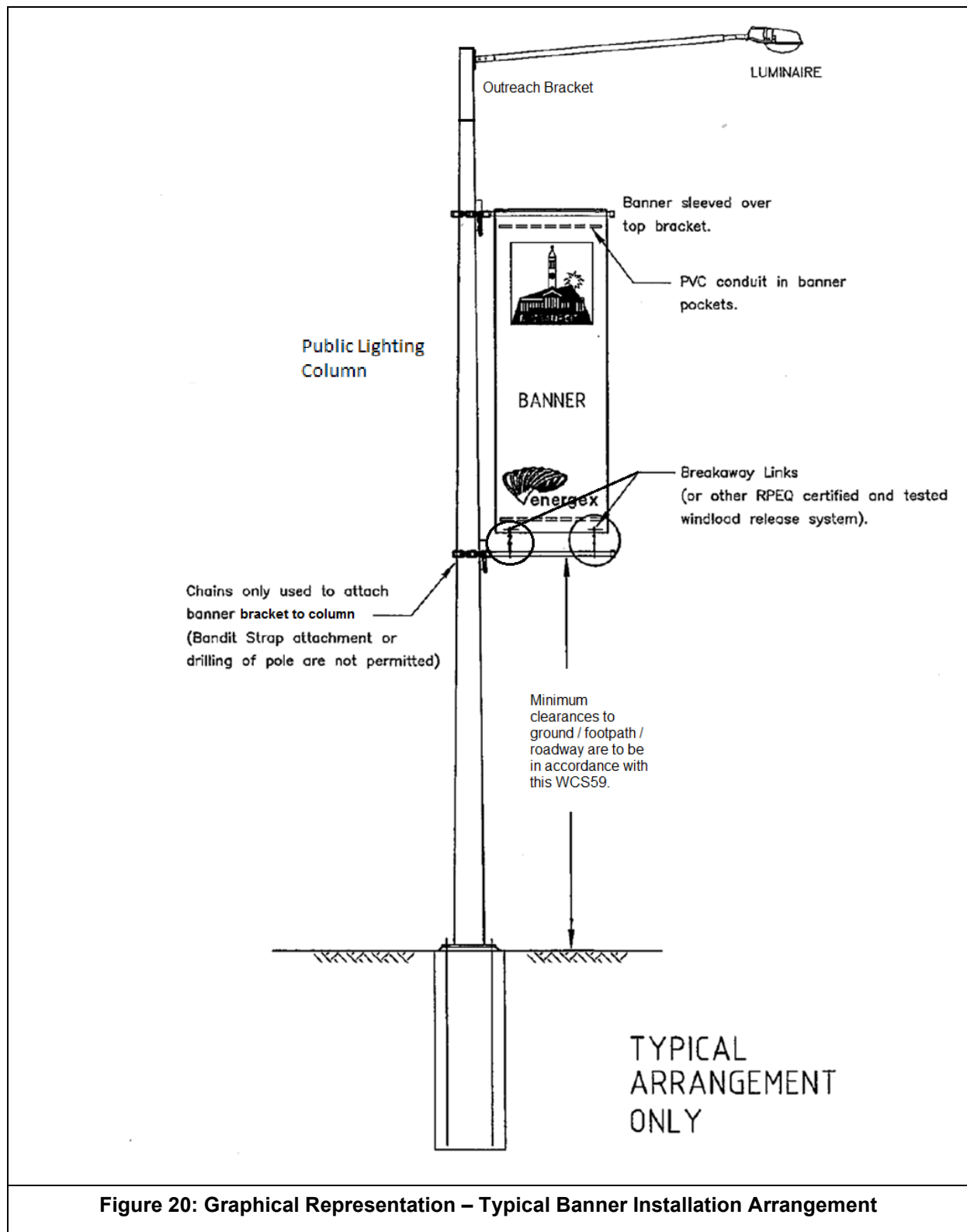
- (d) For additional Australian Standards and other documents specific to this category of work, refer below:
- i. Australian Standard AS/NZS 1158 Set: 2010 Lighting for roads and public spaces Set.
 - ii. Australian Standard AS/NZS 1170.2:2011 - Structural design actions - Wind actions.
 - iii. Australian Standard AS 1199.1:2003 - Sampling procedures for inspection by attributes - Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection.
 - iv. Australian Standard AS 1418.5:2013 - Cranes, hoists and winches-Elevated work platforms (EN 13000:2010, MOD).
 - v. AS/NZS 1418.10:2011 - Cranes, hoists and winches - Mobile elevating work platforms.
 - vi. AS 2550.10:2006 - Cranes, hoists and winches - Safe use - Mobile elevating work platforms.
 - vii. AS/NZS 3000:2007 - Electrical installations (known as the Australian/New Zealand Wiring Rules).
 - viii. AS/NZS 7000:2016 - Overhead line design - Detailed procedures.
 - ix. Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) Radiation Protection Standard for Maximum Exposure Levels to Radio Frequency Fields - 3 kHz to 300 GHz.
 - x. Civil Aviation Regulations (Cth) 1988.
 - xi. Department of Main Roads; Guide to the Management of Roadside Advertising.
 - xii. Local Government *Authority* advertising *Laws*.
 - xiii. Privacy Act 1988 (Cth).
 - xiv. The National Privacy Principles.
 - xv. The Privacy Amendment (Private Sector) Act 2000 (Cth).

14 APPENDICIES

- [Appendix A](#) A Typical *Banner* Installation Arrangement
- [Appendix B](#) Typical *Decorative Installation* Arrangement
- [Appendix C](#) Typical Arrangement – *Security Camera Installation* Mounting (Camera Mount)

Shared Asset Installations

14.1 Appendix A - A Typical Banner Installation Arrangement



Shared Asset Installations

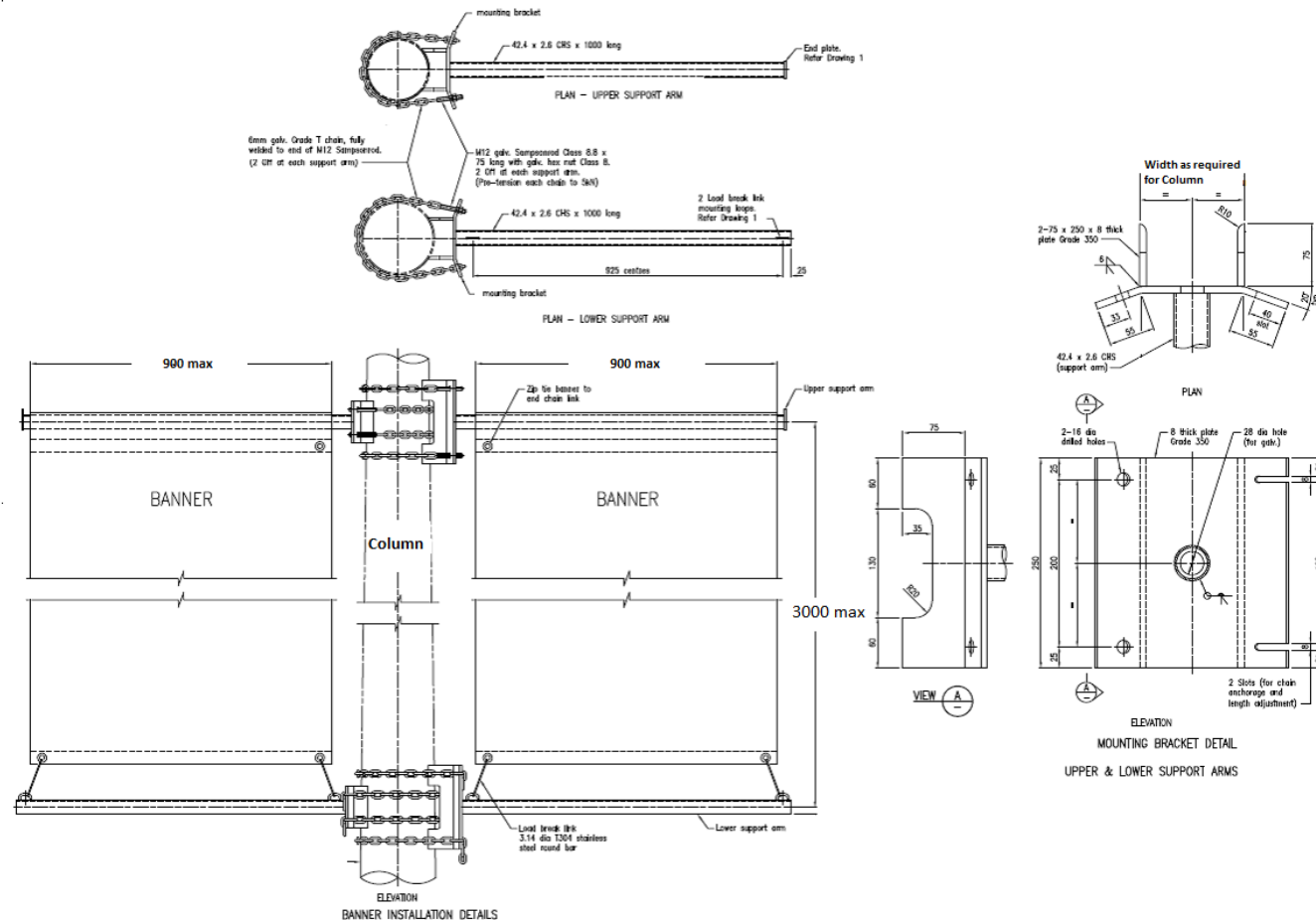
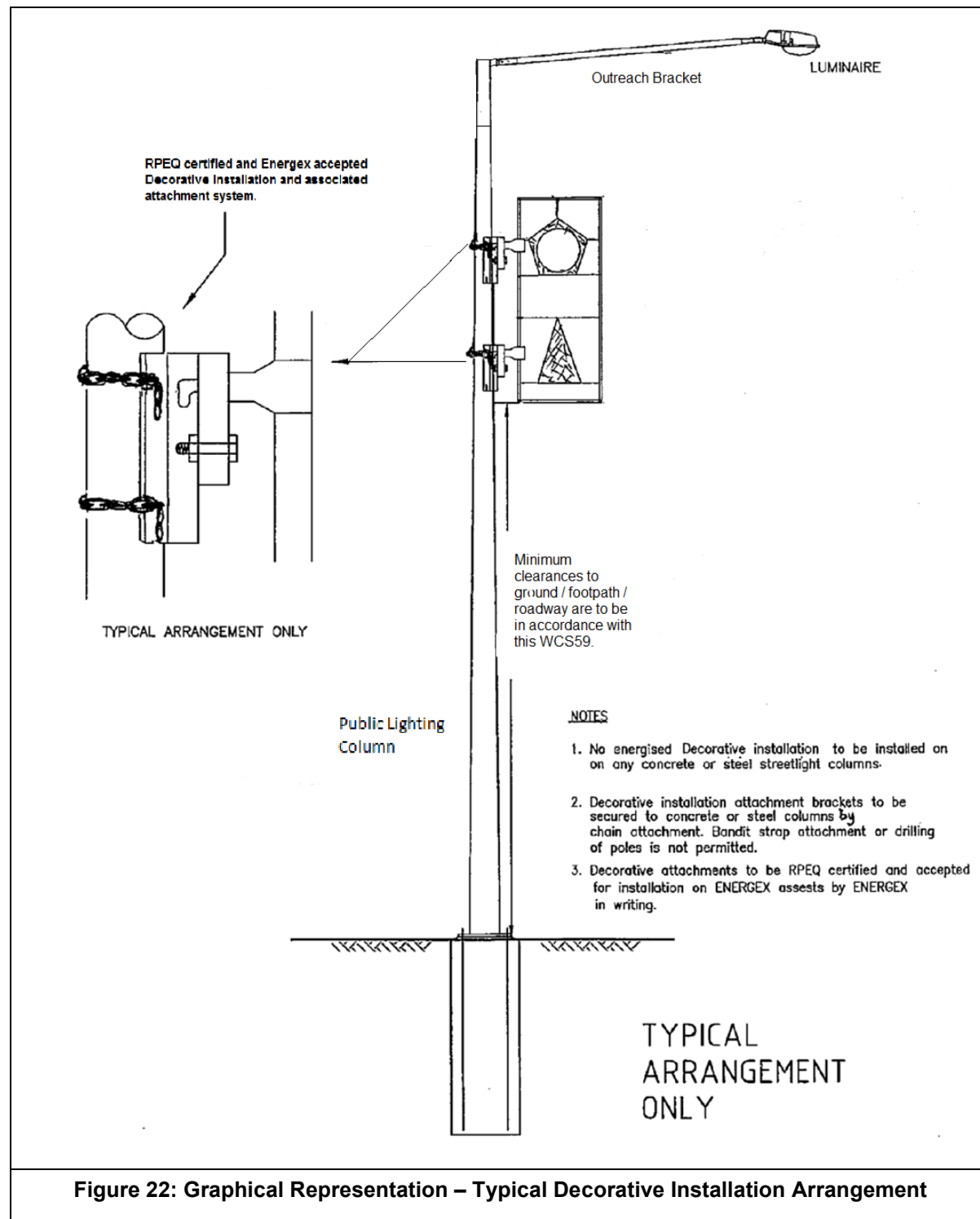


Figure 21: Graphical Representation – Typical Banner Installation Arrangement

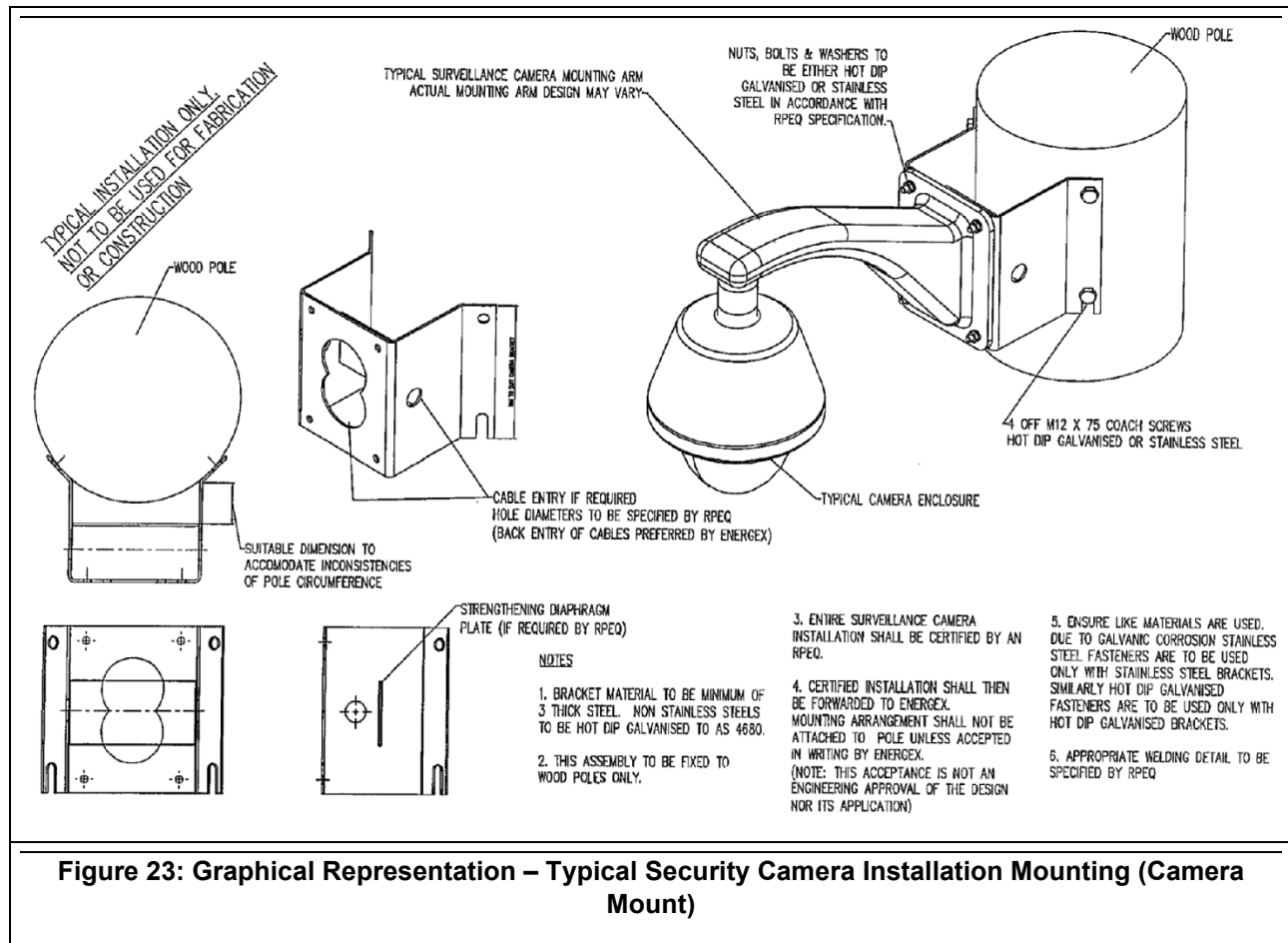
Shared Asset Installations

14.2 Appendix B - Typical Decorative Installation Arrangement



Shared Asset Installations

14.3 Appendix C - Typical Arrangement – Security Camera Installation Mounting (Camera Mount)



Shared Asset Installations

Contents

1	SCOPE	1
1.1	General.....	1
1.2	Application.....	1
1.3	Exclusions	1
2	AMENDMENT RECORD	1
3	AIMS / OBJECTIVES.....	2
4	COMPETENCIES, TRAINING AND QUALIFICATIONS.....	2
4.1	Telecommunications Licensing	2
4.2	EQL Competencies	2
4.3	Service Provider Accreditation Requirements	4
4.3.1	Registration as an Accredited Service Provider	4
4.4	Authorised Persons	5
4.5	Operator Requirements.....	5
5	VEHICLES AND PLANT	6
6	MATERIALS, TOOLS AND EQUIPMENT	6
6.1	Nominated Tools and Equipment.....	6
7	SAFETY	6
7.1	Working Near Overhead Conductors (Powerlines).....	8
8	ENVIRONMENT	8
8.1	Environmental Precautions	8
9	EXTENT OF WORK.....	8
9.1	General.....	8
9.2	Service Provider Responsibilities.....	10
9.3	Public Relations	10
9.4	Commercial Arrangements	10
9.5	General Requirements For Poles and Columns	11
9.5.1	Selection of Eligible Poles / Columns for an Accepted Shared Asset Installation Attachment.....	11
9.5.2	Assessment of Poles / Columns for Shared Asset Installation works	12
9.5.3	Accessing and working on Overhead Assets	13
9.5.4	Attachment of Shared Asset Installations- General.....	13
9.5.5	Steel Columns	15
9.5.6	Access to Columns	16
9.5.7	Concrete Poles / Columns	16
9.5.8	Alternative Installation For Steel Columns and Concrete Poles / Columns	17
9.5.9	Wood Poles.....	17
9.6	Electrical Exclusion Zones	18
9.7	Excavation and Working Around Ergon Energy and Energex Underground Assets	18

Shared Asset Installations

9.8	Site Conditions	18
9.9	Project Control.....	18
9.10	Radio Frequency Radiation Management	19
9.11	Ownership or Responsibility Identification Signage	19
9.12	Privacy.....	20
9.13	Other External Party Installations.....	20
9.14	Service Provider Authorisation and Subscriber Registration	21
9.14.1	Potential and Current Service Provider and Client - Subscriber Registration	21
9.15	Shared Asset Installation Engineering Design Certification and Fabrication - General	21
9.16	Engineering Design Submission Consideration / Acceptance Process.....	23
9.17	Site Telecommunications Interconnections	25
9.17.1	Radio Frequency Transceivers Sites.....	25
9.17.2	Underground Optical Fibre Cable Network.....	25
9.17.3	Overhead Optical Fibre Cable Network.....	25
9.18	Identification of Shared Asset Installation Ownership.....	26
9.19	Generic Clearances for Shared Asset Installations	26
9.20	Ergon Energy and Energex Electricity Network Switching	28
9.21	Solar Powered Shared Asset Installations on wood Poles and Columns.....	28
9.22	General Requirements for Network powered Shared Asset Installation.....	28
9.23	Extra Low Voltage (ELV) Circuits.....	30
9.23.1	Network Powered Decorative Installation ELV Supply	30
9.23.2	Network Powered Security Camera Installation ELV Circuits	30
9.24	No Final Sub-circuits to Remote Locations.....	30
9.25	Earthing Arrangements	30
9.26	LV Supply Application Process	31
9.27	LV Drop Down Supply at Poles.....	31
9.28	LV Supply at Columns.....	31
9.28.1	Supply Options	31
9.28.2	Supply Source Labelling At Columns	32
9.29	LV Supply Energisation.....	32
9.30	Maintenance Requirements for Shared Asset Installations	33
9.31	Powered Decorative Installation Maintenance Requirements	34
9.32	Authorised Signs – Specific Requirements.....	35
9.32.1	Authorised Signage Types.....	35
9.32.2	Authorised Signs - Candidate Overhead Assets	35
9.32.3	Installation of Authorised Signage	35
9.32.4	Partial Support of Signage.....	36
9.32.5	Authorised Signage – Protocols For Removal Or Relocation	36
9.33	Aviation Hazard Devices – Specific Requirements.....	37

Shared Asset Installations

9.33.1	Hazard Lighting.....	37
9.33.2	Hazard Markers	37
9.34	Memorials.....	37
9.35	Devices.....	37
9.35.1	Devices – General Conditions	37
9.35.2	Maximum Dimensions and Weight	38
9.36	Promotional Installations	38
9.36.1	Promotional Installations General.....	38
9.36.2	Coordinated Use by Service Providers of Poles and Columns	39
9.36.3	Aesthetics	41
9.36.4	Shared Usage Of Attachment Fittings	41
9.36.5	Attachment General	42
9.36.6	Banner Installations	42
9.36.7	Decorative Installations.....	45
9.36.8	Trifold Signage.....	47
9.37	Free Standing Trifold Signage – Promotions	48
9.38	Security Camera Installations – Specific Requirements	48
9.38.1	General	48
9.38.2	Restrictions	48
9.38.3	Privacy	48
9.39	Security Camera Installations – Temporary - Rapid Response – Specific Requirements.....	49
9.39.1	General Requirements.....	49
9.39.2	Candidate Overhead Assets.....	49
9.39.3	Engineering Design	49
9.39.4	Maximum Dimensions and Weight	50
9.39.5	Attachment of Security Camera Installations.....	50
9.39.6	No Drilling of Holes in Steel Columns.....	50
9.40	Security Camera Installations – Long Term Attachment – Specific Requirements	51
9.40.1	General Requirements.....	51
9.40.2	Candidate Overhead Assets.....	51
9.40.3	Engineering Design	51
9.40.4	Maximum Dimensions and Weight	52
9.40.5	Attachment of Security Camera Installations.....	52
9.40.6	Drilling of Holes in Steel Columns	52
9.40.7	Separate Mounting Location Of The Camera.....	53
9.40.8	Security Camera Installations Not Acceptable To Ergon Energy and Energex	54
9.41	Traffic Management Displays.....	54
9.41.1	Traffic Management Displays – Specific Requirements	54
9.41.2	Traffic Management Displays – Candidate Overhead Assets.....	55

Shared Asset Installations

9.41.3	Traffic Management Displays – General Conditions	55
9.42	Traffic Management Displays - Variable Speed Limit Sign - Fixed – Specific Requirements	56
9.42.1	Variable Speed Limit Sign - Candidate Overhead Assets.....	56
9.43	Traffic Management Display Installations Not Acceptable To Ergon Energy and Energex.....	57
9.44	Traffic Signal Installations – Specific Requirements	57
9.44.1	Traffic Signal Installations - Candidate Overhead Assets	57
9.44.2	Traffic Signal Installations - Exclusions	58
9.44.3	Traffic Signal Installations - Installation Requirements.....	58
9.44.4	Traffic Signal Installations - Cable Installation.....	59
9.44.5	Traffic Signal Installations – Electricity Supply	59
9.44.6	Traffic Signal Installations - Maintenance of Wood Pole	59
9.45	Unauthorised Attachments and Signage – Specific Requirements	60
9.45.1	General	60
9.45.2	Unauthorised Attachments and Signage Removal Protocols.....	61
9.46	Completion of Work.....	61
10	RECORDS.....	62
10.1	Overhead Asset Usage Records.....	62
11	WORK VERIFICATION.....	63
12	GLOSSARY	63
13	REFERENCES	67
13.1	Available Documents	67
13.2	Recommended Documents.....	67
13.2.1	Ergon Energy and Energex Documents	67
13.2.2	Queensland Acts Regulations and Codes of Practice.....	68
13.2.3	Australian Standards and Other Documents	68
14	APPENDICIES	69
14.1	Appendix A - A Typical Banner Installation Arrangement.....	70
14.2	Appendix B - Typical Decorative Installation Arrangement.....	72
14.3	Appendix C - Typical Arrangement – Security Camera Installation Mounting (Camera Mount)	73