Part of Energy Queensland

Energex / Ergon Energy Network

Authorised High Load Scope Fact Sheet

SCOPING SERVICE PROVIDERS FOR HIGH LOAD TRANSPORTING UNDER ENERGEX AND ERGON ENERGY NETWORK ASSETS (AUTHORISED HIGH LOAD SCOPE)

Legislative Requirements

The *Electrical Safety Regulation 2013* ("the Regulation") prescribes exclusion zones and specific requirements for the performance of work in contact with, or near to, electrical parts.

Reference is made to the Electrical Safety Code of Practice 2020 - Working near overhead and underground electric lines, in particular, section 8 "Transportation of High Loads near Electric Lines".

All Energex and Ergon Energy Network approved "Authorised High Load Scoping Service Providers" persons must first ensure that they have read and are familiar with the Electrical Safety Code of Practice 2020 - Working near overhead and underground electric lines, *Electrical Safety Act 2002 and Electrical Safety Regulation 2013*.

This approval is only applicable to Energex and Ergon Energy Network's assets and is not transferrable to assets belonging to other electricity entities.

Energex and Ergon Energy Network's Specific Requirements

- Every individual employed by the Authorised High Load Scoping Service Provider that is involved in the scoping for high loads under Energex and Ergon Energy Network assets must be able to recognise communication cables, Low Voltage, and High Voltage conductors, including ways of ascertaining the voltages present and the relevant exclusion zones that must be maintained. (Each individual involved in the scoping for high loads must obtain an "Authorised High Load Scope" status in accordance with Schedule 2 of the *Electrical Safety Regulation 2013*)
- The Authorised Scoping Service Provider is to advise the Energex / Ergon Energy Network High Loads team of any conductors that are planned to be lifted. The Service Provider is to advise the location, site labels and type of conductors that are planned to be lifted.

Authorised High Load Escort and Lift Approval Requirements

To become an Authorised High Load Scope Service Provider, the applicant must first satisfy the "person in control" of the electrical part, in this case Energex and Ergon Energy Network, that they possess the necessary competencies to undertake the tasks involved.

The employer/self-employed person must satisfy Energex and Ergon Energy Network that they possess the necessary competencies to undertake the tasks involved and these skills shall be maintained while they remain an Authorised High Load Scoping Service Provider.

The employer/self-employed person must seek written Energex and Ergon Energy Network approval for each, and every person involved in the scoping for high load transportation under its assets i.e.: power lines.

Upon the successful review of the submitted information, an observation will be planned to determine the suitability of the applicant to perform the required tasks.

All authorisations are to be reviewed yearly. The Authorised Service Provider is to provide their Safe System of Work, evidence of compliance and names of personnel for Ergon Energy Network / Energex to conduct an assessment and if satisfied, provide reauthorisation.

Requirement 1 - Scoping

Ensure that all persons involved in the scoping for high load transportation under Energex and Ergon Energy Network assets possess an appropriate level of technical knowledge and experience to do the work, including the operation of plant or vehicle and demonstrated competencies in:

- identifying communication cables, Low Voltage, and High Voltage cables (including ways of ascertaining the voltages present).
- demonstrating familiarity with the exclusion zones and requirements for the different categories of lines, conductors, plant, and equipment.
- demonstrated familiarity with the measuring of Low Voltage and High Voltage conductors and the plant and equipment used in the process.
- applying emergency procedures in the event of an incident.
- all personnel involved in the scoping for high load transportation are listed in the application and have obtained Energex and Ergon Energy Network "Authorised High Load Scope Person" status in accordance with Schedule 2 of the *Electrical Safety Regulation 2013*.
- Ensure that all applicants meet the above requirements and newly employed persons not included on the initial application obtain the necessary approval from Energex and Ergon Energy Network in the manner prescribed. Adequate systems to monitor ongoing competency and identification of persons authorised to scope for high load transportation must also be in place.

Requirement 2

The employer/self-employed person (Service Provider) must submit a written application, which includes a statement that the above requirements have been satisfied in relation to all persons for which approval is sought.

Other detail necessary includes:

- Name of Employer/Self Employed Person.
- Name of Company (if applicable).
- Name/names of nominees.
- Nature of work (i.e., scoping for high load transports under Energex and Ergon Energy Network power lines).
- Certification that the Employer/Self Employed Person has in place a Safe System of Work, including procedures to be followed for damage to Entity equipment or fallen overhead conductors.
- Certification that each individual seeking authorisation has the qualifications, training, and experience to comply with the aforementioned safe systems of work.
- Energex / Ergon Energy Network accredited "Authorised Person" as defined in Schedule 2 of the Electrical Safety Regulation 2013.
- Competency in performing scoping assessments from an Energex / Ergon Energy Network approved "Registered Training Organisation."
- Current Queensland Traffic Awareness Training.
- General Safety Induction (Construction Industry) Licence.
- Provide evidence of required insurance policies:
    - Public / Products Liability at $20mil.

- Professional Indemnity at $10mil.
- Motor Vehicle coverage (comprehensive) $25 mil - $35 mil depending on Underwriter supplying coverage.
- CTP Insurance as per statutory requirements.
- Workers Compensation as required.

- Safe System of Work documentation of Service Provider to be submitted so Energex / Ergon Energy Network can assess and confirm suitability.
  - The Safe System of Work is to be reviewed regularly, and any material changes are to be communicated to Energex / Ergon Energy Network.

Performance of scoping activities

Physical scoping of the proposed route that a high load is planned to travel is to be conducted within 28 days of the start of travel.

Due to the risk of changes in network conditions because of storm activity, the proposed route may require scoping again if there is a significant weather event through the area the high load is planned to travel. The Road Transport Operator will be responsible for this.

- A significant weather event could be multiple instances of conductors being grounded from storm activity.

The responsibility of an Authorised Scoping Service Provider is to supply accurate information about the network through which the high load is to be transported. This information is critical to enable the safe transport of the load.

Energex / Ergon Energy Network are to investigate reports of conductors below statutory height and prioritise accordingly.

Energex / Ergon Energy Network is to be provided with the following information as part of scoping:

- Specific location of crossings along proposed route.
- Height of conductors / crossings as measured.
  - Minimum of lowest height for each crossing is required.
    - Actual height of crossing is required where the height is measured as being lower than the height of the load, plus the relevant exclusion zone, plus one metre. E.g. 4.9m load, 600mm exclusion zone to LV, plus 1.0m, crossing >6.5m.
  - Record where measured: left, centre/middle, right.
  - If exclusion zone from high load to lowest height of conductor / crossing may be breached, record other heights of crossing.
- Energex / Ergon Energy Network will decide if assets identified during scoping activities may require augmentation works to increase the exclusion zone from the load.
  - Consideration shall include the height, type and location of the asset, and the frequency of high loads.
- Any asset which cannot be lifted will require lowering to the ground on the day of transport. If HV circuits are to be lowered, or to be lifted clear of loads, authorised switching will be required to de-energise the HV circuits.
- Type / Voltage of crossings. (Includes communication cables, NBN / Optus, etc)
- Time and date of measurement.
- Load details.

- Any relevant control measures (lower load 200mm, move load to left / right, conductor to be raised, travel on opposite side of road, etc).

This scoping information will be retained by Energex / Ergon Energy Network for the purposes of analysing historical entity asset information. This scoping information may also be used in future high load applications received from the same Road Transport Operator for the same route which is to be travelled within 28 days from the date the scoping information was originally recorded by the Authorised Scoping Service Provider.

A Vehicle mounted height stick is not under any circumstances to be used for scoping activities.

Energex / Ergon Energy Network preference is to use High Load Scope Record - 3069182.

TRANSPORTER:	We Move Houses		**DATE OF MOVEMENT:**	**24/10/2024**	
TRIP DETAILS:	Start Location:	Start of route	Destination:	End of route	
	Route:	Travelling via all these roads / streets / highways from start to end			
LOAD DESCRIPTION: (e.g. Hours, Excavator)	House	**LOAD DIMEN**	Height: 5.2	Width: 7.0	Length: 30.0

NOTE: The height measurements identified below may change depending on time of day and temperature at the time the readings were taken.

The scoping service provider's or network assessor's responsibility in relation to the transport of high loads is to provide accurate information about the network through which the high load is to be transported. A minimum of the lowest point of all crossings are to be measured.
Actual height of crossing is required where the height is measured as being lower than the height of the load, plus the relevant exclusion zone, plus one metre.
E.g. 4.9m load, 600mm exclusion zone to LV, plus 1.0m, crossing >6.5m.
Heights of overhead network crossings are to be measured at the outside edges of the carriageway and the centre of the carriageways if the Exclusion Zone could be breached at any location of the crossing.
If more than single lane with traffic island / drain / barriers in the centre, capture heights at the edges and the centre of the carriageway to be travelled. The centre of the traffic island / drain isn't required.

SCOPING TOOLS:	(i.e. Telescopic Height Stick, Electronic Scanner)	Height stick
Scoping Officer/s: Please Print	Energy Qld	
Scope Date: 16/10/2024	**Expiry Date:** (28 days from scope date)	14/11/2024

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EXCLUSION ZONES:	Load with an Authorised person (or escorted):	EGL Comms, stays - 100mm, LV - 600mm, 11kV to 33kV - 700mm, 66kV to 110kV - 1.0m, 132kV - 1.2m, up to 275kV - 2.3m
	Unescorted Load (Unauthorised/untrained person):	EGL Comms, stays - 100mm, LV - 600mm, 11kV to 33kV - 900mm, 66kV to 132kV - 2.1m, up to 275kV - 2.3m

Item No.	Address / Reference Point (Including Cross Street where applicable)	KLM From	Temp	Mains Type/Supply e.g. Service, LV Bare, LVABC, HV Bare, HV Covered	Site Label/Pole Number (At least one)		Height of Mains Measured in same direction of travel			Actions Required e.g. Lift, Lower, Caution, De-energise, refer to site specific risk assessment
					LEFT	RIGHT	LEFT (m)	CENTRE (m)	RIGHT (m)	
1	Start of route	1.1	31	LV Service	5085433	House	5.5	5.5	4.95	Service to be lifted by escort during travel. Ok to be lifted.
2	Street number and name	1.3	31	LV Open Mains	5131235	5131236		6		Ok
3	Street number and name	1.8	31	LV Service	5146927	5146929	5.6	5.7	6.2	Drop to 5.0, move to right side of road.
4	Street number and name	2.1	31	LV Service	5130903	5130904	5.7	5.6	6.1	Drop to 5.0, move to right side of road.
5	Street number and name	2.2	31	LV Service	5169502	Building	6.2	6	5.6	Drop to 5.0, keep to left side of road.
6	Street number and name	3	31	11kV	5169508	5169507		6.8		Ok
7	Street number and name	3.6	31	LV Service	5015089	5015216	5.8			Ok
8	Street number and name	3.8	31	LV Service	5051506	5051504	5.9	5.4	5.8	XLPE Service to be retensioned before travel date
9	Street number and name	5.1	31	LV Service	5051513	6061180	5.7	5.7	6.2	Drop to 5.0, move to right side of road.
10	Street number and name	6.3	31	66kV	6171723	6171724		>8.3		Ok
11	Street number and name	6.5	31	LV Service	5054423	House			5.9	Ok
12	Street number and name	7.1	31	LV Open Mains	5054430	5054431	5.6	5.5	5.6	LV open mains to be de-energised during travel to reduce exclusion zone or external provider to lift. Ok to be lifted.
13	Street number and name	7.9	31	11kV	5262556	5262557		>7.2		Ok
14	Street number and name	8.1	31	LV Service	5054424	House	6.5	5.7	5.4	Drop to 5.0, keep to left side of road.
15	Street number and name	8.5	31	LV Open Mains	5054429	5054430	>6.9			Ok
16	End of route	9.4		LV Service	House	5055940	5.6	6.3	6.8	Drop to 5.0, move to right side of road.

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Requirements	Detailed Requirements
Authorisation required for a scope to be undertaken	Scope of the route must be completed by an Authorised Scoping Service Provider and made available to the High Load Escort (if required) and the Road Transport Operator.
Authorisation required for high load scoping activities	The Scoping Service Provider for high loads must be an Authorised Person and must be authorised for the conduct of scoping activities on the Ergon Energy Network / Energex network.
Competency in performing scoping	The Scoping Service Provider is to have successfully completed a scoping assessment course (or refresher training) from an Energex / Ergon Energy Network approved Registered Training Organisation within the last five years. This is to be renewed five yearly.
General Safety Induction	The Scoping Service Provider is to have a General Safety Induction (Construction Industry) Licence.
Working on Roadways	Traffic awareness: Working in proximity to traffic Parts 1 and 2, TMR online awareness course, or equivalent.
Exclusion Zone requirements as per the *Electrical Safety Regulation 2013*	Vehicle operated by an Authorised Person or Instructed Person: Low Voltage: 600mm HV 11, 22, 33 kV: 700mm HV 66kV: 1000mm
Insulation rating and testing requirements for the insulated height stick, (if applicable)	Where the insulated height stick enters within the exclusion zone of a conductor, all parts of the device that come within the exclusion zone must be rated and tested for the nominal voltage of the conductor. The height stick must only operate in the environment (dry/wet) in which the height stick is rated and tested for. The safe system of work must ensure appropriate testing and maintenance of the equipment as per Australian Standards.
Non-electrical personnel	The preferred method for a non-electrical scoping provider is a laser / ultrasonic device.
Use of laser / ultrasonic device	Laser / ultrasonic device to be used if voltage is greater than 33kv or where the use of a height stick may introduce additional hazards. The laser device is to be in good condition/functional.
Accurate information is required in an appropriate format	Physically checking the intended route is required to provide the location, type, and height of conductor / crossing in an appropriate format. Any relevant information for the management of the high load during travel is to be documented and provided to the RTO and High Load Escort Service Provider, if required. Third party communications cables are attached to Energex / Ergon Energy Network Assets and so are required to be recorded with control measures to not contact.
Breach Exclusion Zones	Scoping provider to identify locations where high load may breach exclusion zones to Entity Assets and identify control measures to mitigate.

Information on training to scope for high load transportation can be found here:

Esitrain - M225 Scope a High Load Transport Route

Information on training to become an Authorised Person can be found here:

https://www.esitrain.com.au/courses/face-to-face/introduction-to-electrical-network-infrastructure-for-authorised-persons

Information to apply to become an Authorised Person, after the completion of training can be found here:

https://www.energex.com.au/contractors/electrical-contractors/authorised-person

https://www.ergon.com.au/network/contractors/electrical-contractors/authorised-person

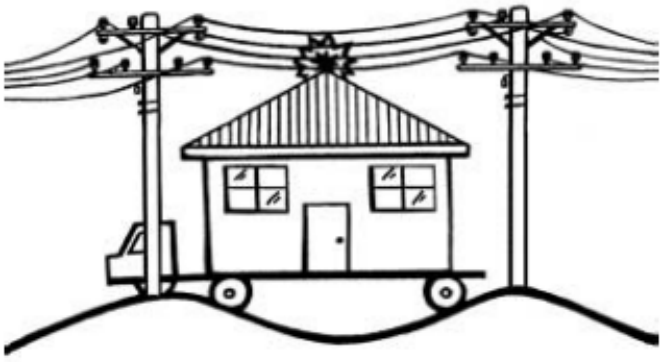
Further information can be found in the Electrical safety code of practice 2020 - Working near overhead and underground electric lines

To help plan to work safely near above ground electricity, use the look up and live map, Look up and live - BYDA it provides an interactive map to identify the powerlines and their voltages. Look up and Live is a planning tool that can help to understand exclusion zones and provide the pole numbers, and voltages when planning routes for transporting.

Energex and Ergon Energy Network, as the person in control of the assets, will issue written approval for the applicant(s) nominated. Following receipt of the written notification from Energex and Ergon Energy Network, those persons nominated would then be considered as an “Authorised High Load Scoping Person”, enabling them to work according to exclusion zones prescribed for “Authorised High Load Scoping Person” under the Regulations.

Applications for approval as an “Authorised High Load Scoping Service Provider” should be directed to: highloads@energyq.com.au

Proposed travel routes need to have consideration to the road profile and where the vehicle is to travel along (Figure 1). Allowances should be made for changes in the road profile e.g. dips and the distance between front and rear wheel axles as per Part 8 "Transportation of High Loads Near Electric Lines" of Electrical Safety Code of Practice 2020 Working Near Exposed Live Parts



(Figure 1): Illustration on how a dip in the road profile can affect the clearance height of over dimension loads