



Part of Energy Queensland

Energex / Ergon Energy Network

Authorised High Load Escort Fact Sheet

ESCORTING SERVICE PROVIDERS FOR HIGH LOAD TRANSPORTATION UNDER ENERGEX AND ERGON ENERGY NETWORK ASSETS (AUTHORISED HIGH LOAD ESCORT AND/OR LIFT)

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”.

The Energex and Ergon Energy Network approved “Authorised High Load Escort and Lift Service Provider” is permitted to raise and lower Low Voltage conductors in accordance with recognised industry safe work practices and Energex and Ergon Energy Network’s specific requirements.

All Energex and Ergon Energy Network approved “Authorised High Load Escort and/or Lift 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 entities.

Energex and Ergon Energy Network’s Specific Requirements

- Every individual employed by the Authorised High Load Escort and/or Lift Service Provider that is involved in the escorting and/or raising and lowering of conductors 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 be aware of the relevant exclusion zones that must be maintained. (Each individual involved in the escorting and/or raising and lowering of conductors for high loads must obtain an “Authorised High Load Escort and/or Lift Person” status in accordance with Schedule 2 of the Electrical Safety Regulation 2013)
- An Authorised High Load Escort and Lift Service Provider is only permitted to lift Low Voltage conductors. High Voltage conductors are not to be lifted under any circumstance. Where exclusion zones around High Voltage cables cannot be maintained without the lifting of the High Voltage conductors Energex / Ergon Energy Network must be notified to take the appropriate action required.
- When lifting the Low Voltage conductors, the conductors are not to be lifted above their insulating supports on the adjacent poles so that the pole top loading is not adversely affected. E.g. draw a straight line between the two attachments points of the conductor either side of the high load, the conductor is not to be lifted past this point.
- At least one crew member involved in the lifting of the Low Voltage conductors must be a licenced electrical worker (Electrical Mechanic and/or Linesperson) who has experience in line work.
- The conductors must be lifted and lowered in a way that prevents the flicking, swaying or bouncing of conductors.
- Exclusion zones must be always maintained between Low Voltage and High Voltage conductors as per Table 3.3 AS / NZS 7000:2016.
- Equipment used to raise and lower conductors must be rated to the voltages involved, remain in test to the relevant standards and be kept in good condition to ensure safe operation.

- The Authorised Service Provider is to advise the Energex / Ergon Energy Network High Loads team of any conductors that are planned to be lifted or have been lifted. The Service Provider is to advise the location, site labels and type of conductor that is planned to be lifted or was lifted.
- The Authorised Service Provider must immediately report any unintended contacts (from Vehicle Mounted Height Stick or Load) with Ergon Energy Network/Energex assets to Ergon Energy Network via 13 22 96 or Energex 13 62 62.

Authorised High Load Escort and/or Lift Approval Requirements

To become an Authorised High Load Escort and/or Lift 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 Escort and/or Lift Service Provider.

The employer/self-employed person is to apply at “SWP Online” to Energex / Ergon Energy Network to be a registered Energex / Ergon Energy Network subscriber - [Standard Work Procedures & technical documents | Energex](#)

Subscribe to:

- Electrical Safety Rules - 6503074
- Significant Incident Brief

The employer/self-employed person must seek written Energex and Ergon Energy Network approval for each, and every person involved in the escorting and/or lifting of conductors 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-A - Escorting

Ensure that all persons involved in the escorting 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:

- Current Queensland Electrical Mechanic and / or Linesperson Licence, (as defined in Part 4, Division 2 Electrical Safety Regulation 2013).
- 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 conductors and the plant and equipment used in the process.
- ability to identify where the load may breach an exclusion zone and be able to measure the height of the overhead conductors, if required, to confirm if the exclusion zone will, or won't, be breached by the load.
- applying emergency procedures in the event of an incident.

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- all personnel involved in the escorting for high load transportation are listed in the application and
- have obtained Energex and Ergon Energy Network “Authorised High Load Escort 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 escort for high load transportation must also be in place.

Requirement 1-B - Lifting

Ensure that all persons involved in the raising and lowering of Low Voltage conductors 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:

- Current Queensland Electrical Mechanic and / or Linesperson Licence, (as defined in Part 4, Division 2 Electrical Safety Regulation 2013).
- 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 raising and lowering of Low 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 lifting of LV conductors for high load transportation are listed in the application and have obtained Energex and Ergon Energy Network “Authorised High Load Lifting 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 raise and lower Low Voltage electric lines 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., the scoping, escorting and/or raising and lowering of LV conductors for high load transportation 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 person seeking authorisation has the qualifications, training, and experience to comply with the aforementioned safe systems of work.
- Energex and 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 and/or Escort Vehicle Driver Accreditation, as required.
- Current Cardio-Pulmonary Resuscitation Certification (Raising and Lowering LV Conductors).
- Current Low Voltage Switchboard Rescue Certification (Raising and Lowering LV Conductors).
- General Safety Induction (Construction Industry) Licence.
- Current Queensland Electrical Mechanic and / or Linesperson Licence, (as defined in Part 4, Division 2 Electrical Safety Regulation 2013).
- 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 escorting activities

An Authorised High Load Escort Service Provider is responsible for facilitating safe passage of a high load through Energex / Ergon Energy Network’s network, including any activities necessary to achieve electrical safety.

The High Load Escort is to be able to identify where the load may breach an exclusion zone and be able to measure the height of the overhead conductors, if required, to confirm if the exclusion zone will, or won’t, be breached by the load.

An Authorised High Load Escort Service Provider - Electrical is required if the High Load being transported is a Category 4, exceeding 5.5 metres, or where the Scoping Service Provider, or Energex / Ergon Energy Network, has identified locations where the load must maintain exclusion zones using the control measure of lifting of LV conductors.

An Authorised High Load Escort Service Provider - Non-electrical can be used if escorting for an approved “Specific High Load Project” along an approved Designated Project Corridor if they meet all other criteria and have been approved by Energex / Ergon Energy Network.

The High Load Escort must confirm that the high load to be transported matches the details recorded on the Notification to Transport High Loads under Entity Assets form. The load is not to commence until this has been confirmed.

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ESCORTING

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 and the Road Transport Operator.
Authorisation required for high load escort activities	The High Load Escort must be employed by the Entity or must be an Authorised Person and authorised for the conduct of High Load Escort activities on the Ergon / Energex network.
Licencing of High Load Escort	The High Load Escort must have an electrical work licence (Current Queensland Electrical Mechanic and / or Linesperson Licence) unless they meet all other criteria and have been approved to escort for electrical safety on a Designated Project Corridor.
Competency in performing scoping	<p>The High Load Escort 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.</p> <p>High Load Escort to be able to identify where the load may breach an exclusion zone and be able to measure the height of the overhead conductors, if required, to confirm if the exclusion zone will, or won't, be breached by the load.</p>
General Safety Induction	High Load Escort Service Provider 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 Escort Vehicle Driver Accreditation.
Exclusion Zone requirements as per the <i>Electrical Safety Regulation 2013</i>	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)	<p>Where the insulated height stick enters within the exclusion zone of a conductor, all parts of the height stick that come within the exclusion zone must be rated and tested for the nominal voltage of the conductor.</p> <p>The height stick must only operate in the environment (dry/wet) in which the height stick is rated and tested for.</p> <p>The safe system of work must ensure appropriate testing and maintenance of the equipment as per Australian Standards.</p>
Awareness of conductor heights from the completed and approved route scope	Safe operation of a High Load Escort shall include the use of conductor type, location and height information obtained from the route scope activities. Checking the suitability of, and the requirements necessary for, safe transportation of a high load by physically checking the intended route is required.
Preventing contact	Speed of High Load Escort and the high load must be managed in a manner that identifies and prevents contact by enabling the ability to safely stop without the load contacting Entity Assets and all applicable exclusion zones being maintained.

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Requirements	Detailed Requirements
Notification of any contact	It is a requirement that any unintended contact of network assets is immediately notified to the DNSP (Ergon Energy / Energex).
Permits	In accordance with Energex / Ergon Energy Network Entity Requirements, the High Load Escort and transportation activities must be undertaken in compliance with all conditions stipulated on the Notification to Transport High Loads under Energex / Ergon Energy Network assets.

ESCORT WITH VEHICLE MOUNTED HEIGHT STICK (ADDITIONAL TO ESCORTING REQUIREMENTS)

Requirements	Detailed Requirements
Authorisation required for high load escort activities	The High Load Escort must be an Authorised Person and must be authorised for the use of a vehicle mounted height stick within the Ergon Energy Network / Energex network.
Safe operating requirements of the insulated vehicle mounted height stick (LV & HV)	High Load Escort activities must prevent height stick contact with the network. Considerations include speed of High Load Escort vehicle, scoped heights of the conductors and visual inspection by an Authorised Person shall be used to inform and prevent potential contact.
Height of the insulated vehicle mounted height stick	The insulated vehicle mounted stick must be set at a height that maintains an air gap distance equal to or greater than the exclusion zone distance as per the <i>Electrical Safety Regulation 2013, Schedule 2</i> for a vehicle operated by an Authorised Person or Instructed Person, for any conductor that the stick is not rated and tested for the conductor's nominal voltage.
Insulation rating and testing requirements for the insulated vehicle mounted height stick	<p>Where the vehicle mounted 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.</p> <p>The vehicle mounted height stick must only operate in the environment (dry/wet) in which the device is rated and tested for.</p> <p>The safe system of work must ensure that appropriate testing and maintenance of the equipment as per Australian Standards.</p>
Preventing contact	Speed of High Load Escort and the high load must be managed in a manner that identifies and prevents contact by enabling the ability to safely stop without the insulated vehicle mounted height stick and / or the load contacting Entity Assets and all applicable exclusion zones being maintained.
Notification of any contact	It is a requirement that any unintended contact of network assets is immediately notified to the DNSP (Energex / Ergon Energy Network).

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LIFTING (ADDITIONAL TO ESCORTING REQUIREMENTS)

Requirements	Detailed Requirements
Authorisation required for high load lifting and lowering activities	<p>The High Load Escort must be an Authorised Person and must be authorised for the conduct of lifting and lowering activities on the Ergon Energy Network / Energex network.</p> <p>At least one member of the team is to have an electrical work licence (Current Queensland Electrical Mechanic and / or Linesperson Licence).</p>
Competency in performing scoping	<p>The High Load Escort 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.</p>
Cardio-Pulmonary Resuscitation	<p>High Load Escort Service Provider to have a current Cardio-Pulmonary Resuscitation Certification and Low Voltage Switch Board Rescue Certification.</p>
Insulation rating and testing requirements for the approved insulated lifting devices	<p>Where the approved insulated lifting device 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.</p> <p>The insulated device must only operate in the environment (dry/wet) in which the device is rated and tested for.</p> <p>The safe system of work must ensure that appropriate testing and maintenance of the equipment as per Australian Standards.</p>
Maintaining exclusion zones to conductors	<p>All applicable exclusion zones, including between Low Voltage and High Voltage conductors, are required to be maintained.</p>
Assessment of poles	<p>If there are significant changes to the load factors on pole or if pole appears to be deteriorated, it is a requirement to carry out below ground or pole top inspection of pole.</p>
Condition of conductors	<p>Copper conductors 7/0.80 and below are not to be lifted.</p>
Control of conductors during lifting	<p>Conductors must be lifted and lowered in a manner that prevents the flicking, swaying, or bouncing of conductors.</p> <p>The conductors must not be lifted in a way that adversely affects the pole top loading.</p>
Notification of lifting of conductors	<p>It is a requirement to notify the DNSP (Energex / Ergon Energy Network) of the intent to lift any network assets as soon as practicable. The location and type of conductor to be lifted are required to be provided. If it is identified during the escorting of a high load that extra conductors are required to be lifted, then notification afterwards as soon as practicable is required.</p>

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Extract from AS / NZS 7000:2016 - Minimum 1.2m between Low Voltage and High Voltage conductors (up to 33kV) to be maintained.

TABLE 3.3
VERTICAL SEPARATION AT SUPPORTS FOR ATTACHED CROSSINGS (IN METRES)

		UPPER CIRCUIT							
		U ≤ 132 kV U > 66 kV Bare	U ≤ 66 kV U > 33 kV Bare	U ≤ 33 kV U > 1000 V Bare or covered	U ≤ 33 kV U > 1000 V Insulated	U < 1000 V Bare and covered	U < 1000 V Insulated	Other cables (Conductive)	Other cables (Non- conductive)
LOW VOLTAGE R C U I T	66 kV <U ≤ 132 kV Bare	2.4							
	33 kV < U ≤ 66 kV Bare (Note 1)	2.4	1.5						
	1000 V < U ≤ 33 kV Bare or covered	2.4	1.5	0.9	0.9				
	1000 V < U ≤ 33 kV Insulated	2.4	1.5	0.9	0.2				
	U < 1000 V Bare and covered	2.4	1.8	1.2	0.6	0.3	0.3		
	U < 1000 V Insulated	2.4	1.8	1.2	0.6	0.3	0.2	0.3	
	Other cables (Conductive)	2.4	1.8	1.2	0.6	0.3	0.3	0.2	0.2
	Other cables (Non conductive)	2.4	1.8	1.2	0.6	0.3	0.2	0.2	0.2

NOTES:

- The clearances in the table are based on the lower circuit conductors being attached to pin or post insulators. Additional clearance is required to allow for conductor movement, if the lower circuit is attached by suspension or strain insulators.
- The clearances in this table may need to be increased to account for safe approach distances required for construction, operation and maintenances.

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AS/NZS 7000:2016

NOTES:

A Non-Electrical High Load Escort does not require an electrical licence if escorting for an approved "Specific High Load Project" along an approved Designated Project Corridor.

An approved "Specific High Load Project" is a project where High Loads with the same dimensions are being moved along the same approved and designated route multiple times a week for an extended period. Approval of a "Specific High Load Project" is to be sought from the High Loads Team.

Approved Designated High Load Corridors are agreed routes that have been constructed for the transportation of High Loads for Specific High Load Projects.

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Information on training to scope / escort 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 Escort and/or Lift Person”, enabling them to work according to exclusion zones prescribed for “Authorised High Load Escort and / or Lift Person” under the Regulations.

Applications for approval as an “Authorised High Load Escort and / or Lift Service Provider” should be directed to: highloads@energyq.com.au