

APPENDIX V1-3.8: OUTLINE DISMANTLING PLAN FOR THE EXISTING 132 KV OHL

1.1 Introduction

1.1.1 This appendix summarises the options available for dismantling the existing 132 kV overhead line (OHL) following the construction and commissioning of the proposed Skye Reinforcement Project (the Proposed Development), and the measures that would be put in place to safeguard and protect the environment during dismantling operations. This document has been prepared by the Applicant in collaboration with an OHL contractor, and with input from environmental specialists, as required. It is intended to provide an outline of the dismantling options available, and where such options would likely be utilised across the project. The document will form the basis from which a detailed dismantling plan can be drawn up by the successful Principal Contractor.

1.1.2 The existing OHL comprises the following components required to be dismantled:

- Section 0 – Ardmore to Edinbane: Dismantling of the existing 132 kV wood pole OHL, approximately 27.0 km in length;
- Section 1 – Edinbane to North of Sligachan: Dismantling of the existing 132 kV wood pole OHL, approximately 20.9 km in length;
- Section 2 – North of Sligachan to Broadford: Dismantling of the existing 132 kV wood pole OHL, approximately 23.0 km in length;
- Section 3 – Broadford to Kyle Rhea: Dismantling of the existing 132 kV wood pole OHL and 132 kV steel lattice tower OHL, approximately 20.7 km in length;
- Section 4 – Kyle Rhea to Loch Cuaich: Dismantling of the existing 132 kV steel lattice tower OHL, approximately 37.3 km in length;
- Section 5 – Loch Cuaich to Invergarry: Dismantling of the existing 132 kV steel lattice tower OHL and existing Quoich to Aberchalder 132 kV wood pole OHL, approximately 25.3 km in length; and
- Section 6 – Invergarry to Fort Augustus: Dismantling of the existing 132 kV wood pole OHL, approximately 8.6 km in length.

1.2 Dismantling Options

1.2.1 The following provides a summary of the advantages and disadvantages of the likely options available for dismantling the existing OHL, broken down in relation to the various elements of the dismantling process (refer also to Annex 1 for further detail on equipment and plant).

Access

1.2.2 To dismantle the existing OHL, access to each pole or tower location would be required. In the majority of cases, this would require access by tracked vehicles to each pole or tower location. Existing access tracks would be utilised as far as practicable, including any new access tracks constructed to facilitate construction of the Proposed Development. It is not currently anticipated that any new access tracks would be required to facilitate dismantling. In more remote areas, removal by helicopter is proposed.

1.2.3 Access by the types of vehicles set out in **Table 1** below would serve two functions. The first is to allow operatives to reach the work location, whilst the second is to bring in equipment for the preparation of the conductor and earthwire removal such as lifting equipment and running out wheels. The number of operatives accessing each tower / pole location will depend on the stage of the works (discussed further below). The tracked vehicle and helicopter options are set out in further detail in **Annex 1 – Table 1** and **Table 2**.

Table 1: Access Options

Access Method	Advantages	Disadvantages
Tracked Vehicles	<ul style="list-style-type: none"> Least expensive option Less weather dependent 	<ul style="list-style-type: none"> Potential for land / habitat damage in areas of wet / boggy ground It may not be possible to track between towers due to terrain, necessitating extended travel time in some areas.
Helicopters	<ul style="list-style-type: none"> Work can be carried out quickly assuming appropriate weather conditions Safer than tracked vehicles Quick extraction of operatives, if required 	<ul style="list-style-type: none"> Most expensive option Weather dependent Landing areas may be restricted Potential wildlife disturbance
Marine Craft	<ul style="list-style-type: none"> Anticipated to be less expensive than helicopter 	<ul style="list-style-type: none"> Weather dependent Landing areas may be limited Shallow water may preclude use of this option

1.2.4 It is anticipated that access for the dismantling of all existing wood poles on this project would be undertaken by tracked vehicles. Similarly, the dismantling of the majority of steel lattice towers across the project would be accessed by tracked vehicles. However, where all-terrain and tracked vehicle (ATV) access is deemed to be unsafe or not possible due to the steepness of the terrain or where environmental sensitivities may favour alternative methods, helicopters would be used for dismantling operations and to remove tower steel work from site. Such areas include within the Kinloch and Kyleakin Hills SAC / SSSI within Section 3 of the project, and at Kinloch Hourn and Loch Coire Shubh, within Section 4 of the project. This is discussed further in Part 1.3 of this appendix.

1.2.5 It is not anticipated that marine access would be utilised for dismantling operations on this project.

Conductor and Earth Wire Removal

1.2.6 The methods considered for the removal of conductors and earth wires are set out in **Table 2**.

1.2.7 For the removal of conductors and earthwire associated with steel lattice towers, preparation works are required. This includes transferring the conductors and earthwire to running out wheels using lifting equipment i.e. pull-lift, slings and shackles. To keep spans balanced adjacent to the section being recovered, back stays need to be installed. Back stays would normally consist of sledges, kentledge blocks, Tirfors and bonds (see **Annex 1, Table 4, Option 5**) placed at a set distance, typically 1.5 – 2 times the tower height away. Alternative options to sledges and blocks include soil and rock anchors. For installation of back stays it is anticipated that 4-6 operatives would be required. Conductor and earthwire transfer to running out wheels would require 3-5 operatives, depending on the tower type.

1.2.8 Reel winders (see **Annex 1, Table 3, Option 3**) are a standalone piece of equipment that not only reel in conductor and earthwire but collect on a drum attached to the machine. These drums are smaller than a typical conductor drum and are lighter. They are usually able to be unbolted to remove the conductor rather than having to rotate the drum to remove.

- 1.2.9 A Tesmec machine (see **Annex 1, Table 3**, Option 2) requires more equipment than a reel winder which includes hydraulic motors and hoses, drums and spindles and stands to mount drums. As these machines are able to recover many spans they require sledges and kentledge blocks to keep them in position.

Table 2: Conductor and Earth Wire Removal Options

Plant	Advantages	Disadvantages
Reel Winder	<ul style="list-style-type: none"> Faster setup compared with tesmec May be able to fly into position 	<ul style="list-style-type: none"> Not able to recover as many spans of a conductor as a Tesmec String reel winder in multiple locations would be difficult where steep side slopes exist.
Tesmec	<ul style="list-style-type: none"> Able to recover spans more quickly once set up 	<ul style="list-style-type: none"> Requires more equipment than the reel winder, inclusive of anchorage and drum stands etc.

It is anticipated that a reel winder would be utilised for the recovery of conductors at all wood pole locations. At steel lattice towers, it is likely that both options would be required, dependent on-site specific conditions and requirements.

Insulator and Fitting Removal

- 1.2.10 The methods considered for removal of insulators and fittings are set out in **Table 3**.

Once the conductor has been removed, the insulators, OHL fittings and running out wheels need to be lowered to ground level before a tower / wood pole can be felled. This task is completed with the use of basic lifting equipment such as a rope, slings and shackles. Approximately three operatives would likely be required to complete this task. If tower sections are to be removed by helicopter it may be that these components could be left on and flown out attached to the tower crossarms.

Table 3: Insulator and Fitting Removal Options

Access Method	Advantages	Disadvantages
Tracked Vehicles	<ul style="list-style-type: none"> Least expensive option Less weather dependent 	<ul style="list-style-type: none"> Level area required to deploy crane outriggers to lift materials Potential for land / habitat damage in areas of wet / boggy ground May be unable to track between towers due to steep-sided slopes
Helicopters	<ul style="list-style-type: none"> Loads could be removed quickly Safer than tracked vehicles 	<ul style="list-style-type: none"> Most expensive options Potential wildlife disturbance Weather dependent
Marine Craft	<ul style="list-style-type: none"> Anticipated to be less expensive than helicopter 	<ul style="list-style-type: none"> Weather dependent Landing areas could be limited Shallow water may preclude use of this option Materials need to be moved to the shoreline for collection

1.2.11 It is anticipated that at all wood pole locations, tracked vehicles would be utilised for removal of insulators and fittings. This would also likely be the case at most tower locations. However, where this is not possible (i.e. where access to the particular location is restricted), redundant insulators and fitting materials would be packed into helicopter sacks and flown to an area to be removed to a recycling facility in a skip.

1.2.12 It is not anticipated that marine craft would be utilised for insulator and fitting removal.

Existing Structure Removal

1.2.13 The methods considered for removal of existing structures are set out in **Table 4**.

1.2.14 A number of different options are available with regards to the removal of tower steelwork depending on the gradient of the accesses and land around the tower base. Towers are generally felled utilising an excavator mounted winch (see **Annex 1, Table 1**, Option 10). A steel bond is installed at the top of the tower and then connected to the winch. The tower legs are cut, normally with oxyacetylene torches, and the tower pulled over. Once on the ground a second excavator with cutting shears would cut the tower into small enough pieces for removal by a tracked dumper. Where gradients do not allow for this method, alternatives exist. One of these would be to fly in a winch to a suitable location along with anchorage and connect the bond attached to the top of the tower and then cut the legs. Once on the ground the tower could be cut into sections light enough for a helicopter to remove. Cutting would be completed with either oxyacetylene torches or abrasive wheels. An alternative to cutting, that would reduce the potential fire risk, would be to unbolt a tower into smaller sections but this would likely prove difficult due to the damage sustained by tower members on impact. This is also a very time-consuming way of removing a tower. The alternative to felling a tower, that would reduce the requirement to fly in a winch & anchorage and any cutting, would be to remove sections off the towers by helicopter. This would be completed by operatives unbolting sections while on the tower as would be done with a crane. The number of operatives required for felling a tower and cutting up with excavator mount shears would be around 5. This would increase for removal of a section directly off the tower with a helicopter.

Table 4: Existing Structure Removal Options

Removal Options	Advantages	Disadvantages
Tracked Vehicles	<ul style="list-style-type: none"> Least expensive option Less weather dependent 	<ul style="list-style-type: none"> Excavators and tracked dumper required Potential for land / habitat damage in areas of wet / boggy ground Low fire risk associated with cutting tower legs
(Steel Lattice Only) Tower Felled, Cut Up Using Abrasive Wheels or Torches	<ul style="list-style-type: none"> Helicopter can remove steel quickly No land damage 	<ul style="list-style-type: none"> Winch required to be flown in Increased fire risk Weather dependent Increase in helicopter lift capacity increases cost significantly
(Steel Lattice Only) Tower Felled, Split into Smaller Sections by Unbolting	<ul style="list-style-type: none"> Less cutting required Reduced fire risk 	<ul style="list-style-type: none"> Winch required to be flown in Weather dependent Unbolting and using jacks may be more time consuming, potentially impossible due to member damage after felling Fire risk not eliminated

Removal Options	Advantages	Disadvantages
(Steel Lattice Only) Tower Sections Lifted Off by Helicopter	<ul style="list-style-type: none"> No cutting required, eliminating fire risk Shortened dismantling time once splice bolts are removed 	<ul style="list-style-type: none"> Unbolting splices may be time consuming if bolts are corroded Weather dependent

1.2.15 It is anticipated that tracked vehicles would be utilised for the removal of all wood poles.

1.2.16 Most of the existing steel lattice towers would be felled with an excavator mounted winch (see **Annex 1, Table 1, Option 10**). With shears mounted on another excavator, the steel would be cut up into lengths that are suitable to be removed by low ground pressure tracked dumpers. Where this option is not possible, towers that are inaccessible due to steep terrain would be felled by a winch that has been flown into place then cut up into sections of adequate weights that can be flown to an area for further cutting. Where positioning of a winch is unfeasible, tower sections would be unbolted and lifted by a large lift helicopter (see **Annex 1, Table 1**, options 5, 6 and 7). It is currently anticipated that a winch would be flown in, or sections lifted off the tower, for towers within the Kinloch and Kyleakin Hills SAC in Section 3 and 17 towers (204 – 220) in Section 4 due to the steep land gradients. This is discussed further in Part 1.3 of this appendix.

1.2.17 It is not anticipated that marine craft would be utilised for insulator for removal of wood poles or steel lattice tower components.

Foundations Removal

1.2.18 The methods considered for removal of foundations are set out in **Table 5**.

1.2.19 Typically tower foundations are removed to below ground level. This is achieved by digging around the tower stub & concrete and breaking off at a specified depth. When excavators are unable to access tower locations, the alternative would mean some steel and/or concrete is still visible above ground level, unless material was imported by helicopter to cover over. The steel protruding from the concrete could be cut leaving only the concrete. Leaving any concrete or steel should only be considered in areas deemed inaccessible. Removal of the tower foundations by an excavator would be completed just after the tower has been felled, which would be carried out by a single operator.

Table 5: Foundation Removal Options

Removal Method	Advantages	Disadvantages
Leave Stubs In-situ	<ul style="list-style-type: none"> No excavating or cutting required 	<ul style="list-style-type: none"> Leaves a potential hazard
Cut Steelwork Above Concrete Muff	<ul style="list-style-type: none"> No excavating required Leaves only concrete above ground level 	<ul style="list-style-type: none"> Leaves a potential hazard Fire risk from abrasive wheels on oxyacetylene torches
Cut Steelwork Above Concrete Muff and Build Up Land to Cover	<ul style="list-style-type: none"> No excavating required Hidden concrete 	<ul style="list-style-type: none"> Requires material to be imported Fire risk from abrasive wheels or oxyacetylene torches
Remove to Below Ground Level	<ul style="list-style-type: none"> Removes the steel and concrete visible above ground level 	<ul style="list-style-type: none"> Requires an excavator to be tracked to tower

- 1.2.20 Wood pole foundations are made up of the poles themselves plus some additional steel and timber below ground level. The extraction method for these is to dig down, remove the poles and backfill.
- 1.2.21 For steel lattice tower locations where an excavator can achieve access, the foundations would be removed to below ground level. For towers where steel needs to be removed via helicopter it is proposed that these would be left in place with the steel cut just above the concrete, where deemed safe to do so. The option exists to fly in material to cover remaining foundation material. It is currently anticipated that the foundations for towers in Section 3 within the Kinloch and Kyleakin Hills SAC and 17 towers (204 – 220) in Section 4 would be left in place and potentially covered over.

1.3 Dismantling Plant

- 1.3.1 The various plant available for use in dismantling the existing OHL are illustrated in **Annex 1**. These include helicopters with differing lift capacities, ATVs, conductor recovery plant and various supporting mobile plant.

Helicopter Extractions

- 1.3.2 As noted above, the use of helicopters to facilitate dismantling activities is proposed in two specific areas across the project; near Kyleakin, within the Kinloch and Kyleakin Hills SAC (Section 3), and near Kinloch Hourn and Loch Coire Shubh (Section 4).

Kinloch and Kyleakin Hills SAC

- 1.3.3 Due to the steep terrain and inaccessibility of towers within the Kinloch and Kyleakin Hills SAC, and the sensitivity of habitats therein making use of tracked vehicles less favourable, it is proposed that helicopters would be used for dismantling operations¹. **Annex 2** highlights these towers and provides an indication of potential flight routes, and identifies an area for the materials to be removed to. Further cutting up of steel would be required before removal to a recycling facility.
- 1.3.4 For each of these towers, helicopters would transport both operatives and equipment for the preparation of conductor and earthwire removal as close to each work location as the gradients and space allows.
- 1.3.5 Once the conductor and earthwire has been removed, it is expected that a winch along with anchorage would be flown in to position to complete tower felling. If, however, due to a lack of suitable ground to position a winch, the alternative would be to lift sections off the tower by a heavy lift helicopter.
- 1.3.6 For foundations, the proposal would be to cut the tower stub steel at the concrete level and leave in place. Material could be imported to cover over the concrete.
- 1.3.7 For all other towers in Section 3, access to each location would be with tracked vehicles / ATVs to fell towers and remove steel work by dumpers.

Kinloch Hourn and Loch Coire Shubh

- 1.3.8 Given that it is anticipated the new OHL would be constructed by helicopter at Kinloch Hourn due to steepness of terrain and the space restrictions for cranes, and that the new OHL follows the same alignment as the existing OHL, the use of a helicopter is also proposed to be used for dismantling operations (see **Annex 3**). This also has the benefit of time efficiencies during an outage, with the helicopter being able to quickly remove the redundant towers and erect the new towers. Access for operatives and the transportation of equipment

¹ One tower at the eastern extent of the SAC boundary (Tower 78) is located close to the Proposed OHL and helicopter use at this location would be subject to review by the helicopter operative to ensure safety clearance distances could be maintained. If this were not possible, the tower would be felled in a direction away from the Proposed OHL by operatives on the ground and removed. No new track infrastructure would be required.

would be via the tracks installed to build the new OHL. Foundations would be removed by an excavator where appropriate.

1.3.9 It is also anticipated that the removal of towers around Loch Coire Shubh (204 – 220) would be completed by helicopter due to the gradient of the slopes the existing towers are on (see **Annex 4**). No new tracks are proposed in this area for dismantling as the new OHL routes to the West of Loch Coire Shubh.

1.3.10 Operative access will likely be by helicopter. Transportation of equipment will need to be completed by helicopter. As there are few towers an excavator could reach safely, it would be proposed that the tower stub steel was cut just above the concrete, with the concrete left in place.

1.4 Duration of Works

1.4.1 Dismantling works across the project are anticipated to last approximately seven months. Whilst there are a number of variables that determine how long each pole or tower would take to dismantle, including terrain, access type and length, it is generally anticipated that a day per removal of a wood pole and two days per removal of a steel lattice tower would be expected.

1.4.2 Dismantling works within the Kinloch and Kyleakin Hills SAC / SSSI would be expected to last approximately 50 days in total.

1.5 Environmental Management during Dismantling

1.5.1 All dismantling works would be carried out in accordance with industry best practice construction measures, guidance and legislation, together with the following documents and procedures:

GEMPs

1.5.2 General Environmental Management Plans (GEMPs) have been developed by the Applicant. The GEMPs considered relevant for this project are identified in **Appendix V1-3.5: General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs)** of this EIA Report.

SPPs

1.5.3 Species Protection Plans (SPPs) have been developed by the Applicant and have been agreed with NatureScot. These can also be found in **Appendix V1-3.5: General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs)** of this EIA Report.

CEMP

1.5.4 A contractual management requirement of the successful Principal Contractor would be the development and implementation of a Construction Environmental Management Plan (CEMP). This document would detail how the successful Principal Contractor would manage the site in accordance with all commitments and mitigation detailed in the EIA Report, statutory consents and authorisations, and industry best practise and guidance. An Outline CEMP is included in **Appendix V1-3.9** of this EIA Report. **Appendix V1-3.6: Schedule of Mitigation Measures** provides a summary of all mitigation measures included in this EIA Report.

1.5.5 The CEMP would also reference the aforementioned GEMPs and SPPs. The implementation of the CEMP would be managed on site by a suitably qualified and experienced Environmental Clerk of Works (ECOW), with support from other environmental professionals as required.

Potential Environmental Constraints

1.5.6 **Table 6** provides a summary of potential environmental constraints associated with dismantling operations. Further assessment of dismantling works is included within relevant technical chapters of the EIA Report.

Table 6: Potential Environmental Constraints

Activity	Potential Impact	Mitigation
Access by tracked vehicle	<ul style="list-style-type: none"> • Potential for damage to sensitive habitats, for example peatland habitats; • Potential for disturbance to birds and protected species; • Potential for pollution, erosion and sedimentation of the water, geology and soils environment; and • Potential for damage to archaeological remains. 	<ul style="list-style-type: none"> • Adherence to industry best practice and guidance, as well as the project specific CEMP, GEMPs and SPPs; • Pre-construction surveys to establish presence of protected species; and • Monitoring by ECoW and ACoW where required.
Access by helicopter	<ul style="list-style-type: none"> • Potential for disturbance to birds and protected species. 	<ul style="list-style-type: none"> • Adherence to industry best practice and guidance, as well as the project specific CEMP, GEMPs and SPPs; • Pre-construction surveys to establish presence of protected species; and • Monitoring by ECoW.
Access by marine craft	<ul style="list-style-type: none"> • Potential for damage to coastal habitats; • Potential for disturbance to birds and protected species; and • Potential for pollution, erosion and sedimentation of the water environment. 	<ul style="list-style-type: none"> • Adherence to industry best practice and guidance, as well as the project specific CEMP, GEMPs and SPPs; • Pre-construction surveys to establish presence of protected species; and • Monitoring by ECoW.
Foundation Removal	<ul style="list-style-type: none"> • Potential for damage to adjacent sensitive habitats; • Potential for disturbance to birds and protected species; • Potential for pollution, erosion and sedimentation of the water, geology and soils environment; and • Potential for damage to archaeological remains. 	<ul style="list-style-type: none"> • Adherence to industry best practice and guidance, as well as the project specific CEMP, GEMPs and SPPs; • Pre-construction surveys to establish presence of protected species; and • Monitoring by ECoW and ACoW where required.

ANNEX 1 – PLANT AND EQUIPMENT OPTIONS FOR DISMANTLING

Table 1 – Helicopters

Image	Details
	<p>Option 1 - Eurocopter AS350</p> <p>Lift capacity: 1,000 kg</p> <p>Passenger seats: 5</p> <p>Use: Lifting operations involving smaller loads. Likely the main helicopter for transferring operatives to work locations.</p>
	<p>Option 2 - Eurocopter AS355</p> <p>Lift capacity: 700 kg</p> <p>Passenger seats: 5</p> <p>Use: Lightweight load carrying and transferring operatives to work locations.</p>
	<p>Option 3 - Eurocopter AS365</p> <p>Lift capacity: 1,300 kg</p> <p>Passenger seats: 8</p> <p>Use: Lightweight load carrying and transferring operatives to work locations.</p>
	<p>Option 4 - Eurocopter EC135 T2+</p> <p>Lift capacity: 700 kg</p> <p>Passenger seats: 7</p> <p>Use: Lightweight load carrying and transferring operatives to work locations.</p>
	<p>Option 5 - Kaman K-Max K-1200</p> <p>Lift capacity: 2,700 kg</p> <p>Passenger seats: 0</p> <p>Use: Steel removal and transport of other medium weight materials / plant.</p>






Image	Details
	<p>Option 6 - Eurocopter AS332 C Super Puma</p> <p>Lift capacity: 4,000 kg</p> <p>Use: Steel removal and transport of other heavy weight materials / plant.</p>
	<p>Option 7 - SN61</p> <p>Lift capacity: 4,000 kg</p> <p>Use: Steel removal and transport of other heavy weight materials / plant.</p>
	<p>Option 8 - Bell 212 HP</p> <p>Lift capacity: 1,700 kg</p> <p>Passenger seats: 8</p> <p>Use: Steel removal, transport of other medium weight materials / plant, and transferring operatives to work locations.</p>
	<p>Option 9 - Bell 206</p> <p>Lift capacity: 600 kg</p> <p>Passenger seats: 7</p> <p>Use: Lightweight load carrying and transferring operatives to work locations.</p>
	<p>Option 10 - Bell 206 L</p> <p>Lift capacity: 600 kg</p> <p>Passenger seats: 4</p> <p>Use: Lightweight load carrying and transferring operatives to work locations.</p>

Table 2 – All-Terrain and Tracked Vehicles

Image	Details
	<p>Option 1 - Hagglund</p> <p>Designed for load and passenger carrying. Ground pressure of 8psi. Front cab can accommodate up to five occupants with seating totalling 15 with people carrying body. Trailer load capacity up 2,500 kg, with integrated hi-ab can replace rear cab section of the machine.</p>
	<p>Option 2 - Argocat</p> <p>Argocats come in various configurations. These machines can be fitted with winches, canopies and tracks. Tracks create half the ground pressure of the wheeled version. Load carrying capacity of approximately 450 kg. Six seats including driver.</p>
	<p>Option 3 - Soft Track</p> <p>Very low ground pressure, lightweight and high ground clearance. Various configurations available. Wheel and tracked trailers with integrated Hiab can be towed. Hydraulic power take-off (PTO) allows machine to be fitted with a capstan.</p>
	<p>Option 4 - Mule</p> <p>Two-seater machine with carrying capacity up to approximately 450 kg. More suited to level, less undulating terrain.</p>
	<p>Option 5 - Polaris</p> <p>These machines come in a variety of specifications. The Ranger Crew (shown) has six seats with a rear box able to carry approximately 450 kg. Designed for off-road, these types of machines would be suited to more level ground conditions. Similar style machines can also be fitted with tracks.</p>






Image	Details
	<p>Option 6 - Low Ground Bearing Tracked Excavator</p> <p>Low ground bearing tracked excavators are available in many sizes. The benefit of these compared to standard tracks is they are less likely to create ruts and cut up the ground. Increased traction and stability could provide more access to remote areas.</p>
	<p>Option 7 - Low Ground Bearing Tracked Dumper</p> <p>Reduced ground pressure would likely result in fewer ruts and less land damage. Increase traction and stability could provide more access to remote areas. These would be used deliver equipment required for conductor recovery and removal of redundant tower steel, fittings and insulators.</p>
	<p>Option 8 - Tracked Crane</p> <p>The use of tracked cranes would primarily be in the dismantling of decommissioned trident wood poles.</p>
	<p>Option 9 - Tracked Mobile Elevated Working Platform</p> <p>Used for work at height during removal of wood poles.</p>
	<p>Option 10 – Excavator Mounted Winch</p> <p>Used for felling of steel towers and removing steelwork.</p>

Table 3 – Dismantling and Conductor Recovery




Image	Details
	<p>Option 1 - Crane</p> <p>Used for the removal of towers at substation locations / where felling is not possible.</p>
	<p>Option 2 - Puller / Tensioner (Tesmec)</p> <p>Used in the recovery of conductors.</p>
	<p>Option 3 - Reel Winder</p> <p>Used in the recovery of conductors.</p>

Table 4 – Other Mobile Plans

Image	Details
	<p>Option 1 - 4x4 Hiab Lorry</p> <p>4x4 lorries are used to deliver / collect plant and materials to locations off main highways where standard rigid body trucks and low loaders have trouble accessing due to rough tracks and steep climbs. Mounted cranes are available in different load lifting abilities and reach.</p>
	<p>Option 2 - Roll-on Roll-off Skip Lorries</p> <p>Sections of steel would be taken from the tower locations to the nearest track and loaded into skips to be taken to a recycling facility. These type of roll-on off skips are also used to remove conductors, OHL fittings and insulators.</p>
	<p>Option 3 - Telehandler with Drum Carrying Attachment</p> <p>Used to replace conductor drums.</p>
	<p>Option 4 - Towable Fuel Bowers</p> <p>Available in different capacities. Potable & towable with 4x4. Fuel pump can be electric and manual.</p>
	<p>Option 5 – Backstay Equipment</p> <p>Sledges, kentledge blocks, Trifors and bonds.</p>

ANNEX 2 – HELICOPTER USE WITHIN THE KINLOCH AND KYLEAKIN HILLS SAC



ANNEX 3 – HELICOPTER USE NEAR KINLOCH HOURN



ANNEX 4 – HELICOPTER USE NEAR LOCH COIRE SHUBH

