## **Appendix B Converter Station Detailed Tree Survey Schedule**

Ref.	Species Common Name (Scientific name)	Estimated Height (m)	Stem Diameter (mm)	,	Canopy S	Spread (m	)	First Significant Branch & direction (m)	Canopy Clearance height (m)	Physiological Condition	Life Stage	ıral Condition	Observations	Preliminary Management Recommendations	Work Required to Facilitate the Proposed Development	Estimated Remaining Contribution (yrs)	Category	RPA (m²)
		Estimat	Sten	N	S	E	w	First Sign & dii	Canop	Physiolo	5	Structural				Estimat Contr	0	
T1	Common Oak (Quercus robur)	9	840	6	8	8	6	3.0/W	1	Good	M	Good	Forked at 3m. Some epicormic growth.  Deadwood but no major visible defects.			40+	A1,2	319.08
T2	Ash (Fraxinus excelsior)	10	470	3	6	5	4	3.0/W	1	Fair	EM	Poor	Three notable cavities to stem interlinked with Inonotus hispidus at 3m. Swelling to stem at cavity opening at 0.5m. Potential to collapse.	Fell if land use changes.		<10	U1	99.89
Т3	Common Oak (Quercus robur)	11	670	5	8	6	5	1.0/All	1.5	Good	EM	Fair	Exposed heartwood at base to south with good reaction wood. Suggests twin stemmed in very distant past. Some bark wounds to base on opposing side, dieback in upper crown.			20+	B1,2	203
T4	Common Oak (Quercus robur)	7	665	5	6.5	7	6	2.0/E	1	Good	M	Fair	Linear section of decay on stem from 2m with deterioration to secondary leader at 4m.  Deadwood and stubs throughout.			20+	B1	199.98
Т5	Common Oak (Quercus robur)	11	770	5	7	6	5	3.5/W	1	Good	M	Fair - Poor	Good stem but unusual cavity at 3.5m with decaying tissue to left. Heavy section of canopy above.			20+	B1	268.11
Т6	Common Oak (Quercus robur)	11	950	9	7	9	10	4.0/AII	1	Good	M	Fair	Forked at 1.5m producing wide spreading, open form. Bark loss to top side of stem to west. Very twisted/kinked branch formation.			40+	A1	408.12
Т7	Common Oak (Quercus robur)	10	670	8	8	7	7	4.0/AII	1	Good	M	Fair	Reasonable shape and form. Deadwood and stubs. Dense epicormic growth along limbs but no major visible defects.			40+	A1	203
Т8	Common Oak (Quercus robur)	12	670	7	7	4	7	4.0/AII	1	Good	M	Fair	Reasonable shape and form. Deadwood and stubs. Slightly one sided with next tree.			40+	A1	203
Т9	Common Oak (Quercus robur)	12	615	7	5	8	5	3.0/SW	0	Good	M	Fair	Reasonable shape and form. Deadwood and stubs. Slightly one sided with next tree. Some low limbs.			40+	A1	171.04

Ref.	Species Common Name (Scientific name)	Estimated Height (m)	Stem Diameter (mm)		Canopy S	Spread (m	)	First Significant Branch & direction (m)	Canopy Clearance height (m)	Physiological Condition	Life Stage	Structural Condition	Observations	Preliminary Management Recommendations	Work Required to Facilitate the Proposed Development	Estimated Remaining Contribution (yrs)	Category	RPA (m²)
		Estima	Ster	N	s	E	w	First Sig & di	Cano	Physiolc	_	Struct				Estima Conti	J	
T10	Ash ( <i>Fraxinus</i> excelsior)	11	280,260	4	4	5	3	3.0/SW	3	Fair	SM	Fair	Reasonable shape and form. Deadwood and stubs. Epicormic shoots on limbs.			10+	C1	66.02
T11	Ash (Fraxinus excelsior)	15	400, 320, 280, 260	6	6	6	6	4.0/W	2	Fair	М	Fair	Reasonable shape and form. Multi-stemmed from base. Deadwood and stubs. Epicormic shoots on limbs.			20+	B1	184.68
T12	Common Oak (Quercus robur)	12	470	7	7	6	6	3.0/S	2	Good	EM	Good	Minor deadwood. No major visible defects.			20+	B1,2	99.89
T13	Common Oak (Quercus robur)	12	500	6	6	4.5	7	3.5/S	1.5	Good	EM	Good	Deadwood throughout.			20+	A1,2	113.05
T14	Crack Willow (Salix fragilis)	9	300	9	4	4	1		0	Fair	EM	Fair	Growing horizontal out from beneath oak with slightly corrected crown.			10+	C1,2	40.7
T15	Common Oak (Quercus robur)	14	550 est.	6	6	6	7	5.0/S	4	Good	M	Fair	Large cavity at base with probable fire damage (viewed from other side of ditch). Likely two stemmed originally. Dense ivy into its canopy with minor deadwood and stubs. Potential for roots to be into field to south.			20+	B1,3	136.79
T16	Common Oak (Quercus robur)	12	870	8	8	9	5	5.0/N	2	Good	M	Fair	Dense ivy into crown.			40+	A1	342.28
T17	Ash ( <i>Fraxinus</i> excelsior)	12	530	6	7	7	8	3.5/W	2	Good	M	Fair	Reasonable shape and form. Some deadwood.			20+	B1	127.03
T18	Common Oak (Quercus robur)	14	710	6.5	7	7	6	5.0/NE	2	Good	M	Fair	Reasonable shape and form. Some deadwood. Two torn wounds on stem to South.			20+	B1	227.96
T19	Ash (Fraxinus excelsior)	14	560	7	5	4	6	2.0/AII	2	Good	М	Fair	Original stem snapped off at 4m and ripped out to base with hollowing. New branches forming crown.			40+	B1,3	141.81

Ref.	Species Common Name (Scientific name)	Estimated Height (m)	Stem Diameter (mm)		Canopy S	Spread (m	))	First Significant Branch & direction (m)	Canopy Clearance height (m)	Physiological Condition	Life Stage	Structural Condition	Observations	Preliminary Management Recommendations	Work Required to Facilitate the Proposed Development	Estimated Remaining Contribution (yrs)	Category	RPA (m²)
		Estima	Ste	N	S	E	w	First Siç & d	Cano	Physiol	_	Struct				Estima Cont	J	
T20	Ash (Fraxinus excelsior)	10	320	6	6	9	10	5.0/N	0	Good	EM	Fair	Layered with split stem to now tied into hedge.			20+	B1	46.31
T21	Common Oak (Quercus robur)	10	220, 300, 320	8	8	3	4	5.0/N	3	Good	EM	Fair	3 stems from 1.5m.			20+	B1	108.89
T22	Common Oak (Quercus robur)	14	940	7.5	8	9	9	5.0/N	2	Good	ОМ	Good	Forked at 2.5m wide open crown. Some deadwood and minor stubbed limbs.			20+	B1	399.57
T23	Ash (Fraxinus excelsior)	18	970	9	13	7	11	5.0/N	2	Good	ОМ	Fair	Thick bole with areas of disfunction with <i>Inonotus</i> noted on limb to southwest at 4m. Torn out wound at 5m and wound with decay at 3.5m.			20+	B1,3	425.48
T24	Ash (Fraxinus excelsior)	16	400, 300	4	6	5.5	5	4.5/N	3	Good	EM	Fair - Poor	Twin-stemmed secondary stem with wound at 4.5m due to rubbing. Branch almost swallowed by stem. Fused stems near base.			10+	C1	113.05
T25	Common Alder (Alnus glutinosa)	10	450	7	1	3	4	3.0/N	2	Fair	EM	Fair	Some dieback and deadwood. stubs.			10+	C1,2	91.57
T26	Common Alder (Alnus glutinosa)	7	170	1.5	2	0.5	2.5	3.5/W	3	Fair	SM	Fair				10+	C1	13.07
T27	Common Oak (Quercus robur)	6	380	6	5	6	6	4.0/N	2	Good	SM	Fair	A car has crashed into this tree leaving car parts around base and bark wounds to stem from impact and broken lower branches. Otherwise, reasonable shape and form.			10+	C1,2	65.3
T28	Ash (Fraxinus excelsior)	6	250	3.5	4	2	4	2.0/S , 2.0/W	1.5	Good	SM	Good	Single stemmed tree within hedge. Some epicormic shoots on limbs. Slightly one-sided canopy to west.			10+	C1,2	28.26
T29	Ash ( <i>Fraxinus</i> excelsior)	6	250	3	3	2	3	4.0/All	1.5	Good	SM	Good	Single stemmed tree within hedge. Some epicormic shoots on limbs.			10+	C1,2	28.26

Ref.	Species Common Name (Scientific name)	Estimated Height (m)	Stem Diameter (mm)	Canopy Spread (m)			First Significant Branch & direction (m)	Canopy Clearance height (m) Physiological Condition		Life Stage	Observations	Preliminary Management Recommendations	Work Required to Facilitate the Proposed Development	Estimated Remaining Contribution (yrs)	Category	RPA (m²)		
	(	Estimat	Sten	N	S	E	w	First Sign & din	Canop	Physiolo	5	Structu				Estimat Contri	ပ	
T30	Common Oak (Quercus robur)	6	260	2.5	2.5	2.5	2.5	n/a	1.5	Good	SM	Good	Multi-stemmed from 1m. Could have been topped previously as part of the hedge. Minor stubs, presumably flailed.			10+	C1,2	30.57
T31	Goat Willow (Salix caprea)	6	260 max	3	4	4	5	n/a	0	Good	EM	Good	Growing at the edge of the ditch. Multi-stemmed from base.			10+	C1,2	30.57
T32	Common Oak (Quercus robur)	7	490	1	6	3	4	3.0/S	3	Fair	M	Fair	Slightly one-sided to the south. It has been sided up against the road. Epicormic shoots on stem, deadwood and stubs.			10+	C1	108.58
Т33	Ash (Fraxinus excelsior)	16	640	9	4	8	9	4.0/W	1	Fair	M	Fair	Ripped wound to low limb at 4m to the west with good reaction growth. Some epicormic shoots on limbs.			20+	B1	185.22
T34	Ash ( <i>Fraxinus</i> excelsior)	9	180, 180, 180, 180, 180	4	4.5	2.5	4		3	Good	SM	Fair	Multi-stemmed.			10+	C1	73.26
T35	Common Oak (Quercus robur)	12	595	6	9	8	6	4.0/S, 5.0/W	2	Good	M	Good	Epicormic shoots along branches. Minor deadwood and stubs. No major visible defects.			40+	A1	160.09
T36	Common Oak (Quercus robur)	16	700	8	8	8	8	4.5/W	1	Good	М	Good	Minor stubs and deadwood. No major visible defects.			40+	A1	221.58

Ref.	Species Common Name (Scientific name)	Estimated Height (m)	Stem Diameter (mm)		Canopy S	Spread (m	))	First Significant Branch & direction (m)	Canopy Clearance height (m)	Physiological Condition	Life Stage	Structural Condition	Observations	Preliminary Management Recommendations	Work Required to Facilitate the Proposed Development	Estimated Remaining Contribution (yrs)	Category	RPA (m²)
		Estima	Ste	N	S	E	w	First Siç & d	Cano	Physiol		Struct				Estima		
W37	Scots Pine (Pinus sylvestris), Norway Maple (Acer platanoides), Goat Willow (Salix caprea), Crack Willow (Salix fragilis) Common Oak (Quercus robur), Blackthorn (Prunus spinosa). Hawthorn (Crataegus monogyna), Field Maple (Acer campestre)	12	300	4	4	4	4	n/a	n/a	Good	EM	Good	Mostly a plantation woodland. Ditch along field edge to south. Some larger crack willow towards western extent with failed stems and decay fungal fruiting bodies noted. (No access to woodland, therefore not fully surveyed).			20+	B1,2	12657.1 5
G38	Ash (Fraxinus excelsior), Common Oak (Quercus robur)	16	350	8	8	8	8	n/a	n/a	Good	EM- M	Fair	Old hedgerow. Topped in distant past. Leggy upright stems.			20+	B1,2	536.48
G39	Damson ( <i>Prunus</i> domestica)	6	280	3	3	3	3	n/a	n/a	Good- Fair	EM	Good- Fair	Located in neighbouring property. Viewed from roadside only.			20+	B2	258.22
H40	Hawthorn (Crataegus monogyna), Blackthorn (Prunus spinosa), Privet (Ligustrum sp.), Ash (Fraxinus excelsior), Sycamore (Acer pseudoplatanus)	2.5	200 max	1.5	1.5	1.5	1.5	n/a	n/a	Good	EM	Fair	Mostly hawthorn and blackthorn with a lot of rose and sections of privet. Dense and regularly flailed with some large ash and sycamore stems pruned as part of hedge.		Fell section as shown on TPP.	10+	C1,2	1331.08
G41	Goat Willow (Salix caprea), Field Maple (Acer campestre), Blackthorn (Prunus spinosa)	12	240 max	4	4	4	4	n/a	n/a	Fair	SM	Fair	Blackthorn thicket area with low quality trees beyond.			10+	C1,2	216.7
G42	Common Oak (Quercus robur), Ash (Fraxinus excelsior), Common Alder (Alnus glutinosa)	18 avg.	650 avg.	6	6	6	6	n/a	n/a	Good - Poor	EM- OM	Good - Poor	Individual trees along both sides of Wren Hall Road in varying condition. Significant ivy growth preventing full inspection, but minimal maintenance noted. Significant deadwood particularly in ash and oak. Not individually surveyed.	Full safety survey recommended due to proximity to road.	Fell part group as indicated on TPP to be informed via further detailed survey of individual trees.	40+	A2,3	3915.7

Ref.	Species Common Name (Scientific name)	ed Height (m)	ח Diameter (mm)		Canopy S	ipread (m	)	t Significant Branch & direction (m)	canopy Clearance height (m)	gical Condition	Life Stage	ral Condition	Observations	Preliminary Management Recommendations	Work Required to Facilitate the Proposed Development	Estimated Remaining Contribution (yrs)	ategory	RPA (m²)
	(Coordinate Hamilton)	Estimat	Sten	N	S	E	w	First Sign & dir	Canop	Physiolog	5	Structu			201000000000000000000000000000000000000	Estimat	Ö	
G43	Hybrid black poplar (Populus x canadensis), Common Oak (Quercus robur), Birch (Betula sp), Pine (Pinus sp), Norway Maple (Acer platanoides)	30 max	260 Avg - 700 max	3	3	3	3	n/a	4-5 over road.	Good - Fair	SM- M	Good - Poor	Woodland group consisting of mostly drawn-up semi-mature single-stemmed individuals including some approx. 30m tall poplar. Bramble understorey. Within the group there are also a number of mature oak with RPAs extending into the road. One oak with a stem of around 700cm RPA and burring to stem.			40+	A1,2	8713.18

AECOM 26 Prepared for: National Grid Electricity Transmission

## **Key to Abbreviations Used in the Survey**

Ref No	Specific identification number given to each tree or group.  T=Tree/H=Hedge/G=Group/W=Woodland.	
Species	Common name followed by botanical name shown in italics	
RPA	Root Protection Area (As defined by BS5837)	
Stem diameter	Diameter of main stem, measured in millimetres at 1.5 m above ground level.  (MS = Multi-stem tree measured in accordance with BS5837 Annexe C)	Av / Average:  indicates an average representative measured
Spread	The width and breadth of the crown. Estimated on the four compass points in metres.	dimension for the group or feature
Crown clearance	The estimated height (in metres) above ground level of the lowest significant branch attachments.	
#	Estimated dimensions	
*	Indicates estimated position of tree (not indicated on topographical survey).	
Category	Categorisation of the quality and benefits of trees on Site as pe BS5837:2012.  1=Arboricultural quality/value  2=Landscape quality/value  3=Cultural quality/value (including conservation)	r Table 1 and 2 of
	A=High quality/value 40yrs+ (light green). B=Moderate quality/value 20yrs+ (mid blue) C=Low quality/value min 10yrs/stem diameter less than 150mm U=Unsuitable for retention (dark red).	n (grey).
Life stage	Young (Y): Newly planted tree 0-10 years.  Semi-Mature (SM): Tree in the first third of its normal life expert (significant potential for future growth in size).  Early Mature (EM): Tree in the second third of its normal life expert (some potential for future growth in size)  Mature (M): Tree in the final third of its normal life expectancy for reached its approximate ultimate size).  Over Mature (OM): Tree beyond the normal life expectancy for Veteran (V): Tree which is of interest biologically, aesthetically condition, size or age.	xpectancy for the species for the species (having typically r the species.
Structural condition	Good: No significant structural defects  Fair: Structural defects which can be resolved via remedial wor  Poor: Structural defects which cannot be resolved via remedial  Dead: Dead.	
Physiological condition	Good: Normal vitality including leaf size, bud growth, density of development.  Fair: Lower than normal vitality, reduced bud development, reduced bud development and distribution of buds, didensity, little extension growth for the species.  Dead: Dead  Fair/Good = Indicates an intermediate condition  Fair - Good = Indicates a range of conditions (e.g. within a growth)	luced crown density, reduced scoloured leaves, low crown

Preliminary	Works identified during the tree survey as part of sound arboricultural management, based on
management	the current context of the Site (where relevant reference has been made to tree management
recommendations	based on the potential future context of the site).
Works to facilitate the development	Tree works identified as necessary to facilitate the Proposed Development following a desk top analysis of the proposals in relation to tree constraints.

## Appendix C High Level Tree Removal Plan and Converter Station Tree Protection Plan