Capital and operating cost assumptions

Table 20: Capital and operating cost assumptions for all technologies

	Gas	- CCGT			OCGT					
		Con	nmissioni	ng			Com	missionir	ng	
		2016	2017	2020			2016	2017	2020	
Pre-development	High	20	20	20	Pre-development	High	30	30	30	
£/kW	Medium	10	10	10	£/kW	Medium	20	20	20	
	Low	5	5	5		Low	20	20	20	
Construction costs	High	700	700	700	Construction costs	High	300	300	300	
£/kW	Medium	600	600	600	£/kW	Medium	300	300	300	
	Low	500	500	500		Low	200	200	200	
Fixed O+M					Fixed O+M					
£/MW/yr	Medium	22000	22000	22000	£/MW/yr	Medium	9900	9900	9900	
Variable O+M					Variable O+M					
£/MWh	Medium	0.1	0.1	0.1	£/MWh	Medium	0.1	0.1	0.1	
Insurance					Insurance					
£/MW/yr	Medium	1990	1990	1990	£/MW/yr	Medium	960	960	960	
Connection and Use of System charges					Connection and Use of System charges					
£/MW/yr	Medium	6840	6840	6840	£/MW/yr	Medium	3440	3440	3440	
£/IVIV V/ yI	Wediam	00.10	0010	0040	Ziwwyji	Modium	00			
Gas - CCGT	with post	combus	stion CC			GCC with	n CCS (FC	OAK)		
Gas - CCGT	with post	combus	stion CC		Coal - IC	GCC with	n CCS (FC	OAK)		
Gas - CCGT	with post Con	combus nmissioni 2025	stion CC		Coal - IC	GCC with	n CCS (FC mmissionir 2025	OAK)		
Gas - CCGT	with post Con High	combus nmissioni 2025 45	stion CC		Coal - IO FOAK Pre-development	GCC with Con	n CCS (FC mmissionir 2025 60	OAK)		
Gas - CCGT	with post Con High Medium	combus nmissioni 2025 45 30	stion CC		Coal - IC	GCC with Con High Medium	n CCS (FC mmissionir 2025 60 50	OAK)		
Gas - CCGT	with post Con High	combus nmissioni 2025 45	stion CC		Coal - IO FOAK Pre-development	GCC with Con	n CCS (FC mmissionir 2025 60	OAK)		
Gas - CCGT	with post Con High Medium	combus nmissioni 2025 45 30	stion CC		Coal - IO FOAK Pre-development	GCC with Con High Medium	n CCS (FC mmissionir 2025 60 50	OAK)		
Gas - CCGT	with post Con High Medium Low	combus nmissioni 2025 45 30 25	stion CC		Coal - IC FOAK Pre-development £/kW	GCC with Con High Medium Low	n CCS (FC mmissionir 2025 60 50 45	OAK)		
Gas - CCGT	with post Con High Medium Low	combus nmissioni 2025 45 30 25	stion CC		Coal - IC FOAK Pre-development £/kW Construction costs	High Medium Low	n CCS (FC mmissionir 2025 60 50 45 3800	OAK)		
Gas - CCGT	with post Con High Medium Low High Medium	combus nmissioni 2025 45 30 25 1500 1300	stion CC		FOAK Pre-development £/kW Construction costs £/kW	High Medium Low High Medium	n CCS (FC mmissionir 2025 60 50 45 3800 3300	OAK)		
Gas - CCGT	with post Con High Medium Low High Medium	combus nmissioni 2025 45 30 25 1500 1300	stion CC		Coal - IC FOAK Pre-development £/kW Construction costs	High Medium Low High Medium Low	n CCS (FC mmissionir 2025 60 50 45 3800 3300	OAK)		
Gas - CCGT FOAK Pre-development £/kW Construction costs £/kW Fixed O+M £/MW/yr	With post Con High Medium Low High Medium Low Medium	combus nmissioni 2025 45 30 25 1500 1300 1100	stion CC		Coal - IO FOAK Pre-development £/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M	High Medium Low High Medium Low	n CCS (FC mmissionir 2025 60 50 45 3800 3300 2700	OAK)		
Gas - CCGT FOAK Pre-development £/kW Construction costs £/kW Fixed O+M £/MW/yr	with post Con High Medium Low High Medium Low	combus nmissioni 2025 45 30 25 1500 1300 1100	stion CC		Coal - IC FOAK Pre-development £/kW Construction costs £/kW Fixed O+M £/MW//yr	High Medium Low High Medium Low	n CCS (FC mmissionir 2025 60 50 45 3800 3300 2700	OAK)		
Gas - CCGT FOAK Pre-development £/kW Construction costs £/kW Fixed O+M £/MW/yr	With post Con High Medium Low High Medium Low Medium	2025 45 30 25 1500 1300 1100	stion CC		Coal - IO FOAK Pre-development £/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M	High Medium Low High Medium Low	n CCS (FC mmissionir 2025 60 50 45 3800 3300 2700	OAK)		
Gas - CCGT FOAK Pre-development £/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M £/MW/h	With post Con High Medium Low High Medium Low Medium	2025 45 30 25 1500 1300 1100	stion CC		Coal - IC FOAK Pre-development £/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M £/MW/h	High Medium Low High Medium Low	n CCS (FC mmissionir 2025 60 50 45 3800 3300 2700	OAK)		
Gas - CCGT FOAK Pre-development £/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M £/MW/h Insurance £/MW/yr Connection and Use	High Medium Low Medium Low Medium	2025 45 30 25 1500 1300 1100	stion CC		Coal - IC FOAK Pre-development £/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M £/MW/h	High Medium Low High Medium Low Medium Medium	n CCS (FCmmissionir 2025 60 50 45 3800 3300 2700	OAK)		
Gas - CCGT FOAK Pre-development £/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M £/MWh Insurance £/MW/yr	High Medium Low Medium Low Medium	2025 45 30 25 1500 1300 1100	stion CC		Coal - IC FOAK Pre-development £/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M £/MW/h Insurance £/MW/yr	High Medium Low High Medium Low Medium Medium	n CCS (FCmmissionir 2025 60 50 45 3800 3300 2700	OAK)		

Coal - ASC v	with oxy o	combust	ion CCS	- FOAK		Nucl	ear - FO	AK		
	Con	nmissioni	ng			Co	mmission	ing		
		2025					2020			
Pre-development	High	45			Pre-development	High	470			
£/kW	Medium	25			£/kW	Medium	210			
	Low	20				Low	110			
Construction costs	High	2500			Construction costs	High	4600			
£/kW	Medium	2200			£/kW	Medium	4100			
	Low	2000				Low	3700			
Fixed O+M					Fixed O+M					
£/MW/yr	Medium	56900			£/MW/yr	Medium	72000			
•										
Variable O+M					Variable O+M					
£/MWh	Medium	2			£/MWh	Medium	3			
Insurance					Insurance					
£/MW/yr	Medium	3400			£/MW/yr	Medium	10000			
Connection and Use					Connection and Use					
of System charges					of System charges					
£/MW/yr	Medium	8800			£/MW/yr	Medium	7400			
~		0000			2					
	CCC	T CHP			C	o-firina	Standar	d CHP		
			missionin	ng		<u> </u>		nmission	ing	
		2016	2017	2020			2016	2017	2020	
Pre-development	High	75	75	75	Pre-development	High				
£/kW	Medium	50	50	50	£/kW		Included	in Constru	uction cos	
	Low	30	30	30		Low				
Construction costs	High	700	700	700	Construction costs	High				
£/kW	Medium	600	600	600	£/kW	Medium	4300	4300	4300	
	Low	500	500	500		Low				
Fixed O+M					Fixed O+M					
£/MW/yr	Medium	46300	46300	46300	£/MW/yr	Medium	260000	260000	260000	
Variable O+M					Variable O+M					
£/MWh	Medium	0.1	0.1	0.1	£/MWh	Medium	2	2	2	
Insurance					Insurance					
£/MW/yr	Medium	2000	2000	2000	£/MW/yr	Medium	Included	in fixed O	+M	
Connection and Use					Connection and Use					
of System charges					of System charges					
	Medium	6700	6700	6700	£/MW/yr	Medium	Included	in fixed O	+M	
£/MW/yr										

	ACT	Advance	ed		ACT standard						
		Cor	nmission	ing			Cor	nmission	ing		
		2016	2017	2020			2016	2017	2020		
Pre-development	High	1000	1000	1000	Pre-development	High	1005	1005	1005		
£/kW	Medium	410	410	410	£/kW	Medium	360	360	360		
	Low	170	170	170		Low	165	165	165		
Construction costs	High	6900	6800	6600	Construction costs	High	10100	10000	9800		
£/kW	Medium	6800	6700	6500	£/kW	Medium	5600	5500	5400		
	Low	5100	5000	4900		Low	900	900	900		
Fixed O+M					Fixed O+M						
£/MW/yr	Medium	414800	410900	399500	£/MW/yr	Medium	426000	422000	410000		
Variable O+M					Variable O+M						
£/MWh	Medium	13	13	13	£/MWh	Medium	25	25	25		
Insurance	Madiiii	04000	04700	04050	Insurance	Madhii	04000	04000	04070		
£/MW/yr	Medium	21900	21700	21050	£/MW/yr	Medium	21890	21680	21070		
Connection and Use of System charges					Connection and Use of System charges						
£/MW/yr	Madium	Included	in fixed O	. 1.4	£/MW/yr	Medium	5570	5520	5360		
£/1010 0/ yi	Wediam	mciaaea	III IIXEU O	T IVI	£/ivivv/yi	Medium	3370	3320	3300		
De	dicated	biomass	>50MV	I	Dedicated biomass 5-50MW						
			nmission	•				nmission	•		
		2016	2017	2020			2016	2017	2020		
Pre-development	High	40	40	40	Pre-development	High	110	110	110		
£/kW	Medium	30	30	30	£/kW	Medium	95	95	95		
	Low	15	15	15		Low	40	40	40		
Construction costs	High	4600	4600	4500	Construction costs	High	5100	5000	4900		
	High Medium	4600 2500	4600 2500	4500 2400	Construction costs £/kW	High Medium	5100 3600	5000 3500	4900 3500		
Construction costs £/kW						-					
£/kW	Medium	2500	2500	2400	£/kW	Medium	3600	3500	3500		
	Medium	2500	2500	2400		Medium	3600 2500	3500	3500 2500		
£/kW Fixed O+M £/MW/yr Variable O+M	Medium Low	2500 2000	2500 2100	2400 2000	£/kW Fixed O+M £/MW/yr Variable O+M	Medium Low Medium	3600 2500	3500 2500	3500 2500		
£/kW Fixed O+M £/MW/yr	Medium Low	2500 2000	2500 2100	2400 2000	£/kW Fixed O+M £/MW/yr	Medium Low	3600 2500	3500 2500	3500 2500		
£/kW Fixed O+M £/MW/yr Variable O+M	Medium Low Medium	2500 2000 96500	2500 2100 95900	2400 2000 94400	£/kW Fixed O+M £/MW/yr Variable O+M	Medium Low Medium	3600 2500 112000	3500 2500 111000	3500 2500 109000		
£/kW Fixed O+M £/MW/yr Variable O+M £/MWh	Medium Low Medium	2500 2000 96500	2500 2100 95900	2400 2000 94400	£/kW Fixed O+M £/MW/yr Variable O+M £/MWh	Medium Low Medium	3600 2500 112000	3500 2500 111000	3500 2500 109000		
£/kW Fixed O+M £/MW/yr Variable O+M £/MWh Insurance £/MW/yr Connection and Use	Medium Low Medium Medium	2500 2000 96500 5	2500 2100 95900 5	2400 2000 94400 5	£/kW Fixed O+M £/MW/yr Variable O+M £/MWh Insurance £/MW/yr Connection and Use	Medium Low Medium	3600 2500 112000 5	3500 2500 111000 5	3500 2500 109000 5		
£/kW Fixed O+M £/MW/yr Variable O+M £/MWh Insurance £/MW/yr	Medium Low Medium Medium	2500 2000 96500 5	2500 2100 95900 5	2400 2000 94400 5	£/kW Fixed O+M £/MW/yr Variable O+M £/MWh Insurance £/MW/yr	Medium Low Medium	3600 2500 112000 5	3500 2500 111000 5	3500 2500 109000 5		

	Onsho	ore >5 M	W		Offshore Round 2						
		Con	nmissioni	ng		Commissioning					
		2016	2017	2020			2016	2017	2020		
Pre-development	High	240	240	240	Pre-development	High	120	120	120		
£/kW	Medium	100	100	100	£/kW	Medium	70	70	70		
	Low	30	30	30		Low	50	50	50		
Construction costs	High	1800	1800	1700	Construction costs	High	2900	2700	2400		
£/kW	Medium	1500	1500	1400	£/kW	Medium	2500	2300	2000		
	Low	1100	1100	1100		Low	2100	2000	1700		
Fixed O+M					Fixed O+M						
£/MW/yr	Medium	37100	37100	37200	£/MW/yr	Medium	62900	60500	54600		
Variable O+M					Variable O+M						
£/MWh	Medium	5	5	5	£/MWh	Medium	2	2	2		
Insurance	Madhii	2000	2040	2042	Insurance	Madhii	44000	44400	40000		
£/MW/yr	Medium	3000	3010	3010	£/MW/yr	Medium	11600	11100	10000		
Connection and Use					Connection and Use						
of System charges	Medium	4510	4510	4510	of System charges	Medium	45000	44200	39900		
£/MW/yr	weatum	4510	4510	4510	£/MW/yr	Medium	45900	44200	39900		
	Offshor	re Roun	d 3			Bio	oliquids				
			nmissioni	ng				nmission	ing		
		2016	2017	2020			2016	2017	2020		
Pre-development	High	150	150	150	Pre-development	High	1040	1040	1040		
£/kW	Medium	105	105	105	£/kW	Medium	180	180	180		
	Low	50	50	50		Low	30	30	30		
Construction costs	High	3100	3000	2600	Construction costs	High	1900	1900	1900		
£/kW	Medium	2600	2400	2100	£/kW	Medium	800	800	800		
	Low	2200	2100	1800		Low	500	500	500		
Fixed O+M					Fixed O+M						
£/MW/yr	Medium	70900	67000	57800	£/MW/yr	Medium	121000	120700	120200		
Variable O+M					Variable O+M						
£/MWh	Medium	Include	ed in fixed	O+M	£/MWh	Medium	6	7	8		
Insurance	Madhii	22222	24022	20702	Insurance	Madhii	4000	4000	4000		
£/MW/yr	Medium	32800	31000	26700	£/MW/yr	Medium	4900	4900	4800		
Connection and Use					Connection and Use						
of System charges £/MW/yr	Medium	60600	57200	49400	of System charges	Medium	12000	12000	11900		
	IVIE:CITTIII	บบทบป	37700	43400	I T./ IVIV V/ VI	wealull	1/000	12000	11900		

2016 1000 180 30 2000 800 500	ent High Medium Low costs High Medium Low Medium Medium	2017 1000 180 30 2000 800 500	2020 1000 180 30 2000 800 500	Pre-development £/kW Construction costs £/kW Fixed O+M £/MW/yr	High Medium Low High Medium Low	2016 7 5 2 170 120 40	10000000000000000000000000000000000000	7 5 2 160 120 40	
1000 180 30 2000 800 500 121000	Medium Low costs High Medium Low Medium	1000 180 30 2000 800 500	1000 180 30 2000 800 500	£/kW Construction costs £/kW Fixed O+M	Medium Low High Medium Low	7 5 2 170 120 40	7 5 2 170 120 40	7 5 2 160 120	
180 30 2000 800 500 121000	Medium Low costs High Medium Low Medium	180 30 2000 800 500	180 30 2000 800 500	£/kW Construction costs £/kW Fixed O+M	Medium Low High Medium Low	5 2 170 120 40	5 2 170 120 40	5 2 160 120	
30 2000 800 500 121000	Low costs High Medium Low Medium Medium	30 2000 800 500 120700	30 2000 800 500	Construction costs £/kW	Low High Medium Low	170 120 40	170 120 40	2 160 120	
2000 800 500 121000	costs High Medium Low Medium	2000 800 500	2000 800 500	£/kW Fixed O+M	High Medium Low	170 120 40	170 120 40	160 120	
800 500 121000 6	Medium Low Medium Medium	800 500	800 500 120200	£/kW Fixed O+M	Medium Low	120 40	120 40	120	
500 121000 6	Low Medium Medium	500 120700	500	Fixed O+M	Low	40	40		
121000 6	Mediun Mediun	120700	120200					40	
6	Mediun				Medium	10100			
6	Mediun			£/MW/yr	Medium	10100			
		7	0			10100	10100	10200	
		7	0	Variable O+M					
4900	Medium		8	£/MWh	Medium	1	2	3	
4900	Medium			Insurance					
		4900	4800	£/MW/yr	Medium	900	900	900	
	nd Use arges			Connection and Use of System charges					
12000	Medium	12000	11900	£/MW/yr	Medium	9200	9200	9200	
Enhan	Cofiri	ced			Biomass				
		nmission	•				missioni	-	
2016		2017	2020			2016	2017	2020	
60	ent High	60	60	Pre-development	High	60	60	60	
60	Medium	60	60	£/kW	Medium	60	60	60	
60	Low	60	60		Low	60	60	60	
700	costs High	700	700	Construction costs	High	700	700	700	
400	Medium	400	400	£/kW	Medium	400	400	400	
300	Low	300	300		Low	300	300	300	
				Fixed O+M					
	Medium	41000	41000	£/MW/yr	Medium	40900	41000	41000	
40900				Variable O+M					
	Medium	2	3	£/MWh	Medium	1	2	3	
40900				Insurance					
	Medium	1300	1300	£/MW/yr	Medium	1300	1300	1300	
				Connection and Use					
1	nd Use arges		17500	of System charges £/MW/yr	Medium	17500	17500	17500	
•	Medium	1300	1300 1300 17500 17500		1300 1300 1300 £/MW/yr Connection and Use of System charges	1300 1300 1300 £/MW/yr Medium Connection and Use of System charges	1300 1300 1300 £/MW/yr Medium 1300 Connection and Use of System charges	1300 1300 1300 £/MW/yr Medium 1300 1300 Connection and Use of System charges	1300 1300 1300 £/MW/yr Medium 1300 1300 1300 Connection and Use of System charges

	,	Wave		Tidal st	ream shallow
	Co	mmissioning		Co	mmissioning
		2025			2025
Pre-development	High	130	Pre-development	High	
£/kW	Medium	110	£/kW	Medium	Included in construction costs
	Low	100		Low	
Construction costs	High	4700	Construction costs	High	3100
£/kW	Medium	4500	£/kW	Medium	2700
	Low	3800		Low	2000
Fixed O+M			Fixed O+M		
£/MW/yr	Medium	97800	£/MW/yr	Medium	143300
Variable O+M			Variable O+M		
£/MWh	Medium	Included in fixed O+M	£/MWh	Medium	1
Insurance			Insurance		
£/MW/yr	Medium	Included in fixed O+M	£/MW/yr	Medium	Included in fixed O+M
Connection and Use			Connection and Use		
of System charges			of System charges		
£/MW/yr	Medium	Included in fixed O+M	£/MW/yr	Medium	Included in fixed O+M
	Tidal s	stream deep		Tic	lal range
	Co	mmissioning 2025		Co	mmissioning 2025
Pre-development	High		Pre-development	High	
£/kW	Medium Low	Included in construction costs	£/kW	Medium Low	Included in construction costs
		2000	Construction costs		
Construction costs	High	3600	Construction costs	High	3800
	High Medium	3200	£/kW	High Medium	3800 3000
	-			_	
Construction costs £/kW Fixed O+M	Medium	3200		Medium	3000
£/kW Fixed O+M	Medium	3200	£/kW	Medium	3000
£/kW Fixed O+M £/MW/yr Variable O+M	Medium Low Medium	3200 2700 114000	£/kW Fixed O+M £/MW/yr Variable O+M	Medium Low Medium	3000 2200 38000
£/kW Fixed O+M £/MW/yr Variable O+M	Medium Low	3200 2700	£/kW Fixed O+M £/MW/yr	Medium Low Medium	3000 2200
£/kW Fixed O+M £/MW/yr Variable O+M £/MWh	Medium Low Medium Medium	3200 2700 114000	£/kW Fixed O+M £/MW/yr Variable O+M £/MWh	Medium Low Medium	3000 2200 38000 Included in fixed O+M
£/kW Fixed O+M £/MW/yr Variable O+M £/MWh	Medium Low Medium Medium	3200 2700 114000	£/kW Fixed O+M £/MW/yr Variable O+M £/MW/h	Medium Low Medium	3000 2200 38000
£/kW Fixed O+M £/MW/yr Variable O+M £/MW/h	Medium Low Medium Medium	3200 2700 114000	£/kW Fixed O+M £/MW/yr Variable O+M £/MWh	Medium Low Medium	3000 2200 38000 Included in fixed O+M

	Hydropo	ower 5-16	6MW			Hydro La	arge Sto	rage		
			nmission	•				nmissioni	-	
		2016	2017	2020			2016	2017	2020	
Pre-development £/kW	High Medium Low	50	50	50	Pre-development £/kW	High Medium Low	55	55	55	
Construction costs £/kW	High Medium Low	3100	3100	3300	Construction costs £/kW	High Medium Low	3400	3400	3600	
Fixed O+M £/MW/yr	Medium	43500	43600	43700	Fixed O+M £/MW/yr	Medium	24800	24800	24900	
Variable O+M £/MWh	Medium	10	11	12	Variable O+M £/MWh	Medium	6	7	8	
Insurance £/MW/yr	Medium	Included i	in fixed O	+M	Insurance £/MW/yr	Medium	900	900	900	
Connection and Use of System charges £/MW/yr	Medium	Included i	n fixed O	+M	Connection and Use of System charges £/MW/yr	Medium	7300	7300	7400	
	Sew	age Gas	3		Landfill					
			nmission	•				nmissioni	-	
		2016	2017	2020			2016	2017	2020	
Pre-development £/kW	High Medium Low	Included i	in constru	ction costs	Pre-development £/kW	High Medium Low	210 130 30	210 130 30	210 130 30	
Construction costs £/kW	High Medium Low	5900 3600 2300	5900 3600 2300	5800 3500 2200	Construction costs £/kW	High Medium Low	3400 2000 1000	3400 2000 1000	3300 2000 1000	
Fixed O+M £/MW/yr	Medium	101000	101000	101000	Fixed O+M £/MW/yr	Medium	59600	59600	59700	
Variable O+M £/MWh	Medium	Included i	n fixed O	+M	Variable O+M £/MWh	Medium	10	11	12	
Insurance £/MW/yr	Medium	Included i	n fixed O	+M	Insurance £/MW/yr	Medium	1300	1300	1300	
Connection and Use of System charges £/MW/yr	Medium	8700	8700	8700	Connection and Use of System charges £/MW/yr	Medium	5100	5100	5100	

	Energy	from Wa	iste		Energy from Waste CHP					
			nmission	ing				nmission	ing	
		2016	2017	2020			2016	2017	2020	
Pre-development £/kW	High Medium Low	Included i	in constru	uction costs	Pre-development £/kW	High Medium Low	Included	in constru	ction costs	
Construction costs	High	5200	5200	5100	Construction costs	High	6900	6900	6800	
£/kW	Medium Low	4900 4500	4900 4500	4800 4500	£/kW	Medium Low	6200 5500	6200 5500	6100 5400	
Fixed O+M	Modium	222000	222000	222000	Fixed O+M	Medium	260000	260200	260600	
£/MW/yr	iviedium	222000	222000	222000	£/MW/yr	wealum	269000	269200	209000	
Variable O+M £/MWh	Medium	25	25	25	Variable O+M £/MWh	Medium	30	30	30	
Insurance £/MW/yr	Medium	Included i	in fixed O	+M	Insurance £/MW/yr	Medium	Included	in fixed O-	+M	
Connection and Use of System charges £/MW/yr	Medium	Included i	in fixed O	+M	Connection and Use of System charges £/MW/yr	Medium	Included	in fixed O	+M	
	Ge	othermal				Geoth	nermal C			
	Geo	Con	nmission	-		Geoth	Cor	nmission		
Box dovelance at		Con 2016	nmission 2017	2020	B. d. d.		Cor 2016	nmissioni 2017	2020	
•	High	Con 2016 300	mission 2017 300	2020 300	Pre-development	High	Cor 2016 240	2017 240	2020 240	
•	High Medium	Con 2016 300 140	2017 300 140	2020 300 140	Pre-development £/kW	High Medium	Cor 2016 240 140	2017 240 140	2020 240 140	
Pre-development £/kW	High	Con 2016 300	mission 2017 300	2020 300		High	Cor 2016 240	2017 240	2020 240	
•	High Medium	Con 2016 300 140	2017 300 140	2020 300 140		High Medium	Cor 2016 240 140	2017 240 140	2020 240 140	
£/kW Construction costs	High Medium Low	Con 2016 300 140 50	300 140 50	2020 300 140 50	£/kW	High Medium Low	Cor 2016 240 140 50	2017 240 140 50	2020 240 140 50	
£/kW	High Medium Low High	2016 300 140 50	300 140 50 6300	2020 300 140 50	£/kW Construction costs	High Medium Low High	2016 240 140 50	2017 240 140 50	2020 240 140 50	
£/kW Construction costs	High Medium Low High Medium	2016 300 140 50 6700 4600	2017 300 140 50 6300 4400	2020 300 140 50 5900 4100	£/kW Construction costs	High Medium Low High Medium	2016 240 140 50 7300 5100	2017 240 140 50 6800 4800	2020 240 140 50 6400 4500	
£/kW Construction costs £/kW Fixed O+M £/MW/yr	High Medium Low High Medium Low	2016 300 140 50 6700 4600 2300	100 mission 2017 300 140 50 6300 4400 2200	2020 300 140 50 5900 4100 2000	£/kW Construction costs £/kW Fixed O+M £/MW/yr	High Medium Low High Medium Low	7300 5100 240 7300 5100 2600	nmission 2017 240 140 50 6800 4800 2500	2020 240 140 50 6400 4500 2300	
£/kW Construction costs £/kW	High Medium Low High Medium Low	2016 300 140 50 6700 4600 2300	100 mission 2017 300 140 50 6300 4400 2200	2020 300 140 50 5900 4100 2000	£/kW Construction costs £/kW Fixed O+M	High Medium Low High Medium Low	7300 5100 240 7300 5100 2600	nmission 2017 240 140 50 6800 4800 2500	2020 240 140 50 6400 4500 2300	
£/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M £/MW/h	High Medium Low High Medium Low	2016 300 140 50 6700 4600 2300	140 50 6300 4400 2200	2020 300 140 50 5900 4100 2000	£/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M	High Medium Low High Medium Low	7300 5100 2600	nmission 2017 240 140 50 6800 4800 2500	2020 240 140 50 6400 4500 2300	
£/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M	High Medium Low High Medium Low	2016 300 140 50 6700 4600 2300	140 50 6300 4400 2200	2020 300 140 50 5900 4100 2000	£/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M £/MWh	High Medium Low High Medium Low	7300 5100 2600	nmission 2017 240 140 50 6800 4800 2500	2020 240 140 50 6400 4500 2300	
£/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M £/MWh	High Medium Low High Medium Low Medium	2016 300 140 50 6700 4600 2300	10 mission 2017 300 140 50 6300 4400 2200 35800	2020 300 140 50 5900 4100 2000 35800	£/kW Construction costs £/kW Fixed O+M £/MW/yr Variable O+M £/MWh	High Medium Low High Medium Low Medium	7300 5100 2400 140 50 7300 5100 2600	nmission 2017 240 140 50 6800 4800 2500	2020 240 140 50 6400 4500 2300 34200	

	Bion	nass CH	P				AD			
			nmission	ing			Cor	nmission	ing	
		2016	2017	2020			2016	2017	2020	
Pre-development	High				Pre-development	High	580	580	580	
£/kW	Medium	Included	in constru	ction costs	£/kW	Medium	180	180	180	
	Low					Low	50	50	50	
Construction costs	High	5000	5000	4900	Construction costs	High	7200	7200	7000	
£/kW	Medium	3900	3800	3800	£/kW	Medium	4000	3900	3900	
	Low	2700	2700	2700		Low	1700	1700	1700	
Fixed O+M					Fixed O+M					
£/MW/yr	Medium	149900	149100	146700	£/MVV/yr	Medium	301000	301000	301000	
Variable O+M					Variable O+M					
£/MWh	Medium	10	11	12	£/MWh	Medium	30	30	30	
Insurance £/MW/yr	Medium	25400	25300	24900	Insurance £/MW/yr	Medium	58000	58100	58200	
•	weuluill	23 4 00	25500	2 4 300		MEGIUIII	50000	30100	50200	
Connection and Use					Connection and Use					
of System charges					of System charges					
£/MW/yr	Medium	1400	1400	1400	£/MW/yr	Medium	8700	8700	8700	
	Α	D CHP				AC	т снр			
			nmission	•				nmission	-	
		2016	2017	2020			2016	2017	2020	
Pre-development	High				Pre-development	High	90	90	90	
£/kW		Included	in constru	ction costs	£/kW	Medium	90	90	90	
	Low					Low	90	90	90	
Construction costs	High	7200	7200	7000	Construction costs	High	10600	10500	10300	
£/kW	Medium	4200	4200	4100	£/kW	Medium	5900	5800	5700	
	Low	1800	1800	1800		Low	1000	1000	900	
Fixed O+M					Fixed O+M					
£/MW/yr	Medium	364000	364000	365000	£/MVV/yr	Medium	425800	421800	410000	
Variable O+M				0-	Variable O+M					
£/MWh	Medium	20	20	20	£/MWh	Medium	10	11	12	
2/10/00/11					Insurance					
Insurance	Modi	E0000	E0400	E0200	C /N /N A / / / m		24000	24700		
Insurance £/MW/yr	Medium	58000	58100	58200	£/MW/yr	Medium	21900	21700	21100	
Insurance £/MW/yr Connection and Use	Medium	58000	58100	58200	Connection and Use		21900	21700	21100	
Insurance £/MW/yr	Medium Medium	58000 8700	58100 8700	58200 8700			21900 5600	21700 5500	21100 5400	

	Large so	cale sola	r PV		Solar <4kW					
	Co	mmissionii	ng	· · · · · ·		Co	mmissioni	ng	· · · · · · · · · · · · · · · · · · ·	
		2016	2017	2020			2016	2017	2020	
Pre-development £/kW	High Medium Low	Included ii	n construd	ction costs	Pre-development £/kW	High Medium Low	edium Included in construction costs			
Construction costs £/kW	High Medium Low	1100 1000 900	1100 1000 900	900 900 800	Construction costs £/kW	High Medium Low	2500 1900 1500	2400 1800 1400	2100 1600 1300	
Fixed O+M £/MW/yr	Medium	22600	22400	21900	Fixed O+M £/MW/yr	Medium	23700	23600	23500	
Variable O+M £/MWh	Medium	Included ii	n fixed O-	-M	Variable O+M £/MWh	Medium	Included i	n fixed O-	+M	
Insurance £/MW/yr	Medium	Included ii	n fixed O+	-M	Insurance £/MW/yr	Medium	Included i	n fixed O-	⊦ M	
Connection and Use of System charges £/MW/yr	Medium	Included ii	n fixed O-l	-M	Connection and Use of System charges £/MW/yr	Medium	Included i	n fixed O-	+M	
	Onshor	e 1MW<5	MW			Onsh	ore <15k	w		
	Co	mmissionii	ng			Co	mmissioni	ng		
		2016	2017	2020			2016	2017	2020	
Pre-development £/kW	High Medium Low	Included ii	n construc	ction costs	Pre-development £/kW	High Medium Low	Included i	n constru	ction costs	
Construction costs £/kW	High Medium Low	2300 2000 1600	2300 2000 1600	2300 2000 1600	Construction costs £/kW	High Medium Low	6100 5500 5000	6100 5500 5000	6100 5500 5000	
Fixed O+M £/MW/yr	Medium	29600	29400	29000	Fixed O+M £/MW/yr	Medium	73000	73000	73000	
Variable O+M £/MWh	Medium	Included ii	n fixed O+	-M	Variable O+M £/MWh	Medium	Included i	n fixed O-	+M	
Insurance £/MW/yr	Medium	Included ii	n fixed O+	-M	Insurance £/MW/yr	Medium	Included i	n fixed O-	+M	
Connection and Use of System charges £/MW/yr	Medium	Included ii	n fixed O-l	-M	Connection and Use of System charges £/MW/yr	Medium	Included i	n fixed O-	+M	

	AD	< 250kW			AD > 500kW				
	Co	mmissioni	ng			Co	mmission	ing	
1		2016	2017	2020			2016	2017	2020
Pre-development £/kW	High Medium Low	Included	in constru	ction costs	Pre-development £/kW	High Medium Low	Included	in constru	ction costs
Construction costs £/kW	High Medium Low	8000 6000 4000	8000 6000 4000	8000 6000 4000	Construction costs £/kW	High Medium Low	6000 4500 3000	6000 4500 3000	6000 4500 3000
Fixed O+M £/MW/yr	Medium	924000	924000	924000	Fixed O+M £/MW/yr	Medium	714800	714800	714800
Variable O+M £/MWh	Medium	Included	in fixed O	+M	Variable O+M £/MWh	Medium	Included	in fixed O	+M
Insurance £/MW/yr	Medium	Included	in fixed O	+M	Insurance £/MW/yr	Medium	Included	in fixed O	+M
Connection and Use of System charges £/MW/yr	Medium	Included i	in fixed O	+M	Connection and Use of System charges £/MW/yr	Medium	Included	in fixed O	+M
Hyd	Iropowe	r 100kW-	-1000kV	V	Нус	dropowe	er <15kV	/	
	Co	mmissioni 2016	ng 2017	2020		Co	mmission 2016	ing 2017	2020
Pre-development £/kW	High Medium Low			ction costs	Pre-development £/kW	High Medium Low			ction costs
Construction costs £/kW	High Medium Low	10000 4500 2000	10000 4500 2000	10000 4500 2000	Construction costs £/kW	High Medium Low	21400 9500 4200	21400 9500 4200	21400 9500 4200
Fixed O+M £/MW/yr	Medium	104000	104000	104000	Fixed O+M £/MW/yr	Medium	110000	110000	110000
Variable O+M £/MWh	Medium	Included	in fixed O	+M	Variable O+M £/MWh	Medium	Included	in fixed O	+M
Insurance £/MW/yr	Medium	Included	in fixed O	+M	Insurance £/MW/yr	Medium	Included	in fixed O	+M
Connection and Use of System charges £/MW/yr	Medium	Included I	in fixed O	+M	Connection and Use of System charges £/MW/yr	Medium	Included	in fixed O	+M