Geothermal Energy - Appendix B v0 8 - Geothermal Financial Model 2003 - 15_1_2016 Offenham1.5MW.xls
Version Control

Version	Date	Update by	Comments
v0.1	15-Jan-16	Thomas Eckhardt	Offenham scenario 1 (1.5Mw heating @ 75% utilisation)
Final	22-Aug-16	Thomas Eckhardt	Final draft

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I - Scenario Manager

Scenarios

Investment Type	0	0 = Base Case Capital Investment £6.028m
Litres per second produced by Well	18	litres per second use to result in 1.5MW
Inflation	1	0 = inflation included in model (2.5%), 1 = no inflation in model current prices

Summary Returns	
Internal Rate of Return	**0.2%**
Payback	**Year 20**
Net Present Value £'000	**(2,300)**

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I - Key Assumptions

	TOTAL £'000	Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
KEY ASSUMPTIONS																							
Demonination	£'000																						
General Inflation		0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Compound General Inflation		1.000	1.025	1.051	1.077	1.104	1.131	1.160	1.189	1.218	1.249	1.280	1.312	1.345	1.379	1.413	1.448	1.485	1.522	1.560	1.599	1.639	1.680
WACC	4.0%																						
Compund WACC		1.000	1.040	1.082	1.125	1.170	1.217	1.265	1.316	1.369	1.423	1.480	1.539	1.601	1.665	1.732	1.801	1.873	1.948	2.026	2.107	2.191	2.279
Bank Base Rate		0.5%	1.0%	1.5%	2.0%	3.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
VAT Rate		20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Corporation Tax		23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%

CAPITAL INVESTMENT

		BASE CASE CAPITAL INVESTMENT			Extra			MODEL USING - Investment Type		
		Capital	Risk	TOTAL	Capital	Risk	TOTAL	Capital	Risk	TOTAL
Activity	**Timeline (memo only)**	**£'000**	**£'000**	**£'000**	**£'000**	**£'000**	**£'000**	**£'000**	**£'000**	**£'000**
Feasibility study		103	10	**113**				103	10	**113**
Stakeholder engagement/Commercial		55	6	**61**				55	6	**61**
Outline design, EIA/Planning		288	29	**317**				288	29	**317**
Detailed design		140	14	**154**				140	14	**154**
Construction incl. contract/tendering		4,895	490	**5,385**				4,895	490	**5,385**
			-	-				-	-	-
			-	-				-	-	-
			-	-				-	-	-
			-	-				-	-	-
			-	-				-	-	-
			-	-				-	-	-
TOTAL		**5,481**	**548**	**6,029**				5,481	548	**6,029**

Contingency Risk 10.0%

Investment Profile		**£'000**	**£'000**	**£'000**
Feasibility study		113	103	10
Stakeholder engagement/Commercial		61	55	6
Outline design, EIA/Planning		317	288	29
Detailed design		154	140	14
Construction incl. contract/tendering		5,385	4,895	490
	0	-	-	-
	0	-	-	-
	0	-	-	-
	0	-	-	-
	0	-	-	-
	0	-	-	-
TOTAL		6,029	5,481	548

OPERATIONS BUDGET

Volume generated by Well	18	litres per second
Well Temperature	35	degrees Celcius
Residual heat temperature	15	degrees Celcius
Temperature output	20	degrees Celcius
Energy Output	5,417,280	kilojoules
Energy Output	**1.50**	mwh

Energy Calculation:
Energy = (4.18 kj/kg*C) X (Temperature *C) X (Output litres per hour)

1MWH = Kilojoules / 3,600,000

Well Output at 100% Capacity per Annum **13,182** mwh

25.0% Percentage in Build Year 2

		Build 1	Build 2	Ops 1	Ops 2	Ops 3	Ops 4	Ops 5	Ops 6	Ops 7	Ops 8	Ops 9	Ops 10	Ops 11	Ops 12	Ops 13	Ops 14	Ops 15	Ops 16	Ops 17	Ops 18	Ops 19	Ops 20
Annual Well Output available		-	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182	13,182
Production Output / Sales Scaling of Well Capacity		0.0%	25.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Production / Sales Output		-	3,296	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887	9,887

Sales - Customer

Sales price per kwh (average per customer)	0.016 £ per kwh																						
Sales Price per mwh	16.00 £ per mwh	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Uninflated Sales Price per mwh		16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Sales Price indexation percentage		0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Compound General Inflation		1.000	1.025	1.051	1.077	1.104	1.131	1.160	1.189	1.218	1.249	1.280	1.312	1.345	1.379	1.413	1.448	1.485	1.522	1.560	1.599	1.639	1.680
Inflated Sales Price per mwh		16.00	16.40	16.81	17.23	17.66	18.10	18.56	19.02	19.49	19.98	20.48	20.99	21.52	22.06	22.61	23.17	23.75	24.35	24.95	25.58	26.22	26.87

Sales - Government Subsidy

Government subsidy per kwh	0.05 £ per kwh																						
Government subsidy per mwh	50.00 £ per mwh	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Uninflated Sales Price per mwh		50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Sales Price indexation percentage		0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Compound General Inflation		1.000	1.025	1.051	1.077	1.104	1.131	1.160	1.189	1.218	1.249	1.280	1.312	1.345	1.379	1.413	1.448	1.485	1.522	1.560	1.599	1.639	1.680

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I - Key Assumptions

	TOTAL £'000	Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
Inflated Sales Price per mwh		50.00	51.25	52.53	53.84	55.19	56.57	57.98	59.43	60.92	62.44	64.00	65.60	67.24	68.93	70.65	72.41	74.23	76.08	77.98	79.93	81.93	83.98

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I - Key Assumptions

	TOTAL £'000		Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
Direct Headcount																								
Operations Manager	*840*		-	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Operator 1	*630*		-	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Operator 2	*630*		-	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Operator 3	-		-																					
	2,100		-	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
On-Costs (NIC / Pensions etc.)	525	25.0%	-	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Direct Payroll	**2,625**		**-**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**
Other Direct Operating Costs																								
Opex 1	*1,890*		-	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Opex 2	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 3	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 4	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 5	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 6	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 7	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 8	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 9	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 10	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Direct Operating Costs	**1,890**		-	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Adminsitrative Expenses																								
Admin 1	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 2	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 3	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 4	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 5	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 6	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 7	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 8	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 9	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 10	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Administrative Expenses	**-**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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I - Key Assumptions

	TOTAL £'000		Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
Fixed Assets																								
Plant - depreciation		20 years																						

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I - Opening BS

	Opening £'000	A £'000	B £'000	C £'000	D £'000	E £'000	**Adjusted Opening** £'000
Fixed Assets							-
Trade Debtors - Customers							-
Debtors - Government Subsidy							-
Cash	-						-
	-	-	-	-	-	-	-
Trade Creditors	-						-
Fixed Asset Trade Creditors	-						-
Payroll Creditors	-						-
HMRC - VAT	-						-
HMRC - Corporation Tax	-						-
Loan Funding	-						-
	-	-	-	-	-	-	-
Net Assets	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Share Capital	-						-
Reserves	-						-
	-	-	-	-	-	-	-

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I - Funding

	TOTAL £'000	Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
Funding Drawdown	*6,029*	1,029	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repayment	*6,029*	-	-	420	420	420	420	420	420	420	420	420	420	420	420	400	400	189	-	-	-	-	-
Memo: Closing Cash from O - Financials		*(4,752)*	*(229)*	*(525)*	*(788)*	*(1,030)*	*(1,251)*	*(1,451)*	*(1,630)*	*(1,788)*	*(1,925)*	*(2,041)*	*(2,136)*	*(2,210)*	*(2,263)*	*(2,275)*	*(2,267)*	*(2,028)*	*(1,590)*	*(1,153)*	*(715)*	*(278)*	*145*
Funding Costs per annum	5.0%																						

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W - Workings

		TOTAL £'000	Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
REVENUES																								
Sales from Customers		*3,216*	-	53	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158
Sales income from Government subsidy		*10,051*	-	165	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494
		13,268	-	218	653	653	653	653	653	653	653	653	653	653	653	653	653	653	653	653	653	653	653	653
COST OF SALES																								
Direct Headcount		*2,625*	-	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
Other Opex		*1,890*	-	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
		4,515	-	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215
ADMINISTRATIVE EXPENSES																								
Admin Expenses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIXED ASSETS																								
Opening Cost	FIXED ASSETS		-	5,481	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029
Additions	FIXED ASSETS		5,481	548																				
Disposals	FIXED ASSETS																							
Closing Cost	FIXED ASSETS		5,481	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029	6,029
Opening Depreciation	FIXED ASSETS		-	-	-	(301)	(603)	(904)	(1,206)	(1,507)	(1,809)	(2,110)	(2,412)	(2,713)	(3,015)	(3,316)	(3,617)	(3,919)	(4,220)	(4,522)	(4,823)	(5,125)	(5,426)	(5,728)
Disposals	FIXED ASSETS																							
Charge for Period	FIXED ASSETS				(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)
Closing Depreciation	FIXED ASSETS		-	-	(301)	(603)	(904)	(1,206)	(1,507)	(1,809)	(2,110)	(2,412)	(2,713)	(3,015)	(3,316)	(3,617)	(3,919)	(4,220)	(4,522)	(4,823)	(5,125)	(5,426)	(5,728)	(6,029)
Net Book Value			**5,481**	**6,029**	**5,728**	**5,426**	**5,125**	**4,823**	**4,522**	**4,220**	**3,919**	**3,617**	**3,316**	**3,015**	**2,713**	**2,412**	**2,110**	**1,809**	**1,507**	**1,206**	**904**	**603**	**301**	**-**
Fixed Asset Cashflows																								
Opening Fixed Asset Creditor			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Additions			(5,481)	(548)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VAT on Additions			(1,096)	(110)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Payment to Fixed Asset Creditor			6,577	658	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Closing Fixed Asset Creditor			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CURRENT ASSETS																								
Trade Debtors - Customers																								
Opening Trade Debtors - Customers			-	-	6	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Net Sales			-	53	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158
VAT on Sales			-	11	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Cash Receipts from Trade Debtors			-	(57)	(177)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)
Closing Trade Debtors - Customers			-	6	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Debtors - Government Subsidy																								
Opening Debtors - Government Subsidy			-	-	16	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
Net Sales			-	165	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494
Cash Receipts from Trade Debtors			-	(148)	(461)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)	(494)
Closing Debtors - Government Subsidy			-	16	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
LIABILITIES																								
Payroll Creditor																								
Opening Payroll Creditor			-	-	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)
Payroll from Cost of Sales			-	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)
Payment of Payroll Creditors			-	113	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
Closing Payroll Creditor			-	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)
Trade Creditors																								
Opening Trade Creditors			-	-	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)
Net Purchases - Cost of Sales			-	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
Net Purchases - Administrative Expenses			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VAT on Purchases			-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Cash Payments to Trade Creditors			-	97	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108
Closing Trade Creditors			-	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)
HMRC VAT Control Account																								
Opening HMRC VAT			-	274	29	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
VAT on Sales - Customers			-	(11)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)	(32)
VAT on Trade Creditors			-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
VAT on Fixed Assets			1,096	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VAT Payment / (Recovery)			(822)	(362)	(19)	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Closing HMRC VAT			274	29	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)

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W - Workings

	TOTAL £'000	Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
HMRC - Corporation Tax																							
Opening HMRC - Corporation Tax		-	6	46	84	117	146	169	188	202	211	215	214	209	199	184	164	139	110	79	47	16	(15)
Charge for Year		6	40	38	33	28	24	19	14	9	4	(1)	(5)	(10)	(15)	(20)	(25)	(29)	(31)	(31)	(31)	(31)	(31)
Payment of Corporation Tax		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
Closing HMRC - Corporation Tax		6	46	84	117	146	169	188	202	211	215	214	209	199	184	164	139	110	79	47	16	(15)	(31)
Loan Funding																							
Opening Loan Funding		-	(1,029)	(6,029)	(5,609)	(5,189)	(4,769)	(4,349)	(3,929)	(3,509)	(3,089)	(2,669)	(2,249)	(1,829)	(1,409)	(989)	(589)	(189)	-	-	-	-	-
Cash Drawdown		(1,029)	(5,000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Charged		(26)	(176)	(301)	(280)	(259)	(238)	(217)	(196)	(175)	(154)	(133)	(112)	(91)	(70)	(49)	(29)	(9)	-	-	-	-	-
Payment of Interest		26	176	301	280	259	238	217	196	175	154	133	112	91	70	49	29	9	-	-	-	-	-
Scheduled Loan Funding Repayment		-	-	420	420	420	420	420	420	420	420	420	420	420	420	400	400	189	-	-	-	-	-
Additional Loan Funding Repayment																							
Closing Loan Funding		(1,029)	(6,029)	(5,609)	(5,189)	(4,769)	(4,349)	(3,929)	(3,509)	(3,089)	(2,669)	(2,249)	(1,829)	(1,409)	(989)	(589)	(189)	-	-	-	-	-	-

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O - Financials

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	TOTAL	Opening BS	Build 1	Build 2	Ops 1	Ops 2	Ops 3	Ops 4	Ops 5	Ops 6	Ops 7	Ops 8	Ops 9	Ops 10	Ops 11	Ops 12	Ops 13	Ops 14	Ops 15	Ops 16	Ops 17	Ops 18	Ops 19	Ops 20
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
PROFIT AND LOSS ACCOUNT																								
Revenue																								
Sales from Customers	*3,216*		-	53	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158
Sales income from Government subsidy	*10,051*		-	165	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494
	13,268		-	218	653	653	653	653	653	653	653	653	653	653	653	653	653	653	653	653	653	653	653	653
Cost of Sales																								
Direct Headcount	*(2,625)*		-	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)
Other Opex	*(1,890)*		-	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
	(4,515)		-	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)	(215)
Gross Profit	**8,753**		**-**	**3**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**
GPM%			*0%*	*1%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*	*67%*
Administrative Expenses	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EBITDA	**8,753**		**-**	**3**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**	**438**
Depreciation	*(6,029)*		-	-	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)	(301)
EBIT	**2,724**		**-**	**3**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**	**136**
Loan Funding Interest	*(2,522)*		(26)	(176)	(301)	(280)	(259)	(238)	(217)	(196)	(175)	(154)	(133)	(112)	(91)	(70)	(49)	(29)	(9)	-	-	-	-	-
Interest Received	-																							
	(2,522)		**(26)**	**(176)**	**(301)**	**(280)**	**(259)**	**(238)**	**(217)**	**(196)**	**(175)**	**(154)**	**(133)**	**(112)**	**(91)**	**(70)**	**(49)**	**(29)**	**(9)**	**-**	**-**	**-**	**-**	**-**
PBT	**202**		**(26)**	**(174)**	**(165)**	**(144)**	**(123)**	**(102)**	**(81)**	**(60)**	**(39)**	**(18)**	**3**	**24**	**45**	**66**	**87**	**107**	**127**	**136**	**136**	**136**	**136**	**136**
Corporation Tax	*(46)*		6	40	38	33	28	24	19	14	9	4	(1)	(5)	(10)	(15)	(20)	(25)	(29)	(31)	(31)	(31)	(31)	(31)
Retained Profit	**155**		**(20)**	**(134)**	**(127)**	**(111)**	**(95)**	**(79)**	**(63)**	**(47)**	**(30)**	**(14)**	**2**	**18**	**34**	**51**	**67**	**82**	**97**	**105**	**105**	**105**	**105**	**105**
BALANCE SHEET																								
Fixed Assets		-	5,481	6,029	5,728	5,426	5,125	4,823	4,522	4,220	3,919	3,617	3,316	3,015	2,713	2,412	2,110	1,809	1,507	1,206	904	603	301	-
Trade Debtors - Customers		-	-	6	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Debtors - Government Subsidy		-	-	16	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
Cash		-	(4,752)	(229)	(525)	(788)	(1,030)	(1,251)	(1,451)	(1,630)	(1,788)	(1,925)	(2,041)	(2,136)	(2,210)	(2,263)	(2,275)	(2,267)	(2,028)	(1,590)	(1,153)	(715)	(278)	145
		-	(4,752)	(206)	(457)	(720)	(962)	(1,183)	(1,383)	(1,562)	(1,720)	(1,857)	(1,973)	(2,067)	(2,141)	(2,194)	(2,206)	(2,198)	(1,959)	(1,522)	(1,084)	(647)	(209)	213
Trade Creditors		-	-	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)
Fixed Asset Trade Creditors		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Payroll Creditors		-	-	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)
HMRC - VAT		-	274	29	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
HMRC - Corporation Tax		-	6	46	84	117	146	169	188	202	211	215	214	209	199	184	164	139	110	79	47	16	(15)	(31)
Loan Funding		-	(1,029)	(6,029)	(5,609)	(5,189)	(4,769)	(4,349)	(3,929)	(3,509)	(3,089)	(2,669)	(2,249)	(1,829)	(1,409)	(989)	(589)	(189)	-	-	-	-	-	-
		-	(749)	(5,977)	(5,552)	(5,099)	(4,650)	(4,207)	(3,768)	(3,334)	(2,905)	(2,481)	(2,061)	(1,647)	(1,237)	(832)	(452)	(77)	83	52	21	(11)	(42)	(58)
Net Assets		**-**	**(20)**	**(154)**	**(281)**	**(392)**	**(487)**	**(566)**	**(629)**	**(675)**	**(706)**	**(720)**	**(718)**	**(700)**	**(665)**	**(615)**	**(548)**	**(466)**	**(369)**	**(264)**	**(159)**	**(54)**	**51**	**155**
Share Capital		-																						
Reserves		-	(20)	(154)	(281)	(392)	(487)	(566)	(629)	(675)	(706)	(720)	(718)	(700)	(665)	(615)	(548)	(466)	(369)	(264)	(159)	(54)	51	155
		-	**(20)**	**(154)**	**(281)**	**(392)**	**(487)**	**(566)**	**(629)**	**(675)**	**(706)**	**(720)**	**(718)**	**(700)**	**(665)**	**(615)**	**(548)**	**(466)**	**(369)**	**(264)**	**(159)**	**(54)**	**51**	**155**
CHECK		-	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
CASHFLOW																								
Cash inflows from Operations																								
Receipts from Customers	*3,841*		-	57	177	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190
Receipts from Government Subsidy	*10,002*		-	148	461	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494	494
	13,843		-	205	639	684	684	684	684	684	684	684	684	684	684	684	684	684	684	684	684	684	684	684
Cash outflows from Operations																								
Trade Creditors	*(2,257)*		-	(97)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)
Fixed Asset Trade Creditors	*(7,235)*		(6,577)	(658)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Payroll Creditors	*(2,613)*		-	(113)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)
HMRC - VAT	*944*		822	362	19	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
HMRC - Corporation Tax	*(15)*		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(15)
	(11,176)		(5,755)	(506)	(214)	(247)	(247)	(247)	(247)	(247)	(247)	(247)	(247)	(247)	(247)	(247)	(247)	(247)	(247)	(247)	(247)	(247)	(247)	(262)
Cashflows from Funding																								
Loan Funding - Drawdown	*6,029*		1,029	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loan Funding - Repayment	*(6,029)*		-	-	(420)	(420)	(420)	(420)	(420)	(420)	(420)	(420)	(420)	(420)	(420)	(420)	(400)	(400)	(189)	-	-	-	-	-
Loan Funding - Interest	*(2,522)*		(26)	(176)	(301)	(280)	(259)	(238)	(217)	(196)	(175)	(154)	(133)	(112)	(91)	(70)	(49)	(29)	(9)	-	-	-	-	-
	(2,522)		1,003	4,824	(721)	(700)	(679)	(658)	(637)	(616)	(595)	(574)	(553)	(532)	(511)	(490)	(449)	(429)	(198)	-	-	-	-	-
Cash Movement in Period	**145**		**(4,752)**	**4,523**	**(297)**	**(263)**	**(242)**	**(221)**	**(200)**	**(179)**	**(158)**	**(137)**	**(116)**	**(95)**	**(74)**	**(53)**	**(12)**	**8**	**239**	**438**	**438**	**438**	**438**	**422**
Opening Cash		-	(4,752)	(229)	(525)	(788)	(1,030)	(1,251)	(1,451)	(1,630)	(1,788)	(1,925)	(2,041)	(2,136)	(2,210)	(2,263)	(2,275)	(2,267)	(2,028)	(1,590)	(1,153)	(715)	(278)	
Cash movement in Period			(4,752)	4,523	(297)	(263)	(242)	(221)	(200)	(179)	(158)	(137)	(116)	(95)	(74)	(53)	(12)	8	239	438	438	438	438	422
Closing Cash			**(4,752)**	**(229)**	**(525)**	**(788)**	**(1,030)**	**(1,251)**	**(1,451)**	**(1,630)**	**(1,788)**	**(1,925)**	**(2,041)**	**(2,136)**	**(2,210)**	**(2,263)**	**(2,275)**	**(2,267)**	**(2,028)**	**(1,590)**	**(1,153)**	**(715)**	**(278)**	**145**

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O - Returns

	TOTAL	Opening BS	Build 1	Build 2	Ops 1	Ops 2	Ops 3	Ops 4	Ops 5	Ops 6	Ops 7	Ops 8	Ops 9	Ops 10	Ops 11	Ops 12	Ops 13	Ops 14	Ops 15	Ops 16	Ops 17	Ops 18	Ops 19	Ops 20
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
RETURNS																								
Capital Investment	*(6,029)*		(5,481)	(548)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EBITDA	*8,753*		-	3	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438
Cost of Funding	*(2,522)*		(26)	(176)	(301)	(280)	(259)	(238)	(217)	(196)	(175)	(154)	(133)	(112)	(91)	(70)	(49)	(29)	(9)	-	-	-	-	-
Net Flows	**202**		(5,507)	(722)	136	157	178	199	220	241	262	283	304	325	346	367	388	408	428	438	438	438	438	438
Cumulative Flows			(5,507)	(6,229)	(6,093)	(5,936)	(5,758)	(5,559)	(5,338)	(5,097)	(4,835)	(4,552)	(4,248)	(3,923)	(3,577)	(3,210)	(2,822)	(2,414)	(1,986)	(1,548)	(1,111)	(673)	(236)	202
Discounted Flows (WACC)			(5,507)	(694)	126	140	152	164	174	183	191	199	205	211	216	220	224	227	229	225	216	208	200	192
Payback Flag			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Payback Flag Cumulative			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Payback Flag Return			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20

INTERNAL RATE OF RETURN **0%**

PAYBACK - OPERATIONS **Year 20**

NET PRESENT VALUE **(2,300)** £'000

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Lists

Capital Investment Scenario	
Base Case Capital Investment	0
Evaluation Well Savings Case	1
Well Output	
Low Case	20
Business Case	30
High Case	40
Inflation	
Inflation included in model	0
Inflation excluded from model	1

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Template

	TOTAL	Build 1	Build 2	Ops 1	Ops 2	Ops 3	Ops 4	Ops 5	Ops 6	Ops 7	Ops 8	Ops 9	Ops 10	Ops 11	Ops 12	Ops 13	Ops 14	Ops 15	Ops 16	Ops 17	Ops 18	Ops 19	Ops 20
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000

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Version Control

Version	Date	Update by	Comments
v0.1	15-Jan-16	Thomas Eckhardt	Offenham scenario 2 (3.5MW heating @75% utilisation)
Final	22-Aug-16	Thomas Eckhardt	Final draft

Geothermal Energy - Appendix B v0 8 - Geothermal Financial Model 2003 - 15_1_2016 Offenham3.5MW.xls
I - Scenario Manager

Scenarios

Investment Type	0	0 = Base Case Capital Investment £6.238m
Litres per second produced by Well	33.5	litres per second use to result in 3.5MW
Inflation	1	0 = inflation included in model (2.5%), 1 = no inflation in model current prices

Summary Returns	
Internal Rate of Return	**15.4%**
Payback	**Year 6**
Net Present Value £'000	**9,579**

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Offenham3.5MW.xls
I - Key Assumptions

	TOTAL £'000	Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
KEY ASSUMPTIONS																							
Demonination	£'000																						
General Inflation		0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Compound General Inflation		1.000	1.025	1.051	1.077	1.104	1.131	1.160	1.189	1.218	1.249	1.280	1.312	1.345	1.379	1.413	1.448	1.485	1.522	1.560	1.599	1.639	1.680
WACC	4.0%																						
Compund WACC		1.000	1.040	1.082	1.125	1.170	1.217	1.265	1.316	1.369	1.423	1.480	1.539	1.601	1.665	1.732	1.801	1.873	1.948	2.026	2.107	2.191	2.279
Bank Base Rate		0.5%	1.0%	1.5%	2.0%	3.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
VAT Rate		20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Corporation Tax		23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%

CAPITAL INVESTMENT

		BASE CASE CAPITAL INVESTMENT			Extra			MODEL USING - Investment Type		
		Capital	Risk	TOTAL	Capital	Risk	TOTAL	Capital	Risk	TOTAL
Activity	**Timeline (memo only)**	**£'000**	**£'000**	**£'000**	**£'000**	**£'000**	**£'000**	**£'000**	**£'000**	**£'000**
Feasibility study		103	10	**113**				103	10	**113**
Stakeholder engagement/Commercial		55	6	**61**				55	6	**61**
Outline design, EIA/Planning		288	29	**317**				288	29	**317**
Detailed design		140	14	**154**				140	14	**154**
Construction incl. contract/tendering		5,085	509	**5,594**				5,085	509	**5,594**
			-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-
TOTAL		**5,671**	**567**	**6,238**	-	-	-	5,671	567	**6,238**

Contingency Risk 10.0%

Investment Profile	**£'000**	**£'000**	**£'000**
Feasibility study	113	103	10
Stakeholder engagement/Commercial	61	55	6
Outline design, EIA/Planning	317	288	29
Detailed design	154	140	14
Construction incl. contract/tendering	5,594	5,085	509
0	-	-	-
0	-	-	-
0	-	-	-
0	-	-	-
0	-	-	-
0	-	-	-
TOTAL	6,238	5,671	567

OPERATIONS BUDGET

Volume generated by Well	33.5	litres per second
Well Temperature	35	degrees Celcius
Residual heat temperature	10	degrees Celcius
Temperature output	25	degrees Celcius
Energy Output	12,602,700	kilojoules
Energy Output	**3.50**	mwh

Energy Calculation:
Energy = (4.18 kj/kg*C) X (Temperature *C) X (Output litres per hour)

1MWH = Kilojoules / 3,600,000

Well Output at 100% Capacity per Annum **30,667** mwh

25.0% Percentage in Build Year 2

		Build 1	Build 2	Ops 1	Ops 2	Ops 3	Ops 4	Ops 5	Ops 6	Ops 7	Ops 8	Ops 9	Ops 10	Ops 11	Ops 12	Ops 13	Ops 14	Ops 15	Ops 16	Ops 17	Ops 18	Ops 19	Ops 20
Annual Well Output available		-	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667	30,667
Production Output / Sales Scaling of Well Capacity		0.0%	25.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Production / Sales Output		-	7,667	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000

Sales - Customer

Sales price per kwh (average per customer)	0.016 £ per kwh																						
Sales Price per mwh	16.00 £ per mwh	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Uninflated Sales Price per mwh		16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Sales Price indexation percentage		0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Compound General Inflation		1.000	1.025	1.051	1.077	1.104	1.131	1.160	1.189	1.218	1.249	1.280	1.312	1.345	1.379	1.413	1.448	1.485	1.522	1.560	1.599	1.639	1.680
Inflated Sales Price per mwh		16.00	16.40	16.81	17.23	17.66	18.10	18.56	19.02	19.49	19.98	20.48	20.99	21.52	22.06	22.61	23.17	23.75	24.35	24.95	25.58	26.22	26.87

Sales - Government Subsidy

Government subsidy per kwh	0.05 £ per kwh																						
Government subsidy per mwh	50.00 £ per mwh	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Uninflated Sales Price per mwh		50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Sales Price indexation percentage		0.0%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Compound General Inflation		1.000	1.025	1.051	1.077	1.104	1.131	1.160	1.189	1.218	1.249	1.280	1.312	1.345	1.379	1.413	1.448	1.485	1.522	1.560	1.599	1.639	1.680

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I - Key Assumptions

	TOTAL £'000	Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
Inflated Sales Price per mwh		50.00	51.25	52.53	53.84	55.19	56.57	57.98	59.43	60.92	62.44	64.00	65.60	67.24	68.93	70.65	72.41	74.23	76.08	77.98	79.93	81.93	83.98

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Offenham3.5MW.xls
I - Key Assumptions

	TOTAL £'000		Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
Direct Headcount																								
Operations Manager	*840*		-	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Operator 1	*630*		-	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Operator 2	*630*		-	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Operator 3	-		-																					
	2,100		-	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
On-Costs (NIC / Pensions etc.)	525	25.0%	-	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Direct Payroll	**2,625**		**-**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**	**125**
Other Direct Operating Costs																								
Opex 1	*2,520*		-	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Opex 2	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 3	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 4	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 5	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 6	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 7	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 8	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 9	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex 10	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Direct Operating Costs	**2,520**		-	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Adminsitrative Expenses																								
Admin 1	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 2	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 3	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 4	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 5	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 6	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 7	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 8	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 9	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin 10	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Administrative Expenses	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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I - Key Assumptions

	TOTAL £'000		Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
Fixed Assets																								
Plant - depreciation		20 years																						

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I - Opening BS

	Opening £'000	A £'000	B £'000	C £'000	D £'000	E £'000	**Adjusted Opening** £'000
Fixed Assets							-
Trade Debtors - Customers							-
Debtors - Government Subsidy							-
Cash	-						-
	-	-	-	-	-	-	-
Trade Creditors	-						-
Fixed Asset Trade Creditors	-						-
Payroll Creditors	-						-
HMRC - VAT	-						-
HMRC - Corporation Tax	-						-
Loan Funding	-						-
	-	-	-	-	-	-	-
Net Assets	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Share Capital	-						-
Reserves	-						-
	-	-	-	-	-	-	-

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I - Funding

	TOTAL £'000	Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
Funding Drawdown	*6,238*	1,000	5,238	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repayment	*6,238*	-	-	1,000	1,200	1,200	1,200	1,200	438									-	-	-	-	-	-
Memo: Closing Cash from O - Financials		*(4,980)*	*1*	*(116)*	*(455)*	*(744)*	*(988)*	*(1,185)*	*(574)*	*483*	*1,535*	*2,587*	*3,638*	*4,690*	*5,742*	*6,794*	*7,846*	*8,898*	*9,950*	*11,002*	*12,054*	*13,106*	*14,158*
Funding Costs per annum	5.0%																						

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W - Workings

		TOTAL	Build 1	Build 2	Ops 1	Ops 2	Ops 3	Ops 4	Ops 5	Ops 6	Ops 7	Ops 8	Ops 9	Ops 10	Ops 11	Ops 12	Ops 13	Ops 14	Ops 15	Ops 16	Ops 17	Ops 18	Ops 19	Ops 20
		£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
REVENUES																								
Sales from Customers		*7,483*	-	123	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368
Sales income from Government subsidy		*23,383*	-	383	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150
		30,866	-	506	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518
COST OF SALES																								
Direct Headcount		*2,625*	-	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
Other Opex		*2,520*	-	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
		5,145	-	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245
ADMINISTRATIVE EXPENSES																								
Admin Expenses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIXED ASSETS																								
Opening Cost	FIXED ASSETS		-	5,671	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238
Additions	FIXED ASSETS		5,671	567																				
Disposals	FIXED ASSETS																							
Closing Cost	FIXED ASSETS		5,671	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238	6,238
Opening Depreciation	FIXED ASSETS		-	-	-	(312)	(624)	(936)	(1,248)	(1,560)	(1,871)	(2,183)	(2,495)	(2,807)	(3,119)	(3,431)	(3,743)	(4,055)	(4,367)	(4,679)	(4,990)	(5,302)	(5,614)	(5,926)
Disposals	FIXED ASSETS																							
Charge for Period	FIXED ASSETS				(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)
Closing Depreciation	FIXED ASSETS		-	-	(312)	(624)	(936)	(1,248)	(1,560)	(1,871)	(2,183)	(2,495)	(2,807)	(3,119)	(3,431)	(3,743)	(4,055)	(4,367)	(4,679)	(4,990)	(5,302)	(5,614)	(5,926)	(6,238)
Net Book Value			**5,671**	**6,238**	**5,926**	**5,614**	**5,302**	**4,990**	**4,679**	**4,367**	**4,055**	**3,743**	**3,431**	**3,119**	**2,807**	**2,495**	**2,183**	**1,871**	**1,560**	**1,248**	**936**	**624**	**312**	**-**
Fixed Asset Cashflows																								
Opening Fixed Asset Creditor			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Additions			(5,671)	(567)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VAT on Additions			(1,134)	(113)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Payment to Fixed Asset Creditor			6,805	681	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Closing Fixed Asset Creditor			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CURRENT ASSETS																								
Trade Debtors - Customers																								
Opening Trade Debtors - Customers			-	-	15	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Net Sales			-	123	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368
VAT on Sales			-	25	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74
Cash Receipts from Trade Debtors			-	(132)	(412)	(442)	(442)	(442)	(442)	(442)	(442)	(442)	(442)	(442)	(442)	(442)	(442)	(442)	(442)	(442)	(442)	(442)	(442)	(442)
Closing Trade Debtors - Customers			-	15	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Debtors - Government Subsidy																								
Opening Debtors - Government Subsidy			-	-	38	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
Net Sales			-	383	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150
Cash Receipts from Trade Debtors			-	(345)	(1,073)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)
Closing Debtors - Government Subsidy			-	38	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
LIABILITIES																								
Payroll Creditor																								
Opening Payroll Creditor			-	-	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)
Payroll from Cost of Sales			-	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)
Payment of Payroll Creditors			-	113	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
Closing Payroll Creditor			-	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)
Trade Creditors																								
Opening Trade Creditors			-	-	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Net Purchases - Cost of Sales			-	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)
Net Purchases - Administrative Expenses			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VAT on Purchases			-	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)
Cash Payments to Trade Creditors			-	130	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144
Closing Trade Creditors			-	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
HMRC VAT Control Account																								
Opening HMRC VAT			-	284	28	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
VAT on Sales - Customers			-	(25)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)	(74)
VAT on Trade Creditors			-	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
VAT on Fixed Assets			1,134	113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VAT Payment / (Recovery)			(851)	(368)	9	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Closing HMRC VAT			284	28	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)

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W - Workings

	TOTAL £'000	Build 1 £'000	Build 2 £'000	Ops 1 £'000	Ops 2 £'000	Ops 3 £'000	Ops 4 £'000	Ops 5 £'000	Ops 6 £'000	Ops 7 £'000	Ops 8 £'000	Ops 9 £'000	Ops 10 £'000	Ops 11 £'000	Ops 12 £'000	Ops 13 £'000	Ops 14 £'000	Ops 15 £'000	Ops 16 £'000	Ops 17 £'000	Ops 18 £'000	Ops 19 £'000	Ops 20 £'000
HMRC - Corporation Tax																							
Opening HMRC - Corporation Tax		-	6	(13)	(149)	(161)	(175)	(188)	(202)	(216)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)
Charge for Year		6	(18)	(149)	(161)	(175)	(188)	(202)	(216)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)
Payment of Corporation Tax		-	-	13	149	161	175	188	202	216	221	221	221	221	221	221	221	221	221	221	221	221	221
Closing HMRC - Corporation Tax		6	(13)	(149)	(161)	(175)	(188)	(202)	(216)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)
Loan Funding																							
Opening Loan Funding		-	(1,000)	(6,238)	(5,238)	(4,038)	(2,838)	(1,638)	(438)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash Drawdown		(1,000)	(5,238)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Charged		(25)	(181)	(312)	(262)	(202)	(142)	(82)	(22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Payment of Interest		25	181	312	262	202	142	82	22	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Scheduled Loan Funding Repayment		-	-	1,000	1,200	1,200	1,200	1,200	438	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Additional Loan Funding Repayment																							
Closing Loan Funding		(1,000)	(6,238)	(5,238)	(4,038)	(2,838)	(1,638)	(438)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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O - Financials

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	TOTAL	Opening BS	Build 1	Build 2	Ops 1	Ops 2	Ops 3	Ops 4	Ops 5	Ops 6	Ops 7	Ops 8	Ops 9	Ops 10	Ops 11	Ops 12	Ops 13	Ops 14	Ops 15	Ops 16	Ops 17	Ops 18	Ops 19	Ops 20
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
PROFIT AND LOSS ACCOUNT																								
Revenue																								
Sales from Customers	*7,483*		-	123	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368
Sales income from Government subsidy	*23,383*		-	383	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150
	30,866		-	506	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518	1,518
Cost of Sales																								
Direct Headcount	*(2,625)*		-	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)
Other Opex	*(2,520)*		-	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)
	(5,145)		-	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)	(245)
Gross Profit	**25,721**		**-**	**261**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**
GPM%			*0%*	*52%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*	*84%*
Administrative Expenses	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EBITDA	**25,721**		**-**	**261**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**	**1,273**
Depreciation	*(6,238)*		-	-	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)	(312)
EBIT	**19,483**		**-**	**261**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**
Loan Funding Interest	*(1,227)*		(25)	(181)	(312)	(262)	(202)	(142)	(82)	(22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Received	-																							
	(1,227)		**(25)**	**(181)**	**(312)**	**(262)**	**(202)**	**(142)**	**(82)**	**(22)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PBT	**18,255**		**(25)**	**80**	**649**	**699**	**759**	**819**	**879**	**939**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**961**
Corporation Tax	*(4,199)*		6	(18)	(149)	(161)	(175)	(188)	(202)	(216)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)
Retained Profit	**14,057**		**(19)**	**62**	**500**	**538**	**585**	**631**	**677**	**723**	**740**	**740**	**740**	**740**	**740**	**740**	**740**	**740**	**740**	**740**	**740**	**740**	**740**	**740**
BALANCE SHEET																								
Fixed Assets		-	5,671	6,238	5,926	5,614	5,302	4,990	4,679	4,367	4,055	3,743	3,431	3,119	2,807	2,495	2,183	1,871	1,560	1,248	936	624	312	-
Trade Debtors - Customers		-	-	15	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Debtors - Government Subsidy		-	-	38	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
Cash		-	(4,980)	1	(116)	(455)	(744)	(988)	(1,185)	(574)	483	1,535	2,587	3,638	4,690	5,742	6,794	7,846	8,898	9,950	11,002	12,054	13,106	14,158
		-	(4,980)	54	43	(296)	(585)	(829)	(1,026)	(415)	642	1,694	2,746	3,798	4,850	5,901	6,953	8,005	9,057	10,109	11,161	12,213	13,265	14,317
Trade Creditors		-	-	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Fixed Asset Trade Creditors		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Payroll Creditors		-	-	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)
HMRC - VAT		-	284	28	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
HMRC - Corporation Tax		-	6	(13)	(149)	(161)	(175)	(188)	(202)	(216)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)
Loan Funding		-	(1,000)	(6,238)	(5,238)	(4,038)	(2,838)	(1,638)	(438)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		-	(711)	(6,249)	(5,427)	(4,238)	(3,052)	(1,866)	(680)	(255)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)
Net Assets		**-**	**(19)**	**42**	**542**	**1,081**	**1,665**	**2,296**	**2,973**	**3,696**	**4,436**	**5,176**	**5,916**	**6,656**	**7,396**	**8,136**	**8,876**	**9,616**	**10,357**	**11,097**	**11,837**	**12,577**	**13,317**	**14,057**
Share Capital		-																						
Reserves		-	(19)	42	542	1,081	1,665	2,296	2,973	3,696	4,436	5,176	5,916	6,656	7,396	8,136	8,876	9,616	10,357	11,097	11,837	12,577	13,317	14,057
		-	**(19)**	**42**	**542**	**1,081**	**1,665**	**2,296**	**2,973**	**3,696**	**4,436**	**5,176**	**5,916**	**6,656**	**7,396**	**8,136**	**8,876**	**9,616**	**10,357**	**11,097**	**11,837**	**12,577**	**13,317**	**14,057**
CHECK		-	*0*	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CASHFLOW																								
Cash inflows from Operations																								
Receipts from Customers	*8,935*		-	132	412	442	442	442	442	442	442	442	442	442	442	442	442	442	442	442	442	442	442	442
Receipts from Government Subsidy	*23,268*		-	345	1,073	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150
	32,203		-	477	1,485	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592
Cash outflows from Operations																								
Trade Creditors	*(3,010)*		-	(130)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)	(144)
Fixed Asset Trade Creditors	*(7,486)*		(6,805)	(681)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Payroll Creditors	*(2,613)*		-	(113)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)	(125)
HMRC - VAT	*267*		851	368	(9)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)
HMRC - Corporation Tax	*(3,978)*		-	-	(13)	(149)	(161)	(175)	(188)	(202)	(216)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)	(221)
	(16,818)		(5,955)	(554)	(291)	(468)	(479)	(493)	(507)	(521)	(535)	(540)	(540)	(540)	(540)	(540)	(540)	(540)	(540)	(540)	(540)	(540)	(540)	(540)
Cashflows from Funding																								
Loan Funding - Drawdown	*6,238*		1,000	5,238	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loan Funding - Repayment	*(6,238)*		-	-	(1,000)	(1,200)	(1,200)	(1,200)	(1,200)	(438)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loan Funding - Interest	*(1,227)*		(25)	(181)	(312)	(262)	(202)	(142)	(82)	(22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(1,227)		975	5,057	(1,312)	(1,462)	(1,402)	(1,342)	(1,282)	(460)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash Movement in Period	**14,158**		**(4,980)**	**4,980**	**(117)**	**(338)**	**(290)**	**(244)**	**(197)**	**611**	**1,057**	**1,052**	**1,052**	**1,052**	**1,052**	**1,052**	**1,052**	**1,052**	**1,052**	**1,052**	**1,052**	**1,052**	**1,052**	**1,052**
Opening Cash		-	(4,980)	1	(116)	(455)	(744)	(988)	(1,185)	(574)	483	1,535	2,587	3,638	4,690	5,742	6,794	7,846	8,898	9,950	11,002	12,054	13,106	
Cash movement in Period		(4,980)	4,980	(117)	(338)	(290)	(244)	(197)	611	1,057	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	
Closing Cash		**(4,980)**	**1**	**(116)**	**(455)**	**(744)**	**(988)**	**(1,185)**	**(574)**	**483**	**1,535**	**2,587**	**3,638**	**4,690**	**5,742**	**6,794**	**7,846**	**8,898**	**9,950**	**11,002**	**12,054**	**13,106**	**14,158**	

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O - Returns

	TOTAL	Opening BS	Build 1	Build 2	Ops 1	Ops 2	Ops 3	Ops 4	Ops 5	Ops 6	Ops 7	Ops 8	Ops 9	Ops 10	Ops 11	Ops 12	Ops 13	Ops 14	Ops 15	Ops 16	Ops 17	Ops 18	Ops 19	Ops 20
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
RETURNS																								
Capital Investment	*(6,238)*		(5,671)	(567)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EBITDA	*25,721*		-	261	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273
Cost of Funding	*(1,227)*		(25)	(181)	(312)	(262)	(202)	(142)	(82)	(22)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Flows	**18,255**		(5,696)	(487)	961	1,011	1,071	1,131	1,191	1,251	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273
Cumulative Flows			(5,696)	(6,183)	(5,222)	(4,211)	(3,140)	(2,009)	(818)	434	1,707	2,980	4,253	5,526	6,798	8,071	9,344	10,617	11,890	13,163	14,436	15,709	16,982	18,255
Discounted Flows (WACC)			(5,696)	(468)	889	899	916	930	941	951	930	894	860	827	795	765	735	707	680	654	628	604	581	559
Payback Flag			-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Payback Flag Cumulative			-	-	-	-	-	-	-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Payback Flag Return			-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-

INTERNAL RATE OF RETURN	**15%**	
PAYBACK - OPERATIONS	**Year 6**	
NET PRESENT VALUE	**9,579**	£'000

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Lists

Capital Investment Scenario	
Base Case Capital Investment	0
Evaluation Well Savings Case	1
Well Output	
Low Case	20
Business Case	30
High Case	40
Inflation	
Inflation included in model	0
Inflation excluded from model	1

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Template

	TOTAL	Build 1	Build 2	Ops 1	Ops 2	Ops 3	Ops 4	Ops 5	Ops 6	Ops 7	Ops 8	Ops 9	Ops 10	Ops 11	Ops 12	Ops 13	Ops 14	Ops 15	Ops 16	Ops 17	Ops 18	Ops 19	Ops 20
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000

Offenham 1.5MW scenario - estimated scheme costs

Summary

Cost assumptions (in thousand £)	
Feasibility study	£103
Stakeholder engagement and commercial	£55
Outline design and EIA/Planning	£288
Detailed Design	£140
Construction incl. contract set up and tendering	£4,895
Total	**£5,480**
Contingency	£548
Total incl. contingency	**£6,028**

Offenham 1.5MW scenario - estimated scheme costs

Breakdown of cost items

Project Phase	Task	Time (indicative only, to be confirmed when scope defined)	Cost (in thousand £)	Comment
Feasibility	Detailed inspection of existing heating/cooling facilities	3months	£30	
	Initial stakeholder engagement	3 months	£25	
	Land and planning for energy centre and pipelines	2.5months	£20	
	EA permit/license discussions and application (abstraction and injection)	4weeks	£5	
	Detailed business case/financial modelling	4weeks	£10	
Stakeholder engagement and Commercial assessments/actions	Dependant on commercial proposition	N/A	30	
Outline design	Design for abstraction and injection boreholese and headworks	3-4months	£30	
	District heating distribution network/infrastructure (route selection etc)	3-4months	£40	
	Scheme outline design description	1month	£15	
Planning and EIA	EIA Scoping study	1month	£15	
	Environmental Statement (mainly noise, waste, water environment, soil, ecology)	3months	£70	
	Specific studies to inform EIA (noise, ecology, ground conditions)	3months	£25	
	Planning advice and public engagement	3months	£30	
Detailed design	Borehole drilling and testing	3months	£30	
	Headworks, pump and permanent installations	2months	£50	
	District heating infrastrucuture	2 months	£50	
	Water management during testing	4weeks	£10	
Contract set ups and tendering	Contract specifications (tender?) and contract supervision for site clearance, drilling, testing and commisioning		£150	
Construction	Consulatnt site presence		£100	
	Contractor costs for site clearance/preparation	2weeks	£40	
	Contractor costs for drilling, well development, testing	2months	£2,885	
	Contractor costs for well M&E	1months	£450	
	Contractor cost for district heating infrastructure	3months	£1,120	
Overall project delivery team	Mainly project manager/assistant time	1.5years	£150	15% feasibility and stakeholder engagement, 25% design, 60% construction stage
	client engagement and commitment	6 month	£100	15% feasibility and stakeholder engagement, 25% design, 60% coinstruction stage
Overall contingency (10%)			£548	incl. £289k for drilling contingency
Total			**£6,028**	

Offenham 1.5MW scenario - estimated scheme costs

Assumptions/Estimates for well costs: drilling, testing, development and borehole M&E

A. Abstraction BH	**Time (days)**	**Cost (in thousand £)**	**Total (in thousand £)**	
Drilling to 700m depth assume open hole in Sherwood sandstone.				
12inch (artesian pressure)*	17	£1,020		
Borehole acidification and cleaning*	3	£180		
Step testing*	2	£60		£1,260
Constant rate pumping test**	10	£15		£15
Subtotal without contingency:				**£1,275**

B. Injection BH	**Time (days)**	**Cost (in thousand £)**	**Total (in thousand £)**	
Drilling to max 800m depth assume open hole in Sherwood sandstone, 14 inch diameter*	20	£1,200		
Borehole acidification and cleaning*	3	£180		
Gas lifting*	2	£75		
Step testing and 5 days of constant pumping*	5	£135		£1,590
Constant pumping test (water transfer costs)**		£20		£20
Subtotal without contingency:				**£1,610**
Sum abstraction and injection BH				**£2,885**
Overall drilling contingency (10%)		£288.50		£289
Total (including contingency)				**£3,174**

C. Well M&E (both BHs)				
Installation of permanent pump and headworks (abstraction and injection BH)**		£75		£75
Facilities to remove pump**		£75		£75
Pump and riser/hedaworks costs**		£300		£300
Total Well M&E				**£450**

Considerations to justify drilling contingency			
Extra time for drilling*	5	£75	
Installation of screen due to borehole instability**	10	£150	
Extra water management costs during testing**		£50	
Total for comparison with overall drilling contingency (10%)		**£275**	

* Estimates from discussions with specialist drilling contractor

** Estimates based on professional judgement

Offenham 1.5MW scenario - estimated scheme costs

Assumptions/Estimates for district heating infrastructure costs

Design assumptions

approx. 2km heat main and approx. 3km uninsulated pipe for water transfer from abstraction to injection BH;
design to accommodate initially 1.5MW renewable heating output, capable of being increased to 5MW heating;
plate heat exchanger at energy centre locations, assuming water temperature in heat main at 40degrees, for higher T extra sources (heat pumps) to be installed separately by the individual users;
no 65degree heat main considered;
cooling at Kanes Foods would be beneficial (heat exchanger for waste heat recovery included) but doesn't attract RHIs. Additional revenues are not included.

Item	Assumptions	Costs in £k
Heat exchanger (groundwater)*	2 x £20k	£40
Heat pump or other additional heat source*	assuming other heat source is required to compensate for heat loss at energy centre	£100
2km insulated pipe*	2000m x £120	£240
3km uninsulated pipe*	3000m x £40	£120
Heat exchanger (customer)*	4x £20k	£80
Pumping station**		£50
Meters and control**	6 x £5000 (1 at each BH and 1 per customer)	£30
Construction		
Trenching and installation (soft ground)**	5000m x £100 (-500m combined trench), i.e. @ £100/m	£450
Connection to network**		£10
Total cost		**£1,120**

*Estimates based on discussions with specialist suppliers
**Estimates based on professional judgement

Offenham £3.5MW scenario - estimated scheme costs

Summary

Cost assumptions (in thousand £)	
Feasibility study	£103
Stakeholder engagement and commercial	£55
Outline design and EIA/Planning	£288
Detailed Design	£140
Construction incl. contract set up and tendering	£5,085
Total	**£5,670**
Contingency	£567
Total incl. contingency	**£6,237**

Offenham 3.5MW scenario - estimated scheme costs

Breakdown of cost items

Project Phase	Task	Time (indicative only, to be confirmed when scope defined)	Cost (in thousand £)	Comment
Feasibility	Detailed inspection of existing heating/cooling facilities	3months	£30	
	Initial stakeholder engagement	3 months	£25	
	Land and planning for energy centre and pipelines	2.5months	£20	
	EA permit/license discussions and application (abstraction and injection)	4weeks	£5	
	Detailed business case/financial modelling	4weeks	£10	
Stakeholder engagement and Commercial assessments/actions	Dependant on commercial proposition	N/A	30	
Outline design	Design for abstraction and injection boreholese and headworks	3-4months	£30	
	District heating distribution network/infrastructure (route selection etc)	3-4months	£40	
	Scheme outline design description	1month	£15	
Planning and EIA	EIA Scoping study	1month	£15	
	Environmental Statement (mainly noise, waste, water environment, soil, ecology)	3months	£70	
	Specific studies to inform EIA (noise, ecology, ground conditions)	3months	£25	
	Planning advice and public engagement	3months	£30	
Detailed design	Borehole drilling and testing	3months	£30	
	Headworks, pump and permanent installations	2months	£50	
	District heating infrastrucuture	2 months	£50	
	Water management during testing	4weeks	£10	
Contract set ups and tendering	Contract specifications (tender?) and contract supervision for site clearance, drilling, testing and commisioning		£150	
Construction	Consulatnt site presence		£100	
	Contractor costs for site clearance/preparation	2weeks	£40	
	Contractor costs for drilling, well development, testing	2months	£2,885	
	Contractor costs for well M&E	1months	£450	
	Contractor cost for district heating infrastructure	3months	£1,310	
Overall project delivery team	Mainly project manager/assistant time	1.5years	£150	15% feasibility and stakeholder engagement, 25% design, 60% construction stage
	client engagement and commitment	6 month	£100	15% feasibility and stakeholder engagement, 25% design, 60% coinstruction stage
Overall contingency (10%)			£567	incl. £289k for drilling contingency
Total			**£6,237**	

Offenham 3.5MW scenario - estimated scheme costs

Assumptions/Estimates for well costs: drilling, testing, development and borehole M&E

A. Abstraction BH	**Time (days)**	**Cost (in thousand £)**	**Total (in thousand £)**
Drilling to 700m depth assume open hole in Sherwood sandstone.			
12inch (artesian pressure)*	17	£1,020	
Borehole acidification and cleaning*	3	£180	
Step testing*	2	£60	£1,260
Constant rate pumping test**	10	£15	£15
Subtotal without contingency:			**£1,275**

B. Injection BH	**Time (days)**	**Cost (in thousand £)**	**Total (in thousand £)**
Drilling to max 800m depth assume open hole in Sherwood sandstone, 14 inch diameter*	20	£1,200	
Borehole acidification and cleaning*	3	£180	
Gas lifting*	2	£75	
Step testing and 5 days of constant pumping*	5	£135	£1,590
Constant pumping test (water transfer costs)**		£20	£20
Subtotal without contingency:			**£1,610**
Sum abstraction and injection borehole			**£2,885**
Overall drilling contingency (10%)		£288.50	£289
Total (including contingency)			**£3,174**

C. Well M&E (both BHs)			
Installation of permanent pump and headworks (abstraction and injection BH)**		£75	£75
Facilities to remove pump**		£75	£75
Pump and riser/hedaworks costs**		£300	£300
Total Well M&E			**£450**

Considerations to justify drilling contingency		
Extra time for drilling*	5	£75
Installation of screen due to borehole instability**	10	£150
Extra water management costs during testing**		£50
Total for comparison with overall drilling contingency (10%)		**£275**

* Estimates from discussions with specialist drilling contractor

** Estimates based on professional judgement

Offenham 3.5MW scenario - estimated scheme costs

Assumptions/Estimates for district heating infrastructure costs

Design assumptions

approx. 2km heat main and approx. 3km uninsulated pipe for water transfer from abstraction to injection BH;
design to accommodate initially 3.5MW renewable heating output, capable of being increased to 5MW heating;
plate heat exchanger at energy centre locations, assuming water temperature in heat main at 40degrees, for higher T extra sources (heat pumps) to be installed separately by the individual users;
no 65degree heat main considered;
cooling at Kanes Foods would be beneficial (heat exchanger for waste heat recovery included) but doesn't attract RHIs. Additional revenues are not included.

Item	Assumptions	Costs in £k
Heat exchanger (groundwater)*	2 x £20k	£40
Heat pump or other additional heat source*	assuming other heat source is required to compensate for heat loss at energy centre	£200
2km insulated pipe*	2000m x £120	£240
3km uninsulated pipe*	3000m x £40	£120
Heat exchanger (customer)*	6x £20k (2 additional compared to the 1.5MW scenario)	£120
Pumping station**		£80
Meters and control**	8 x £5000 (1 at each BH and 1 per customer)	£50
Construction		
Trenching and installation (soft ground)**	5000m x £100 (-500m combined trench), i.e. @ £100/m	£450
Connection to network**		£10
Total cost		**£1,310**

*Estimates based on discussions with specialist suppliers
**Estimates based on professional judgement