

# Micro Grid Executive Board Report 25<sup>th</sup> February 2021

## 4.0 Financial Modelling

### 4.5 - Appendix A

Based upon the current assumptions, we have produced a cash flow illustration below. The illustration suggests that the project would generate a net income of c£334k p.a. Based upon our initial assumptions, the project IRR over 30 years may be c4.24%, with an NPV £1,004K based on a 3% discount factor. We have assumed that power would be sold to all sites at current utility rates plus 2% p.a. We have also assumed the Leisure Centre would receive a discount of £20K p.a. for 20 Yrs.

POWER GENERATION		INCOME				O&M COSTS	NET CASH FLOW	
Year	kW Hrs Generated	Grid Power Export Sales Income	Electricity PPA Sales Income	Leisure Centre Electricity Discount	Total Savings & Income	Total O&M Costs	Annual Net Cash Flow	Cumulative Cash Flow
0							-£5,694,631	-£5,694,631
1	4,188,139	£56,792	£373,774	-£20,000	£410,566	£76,059	£334,507	-£5,360,124
2	4,124,522	£56,396	£375,458	-£20,400	£411,455	£77,580	£333,875	-£5,026,249
3	4,103,316	£56,636	£380,998	-£20,808	£416,826	£79,131	£337,695	-£4,688,554
4	4,082,111	£56,874	£386,610	-£21,224	£422,260	£80,714	£341,546	-£4,347,008
5	4,060,905	£57,112	£392,294	-£21,649	£427,757	£82,328	£345,429	-£4,001,579
6	4,039,699	£57,349	£398,050	-£22,082	£433,317	£83,975	£349,343	-£3,652,236
7	4,018,493	£57,585	£403,880	-£22,523	£438,941	£85,654	£353,287	-£3,298,949
8	3,997,287	£57,820	£409,783	-£22,974	£444,629	£87,367	£357,262	-£2,941,687
9	3,976,082	£58,053	£415,762	-£23,433	£450,382	£89,115	£361,267	-£2,580,420
10	3,954,876	£58,286	£421,815	-£23,902	£456,199	£90,897	£365,302	-£2,215,118
11	3,933,670	£58,518	£427,944	-£24,380	£462,082	£92,715	£369,367	-£1,845,760
12	3,912,464	£58,748	£434,150	-£24,867	£468,031	£94,569	£373,461	-£1,472,299
13	3,891,259	£58,977	£440,433	-£25,365	£474,045	£96,461	£377,585	-£1,094,704
14	3,870,053	£59,205	£446,794	-£25,872	£480,126	£98,390	£381,736	-£712,968
15	3,848,847	£59,431	£453,232	-£26,390	£486,274	£1,124,814	-£638,540	-£1,351,509
16	3,827,641	£59,656	£459,750	-£26,917	£492,489	£102,365	£390,124	-£961,385
17	3,806,436	£59,880	£466,347	-£27,456	£498,771	£104,412	£394,359	-£567,026
18	3,785,230	£60,102	£473,024	-£28,005	£505,121	£106,500	£398,620	-£168,406
19	3,764,024	£60,322	£479,781	-£28,565	£511,539	£108,630	£402,908	£234,502
20	3,742,818	£60,541	£486,620	-£29,136	£518,025	£556,998	-£38,973	£195,529
21	3,721,612	£60,758	£493,540	£0	£554,299	£113,019	£441,280	£636,809
22	3,700,407	£60,974	£500,542	£0	£561,516	£115,279	£446,237	£1,083,046
23	3,679,201	£61,188	£507,627	£0	£568,815	£117,585	£451,230	£1,534,276
24	3,657,995	£61,400	£514,796	£0	£576,196	£119,937	£456,259	£1,990,535
25	3,636,789	£61,610	£522,048	£0	£583,658	£122,335	£461,322	£2,451,857
26	3,615,584	£61,818	£529,384	£0	£591,202	£124,782	£466,420	£2,918,277
27	3,594,378	£62,024	£536,804	£0	£598,829	£127,278	£471,551	£3,389,828
28	3,573,172	£62,228	£544,310	£0	£606,539	£129,823	£476,715	£3,866,543
29	3,551,966	£62,430	£551,901	£0	£614,332	£132,420	£481,912	£4,348,455
30	3,530,761	£62,630	£559,579	£0	£622,209	£135,068	£487,141	£4,835,596
<b>115,189,737</b>		<b>£1,785,345</b>	<b>£13,787,030</b>		<b>£15,086,427</b>	<b>£4,556,200</b>	<b>£4,835,596</b>	
							<b>NPV</b>	<b>£1,003,949</b>
							<b>DF</b>	<b>3.0%</b>
							<b>IRR</b>	<b>4.24%</b>
								<b>30 years</b>