

Appendix Table 7.1-3-8 Comparison of Grid Electrification and SHS

	Variables	Units	Unit cost	Units	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	residual value	Sum of NPV at 0 year	
1.1-a	SHS Electrification																										
	Households(H)	200																									
	Capacity	600		Wp																							
	Annual consumption	0.365	175200	kWh/yr		175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	1,085,930	
	Distance from Grid	0		km																							10,048,696
	Investment costs (A)		96.3	P/Wp	11,556,000																						(i = 0.15)
	Battery replace		500	P			1,200,000																				(400,000)
	Operation & maintenance: village		500	P/Village/m		6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000		371,189
	Agent fee		0.05	%		57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600	57,600		357,018
	:Head office	276		P/Hy		55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200	55,200		14,833,908
	Cost of electricity			P/kWh																							13.7
1.1-b	Grid Electrification																										
	Households	200																									
	Annual consumption		175200	kWh/yr		175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200	175,200		1,085,930
	Distance from Grid	164	102816		16,861,824																						(i = 0.15)
	Investment costs (A)		4500		900,000																						12,112,463
	Connection costs																										(180,000)
	Operation & maintenance	0.02				337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236	337,236		2,090,270
	Power generation or import cost		0.075	P/kWh		13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140	13,140		81,445
	Total			P/kWh																							14,930,681
1.2-a	SHS Electrification																										
	Households(H)	300																									
	Capacity	600		Wp																							
	Annual consumption	0.365	262800	kWh/yr		262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800		1,628,895
	Distance from Grid	250		km																							(i = 0.15)
	Investment costs (A)		96.3	P/Wp	17,334,000																						15,073,043
	Battery replace		500	P			1,800,000																				(600,000)
	Operation & maintenance: village		500	P/Village/m		6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000		371,189
	Agent fee		0.05	%		86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400	86,400		535,527
	:Head office	276		P/Hy		82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800		513,214
	Total			P/kWh																							22,745,480
	Cost of electricity			P/kWh																							14.0
1.2-b	Grid Electrification																										
	Households	300																									
	Annual consumption		262800	kWh/yr		262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800	262,800		1,628,895
	Distance from Grid	250	102816		25,704,000																						(i = 0.15)
	Investment costs (A)		4500		1,350,000																						18,464,121
	Connection costs																										(270,000)
	Operation & maintenance	0.02				514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080	514,080		3,186,387
	Power generation or import cost		0.075	P/kWh		19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710	19,710		122,167
	Total			P/kWh																							22,745,429
	Cost of electricity			P/kWh																							14.0

Appendix Table 7.1-4 Comparison of Grid Electrification and SHS (72 Village Electrification)

	Specific consump	Units	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	residual value	Sum of NPV at 0 year		
SHS Electrification																										
No. of Villages	72																									
Households	13,149																									
Capacity	100	Wp																								
Annual consumption	1,919,789	kWh		1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	1,919,789	0	11,899,296	
Distance from Grid	2,230	km																							(i = 0.15)	
Investment costs (A)																										
System	96.3	P/Wp	126,627,181																						158,225,901	
Battery replace	500	P/piece			13,149,240				13,149,240			13,149,240			13,149,240			13,149,240			13,149,240		13,149,240	(4,383,080)	48,115,309	
Operation & maintenance																										
Village monitor	500	P/village/m		432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	2,677,636	
Agent fee	5.00%	% of sales		631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	631,164	3,912,097
BPC head office & local	276	P/house/y		3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	22,494,560	
Total costs																									187,310,195	
Costs/kWh																									15.7	
Subsidy	80% of invest	P	101,301,745			10,519,392						10,519,392													108,973,813	
Recovery of Costs																										
Tariff (fixed)	40	P/50Wp/m		12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	12,623,270	78,241,948	
Tariff (variable)																									0	
Total																									78,241,948	
% of cost recovery																									41.8%	
SHS Electrification																										
No. of Villages	72																									
Households	13,149																									
Capacity	200	Wp																								
Annual consumption	3,839,578	kWh		3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	3,839,578	0	23,798,593
Distance from Grid	2,230	km																							(i = 0.15)	
Investment costs (A)																										
System	96.3	P/Wp	253,254,362																						316,451,803	
Battery replace	500	P/piece			26,298,480				26,298,480			26,298,480			26,298,480			26,298,480			26,298,480		26,298,480	(8,766,160)	96,230,618	
Operation & maintenance																										
Village monitor	500	P/village/m		432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	432,000	2,677,636	
Agent fee	5.00%	% of sales		1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	1,262,327	7,824,195	
BPC head office & local	276	P/house/y		3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	3,629,190	22,494,560	
Total costs																									349,448,194	
Costs/kWh																									14.7	
Subsidy	80% of invest	P	202,603,490			21,038,784						21,038,784													217,947,626	
Recovery of Costs																										
Tariff (fixed)	40	P/50Wp/m		25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	25,246,541	156,483,897	
Tariff (variable)																									0	
Total																									156,483,897	
% of cost recovery																									44.8%	

Appendix Table 7.1-5-2 Comparison of PV Mini-Grid Electrification and SHS

Variable	Units	Unit Cost	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	residual value	Sum of NPV at 0 year		
SHS Electrification																										
Households(H)	50																									
Capacity	200																									
Annual consumption	0.365	14600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	90,494		
Distance from Grid	0																								(i = 0.15)	
Investment costs (A)		96.3																							837,391	
Battery replace		500																								365,917
Operation & maintenance: village		500																								37,189
Agent fee		0.05																								29,752
:Head office	276	276																								85,536
Total																										1,355,785
Average electricity cost																										14.98
Mini-Grid Electrification																										
Households	50																									
Capacity	200																									
Annual consumption		14600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	14,600	90,494	
Distance from Grid																										(i = 0.15)
Investment costs (A)		72.2																								627,826
Battery replace		375																								274,438
Connection costs		4500																								195,652
Operation & maintenance: village		1500																								111,568
Agent fee		0.05																								29,752
:Head office		276																								85,536
Total																										1,324,771
Average electricity cost																										14.64
SHS Electrification																										
Households(H)	50																									
Capacity	300																									
Annual consumption	0.365	21900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	135,741	
Distance from Grid	0																									(i = 0.15)
Investment costs (A)		96.3																								1,256,087
Battery replace		500																								548,876
Operation & maintenance: village		500																								37,189
Agent fee		0.05																								44,627
:Head office	276	276																								85,536
Total																										1,972,315
Average electricity cost																										14.53
Mini-Grid Electrification																										
Households	50																									
Capacity	300																									
Annual consumption		21900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	21,900	135,741	
Distance from Grid																										(i = 0.15)
Investment costs (A)		72.2																								411,657
Battery replace		375																								941,739
Connection costs		4500																								195,652
Operation & maintenance: village		1500																								111,568
Agent fee		0.05																								44,627
:Head office		276																								85,536
Total																										1,790,779
Average electricity cost																										13.19

Appendix Table 7.1-5-3 Comparison of PV Mini-Grid Electrification and SHS

	Variable	Units	Unit Cost	Units	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	residual value	Sum of NPV at 0 year	
SHS Electrification	Households(H)	100																									
	Capacity	50	Wp																								
	Annual consumption	0.365																									
	Distance from Grid	0	km																								
	Investment costs(A)				481,500																						
	Battery replace			500																							
	Connection costs			500																							
	Operation & maintenance: village			0.05																							
	Agent fee			276																							
	:Head office	276																									
Total																											
Average electricity cost																											
Mini-Grid Electrification																											
Households	100																										
Capacity	50	Wp																									
Annual consumption																											
Distance from Grid																											
Investment costs(A)			72.2																								
Battery replace			375																								
Connection costs			4500																								
Operation & maintenance: village			1500																								
Agent fee			0.05																								
:Head office			276																								
Total																											
Average electricity cost																											
SHS Electrification																											
Households(H)	100																										
Capacity	100	Wp																									
Annual consumption	0.365																										
Distance from Grid	0	km																									
Investment costs(A)			963,000																								
Battery replace			96.3																								
Connection costs			500																								
Operation & maintenance: village			500																								
Agent fee			0.05																								
:Head office	276																										
Total																											
Average electricity cost																											
Mini-Grid Electrification																											
Households	100																										
Capacity	100	Wp																									
Annual consumption																											
Distance from Grid																											
Investment costs(A)			72.2																								
Battery replace			375																								
Connection costs			4500																								
Operation & maintenance: village			1500																								
Agent fee			0.05																								
:Head office			276																								
Total																											
Average electricity cost																											

Appendix Table 7.1-5-4 Comparison of PV Mini-Grid Electrification and SHS

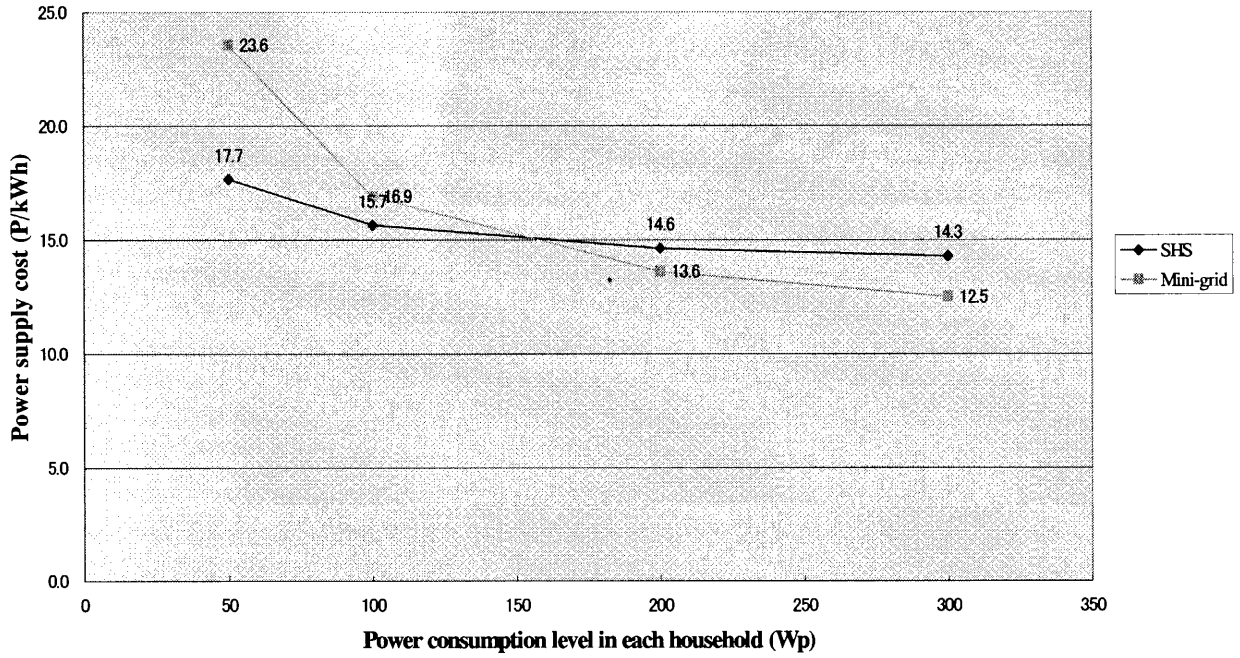
Variable	Units	Unit Cost	Units	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	residual value	Sum of NPV at 0 year
SHS Electrification																									
Households(H)																									
Capacity	100																								
Annual consumption	0.365	29200	Wp																						
Distance from Grid	0		km																						
Investment costs (A)		96.3																							
Battery replace		500	P	1,926,000			200,000			200,000			200,000												
Operation & maintenance: village		500	P/Village/m		6,000		6,000		6,000	6,000		6,000	6,000		6,000		6,000	6,000	6,000						
Agent fee		0.05	%		9,600		9,600		9,600	9,600		9,600	9,600		9,600		9,600	9,600	9,600						
:Head office	276		P/H/y		27,600		27,600		27,600	27,600		27,600	27,600		27,600		27,600	27,600	27,600						
Total																									
Average electricity cost																									
Mini-Grid Electrification																									
Households	100																								
Capacity	200		Wp																						
Annual consumption		29200																							
Distance from Grid																									
Investment costs (A)		72.2																							
Battery replace		375	P	1,444,000			150,000			150,000			150,000												
Connection costs		4500																							
Operation & maintenance: village		1500	P/Village/m		18,000		18,000		18,000	18,000		18,000	18,000		18,000		18,000	18,000	18,000						
Agent fee		0.05	%		9,600		9,600		9,600	9,600		9,600	9,600		9,600		9,600	9,600	9,600						
:Head office	276		P/H/y		27,600		27,600		27,600	27,600		27,600	27,600		27,600		27,600	27,600	27,600						
Total																									
Average electricity cost																									
SHS Electrification																									
Households(H)																									
Capacity	100																								
Annual consumption	0.365	43800	Wp																						
Distance from Grid	0		km																						
Investment costs (A)		96.3																							
Battery replace		500	P	2,889,000			300,000			300,000			300,000												
Operation & maintenance: village		500	P/Village/m		6,000		6,000		6,000	6,000		6,000	6,000		6,000		6,000	6,000	6,000						
Agent fee		0.05	%		14,400		14,400		14,400	14,400		14,400	14,400		14,400		14,400	14,400	14,400						
:Head office	276		P/H/y		27,600		27,600		27,600	27,600		27,600	27,600		27,600		27,600	27,600	27,600						
Total																									
Average electricity cost																									
Mini-Grid Electrification																									
Households	100																								
Capacity	300		Wp																						
Annual consumption		43800																							
Distance from Grid																									
Investment costs (A)		72.2																							
Battery replace		375	P	2,166,000			225,000			225,000			225,000												
Connection costs		4500																							
Operation & maintenance: village		1500	P/Village/m		18,000		18,000		18,000	18,000		18,000	18,000		18,000		18,000	18,000	18,000						
Agent fee		0.05	%		14,400		14,400		14,400	14,400		14,400	14,400		14,400		14,400	14,400	14,400						
:Head office	276		P/H/y		27,600		27,600		27,600	27,600		27,600	27,600		27,600		27,600	27,600	27,600						
Total																									
Average electricity cost																									

Appendix Table 7.15-5 Comparison of PV Mini-Grid Electrification and SHS

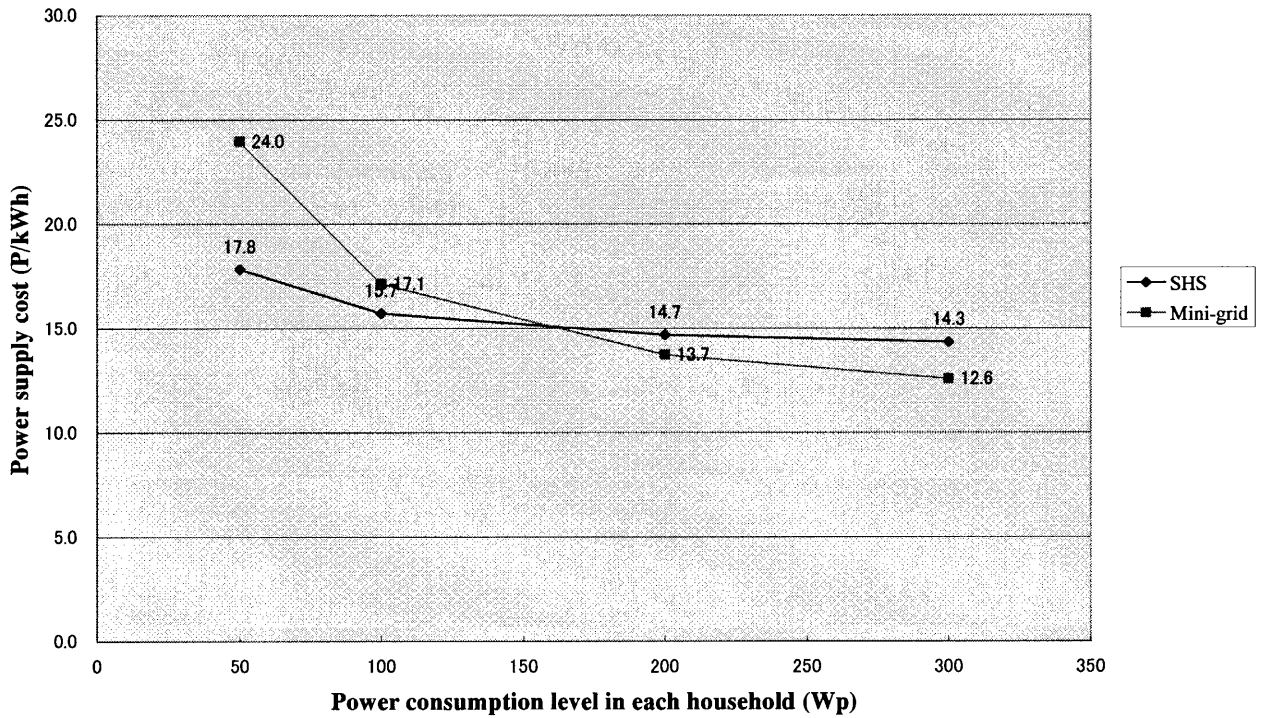
	Variable	Units	Unit Cost	Units	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	residual value	Sum of NPV at 0 year (i = 0.15)	
SHS Electrification	Households(H)	200																									
	Capacity	50	Wp																								
	Annual consumption	0.365																									
	Distance from Grid	0	km																								
	Investment costs (A)			963	P/Wp	963,000																				90,494 (i = 0.15)	
	Battery replace			500	P																						837,391
	Operation & maintenance: village				P/Village/m																						365,917
	Agent fee			0.05	%																						37,189
	:Head office	276	P/H/y	276																							29,752
	Total																										342,142
Average electricity cost																										1,612,392	
Mini-Grid Electrification																										17,82	
Households	200																										
Capacity	50	Wp																									
Annual consumption			14600																								
Distance from Grid	2.9																										
Investment costs (A)			72.2	P/Wp	722,000																						
Battery replace			375	P																							
Connection costs			4500																								
Operation & maintenance: village			1500	P/Village/m																							
Agent fee			0.05	%																							
:Head office	276	P/Wp/y	276																								
Total																											
Average electricity cost																											
SHS Electrification																											
Households(H)	200																										
Capacity	100	Wp																									
Annual consumption	0.365																										
Distance from Grid		km																									
Investment costs (A)			96.3	P/Wp	1,926,000																						
Battery replace			500	P																							
Operation & maintenance: village			500	P/Village/m																							
Agent fee			0.05	%																							
:Head office	276	P/H/y	276																								
Total																											
Average electricity cost																											
Mini-Grid Electrification																											
Households	200																										
Capacity	100	Wp																									
Annual consumption	0.365																										
Distance from Grid		km																									
Investment costs (A)			96.3	P/Wp	1,926,000																						
Battery replace			500	P																							
Operation & maintenance: village			500	P/Village/m																							
Agent fee			0.05	%																							
:Head office	276	P/H/y	276																								
Total																											
Average electricity cost																											

Appendix Table 7.1-5-8 Comparison of PV Mini-Grid Electrification and SHS

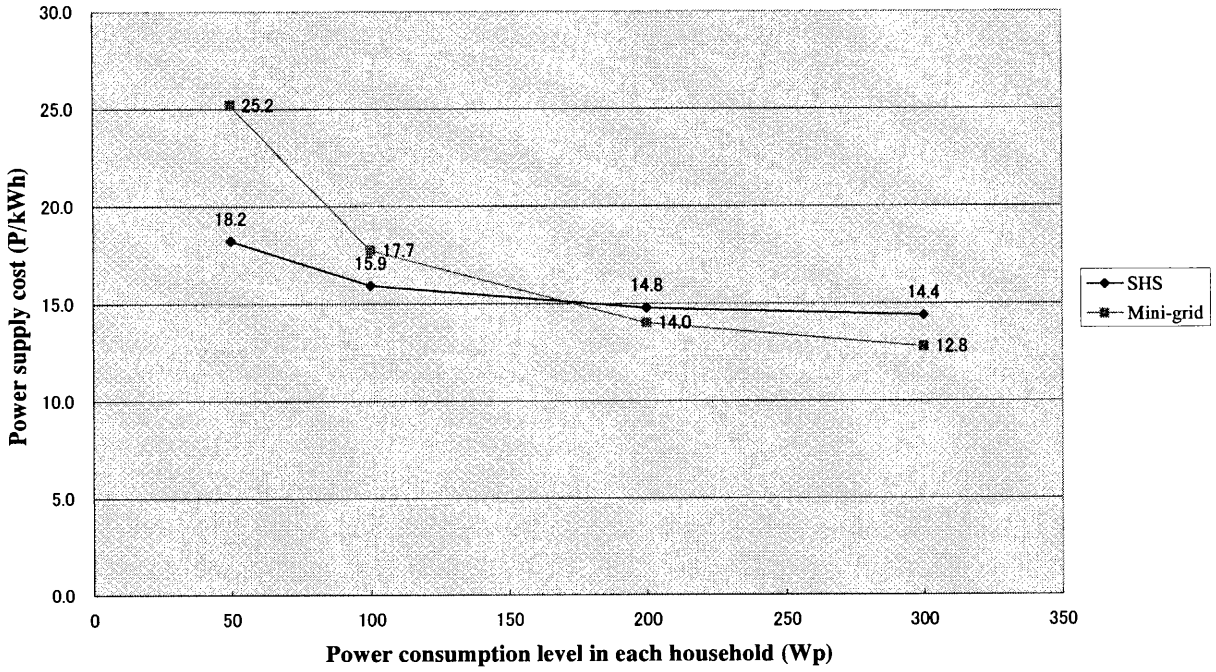
	Variable	Units	Unit Cost	Units	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	residual value	Sum of NPV at 0 year
SHS Electrification	Households(H) Capacity 200 Annual consumption 0.365 Distance from Grid	Wp km	87600			87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	542,965 (i = 0.15) 5,024,348 2,195,502 37,189 178,509 513,214 7,948,762 14,64
	Investment costs (A) Battery replace	P/Wp P	96.3 500		5,778,000		600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	2,195,502
	Operation & maintenance: village Agent fee	P/Village/m %	500 0.05			6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	6,000 28,800	37,189
	:Head office	P/H/y	276			82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	513,214
	Total																									7,948,762
	Average electricity cost																									14.64
Mini-Grid Electrification	Households Capacity 200 Annual consumption Distance from Grid	Wp	87600			87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	87,600	542,965 (i = 0.15) 3,766,957 1,646,627 1,173,913 111,568 178,509 513,214 7,390,787 13.61
	Investment costs (A) Battery replace	P/Wp P	72.2 375		4,332,000		450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	1,646,627
	Operation & maintenance: village Agent fee	P/Village/m %	1500 0.05			18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	18,000 28,800	111,568
	:Head office	P/Wp/y	276			82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	513,214
	Total																									7,390,787
	Average electricity cost																									13.61
SHS Electrification	Households(H) Capacity 300 Annual consumption Distance from Grid	Wp	131400			131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	814,448 (i = 0.15) 7,536,522 3,293,253 37,189 267,764 513,214 11,647,942 14.30
	Investment costs (A) Battery replace	P/Wp P	96.3 500		8,667,000		900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	3,293,253
	Operation & maintenance: village Agent fee	P/Village/m %	500 0.05			6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	6,000 43,200	37,189
	:Head office	P/H/y	276			82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	513,214
	Total																									11,647,942
	Average electricity cost																									14.30
Mini-Grid Electrification	Households Capacity 300 Annual consumption Distance from Grid	Wp	131400			131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	131,400	814,448 (i = 0.15) 5,650,435 2,469,940 1,173,913
	Investment costs (A) Battery replace	P/Wp P	72.2 375		6,498,000		675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000	2,469,940
	Operation & maintenance: village Agent fee	P/Village/m %	1500 0.05			18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	18,000 43,200	1,173,913
	:Head office	P/Wp/y	276			82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	82,800	267,764
	Total																									513,214
	Average electricity cost																									10,186,833 12.51



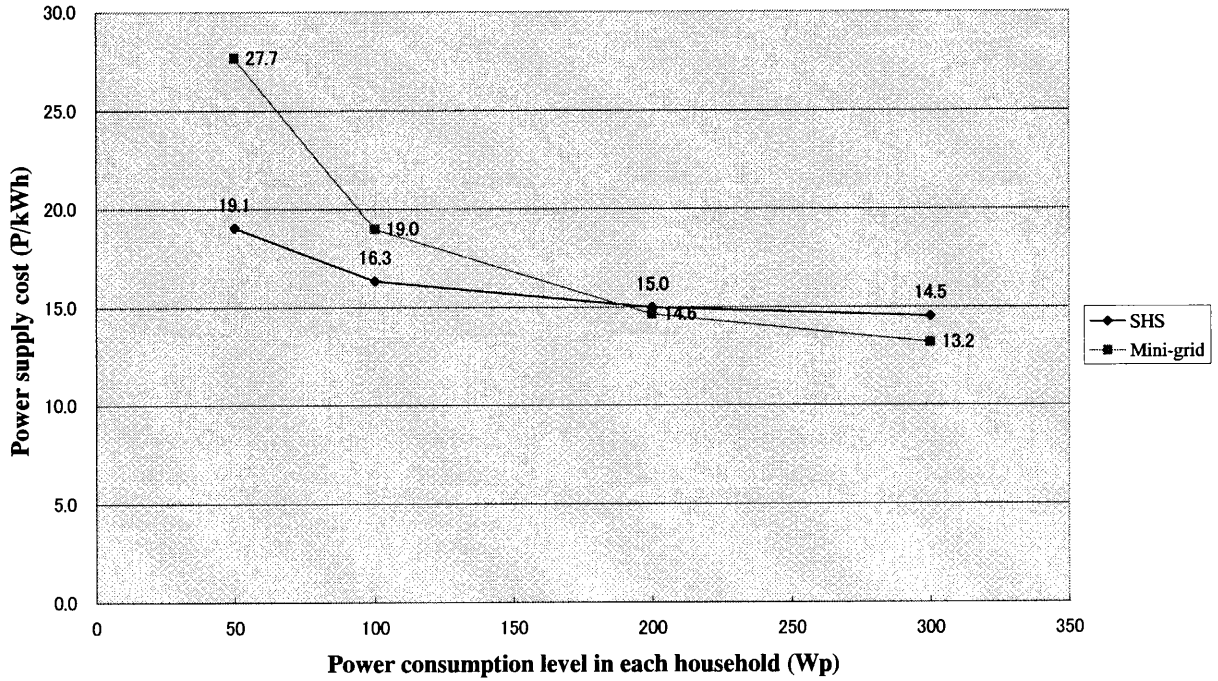
Appendix Figure 7.1-5 PV-minigrid Versus SHS (300 Households)



Appendix Figure 7.1-6 PV-minigrid Versus SHS (200 Households)



Appendix Figure 7.1-7 PV-minigrid Versus SHS (100 Households)



Appendix Figure 7.1-8 PV-minigrid Versus SHS (50 Households)