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RET FINANCE
Renewable Energy Technologies Financial Model



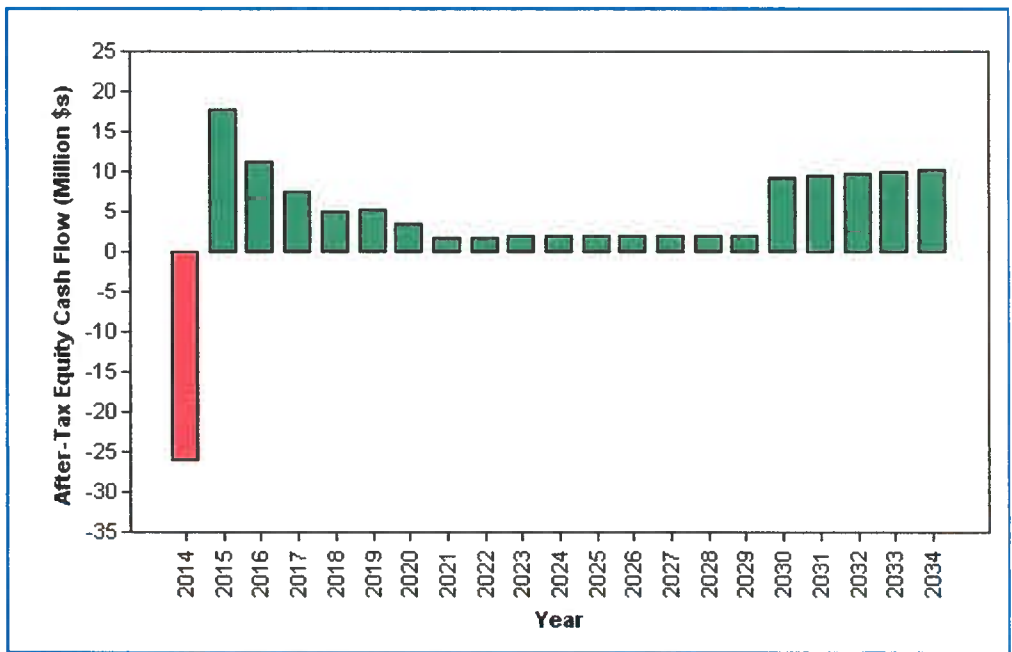
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IAM PORTABLE HYBRID GROUP Project Results

Nominal Levelized Cost of Energy (cents/kWh) 5.15
 Real Levelized Cost of Energy (cents/kWh) 4.10

	Target	Actual
Equity Investor's IRR %	17.00	36.52
Lender Imposed Minimum DSCR	1.40	1.51
Lender Imposed Average DSCR	1.80	1.80

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RET FINANCE	CASH FLOW
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Calendar Year	2014	2015	2019	2024	2029	2034
Project Year	Construction	1	5	10	15	20
Electricity Production (kWhs)		<u>389,820,000</u>	<u>389,820,000</u>	<u>389,820,000</u>	<u>389,820,000</u>	<u>389,820,000</u>
Electricity Sales Price (cents/kWh)		<u>5.21</u>	<u>5.75</u>	<u>6.50</u>	<u>7.36</u>	<u>8.32</u>
Operating Revenue		<u>2,029,672,870</u>	<u>2,240,379,078</u>	<u>2,534,783,289</u>	<u>2,867,874,631</u>	<u>3,244,736,911</u>
Fixed O&M		<u>\$4,501</u>	<u>\$5,066</u>	<u>\$5,873</u>	<u>\$6,808</u>	<u>\$7,893</u>
Variable Costs		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Royalties		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Insurance Expense		<u>\$1,131</u>	<u>\$1,273</u>	<u>\$1,476</u>	<u>\$1,711</u>	<u>\$1,984</u>
Property Tax		<u>\$1,098</u>	<u>\$1,098</u>	<u>\$1,098</u>	<u>\$1,098</u>	<u>\$1,098</u>
Mining Tax		<u>\$14</u>	<u>\$14</u>	<u>\$14</u>	<u>\$14</u>	<u>\$14</u>
Administration Expense		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Operating Expenses		<u>\$6,745</u>	<u>\$7,452</u>	<u>\$8,462</u>	<u>\$9,632</u>	<u>\$10,989</u>
Operating Income		<u>\$13,552</u>	<u>\$14,952</u>	<u>\$16,886</u>	<u>\$19,047</u>	<u>\$21,458</u>
5-Year Depreciation Factor		<u>20.00%</u>	<u>11.52%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>
5-Year Depreciation		<u>\$17,786</u>	<u>\$10,245</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Debt Interest Payment		<u>\$6,151</u>	<u>\$5,130</u>	<u>\$3,322</u>	<u>\$665</u>	<u>\$0</u>
Amortization		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
First Year Expense		<u>\$16,221</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Loss Forward		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Taxable Income Before Depletion		<u>(\$26,605)</u>	<u>(\$423)</u>	<u>\$13,564</u>	<u>\$18,381</u>	<u>\$21,458</u>
Cost Depletion		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Percentage Depletion		<u>\$1,066</u>	<u>\$1,176</u>	<u>\$1,331</u>	<u>\$1,506</u>	<u>\$1,703</u>
Depletion Taken		<u>\$0</u>	<u>\$0</u>	<u>\$1,331</u>	<u>\$1,506</u>	<u>\$1,703</u>
Taxable Income		<u>(\$26,605)</u>	<u>(\$423)</u>	<u>\$12,234</u>	<u>\$16,876</u>	<u>\$19,755</u>
Income Tax		<u>(\$10,643)</u>	<u>(\$169)</u>	<u>\$4,894</u>	<u>\$6,751</u>	<u>\$7,903</u>
Investment Tax Credit		<u>\$9,361</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Production Tax Credit		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Total Tax Taken		<u>(\$20,004)</u>	<u>(\$169)</u>	<u>\$4,894</u>	<u>\$6,751</u>	<u>\$7,903</u>
Net Operating Income		<u>(\$6,601)</u>	<u>(\$253)</u>	<u>\$7,340</u>	<u>\$10,125</u>	<u>\$11,852</u>
Depreciation		<u>\$17,786</u>	<u>\$10,245</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Depletion		<u>\$0</u>	<u>\$0</u>	<u>\$1,331</u>	<u>\$1,506</u>	<u>\$1,703</u>
Amortization		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
First Year Expense		<u>\$16,221</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Loss Forward		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Debt Principal		<u>(\$2,832)</u>	<u>(\$3,852)</u>	<u>(\$5,660)</u>	<u>(\$8,317)</u>	<u>\$0</u>
Net Equity Cash Flow	<u>(\$32,949)</u>	<u>\$24,574</u>	<u>\$6,139</u>	<u>\$3,010</u>	<u>\$3,314</u>	<u>\$13,555</u>
Cumulative Net Equity Cash Flow	<u>(\$32,949)</u>	<u>(\$8,375)</u>	<u>\$25,567</u>	<u>\$41,726</u>	<u>\$57,789</u>	<u>\$122,447</u>
Debt Funds	<u>\$76,881</u>					
Beginning Balance		<u>\$76,881</u>	<u>\$64,122</u>	<u>\$41,523</u>	<u>\$8,317</u>	<u>\$0</u>

Debt Interest Payment	<u>\$6,151</u>	<u>\$5,130</u>	<u>\$3,322</u>	<u>\$665</u>	<u>\$0</u>
Debt Principal Payment	<u>\$2,832</u>	<u>\$3,852</u>	<u>\$5,660</u>	<u>\$8,317</u>	<u>\$0</u>
Total Debt Payment	<u>\$8,982</u>	<u>\$8,982</u>	<u>\$8,982</u>	<u>\$8,982</u>	<u>\$0</u>
Debt-Service Coverage Ratio	<u>1.51</u>	<u>1.66</u>	<u>1.88</u>	<u>2.12</u>	



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RET FINANCE

Assumptions
<p style="text-align: center;">Capital Structure Assumptions</p> <p style="text-align: center;">Non-Cost-Share Debt Percentage (%) <u>70</u> %</p> <p style="text-align: center;">Debt Interest Rate (%) <u>8</u> %</p> <p style="text-align: center;">Debt Repayment Period (Years) <u>15</u> Years</p>
<p style="text-align: center;">Tax/Economic Assumptions</p> <p style="text-align: center;">Federal Income Tax Rate (%) <u>35</u> %</p> <p style="text-align: center;">State Income Tax Rate (%) <u>7.7</u> %</p> <p style="text-align: center;">Sales Tax Rate (%) <u>7.25</u> %</p> <p style="text-align: center;">Can the project's tax benefits be used to offset other income? <u>Yes</u></p> <p style="text-align: center;">Expected Annual Inflation Rate (%) <u>3</u> %</p> <p style="text-align: center;">Investment Tax Credit (% of depreciable capital costs) <u>10</u> %</p> <p style="text-align: center;">10-year Production Tax Credit (cents/kWh escalated at the rate of inflation) <u>0</u> \$/kWh</p>
<p style="text-align: center;">Project Assumptions</p> <p style="text-align: center;">Plant Size (kW) <u>50000</u> kW</p> <p style="text-align: center;">Average Annual Capacity Factor (%) <u>89</u> %</p> <p style="text-align: center;">Power Plant Cost (\$/kW) <u>1545</u> \$/kW</p> <p style="text-align: center;">Taxable Amount (for Sales Tax) <u>1545</u> \$/kW</p> <p style="text-align: center;">Transmission & Interconnect <u>0</u> \$/kW</p> <p style="text-align: center;">Other Capital Costs <u>0</u> \$/kW</p> <p style="text-align: center;">Interest Rate During Construction (%) <u>10</u> %</p> <p style="text-align: center;">Debt Service Reserve <u>0</u> \$/kW</p> <p style="text-align: center;">Debt-Related Fees <u>0</u> \$/kW</p> <p style="text-align: center;">Equity-Related Fees (like tax advice) <u>0</u> \$/kW</p> <p style="text-align: center;">Equity-Related Fees (like organizational fee) <u>0</u> \$/kW</p> <p style="text-align: center;">Equity-Related Fees (other) <u>0</u> \$/kW</p> <p style="text-align: center;">Contingency <u>0</u> \$/kW</p>
<p style="text-align: center;">Annual Costs</p> <p style="text-align: center;">Annual Fixed O&M (\$/kW) <u>87.4</u> \$/kW</p> <p style="text-align: center;">Annual Variable Costs (\$/kWh) <u>0</u> \$/kWh</p> <p style="text-align: center;">Annual General & Admin Expense (\$) <u>0</u> \$</p> <p style="text-align: center;">Annual Property Tax Rate (%) <u>1</u> % of Total Project Cost</p> <p style="text-align: center;">Insurance Expense (%) <u>1</u> % of Total Project Cost</p> <p style="text-align: center;">Annual Nominal Escalation Rates</p> <p style="text-align: center;">Annual Fixed O&M (\$/kW) <u>3</u> %</p> <p style="text-align: center;">Annual Variable Costs (\$/kWh) <u>3</u> %</p> <p style="text-align: center;">Annual General & Admin Expense (\$) <u>3</u> %</p> <p style="text-align: center;">Annual Property Tax Rate (%) <u>0</u> %</p> <p style="text-align: center;">Annual Mines Tax Rate (%) <u>0</u> %</p>

Insurance Expense (%) 3 %

Analysis Parameters

Annual Nominal Electricity Sales Price Escalation Rate 2.5 %/year

Is the 'Average DSCR' constraint binding? Yes

Average DSCR (lender imposed) 1.8

Is the 'Minimum DSCR' constraint binding? Yes

Minimum DSCR (lender imposed) 1.4

Is the equity investor's hurdle rate binding? Yes

Minimum Acceptable Nominal After-Tax IRR (%) 17 %

Are negative after-tax cash flows acceptable? Yes

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RET FINANCE **CASH FLOW**

Calendar Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Project Year	Construction																				
Electricity Production (MWh)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Electricity Sales Price (cents/kWh)	5.37	4.53	4.59	4.71	4.82	4.95	5.07	5.20	5.33	5.46	5.59	5.72	5.86	6.00	6.14	6.28	6.43	6.58	6.73	6.88	7.03
Operating Revenue	1,700,707,249	1,246,361,936	1,290,041,438	1,404,292,515	1,480,662,328	1,577,679,806	1,675,820,858	1,775,267,630	1,875,899,320	1,977,726,812	2,080,991,223	2,185,516,517	2,291,404,429	2,398,689,540	2,507,406,729	2,617,591,949	2,729,281,747	2,842,513,791	2,957,324,624	3,073,748,824	3,191,823,000
Fixed O&M	64,501	64,636	64,775	64,918	65,066	65,218	65,375	65,536	65,700	65,867	66,039	66,214	66,391	66,571	66,754	66,940	67,130	67,323	67,519	67,718	67,921
Variable Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Royalties	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance Expense	18256	18271	18286	18301	18316	18331	18346	18361	18376	18391	18406	18421	18436	18451	18466	18481	18496	18511	18526	18541	18556
Property Tax	38523	38523	38523	38523	38523	38523	38523	38523	38523	38523	38523	38523	38523	38523	38523	38523	38523	38523	38523	38523	38523
Mining Tax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administrative Expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Expenses	66,207	66,429	66,596	66,766	66,944	67,122	67,311	67,508	67,707	67,907	68,112	68,321	68,534	68,751	68,972	69,196	69,423	69,653	69,885	70,119	70,355
Operating Income	610,771	411,015	411,305	411,580	411,862	412,150	412,441	412,745	413,052	413,361	413,672	413,985	414,300	414,616	414,934	415,254	415,576	415,899	416,224	416,551	416,880
5-Year Depreciation Factor	20.00%	20.00%	13.33%	13.33%	13.33%	11.54%	6.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5-Year Depreciation	315,255	224,741	215,826	185,288	165,268	145,268	125,268	105,268	85,268	65,268	45,268	25,268	5,268	0	0	0	0	0	0	0	0
Debt Interest Payment	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872
Amortization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
First Year Expense	65,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Forward	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Taxable Income	(615,166)	(418,501)	(418,026)	(417,551)	(417,076)	(416,601)	(416,126)	(415,651)	(415,176)	(414,701)	(414,226)	(413,751)	(413,276)	(412,801)	(412,326)	(411,851)	(411,376)	(410,901)	(410,426)	(409,951)	(409,476)
Income Tax	(66,067)	(42,361)	(42,316)	(42,271)	(42,226)	(42,181)	(42,136)	(42,091)	(42,046)	(41,999)	(41,954)	(41,909)	(41,864)	(41,819)	(41,774)	(41,729)	(41,684)	(41,639)	(41,594)	(41,549)	(41,504)
Investment Tax Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Production Tax Credit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Tax Taken	(66,067)	(42,361)	(42,316)	(42,271)	(42,181)	(42,091)	(42,001)	(41,911)	(41,821)	(41,731)	(41,641)	(41,551)	(41,461)	(41,371)	(41,281)	(41,191)	(41,101)	(41,011)	(40,921)	(40,831)	(40,741)
Net Operating Income	(6,296)	(111,039)	(44,823)	(49,271)	(46,645)	(42,376)	(35,313)	(28,249)	(21,186)	(14,123)	(7,060)	0	0	0	0	0	0	0	0	0	0
Depreciation	115,255	224,741	215,826	185,288	165,268	145,268	125,268	105,268	85,268	65,268	45,268	25,268	5,268	0	0	0	0	0	0	0	0
Amortization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
First Year Expense	65,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Forward	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Debt Principal	(66,067)	(42,321)	(42,616)	(42,911)	(43,206)	(43,501)	(43,796)	(44,091)	(44,386)	(44,681)	(44,976)	(45,271)	(45,566)	(45,861)	(46,156)	(46,451)	(46,746)	(47,041)	(47,336)	(47,631)	(47,926)
Net Equity Cash Flow	(66,067)	(42,361)	(42,316)	(42,271)	(42,181)	(42,091)	(42,001)	(41,911)	(41,821)	(41,731)	(41,641)	(41,551)	(41,461)	(41,371)	(41,281)	(41,191)	(41,101)	(41,011)	(40,921)	(40,831)	(40,741)
Comulative Net Equity Cash Flow	(66,067)	(108,428)	(150,744)	(193,060)	(235,376)	(277,692)	(320,008)	(362,324)	(404,640)	(446,956)	(489,272)	(531,588)	(573,904)	(616,220)	(658,536)	(700,852)	(743,168)	(785,484)	(827,800)	(870,116)	(912,432)
Debt Funds	660,895	439,620	436,230	432,840	429,450	426,060	422,670	419,280	415,890	412,500	409,110	405,720	402,330	398,940	395,550	392,160	388,770	385,380	381,990	378,600	375,210
Beginning Balance	66,872	66,620	66,368	66,116	65,864	65,612	65,360	65,108	64,856	64,604	64,352	64,100	63,848	63,596	63,344	63,092	62,840	62,588	62,336	62,084	61,832
Debt Interest Payment	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872	99,872
Debt Principal Payment	67,143	67,422	67,616	67,810	68,004	68,198	68,392	68,586	68,780	68,974	69,168	69,362	69,556	69,750	69,944	70,138	70,332	70,526	70,720	70,914	71,108
Total Debt Payment	67,143	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115	67,115
Debt-Service Coverage Ratio	1.31	1.33	1.32	1.34	1.36	1.38	1.41	1.44	1.47	1.50	1.53	1.56	1.59	1.62	1.65	1.68	1.71	1.74	1.77	1.80	1.83

Cashflow Summary View every 5 Years | View Summary Print Cancel

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REFINANCE Cash Flow

Calendar Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034		
Project Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Construction	2,023,472,602	2,089,614,652	2,121,425,052	2,185,225,686	2,250,329,078	2,226,388,465	2,353,298,242	2,417,443,224	2,472,959,376	2,524,761,229	2,598,147,671	2,663,106,651	2,729,684,367	2,797,974,669	2,867,874,611	2,939,571,487	3,013,064,294	3,088,367,365	3,165,596,598	3,244,726,911			
Operating Revenues	66,245	66,514	67,091	67,267	67,452	67,642	67,838	68,040	68,247	68,452	68,662	68,876	69,093	69,313	69,534	69,756	69,979	70,203	70,427	70,651	70,875	71,099	
Operating Expenses	113,532	113,890	114,236	114,590	114,952	115,322	115,700	116,087	116,482	116,886	117,300	117,722	118,154	118,595	119,047	119,509	119,980	120,462	120,953	121,454	121,965	122,487	
Taxable Income	(46,605)	(46,499)	(46,518)	(46,520)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	
Net Operating Income	(46,605)	(46,499)	(46,518)	(46,520)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	(46,521)	
Net Equity Cash Flow	(47,049)	(47,574)	(48,108)	(48,662)	(49,236)	(49,839)	(50,471)	(51,131)	(51,820)	(52,538)	(53,285)	(54,061)	(54,866)	(55,699)	(56,560)	(57,449)	(58,366)	(59,311)	(60,284)	(61,284)	(62,311)	(63,365)	
Cumulative Net Equity Cash Flow	(47,049)	(94,623)	(142,731)	(191,393)	(240,612)	(290,389)	(340,726)	(391,623)	(443,081)	(495,099)	(547,678)	(600,818)	(654,519)	(708,781)	(763,604)	(818,989)	(874,936)	(931,447)	(988,521)	(1,046,158)	(1,104,369)	(1,163,144)	
Debt-Service Coverage Ratio	1.51	1.55	1.58	1.62	1.66	1.71	1.75	1.79	1.84	1.88	1.93	1.97	2.02	2.07	2.12								

Cashflow Summary Cashflow Details View every 5 Years View Detail Print Cancel



fn=chartrad8E487.tmp.png

RET FINANCE **CASH FLOW**

Calendar Year	2014	2015	2019	2024	2029	2034
Project Year	Construction	1	5	10	15	20
Operating Revenue	<u>1,703,787,249</u>	<u>1,880,662,328</u>	<u>2,127,796,803</u>	<u>2,407,406,779</u>	<u>2,723,759,801</u>	
Operating Expenses		<u>\$6,267</u>	<u>\$6,944</u>	<u>\$7,912</u>	<u>\$9,034</u>	<u>\$10,334</u>
Operating Income		<u>\$10,771</u>	<u>\$11,862</u>	<u>\$13,366</u>	<u>\$15,040</u>	<u>\$16,904</u>
Taxable Income		<u>(\$15,166)</u>	<u>(\$1,109)</u>	<u>\$10,735</u>	<u>\$14,514</u>	<u>\$16,904</u>
Net Operating Income		<u>(\$960)</u>	<u>(\$665)</u>	<u>\$6,440</u>	<u>\$8,707</u>	<u>\$10,141</u>
Net Equity Cash Flow	<u>(\$26,098)</u>	<u>\$17,863</u>	<u>\$5,191</u>	<u>\$1,957</u>	<u>\$2,120</u>	<u>\$10,141</u>
Cumulative Net Equity Cash Flow	<u>(\$26,098)</u>	<u>(\$8,235)</u>	<u>\$20,757</u>	<u>\$31,715</u>	<u>\$42,076</u>	<u>\$90,499</u>
Debt-Service Coverage Ratio		<u>1.51</u>	<u>1.67</u>	<u>1.88</u>	<u>2.11</u>	

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RET FINANCE



Renewable Energy Technologies Financial Model

Logout

Project Selection

An RETFinance Project consists of assumptions which you select and enter. This data is stored for future reference. Based on the data entered, a simulation is run and the results are presented on the last step. The data is stored to the database as you go from step to step. An asterisk (*) at the end of a Project name denotes baseline Projects for which the assumptions cannot be changed.

Select a Project:



Help

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