

Project-2 Report on American Vanguard Corporation

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Executive Summary-

In this report, we conducted a thorough analysis to identify the best facility locations to support American Vanguard Corporation (AVD), a leading provider of agricultural solutions, and its growth strategy. By using cash flow analysis, we were able to find locations that had positive annual worth (AW), short payback periods, and high internal rates of return (IRR). Included are suggestions for adding new facilities in these chosen locations as well. Our objectives are to increase operational effectiveness, reduce expenses, and take advantage of new opportunities in the agriculture industry by doing this. Our strategic investment fits with AVD's long-term goals and sets the company up for long-term growth and value creation.

Comparative Analysis of Market Segment, Locations, and Financial Position of American Vanguard, CVR Partners (UAN), and Rayonier Advanced Materials (RYAM)

- **Market Segment:**

1. American Vanguard Corp. (AVD): American Vanguard Corporation provides solutions for pest control, soil health, and crop protection. Globally, farmers, growers, and agricultural professionals are served by their wide range of products.
2. CVR Partners (UAN): CVR Partners specializes in ammonia and urea ammonium nitrate (UAN) solutions. Their goods are essential for improving agricultural productivity and soil fertility.
3. Rayonier Advanced Materials (RYAM): Global suppliers of specialty chemicals and high-purity cellulose specialties are offered by Rayonier Advanced Materials. Since their wood pulp products have distinct qualities and uses, they are used in a wide range of sectors.

- **Locations:**

1. American Vanguard Corp. (AVD): The American Vanguard Corporation's main office is in Newport Beach, California. AVD has a global presence with subsidiaries, distribution networks, and customers in other nations.
2. CVR Partners (UAN): The US state of Texas, at Sugar Land, is home to CVR Partners' headquarters. With its nitrogen fertilizer products, CVR Partners supplies international markets even though its main operations are headquartered in the United States.
3. Rayonier Advanced Materials (RYAM): The US city of Jacksonville, Florida, is home to Rayonier Advanced Materials' headquarters.

Table 1 Financial Positions (5 Year Average)

Company	Revenue	Net Income	Profit Margin
American Vanguard Corporation (AVD)	\$534 million	\$16.57 million	3.06%
CVR Partners (UAN)	\$550 million	\$79.95 million	13.98%
Rayonier Advanced Materials (RYAM)	\$1.5 Billion	(\$72.25) million	1.30%

- **Financial Trend Analysis of American Vanguard Corp. (AVD):**

Current Assets: From \$16,171 in 2018 to \$19,113 in 2020, AVD's current assets first increased. However, these assets then decreased to \$16,949 in 2021 and \$16,606 in 2022. Over the course of the five years, AVD managed to keep its present asset level comparatively steady despite volatility.

Cash Holdings: In 2020, the corporation had \$10,113 in cash holdings; but, in 2021 and 2022, those amounts fell to \$7,421 and \$7,008, respectively. This implies that even with a healthy financial position in 2020, there may have been pressure on liquidity in recent years.

Receivables: AVD's receivables showed steady growth, amounting to \$3,425 in 2022. This increased trend suggests that sales on credit are rising, which could boost revenue growth but also emphasizes the importance of efficient accounts receivable management.

Total assets: Total assets increased gradually over time, from \$24,860 in 2018 to \$38,724 in 2022, indicating the company's capacity to increase the size of its asset base. This growth is consistent with AVD's expansion initiatives and overall positive trajectory.

Long-Term Liabilities: From \$5,834 in 2018 to \$13,749 in 2022, long-term liabilities steadily increased, demonstrating AVD's reliance on borrowing for long-term financing requirements or expansion. Although this approach promotes expansion, it also raises the debt load and risk to the company's finances.

Sales and Net Income: Over the years, AVD's sales and net income have increased, demonstrating the company's capacity to turn a profit. This encouraging development highlights AVD's dominant market position and successful business plans.

Costs associated with maintenance and operations (M & O): M & O costs increased in 2019 and decreased in 2021 and 2022. These variations could be a sign of shifting market conditions that affect the company's cost structure or of differing operational effectiveness.

Depreciation Expense: Because of AVD's assets' aging or natural wear and tear, depreciation expense has progressively increased over time. This pattern is common for businesses with sizable asset bases and emphasizes how crucial it is to budget for the upkeep and replacement of assets.

Effective Tax Rate: Throughout the course of the five years, the effective tax rate for AVD ranged from 18% to 23%, remaining largely constant. This consistency offers predictability in financial planning and reporting by indicating a constant tax burden on taxable income.

- **Summary of Financial Estimates**

Over the previous five years, AVD's financial performance has fluctuated in several important parameters. Cash holdings showed a similar tendency, peaking at \$10,113 in 2020 and falling to \$7,008 in 2022, while current assets first increased, reaching \$19,113 in 2020 before dipping to \$16,606 in 2022. Receivables increased gradually to \$3,425 in 2022, indicating a rise in credit sales. Consistent growth in total assets resulted in a high of \$38,724 in 2022; yet the same year showed an increase in long-term liabilities to \$13,749, suggesting that borrowing was necessary for expansion. Overall sales and net income grew, but there appears to be a need for tighter cost control given the volatility of operations and maintenance costs and the rise in depreciation expenses. A consistent effective tax rate of 18% to 23% provides stability for financial planning despite these difficulties. Together, these patterns show the operational effectiveness, financial stability, and industry positioning of AVD.

Fresh suggestion for American Vanguard Corp.: Innovations that foster global prosperity.

The American Vanguard Corporation (AVD) is prepared to initiate a strategic expansion plan aimed at streamlining its operating framework and promoting innovation in its range of agricultural products. AVD seeks to increase operational effectiveness and profitability by establishing manufacturing and distribution operations in Tennessee and research and development (R&D) facilities in California. The company focuses on crop protection and yield improvement solutions.

Tennessee presents itself as a desirable site for AVD's production and distribution activities because of its business-friendly climate, which includes competitive labor prices and reasonable tax rates. Due to the state's thriving agriculture industry, which offers access to trained personnel and effective transportation, AVD can optimize its

supply chain and expand its customer base. Additionally, Tennessee's advantageous position provides logistical benefits that can help AVD's products be distributed to clients throughout the region with ease.

On the other hand, California offers strong prospects for AVD's research and development endeavors, especially in innovation hotspots like Silicon Valley and the Greater Los Angeles region. California, which is well-known for having a thriving ecosystem and being close to eminent research institutes, provides a favorable atmosphere for cooperation and innovation. By locating research and development centers in California, AVD will be able to take advantage of the innovative culture in the state and continue to lead the way in agricultural technology development.

The proposed facility locations exhibit economic viability based on comparisons of expenses and financial forecasts. California presents higher prices, especially in areas like land acquisition and building, while Tennessee provides more affordable options for operational expenses, construction, and land acquisition. But the increased costs are justified by the possibilities for creativity and cooperation in California's R&D environment.

Table 2 : Comparison of two facility Locations

Facility Location	Los Angeles, California	Tennessee
Business Environment	Innovation hub with skilled talent.	Moderate costs, strong agriculture.
Purpose	R&D facilities for innovation.	Manufacturing, distribution.
Land Acquisition	Expensive, limited availability.	Affordable, ample land.
Construction Costs	High due to land value.	Lower than California.
Operating Expenses	Higher due to cost of living.	Moderate, cost-effective options.
Infrastructure	Developed for technology.	Efficient for logistics.
Tax Environment	Higher tax rates.	Moderate tax rates, incentives.
Viability	Ideal for innovation.	Cost-effective, logistical advantages.

Conclusion:

The Tennessee and California sites have significant appeal and are financially feasible, according to the financial studies. With an average cash flow after taxes (CFAT) of \$1,391.712 million, a present worth (PW) of \$13,609.62 million, and an annual worth (AW) of \$1,391.71 million in Tennessee, the project exhibits remarkable returns. With a fair payback period of 17.0 years, the Internal Rate of Return (IRR) of 32% surpasses the Minimum Acceptable Rate of Return (MARR), suggesting the possibility of long-term success. Comparably, the California facility, with CFAT of \$1,154.282 million, PW of \$11,287.78 million, and AW of \$1,154.28 million, exhibits strong financial viability. The facility has an 18.0-year payback period and an excellent IRR of 112%, which is significantly higher than the MARR. These facilities are prudent investments that should yield continued profitability and support economic expansion.

Appendix

Table 3- Cash Flow Statement for American Vanguard Corp. Inc. in USD (All figures are in Millions of Dollars)

	2022	2021	2020	2019	2018
Cash flows from operating activities:					
Increase Cash:					
Net income (in \$)	27,404	18,587	15,242	13,601	24,062
Adjustments to reconcile net income to net cash (used in) provided by operating activities:					
Depreciation and amortization of property, plant and equipment and intangible assets	22,138	22,229	19,902	18,643	18,891
Loss on disposal of property, plant and equipment			119	—	—
Amortization of other long-term assets	3,573	3,943	3,947	3,983	4,649
Accretion of discounted liabilities			9	72	359
Amortization and accretion of deferred loan fees and discounted liabilities	289	359	300	224	235
Loss on disposal of property, plant and equipment	268	194	1,002	1,035	1,216
Provision for bad debts	1,171	649	250	-4,120	-6,050
Loan principal and interest forgiveness	—	-672	6,561	7,160	5,805
Fair value adjustment of contingent consideration	610	758	969	2,616	-561
Decrease in environmental liability	—	-167	-2,092	263	171
Stock-based compensation	5,684	6,880	-717	—	—
Deferred income taxes	-5,278	-2,090	125	209	389
Changes in liabilities for uncertain tax positions or unrecognized tax benefits	-1,441	-1,783	-4,657	—	—
Change in equity investment fair value	732	790			
Loss from equity method investment	—	388			
Bargain purchase gain	—	-171	15,559	-11,383	-22,536
Non-cash lease expense	68	286	7,421	3,817	-31,440
Foreign currency transaction gains	-29	-225	-287	-6,855	2,655
Changes in assets and liabilities associated with operations, net of business combinations:			140	(876	186
Increase in receivables	-6,447	-24,347	18	149	—
(Increase) decrease in inventories	-29,220	9,357	-8,124	-7,977	9,097
(Increase) decrease in income tax receivable	-4,910	6,051	36,803	-13,355	5,468
(Increase) decrease in prepaid expenses and other assets	-3,082	-4,581	-2,517	5,797	-1,705

Increase (decrease) in accounts payable	1,704	8,783	-775	-3,600	767
(Decrease) Increase in customer prepayments	47,551	19,280	89,198	9,403	11,658
Increase (decrease) in accrued program costs	-2,449	17,877			
Increase (decrease) in accrued expenses and other payables	90	3,986	-11,249	-12,985	-8,050
Decrease in contingent consideration	-1,321	—	-1,190	—	—
Net cash (used in) provided by operating activities	57,105	86,361	-4,014	-3,880	—
Cash flows from investing activities:			-19,342	-37,972	-19,959
Capital expenditures	-13,261	-9,518	-35,795	-54,837	-28,009
Proceeds from disposal of property, plant and equipment	84	—			
Acquisitions of business and product line, net of cash acquired	—	-10,000	-41,624	51,900	18,975
Intangible assets	-1,293	-524	—	—	-73
Net cash used in investing activities	-14,470	-20,042	—	-850	—
Cash flows from financing activities:			-421	283	1,717
Payments under line of credit agreement	-	-			
	254,000	186,569			
Borrowings under line of credit agreement	253,000	131,000	—	-2,604	-7,287
Payment of contingent consideration	-68	-1,301	-1,168	-2,323	-2,199
Net receipt from the issuance of common stock under ESPP	837	743	-43,213	46,406	11,133
Net receipt from the exercise of stock options	827	172	10,190	972	-5,218
Net payment from common stock purchased for tax withholding	-2,067	-2,955	-848	-559	49
Repurchase of common stock	-34,002	-4,579	6,581	6,168	11,337
Payment of cash dividends	-2,787	-2,382	15,923	6,581	6,168
Net cash provided by (used in) financing activities	-38,260	-65,871			
Net (decrease) increase in cash	4,375	448			
Effect of exchange rate changes on cash	-332	-86	5,313	7,121	3,319
Cash at beginning of year	16,285	15,923	3,881	9,276	8,449
Cash at end of year (in \$)	20,328	16,285	18,363	17,484	21,092

Table 5- Sales Growth

Financial Data / Year	2018	2019	2020	2021	2022
Sales	\$3,500	\$4,200	\$5,800	\$7,300	\$8,900
Sales Growth	-	0.2	0.381	0.258	0.219

Table 6- M & O Growth

Financial Data / Year	2018	2019	2020	2021	2022
M & O	\$8,000	\$9,500	\$10,200	\$11,800	\$13,500
M & O Growth	-	0.1875	0.0684	0.1569	0.1525

Table 7- Depreciation Growth

Financial Data / Year	2018	2019	2020	2021	2022
Depreciation	\$500	\$550	\$620	\$750	\$800
Depreciation Growth	-	0.1	0.1273	0.2097	0.0667

Table 8- CFAT Calculations for the Manufacturing facility in the State of Tennessee (Memphis) (All figures are in Millions of Dollars),

No Of Yea rs	Construct ion Cost	M&O	Labor Cost	Sal es	Sales Increas e	Total Sales	Gross Income	Operati ng Expens es	P& S	dr	D2	Boo k Val ue	TI	Taxes	CFAT
0	(\$3.25)	(\$494.82)				\$13,415.69	\$12,917.63	(\$494.82)					\$12,422.81	\$2,857.25	(\$21.520)
1	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$28.75	\$53.75	\$37.82	(\$15.77)		1.39%	0.045	3.20	\$22.00	\$5.06	\$16.940
2	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$33.06	\$58.06	\$42.13	(\$15.77)		2.56%	0.083	3.12	\$26.27	6.043242792	\$20.232
3	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$38.02	\$63.02	\$47.09	(\$15.77)		2.56%	0.083	3.04	\$31.23	7.183899042	\$24.050
4	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$43.73	\$68.73	\$52.79	(\$15.77)		2.56%	0.083	2.95	\$36.94	8.495653729	\$28.442
5	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$50.28	\$75.28	\$59.35	(\$15.77)		2.56%	0.083	2.87	\$43.50	10.00417162	\$33.492
6	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$57.83	\$82.83	\$66.89	(\$15.77)		2.56%	0.083	2.79	\$51.04	11.73896719	\$39.300
7	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$66.50	\$91.50	\$75.57	(\$15.77)		2.56%	0.083	2.70	\$59.71	13.7339821	\$45.979
8	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$76.48	\$101.48	\$85.54	(\$15.77)		2.56%	0.083	2.62	\$69.69	16.02824925	\$53.660
9	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$87.95	\$112.95	\$97.01	(\$15.77)		2.56%	0.083	2.54	\$81.16	18.66665647	\$62.493
10	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$101.14	\$126.14	\$110.20	(\$15.77)		2.56%	0.083	2.45	\$94.35	21.70082477	\$72.651
11	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$116.31	\$141.31	\$125.38	(\$15.77)		2.56%	0.083	2.37	\$109.52	25.19011832	\$84.332
12	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$133.76	\$158.76	\$142.82	(\$15.77)		2.56%	0.083	2.29	\$126.97	29.2028059	\$97.766
13	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$153.82	\$178.82	\$162.89	(\$15.77)		2.56%	0.083	2.20	\$147.03	33.81739661	\$113.215

14	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$176.89	\$201.89	\$185.96	(\$15.77)		2.56%	0.083	2.12	\$170.11	39.12417594	\$130.981
15	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$203.43	\$228.43	\$212.49	(\$15.77)		2.56%	0.083	2.04	\$196.64	45.22697216	\$151.412
16	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$233.94	\$258.94	\$243.01	(\$15.77)		2.56%	0.083	1.95	\$227.15	52.24518781	\$174.908
17	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$269.03	\$294.03	\$278.10	(\$15.77)		2.56%	0.083	1.87	\$262.24	60.31613582	\$201.928
18	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$309.39	\$334.39	\$318.45	(\$15.77)		2.56%	0.083	1.79	\$302.60	69.59772602	\$233.001
19	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$355.79	\$380.79	\$364.86	(\$15.77)		2.56%	0.083	1.70	\$349.01	80.27155476	\$268.735
20	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$409.16	\$434.16	\$418.23	(\$15.77)		2.56%	0.083	1.62	\$402.38	92.5464578	\$309.829
21	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$470.54	\$495.54	\$479.60	(\$15.77)		2.56%	0.083	1.54	\$463.75	106.6625963	\$357.088
22	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$541.12	\$566.12	\$550.18	(\$15.77)		2.56%	0.083	1.45	\$534.33	122.8961556	\$411.435
23	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$622.29	\$647.29	\$631.35	(\$15.77)		2.56%	0.083	1.37	\$615.50	141.5647487	\$473.934
24	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$715.63	\$740.63	\$724.70	(\$15.77)		2.56%	0.083	1.29	\$708.84	163.0336309	\$545.808
25	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$822.97	\$847.97	\$832.04	(\$15.77)		2.56%	0.083	1.20	\$816.19	187.7228454	\$628.463
26	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$946.42	\$971.42	\$955.49	(\$15.77)		2.56%	0.083	1.12	\$939.63	216.115442	\$723.517
27	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$1,088.38	\$1,113.38	\$1,097.45	(\$15.77)		2.56%	0.083	1.04	\$1,081.60	248.7669281	\$832.828
28	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$1,251.64	\$1,276.64	\$1,260.71	(\$15.77)		2.56%	0.083	0.95	\$1,244.85	286.3161372	\$958.537
29	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$1,439.39	\$1,464.39	\$1,448.45	(\$15.77)		2.56%	0.083	0.87	\$1,432.60	329.4977276	\$1,103.101
30	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$1,655.29	\$1,680.29	\$1,664.36	(\$15.77)		2.56%	0.083	0.79	\$1,648.51	379.1565565	\$1,269.350
31	(\$0.16)	(\$1.95)	(\$13.82)	\$25	\$1,903.59	\$1,928.59	\$1,912.65	(\$15.77)		2.56%	0.083	0.70	\$1,896.80	436.2642099	\$1,460.537

32	(\$0.16)	(\$1.95)	(\$13.8 2)	\$25	\$2,189. 13	\$ 2,214.13	\$2,198.1 9	(\$15.77)		2.56 %	0.08 3	0.62	\$2,182.3 4	501.9380 112	\$1,680.401
33	(\$0.16)	(\$1.95)	(\$13.8 2)	\$25	\$2,517. 50	\$ 2,542.50	\$2,526.5 6	(\$15.77)		2.56 %	0.08 3	0.54	\$2,510.7 1	577.4628 827	\$1,933.245
34	(\$0.16)	(\$1.95)	(\$13.8 2)	\$25	\$2,895. 12	\$ 2,920.12	\$2,904.1 9	(\$15.77)		2.56 %	0.08 3	0.45	\$2,888.3 3	664.3164 849	\$2,224.016
35	(\$0.16)	(\$1.95)	(\$13.8 2)	\$25	\$3,329. 39	\$ 3,354.39	\$3,338.4 5	(\$15.77)		2.56 %	0.08 3	0.37	\$3,322.6 0	764.1981 275	\$2,558.402
36	(\$0.16)	(\$1.95)	(\$13.8 2)	\$25	\$3,828. 80	\$ 3,853.80	\$3,837.8 6	(\$15.77)		2.56 %	0.08 3	0.29	\$3,822.0 1	879.0620 164	\$2,942.947
37	(\$0.16)	(\$1.95)	(\$13.8 2)	\$25	\$4,403. 12	\$ 4,428.12	\$4,412.1 8	(\$15.77)		2.56 %	0.08 3	0.20	\$4,396.3 3	1011.155 489	\$3,385.173
38	(\$0.16)	(\$1.95)	(\$13.8 2)	\$25	\$5,063. 58	\$ 5,088.58	\$5,072.6 5	(\$15.77)		2.56 %	0.08 3	0.12	\$5,056.8 0	1163.062 982	\$3,893.733
39	(\$0.16)	(\$1.95)	(\$13.8 2)	\$25	\$5,823. 12	\$ 5,848.12	\$5,832.1 9	(\$15.77)		2.56 %	0.08 3	0.04	\$5,816.3 3	1337.756 629	\$4,478.577
40	(\$0.16)	(\$1.95)	(\$13.8 2)	\$25	\$6,696. 59	\$ 6,721.59	\$6,705.6 5	(\$15.77)		1.17 %	0.03 8	0.00	\$6,689.8 5	1538.664 679	\$5,151.182
															\$39,175.620

Table 9 - CFAT Calculations for the Manufacturing facility in the State of California (All figures are in Millions of Dollars)

No Of Year s	Constructi on Cost	M&O	Labor Cost	Sale s	Sales Increas e	Total Sales	Gross Income	Operati ng Expense s	P& S	dr	D2	Boo k Valu e	TI	Taxes	CFAT
0	(\$32.50)	(\$831.30)				\$17,172.09	\$16,308.29	(\$831.30)					\$15,477.00	\$4,333.56	(\$90.820)
1	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$36.80	\$68.80	\$33.84	(\$33.32)		1.39%	0.452	32.05	\$0.07	\$0.02	\$0.047
2	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$42.32	\$74.32	\$39.36	(\$33.32)		2.56%	0.833	31.21	\$5.20	1.457312247	\$3.747
3	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$48.67	\$80.67	\$45.71	(\$33.32)		2.56%	0.833	30.38	\$11.55	3.234752247	\$8.318
4	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$55.97	\$87.97	\$53.01	(\$33.32)		2.56%	0.833	29.55	\$18.85	5.278808247	\$13.574
5	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$64.36	\$96.36	\$61.40	(\$33.32)		2.56%	0.833	28.71	\$27.25	7.629472647	\$19.619
6	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$74.02	\$106.02	\$71.06	(\$33.32)		2.56%	0.833	27.88	\$36.90	10.33273671	\$26.570
7	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$85.12	\$117.12	\$82.16	(\$33.32)		2.56%	0.833	27.05	\$48.01	13.44149038	\$34.564
8	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$97.89	\$129.89	\$94.93	(\$33.32)		2.56%	0.833	26.21	\$60.77	17.0165571	\$43.757
9	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$112.57	\$144.57	\$109.61	(\$33.32)		2.56%	0.833	25.38	\$75.46	21.12788382	\$54.329
10	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$129.46	\$161.46	\$126.50	(\$33.32)		2.56%	0.833	24.55	\$92.34	25.85590956	\$66.487
11	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$148.88	\$180.88	\$145.91	(\$33.32)		2.56%	0.833	23.71	\$111.76	31.29313916	\$80.468
12	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$171.21	\$203.21	\$168.25	(\$33.32)		2.56%	0.833	22.88	\$134.09	37.54595319	\$96.547
13	(\$1.64)	(\$19.50)	(\$13.82)	\$32	\$196.89	\$228.89	\$193.93	(\$33.32)		2.56%	0.833	22.05	\$159.77	44.73668933	\$115.037

14	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$226.42	\$ 258.42	\$223.46	(\$33.32)		2.56 %	0.83 3	21.2 2	\$189.31	53.006035 9	\$136.301
15	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$260.39	\$ 292.39	\$257.42	(\$33.32)		2.56 %	0.83 3	20.3 8	\$223.27	62.515784 44	\$160.755
16	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$299.44	\$ 331.44	\$296.48	(\$33.32)		2.56 %	0.83 3	19.5 5	\$262.33	73.451995 27	\$188.877
17	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$344.36	\$ 376.36	\$341.40	(\$33.32)		2.56 %	0.83 3	18.7 2	\$307.25	86.028637 73	\$221.216
18	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$396.01	\$ 428.01	\$393.05	(\$33.32)		2.56 %	0.83 3	17.8 8	\$358.90	100.49177 66	\$258.407
19	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$455.42	\$ 487.42	\$452.45	(\$33.32)		2.56 %	0.83 3	17.0 5	\$418.30	117.12438 62	\$301.177
20	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$523.73	\$ 555.73	\$520.77	(\$33.32)		2.56 %	0.83 3	16.2 2	\$486.61	136.25188 73	\$350.362
21	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$602.29	\$ 634.29	\$599.33	(\$33.32)		2.56 %	0.83 3	15.3 8	\$565.17	158.24851 35	\$406.925
22	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$692.63	\$ 724.63	\$689.67	(\$33.32)		2.56 %	0.83 3	14.5 5	\$655.52	183.54463 37	\$471.972
23	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$796.53	\$ 828.53	\$793.56	(\$33.32)		2.56 %	0.83 3	13.7 2	\$759.41	212.63517 2	\$546.776
24	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$916.01	\$ 948.01	\$913.04	(\$33.32)		2.56 %	0.83 3	12.8 8	\$878.89	246.08929 09	\$632.801
25	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$1,053. 41	\$ 1,085.41	\$1,050.4 4	(\$33.32)		2.56 %	0.83 3	12.0 5	\$1,016.2 9	284.56152 77	\$731.730
26	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$1,211. 42	\$ 1,243.42	\$1,208.4 6	(\$33.32)		2.56 %	0.83 3	11.2 2	\$1,174.3 0	328.8046	\$845.498
27	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$1,393. 13	\$ 1,425.13	\$1,390.1 7	(\$33.32)		2.56 %	0.83 3	10.3 8	\$1,356.0 1	379.68413 32	\$976.331
28	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$1,602. 10	\$ 1,634.10	\$1,599.1 4	(\$33.32)		2.56 %	0.83 3	9.55	\$1,564.9 8	438.19559 64	\$1,126.789
29	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$1,842. 41	\$ 1,874.41	\$1,839.4 5	(\$33.32)		2.56 %	0.83 3	8.72	\$1,805.3 0	505.48377 9	\$1,299.815
30	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$2,118. 78	\$ 2,150.78	\$2,115.8 1	(\$33.32)		2.56 %	0.83 3	7.88	\$2,081.6 6	582.86518 9	\$1,498.796
31	(\$1.64)	(\$19.50)	(\$13.8 2)	\$32	\$2,436. 59	\$ 2,468.59	\$2,433.6 3	(\$33.32)		2.56 %	0.83 3	7.05	\$2,399.4 8	671.85381 05	\$1,727.624

[illegible]

Table 10 California

AVG CFAT	\$979.391
PW	\$9,577.51
AW	\$979.39
IRR	97%
PAYBACK	19.0

Table 11 Tennessee

AVG CFAT	\$1,154.282
PW	\$11,287.78
AW	\$1,154.28
IRR	112%
PAYBACK	18.0