

Project 2- Facility Expansion of Walmart Inc. – Financial Analysis

Introduction

All the three companies we had for the choice for this analysis was Walmart, FedEx and Costco and we decided to go with the retail industry companies that are Walmart and Costco and decided to include Target for comparison. Among these, Walmart has been selected due to its consistent financial performance and potential for further growth.

Walmart, founded in 1962 by Sam Walton, is a global retail leader with over 10,500 stores across 24 countries. Known for competitive pricing and a wide product range, it operates various formats catering to diverse consumer needs. Strategic priorities include enhancing e-commerce, leveraging technology for efficiency, and expanding into higher-margin sectors like advertising and financial services. With a strong financial position and focus on operational excellence, Walmart is poised for sustainable growth.

Business Overview

Walmart employs a business model that emphasizes product diversification, capital-intensive operations, and integration of technology to sustain growth and uphold its status as a leading global retailer. With a broad array of offerings spanning groceries, general merchandise, and delivery services, Walmart caters to a wide range of consumer needs while mitigating market risks. The company's capital-intensive operations involve substantial investments in physical stores, distribution centers, and technological infrastructure, which pose challenges but also offer prospects for long-term expansion and competitiveness. Through the utilization of advanced technology, data analytics, and digital transformation, Walmart enhances operational efficiency, optimizes supply chain management, and enhances customer experiences both online and in-store. By strategically blending these components, Walmart fortifies its market position, adjusts to evolving consumer preferences, and sustains continuous growth within the dynamic retail landscape.

Similarities & Differences

Market Segment:

- Walmart serves a diverse clientele, providing a vast array of products spanning groceries, apparel, electronics, and household necessities.
- Target caters primarily to middle to upper-middle-class individuals, boasting a sophisticated brand identity and a carefully curated selection of items.
- Costco focuses on attracting members interested in purchasing goods in bulk at reduced prices, appealing particularly to thrifty shoppers and small businesses.

Location:

- Walmart's stores, which include hypermarkets, discount stores, and grocery outlets, tend to be situated in suburban and rural settings. They have a significant presence in the United States and are expanding globally.

- Target, on the other hand, primarily operates in suburban and metropolitan areas. They often establish their stores near Walmart locations and are increasingly venturing into urban areas with smaller format stores.
- Costco's warehouse clubs strategically position themselves in suburban areas near major roads. Their aim is to attract both individual shoppers and small businesses. While Costco has fewer locations compared to Walmart and Target, its stores are typically larger in size.

Financial Position:

- Walmart consistently stands out as one of the world's largest corporations in terms of revenue. This is largely due to its extensive scale and efficient operations, spanning both physical stores and its online platform, Walmart.com.
- Target maintains a strong financial position by emphasizing high-quality products, fostering exclusive partnerships, and expanding its digital presence. This strategy has helped it navigate competition from e-commerce rivals effectively.
- Costco maintains financial stability through its membership-centric business model. By offering bulk discounts and ensuring superior merchandise quality, Costco secures a reliable revenue stream, even if it means operating with potentially thinner profit margins compared to Walmart and Target.

Recommendation/Reason for new facility locations

1. Dallas-Fort Worth Metroplex, Texas:

In the Dallas-Fort Worth Metroplex area of Texas, it's estimated that acquiring land for the facility will cost between \$50-60 million. Construction costs are anticipated to be 5-10% lower than the national average, with annual labor costs slightly below average at \$28 million. This area presents an opportunity to access the lucrative Texas regional market, which is valued at over \$80 billion. It's projected that the facility will generate approximately \$5.2 billion in increased revenue by Year 5.

2. Inland Empire, Southern California:

In the Inland Empire region of Southern California, land prices are notably elevated, typically falling within the range of \$90 to \$100 million. However, construction costs remain in line with national averages. Labor expenses are also higher, amounting to approximately \$35 million per year. Despite these increased costs, the strategic advantage of proximity to the expansive California market, valued at over \$200 billion, is significant. It is projected that by Year 5, revenues will surge by an estimated \$6 billion.

3. Lehigh Valley, Pennsylvania:

In Lehigh Valley, Pennsylvania, the estimated expenses for acquiring land range from \$60 million to \$70 million. Additionally, construction costs are projected to be on the lower end at approximately \$275 million. Labor expenses are expected to amount to \$32 million per year. This region caters to densely populated Northeast markets with a combined market value exceeding \$100 billion. The projected increase in revenue by Year 5 is estimated to be around \$4.9 billion.

Why Walmart? Exploring Financial Dynamics in Retail Sector Analysis

Walmart's prominent position as a leading player in the retail industry presents a valuable dataset for analysis. It offers insights into various financial intricacies, operational diversity, supply chain management strategies, technological advancements, and competitive dynamics. Moreover, delving into Walmart allows for an exploration of its socioeconomic ramifications and provides numerous case studies and scholarly works for in-depth research, thus making it a prime candidate for a comprehensive learning journey.

Financial Analysis

1. The Texas facility exhibits promising financial metrics, with an Internal Rate of Return (IRR) of 38% and a Payback Period of 10 years, indicating its profitability and reasonable investment recovery timeframe. Its Annual Worth (AW) stands at \$3,789.11 million, while its Present Worth (PW) amounts to \$9,971.32 million, reflecting substantial long-term value. The initial investment outlay totals \$100.32 million, encompassing construction expenses of \$77.17 million and a \$100.321 million loan. Operational costs consist of Maintenance and Operations (M&O) at \$60.1926 million annually and Labor costs at \$13.82 million per annum. Revenue projections are robust, commencing at \$100 million in the first year with a 15% annual growth rate. Despite a 25% tax rate, the project's 50-year duration ensures sustained profitability and enduring viability.
2. In the Southern California facility, the financial outlook appears promising with a projected Internal Rate of Return (IRR) of 42% and a Payback Period of 13 years. The investment of \$57.04 million seems justified, considering its Annual Worth (AW) of \$56.85784 million and Present Worth (PW) of \$403.97727 million. This investment is allocated towards construction costs of \$43.88 million and a loan of \$57.044 million. Operational expenses include Maintenance and Operations (M&O) at \$34.2264 million annually, along with Labor costs totaling \$10.37 million per year. Revenue projections indicate a strong start at \$70 million in the first year, with a consistent 15% annual growth thereafter. Taxes at a rate of 25% have been factored into the financial analysis. The project's timeline extends over 50 years, suggesting long-term sustainability and profitability.
3. The Pennsylvania facility the Internal Rate of Return (IRR) stands at around 6.65%, indicating a relatively moderate return given the substantial initial investment of \$3,405.00 million. While it's generally preferable to have a higher IRR to mitigate risks, it's difficult to gauge the adequacy of this figure without considering the industry context. The 10-year payback period for recovering the initial investment, with cumulative cash flows amounting to \$657.14 million, seems in line with the scale of such investments but does extend the project's exposure to risks due to uncertainties surrounding future cash flows. The Annual Worth (AW) of \$26.22 million, representing the discounted equivalent annual cash flow at the IRR, appears significant. However, its true value proposition should be evaluated considering the initial investment and associated risks.

Conclusion

In conclusion, each project in Texas, Southern California, and Pennsylvania offers a unique yet intriguing investment opportunity, based on the financial prospectuses supplied. The Texas project exhibits considerable income creation and positive cash flow over a 40-year period, demonstrating long-term success, despite its high initial construction cost and ongoing expenses. In a similar vein, the Southern California project, which is centered on the Walmart Facility Addition, exhibits strong cash flows, significant revenue growth, and an outstanding internal rate of return over a 50-year period, indicating a highly lucrative endeavor. Although the Pennsylvania project in the Lehigh Valley has a longer payback period of around 35 years, which may be of interest to investors with shorter time horizons, it does show significant sales income and positive cash flow after an initial period. Overall, each project appears to offer potential for lucrative returns, contingent upon careful evaluation of their respective financial projections and investment timelines.

Reference:

- <https://stock.walmart.com/financials/annual-reports/default.aspx>
- <https://investor.costco.com/financials/annual-reports-and-proxy-statements/default.aspx>
- <https://corporate.target.com/investors/annual/annual-reports-and-archive>
- <https://www.sec.gov/edgar/browse/?CIK=27419&owner=exclude>
- <https://www.macrotrends.net/stocks/charts/COST/costco/financial-ratios>
- <https://www.macrotrends.net/stocks/charts/TGT/target/financial-ratios>
- <https://www.macrotrends.net/stocks/charts/WMT/walmart/financial-ratios>

Appendix

Comparing the three suggested facilities with the supporting factors:

Table 1: Texas

Size	Sq Foot	191,000
Cost	per sq foot	\$ 313.00
Wages	hourly rate	\$ 75.00
Salary	hourly rate	\$ 24.00
Employees	nos	200
Population	nos	2,649,008

Table 2: Southern California

Size	Sq Foot	135,000
Cost	per sq foot	\$ 250.00
Wages	hourly rate	\$ 60.00
Salary	hourly rate	\$ 24.00
Employees	nos	150
Population	nos	99,100

Table 3: Pennsylvania

Size	Sq Foot	150,000
Cost	per sq foot	\$ 300.00
Wages	hourly rate	\$ 50.00
Salary	hourly rate	\$ 20.00
Employees	nos	200
Population	nos	120,000

Table 4: Key Financial Metrics and Considerations for Facility Evaluation

		Texas	Southern California	Pennsylvania
Construction Cost	million \$	77.17	43.88	43.88
Loan	million \$	100.321	57.044	57.044
M&O	million \$	60.1926	34.2264	30
Labor	million \$	13.82	10.368	9
Proj Sales	million \$	100	70	60
	increase by 15%	115	80.5	69
MARR	%	38%	14%	10%
IRR	%	12%	42%	20%
Tax Rate	%	25%	25%	25%
Period	years	50	50	50

Definitions:

- 1. Construction Cost** (million \$): The total cost incurred for constructing the facility or project. For the Texas facility, the construction cost is \$77.17 million. For Southern California the cost is \$43.88 million and for Pennsylvania the cost is also \$43.88 million.
- 2. Loan** (million \$): The amount of money borrowed to finance the construction or project. For Texas facility the loan amount is \$100.321 million. For Southern California the amount is \$57.044 million and for Pennsylvania is also \$57.044 million.
- 3. M&O (Maintenance and Operations) costs** (million \$): The ongoing expenses required for the maintenance and day-to-day operations of the facility or project. For the Texas facility the M&O costs are \$60.1926 million. For \$34.2264 millions and for Pennsylvania \$30 million.
- 4. Labor** (million \$): The cost of labor required for the project, typically calculated on an annual basis. For the Texas facility the labor cost is \$13.824 million per year. For the Southern California facility, the cost is \$ 10.368 million per year and for the Pennsylvania facility the cost is \$9 million per year.
- 5. Projected Sales** (million \$): The expected revenue generated by the project or facility. For the Texas facility the projected sales amount is \$100 million initially, increasing by 15% to \$115 million. For the Southern California facility, the Projected Sales are \$ 70 million initially and increasing by 15% to \$80.5 million. For the Pennsylvania facility the projected sales are \$60 million and increasing by 15% it becomes \$69 million.
- 6. MARR** (Minimum Acceptable Rate of Return %): The minimum rate of return required by investors or stakeholders to undertake the project. For the Texas facility the MARR is 38%. For Southern California the MARR value is 14% and for Pennsylvania the MARR is 10%.



7. **IRR** (Internal Rate of Return %): The discount rate at which the net present value (NPV) of all the cash flows from the project equals zero. For the Texas facility the IRR is 12%. For the Southern California facility, the IRR is 42%. For the Pennsylvania facility the IRR is 20%.
8. **Tax Rate** (%): The percentage of taxable income that must be paid to the government as taxes. For the Texas facility the tax rate on average is 25%. For the Southern California facility, the tax rate is around 25% and for the Pennsylvania facility the Tax rate on average is also 25%.
9. **Period** (in years): The duration or lifespan of the project or investment. For the Texas facility we assumed the period is 50 years. For the Southern California facility, the total years are 50 years and for the Pennsylvania facility the total period is approximately 50 years.



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Table 5: Forecasted Report for 50 years of Texas Facility

all in millions		Dallas-Fort Worth Metroplex, Texas - Walmart Facility Addition							Inv x dr	Inv - D2	GI + OE - I	25%	GI + OE - P&S - D - (TI*Te)		GI + OE - P&S - D - (TI*Te)
No Of Years	Construction Cost	M&O	Labor Cost	Sales	Sales Increase	Total Sales	GI	OE	P&S	dr	D2	BV	TI	Taxes	CFAT
0	(\$100.32)	(\$618.28)				\$762.75	\$44.14	(\$618.28)					(\$574.14)	(\$143.53)	(\$251.504)
1	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$115.00	\$ 215.00	\$128.82	(\$74.01)		1.39%	1.395	98.93	\$53.41	\$13.35	\$40.058
2	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$132.25	\$ 232.25	\$146.07	(\$74.01)		2.56%	2.572	96.35	\$69.48	17.37081713	\$52.112
3	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$152.09	\$ 252.09	\$165.91	(\$74.01)		2.56%	2.572	93.78	\$89.32	22.33019213	\$66.991
4	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$174.90	\$ 274.90	\$188.72	(\$74.01)		2.56%	2.572	91.21	\$112.13	28.03347338	\$84.100
5	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$201.14	\$ 301.14	\$214.95	(\$74.01)		2.56%	2.572	88.64	\$138.37	34.59224682	\$103.777
6	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$231.31	\$ 331.31	\$245.12	(\$74.01)		2.56%	2.572	86.06	\$168.54	42.13483628	\$126.405
7	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$266.00	\$ 366.00	\$279.82	(\$74.01)		2.56%	2.572	83.49	\$203.24	50.80881415	\$152.426
8	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$305.90	\$ 405.90	\$319.72	(\$74.01)		2.56%	2.572	80.92	\$243.14	60.7838887	\$182.352
9	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$351.79	\$ 451.79	\$365.61	(\$74.01)		2.56%	2.572	78.35	\$289.02	72.25522443	\$216.766
10	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$404.56	\$ 504.56	\$418.37	(\$74.01)		2.56%	2.572	75.78	\$341.79	85.44726053	\$256.342
11	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$465.24	\$ 565.24	\$479.06	(\$74.01)		2.56%	2.572	73.20	\$402.47	100.618102	\$301.854
12	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$535.03	\$ 635.03	\$548.84	(\$74.01)		2.56%	2.572	70.63	\$472.26	118.0645698	\$354.194
13	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$615.28	\$ 715.28	\$629.10	(\$74.01)		2.56%	2.572	68.06	\$552.51	138.1280077	\$414.384
14	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$707.57	\$ 807.57	\$721.39	(\$74.01)		2.56%	2.572	65.49	\$644.80	161.2009612	\$483.603
15	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$813.71	\$ 913.71	\$827.52	(\$74.01)		2.56%	2.572	62.91	\$750.94	187.7348579	\$563.205
16	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$935.76	\$ 1,035.76	\$949.58	(\$74.01)		2.56%	2.572	60.34	\$873.00	218.248839	\$654.747
17	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$1,076.13	\$ 1,176.13	\$1,089.94	(\$74.01)		2.56%	2.572	57.77	\$1,013.36	253.3399172	\$760.020
18	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$1,237.55	\$ 1,337.55	\$1,251.36	(\$74.01)		2.56%	2.572	55.20	\$1,174.78	293.6946573	\$881.084
19	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$1,423.18	\$ 1,523.18	\$1,437.00	(\$74.01)		2.56%	2.572	52.63	\$1,360.41	340.1026083	\$1,020.308
20	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$1,636.65	\$ 1,736.65	\$1,650.47	(\$74.01)		2.56%	2.572	50.05	\$1,573.89	393.471752	\$1,180.415
21	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$1,882.15	\$ 1,982.15	\$1,895.97	(\$74.01)		2.56%	2.572	47.48	\$1,819.39	454.8462672	\$1,364.539
22	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$2,164.47	\$ 2,264.47	\$2,178.29	(\$74.01)		2.56%	2.572	44.91	\$2,101.71	525.4269597	\$1,576.281
23	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$2,489.15	\$ 2,589.15	\$2,502.96	(\$74.01)		2.56%	2.572	42.34	\$2,426.38	606.5947561	\$1,819.784
24	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$2,862.52	\$ 2,962.52	\$2,876.34	(\$74.01)		2.56%	2.572	39.76	\$2,799.75	699.9377219	\$2,099.813
25	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$3,291.90	\$ 3,391.90	\$3,305.71	(\$74.01)		2.56%	2.572	37.19	\$3,229.13	807.2821326	\$2,421.846
26	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$3,785.68	\$ 3,885.68	\$3,799.50	(\$74.01)		2.56%	2.572	34.62	\$3,722.91	930.728205	\$2,792.185
27	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$4,353.53	\$ 4,453.53	\$4,367.35	(\$74.01)		2.56%	2.572	32.05	\$4,290.76	1072.691188	\$3,218.074
28	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$5,006.56	\$ 5,106.56	\$5,020.38	(\$74.01)		2.56%	2.572	29.48	\$4,943.79	1235.948619	\$3,707.846
29	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$5,757.55	\$ 5,857.55	\$5,771.36	(\$74.01)		2.56%	2.572	26.90	\$5,694.78	1423.694664	\$4,271.084
30	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$6,621.18	\$ 6,721.18	\$6,635.00	(\$74.01)		2.56%	2.572	24.33	\$6,558.41	1639.602616	\$4,918.808
31	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$7,614.35	\$ 7,714.35	\$7,628.17	(\$74.01)		2.56%	2.572	21.76	\$7,551.59	1887.896761	\$5,663.690
32	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$8,756.51	\$ 8,856.51	\$8,770.32	(\$74.01)		2.56%	2.572	19.19	\$8,693.74	2173.435027	\$6,520.305
33	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$10,069.98	\$ 10,169.98	\$10,083.80	(\$74.01)		2.56%	2.572	16.61	\$10,007.22	2501.804034	\$7,505.412
34	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$11,580.48	\$ 11,680.48	\$11,594.30	(\$74.01)		2.56%	2.572	14.04	\$11,517.71	2879.428392	\$8,638.285
35	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$13,317.55	\$ 13,417.55	\$13,331.37	(\$74.01)		2.56%	2.572	11.47	\$13,254.79	3313.696403	\$9,941.089
36	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$15,315.19	\$ 15,415.19	\$15,329.00	(\$74.01)		2.56%	2.572	8.90	\$15,252.42	3813.104616	\$11,439.314
37	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$17,612.46	\$ 17,712.46	\$17,626.28	(\$74.01)		2.56%	2.572	6.33	\$17,549.70	4387.42406	\$13,162.272
38	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$20,254.33	\$ 20,354.33	\$20,268.15	(\$74.01)		2.56%	2.572	3.75	\$20,191.57	5047.891422	\$15,143.674
39	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$23,292.48	\$ 23,392.48	\$23,306.30	(\$74.01)		2.56%	2.568	1.18	\$23,229.72	5807.429891	\$17,422.290
40	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$26,786.35	\$ 26,886.35	\$26,800.17	(\$74.01)		2.56%	2.568	-1.38	\$26,723.59	6680.897976	\$20,042.694
41	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$115.00	\$ 215.00	\$128.82	(\$74.01)		2.56%	2.568	-3.95	\$52.24	13.0597956	\$39.179
42	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$132.25	\$ 232.25	\$146.07	(\$74.01)		2.56%	2.568	-6.52	\$69.49	17.3722956	\$52.117
43	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$152.09	\$ 252.09	\$165.91	(\$74.01)		2.56%	2.568	-9.09	\$89.33	22.3322956	\$66.997
44	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$174.90	\$ 274.90	\$188.72	(\$74.01)		2.56%	2.568	-11.66	\$112.14	28.0347956	\$84.104
45	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$201.14	\$ 301.14	\$214.95	(\$74.01)		2.56%	2.568	-14.22	\$138.37	34.5922956	\$103.777
46	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$231.31	\$ 331.31	\$245.12	(\$74.01)		2.56%	2.568	-16.79	\$168.54	42.1347956	\$126.404
47	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$266.00	\$ 366.00	\$279.82	(\$74.01)		2.56%	2.568	-19.36	\$203.24	50.8097956	\$152.429
48	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$305.90	\$ 405.90	\$319.72	(\$74.01)		2.56%	2.568	-21.93	\$243.14	60.7847956	\$182.354
49	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$351.79	\$ 451.79	\$365.61	(\$74.01)		2.56%	2.568	-24.50	\$289.03	72.2572956	\$216.772
50	(\$12.17)	(\$60.19)	(\$13.82)	\$100	\$404.56	\$ 504.56	\$418.37	(\$74.01)		1.17%	1.174	-25.67	\$343.18	85.79591108	\$257.388

Harsh Panchal (34403291)

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Table 6: Forecasted Report for 50 years of Southern California Facility

all in millions	Inland Empire, Southern California - Walmart Facility Addition														Inv x dr Inv - D2 GI + OE - D 25% GI + OE - P&S - D - (T1*Te)			
	No Of Years	Construction Cost	M&O	Labor Cost	Sales	Sales Increase	Total Sales	Gross Income	Operating Expenses	P&S	dr	D2	BV	TI	Taxes	CFAT		
	0	(\$57.04)	(\$142.86)				\$3,763.75	\$3,563.85	(\$142.86)						\$3,420.99	\$855.25	(\$145.518)	
	1	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$80.50	\$ 150.50	\$81.95	(\$44.59)		1.39%	0.793	56.25	\$36.56	\$9.14	\$27.419		
	2	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$92.58	\$ 162.58	\$94.02	(\$44.59)		2.56%	1.463	54.79	\$47.97	\$11.99	\$35.974		
	3	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$106.46	\$ 176.46	\$107.91	(\$44.59)		2.56%	1.463	53.33	\$61.85	\$15.46	\$46.389		
	4	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$122.43	\$ 192.43	\$123.88	(\$44.59)		2.56%	1.463	51.86	\$77.82	\$19.46	\$58.365		
	5	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$140.80	\$ 210.80	\$142.24	(\$44.59)		2.56%	1.463	50.40	\$96.19	\$24.05	\$72.139		
	6	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$161.91	\$ 231.91	\$163.36	(\$44.59)		2.56%	1.463	48.94	\$117.30	\$29.33	\$87.978		
	7	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$186.20	\$ 256.20	\$187.65	(\$44.59)		2.56%	1.463	47.47	\$141.59	\$35.40	\$106.194		
	8	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$214.13	\$ 284.13	\$215.58	(\$44.59)		2.56%	1.463	46.01	\$169.52	\$42.38	\$127.141		
	9	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$246.25	\$ 316.25	\$247.70	(\$44.59)		2.56%	1.463	44.55	\$201.64	\$50.41	\$151.231		
	10	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$283.19	\$ 353.19	\$284.64	(\$44.59)		2.56%	1.463	43.09	\$238.58	\$59.64	\$178.934		
	11	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$325.67	\$ 395.67	\$327.11	(\$44.59)		2.56%	1.463	41.62	\$281.06	\$70.26	\$210.793		
	12	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$374.52	\$ 444.52	\$375.96	(\$44.59)		2.56%	1.463	40.16	\$329.91	\$82.48	\$247.431		
	13	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$430.70	\$ 500.70	\$432.14	(\$44.59)		2.56%	1.463	38.70	\$386.09	\$96.52	\$289.564		
	14	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$495.30	\$ 565.30	\$496.75	(\$44.59)		2.56%	1.463	37.24	\$450.69	\$112.67	\$338.017		
	15	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$569.59	\$ 639.59	\$571.04	(\$44.59)		2.56%	1.463	35.77	\$524.98	\$131.25	\$393.738		
	16	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$655.03	\$ 725.03	\$656.48	(\$44.59)		2.56%	1.463	34.31	\$610.42	\$152.61	\$457.818		
	17	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$753.29	\$ 823.29	\$754.74	(\$44.59)		2.56%	1.463	32.85	\$708.68	\$177.17	\$531.509		
	18	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$866.28	\$ 936.28	\$867.73	(\$44.59)		2.56%	1.463	31.39	\$821.67	\$205.42	\$616.254		
	19	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$996.22	\$ 1,066.22	\$997.67	(\$44.59)		2.56%	1.463	29.92	\$951.61	\$237.90	\$713.711		
	20	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$1,145.66	\$ 1,215.66	\$1,147.10	(\$44.59)		2.56%	1.463	28.46	\$1,101.05	\$275.26	\$825.786		
	21	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$1,317.51	\$ 1,387.51	\$1,318.95	(\$44.59)		2.56%	1.463	27.00	\$1,272.90	\$318.22	\$954.672		
	22	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$1,515.13	\$ 1,585.13	\$1,516.58	(\$44.59)		2.56%	1.463	25.54	\$1,470.52	\$367.63	\$1,102.892		
	23	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$1,742.40	\$ 1,812.40	\$1,743.85	(\$44.59)		2.56%	1.463	24.07	\$1,697.79	\$424.45	\$1,273.344		
	24	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$2,003.76	\$ 2,073.76	\$2,005.21	(\$44.59)		2.56%	1.463	22.61	\$1,959.15	\$489.79	\$1,469.364		
	25	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$2,304.33	\$ 2,374.33	\$2,305.77	(\$44.59)		2.56%	1.463	21.15	\$2,259.72	\$564.93	\$1,694.788		
	26	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$2,649.98	\$ 2,719.98	\$2,651.42	(\$44.59)		2.56%	1.463	19.69	\$2,605.37	\$651.34	\$1,954.024		
	27	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$3,047.47	\$ 3,117.47	\$3,048.92	(\$44.59)		2.56%	1.463	18.22	\$3,002.86	\$750.72	\$2,252.147		
	28	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$3,504.59	\$ 3,574.59	\$3,506.04	(\$44.59)		2.56%	1.463	16.76	\$3,459.98	\$865.00	\$2,594.987		
	29	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$4,030.28	\$ 4,100.28	\$4,031.73	(\$44.59)		2.56%	1.463	15.30	\$3,985.67	\$996.42	\$2,989.254		
	30	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$4,634.82	\$ 4,704.82	\$4,636.27	(\$44.59)		2.56%	1.463	13.83	\$4,590.21	\$1,147.55	\$3,442.661		
	31	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$5,330.05	\$ 5,400.05	\$5,331.49	(\$44.59)		2.56%	1.463	12.37	\$5,285.44	\$1,321.36	\$3,964.078		
	32	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$6,129.55	\$ 6,199.55	\$6,131.00	(\$44.59)		2.56%	1.463	10.91	\$6,084.94	\$1,521.24	\$4,563.709		
	33	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$7,048.99	\$ 7,118.99	\$7,050.44	(\$44.59)		2.56%	1.463	9.45	\$7,004.38	\$1,751.09	\$5,253.284		
	34	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$8,106.34	\$ 8,176.34	\$8,107.78	(\$44.59)		2.56%	1.463	7.98	\$8,061.73	\$2,015.43	\$6,046.295		
	35	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$9,322.29	\$ 9,392.29	\$9,323.73	(\$44.59)		2.56%	1.463	6.52	\$9,277.68	\$2,319.42	\$6,958.258		
	36	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$10,720.63	\$ 10,790.63	\$10,722.08	(\$44.59)		2.56%	1.463	5.06	\$10,676.02	\$2,669.00	\$8,007.015		
	37	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$12,328.72	\$ 12,398.72	\$12,330.17	(\$44.59)		2.56%	1.463	3.60	\$12,284.11	\$3,071.03	\$9,213.086		
	38	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$14,178.03	\$ 14,248.03	\$14,179.48	(\$44.59)		2.56%	1.463	2.13	\$14,133.42	\$3,533.36	\$10,600.067		
	39	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$16,304.74	\$ 16,374.74	\$16,306.18	(\$44.59)		2.56%	1.460	0.67	\$16,260.13	\$4,065.03	\$12,195.097		
	40	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$18,750.45	\$ 18,820.45	\$18,751.90	(\$44.59)		2.56%	1.460	-0.79	\$18,705.84	\$4,676.46	\$14,029.380		
	41	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$21,562.51	\$21,632.51	\$21,563.96	(\$44.59)		2.56%	1.460	0.01	\$21,518.66	\$5,379.67	\$16,138.235		
	42	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$24,796.89	\$24,866.89	\$24,798.33	(\$44.59)		2.56%	1.460	0.01	\$24,753.02	\$6,188.26	\$18,564.015		
	43	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$28,516.42	\$28,586.42	\$28,517.87	(\$44.59)		2.56%	1.460	0.01	\$28,472.55	\$7,118.14	\$21,353.675		
	44	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$32,793.89	\$32,863.89	\$32,795.33	(\$44.59)		2.56%	1.460	0.01	\$32,750.02	\$8,187.51	\$24,561.765		
	45	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$37,712.97	\$37,782.97	\$37,714.42	(\$44.59)		2.56%	1.460	0.01	\$37,669.10	\$9,417.28	\$28,251.085		
	46	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$43,369.91	\$43,439.91	\$43,371.36	(\$44.59)		2.56%	1.460	0.01	\$43,326.04	\$10,831.51	\$32,493.795		
	47	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$49,875.40	\$49,945.40	\$49,876.84	(\$44.59)		2.56%	1.460	0.01	\$49,831.53	\$12,457.88	\$37,372.905		
	48	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$57,356.71	\$57,426.71	\$57,358.15	(\$44.59)		2.56%	1.460	0.01	\$57,312.84	\$14,328.21	\$42,983.885		
	49	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$65,960.21	\$66,030.21	\$65,961.66	(\$44.59)		2.56%	1.460	0.01	\$65,916.34	\$16,479.09	\$49,436.515		
	50	(\$23.96)	(\$34.23)	(\$10.37)	\$70	\$75,854.24	\$75,924.24	\$75,855.69	(\$44.59)		1.17%	0.667	0.01	\$75,810.37	\$18,952.59	\$56,857.838		

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M&I-ENG 645 Project Budgeting and Finance

Prof Bernd F. Schliemann

Table 7: Forecasted Report for 50 years of Pennsylvania Facility

all in millions	Lehigh Valley, Pennsylvania														
	Construction Co M&O	Labor Cost	Sales	Sales Increase	Total Sales	Gross Income	Operating Expense	P&S	dr	D2	BV	TI	Taxes	CFAT	
0	(\$75.00)	(\$180.00)		\$5,000.00	\$4,720.00	(\$180.00)		\$4,540.00	\$1,135.00	(\$193.00)				\$3,405.00	
1	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$112.00	\$212.00	\$115.84	(\$58.64)	1.39%	0.793	74.21	\$48.42	\$12.11	\$36.32 (\$53.34)	
2	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$128.80	\$228.80	\$132.64	(\$58.64)	2.56%	1.463	72.64	\$62.00	\$15.50	\$46.50 (\$45.17)	
3	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$148.12	\$248.12	\$151.96	(\$58.64)	2.56%	1.463	71.07	\$77.59	\$19.40	\$58.19 (\$35.97)	
4	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$170.34	\$270.34	\$174.18	(\$58.64)	2.56%	1.463	69.51	\$95.20	\$23.80	\$71.40 (\$25.40)	
5	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$195.89	\$295.89	\$199.73	(\$58.64)	2.56%	1.463	67.94	\$115.13	\$28.78	\$86.35 (\$13.23)	
6	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$225.27	\$325.27	\$229.11	(\$58.64)	2.56%	1.463	66.37	\$137.38	\$34.35	\$103.04 \$1.03	
7	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$259.06	\$359.06	\$262.90	(\$58.64)	2.56%	1.463	64.8	\$162.27	\$40.57	\$121.70 \$17.73	
8	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$297.92	\$397.92	\$301.76	(\$58.64)	2.56%	1.463	63.24	\$190.04	\$47.51	\$142.53 \$37.32	
9	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$342.61	\$442.61	\$346.45	(\$58.64)	2.56%	1.463	61.67	\$221.02	\$55.26	\$165.77 \$60.34	
10	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$394.00	\$494.00	\$397.84	(\$58.64)	2.56%	1.463	60.1	\$255.55	\$63.89	\$191.66 \$87.41	
11	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$453.10	\$553.10	\$456.94	(\$58.64)	2.56%	1.463	58.53	\$293.97	\$73.49	\$220.48 \$119.26	
12	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$521.07	\$621.07	\$524.91	(\$58.64)	2.56%	1.463	56.97	\$336.66	\$84.16	\$252.49 \$156.78	
13	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$599.23	\$699.23	\$603.07	(\$58.64)	2.56%	1.463	55.4	\$384.01	\$96.00	\$288.01 \$200.99	
14	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$689.11	\$789.11	\$692.95	(\$58.64)	2.56%	1.463	53.83	\$436.45	\$109.11	\$327.34 \$253.11	
15	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$792.48	\$892.48	\$796.32	(\$58.64)	2.56%	1.463	52.26	\$494.42	\$123.60	\$370.81 \$314.58	
16	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$911.35	\$1,011.35	\$915.19	(\$58.64)	2.56%	1.463	50.7	\$558.38	\$139.59	\$414.28 \$391.54	
17	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$1,048.05	\$1,148.05	\$1,051.89	(\$58.64)	2.56%	1.463	49.13	\$628.83	\$157.21	\$471.62 \$472.47	
18	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$1,205.26	\$1,305.26	\$1,209.10	(\$58.64)	2.56%	1.463	47.56	\$706.31	\$176.58	\$529.73 \$573.14	
19	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$1,386.04	\$1,486.04	\$1,389.88	(\$58.64)	2.56%	1.463	45.99	\$791.39	\$197.85	\$593.54 \$691.68	
20	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$1,593.95	\$1,693.95	\$1,597.79	(\$58.64)	2.56%	1.463	44.43	\$885.66	\$221.41	\$664.24 \$830.45	
21	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$1,829.04	\$1,929.04	\$1,833.88	(\$58.64)	2.56%	1.463	42.87	\$987.33	\$246.83	\$740.50 \$991.84	
22	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$2,103.45	\$2,203.45	\$2,108.29	(\$58.64)	2.56%	1.463	41.3	\$1,102.48	\$275.62	\$826.86 \$1,181.46	
23	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$2,421.97	\$2,521.97	\$2,426.81	(\$58.64)	2.56%	1.463	39.73	\$1,225.91	\$306.48	\$919.43 \$1,408.98	
24	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$2,789.07	\$2,889.07	\$2,793.91	(\$58.64)	2.56%	1.463	38.16	\$1,358.46	\$339.61	\$1,018.85 \$1,678.23	
25	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$3,209.78	\$3,309.78	\$3,214.62	(\$58.64)	2.56%	1.463	36.6	\$1,501.87	\$375.47	\$1,126.40 \$1,992.95	
26	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$3,689.22	\$3,789.22	\$3,694.06	(\$58.64)	2.56%	1.463	35.03	\$1,658.06	\$414.52	\$1,243.55 \$2,356.81	
27	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$4,233.78	\$4,333.78	\$4,238.62	(\$58.64)	2.56%	1.463	33.46	\$1,829.94	\$457.49	\$1,372.45 \$2,774.04	
28	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$4,850.90	\$4,950.90	\$4,855.74	(\$58.64)	2.56%	1.463	31.89	\$2,019.62	\$504.91	\$1,514.71 \$3,250.47	
29	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$5,548.41	\$5,648.41	\$5,553.25	(\$58.64)	2.56%	1.463	30.33	\$2,229.25	\$557.31	\$1,671.94 \$3,792.31	
30	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$6,336.49	\$6,436.49	\$6,341.33	(\$58.64)	2.56%	1.463	28.76	\$2,461.14	\$615.28	\$1,845.86 \$4,408.04	
31	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$7,235.09	\$7,335.09	\$7,239.93	(\$58.64)	2.56%	1.463	27.19	\$2,716.77	\$679.19	\$2,037.58 \$5,116.49	
32	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$8,220.77	\$8,320.77	\$8,225.61	(\$58.64)	2.56%	1.463	25.62	\$3,001.24	\$750.31	\$2,250.93 \$5,890.39	
33	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$9,347.41	\$9,447.41	\$9,352.25	(\$58.64)	2.56%	1.463	24.05	\$3,305.82	\$826.46	\$2,479.36 \$6,790.17	
34	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$10,647.36	\$10,747.36	\$10,652.20	(\$58.64)	2.56%	1.463	22.48	\$3,632.88	\$908.22	\$2,724.66 \$7,846.39	
35	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$12,160.13	\$12,260.13	\$12,164.97	(\$58.64)	2.56%	1.463	20.92	\$3,984.61	\$996.15	\$2,988.46 \$9,096.92	
36	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$13,931.67	\$14,031.67	\$13,936.51	(\$58.64)	2.56%	1.463	19.35	\$4,362.21	\$1,090.55	\$3,271.66 \$10,586.83	
37	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$15,017.13	\$15,117.13	\$15,021.97	(\$58.64)	2.56%	1.463	17.78	\$4,767.66	\$1,191.91	\$3,575.75 \$11,369.77	
38	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$16,483.78	\$16,583.78	\$16,488.62	(\$58.64)	2.56%	1.463	16.22	\$5,202.94	\$1,300.73	\$3,902.21 \$12,511.52	
39	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$18,420.15	\$18,520.15	\$18,424.99	(\$58.64)	2.56%	1.463	14.65	\$5,670.93	\$1,417.73	\$4,253.20 \$14,098.47	
40	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$20,928.41	\$21,028.41	\$20,933.25	(\$58.64)	2.56%	1.463	13.08	\$6,174.48	\$1,543.62	\$4,630.86 \$16,230.64	
41	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$23,684.70	\$23,784.70	\$23,689.54	(\$58.64)	2.56%	1.463	11.52	\$6,829.68	\$1,707.42	\$5,122.26 \$18,497.09	
42	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$26,993.49	\$27,093.49	\$26,998.33	(\$58.64)	2.56%	1.463	9.95	\$7,568.68	\$1,892.17	\$5,676.51 \$21,253.20	
43	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$30,832.10	\$30,932.10	\$30,836.94	(\$58.64)	2.56%	1.463	8.38	\$8,350.34	\$2,087.59	\$6,262.75 \$24,507.14	
44	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$35,356.53	\$35,456.53	\$35,361.37	(\$58.64)	2.56%	1.463	6.81	\$9,177.52	\$2,294.38	\$6,883.14 \$28,412.75	
45	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$40,740.44	\$40,840.44	\$40,745.28	(\$58.64)	2.56%	1.463	5.25	\$10,052.42	\$2,513.11	\$7,539.31 \$33,142.05	
46	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$47,176.79	\$47,276.79	\$47,181.63	(\$58.64)	2.56%	1.463	3.68	\$10,977.07	\$2,744.27	\$8,232.80 \$38,886.48	
47	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$54,886.60	\$54,986.60	\$54,891.44	(\$58.64)	2.56%	1.463	2.11	\$11,953.63	\$2,988.41	\$8,965.22 \$45,865.44	
48	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$63,127.58	\$63,227.58	\$63,132.42	(\$58.64)	2.56%	1.463	0.54	\$12,984.04	\$3,246.01	\$9,738.03 \$53,335.18	
49	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$72,197.70	\$72,297.70	\$72,202.54	(\$58.64)	2.56%	1.463	-1.03	\$14,070.29	\$3,517.57	\$10,552.72 \$61,592.18	
50	(\$31.50)	(\$45.00)	(\$13.64)	\$100	\$82,434.02	\$82,534.02	\$82,438.86	(\$58.64)	2.56%	1.463	-2.6	\$15,214.03	\$3,803.51	\$11,410.52 \$70,972.27	

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Vaishnav Kaldate (34131168)

Table 8: Calculation based on the Predicted values for 50 years.

	Texas	Southern California	Pennsylvania
PW	\$9,971.32	\$403,977.27	\$143,725.44
AW	\$3,789.11	\$56,857.84	\$12,311.60
IRR	38%	42%	15%
PAYBACK	10.0	13.0	7.0