

AGREE CONSTRUCTION COMPANY

Case Study #2

PROJECT SUMMARY

ASSUMPTIONS:

· KWH Charge	\$0.11
· Annual Burn Hours	3,276
· Number of Floors/Units	4

SAVINGS INFORMATION:

· Total Watts Saved	36,600
· Total KWH Saved	113,564
· Annual Energy Savings	\$12,492
· Annual Maintenance Savings (Realized each of the first 3 years)	\$1,500
Total Savings	\$13,992

PROJECT INVESTMENT:

· Labor and Materials	\$17,800
· Recycling (estimated)	\$900
· Utility Company Rebate (subject to approval)	\$9,100
Total Investment	\$9,600

ECONOMIC ANALYSIS:

· Simple Payback (years)	0.7
· ROI	\$1.46
· Lease Option (months)	/mo
· Estimated tax deduction value (based on sq ft at \$0.60/sf at a 35% tax bracket)	\$3,360

PROJECT BENEFITS

1. Reduce energy consumption 66%
2. Reduce annual energy costs \$12,492
3. Reduce lumen depreciation from 30% to 5%
4. Improve the quality of light by raising the CRI from 62 to 82
5. Provide lighting products that do not require special disposal
6. Provide a positive 10 year cash flow of \$119,820
7. Reduce Maintenance Costs
8. Utility Rebates now in effect
9. Annual carbon dioxide emission reduction of 174,889 lbs.

Warranty Information

All fluorescent lamps have rated lamp life of 24,000-30,000 hours

Electronic ballasts will be warranted for 5 years

Exit lights have a rated life of 100,000 hours

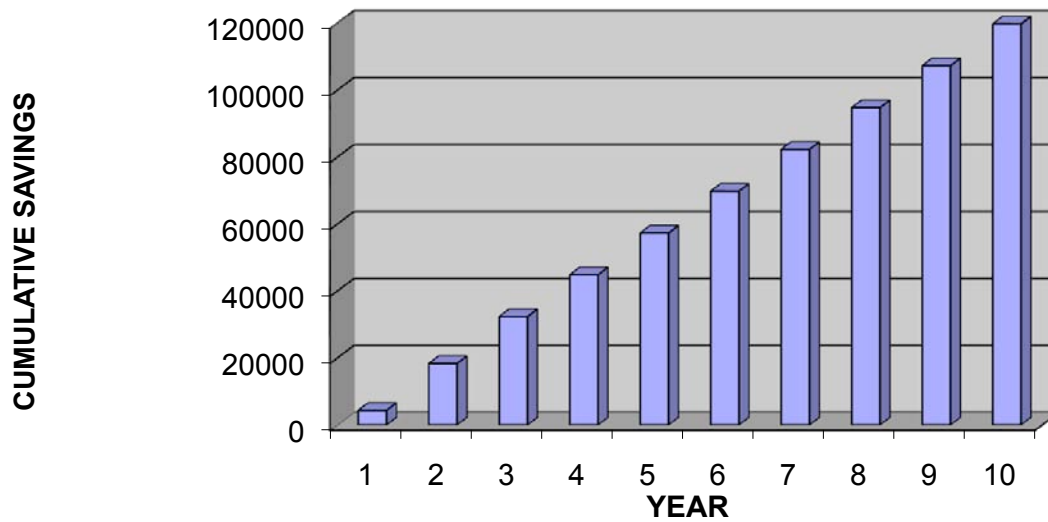
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10 YEAR CASH FLOW ANALYSIS

	YEARLY SAVINGS	YEARLY PAYMENTS	CUMULATIVE CASH FLOW
Year 1	\$ 13,992	\$ 9,600	\$ 4,392
Year 2	\$ 13,992		\$ 18,384
Year 3	\$ 13,992		\$ 32,376
Year 4	\$ 12,492		\$ 44,868
Year 5	\$ 12,492		\$ 57,360
Year 6	\$ 12,492		\$ 69,852
Year 7	\$ 12,492		\$ 82,344
Year 8	\$ 12,492		\$ 94,836
Year 9	\$ 12,492		\$ 107,328
Year 10	\$ 12,492		\$ 119,820
Totals	\$ 129,420	\$ 9,600	\$ 119,820

10 Year Cash Flow



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Environmental Impact of Lighting Upgrade Changing your lights can benefit the environment!

Annual Carbon Dioxide emission reduction	174,889 lbs.	Coal burning avoided (EPA Nov. 2004)	81,724 lbs. Or	Equivalent acres of forest added	22 acres
Annual Sulfur Dioxide emission reduction	686 lbs.		37 tons	Equivalent cars removed from road for a year	15 cars
Annual Nitrogen Oxide (NO, NO2) reduction	337 lbs.	Atmospheric mercury contamination avoided	1,765 mg.	50% US Electric Power is from coal-burning power plants.	

Numbers used (based on EPA Energy Star Facts and Assumptions sheet, 2007)

Emission Factors: gases released per kWh of electricity generated (EPA 2007)		Carbon dioxide and mercury released per lb. of coal burned (EPA 2007) (can vary based on type of coal)		Annual carbon dioxide (lbs.) sequestration by forest and emission by cars (EPA 2007)	
lbs. of CO ₂ released	1.54	lbs. of CO ₂ generated	2.14	CO ₂ sequestration per acre	8066
lbs. of SO ₂ released	0.006044	lbs. of mercury released	0.0216	CO ₂ emission per average car	11,470
lbs. of NO _x released	0.002967	Click here to open EPA Energy Star Facts and Assumptions sheet, 2007.			

Customer:

Prepared by: AGREE CONSTRUCTION COMPANY