

# **IMPACT INVESTMENT**

CLIMATE POLICY PROJECT

»PEOPLESHOME«

## **SOLAR POWER PLANT**

### **PANAMA**



**75 MEGAWATT RENEWABLE GRID POWER**

# ULRICH KRETZSCHMAR



*The issue of environment has never been more important than today.*

*PEOPLESHOME Impact Investments link the renewable energy generation with the enhancement of infrastructure in emerging markets.*

*Ulrich Kretzschmar, 2017*

Ulrich Kretzschmar, Founder  
PEOPLESHOME & ASSOCIATES  
Initiating of Impact Investments

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# THE BUSINESS

Panama has a large scale of Solar yields with a moderate location characteristics and perform secure energy generation.

The investment scheme is based on the provision of international equity (15.7%).

The Industrial and Commercial Bank of China could provide a loan of up to 77 million PAB for 75 Megawatt in total.

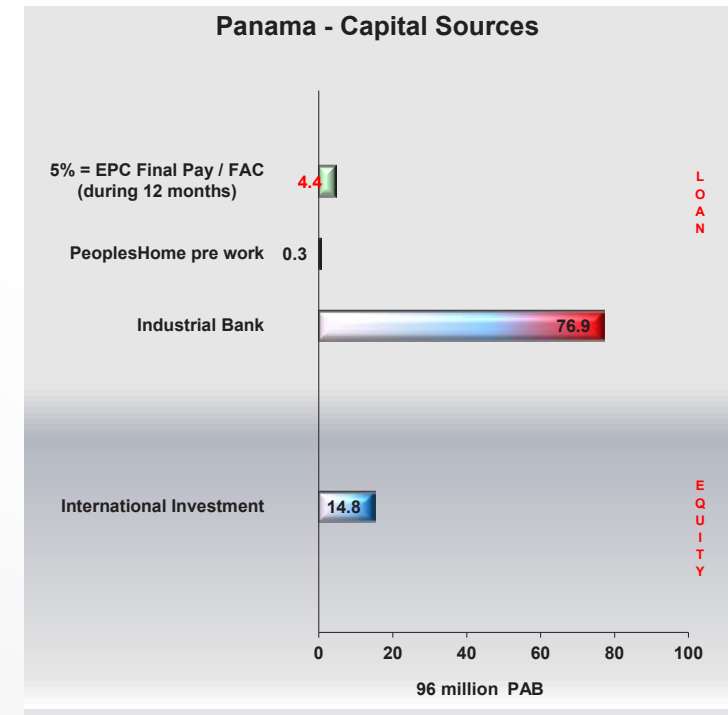
Assuming this loan financing the equity/loan ratio would be at 1 : 5.5  
 The project has a stable cash flow which is guaranteed by the national government (FiT/PPA calculation is at 0.1 PAB/KWh) and has a strong value of saleability and is projected for 20 years (Dividends Guarantee 5.2%).

Programmatic carbon income is no part of the financial projections. It is estimated up to 2.9% of the investment cost throughout the entire operating period.



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Project Driver  
NAZURA & PARTNER

Lead Investor  
Family Office

Country Investor  
National Institution or Entity

Prime Contractor  
World Technology Leader

Project Initiator  
PEOPLESHOME & Associates

Operator  
National Company

Power Purchaser  
National Electricity Provider

Rent to Land Owner  
Local Municipality

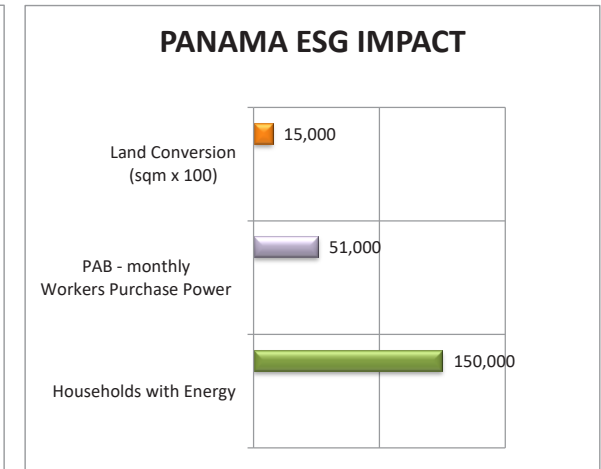
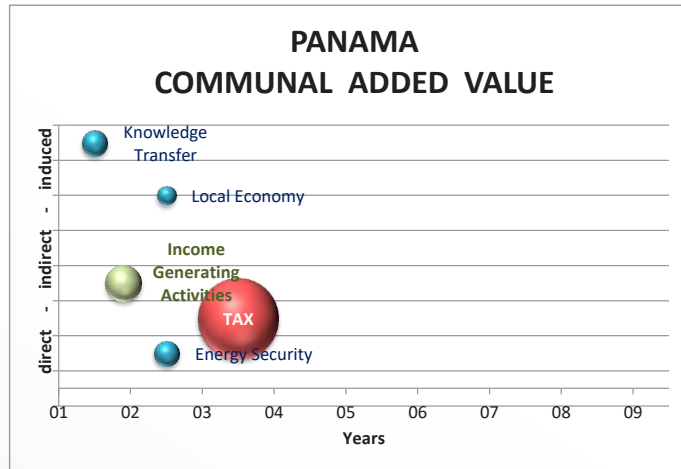
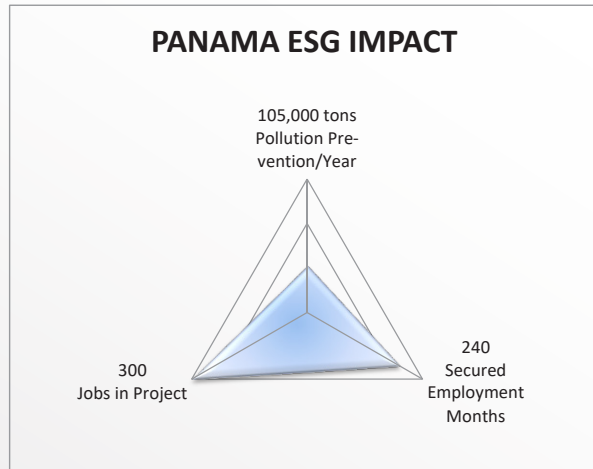
*Knowledge Transfer*  
International University Collaboration

# let the Sun/Wind work with you

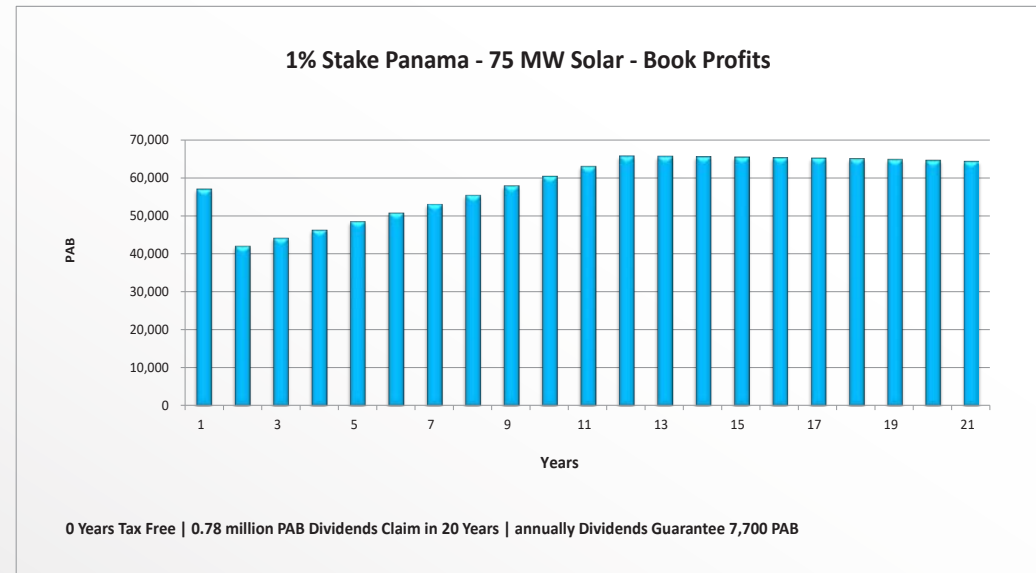


# ESG IMPACT & DIVIDENDS

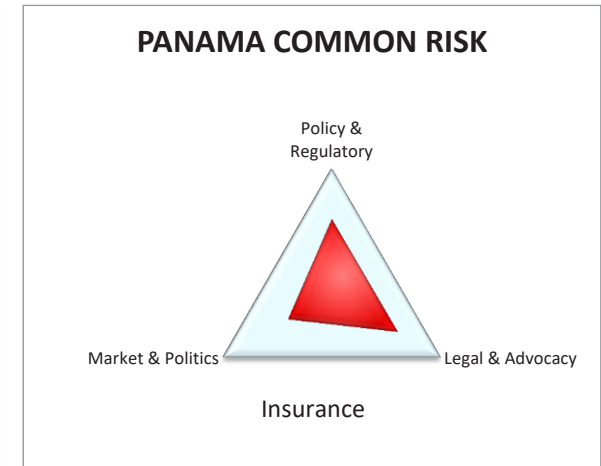
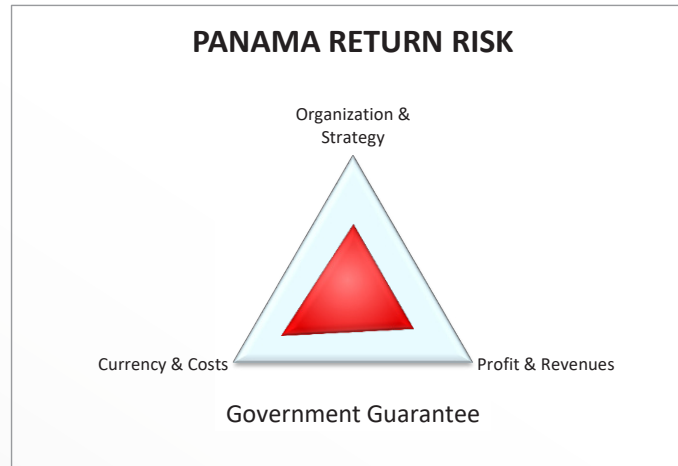
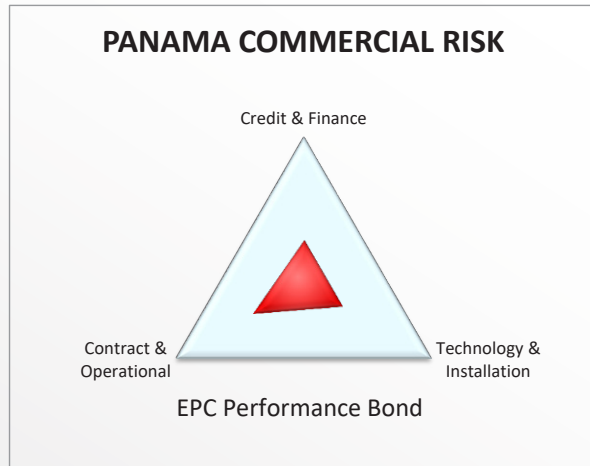
## ENVIRONMENT - SOCIAL - GOVERNANCE



Panama Invest	<b>96,158,991 PAB</b>
PeoplesHome (pre-work)	300,000 PAB ✓
External Capital	76,945,905 PAB ✓
Private Equity	14,818,279 PAB ✓
Final Pay out of Revenues	4,394,806 PAB ✓
ROI (20 years)	5.7 %
Net Present Value	51,117,925 PAB
Profitability Index	3.4
Price per installed Kilowatt	1,172 PAB
Operating & Maintenance 1% / year	707,777 PAB
IRR (20 years)	9.79 %
DSCR	1.40



# CRC RISKS & INVESTORS RELATION



**ROE**

**36.1%**

**NPV**

**51M PAB**

**IRR**

**9.8%**

# FINANCIAL PROJECTION

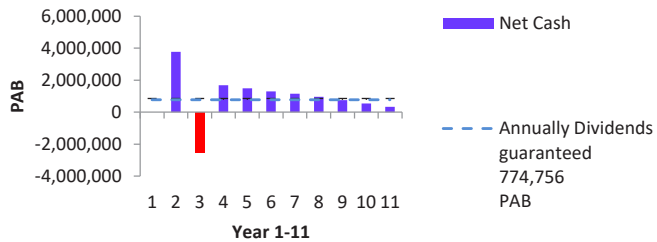
## SUMMARY

Panama Solar Power Park Total Power 75 MW  
S--1172:200

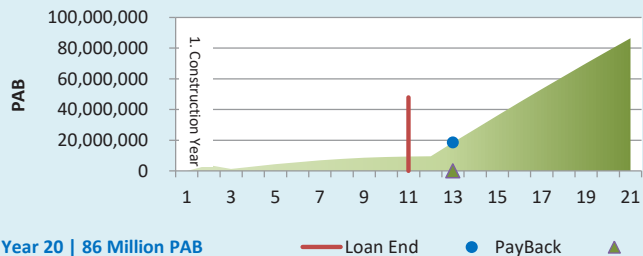
I	Volumes	PAB	1 USD = 1.00 PAB	08.17
	Houses (re-investment proposal)	0		F 0.25
	Renewable Energy	75 / MW Solar Power plus Roof Energy		
	Served Households	150,000 (à 75 Kwh/m) (135 GWh/Year - Gain 1,800)		
	Village Land	0 ha	1.00 PAB/sqm	
	Land Surface - Solar Power Park	150 ha	0.00 PAB/sqm	
II	Use of Capital	96,158,991 PAB		
	Technology & Production Machinery	87,896,127 PAB	Price per KW   Std. - Premium - IDC	
	Land	0 PAB	1172   1252   1282	
	* Construction Material Houses	0 PAB		
	* Labour Cost	0 PAB		
	Infrastructure + Labour Cost	0 PAB		
	Management + Fees & IDC	8,262,863 PAB		
	Qualification Budget	0 PAB		
	Social Village Package	0 PAB		
III	Capital Part 2017	92,064,184 PAB	15.7% Projected Equity 10%	
	PeoplesHome pre-costs	300,000 PAB	shares	actual
	National Loans	0 PAB	15.0%	5 Years
	International Loans (IR ~4.5%)	76,945,905 PAB		12 Years
	National Grants	0 PAB		0.0%
	International Grants	0 PAB		0.0%
	National Investments	0 PAB	20.0%	0.0%
	International Investments	14,818,279 PAB	65.0%	15.7%
	Co-/Interims Investment	0 PAB		0.0%
			100.0%	102.4%
IV	Social Impact			
	Jobs	300		
	Purchase Power	51,000 PAB	per Month	
V	Common Numbers			
	Houses per Year (construction)	0		
	House Sale Price	0 PAB		
	Tax to pay per Year	3,775,351 PAB	Average (30% tax rate)	
	Project Locations	1		
	Total Projected Carbon Credits	1,045,980 PAB	extra Income (not in the Finance Scheme)	
	Power Purchase Agreement	0.10 PAB	per Kwh (break even 0.09/ 0.08 PAB)	
	- Panama			
	Yearly FIT Progression	0.00 %		
	Electricity Market Price KWh	0.07 PAB	2017	
	Electricity Price Inflation	10.40 %	per Year	
	Panama Surplus	326,147,451 PAB	(20 Years)	
	- Net Income - E C Group - Panama	707,777 PAB	per Year	
VI	R-O-E + Pre Costs			
	Feasibility Study	275,000 PAB		
	Working Capital	345,000 PAB		116,028,876 PAB Stuttgarter Model
	R-O-E (NPM 35.4%), ROI 5.7%	36.1 %		51,117,925 PAB NPV

# FINANCIAL PROJECTION

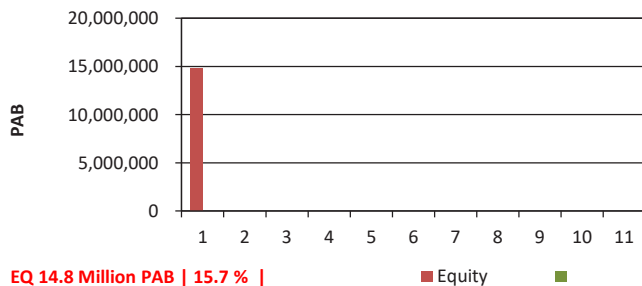
## Panama 75 MW - Solar Cash & Dividends



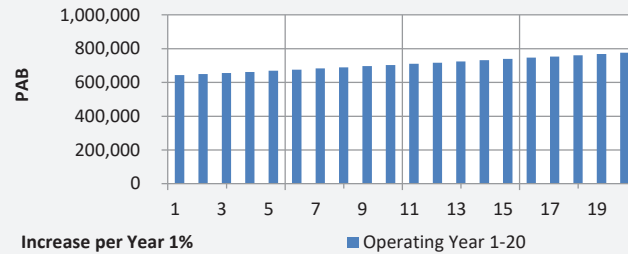
## SPV | Panama Ending Cash (cumulated)



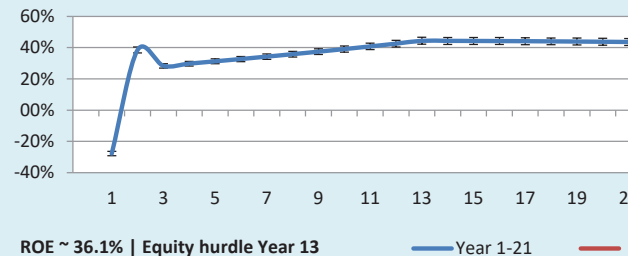
## Private Equity



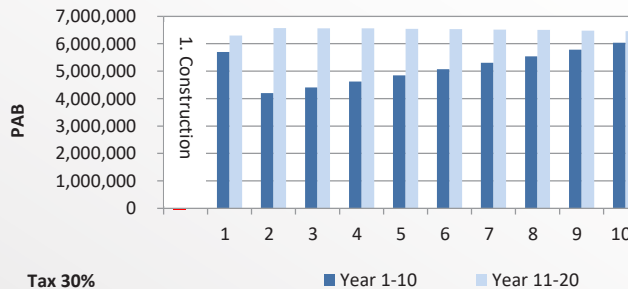
## Operating (O&M) Panama Turnover 14 Million PAB



## Return on Equity (ROE) SPV | Panama



## SPV Panama Net Income



### KEY NUMBERS - 2.8.2017|14:29

75 MW Solar 1,800 Investment	96,158,991 PAB
Equity	14,818,279 PAB
Loan	77,245,905 PAB
Supplier Final Payment	4,394,806 PAB
Sub-payment	0 PAB
Global Interest Rate	4.5 %
Grants	0 PAB
R-O-E 20 years after tax	36.1 %
R-O-I 20 years after tax	5.7 %
NPV 20 years before tax (IR 4%)	51,117,925 PAB
Company Value (Stuttgar Model)	116,028,876 PAB
Guaranteed Pay-out Dividends	5.23 %
Pay Back Period	13 Years
PPA /KWh	0.10 PAB
FiT/PPA Rise Anually	0.00 %
1% Profit Ø per Year	53,543 PAB
1 \$-cent Income PPA/FiT (20 Years)	25,204,500 PAB
Off-taker Power Break Even	Year 5   2022
Tax Exemption	0 Years
Country Surplus in 20 Years	326,147,451 PAB
Nat-Capital : Int'l.-Capital Quote	0 : 1
Equity : Loan Quote	1 : 5.5



# FINANCIAL PROJECTION

## FINANCIAL ANALYSIS MODEL

ANALYST'S NAME Dr. Glenn L. Stevens - <http://staging-cms.fandm.edu/glenn-stevens>  
 NAME OF COMPANY Panama Solar Power Park Total Power 75 MW

FIRST CALENDAR YEAR OF DATA 2017

**PAB**

NUMBER OF YEARS OF DATA 5

Equity 14,818,279

Gas Natural Fenosa

### INCOME STATEMENT

	Start Year	Year 1	Year 2	Year 3	Year 4
Sales Revenue	0	13,500,000	13,405,500	13,311,000	13,216,500
Less: Cost of Goods Sold	0	0	0	0	0
Gross Profits	0	13,500,000	13,405,500	13,311,000	13,216,500
Less: Operating Expenses:					
Operating Expense	0	642,882	649,310	655,803	662,361
General / Admin. Exp.	0	0	0	0	0
Lease Expense	0	0	0	0	0
Depreciation Expense	1,884,496	3,693,612	3,545,867	3,404,033	3,267,871
Total Operating Expenses	1,884,496	4,336,494	4,195,177	4,059,836	3,930,232
Operating Profits	(1,884,496)	9,163,506	9,210,323	9,251,164	9,286,268
Less: Interest Expense	2,234,197	3,462,566	3,212,402	2,950,980	2,677,795
Net Profits Before Taxes	(4,118,693)	5,700,940	5,997,921	6,300,184	6,608,473
Less: Taxes	0	0	1,799,376	1,890,055	1,982,542
Net Profit After Taxes	(4,118,693)	5,700,940	4,198,545	4,410,129	4,625,931
Less: Pref. Stock Divds.	0	0	0	0	0
Earnings available for Common Stockholders		5,700,940	4,198,545	4,410,129	4,625,931

### BALANCE SHEET

Current Assets:

Cash	0	3,775,351	1,255,590	2,938,965	4,428,794
Marketable Securities	0	0	0	0	0
Accounts Receivable	0	0	0	0	0
Inventories	0	0	0	0	0
Total Current Assets	0	3,775,351	1,255,590	2,938,965	4,428,794
Gross Fixed Assets (at cost):					
Land & Buildings	0	0	0	0	0
Machinery and Equipment	92,340,298	88,646,686	85,100,818	81,696,786	78,428,914
Furniture & Fixtures	0	0	0	0	0
Vehicles	0	0	0	0	0
Other (Inc. Fin. Leases)	0	0	0	0	0
Total Gross Fixed Assets	92,340,298	88,646,686	85,100,818	81,696,786	78,428,914
Less: Accumulated Depreciation	0	0	0	0	0
Net Fixed Assets	92,340,298	88,646,686	85,100,818	81,696,786	78,428,914
Other Assets	0	0	0	0	0
Total Assets	92,340,298	92,422,036	86,356,409	84,635,750	82,857,709

Current Liabilities:

Accounts Payable	0	0	0	0	0
Notes Payable	0	0	0	0	0
Accruals	0	0	0	0	0
Taxes Payable	0	0	0	0	0
Other Current Liabilities	0	0	0	0	0
Total Current Liabilities	0	0	0	0	0
L / T Debt (Inc. Financial Leases)	81,640,711	76,021,510	65,757,338	59,626,550	53,222,578
Total Liabilities	81,640,711	76,021,510	65,757,338	59,626,550	53,222,578
Preferred Stock	0	0	0	0	0
Common Stock !!	10,699,586	16,400,527	20,599,071	25,009,200	29,635,131
Paid-In Capital In Excess of Par	0	0	0	0	0
Retained Earnings	0	0	0	0	0
Total Stockholders' Equity	10,699,586	16,400,527	20,599,071	25,009,200	29,635,131
Total Liab. & Stockholders' Equity	92,340,298	92,422,036	86,356,409	84,635,750	82,857,709

# FINANCIAL PROJECTION

75 MW Panama	Start Year	Year 1	Year 2	Year 3	Year 4
Number of Common Shares	100	100	100	100	100
End-of-Year Stock Price					
<b>RATIO ANALYSIS</b>					
Current Ratio	no curr. Liabi.	no curr. Liabi.	no curr. Liabi.	no curr. Liabi.	no curr. Liabi.
Quick Ratio	no curr. Liabi.	no curr. Liabi.	no curr. Liabi.	no curr. Liabi.	no curr. Liabi.
Inventory Turnover	no Inventories	no Inventories	no Inventories	no Inventories	no Inventories
Average Collection Period		0.00	0.00	0.00	0.00
Fixed Asset Turnover	0.00	0.15	0.16	0.16	0.17
Total Asset Turnover	0.00	0.15	0.16	0.16	0.16
Debt Ratio	0.88	0.82	0.76	0.70	0.64
Debt-to-Equity	7.63	4.64	3.19	2.38	1.80
Times Interest Earned		2.65	2.87	3.13	3.47
Gross Profit Margin		100.00%	100.00%	100.00%	100.00%
Operating Profit Margin		67.88%	68.71%	69.50%	70.26%
Net Profit Margin		42.23%	31.32%	33.13%	35.00%
Return on Total Assets (ROA)		6.17%	4.86%	5.21%	5.58%
Return on Equity (ROE)		38.47%	28.33%	29.76%	31.22%
Earnings Per Share		57,009	41,985	44,101	46,259
IPP Panama - 20%		1,140,188	839,709	882,026	925,186
Price/Earnings Ratio					
<b>DUPONT ANALYSIS</b>					
Net Profit AT/Sales		42.23%	31.32%	33.13%	35.00%
Sales/Total Assets	0.00%	14.61%	15.52%	15.73%	15.95%
ROA		6.17%	4.86%	5.21%	5.58%
Net Profit AT/Total Assets	0.00%	6.17%	4.86%	5.21%	5.58%
Total Assets/Stockholders' Equity	863.03%	563.53%	419.22%	338.42%	279.59%
ROE	0.00%	34.76%	20.38%	17.63%	15.61%

## STATEMENT OF CASH FLOWS

<b>CASH FLOW FROM OPERATING ACTIVITIES</b>					
Net Profit after Taxes		5,700,940	4,198,545	4,410,129	4,625,931
Depreciation		3,693,612	3,545,867	3,404,033	3,267,871
Decrease in Accts. Receiv.		0	0	0	0
Decrease in Inventories		0	0	0	0
Decrease in Other Assets		0	0	0	0
Increase in Accounts Pay.		0	0	0	0
Increase in Accruals		0	0	0	0
Increase in Taxes Payable		0	0	0	0
Increase in Other Cur. Lia.		0	0	0	0
<b>Cash Flow from Oper. Act.</b>		<b>9,394,552</b>	<b>7,744,412</b>	<b>7,814,162</b>	<b>7,893,802</b>
<b>CASH FLOW FROM INVESTMENT ACTIVITIES</b>					
Increase in Gross Fixed Assets		3,693,612	3,545,867	3,404,033	3,267,871
<b>Cash Flow from Investments</b>		<b>3,693,612</b>	<b>3,545,867</b>	<b>3,404,033</b>	<b>3,267,871</b>
<b>CASH FLOW FROM FINANCING ACTIVITIES</b>					
Increase in Notes Payable		0	0	0	0
Increase in Long-Term Debt		(5,619,202)	(10,264,172)	(6,130,787)	(6,403,973)
Changes in Stockholders' Equity		5,700,940	4,198,545	4,410,129	4,625,931
Preferred Dividends Paid		0	0	0	0
<b>Common Dividends Paid</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Cash Flow from Financing Activities</b>		<b>81,739</b>	<b>(6,065,628)</b>	<b>(1,720,658)</b>	<b>(1,778,042)</b>
<b>Net Incr. in Cash / Mark. Securities</b>		<b>13,169,903</b>	<b>5,224,652</b>	<b>9,497,536</b>	<b>9,383,632</b>