

IMPACT INVESTMENT

CLIMATE POLICY PROJECT

»PEOPLESHOME«

ENERGY INVESTMENT

GHANA



100 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

Ghana 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 (16%).

The Industrial and Commercial Bank of China has submitted a strong letter of intent for providing a loan of up to 454 million GHS for 100 Megawatt in total.

Assuming this loan financing the equity/loan ratio would be at 1 : 5.3
 The project has a stable cash flow which is guaranteed by the national government (FiT/PPA calculation is at 0.44 GHS/KWh) and has a strong value of saleability and is projected for 20 years (Dividends Guarantee 19.3%) including FiT Progression of 3%/Year.

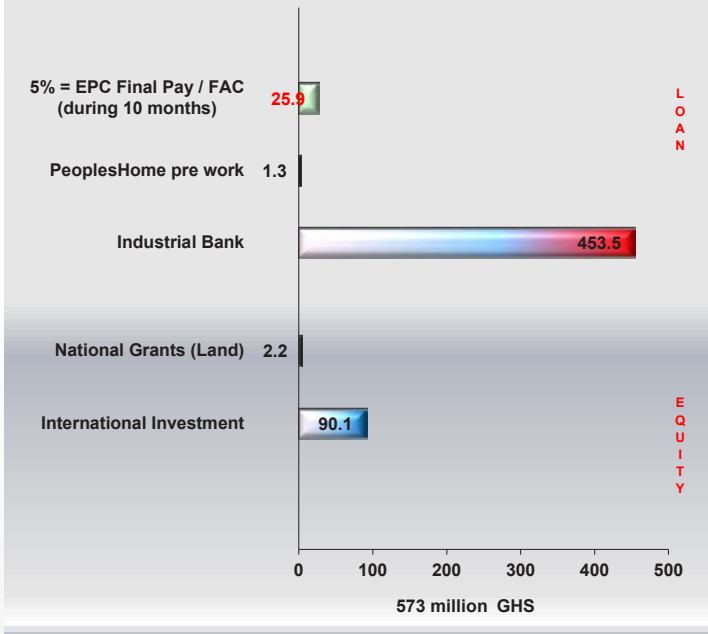
Programmatic carbon income is no part of the financial projections. It is estimated up to 3.2% of the investment cost throughout the entire operating period.



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Ghana - Capital Sources



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

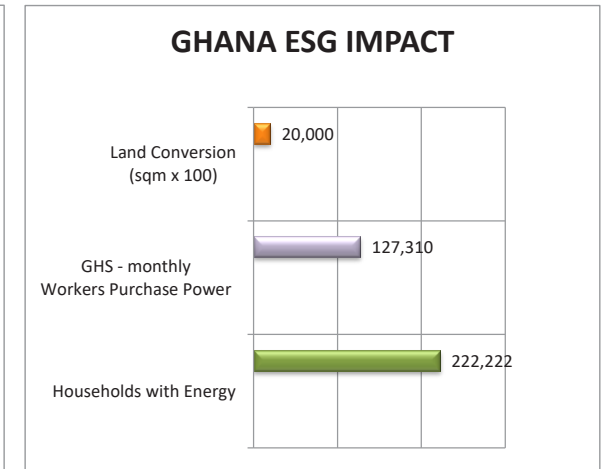
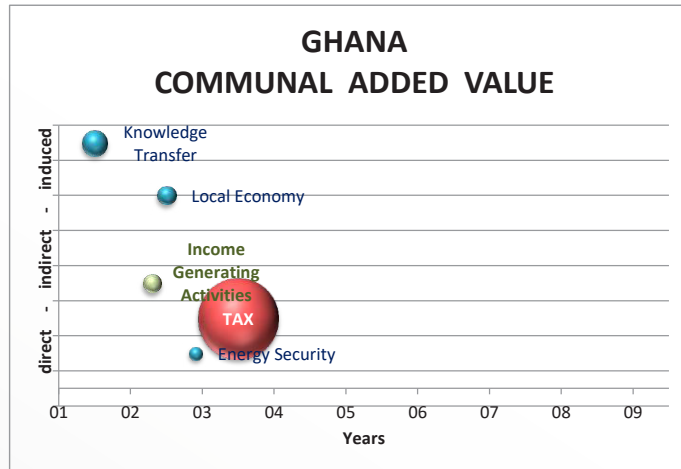
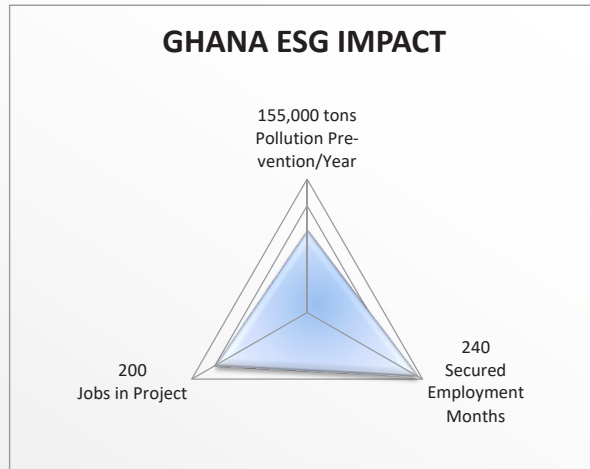
Knowledge Transfer
International University Collaboration

let the Sun/Wind work with you

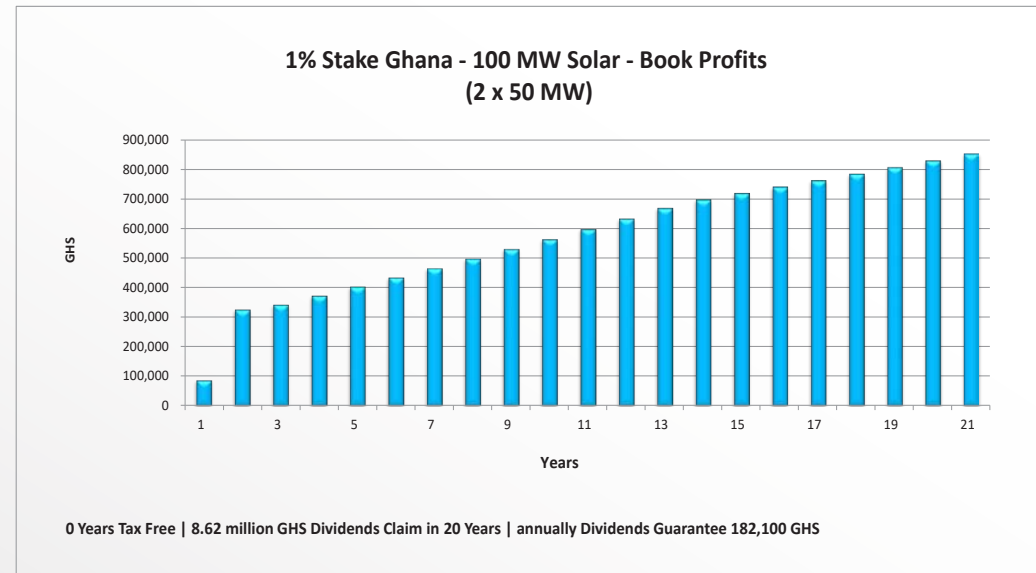


ESG IMPACT & DIVIDENDS

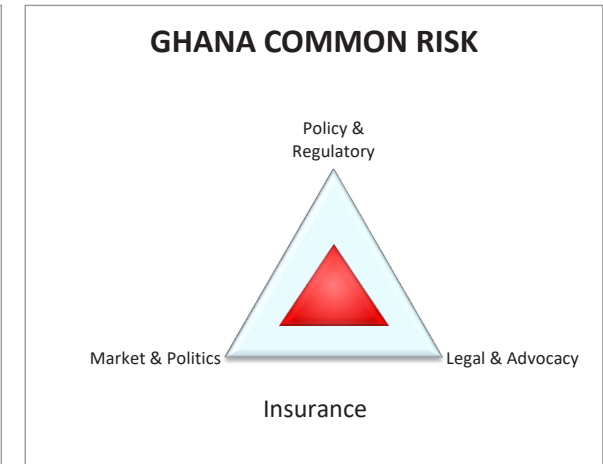
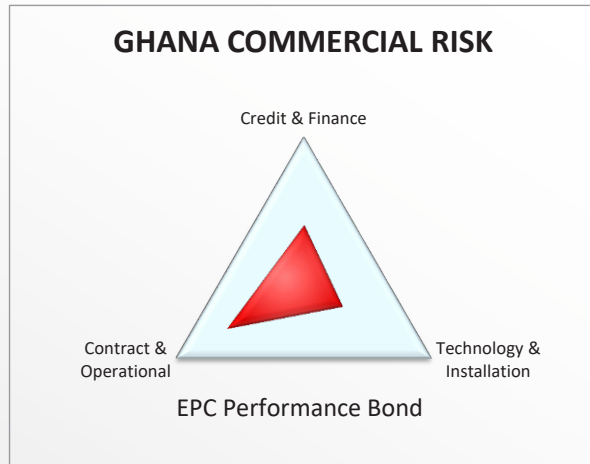
ENVIRONMENT - SOCIAL - GOVERNANCE



Ghana Invest	573,960,372 GHS
PeoplesHome (pre-work)	1,317,000 GHS ✓
External Capital	453,526,389 GHS ✓
Private Equity + Grants	94,521,117 GHS ✓
Final Pay out of Revenues	25,912,866 GHS ✓
ROI (20 years)	9.4 %
Net Present Value	725,921,148 GHS
Profitability Index	7.7
Price per installed Kilowatt	5,183 GHS
Operating & Maintenance 1% / year	4,029,180 GHS
IRR (20 years)	24.17 %
DSCR	2.00



CRC RISKS & INVESTORS RELATION



ROI

9.4%

NPV

726M GHS

IRR

24.2%

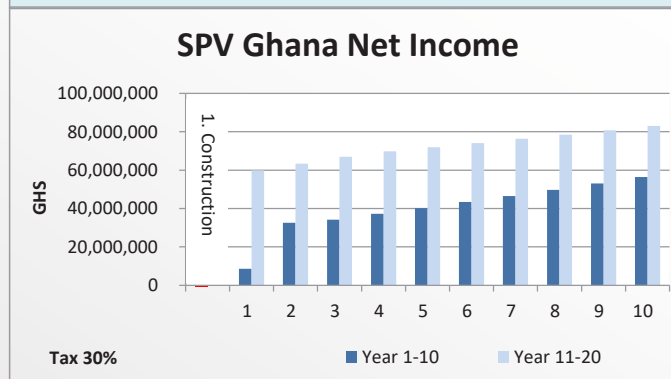
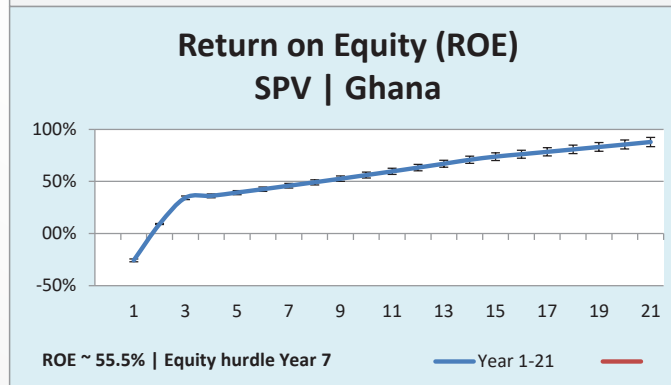
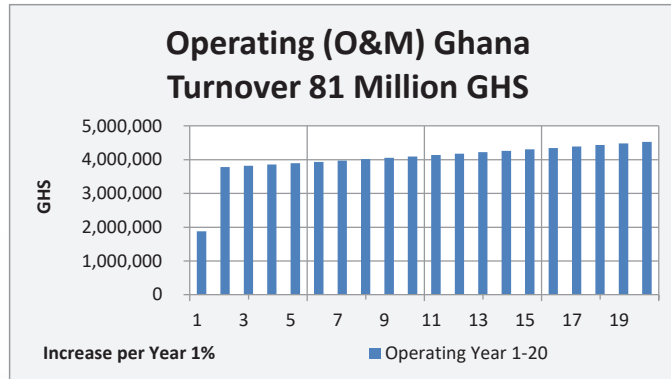
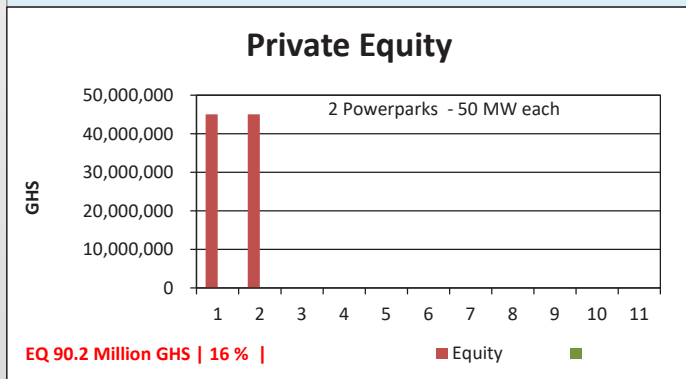
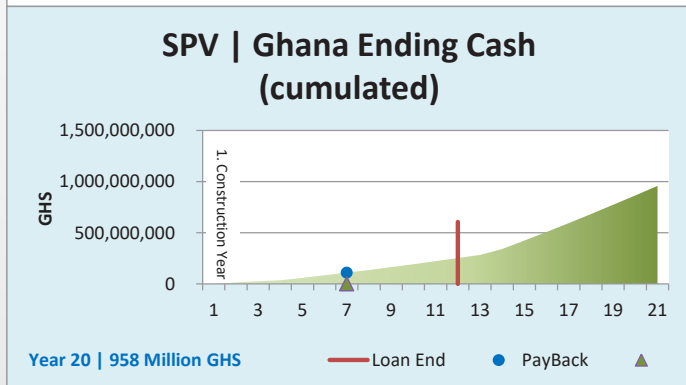
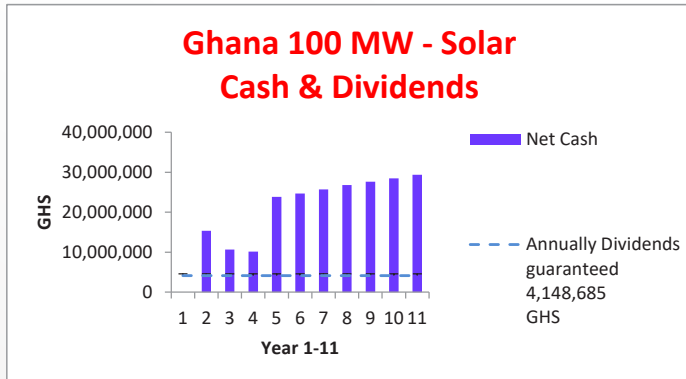
FINANCIAL PROJECTION

SUMMARY

Ghana Solar Power Park Total Power 100 MW
S--5183:880

I	Volumes	GHS	1 USD = 4.39 GHS	08.17
	Houses (re-investment proposal)	0		F 0
	Renewable Energy	100 MW Solar Power		
	Served Households	222,222 (à 75 Kwh/m) (200 GWh/Year - Gain 2,000)		
	Village Land	0 ha	4.39 GHS/sqm	
	Land Surface - Solar Power Park	200 ha	2.20 GHS/sqm	
II	Use of Capital	573,960,372 GHS		
	Technology & Production Machinery	518,257,320 GHS	Price per KW Std. - Premium - IDC	
	Land	4,390,000 GHS	5183 5631 5696	
	* Construction Material Houses	0 GHS		
	* Labour Cost	0 GHS		
	Infrastructure + Labour Cost	0 GHS		
	Management + Fees & IDC	51,313,052 GHS		
	Qualification Budget	0 GHS		
	Social Village Package	0 GHS		
III	Capital Part 2017	275,340,753 GHS	16.8% Projected Equity 10% incl. 0.8% Grants	
	PeoplesHome pre-costs	1,317,000 GHS	shares 15.0%	actual 2,634,000 5 Years 0.5%
	National Loans	0 GHS		0 0.0%
	International Loans (IR ~4.5%) x 2	226,763,194 GHS		453,526,389 13 Years 85.1%
	National Grants (Land)	2,195,000 GHS		0.8%
	International Grants	0 GHS		0.0%
	National Investments x 2	0 GHS	20.0%	0 0.0%
	International Investments x 2	45,065,559 GHS	65.0%	90,131,117 16.0%
	Co-/Interims Investment x 2	0 GHS		0 0.0%
			100.0%	102.3%
IV	Social Impact			
	Jobs	200		
	Purchase Power	127,310 GHS	per Month	
V	Common Numbers			
	Houses per Year (construction)	500	Project Period 2 years	
	House Sale Price	0 GHS		
	Tax to pay per Year	36,171,586 GHS	Average (30% tax rate)	
	Project Locations	2	spread in the Country	
	Total Projected Carbon Credits	6,802,744 GHS	extra Income (not in the Finance Scheme)	
	Power Purchase Agreement	0.44 GHS	per Kwh (break even 0.34/ 0.31 GHS)	
	- Ghana			
	Yearly FIT Progression	3.00 %		
	Electricity Market Price KWh	0.31 GHS	2017	
	Electricity Price Inflation	10.40 %	per Year	
	Ghana Surplus	1,744,321,318 GHS	(20 Years)	
	- Net Income Operator	4,029,180 GHS	per Year	
VI	R-O-E + Pre Costs			
	Feasibility Study	1,207,250 GHS		
	Working Capital	1,514,550 GHS	776,206,956 GHS Stuttgarter Model	
	R-O-E (NPM 33.2%), ROI 9.4%	55.5 %	725,921,148 GHS NPV	C 0.7

FINANCIAL PROJECTION



KEY NUMBERS - 2.8.2017|14:17

100 MW Solar 2,000	2 x 50
Investment	573,960,372 GHS
Equity	90,131,117 GHS
Loan	456,160,389 GHS
Supplier Final Payment	25,912,866 GHS
Sub-payment	0 GHS
Global Interest Rate	4.5 %
Grants	2,195,000 GHS
R-O-E 20 years after tax	55.5 %
R-O-I 20 years after tax	9.4 %
NPV 20 years before tax (IR 4%)	725,921,148 GHS
Company Value (Stuttgar Model)	776,206,956 GHS
Guaranteed Pay-out Dividends	19.27 %
Pay Back Period	7 Years
PPA /KWh	0.44 GHS
Fit/PPA Rise Anually	3.00 %
1% Profit Ø per Year	530,564 GHS
1 \$-cent Income PPA/FIT (20 Years)	159,563,330 GHS
Off-taker Power Break Even	Year 7 2024
Tax Exemption	0 Years
Country Surplus in 20 Years	1,744,321,318 GHS
Nat-Capital : Int'l.-Capital Quote	1 : 124
Equity : Loan Quote	1 : 5.3

FINANCIAL PROJECTION

FINANCIAL ANALYSIS MODEL

ANALYST'S NAME Dr. Glenn L. Stevens - <http://staging-cms.fandm.edu/glenn-stevens>
 NAME OF COMPANY Ghana Solar Power Park Total Power 100 MW

FIRST CALENDAR YEAR OF DATA 2017

GHS

NUMBER OF YEARS OF DATA 5

Equity 47,260,559

E C G

INCOME STATEMENT

	Start Year	Year 1	Year 2	Year 3	Year 4
Sales Revenue	0	43,900,000	90,117,481	91,842,962	93,926,661
Less: Cost of Goods Sold	0	0	0	0	0
Gross Profits	0	43,900,000	90,117,481	91,842,962	93,926,661
Less: Operating Expenses:					
Operating Expense	0	1,881,501	3,781,814	3,819,625	3,857,818
General / Admin. Exp.	0	0	0	0	0
Lease Expense	0	0	0	0	0
Depreciation Expense	5,635,867	16,668,996	21,624,934	20,759,936	19,929,539
Total Operating Expenses	5,635,867	18,550,498	25,406,747	24,579,561	23,787,357
Operating Profits	(5,635,867)	25,349,502	64,710,734	67,263,401	70,139,304
Less: Interest Expense	6,503,833	16,708,177	19,748,811	18,399,365	16,989,193
Net Profits Before Taxes	(12,139,700)	8,641,325	44,961,922	48,864,036	53,150,110
Less: Taxes	0	0	12,439,064	14,659,211	15,945,033
Net Profit After Taxes	(12,139,700)	8,641,325	32,522,858	34,204,825	37,205,077
Less: Pref. Stock Divds.	0	0	0	0	0
Earnings available for Common Stockholders		8,641,325	32,522,858	34,204,825	37,205,077

BALANCE SHEET

Current Assets:

Cash	0	15,350,343	26,027,203	36,171,586	60,032,085
Marketable Securities	0	0	0	0	0
Accounts Receivable	0	0	0	0	0
Inventories	0	0	0	0	0
Total Current Assets	0	15,350,343	26,027,203	36,171,586	60,032,085
Gross Fixed Assets (at cost):					
Land & Buildings	0	0	0	0	0
Machinery and Equipment	276,157,486	540,623,342	518,998,408	498,238,472	478,308,933
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	276,157,486	540,623,342	518,998,408	498,238,472	478,308,933
Less: Accumulated Depreciation	0	0	0	0	0
Net Fixed Assets	276,157,486	540,623,342	518,998,408	498,238,472	478,308,933
Other Assets	0	0	0	0	0
Total Assets	276,157,486	555,973,685	545,025,611	534,410,058	538,341,018

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)	241,036,627	467,145,943	423,675,011	378,854,633	345,580,516
Total Liabilities	241,036,627	467,145,943	423,675,011	378,854,633	345,580,516
Preferred Stock	0	0	0	0	0
Common Stock !!	35,120,858	88,827,742	121,350,600	155,555,425	192,760,502
Paid-In Capital In Excess of Par	0	0	0	0	0
Retained Earnings	0	0	0	0	0
Total Stockholders' Equity	35,120,858	88,827,742	121,350,600	155,555,425	192,760,502
Total Liab. & Stockholders' Equity	276,157,486	555,973,685	545,025,611	534,410,058	538,341,018

FINANCIAL PROJECTION

50 MW Ghana	Start Year	Year 1	Year 2	Year 3	Year 4
Number of Common Shares	100	100	100	100	100
End-of-Year Stock Price					
RATIO ANALYSIS					
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	0.08	0.17	0.18	0.20
Total Asset Turnover	0.00	0.08	0.17	0.17	0.17
Debt Ratio	0.87	0.84	0.78	0.71	0.64
Debt-to-Equity	6.86	5.26	3.49	2.44	1.79
Times Interest Earned		1.52	3.28	3.66	4.13
Gross Profit Margin		100.00%	100.00%	100.00%	100.00%
Operating Profit Margin		57.74%	71.81%	73.24%	74.67%
Net Profit Margin		19.68%	36.09%	37.24%	39.61%
Return on Total Assets (ROA)		1.55%	5.97%	6.40%	6.91%
Return on Equity (ROE)		18.28%	68.82%	72.37%	78.72%
Earnings Per Share		86,413	325,229	342,048	372,051
IPG Ghana - 20%		1,728,265	6,504,572	6,840,965	7,441,015
Price/Earnings Ratio					
DUPONT ANALYSIS					
Net Profit AT/Sales		19.68%	36.09%	37.24%	39.61%
Sales/Total Assets	0.00%	7.90%	16.53%	17.19%	17.45%
ROA		1.55%	5.97%	6.40%	6.91%
Net Profit AT/Total Assets	0.00%	1.55%	5.97%	6.40%	6.91%
Total Assets/Stockholders. Equity	786.31%	625.90%	449.13%	343.55%	279.28%
ROE	0.00%	9.73%	26.80%	21.99%	19.30%

STATEMENT OF CASH FLOWS

CASH FLOW FROM OPERATING ACTIVITIES					
Net Profit after Taxes		8,641,325	32,522,858	34,204,825	37,205,077
Depreciation		16,668,996	21,624,934	20,759,936	19,929,539
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
Cash Flow from Oper. Act.		25,310,322	54,147,792	54,964,761	57,134,616
CASH FLOW FROM INVESTMENT ACTIVITIES					
Increase in Gross Fixed Assets		(264,465,856)	21,624,934	20,759,936	19,929,539
Cash Flow from Investments		(264,465,856)	21,624,934	20,759,936	19,929,539
CASH FLOW FROM FINANCING ACTIVITIES					
Increase in Notes Payable		0	0	0	0
Increase in Long-Term Debt		226,109,316	(43,470,932)	(44,820,378)	(33,274,117)
Changes in Stockholders' Equity		53,706,884	32,522,858	34,204,825	37,205,077
Preferred Dividends Paid		0	0	0	0
Common Dividends Paid					
Cash Flow from Financing Activities		279,816,200	(10,948,074)	(10,615,554)	3,930,960
Net Incr. in Cash / Mark. Securities		40,660,665	64,824,651	65,109,144	80,995,115