



# E-SavePlus

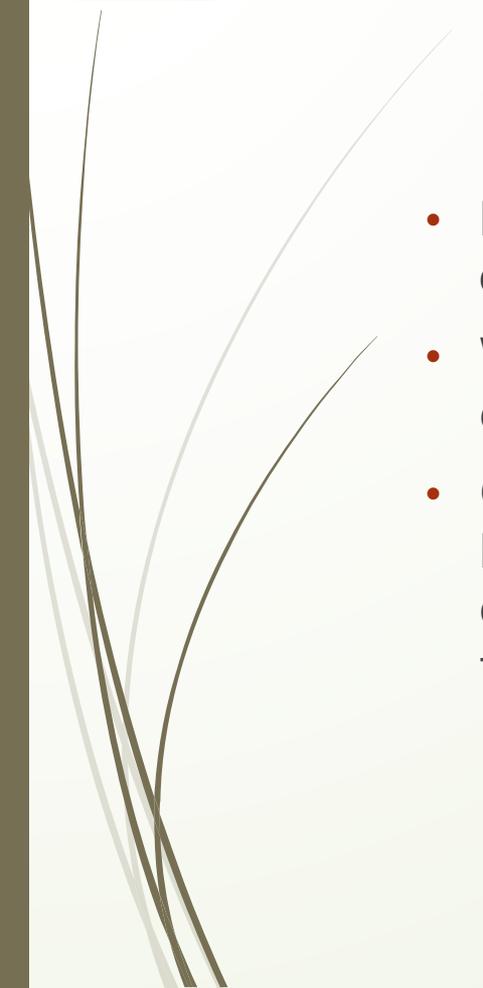
Energy for all



# The Company



# Our Customers and Us



- E-Save plus provides an efficient, reliable and affordable solar energy solution to the people of Pakistan
- We offer clean sustainable energy to people having no access electricity, living in remote areas.
- Our solar home system and all inclusive service provides a hassle free energy experience for households; and organizations and institutions wishing to provide electricity to those.

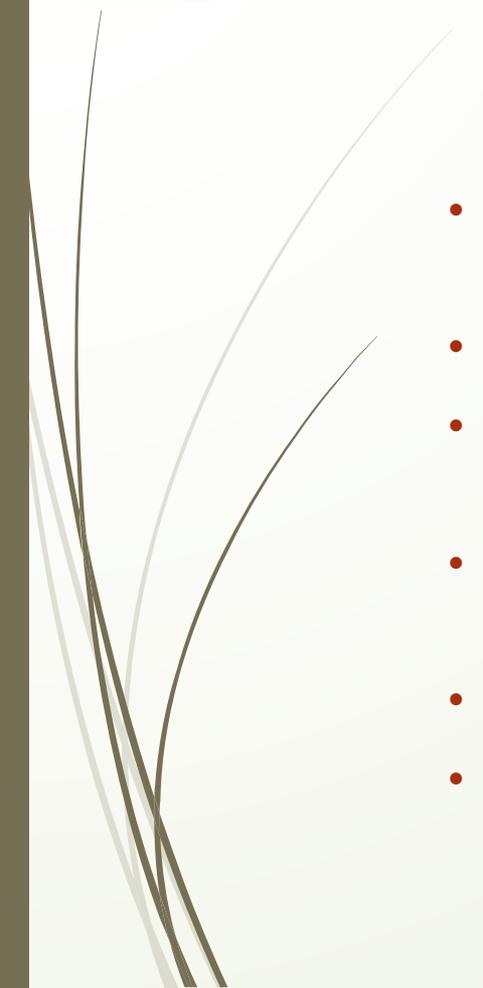


# The Services we do

- **We offer rural electrification as a product!**
- We do rural electrification in remote areas of Pakistan where the access to electricity doesn't exist.
  - Project acquisition
  - Component supply
  - Installation
  - After sales support and warranty services



# About us



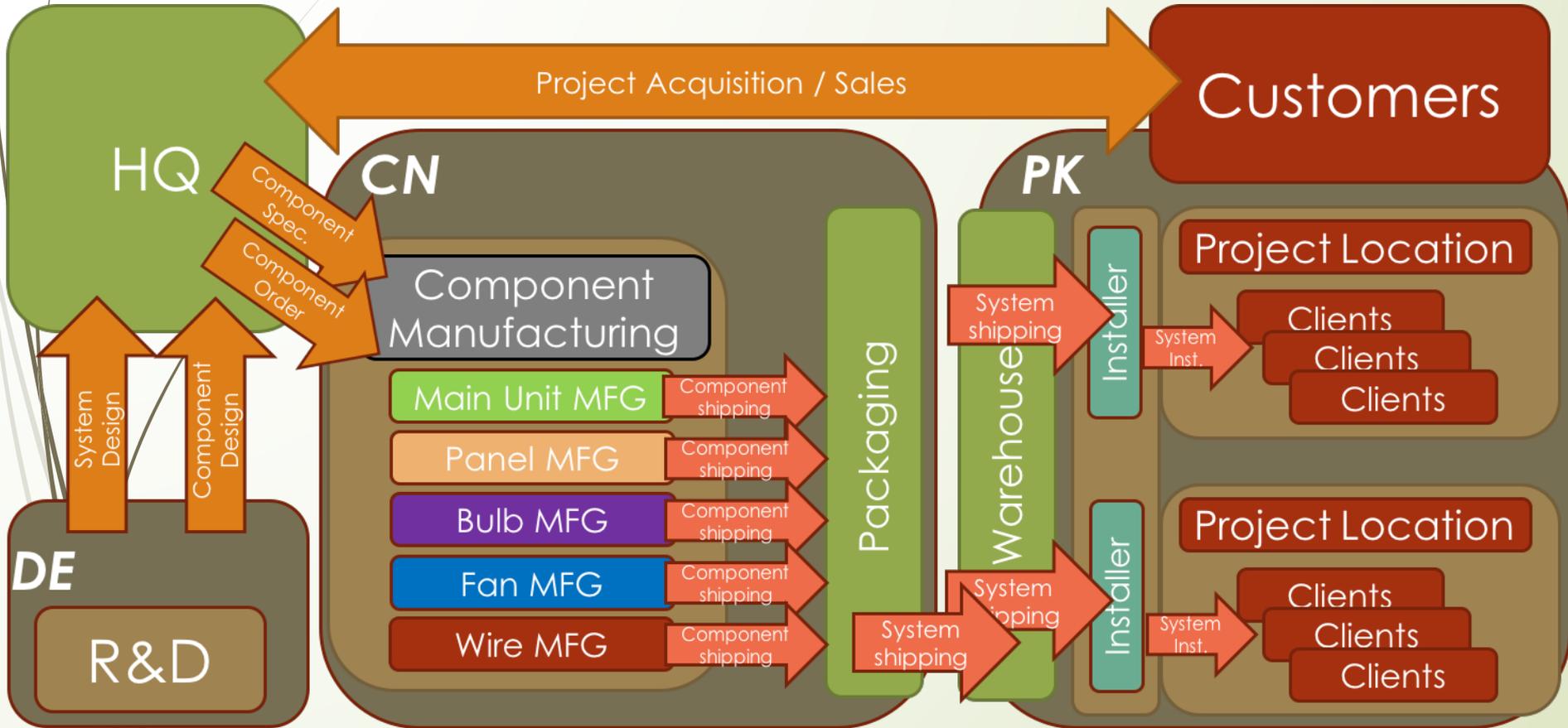
- We are a young and motivated team working with renewable energies.
- Our business is based in Karachi, PK
- We have experiences in the Pakistan electric services market
- Our team is very diverse with members from: Germany, India, Nigeria and Pakistan
- E-SavePlus is a limited company
- We are registered with the Securities and Exchange Commission of Pakistan (SECP)

# Our products

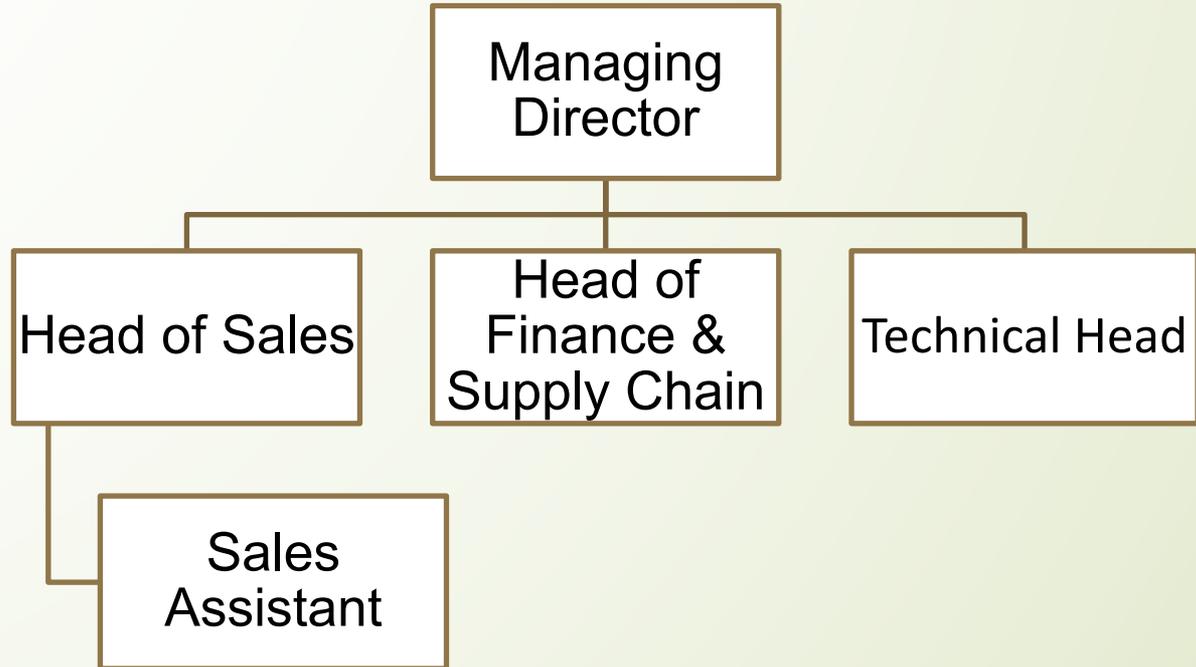
Mini SHS	Normal SHS	SHS Plus
		
<b>Services</b>		
2 LED Bulb @ 4hrs + Mobile charging	2 LED Bulb @ 4hrs + DC fan 8 hrs + Mobile charging+ Radio	4 LED Bulb @ 4 hrs + DC fan@ 6hrs + TV 2 hrs + Mobile Charging
<b>Solar components</b>		
3W Solar Panel	40W Solar Panel	40W Solar Panel
6V, 3Ah Battery	12V, 20Ah battery	12V, 20Ah battery

Our 1<sup>st</sup> system to enter into the market

# Supply Chain Structure



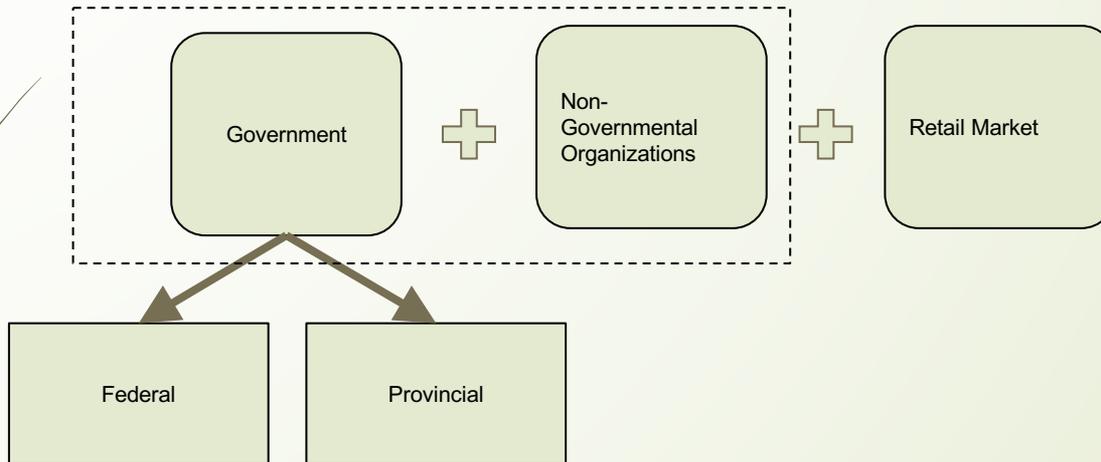
# Hierarchy





# Market Analysis

# Market Analysis – Our target customers



# Market Analysis – Competition Analysis



## 1. NIZAM BIJLI



Subsidiary company of NIZAM ENERGY, working on decentralized solar products and services. Providing energy solutions are their main aim. Company is based in Karachi, Pakistan.

DC product catalog:



Competition Analysis:

- a. Is providing DC products in the market (prices unknown)
- b. Provides system based on all the above DC products and can provide the installation on the system on site.
- c. One of our biggest competitor. Strong market hold already, mainly because of the main company Nizam Energy, which is based in Karachi.
- d. Large market reach, strong supplying capacities and good contacts already.
- e. Presently doing some projects for rural electrification in some regions of Pakistan, further data not available.

## 2. SPG Ltd.



US based company in Pakistan

Company profile:

Providing off grid solutions apart from telecommunication and Monitoring systems, based on solar mainly. Reaching and spreading into more rural areas and places where there isn't reliable electricity supply.

Product range:



TELECOM TOWER

Often in remote areas far from the grid, with a need of guaranteed up time - telecom towers use our solutions to efficiently monitor and maintain their energy.



SCHOOL MONITORING

Operations and Maintenance to not just optimize performance of the solar systems but also to ensure that all lights and fans are actually in working condition.



OFF-GRID HOME SYSTEMS

Our flagship offering, the most complete and comprehensive solution for solar home systems. We offer integrated services of monitoring, payment collection and customer management.

Analysis:

- a. Telecom towers were the main selling point for the company, from set up to planning and commissioning.
- b. They have good number of projects under their belt based on monitoring systems and providing efficient systems for complete projects.
- c. Efficiency planning and management for buildings, (for example controlling the switching of lighting and fans).
- d. New interest in Off grid systems, a new player in the market, have the required know-how and have good enough capacity to support the business in this new market.

### 3. REON Energy



Reon Energy Limited was started in 2012 with a clear focus on providing solar energy solutions. Solar with its short set-up time and abundance has proven to be an effective solution for the country's economy. Today, Reon is the leading EPC (Energy, Procurement and Construction) company in Pakistan that delivers cost effective and environment friendly solutions.

#### Analysis:

- a. Has picked up few projects on rural development with its cooperation with other organizations and funding.
- b. It's a strong company, heavily interested in power plant planning and procurement, from this expertise they can further expand into Decentralized markets.





# Market Analysis – Potential

- The population of Pakistan is around 207.77 million.
- Around 30 million people living in Pakistan lack electricity supply.
- 2,3 billion is spent annually on off grid lighting products
- **Our business parameters:**
- Capacity:
  - Sale and Installation: 6.000 p.a.
  - Production: >50.000 p.a.
- Selling price ex. Installation: Rs. 35.000



# Financial Calculations

# Investments and depreciation costs – Standard depreciation rates Pakistan

Description of assets	Rate
Buildings	
All types (not otherwise specified)	10%
A ramp built to provide access to persons with disabilities with a cost not exceeding Rupees250,000 each	100%
Furniture	
Furniture (including fittings)	15%
Machinery and Plant	
Machinery and plant (not otherwise specified)	15%
Technical or professional books	15%

Description of assets	Rate
Ships	15%
Motor vehicles (all types)	15%
Computer hardware, including printer, monitor & allied items, machinery and equipment used in manufacture of I.T. products	30%
Aircraft, aero-engines	30%
Below ground installations in mineral oil concerns	100%
Offshore platforms and Production installation in mineral oil concerns	20%

*The Declining Balance Method is to be applied!*

# Investments and depreciation costs

Goods	Expenditures (Rs.)	Dep. Rate (%)	Acu. Dep 10 Year (Rs.)
Server	100.000	30	97.175
Computers (4)	200.000	30	194.350
Printers (1)	5.000	30	4.859
Furnitures	10.000	15	8.031
Appliances	10.000	15	8.031
Network installation	50.000	0	-
Circulating Capital	20.000.000	0	-
R&D	2.000.000	0	-
Unexpected	3.125.000	0	-
<b>Grand total</b>	<b>25.500.000</b>	<b>-</b>	<b>312.447</b>

# Calculation of a product costs

Components	Specifications	Qty	Unit Price	Total system price (Rs.)
Solar panel	40W, 12V	1,0	50/watt	2.000
Battery	12V, 20Ah	1,0	8000	8.000
Charge controller	12V, 4A	1,0	3000	3.000
DC Fan	15W	1,0	2000	2.000
LED Bulb	1W, 12V	2,0	300	600
SHS Box	GI	1,0	1500	1.500
Miscellaneous		1,0	4000	4.000
System Installation		1,0	200	200
Assembling & packaging (in China)			1000	1.000
Transportation (warehouse to site)			500	500
<b>Total</b>				<b>22.800</b>
Total (US \$)				\$224

# Labour costs

Position	Salary per month (Rs.)	Salary per year (Rs.)
Managing Director + Head of Sales	210.000	2.520.000
Head of Finance & Supply Chain + Technical Head	180.000	2.160.000
Sales Assistant	70.000	840.000
Secretary	50.000	600.000
Handy man	30.000	360.000
Security guard (2x)	60.000	720.000
Lawyer Internee		180.000
Accountant		100.000
<b>Total</b>	<b>600.000</b>	<b>7.200.000</b>

# Investment and Financing

Total investment	25.500.000 Rs. \$250.000	
<b>40% equity</b>	10.200.000 Rs. \$100.000	
60% outside financing	15.300.000 Rs. \$150.000	10,0% interest 3 year period

To cover compensate for the high initial cash-flow between buying and payment, a bank loan or other third party funding will be needed to finance 60% of the total investment. We assume a bank loan over a period of 3 years with a 10% interest rate and a constant annual loan redemption.

# Calculation of financing costs

Year	Balance of debt	Interest rate	Interest costs p.a.	Refunding Bank Loan
1. Year	\$150.000	10%	\$15.000	\$50.000
2. Year	\$100.000	10%	\$10.000	\$50.000
3. Year	\$50.000	10%	\$5.000	\$50.000
<b>Totals</b>			<b>\$30.000</b>	<b>\$150.000</b>

To attract international investors, all financing relevant info are in US\$

# Self costs in years 1 - 4

	1. Year	2. Year	3. Year	4. Year
Utilization	16,7%	50,0%	83,3%	100,0%
Sold units	1.000	3.000	5.000	6.000
Depreciation costs	94.500	66.600	47.003	33.227
Labour costs	7.200.000	7.200.000	7.200.000	7.200.000
Product cost	22.800.000	68.400.000	114.000.000	136.800.000
Financing costs	1.530.000	1.020.000	510.000	0
Sum of costs	31.624.500	76.686.600	121.757.003	144.033.227
<b>Unit costs</b>	<b>31.625</b>	<b>25.562</b>	<b>24.351</b>	<b>24.006</b>

# Variable and Fixed Costs

	1. Year	2. Year	3. Year	4. Year
Utilization	16,7%	50,0%	83,3%	100,0%
Sold units	1.000	3.000	5.000	6.000
Depreciation costs	64.750	45.788	32.443	23.042
Labour costs	7.200.000	7.200.000	7.200.000	7.200.000
Product cost	22.800.000	68.400.000	114.000.000	136.800.000
Financing costs	1.521.060	1.014.040	507.020	0
Sum of costs	31.585.810	76.659.828	121.739.463	144.023.042
<b>Unit costs</b>	<b>31.586</b>	<b>25.553</b>	<b>24.348</b>	<b>24.004</b>

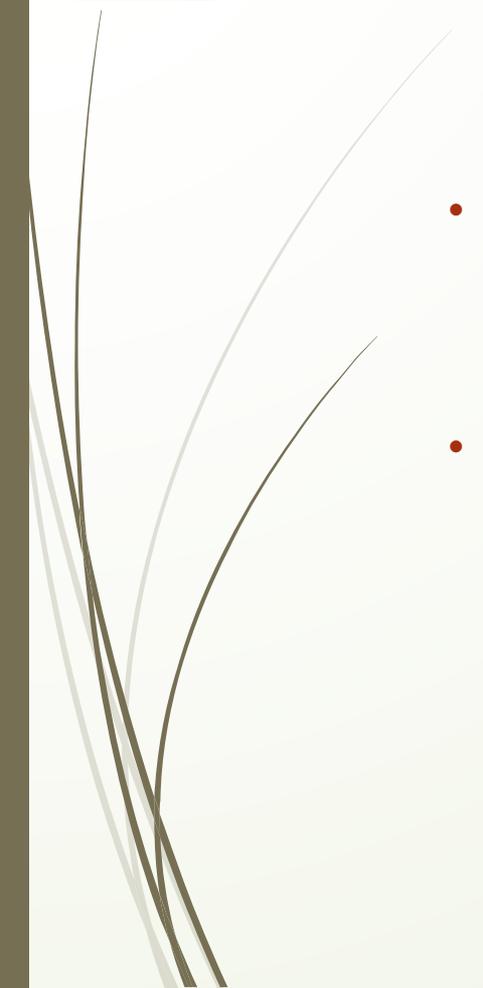
Fixed Costs falling from 18% to 5% within 4 years !

# Self costs over 10 years

	1. Year	2. Year	3. Year	4. Year	5. Year	6. Year	7. Year	8. Year	9. Year	10. Year
Utilization	16,7%	50,0%	83,3%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Sold units	1.000	3.000	5.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000
Depreciation costs	94.500	66.600	47.003	33.227	23.535	16.710	11.896	8.497	6.092	4.387
Labour costs	7.200.000	7.200.000	7.200.000	7.200.000	7.200.000	7.200.000	7.200.000	7.200.000	7.200.000	7.200.000
Product cost	22.800.000	68.400.000	114.000.000	136.800.000	136.800.000	136.800.000	136.800.000	136.800.000	136.800.000	136.800.000
Financing costs	1.530.000	1.020.000	510.000	0	0	0	0	0	0	0
Sum of costs	31.624.500	76.686.600	121.757.003	144.033.227	144.023.535	144.016.710	144.011.896	144.008.497	144.006.092	144.004.387
<b>Unit costs</b>	<b>31.625</b>	<b>25.562</b>	<b>24.351</b>	<b>24.006</b>	<b>24.004</b>	<b>24.003</b>	<b>24.002</b>	<b>24.001</b>	<b>24.001</b>	<b>24.001</b>



# Definition of price



- The self costs for one installed solar system is:
  - Rs. 31.625 in the first year of business
  - Rs. 24.000 in the tenth year of business
- We decide to sell one system at **Rs. 35.000**
  - Based on approx 10% margin in the first year
  - Fixed Cost (per unit) + Product cost (per unit) = Self cost
  - Self-cost + 10% margin = Selling price

# Calculation of revenue

Year	Output	Price per System (Rs.)	Revenue (Rs.)
1	1.000	35.000	35.000.000
2	3.000	35.000	105.000.000
3	5.000	35.000	175.000.000
4	6.000	35.000	210.000.000
5	6.000	35.000	210.000.000
6	6.000	35.000	210.000.000
7	6.000	35.000	210.000.000
8	6.000	35.000	210.000.000
9	6.000	35.000	210.000.000
10	6.000	35.000	210.000.000

# Cash-flow over 10 years

	1. Year	2. Year	3. Year	4. Year	5. Year	6. Year	7. Year	8. Year	9. Year	10. Year
Utilization	16,7%	50,0%	83,3%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Sales profits	35.000.000	105.000.000	175.000.000	210.000.000	210.000.000	210.000.000	210.000.000	210.000.000	210.000.000	210.000.000
Depreciation costs	94.500	66.600	47.003	33.227	23.535	16.710	11.896	8.497	6.092	4.387
Labour costs	7.200.000	7.200.000	7.200.000	7.200.000	7.200.000	7.200.000	7.200.000	7.200.000	7.200.000	7.200.000
Product cost	22.800.000	68.400.000	114.000.000	136.800.000	136.800.000	136.800.000	136.800.000	136.800.000	136.800.000	136.800.000
Financing costs	1.530.000	1.020.000	510.000	0	0	0	0	0	0	0
Loss carried forward		2.842.650								
Profit before tax	3.375.500	25.470.750	53.242.998	65.966.773	65.976.465	65.983.290	65.988.104	65.991.503	65.993.908	65.995.613
Taxes (30%)	1.012.650	7.641.225	15.972.899	19.790.032	19.792.939	19.794.987	19.796.431	19.797.451	19.798.172	19.798.684
Profit after taxes	2.362.850	17.829.525	37.270.098	46.176.741	46.183.525	46.188.303	46.191.673	46.194.052	46.195.735	46.196.929
Cash-flow (net profit + deduction)	2.457.350	17.896.125	37.317.101	46.209.968	46.207.061	46.205.013	46.203.569	46.202.549	46.201.828	46.201.316
Repayment credit	5.100.000	5.100.000	5.100.000	0	0	0	0	0	0	0
Amortization	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000
Re-investing	0	0	0	0	0	0	0	0	0	0
Dividend	-2.842.650	12.596.125	32.017.101	46.009.968	46.007.061	46.005.013	46.003.569	46.002.549	46.001.828	46.001.316



## Total dividend

Total dividend over 10 years (cumulated)

**Rs. 363.802.000 (\$3.567.000)**





# Equity profitability

	1. Year	2. Year	3. Year	4.-10. Year
Equity	\$100.000	\$100.000	\$100.000	\$100.000
Interest on equity	-28%	123%	314%	~450%

# Return on Investment

