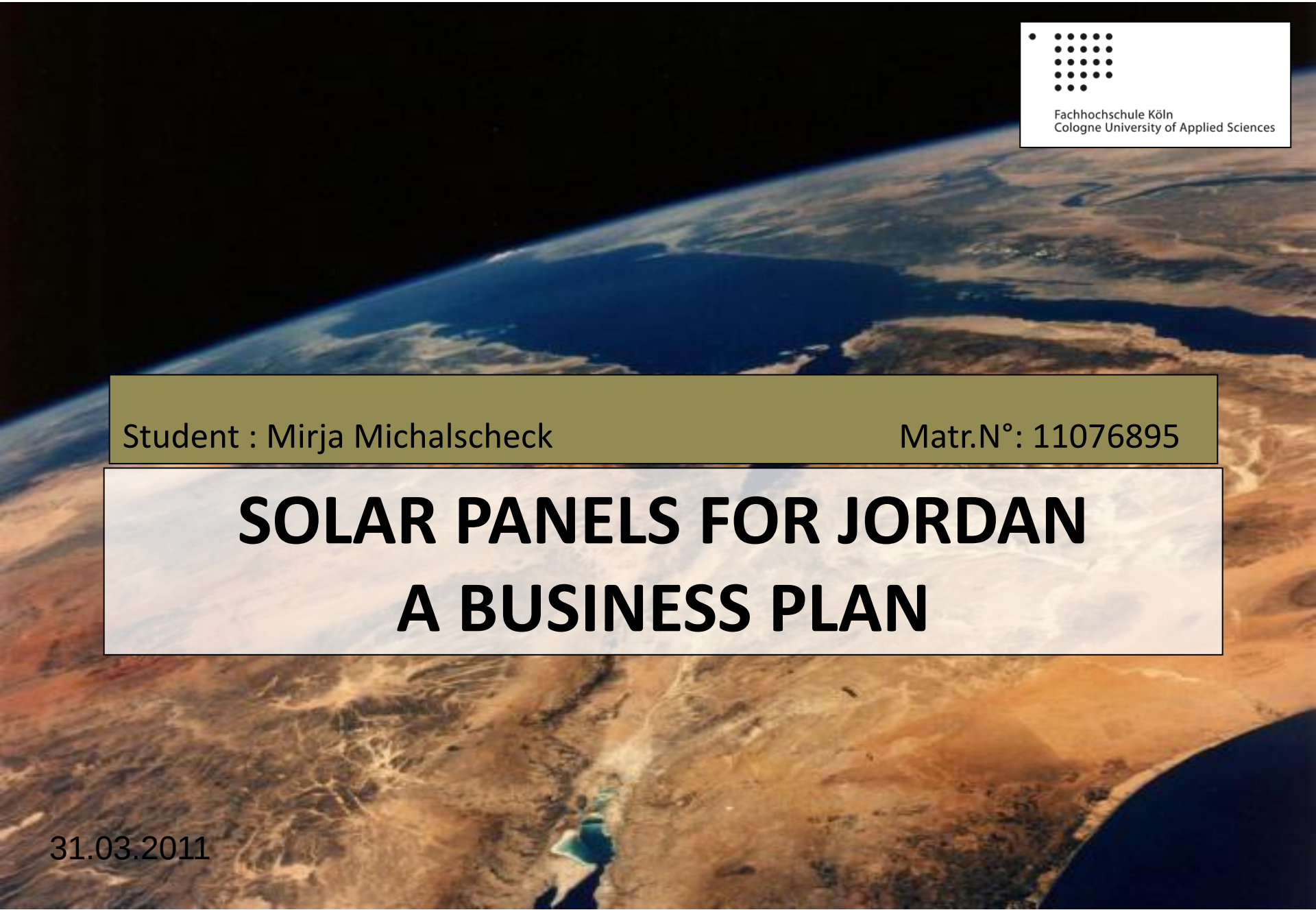

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SOLAR PANELS FOR JORDAN
A BUSINESS PLAN

31.03.2011

Structure of Business Plan

- Business Idea
  - Background
- Market Analysis and Marketing
  - Product/Service
  - Licensing
- Investment Analysis

Business Idea

Solaris Ltd.

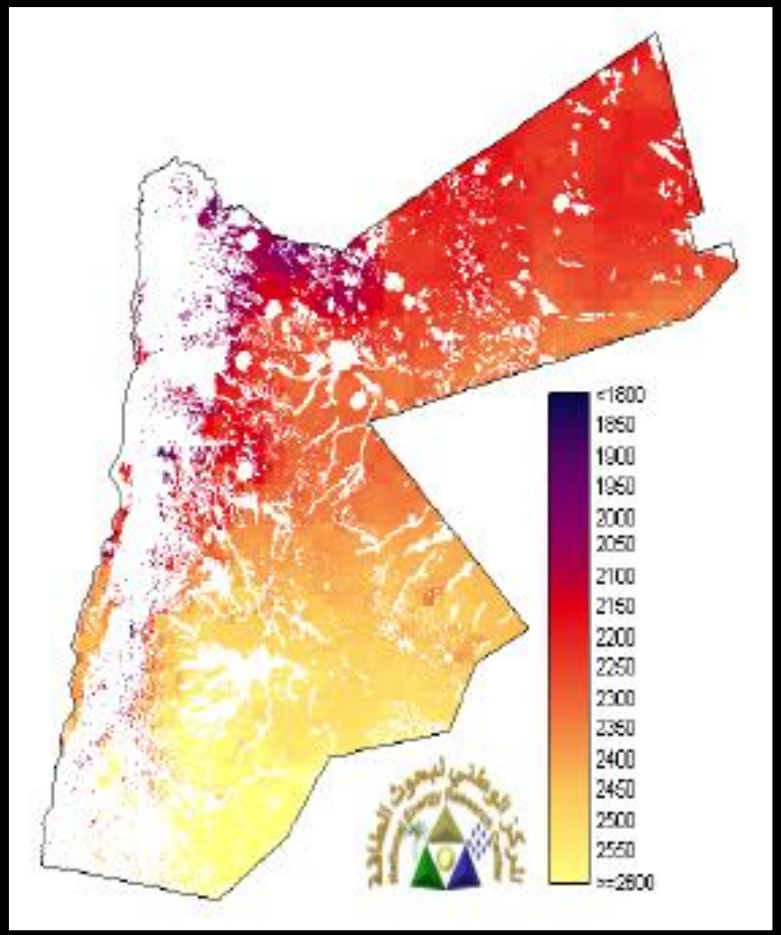
<u>Definition of Business Activity:</u>

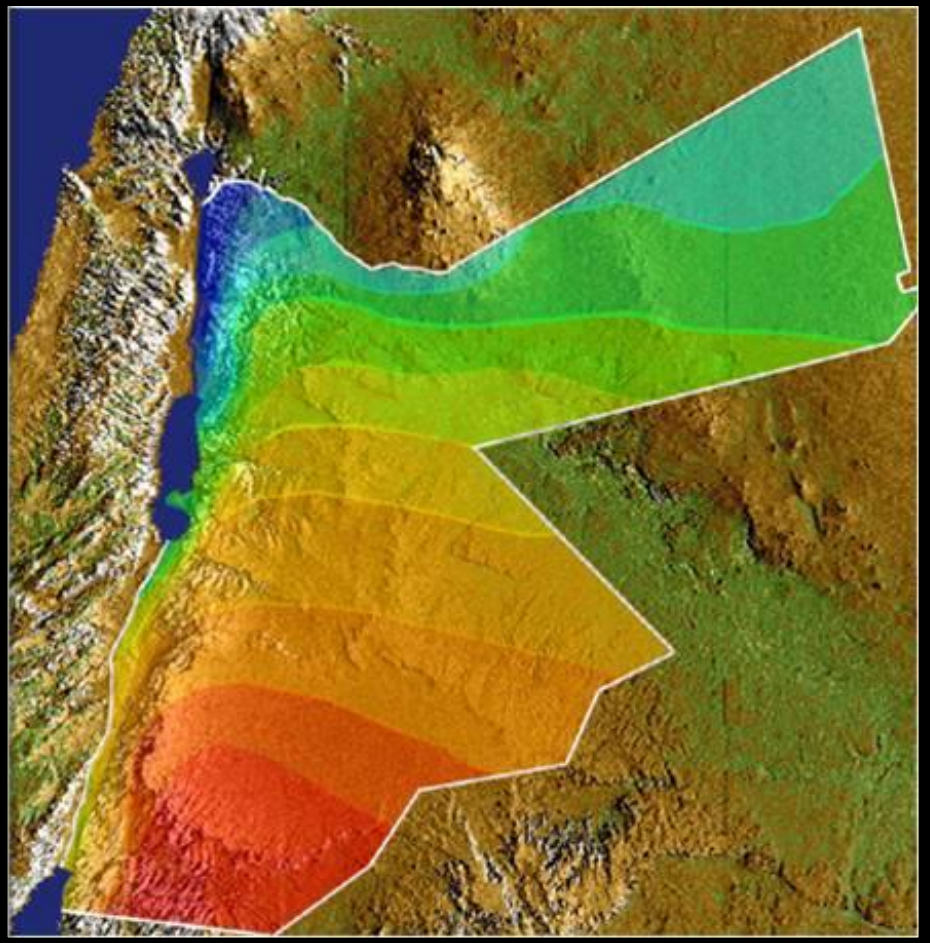
Import, Sell, Install, Repair Household-Scale Solar Panels in Jordan for Recreational Compounds

Background

- Jordan imports 96% of its energy
- Demand expected to double within 15 yrs
- Energy is becoming more and more expensive
- Optimal solar radiation [4-7 kWh/ m^2]
- Space available and cheap !
- Solar Cells are becoming cheaper

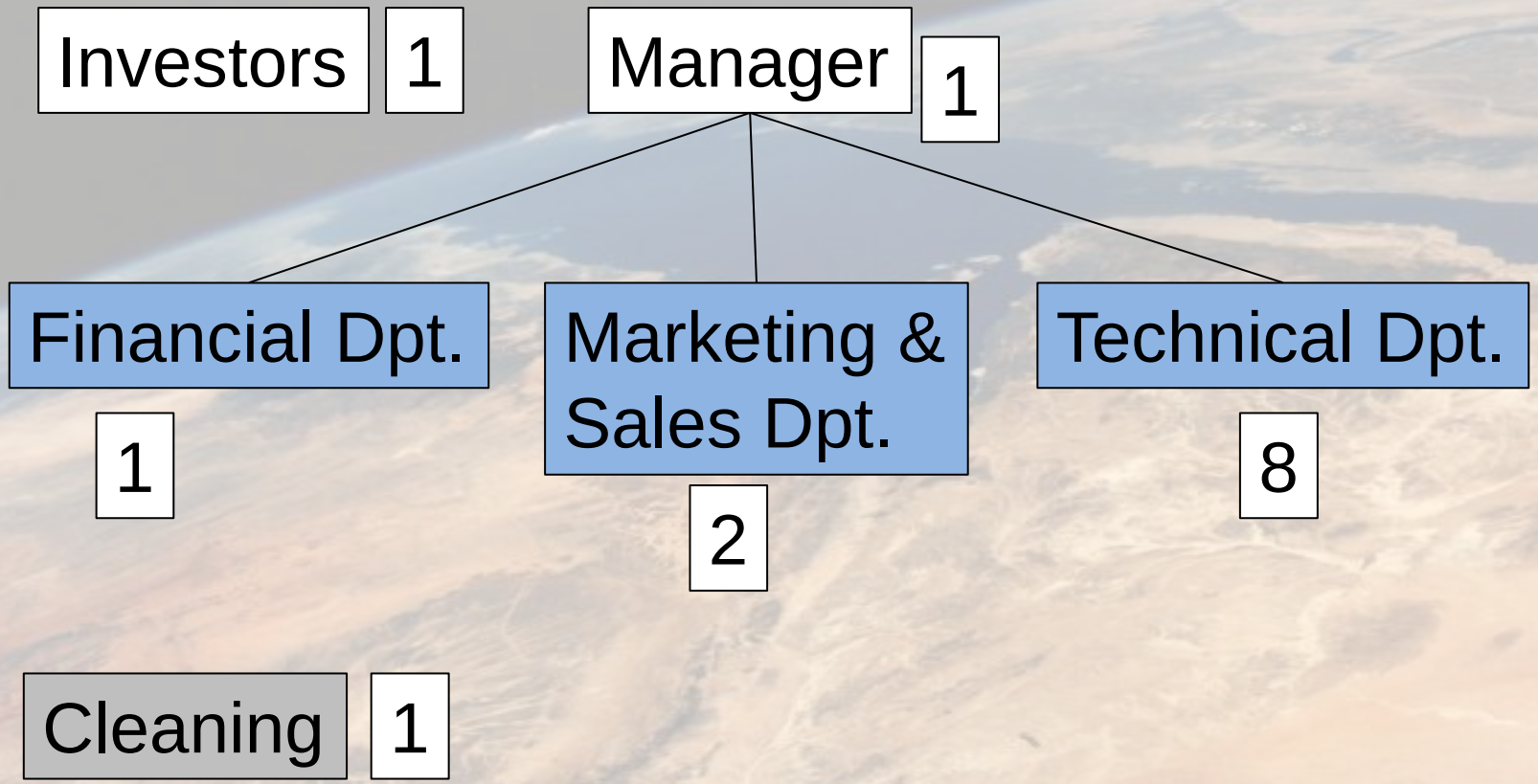
Solar Radiation in Jordan





Source: map: http://www.nerc.gov.jo/
More detailed map: NARUC 2010b

Organization of the Company



Current Market + Market Gaps

Current Demand: 10.000 houses

Current Supply: 600 houses have solar panels

Current lowest market price: 9.000 $

Profitable after 10 years (acc. to competitor)

Growth Potential!

Constraint: Awareness!

Hanania®
Ideal Solar Energy Co.

Clientele

Business Start:

Solar modules as a status symbol !

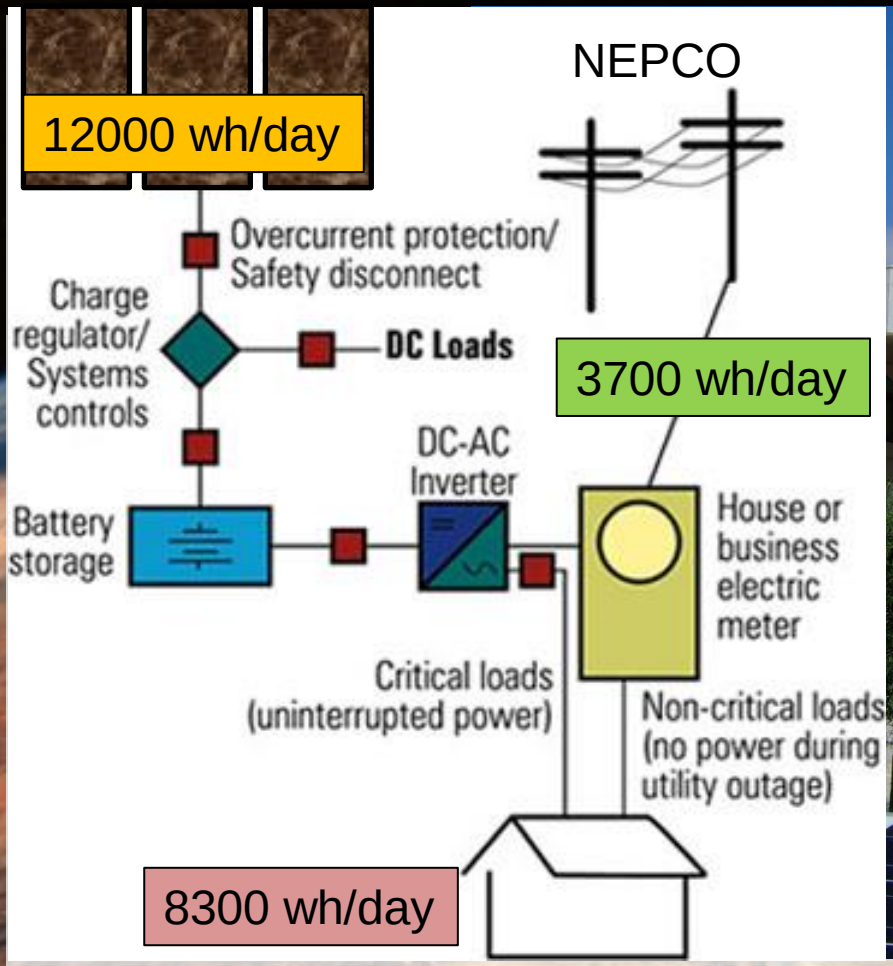
→High Income Group Price: 7 000 $

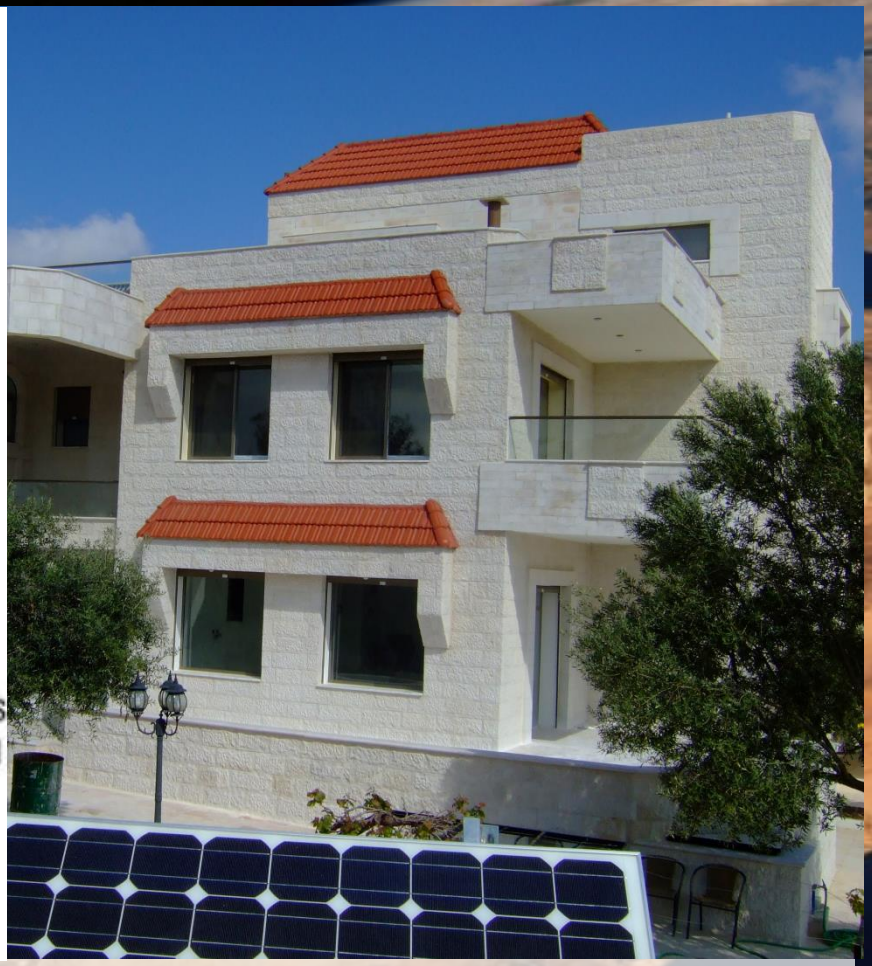
Long-term devlopment:

Desirable for Low and Middle Income Groups!

Cheaper! → Expansion !

Product





Source of image with technical set up: http://greenterrafirma.com/images/PV_Household.jpg
Image: house: http://www.energyjo.com/Ar/images/DSCF2043.jpg

Product

Electricity Price: 0.2* $ / kwh

Savings: 600 $/year for Energy Bill

Revenue : 270 $/ year for Feed-In of Excess

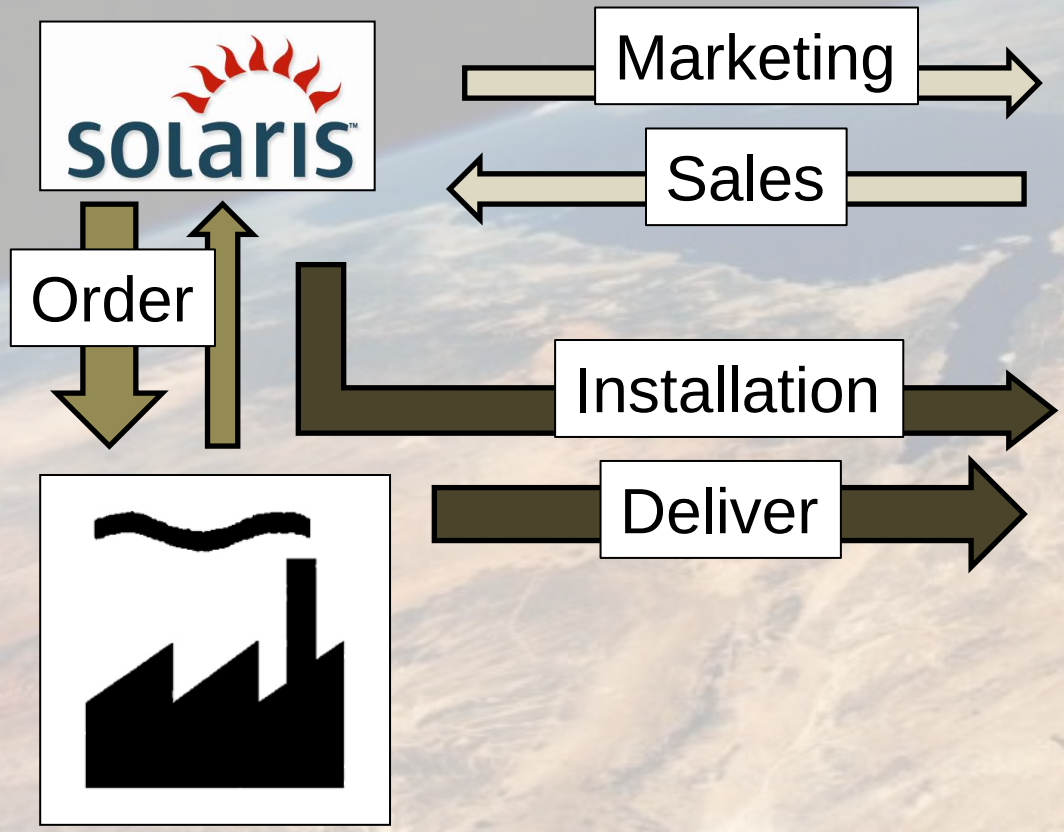
- - - - -

= **870 $ /year Benefit** for the Household

Price: 7000 $

Profitable in 8 years!

Logistics



Picture_factory: http://www.icemachine.ch/factory/images/factory_w.jpg
picture:_house: http://farm1.static.flickr.com/6/7016010_3a9efdb58f.jpg

Licensing

The Companies Law No. 22 of 1997

Registration of Ltd. 15 days

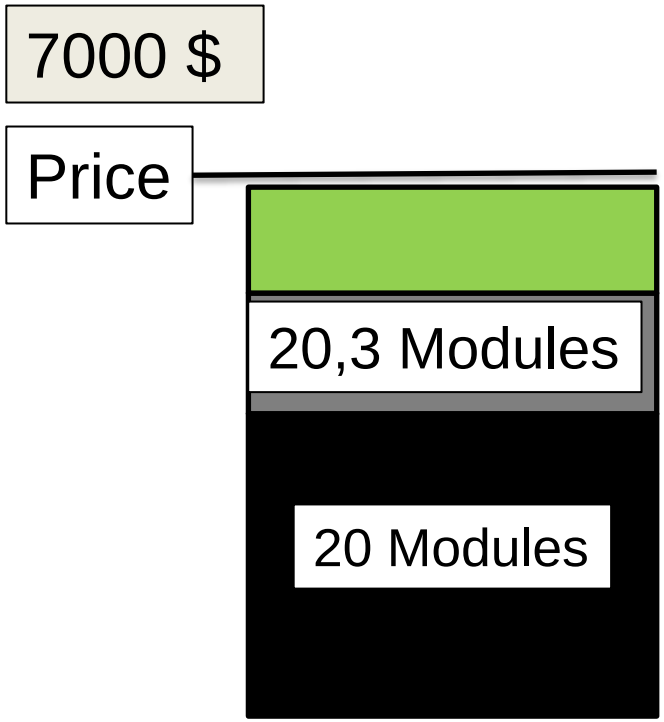
Investment Promotion Law No.(16) of 1995

Expempted from Import Tax [Recreational Compounds]

Corporate Income Tax Rate: 25%

Assumption – Licenses: 5000 $*

Investment Analysis – Demand / Supply



Profit Margin	1485 $
Cost Service	965,2 $
Cost Module	4550 $

Investment Analysis - Labor

Type of Employee	Salary ($)	Unit	Number
Manager	1700	per month	1
Marketing			
Sales	500	per month	1
Design	600	per month	1
Technical	1000	per month	8
Financial	800	per month	1
Cleaning	200	per month	1

14 Employees. 13 Variable. 1 Fixed. Yearly Cost (100%): 141 600 $

Investments

	Expenditure $	Depreciation	Deprecitaion cost $
Informatics			
Computers	2000	4	500
Mobiles	300	4	75
Vehicles (2)	30000	5	6000
Tools*	5000	10	500
Solar Panel	4450	10	445
Liscences*	5000	0	0
Unexpected	20000	0	0
Circulating Capital	7000	0	0
Total	**46750**		**7520**

Investment Analysis - Consumption

	Cost/month $	Number	Total $
Water	20	1	20
Internet+ Telephone Cost	130	1	130
Rent of 2 vehicles	812	2	1624
Gasoline	700	4	2800
Insurance for Cars*	33,3333333	1	33,3333333
Office Equipment (Paper, Pens etc.)	250	1	250
Cleaning Detergents	20	1	20
Rent	2000	1	2000
Monthly			6877,33333
Annually			**82528**

Self Cost

	1.Year/unit	1 year	2 year	3 year	4 year
Utilization and Capacity	80%	80%	100%	100%	100%
Quantity	194,88	194,88	243,6	243,6	243,6
Costs	$ per unit (1rst year)	$ per year	$ per year	$ per year	$ per year
Depreciation Costs	38,58784893	7520	7520	7520	7520
Labor Costs	602,2167488	117360	141600	141600	141600
Consumption Cost	365,9195402	71310,4	82528	82528	82528
Total		196190,4	231648	231648	231648
Cost per Solar Package	1006,724138	**1021,825**	**965,2**	**965,2**	**965,2**

Cash Flow

Year	1	2	3
Revenue	470400	588000	596820
Depreciation Cost	7520	7520	7520
Labor Cost	117360	141600	141600
Consumption Cost	71310,4	82528	82528
Profit Before Tax	274209,6	356352	365172
Tax (-25%)	68552,4	89088	91293
Profit After Tax	205657,2	267264	273879
Cash-flow Dividend	**213177,2**	**274784**	**281399**
Total Dividend (10)	2739153,2		

Considerations

- Sensitivity analysis (sale of >20 units)
- Thorough preparation phase: Office, workers
  … year zero: preparation/recruiting

    year 1: Start of business
- Exact figures for liscensing (validity?)
- Consider price decrease over the years (competition)

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Module Cost

- Panel: 3000 $
- Invertor: 300 $
- Wiring: 150 $
- Electrical Countries: 500 $
- Foundation: 500 $

4450 + shipping (100€) = 4550