

Rawlemon™

MicroTrack500HY

promoted by Sbotic Ltd

Simulation of the "Six Cities High Rise" in London (south face)

LOCATION	SOLAR RADIATION PER DAY (Wh/m2)*	ANNUAL SOLAR RADIATION (kWh/m2)	BETA.RAY SURFACE 50% eff. (m2)	SYSTEM RATED POWER (kW)	TOTAL ENERGY GENERATED PER YEAR (GWh)	CONVERT to MWh	CONVERT to kWh	TOTAL ENERGY OPERATED PER YEAR (GWh) **	ENERGY SURPLUS PER YEAR (GWh)	ELECTRICITY HOUSEHOLD \$/kWh 2014	Feed-in Tariff Household \$/kWh 2014	ANNUAL ENERGY OFF-GRID SAVINGS (\$) 30 years	AVERAGE ANNUAL ENERGY REVENUE (\$/5,1%) 30 years	CONSTRUCT ION COST PER m2 BY CITY/COUNT RY (\$/M2)	TOTAL COST OF CONSTRUCTION BY CITY (\$)	AVERAGE FINANCING COST OVER 30 YEARS (\$/6%)	COST PER CELL OF 30m2 (\$) OF TOTAL 80 CELLS	COST PER m2 (\$)	BREAK EVEN POINT IN % LOAN PER m2	CO2 EMISSION SAVINGS (Tons) vs. COAL
	LONDON	3.750	1.369	406	201	0,28	278	277.802	0,15	0,13	0,22	0,29	74.864	138.649	4803	24.208.279	855.359	302.603	10.087	16%
LONDON FIT***	3.750	1.369	406	201	0,28	278	277.802	0,15	0,13	0,22	0,29	99.000	182.765	4803	24.208.279	855.359	302.603	10.087	21%	268
Perks (KS) - 5 years period full booked incl. energy profit															5.538.904				23%	
Perks (KS) - 5 years period full booked incl. energy profit FIT															5.759.482				24%	
Revenue of 20 units property after Kickstarter campaign															7.565.087				31%	
Sum - perks and property															13.103.991				54%	
Estimated funding goal 60% (rounded)															14.500.000				60%	

* source: <http://re.jrc.ec.europa.eu/> - Solar irradiation: G 2-axis tracking

** source: Lemon Consult Zurich / total consumption / year: 30 kWh/m2

*** Feed-in Tariff (FIT) - basically subsidies from government to promote renewables

Total consumption / year: 30 kWh/m2	:	30000	Wh/m2
Floor surface of the building: 240m2 per level x 21 levels	:	5040	m2
South oriented surface: 15,35m x 61,50m (Brutto 944m2) - Ball lens net area 43%	:	405,92	m2 (43%)
50% efficiency = 500W/m2 (measured by 1.5AMd, 1000W/m2, T= 25°)	:	0,5	kW/m2
1 year	:	365	days
1 Module: 20 Balls / 0,25m2 / 50% efficiency = 5,014m2	:	2507	W/Module rated power output
80 Modules = 200560 W	:	200,56	System rated power /kWp
Efficiency per m2:	:	0,215	kW/m2

UNITS CONVERSION

1 Kilowatt	kW	1.000 W
1 Megawatt	MW	1.000.000 W
1 Gigawatt	GW	1.000.000.000 W
1 Terawatt	TW	1.000.000.000.000 W

ANNUAL ENERGY LOSSES by TILT and Reflection

horizontal	25,00%
optimized angle	20,00%
vertical	60,00%
dual axis tracking system	0,00%