

Rawlemon™

MicroTrack500HY

promoted by Sbotic Ltd

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

| LOCATION | SOLAR RADIATION | ANNUAL SOLAR RADIATION | BETA.RAY SURFACE 50% eff. | SYSTEM RATED POWER | TOTAL ENERGY GENERATED PER YEAR | CONVERT TO MWh | CONVERT TO kWh | TOTAL ENERGY OPERATED PER YEAR | ENERGY SURPLUS PER YEAR | ELECTRICITY HOUSEHOLD \$/kWh 2014 | Feed-in Tariff Household \$/kWh 2014 | ANNUAL ENERGY OFF-GRID SAVINGS (\$) | AVERAGE ANNUAL ENERGY REVENUE (\$/5,1%) 30 years | CONSTRUCTION COST PER m2 BY CITY (\$/m2) | TOTAL COST OF CONSTRUCTION BY CITY (\$) | AVERAGE FINANCING COST OVER 30 YEARS (\$/6%) | COST PER CELL OF 30m2 (\$) | COST PER m2 (\$) | BREAK EVEN POINT IN % LOAN PER m2 | CO2 EMISSION SAVINGS (Tons) vs. COAL |
|-----------------------------------------------------------------|-----------------|------------------------|---------------------------|--------------------|---------------------------------|----------------|----------------|--------------------------------|-------------------------|-----------------------------------|--------------------------------------|-------------------------------------|--------------------------------------------------|------------------------------------------|-----------------------------------------|----------------------------------------------|----------------------------|------------------|-----------------------------------|--------------------------------------|
| | (Wh/m2)* | (kWh/m2) | (m2) | (kW) | (GWh) | | | (GWh) ** | (GWh) | \$/kWh 2014 | | | years | | BY CITY (\$) | YEARS (\$/6%) | 80 CELLS | | PER m2 | COAL |
| NEW YORK | 5.780 | 2.110 | 406 | 201 | 0,43 | 428 | 428.185 | 0,15 | 0,28 | 0,19 | 0,22 | 64.656 | 184.563 | 3.023 | 15.233.581 | 538.253 | 190.420 | 6.347 | 34% | 413 |
| NEW YORK FIT*** | 5.780 | 2.110 | 406 | 201 | 0,43 | 428 | 428.185 | 0,15 | 0,28 | 0,19 | 0,22 | 75.000 | 213.705 | 3.023 | 15.233.581 | 538.253 | 190.420 | 6.347 | 40% | - |
| Perks (KS) - 5 years period full booked incl. energy profit | | | | | | | | | | | | | | | 3.497.420 | | | | 23% | |
| Perks (KS) - 5 years period full booked incl. energy profit FIT | | | | | | | | | | | | | | | 3.643.128 | | | | 24% | |
| Revenue of 20 units property after Kickstarter campaign | | | | | | | | | | | | | | | 4.760.494 | | | | 31% | |
| Sum - perks and property | | | | | | | | | | | | | | | 8.257.915 | | | | 54% | |
| Estimated funding goal 60% (rounded) | | | | | | | | | | | | | | | 9.100.000 | | | | 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/surcharge 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% |