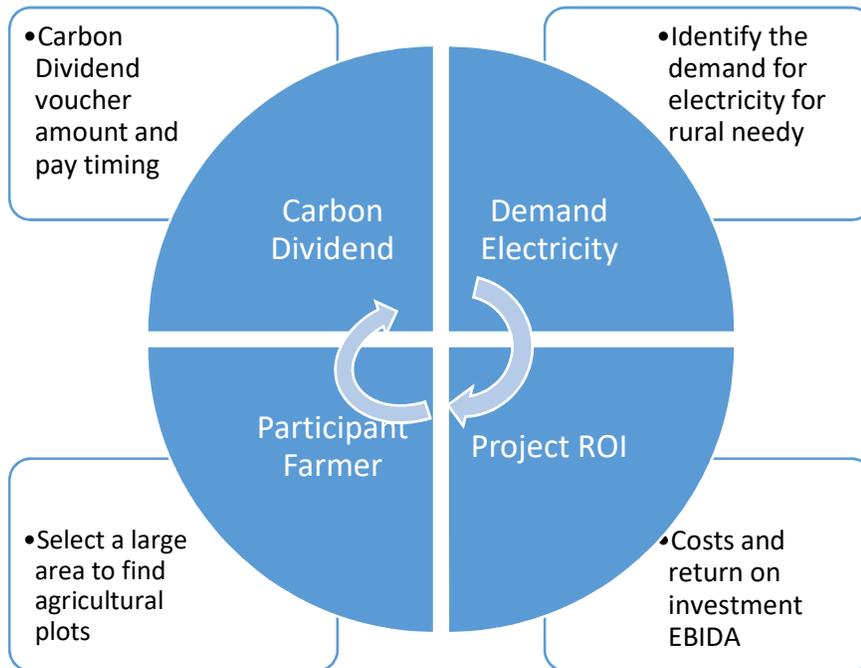




Carbon Dividend for poor rural farmers

There is a four-part process to pay carbon dividend to the poor rural farmers. We will be using patented proprietary processes and software.



1. Electricity Demand

To alleviate extreme poverty we will provide free electricity via carbon dividend to the marginal farmer in India. It will allow a farmer to power 2 light bulbs, a refrigerator, fan, electric plate and water pump. The farmers will have longer useful time for study, refrigerator will allow them to preserve food stuff, get comfort of a fan, by using electric plate they do not have to find and burn wood to fuel their stove and they can pump water for hygiene. These farmers are unable to purchase these appliances. Donate page of this web site will allow you to contribute for these appliances.

Energy to alleviate poverty	Appliance	Units	kWh
Longer useful time	Light bulbs	2	58
Preservation	Refrigerator	1	836
Comfort	Fan	1	153
Ease of fuel usage	Electric plate	1	818
Hygiene	Water pump	1	183
kWh Usage		Year	2,048



2. Costs and ROI

A 5 MW rural utility will generate enough power to pay 992 farmers carbon dividend.

A 16-panel system on two poles at each farm installed will cost \$ 2,117.00. A panel costs 28c/watt and the implementation costs are 14c/watt. At grid reimbursement rate of 5.2c/kWh we estimate a rate of return of 23% without interest, depreciation and advertising (EBIDA).

9.12 MWH is fed in to the grid and out of which Carbon Dividend is 2.03 MW. Gross investment in the project is \$ 2.10 million.

Panels	315		16
Panels costs	0.28	US\$	1,411
Implementation costs	0.14	US\$	706
Cost for a 2 pole system		US\$	2,117
kWh to grid incl usage	1	Year	9,197
kWh to grid	30	Year	275,923
Grid reimbursement, yearly	0.0520	US\$	479
Net present value	20%	US\$	266
Internal rate of return			23%
Number of farm units			992
Energy produced, yearly		MWH	9.12
- farmers		MWH	2.03
- Solar Energy US Inc		MWH	
- Net to grid		MWH	7.09
Gross Investment	Million	US\$	2.10
Gross Reimbursement	Million	US\$	14.24



3. Participant Farmer: Select agricultural plot, locate solar panel poles and sub, pooling location, sub-station.

A Neural Network will be created by selecting agricultural plots within an area and perform what if analysis and minimize the length of electrical cables. The network will AI to build and support and maintain itself. Steps involved with example are as follows.

1. Select a large rural area near a high-tension power line to locate a sufficient size solar panel utility.
 - 1.1. Map 1 is an example. Measure total area and perimeter for a 5 MW Utility.
Approximately 992 farms near Mandleshwar, in Khargone District, India are potential participants and receive carbon Dividend. Nearby there is a 400 MW Hydroelectric Dam on Narmada river. There is a high-tension power line close to Mandleshwar.
2. Stratify the area in smaller manageable parts. Stratification was done by selecting highways as boundaries. Other criteria such as agricultural plots along a river, farm income, size of plots can be used for stratification. Select strata to include similar plots. They are marked starting from lower right corner and moving counter clockwise marking next strata.
 - 2.1. Map 2 is an example. Measure the perimeter, square area and location.
3. Select agricultural plots between greater than one half bigha (100x300 square feet) and less than 10 bighas. These limits can be modified.
 - 3.1. Map 3 is an example. Measure perimeter, square area.
4. Locate a pole marker at top left corner of each agricultural plot and another top right corner. Each pole is to be separated by ten feet.
 - 4.1. Map 4 is an example. Locate 2 plot markers for installing solar panel system poles.
5. Define pooling locations within a stratum. It should be closer towards high tension power line. For a large lot, there can be more than one pooling location.
 - 5.1. Map 5 is an example. Locate pooling locations.
6. Connect each agricultural plot and closest pooling location. Distance to be measured by going through the edge of lots.
 - 6.1. Map 6 is an example. Measure distances between plots and pooling location.
7. Select next stratum by going anticlockwise. Continue selecting agricultural plots from top left of to right. If you have reached a thousand plots before covering the last, consider redefining strata.
8. Save a version of this project, data in a database and to review on-line and print the maps generated by software. Create a database/screen to receive data for verification of plot ownership.



4. Carbon Dividend Claim Voucher

Each participating farm will produce 9197 kwh of electricity and receive a Carbon Dividend Claim Voucher to be paid by Solar Energy US Inc. The pay date will be a date on which the company receives payment from distribution utility. We estimate the carbon dividend to be of 2048 kWh of energy annually or cash based on utility reimbursement rate.

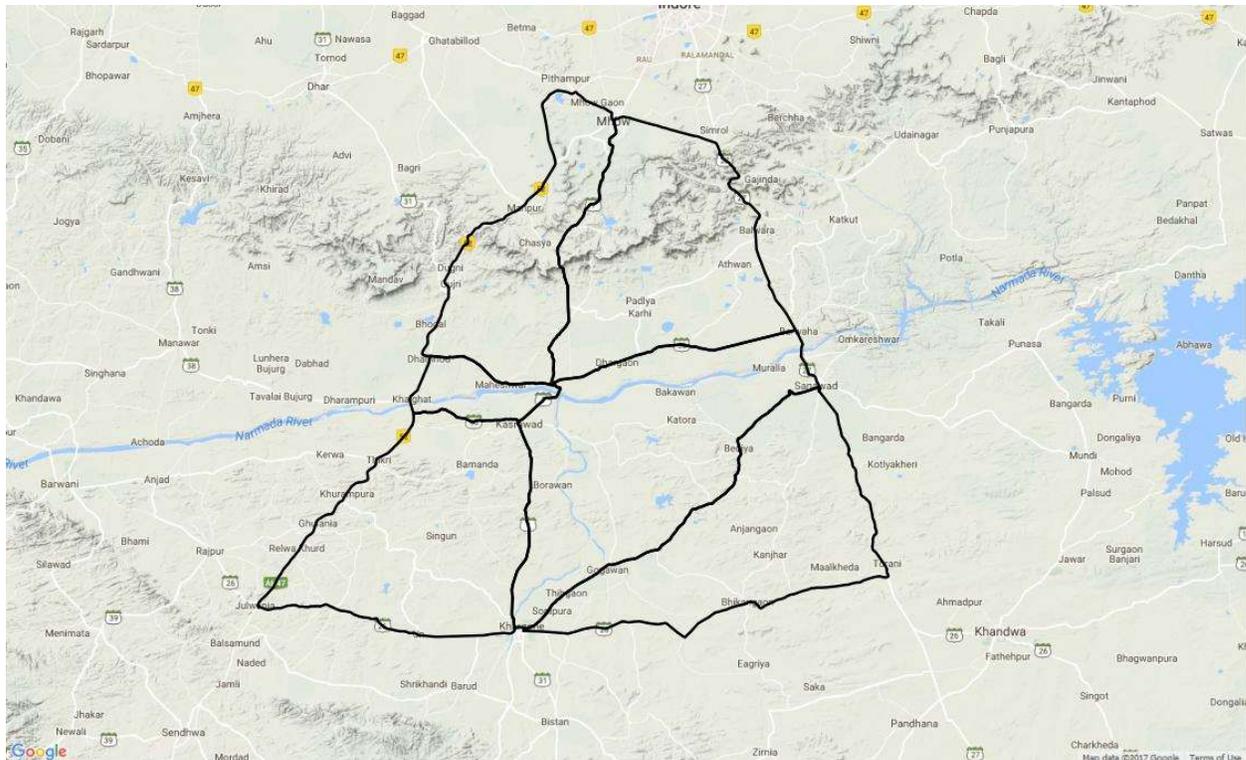
 <h3 style="text-align: center; color: orange;">Carbon Dividend Claim Voucher</h3>						
Solar Energy US Inc 25 Deming Lane Stamford CT 06903 USA						
Date	Prod. kwh	Reimb. Rate \$	Reimb. Prod \$	Dividend kwh	Dividend \$	
Jan	766	0.0520	39.86	171	8.87	
Feb	766	0.0520	39.86	171	8.87	
Mar	766	0.0520	39.86	171	8.87	
Apr	766	0.0520	39.86	171	8.87	
May	766	0.0520	39.86	171	8.87	
Jun	766	0.0520	39.86	171	8.87	
Jul	766	0.0520	39.86	171	8.87	
Aug	766	0.0520	39.86	171	8.87	
Sep	766	0.0520	39.86	171	8.87	
Oct	766	0.0520	39.86	171	8.87	
Nov	766	0.0520	39.86	171	8.87	
Dec	766	0.0520	39.86	171	8.87	
Sum	9197	0.0520	478.27	2048	106.50	
Date of Issue:	12/12/2017					
Payee	Address of Lot:					
Approved By:	Manager	Paid By:		Manager		
	Chase Bank			Local Branch		
	Stamford Branch			ICICI Bank		



Map 1: Mandleshwar and 440 MW Dam identified

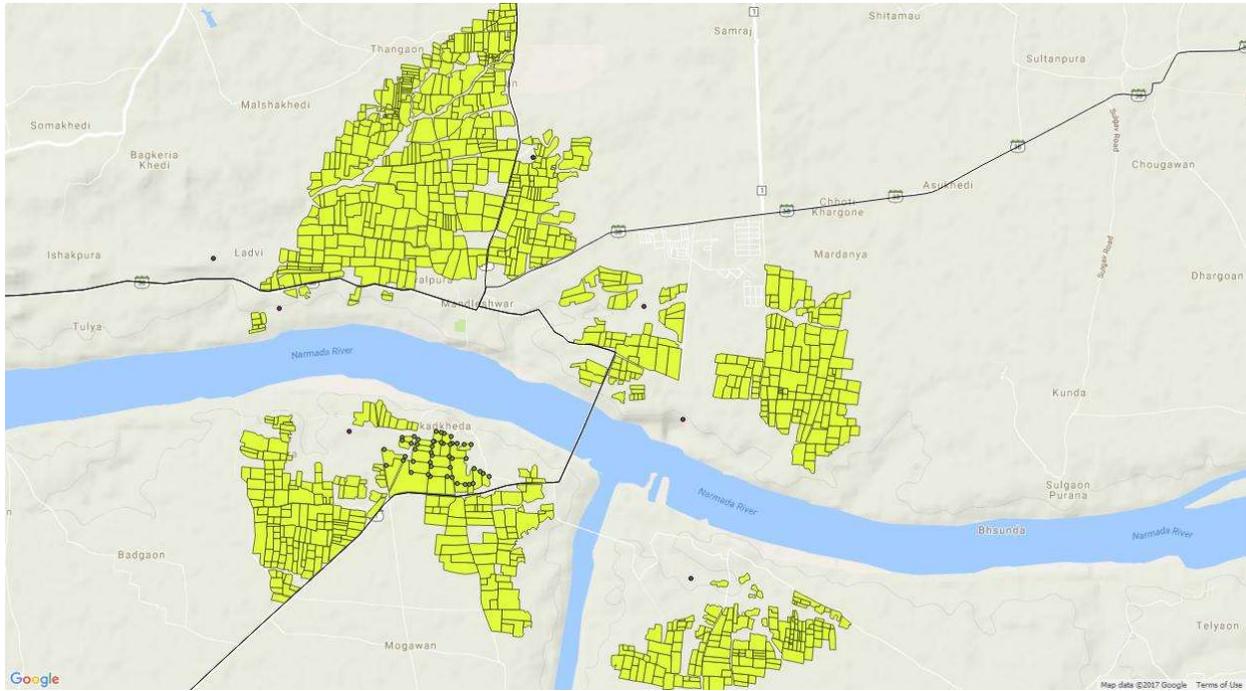


Map 2: Stratification of a large area

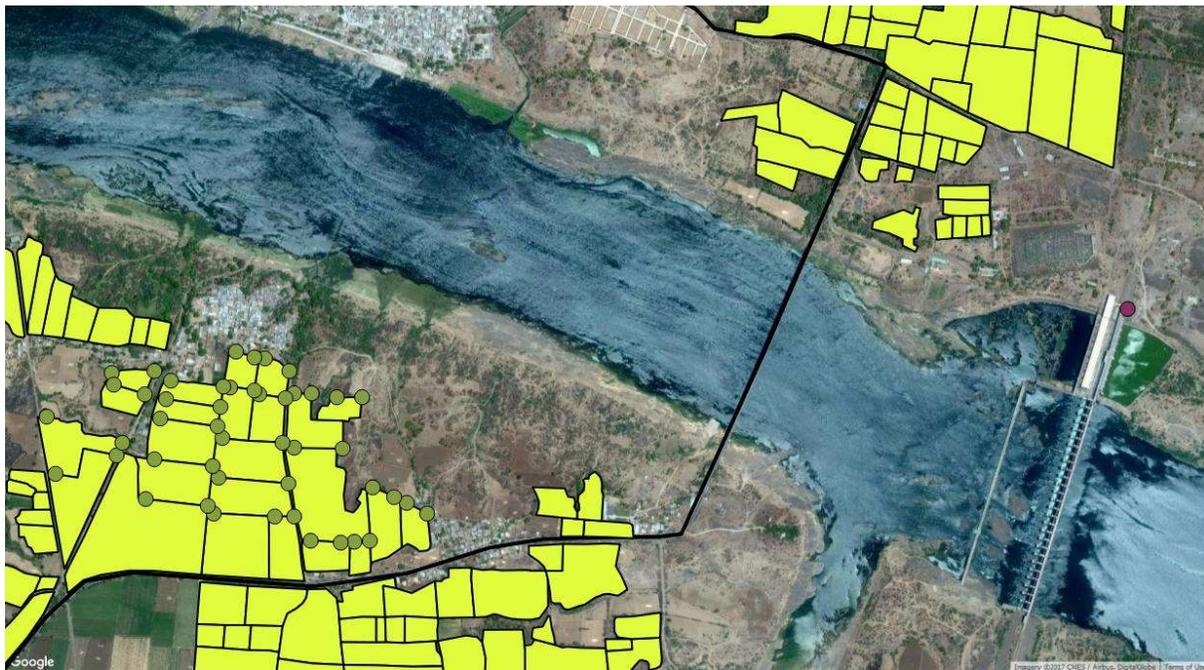




Map 3 Selected 992 agricultural lots for a 5 MW solar farm



Map 4 Stratum 5 with poles and sub-station marker





Key Learning/confirmation: Approximately 80% of the lots are less than 10 bighas and a third of those are 2 bighas or less.

Graph 1: Agricultural plots size frequency

