

Ft Mojave Renewable Energy Feasibility

Russell Gum
ERCC Analytics LLC

russgum@mac.com

- The Bottom Line

8 cent or less per kWh

- This number has grown a bit since the beginning of the study due to
 - Oil prices
 - Renewable Energy legislation
 - Increased concern about sustainability of energy supplies

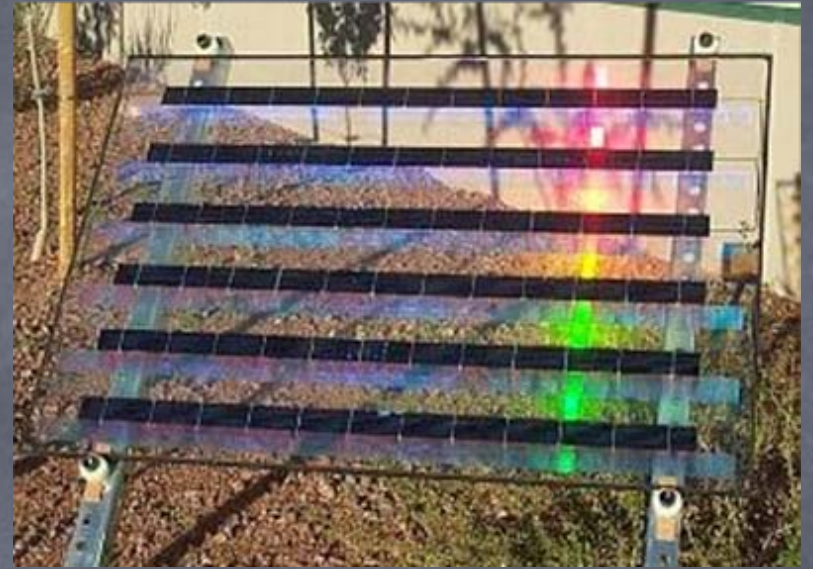
Short List

- Biodigester
- Wind Energy
- Crop Waste
- Concentrated Solar

Very Short List

- Concentrated Solar

Concentrated PV



- Ready for Prime Time?

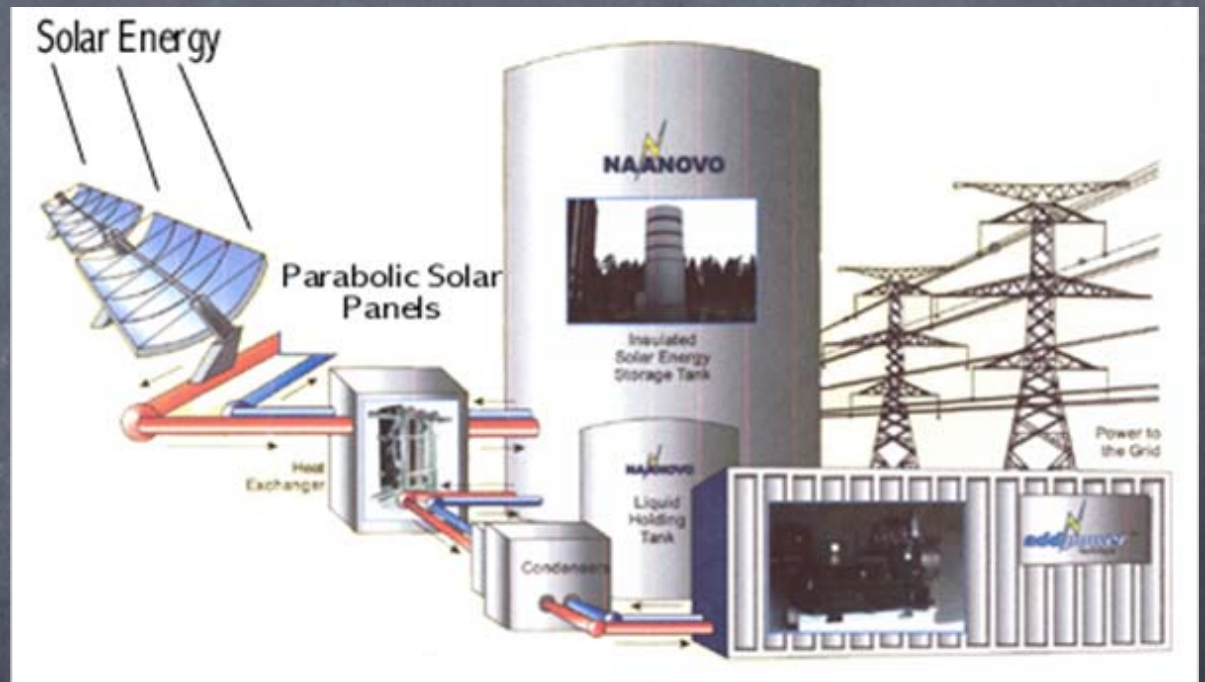
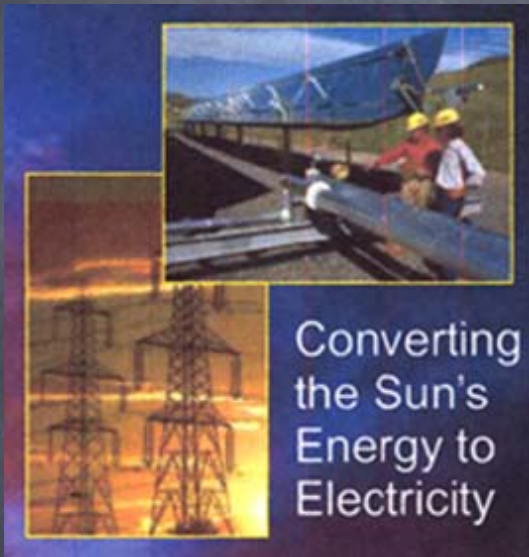


October 29, 2007

PRISM SOLAR TECHNOLOGIES, INC. WINS “MOST PROMISING TECHNOLOGY” AWARD AT CLEANTECH NETWORK™ INVESTMENT FORUM

Solar company voted “Most Promising Venture Investment Opportunity”

8 cent solar thermal?



\$3/watt?

- Amonix



Inflatable solar?



- **coolearth** develops and owns solar power plants utilizing our own proprietary concentrated photovoltaic (CPV) technology. **coolearth** has engineered a cost efficient power plant that competes economically with conventional fuels.

Nevada Solar One

- 64 MW in operation



Sun Cube

- Green and Gold Energy



SolFocus



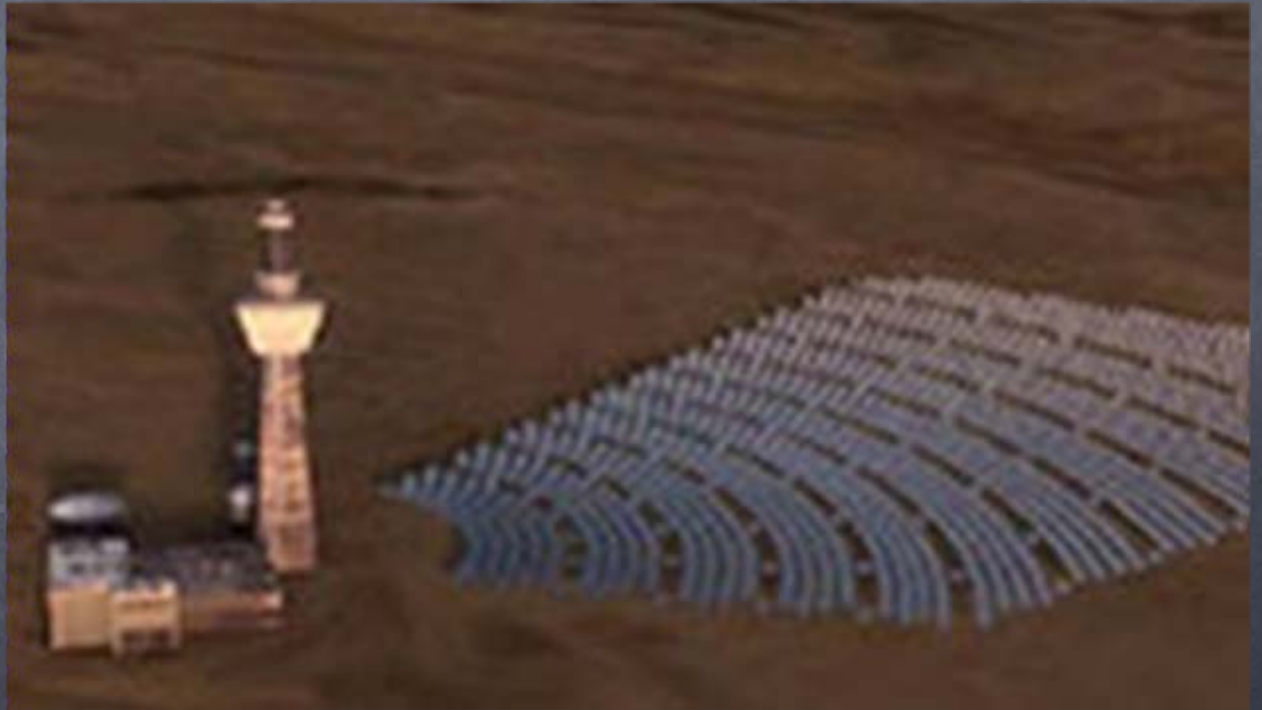
177 MW

- PG&E
Ausra



BrightSourceEnergy™

- The lowest cost from “photon to electron” ever achieved in a solar power plant
- The California Energy Commission has [accepted](#) an application from Oakland solar startup [BrightSource Energy Inc.](#) to develop the 400-megawatt Ivanpah Solar Electric Generating System (ISEGS), a solar thermal power plant



EnviroMission

- The company currently is conducting a site assessment of land owned by the Fort Mojave tribe that spans Arizona, California and Nevada.



Current Status

- Large scale plants are now in operation
- Several companies are willing to respond to RFPs for installation of concentrated solar systems and/or for power contracts to supply solar produced power
- small scale concentrated systems such as the sun cube are beginning production

2010

- This is the target date for major DOE/industry efforts to reduce costs and increase production capacities.
- If a rfp were issued in 2008 your solar power plant would likely be on its way to producing energy.
- There might even be a new energy bill with increased support for tribal solar projects.

Conclusions

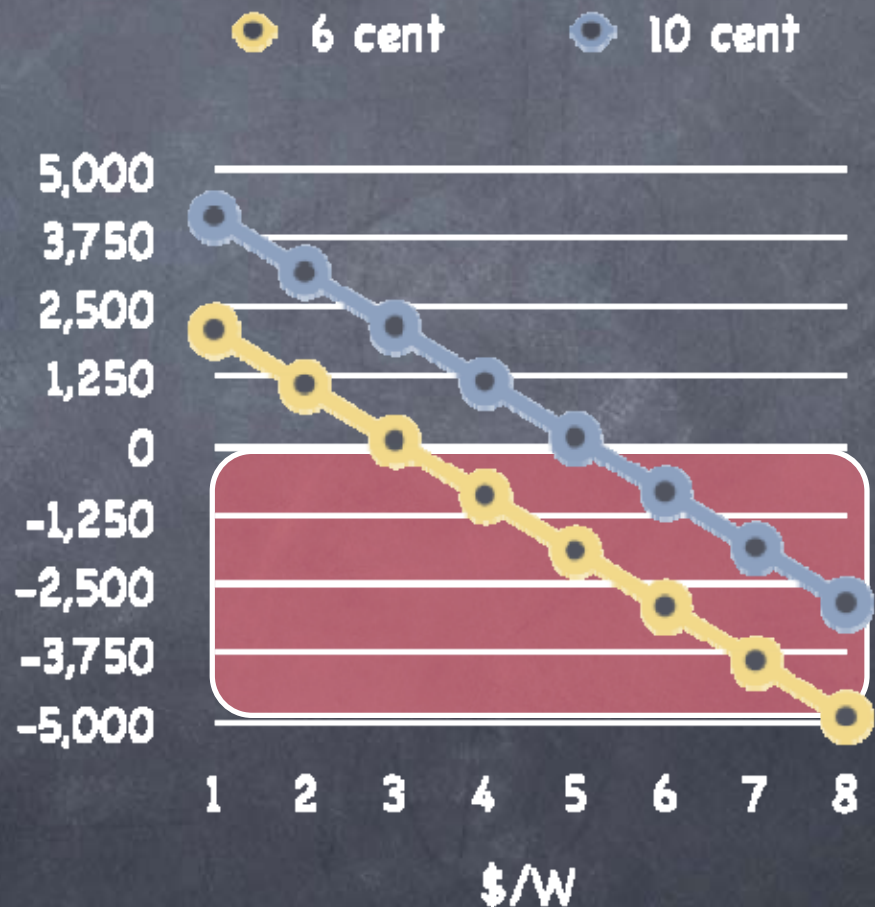
- The technology exists
- It is being implemented in projects world wide
- The \$ cost is competitive with fossil fuel power
- The \$ cost will fall as new technologies are tested and implemented
- The environmental costs are far less

goals

- Economic Development
- Environmental Quality
- Sustainability
- Energy Independence

Economics

- NPV vs Installation Costs (\$/w) for alternative energy values (cents/kWh)
- assumes 10 hr per day output



Environmental Quality

- air quality - little impact
- wildlife - change habitat under collectors
- noise - little impact
- visual - they will be noticed
- reduced greenhouse gas

Sustainability

- The sun is predicted to last longer than oil supplies

Energy Independence

- 100 acres of solar development would provide energy to export
- Dependancy on non tribal control/ownership is an issue

Strategy

- leadership - tribal utility?
- timing - 2010 or 2020?
- scale - 20MW or 100MW?
- control - build own operate or power purchase with flip or sell resources?
- market - power sales
- market - green tags - carbon credits - tax credits

Action

- RFP

That's All

- Russell Gum
- russgum@mac.com