



Solar Center, Desert Knowledge

Marketing Department

June, 2009

Testing Conditions

- **PV Installations located in Central Australia – Desert**
- **Used several manufacturers and technologies**
- **Monitor performance of all systems on a daily basis**
- **Track of temperature, wind, sunlight & rain**
- **Initiative from the Australian Government**

Ground Mounted, Weekly

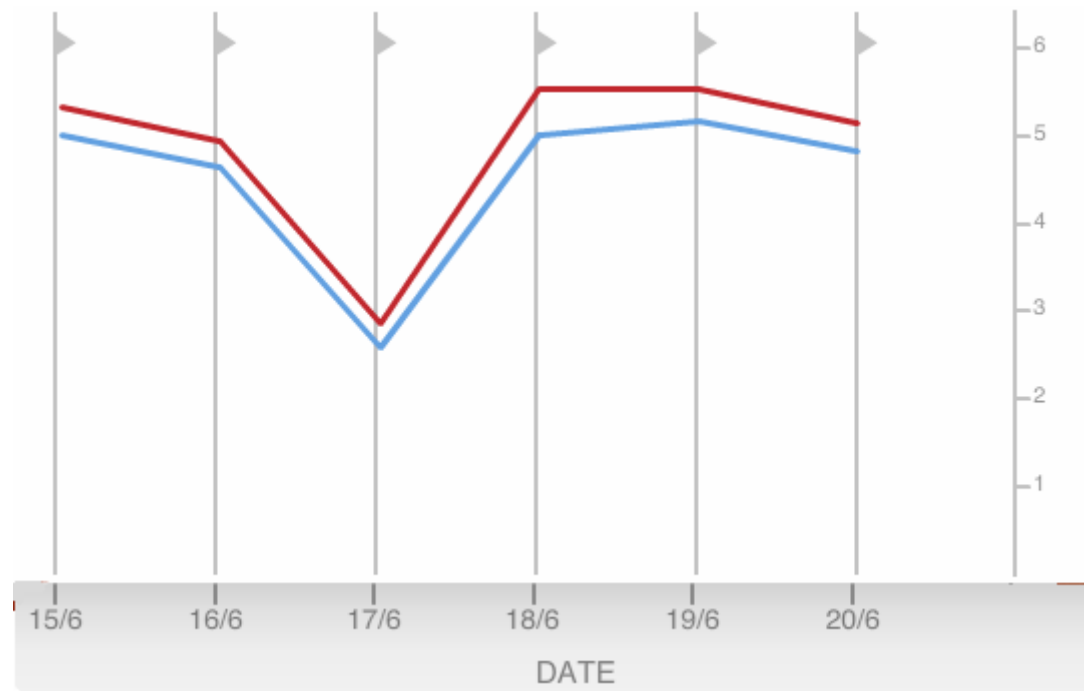
Large scale dual axis tracking arrays

- Trina Solar 175Wp Mono c-Si
- Sunpower 215Wp Mono c-Si

Average daily energy output
(in kWh/kW)

Week	Trina	SPWR
6/16	5.14	4.83
6/17	3.90	3.62
6/18	4.19	3.79
6/19	5.33	5.00

Normalized output in kWh/kW)



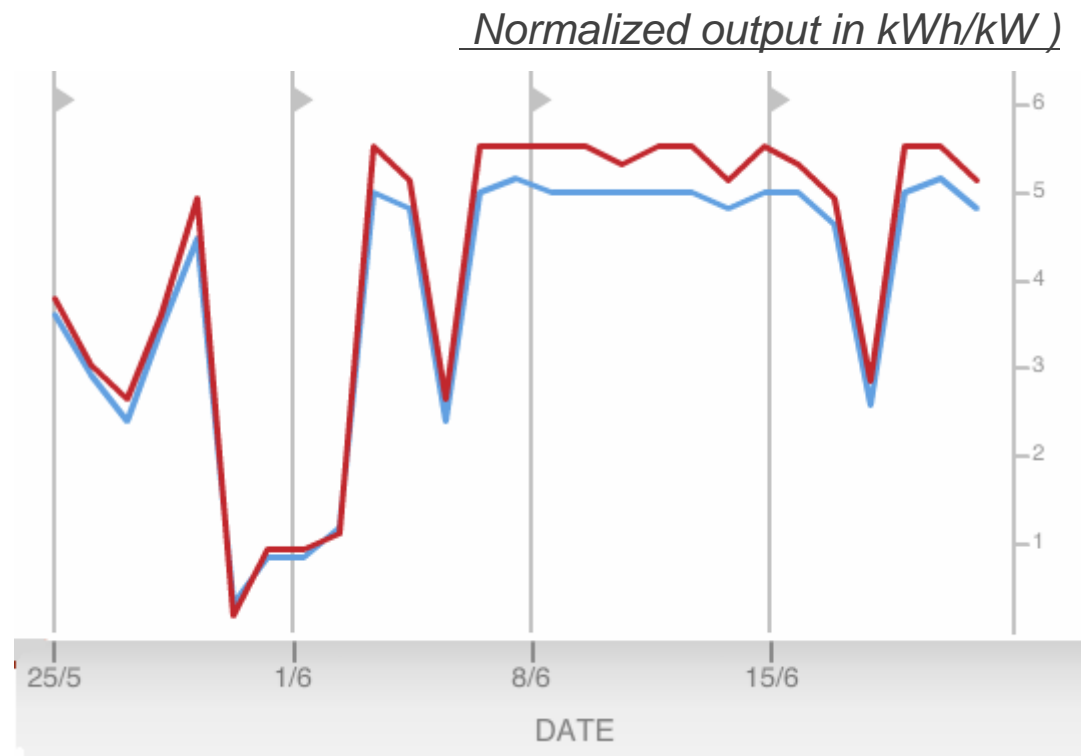
Ground Mounted, Monthly

Large scale dual axis tracking arrays

- Trina Solar 175Wp Mono c-Si
- Sunpower 215Wp Mono c-Si

Average daily energy output
(in kWh/kW)

Week	Trina	SPWR
May 25	2.52	2.37
June 1	4.00	3.69
June 8	5.43	4.98
June 15	4.89	4.54



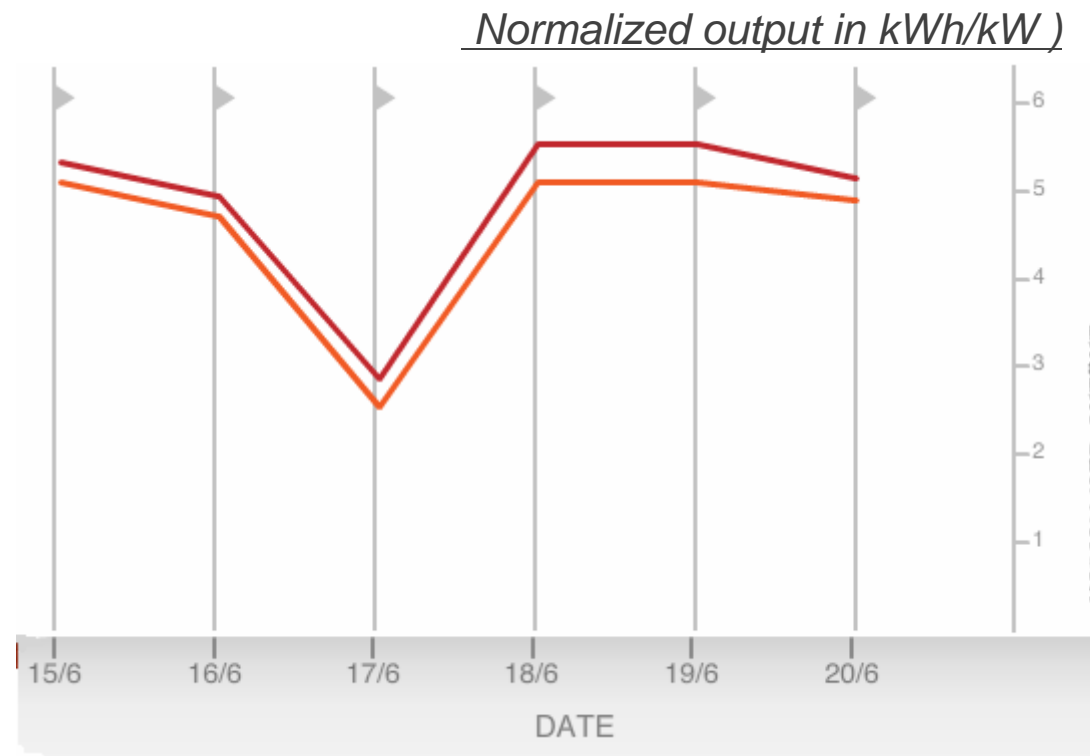
Ground Mounted, Weekly

Large scale dual axis tracking arrays

- Trina Solar 175Wp Mono c-Si
- BP Solar 165Wp Mono c-Si

Average daily energy output
(in kWh/kW)

Week	Trina	BP Solar
6/16	5.14	4.90
6/17	3.90	3.63
6/18	4.19	3.82
6/19	5.33	5.00



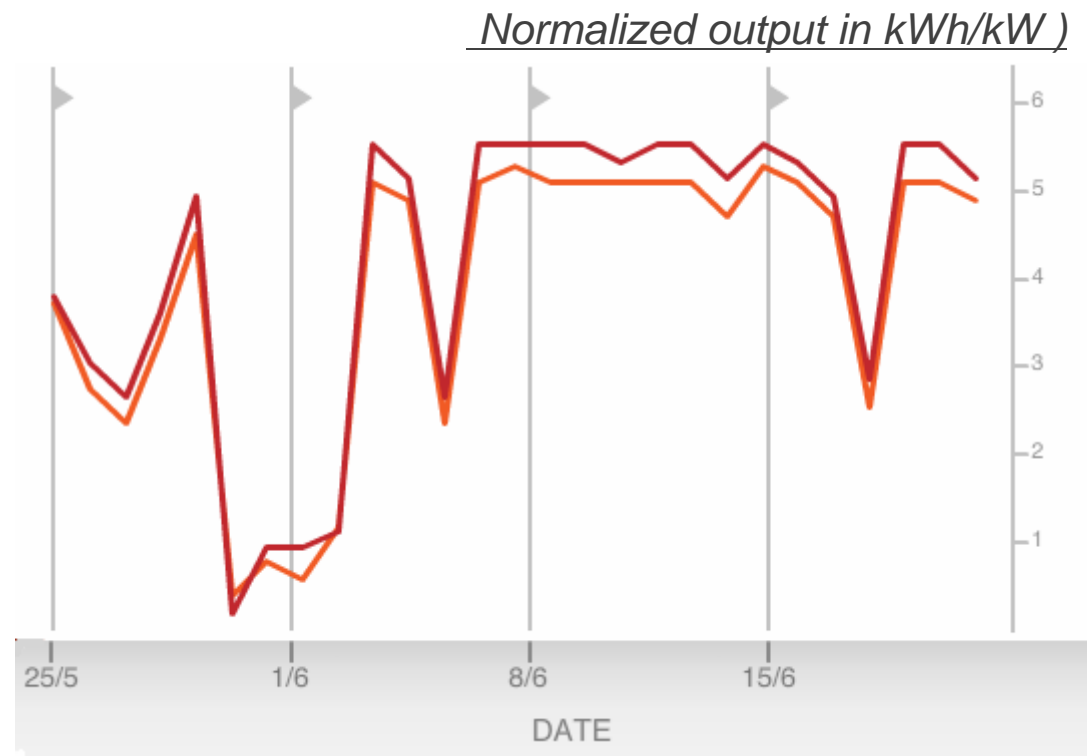
Ground Mounted, Monthly

Large scale dual axis tracking arrays

- Trina Solar 175Wp Mono c-Si
- BP Solar 165Wp Mono c-Si

Average daily energy output
(in kWh/kW)

Week	Trina	BP Solar
May 25	2.52	2.30
June 1	4.00	3.70
June 8	5.43	5.07
June 15	4.89	4.58



Ground Mounted, Weekly, TF vs. c-Si

Reminder:
Desert conditions

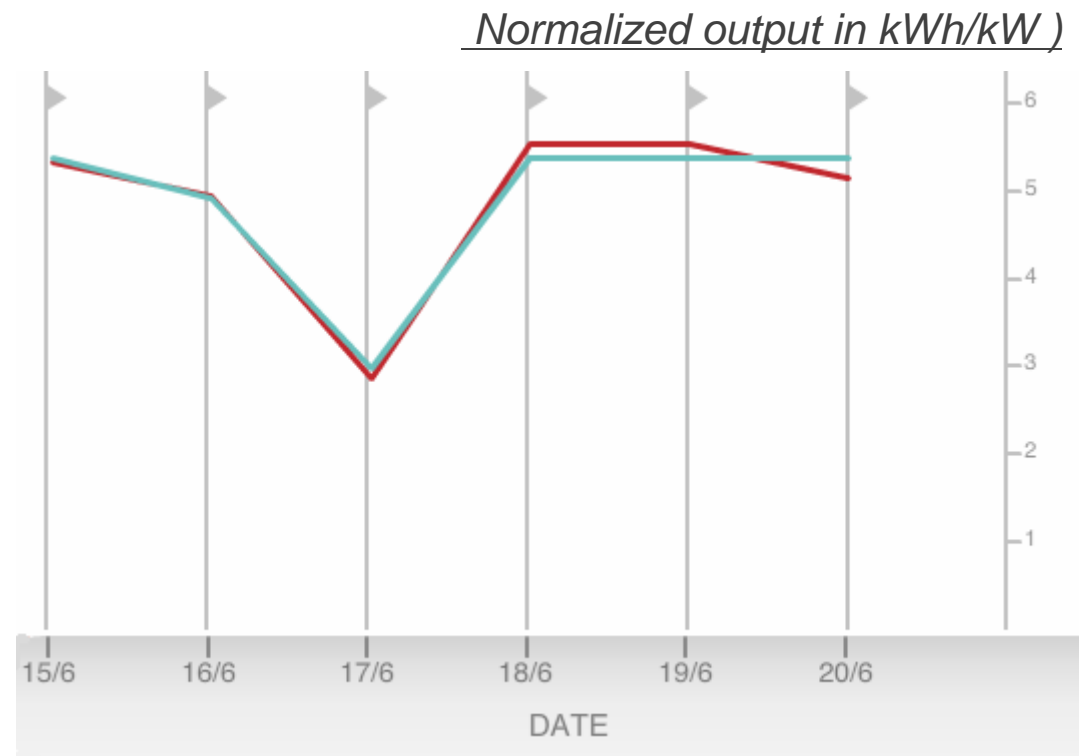
Large scale dual axis tracking arrays

- Trina Solar 175Wp Mono c-Si
- Phoenix 70Wp CdTe

Average daily energy output
(in kWh/kW)

Day	Trina	Phoenix
6/16	5.14	5.37
6/17	3.90	3.96
6/18	4.19	4.18
6/19	5.33	5.37

As temperature rises,
TF output surpasses c-Si



Ground Mounted, Monthly, TF vs. c-Si

Reminder:
Desert conditions

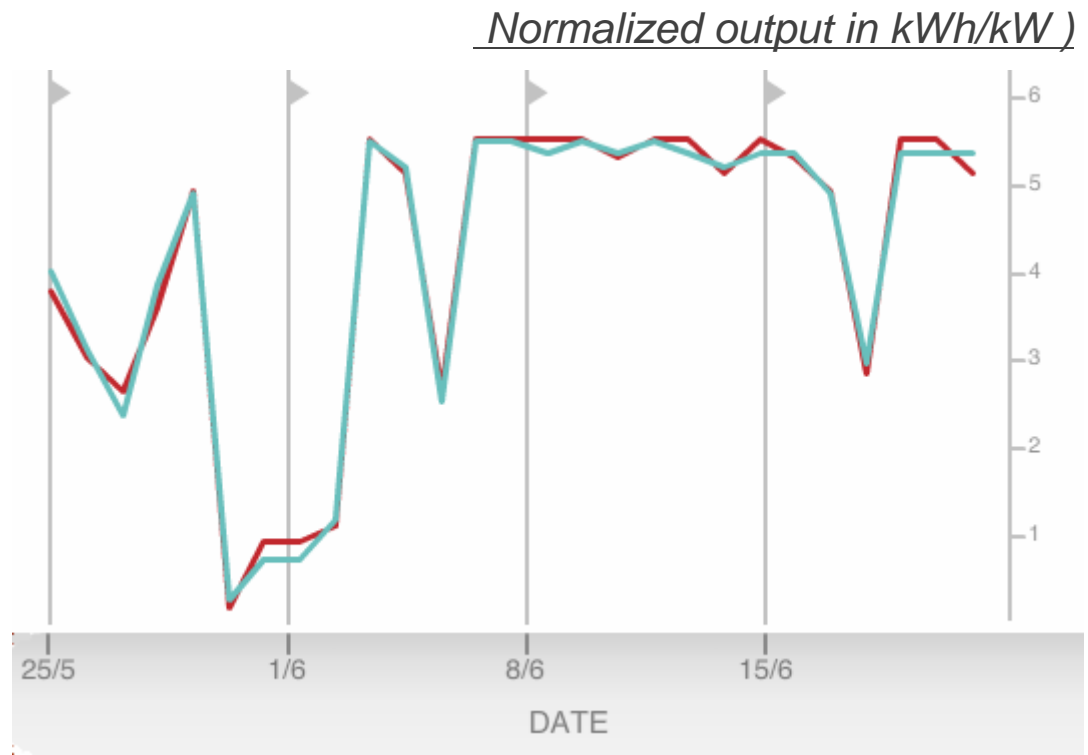
Large scale dual axis tracking arrays

- Trina Solar 175Wp Mono c-Si
- Phoenix 70Wp CdTe

Average daily energy output
(in kWh/kW)

Week	Trina	Phoenix
May 25	2.52	2.52
June 1	4.00	3.96
June 8	5.43	5.39
June 15	4.89	4.90

At lower temperatures, c-Si performs better than TF



Dual Axis PV Tracker, Weekly

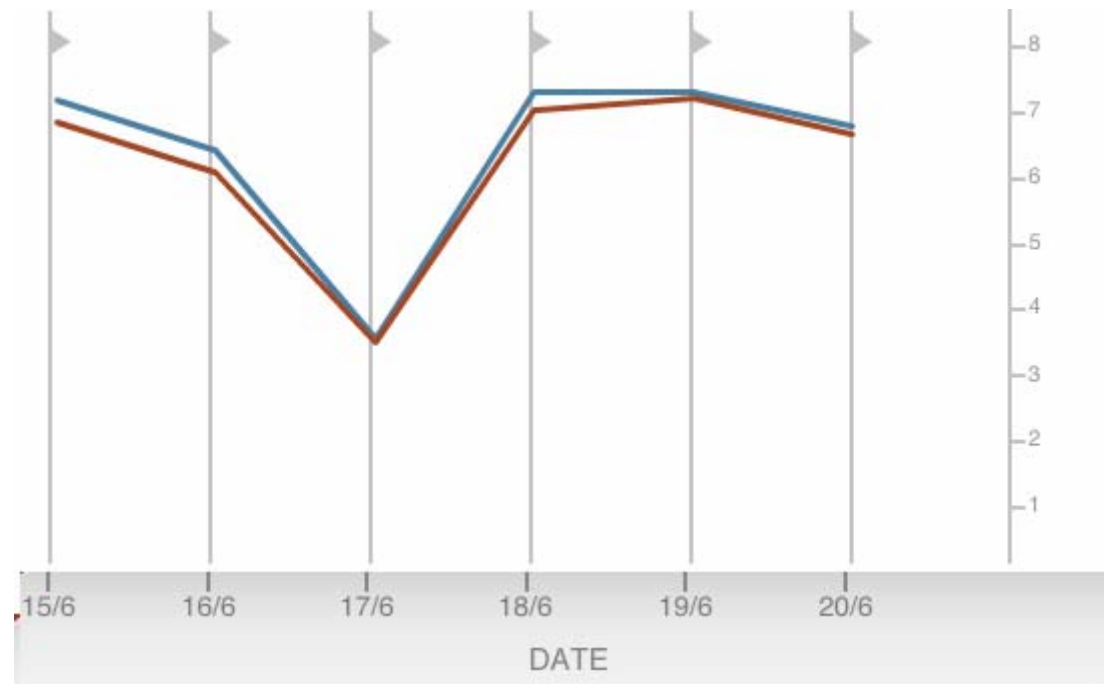
Large scale dual axis tracking arrays

- Trina Solar 175Wp Mono c-Si
- Kyocera 135Wp Multi c-Si

Average daily energy output
(in kWh/kW)

Day	Trina	Kyocera
6/16	6.8	6.48
6/17	5	4.81
6/18	5.44	5.28
6/19	7.06	6.94

Normalized output in kWh/kW)



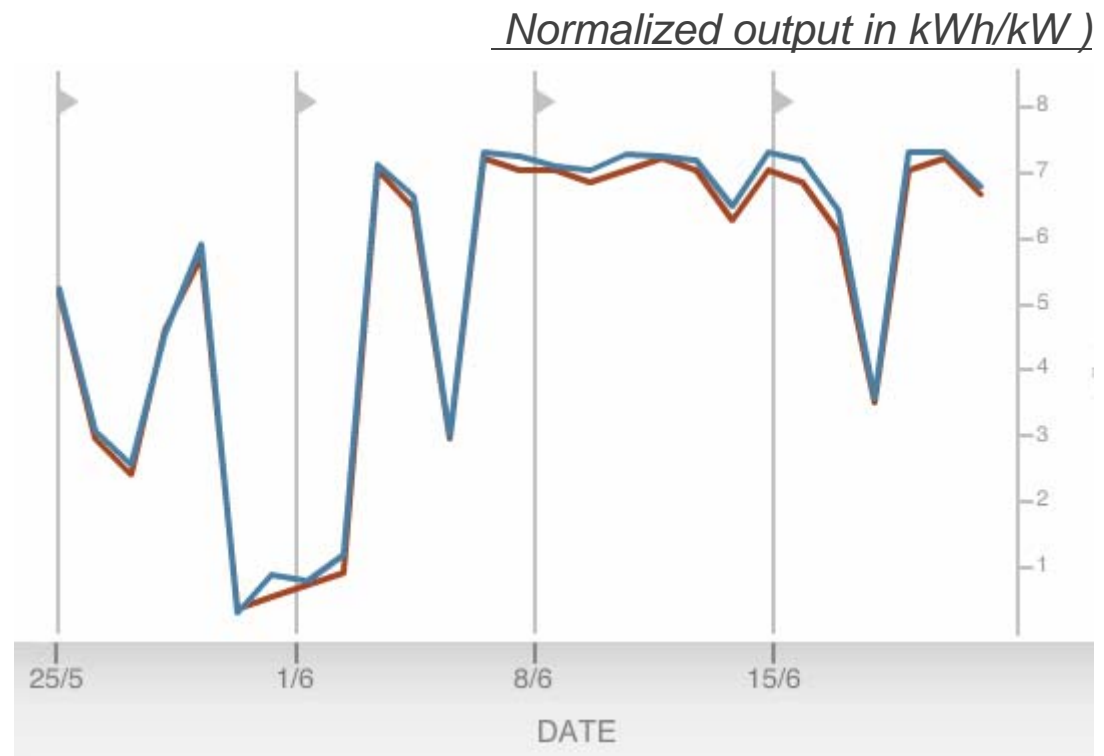
Dual Axis PV Tracker, Monthly

Large scale dual axis tracking arrays

- Trina Solar 175Wp Mono c-Si
- Kyocera 135Wp Multi c-Si

Average daily energy output
(in kWh/kW)

Week	Trina	Kyocera
May 25	2.93	2.82
June 1	5.06	4.93
June 8	7.11	6.92
June 15	6.43	6.23





Trinasolar

The power **behind** the panel
