
2008 Solar Annual Review Meeting

Session: CSP Trough

Company or Organization: Acciona Solar Power

Gilbert E Cohen – Senior Vice President

Gilbert.cohen@accionasolarpower.com



FY08 Progress Report



Acciona Solar Power is continuing the development and commercialization of parabolic trough throughout the NREL/DOE collaboration started some years ago.

In previous subcontracts several Solar Components were developed and are now successfully implemented in Nevada Solar One as well as four other parabolic trough projects.

Example of successful components development:

- Space frame design
- Hydraulic Drive System
- Solar Field Control Systems

➤ In 2008 the main focus is to improve and reduce the cost of proven components and systems previously developed.



Future R&D Activities



1. FY09 Planned Activities

- a) Follow-on efforts
- b) Develop and Implement **Thermal Storage Systems**



Nevada Solar One



A Brief Update - April 22, 2008

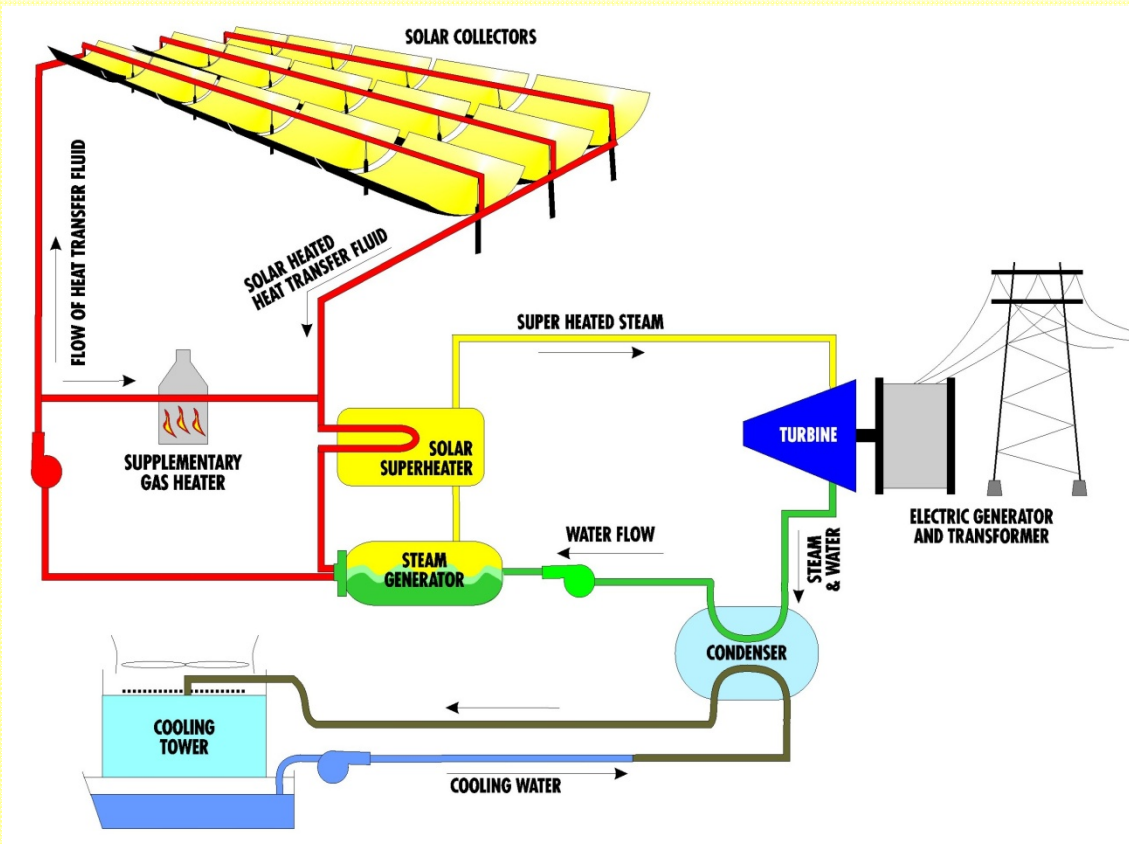


PROJECT OVERVIEW

NSO Characteristics



SOLAR FIELD	
Solar Collector Assemblies	760
Aperture Area (m/ft)	5/16
Aperture Area (m ² /sq. ft.)	470/5059
Length (m/ft.)	100/328
Concentration Ratio	71
Optical Efficiency	0.77
# of Mirror Segments	182,400
# of Receiver Tubes	18,240
Field Aperture (m ²)	357,200
Site Area (Km ² /acres)	1.62/400
Field Inlet Temperature (°C/°F)	300/573
Field Outlet Temperature (°C/°F)	390/735
POWER BLOCK	
Turbine Generator Gross Output	75 MWe
Net Output to Utility	72 MWe
Solar Steam Inlet Pressure	86.1 bars/1248.8 psi
Solar Steam Reheat Pressure	19.5 bars/282.8 psi
Solar Steam Inlet Temperature	371°C / 700°F



The solar thermal industry and especially the Concentrating Solar Power industry are being developed worldwide in a rapid pace, this should attract more large manufacturers to consider the production of solar field components at attractive costs.

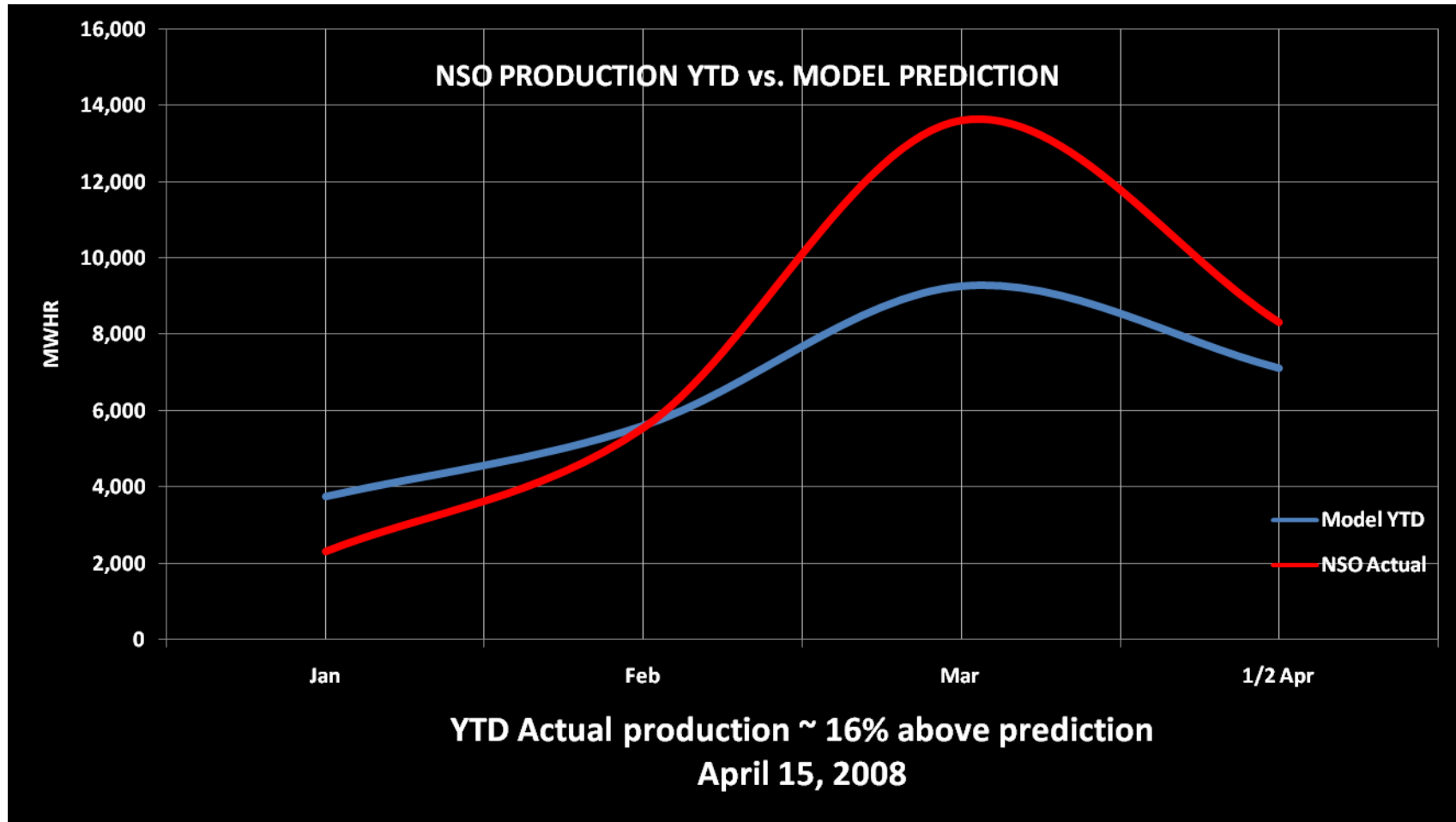


2008 Solar Annual Review Meeting

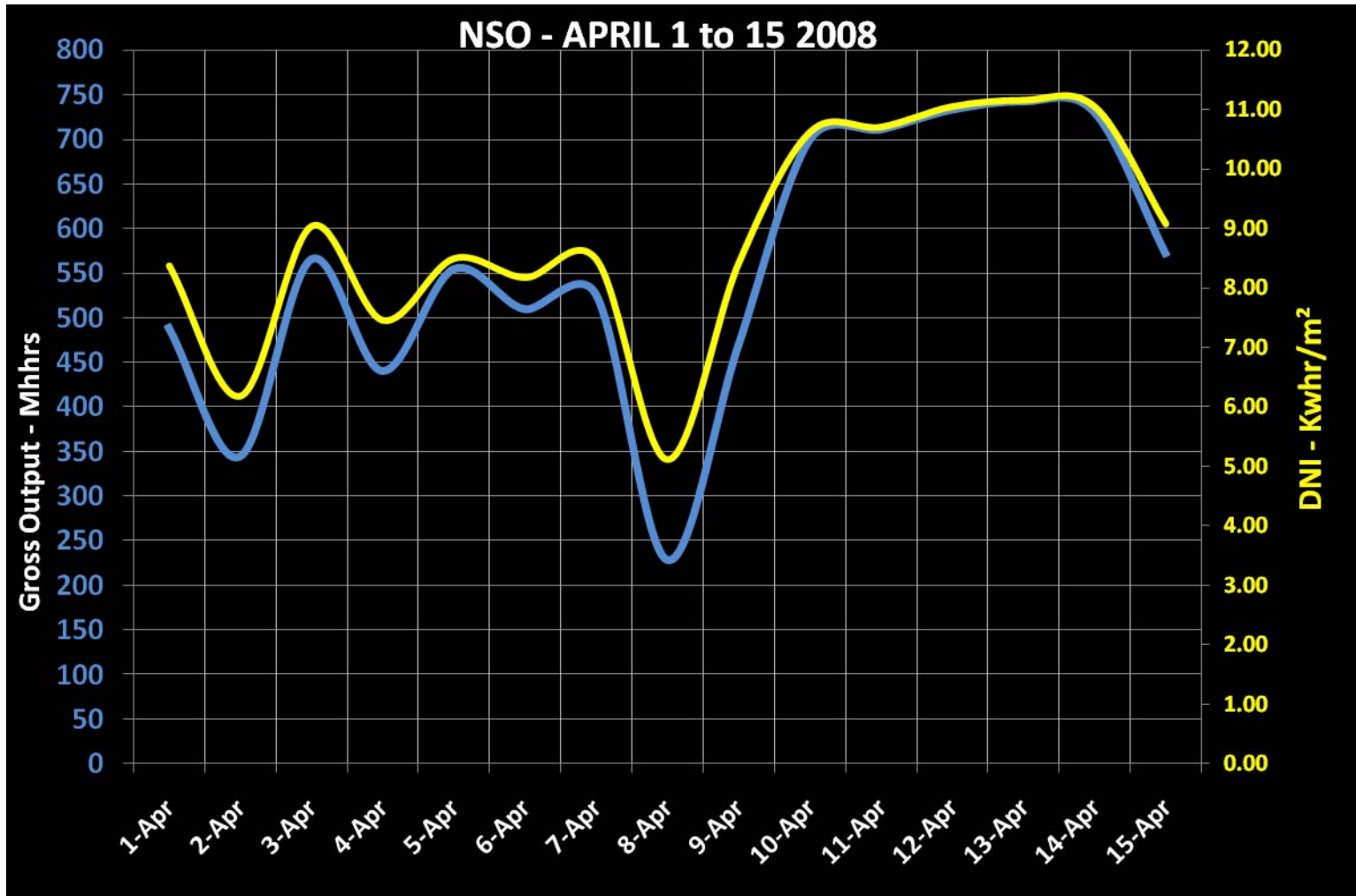


NSO PLANT PERFORMANCE

2008 Solar Annual Review Meeting



2008 Solar Annual Review Meeting

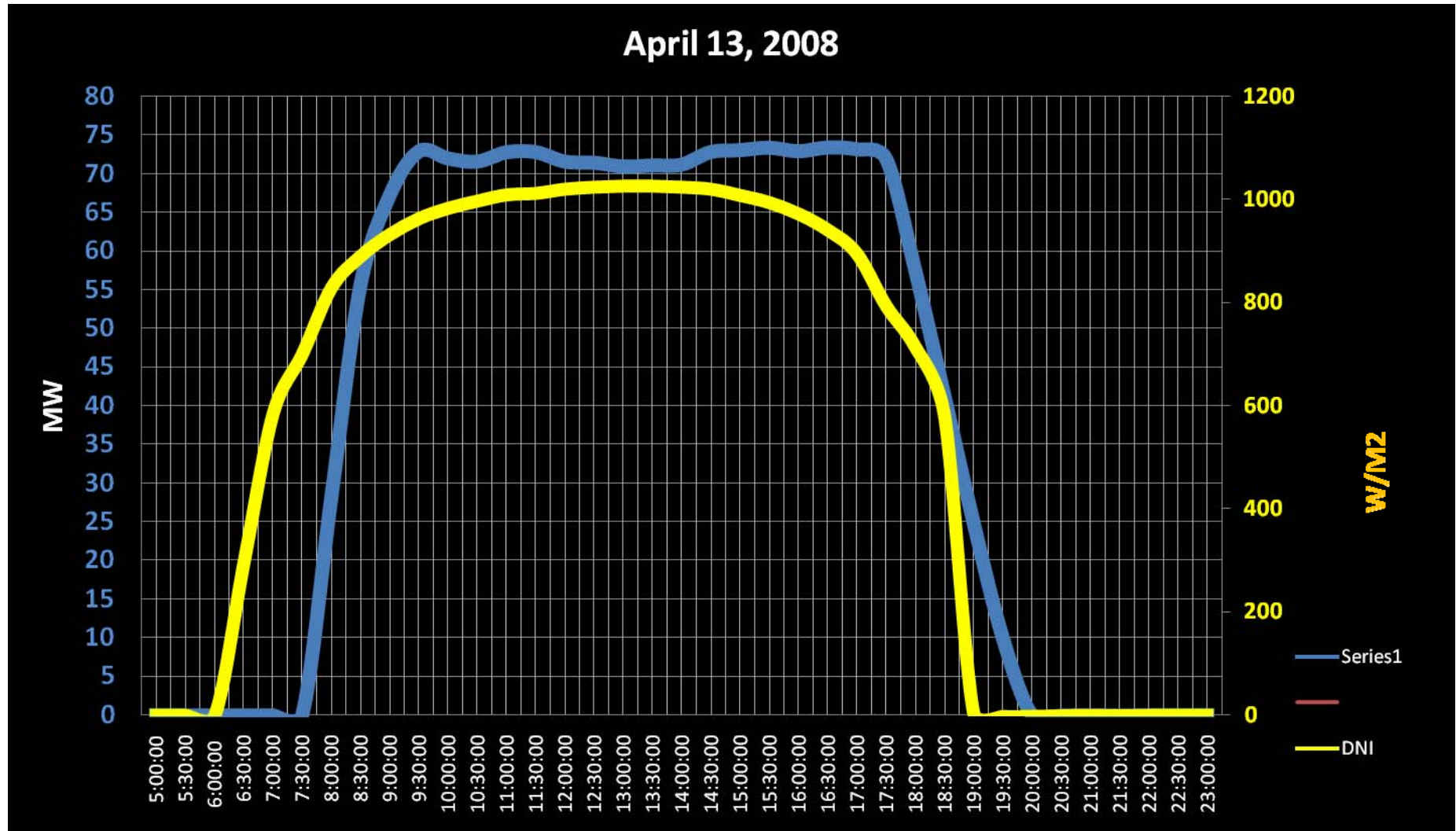


SOLAR Field		
Tracking	Availability	
Total	Total	
%	%	
100.0%	100.0%	1-Apr
100.0%	100.0%	2-Apr
99.9%	100.0%	3-Apr
100.0%	100.0%	4-Apr
100.0%	100.0%	5-Apr
100.0%	100.0%	6-Apr
100.0%	100.0%	7-Apr
99.5%	100.0%	8-Apr
100.0%	100.0%	9-Apr
99.7%	100.0%	10-Apr
100.0%	100.0%	11-Apr
100.0%	100.0%	12-Apr
100.0%	100.0%	13-Apr
100.0%	100.0%	14-Apr
100.0%	100.0%	15-Apr

April Average Daily Production = 554 MWhe
 Maximum Hourly Production = 73.4 MW



2008 Solar Annual Review Meeting



April 13, 2008 Production = 742.6 MWh





THANK YOU

