Trough Workshop
Project Plan for
Plant and Process Design

August 16-18, 1999

Technology Overview/Status

- *Multiple Power Cycle Options*
  - *SEGS - Rankine Steam Cycle*
  - *ISCCS - augmenting CCGT bottoming cycle and GT steam injection*
  - *STORES - Organic Rankine Cycle*
  - *SEECOT - Absorption Cooling of GT inlet air and GT steam injection*

Plant and Process Design Objectives

A - Develop baseline data

B - Develop improved process modeling capability.

C - Assess alternative trough plant designs for new market applications.

Activities

- Develop baseline data
  - SEGS Design
    - Cost/performance/risk
    - Build on experience at SEGS
  - Improved understanding of market requirements
    - database of market requirements

Activities

- Develop improved process modeling capability.
  - Develop and validate performance models for systems
    - storage
    - alternative power cycles

Activities

- Assess trough plant designs for expanded market applications
  - Create small modular system design with storage
    - 5-10MWe trough system
  - Hybrid Systems (fossil/renewables)
  - Optimization of Solar Only Plants
  - Tie into EU DSG activities