



PROJECT STATUS REPORT FORM

Project Number: RDG-06-21	Task Force: REDGTF
Title of Project: Solar-enhanced Fuels for Electricity and Transport	
Lead Partner Country: Australia	
Participating Partner Countries and Organizations: Tokyo Institute of Technology, Japan.	
Project Location (Country, State/Province, City): Australia, NSW, Newcastle	
Project Manager Information Name: Wes Stein Organization: CSIRO Address: 10 Murray Dwyer Cct, Mayfield West, NSW 2304 Phone: +61 2 49606126 Fax: +61 2 49606111 Email: wes.stein@csiro.au	
Project Start Date: 24/06/2008	Date of Project Status Update: October 2009
Actions Since Last Update: - CSIRO has installed it's 200kW reformer reactor onto the solar tower in Newcastle, Australia. Reactor characterisation tests are currently underway, subsequent additions to the gas processing over the next two months will allow for operation of a fully functioning facility. - The Design and Costing Study of the planned 5 tower scale facility has now been completed by contracted company, WorleyParsons. This study examined 5 process scenarios, ranging from no SolarGas storage to large storage options with subsequent electricity production using gas mixtures from 100% SolarGas to 100% natural gas. The most cost effective process would be to integrate the SolarGas Facility with an existing gas turbine system. Extra funds are currently being sought to fund the complete construction costs. - CSIRO and Arrow Energy exchanged letters of intent in December 2008 to work towards the refinement of scope and financing for a project of approximately 1 MWe. - CSIRO has also received commitments from Queensland Government to fund the project for \$7.5M if CSIRO and its partners are able to fund the completion of the project. - The project's Japanese partner, Tokyo Institute of Technology, has completed the construction and commissioning of it's bench scale rotary reactor. - Prof. Tamaura and Prof. Takahashi of Tokyo Institute of Technologies visited CSIRO Newcastle during March 2009 and presented the results of the bench scale rotary reactors test program. Planning for the installation of this reactor onto CSIRO's tower is now underway, the tests are planned for August 2009.	



Deliverables Since Last Update:

- Reactor installed onto Solar Tower in Newcastle.
- Complete agreements with Queensland Government and industry partner.
- Finalize test program and funding agreement with TIT so they are able to operate their rotary reactor on CSIRO's Solar Tower.

Date Completed:

Milestones Reached:

- Heliostat specifications and optimum field design completed
- Completed catalyst screen program
- New Scaled-up prototype reactor design completed and fabricated
- Draft terms of reference for the Project Reference Group have been established

Next Steps:

1. Modify gas processing system to accommodate the greater gas flow rates
2. Select members for Project Reference Group

Once the strategies have been finalised and agreed, the model development process can proceed.

Proposed Project End Date: 31/12/2011

Project Already Complete: ☐ Yes ☒ No

Other Information: Delays in the final submission of the Design and Costing Study has resulted in delays with the planning of the Multi Tower Facility. Signing an agreement with another industry party is expected soon, this will allow for rapid progress in the planning and construction of the Multi Tower Facility.