Proposal Requirements ***(due by 5:00pm February 10th, 2014)***

**Title: NSF/DOE Solar Hydrogen Fuel: remainder of project title**

**Format for all documents: Times New Roman (11 pt. font or larger) or Arial (10 pt. font or larger); 8.5 x 11 inch paper, single spaced; 1 inch margins around, no more than six lines per vertical inch**

Content:

1. Project Summary (4600 characters max; 3 separate topics)
   1. Project title
   2. PIs and senior personnel listed with affiliations
   3. **Overview** - describe activity that would result if awarded; objectives and methods to be employed
   4. **Intellectual merit** - describe the transformative nature of the proposed research and the potential to advance knowledge
   5. **Broader impacts** - describe the potential of the proposed activity to benefit society and contribute to the achievement of specific, desired societal outcomes; especially the impact on solar-to-hydrogen conversion efficiency

1. Project Narrative (15 pages max; 3 subsections)
2. **Proposed Research** - include objectives and significance; relevance to current literature; a research plan with approaches and methodologies to achieve goals; expected synergy outcomes
3. **Results from Prior Research** - describe prior research of PI and co-PIs funded by NSF or DOE that is directly relevant to the proposed project (include award number, project title, duration, funded amount, intellectual merit of research and broader impacts)
4. **Impact** - end the narrative with a section that describes the fundamental research contributions as well as the technological impact of the proposed effort
5. References cited - indicate with an asterisk any cited publications that resulted from prior research funded by NSF or DOE for the PI or co-PIs
6. Bio (one document per PI)
7. C&P (one document per PI) – for grants that are related, a short description must be provided to allow for evaluation
8. Budget - must include travel for at least one PI to attend DOE's Annual Merit Review in Washington, DC, and up to two additional technical meetings, including the NSF CBET Division Annual Grantee's Meeting in Washington, D.C., and an appropriate technical conference
9. Budget justification
10. Facilities document – include all facilities and equipment available and relevant to the project (also include comments, under “Other Resources”, about Dr. x’s contribution to the project since he will not be receiving salary support)
11. Data management plan – describe the means of sharing the outcome of the research with the scientific and engineering communities including but not limited to publications, web sites, and significant data bases, etc. The description should be specific and describe what, how, and when the community will have access to the results. (2 pages max)
12. Post doc mentoring Plan (1 page max)
13. Key Personnel involved – list of personnel key to the project; describe the qualifications of each person and how they uniquely contribute to the project; describe how personnel are integrated to produce positive synergies. (2 pages max)
14. Management plan - include the means of communication and coordination, how will the data be tracked or managed within the group; management of intellectual property resulting from the project, and timeline of activities. (3 pages max)
15. Metrology statement - proposals involving metrology components must include a description of how the uncertainty in, and repeatability of measured data will be determined and reported. Similar elements of validation, verification and uncertainty quantification must be provided for proposals that include numerical simulations. (2 pages max)
16. COI document – an alphabetized list of the full names and institutional affiliations of all people with conflicts of interest for all senior personnel (PI and co-PIs) and any named personnel whose salary is requested in the project budget. Conflicts to be identified are: (1) Ph.D. thesis advisors and advisees, (2) collaborators and coauthors, including post-doctoral researchers, during the preceding 48 months, and (3) any other individuals with whom, or institutions with which, the investigator has financial ties (please specify type of ties).