



**2ND ANNUAL MEETING**  
**JULY 1 – 3, 2013**  
**TELLURIDE, COLORADO**

**SUNDAY, JUNE 30**

6:00 pm Information Group Gathering – Arroyo Wine Bar  
*220 E Colorado Ave*

**MONDAY, JULY 1**

8:00 am Breakfast at the meeting site  
*Telluride Intermediate School, 2nd Fl., 725 W. Colorado Ave*

9:00 am Welcome, Introductions

9:20 am SOFI: Update, Process, and Meeting Outcomes

9:45 am Coffee Break

10:00 am Core Science Summaries and Deep Dive – Part One

12:00 pm Group lunch at the meeting site

1:00 pm Core Science Summaries and Deep Dive – Part Two

2:45 pm Coffee Break and Discussion

3:00 pm Exchanges and Technical Working Groups

4:30 pm Cohort Breakout Session to develop Exchanges

5:30 pm Cocktails on Rustico patio

6:00 pm Seated Dinner at Rustico (\$50 prix fixe)  
*114 East Colorado*

**TUESDAY, JULY 2**

9:00 am Group hike up Bear Creek

12:00 pm Group lunch at the meeting site

1:00 pm Government and Public Policy

2:00 pm Coffee Break and Discussion

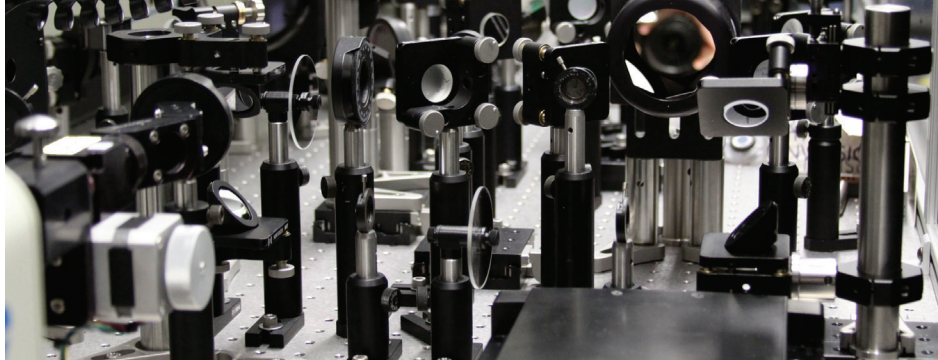
2:15 pm Industry Outreach

3:00 pm Philanthropy and Foundations

3:30 pm Knowledge Map

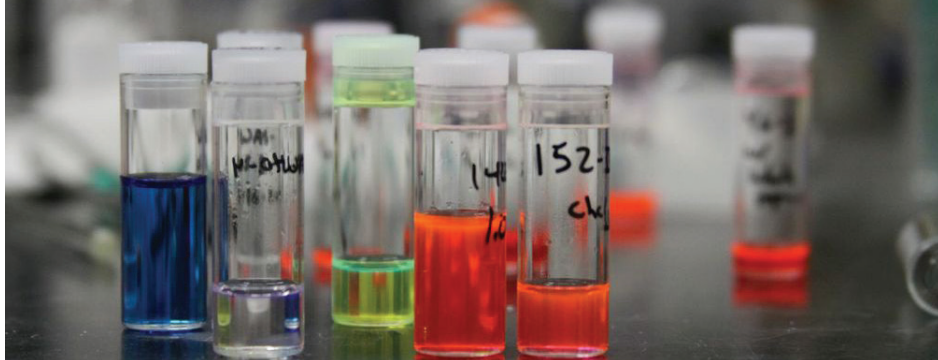
6:00 pm TSRC Town Talk at Sheridan Opera House – SOFI “Solar 2.0”  
*110 N. Oak St.*

8:00pm Private Dining Room at Cosmopolitan Restaurant (\$50 prix fixe)  
*300 West San Juan Avenue*



**WEDNESDAY, JULY 3**

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|----------|---|
| 8:00 am  | Breakfast at the meeting site                 |
| 9:00 am  | Tri-State Carbon XPrize and CO2 Asset Network |
| 10:30 am | Coffee and Discussion                         |
| 10:45 am | Roadmapping - Milestones                      |
| 12:00 pm | Group lunch at the meeting site               |
| 1:00 pm  | Roadmapping - Milestones                      |
| 2:00 pm  | Coffee break and discussion                   |
| 3:00 pm  | Exchange Projects: Update, Call for New Ideas |
| 4:00 pm  | Meeting Summary                               |
| 6:00 pm  | TSRC Picnic                                   |
|          | Ah Haa School                                 |
|          | 300 S. Townsend                               |



What if we could harness our collective ingenuity to solve one of the world's intractable challenges? Faced with a bleak future of fossil fuel dependence and its environmental fallout, we need to fundamentally rethink how we deploy the intellectual fire-power of our research institutions toward meeting the energy needs of the 21st century without sacrificing the health of our planet. As with other global challenges, the key to solving this one is unlikely to reside within any single academic discipline, institution or even country.

The Solar Fuels Institute (SOFI), a global consortium of university and government research labs under the umbrella of Northwestern University was created with two goals in mind:

- Develop and commercialize a cost-effective, scalable and sustainable liquid solar fuel, using a process much like natural photosynthesis. Solar fuels technology offers enormous potential to supply near-term fungible fuels that will enable industry to take advantage of existing infrastructure while delivering a clear path toward carbon-neutral energy over the next decades.
- Create a collaborative platform for scientists, engineers and others to share knowledge with each other. Applying fresh thought to the capturing, curating and accessing of data, SOFI is building a knowledge map that will aggregate research activities (electronic lab notebooks), publication and IP data, techno-economic analyses, policy findings, market trends and insights and intellectual contributions by our members. The knowledge map will have the added benefit of cost-reduction through reduced redundancy and will promote a more strategic and transparent allocation of scarce resources by highlighting those technologies with most promise.

#### SOFI founding members are:

Northwestern University, Uppsala University (Sweden), Rutgers University, Arizona State University (BISFuel – EFRC), Max Planck Institute for Chemical Energy Conversion (Germany), Weizmann Institute of Science (Israel), Joint Center for Artificial Photosynthesis (DOE Hub), Argonne National Laboratory, CEA-Grenoble (France), Brookhaven National Laboratory, and Pacific Northwest National Laboratory. We are in discussion with other institutions, as well.

SOFI's role is to bring direction and focus to our process, first as an academic-led initiative and then as an incubator of commercially-driven spin-out technologies. We see our primary tasks as follows:

- Identify those technologies most likely to find commercial purchase by inviting industry partners to explore SOFI research and establish milestones on the road to translational development.
- Bridge the "valley of death" between basic research funding, largely the domain of governments and philanthropy and later stage technology investment, attractive to industry and venture capital by exploring innovative ways of financing translational research such as prizes ( an XPrize or one established by the DOE), public/private partnerships and alternative funding models.
- Overcome an entrenched academic culture that measures success by the number of papers published in prestigious journals, by partnering with funding agencies in changing performance metrics.
- Create a collaborative platform that allows for and encourages the pooling of resources and sharing of knowledge among research labs and industry.

We see the DOE and the other government agencies such as ONR and DARPA as critical partners in the ultimate success of SOFI and would like to propose the convening of a roundtable discussion over the next few months with industry, academic, and government partners to gain insight on how SOFI's strategy might be improved through the following steps:

- Develop industry-driven milestones, transparent accountability standards and quantifiable goals directed toward societal rather than purely scientific outcomes.
- Establish a home for solar fuels technology within ARPA-E with its own program director. This PD would be a partner with the researchers in developing the technology rather than a scorekeeper.
- Cultivate domestic and international strategic partners.
- Explore additional funding sources

We acknowledge the complexity of such an undertaking and recognize the many commercial, institutional, political and even behavioral hurdles to meaningful progress. But we believe the stakes are high and the time is ripe to learn from past failures and embrace new innovative ways of addressing this great challenge.

1	Agarwal	Arun	DNV
2	Andrew	Anne	US Ambassador to Costa Rica
3	Artero	Vincent	CEA-Grenoble, FR
4	Badr-El-Din	Amin	SOFI Board Member
5	Birnie	Dunbar	Rutgers
6	Brudvig	Gary	Yale University
7	Budhavarapu	Rajsekhar	IL&FS
8	Co	Dick	SOFI
9	Chang-Diaz	Franklin	AdAstra
10	Dukovic	Gordana	Univ of Colorado at Boulder
11	Edmonds	Karina	Caltech
12	Fujita	Etsuko	Brookhaven National Lab
13	Gust	Devens	Arizona State University
14	Hammarstrom	Leif	Uppsala University, SWE
15	House	Ralph	UNC Chapel-Hill
16	MackKerrow	Edward	New Mexico Consortium
17	McDonald	Meg	Northwestern University
18	Meyer	Gerry	Johns Hopkins
19	Muckerman	Jim	Brookhaven National Lab
20	Neale	Virginia	Northwestern University
21	Royea	Will	Joint Center for Artificial Photosynthesis JCAP
22	Schneider	Jon	SOFI
23	Spiers	Jim	Tri-State Generation and Transmission*
24	Stechel	Ellen	Arizona State University
25	Van Der Boom	Milko	Weizmann Institute, ISR
26	Wasielewski	Mike	Northwestern University
27	Williams	Kimberly	SOFI
28	Woodard	Joan	SOFI Board Member