



CCST

COUNCIL

2.16.17

**SUSAN
HACKWOOD**



Summary of Recent Actions (1)



- Projects:
 - Viability of Natural Gas Storage Facilities: **contract signed with CPUC**
 - Biomethane Heating Values: **negotiating contract**
 - SB 1281: **working with DOGGR on proposal**
 - Water Information Systems: **workshop completed**
 - Makerspace: California Community Colleges Project: **continuing**



Summary of Recent Actions (2)



- CaITAC: focusing on how STEM teachers can become effective, impartial voices in public policy
- Lab Affiliates: meeting with Governor, developing impact report
- S&T Policy Fellows
 - 2017 Fellows: placed in legislative offices
 - Alumni: active and hosting many events
 - State Replication: 9 grants awarded to other states
- Communications & Public Relations
- Upcoming 30th anniversary for CCST, 10th anniversary for Policy Fellows



Viability of Natural Gas Storage (NGS) project

- The governor proclaimed a state of emergency on 1/6/16 related to the Aliso Canyon natural gas storage facilities leak.
- To address the issue, CPUC, the State Energy Resources Conservation and Development Commission, the State Air Resources Board, and the Division of Oil, Gas, and Geothermal Resources within the Dept. of Conservation asked CCST to undertake a technical assessment of the 13 natural gas storage fields in California.
- The assessment will include a broad review of the potential health risks and community impacts, along with the linkages between gas storage and California's greenhouse gas reduction goals.



Viability of Natural Gas Storage (NGS) project

The study will seek to answer three questions:

1. What are the operational safety, health impacts, and methane emission issues and risks at California's gas storage facilities?
2. What is the current relationship between gas storage and energy supply reliability?
3. What gas storage facilities and other gas infrastructure will likely be required in the future and as the state's greenhouse gas goals are met?




Viability of Natural Gas Storage (NGS) project

- As of 1/10/17, we are under contract with the CPUC for this study which is due **12/31/17**. We have submitted a finalized scope of work for our phase 1 deliverable.
- Co-chairs: CCST Member Jane Long and LBNL Division Director of the Energy Geosciences Division Jens Birkholzer
- Currently we are working through conflict of interest evaluations and expect to have the steering committee in place by March. Researchers have already begun work.
- This is a large (\$2.5M) project. We are following procedures developed for the hydraulic fracturing reports in 2015.



Biomethane Heating Values



- **SB 840** requests CCST to complete a study analyzing minimum heating value and maximum siloxane specifications for the delivery of biomethane to public gas pipelines and their impacts to cost, volume, equipment operation, and safety.
 - CPUC is the lead agency. **While we expected to be in contract at this point, contract negotiations have stalled.** Upon approval of a contract, we will have nine months to complete the study.
 - We are in discussions with Adam Brandt, Dept. of Energy Resources Engineering at Stanford, to serve as lead scientist.
 - Currently we are finalizing the scope of work and hosting conference calls with potential steering committee members.
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Water Used and Produced During Oil and Gas Drilling

- CCST's report to satisfy the requirements of **SB 4** recommended that the state collect data on water in the petroleum industry in general.
- **SB 1281** has started the important work of increasing knowledge of water use, production, storage, treatment, and disposal in the oil and gas industry.
- Although not yet funded, CCST has proposed an early assessment of the data collection required by SB 1281.



CCST, partnering with the Department of Water Resources and UC Water, hosted a water data management workshop on February 9th in Berkeley. The goals were:

- Articulating who needs what data in what form to make decisions
- Defining key attributes of a comprehensive water data information system
- Developing a process that identifies broader water-data needs of all potential users

This project is not yet funded.



The CCCCO is setting up a network of maker spaces at community college campuses, using CCST's report to inform its design.

This is the largest effort in the country, involving 35 community colleges and with a budget of \$17M.

CCST will continue its work with the CCCMaker Initiative through 2019.

CCST will continue to provide relevant information at the local, state, and national level; develop and deliver workshops and symposia; and connect makerspace efforts to important related efforts, including university and federal laboratory resources, and K-12 STEM teachers.

- CCST Staff attended the 1st International Symposium on Academic Makerspaces in November at MIT
- Meeting brought together over 300 professionals from 115 universities
- CCST will present a webinar to CCC Maker colleges in late February to share highlights





CaITAC has now teamed with the National Academies Teacher Advisory Council – planning joint activities on STEM teacher shortages and bringing the voice of excellent teachers to policy makers.

Next month we will have a joint CaITAC/NTAC session at the National Science Teachers Assoc. Meeting in LA to build a program and network that will help teachers:

- **IDENTIFY** the roles of different actors in the policymaking process
- **IDENTIFY** the differences between *impartial advice* and *advocacy*
- **KNOW WHO TO ENGAGE** at NTAC, CaITAC, and other organizations to inform future programming

LABORATORY AFFILIATES



Laboratory Affiliates are in the final stages of designing and producing a report on the enormous economic impact of the Labs in California.

Report will be presented in the Spring in concert with the Inaugural Labs Day at the Capitol.

For the first time, leadership from each of the Laboratory Affiliates had lunch at the Governor's Mansion on February 15.

LABORATORY AFFILIATES





2016 CALIFORNIA-CHINA TRADE MISSION

10 DAYS

6 CITIES

8,750 MILES

6 PLANES

4 HIGH SPEED TRAINS

3 ELECTRIC BUSES

@BrookTaylorCA



- 6 Cities: Beijing, Guangzhou, Shenzhen, Nanjing, Zhenjiang, Shanghai
- 20 Delegates from state agencies, trade organizations and clean tech businesses
 - Diplomatic meetings to provide update on California-China MOU
 - Business to business match-making to ID potential business opportunities





SCIENCE & TECHNOLOGY POLICY FELLOWS

SCIENCE & TECHNOLOGY INFORMING POLICY



Welcome, 2017 Fellows!



SCIENCE & TECHNOLOGY POLICY FELLOWS

SCIENCE & TECHNOLOGY INFORMING POLICY



November 1, 2016 marked the beginning of the 8th year of our S&T Policy Fellows Program.

The newest Fellows are:

- **Jen Chase** (Assembly Committee on Privacy and Consumer Protection)
 - **Julianne McCall** (Senate Office of Research)
 - **Laura McWilliams** (Assembly Committee on Utilities and Energy)
 - **Bao-Ngoc Nguyen** (Senate Committee on Health)
 - **Biswajit (Bish) Paul** (Assembly Committee on Elections and Redistricting)
 - **Mike Peterson** (Senate Committee on Natural Resources and Water)
 - **Anna Reade** (Senate Standing Committee on Environmental Quality)
 - **Mikel Shybut** (Senate Committee on Transportation and Housing)
 - **Kristin Warren** (California Legislative Black Caucus)
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- Applications due February 28 for 2018 Fellows-Please help spread the word!



SCIENCE & TECHNOLOGY POLICY FELLOWS ALUMNI

SCIENCE & TECHNOLOGY INFORMING POLICY



Fellows Alumni (now over 70) continue to excel in their careers in the Capitol, DC, and throughout the country.

Many are still engaged with CCST. They have representatives serving on the CCST Development Committee, Fellows Advisory Committee, and Fellows Selection Committee and CCST staff.





SCIENCE & TECHNOLOGY POLICY FELLOWS ALUMNI

SCIENCE & TECHNOLOGY INFORMING POLICY



Each current Fellow has now been assigned an official alumni mentor. Recently, alumni co-hosted a networking event with the Capital Fellows Alumni Association and are planning an alumni dinner in Boston during the AAAS meeting. They are also beginning a monthly seminar, to feature prominent Sacramento area scientists and policymakers.





SCIENCE & TECHNOLOGY POLICY FELLOWS

SCIENCE & TECHNOLOGY INFORMING POLICY



Serving as a National Model

Currently CCST, in partnership with the Gordon and Betty Moore Foundation and the Simons Foundation, is providing multiple grants of up to \$25K to states interested in exploring the possibility of establishing a state-level science and technology policy fellowship similar to ours.

There will be an awardee workshop entitled “Science Supporting Policy at the State Level” at the 2017 AAAS Annual Meeting in Boston on Sunday, Feb. 19th.



SCIENCE & TECHNOLOGY POLICY FELLOWS

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Serving as a National Model

Awardees:

Alaska

Colorado

Connecticut

Idaho

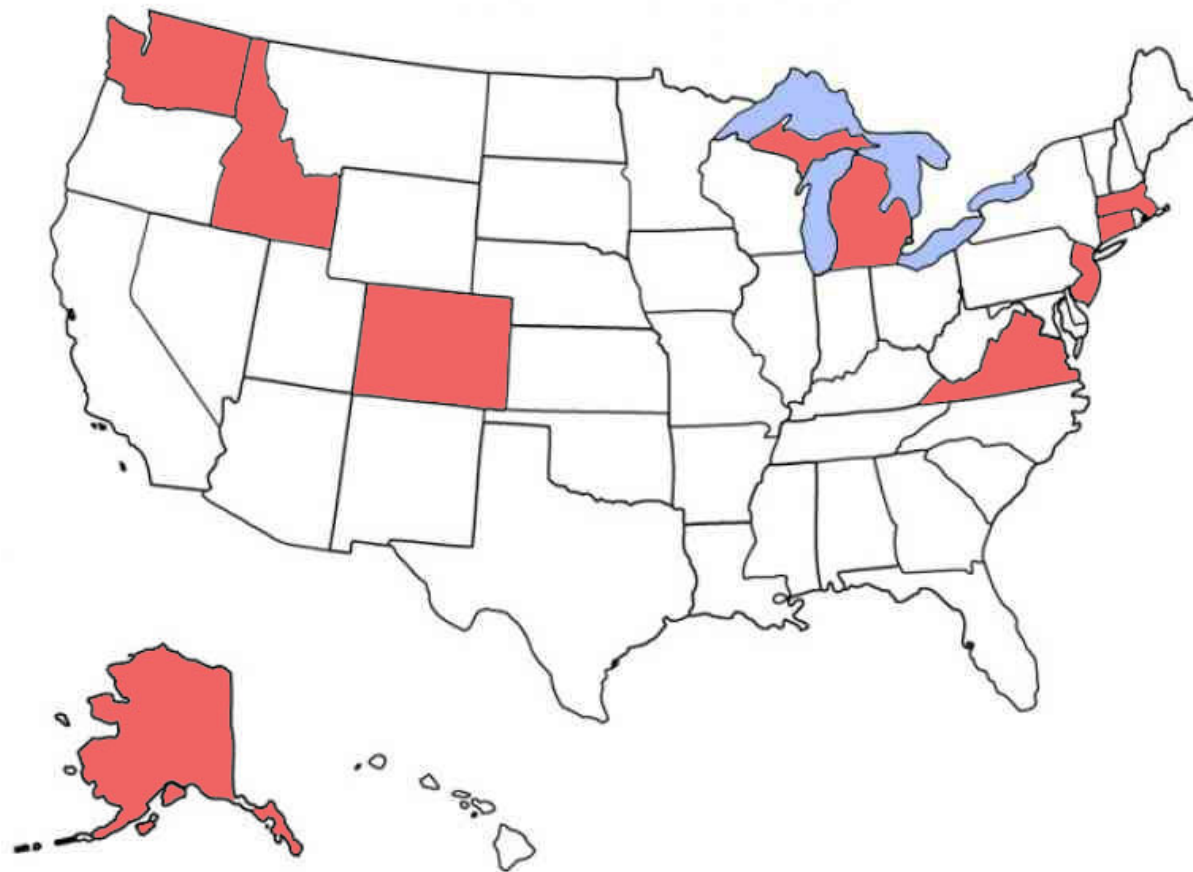
Massachusetts

Michigan

New Jersey

North Carolina

Washington





**SCIENCE & TECHNOLOGY
POLICY FELLOWS**
SCIENCE & TECHNOLOGY INFORMING POLICY



Sustainability

2016 Highlights

- Over \$600,000 in new gifts
- Actively worked in new markets around the state
- CCST network providing referrals to science and technology philanthropists

2017 Major Gift Activity

Major Donor events in target markets:

San Francisco, Palo Alto, Los Angeles, San Diego

Referrals welcome and needed!



2017 CCST Major Gift and Annual Giving



Goal: Raise \$1.3M

- Identify **\$500K - \$1M** donors; personalized approach
- **Build \$10K - \$25K** level
- **Position CCST** among S&T thought leaders
- **Focus activity** in target markets

Goal: Plan 2018 Celebrations

- **CCST – 30th** Anniversary
- **Fellows – 10th** Anniversary

Communications and Public Relations

Under the guidance of consultant Ben Young Landis, CCST continues to grow our name recognition and to refine messages and branding.

Social media is being used for all our work.

Follow us on:

Twitter (@CCST Fellows, #AAASmtg, and @ccstorg)

Facebook (@CCSTFellows or @CCSTorg)

Medium (medium.com/@CCSTorg)

LinkedIn (Linkedin.com/organization/7574392/)



2017 Meeting Schedule:

May 2-3 JPL/Pasadena

October 11-12 San Francisco



**More information:
ccst.us**