

Clean Energy Finance Forum: Reading Group and Research Projects
Fall 2016 - Yale Center for Business and the Environment
3-credit reading group/independent study

Overview

This reading group/consulting project will be dedicated to exploring topical issues in clean energy finance identified through the [Clean Energy Finance Forum \(CEFF\)](#) and our partnership with the Coalition for Green Capital.

The reading group/independent study will include two components:

- Participation in a weekly discussion group exploring topics related to Green Banks in the news update that is produced twice a month, is read by 6,000 subscribers, and is the top-ranked English-language news source for professionals interested in learning more about energy efficiency and solar finance;
- Development of at least two detailed descriptions of Green Bank Transactions working with a team of 2-4 students and staff from the Coalition for Green Capital. These detailed, deep dive descriptions of a transaction or program operated by any Green Bank around the world will be developed as instructional materials for other institutions seeking to replicate success in their own markets.

As background on the Clean Energy Finance Forum (CEFF), Yale graduate students and recent alumni write for CEFF on a wide range of topics from distributed generation to property-assessed clean energy. The main objective of the publication is to inform finance professionals in the public and private sectors on the most important developments and news in energy efficiency and solar finance. Our reading material will align with this applied focus, and we will study news articles, reports, and interviews. Occasionally we will look at academic articles, but they will not form the bulk of our reading list.

Logistics

Participation in the group will be worth 3 credit of independent study, with a grade based entirely on completing the reading, showing up for discussion each week for an hour and the successful delivery of the defined research projects. The research projects will be composed of two to four graduate students.

Weekly schedule

- A one hour reading group discussion each week
- A weekly check in call with the alumni research lead
- 5-7 hours of independent/team research and reading per week

Initial organizing meeting - Wednesday, August 31st, 4:15pm in the CBEY Conference Room. At this meeting, we will go through the structure of the reading group, establish interests from the group in the independent studies and select the consulting projects that we will take forward for the semester.

Group leader

Stuart DeCew is the Program Director at the Yale Center for Business and the Environment. In this role, Stuart is responsible for overseeing the management, administration, strategy and development of the School of Management and the School of Forestry & Environmental Studies research, education and outreach programs in business and the environment.

Prior to his arrival at Yale, Stuart worked as the National Logistics Coordinator for the Bill Bradley for President Campaign and subsequently served as a Legislative Aide for a member of congress in Washington, DC. He then volunteered for the Peace Corps where he acted as a local governance consultant for municipal and provincial governments in Paraguay. After the Peace Corps, Stuart directed a non-profit campaign to promote sustainable land use practices in Florida. Directly before matriculating at Yale, he was the on-site producer in Cairo, Egypt for Pangea Day, an international documentary film festival sponsored by the TED Prize. Stuart graduated from the joint degree program at the Yale School of Management and the Yale School of Forestry and Environmental Studies in 2011 with a focus in corporate environmental management, energy efficiency and environmental marketing. Stuart holds a BA from the Colorado College in History.

Organization

The Coalition for Green Capital (CGC) is a 501(c)(3) non-profit that works at the international, federal, and state level to establish clean energy finance authorities or “Green Banks.” As the leading Green Bank advisory firm in the country, CGC partners with governments and local organizations to develop Green Bank proposals and help to implement clean energy finance and market development solutions. Green Banks, which use limited public resources to leverage greater private investment in clean energy, are flexible institutions aimed at rapidly accelerating the growth of clean energy markets.

As a consulting firm working at the intersection of policy, finance and economics, CGC helped to establish the nation’s first two Green Bank in Connecticut and New York. CGC went on to help create similar entities in California and Rhode Island, and is now working in Delaware, Nevada, Maryland, Vermont and other states to develop clean energy finance institutions. At least half a dozen states have expressed interest in developing similar institutions. At the federal level, in addition to leading Green Bank legislative initiatives, CGC is working across multiple agencies to identify federal dollars that can be used to capitalize Green Banks. At the international level, CGC is working closely with the OECD to drive their global Green Bank and green finance initiative, including composing publications and organizing international conferences. CGC is also working with the NRDC to form a new Global Green Bank Network to be a central hub of Green Bank know-how and connect industry stakeholders. Through its work, CGC has developed a vast network of partners and collaborators in government, law, finance and non-profits, which allows CGC to have a broad reach.

CGC was founded by Yale and Yale Law School alum, Reed Hundt, formerly chairman of the Federal Communications Commission. CGC's Executive Director, Jeffrey Schub, is a Yale SOM alum and serves on the advisory board of Yale's Clean Energy Finance Forum. Three other present CGC staff are also graduates of Yale FES & SOM. CGC is supported by foundation grants, which are supplemented by contracted work from state governments.

Project: Green Bank Transaction Research Project

The Coalition for Green Capital is embarking on two new significant projects, both of which rely on the collecting, curating and disseminating detailed information on present Green Bank activities. One project is the "Green Bank Playbook," which is a focused effort by CGC and the Connecticut Green Bank to produce a comprehensive "how-to" guide on Green Bank institutional design and operation, as well as transaction/deal structuring. Separately, CGC is also standing up the new Global Green Bank Network, in partnership with the NRDC, which will be the first Green Bank industry organization. It will be a member organization that shares best practices among Green Banks and makes Green Bank activity more visible to numerous stakeholders.

A core component of both projects is producing what CGC calls "plays" or "content modules" that describe specific Green Bank transactions. Each play is meant to be a detailed, deep dive description of a transaction or program operated by any Green Bank around the world, which will be instructive to other institutions seeking to replicate success in their own markets. Students will perform desk research and direct outreach, as necessary, to gather relevant details about the selected transaction, and produce a summary report. These reports will then be used as "plays" in the Playbook, posted as "content modules" on the new Knowledge Center that is part of the Green Bank Network website and used as the basis for future online educational programs on Green Banks through Yale.

Each "play" produced by a student should include the following information:

- The Problem – What is the market failure that a specific investment/program aims to fix?
- The Target Market – What is the technology and market sector at issue?
- Transaction Description – What was the actual structure of the transaction? What form of capital did the Green Bank provide? How much, and how much private capital was involved? What was the underlying credit and how was the project underwritten? What is the repayment mechanism (e.g PACE or on-bill)? How did money flow between parties? What role does the Green Bank play beyond financing (e.g. contractor training, market development)?
- The Process – How/why was the approach used by the Green Bank the one that was chosen? Why was the investment structure used better? What is the "story" of this transaction?
- The Outcomes – What was the result of this transaction? How much total investment? How much energy saved/produced? How many jobs? And, importantly,

what is the market transformation impact? Why does this deal have meaning beyond the specific investment of the Green Bank?

In addition to this written copy, each “play” should also include:

- A transaction schematic, or a chart that graphically shows the parties to the transactions, how the money flowed between them.
- Links to press releases, articles and other fact sheets so the author can review more related information as needed
- Primary documents, if they are available. This would include anything from PowerPoint presentations produced by the Green Bank describing the deal to actual contract documents and program guides.

Process

CGC staff will work with students to provide more detailed context on the project and select suitable transactions to focus on for research. CGC will go over the structure and desired content of plays before beginning research. And CGC will also review examples of existing “plays” so that students can more clearly understand the form, length and style of the “plays.”

The expectation is that each student should be able to produce two “plays” over the course of the semester. CGC staff will work closely with all participating students to identify which transactions will be easy/hard to research, guide them to relevant resources, and provide feedback on all content produced.

Topics

Week 1 (week of 9/5):
Introduction / overview

Week 2 (week of 9/12):
Why Green Banks?

Week 3 (week of 9/26):
How do I research/write up a green bank “play”

Week 4 (week of 10/3):
Commercial Property Assessed Clean Energy

Week 5 (week of 10/10):
Residential Property Assessed Clean Energy

FALL RECESS

Week 6 (week of 10/24):
Solar Lease / Solar Loan

Week 7 (week of 10/31):
EV and EV Infrastructure

Week 8 (week of 11/7):
Presentation of Financing Plays

Week 9 (week of 11/14):
Residential Solar Incentives (SHREC)

THANKSGIVING RECESS

Week 10 (week of 11/28):
Solarize

Week 11 (week of 12/5):
Energize

Week 12 (week of 12/12)
Presentation of Marketing Plays