Charge

- Over the course of the 2015–16 academic year, the Study Group on Climate Change will facilitate a campus-wide examination of how Smith, as an educational institution and a residential college, can most effectively respond to the challenge of global climate change.

- Through broad community input and consultation with experts, the Study Group will explore opportunities to mitigate climate change impact on our campus and consider, more broadly, how Smith can contribute to climate change solutions.
SGCC Membership

- Michael Howard, Vice President for Finance and Administration, co-chair
- Amy Rhodes, Professor of Geosciences, co-chair
- Eleanor Adachi ’17
- Neelum Amin ’86, Smith College Board of Trustees
- Alex Barron, Assistant Professor of Environmental Science and Policy
- Carrie Dohan Buchman ’78, Alumnae Association of Smith College Board of Directors
- Deanna Dixon, Associate Director of Multicultural Recruitment
- Raven Fowlkes-Witten ’17
- Marcia MacHarg ’70, Smith College Board of Trustees
- Roger Mosier, Associate Vice President for Facilities
- Bob Newton, Professor of Geosciences and Director of CEEDS
- Jasmine Pacheco-Ramos ’19
- Vis Taraz, Assistant Professor of Economics
- Beverly Daniel Tatum, Smith College Board of Trustees
- Dano Weisbord, Director of Campus Sustainability and Space Planning
- Gregory White, Professor of Government
## Scope and Framework

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Today’s Presentation

- Study Group basics
- Work to date with examples
- 80% recommendations
- Activity (we’re going to get competitive)
Process and Timeline

Winter
- Introduction
- Formation of Task Groups
  - Mitigation
  - Adaptation
  - Investment
  - Education
  - Principles

Spring
- Initial Community Engagement
  - April Meetings
  - Fireside Chat
- Task Group Work

Summer
- Conduct Further Research
  - Staff
  - Faculty
  - Consultants

Autumn
- Prioritize Ideas and Themes
  - What are the most important things we can do?
- Further Community Outreach

Winter
- Finalize Recommendations
  - Report to the Board of Trustees and Community
Process and Timeline

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Spring Engagement and Research

- Research on Smith’s curriculum compared to liberal arts peers
Spring Engagement and Research

- **ENV 201/202**
  - Two workshops led by 15 students and Professor Camille Ottombre-Washington
  - 60 community members participated
  - Student recommendations based on community input
    - 100 page report available on Office of Campus Sustainability website
Fig. 9 Spider diagram illustrating how the four scenarios compare to each other based on their risk to returns, ease of implementation, extent to which it addresses climate change, extent to which it promotes Smith leadership and values, and PR impact.
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Summer Engagement and Research

- 25 Summer research students
  - Create interdisciplinary courses and research opportunities that have a direct impact on Smith College
  - Make it personal--let students know their responsibilities

- 21 School for Social Work students and faculty
  - Climate change is not a term normally used in social work, but students do deal with its impacts—economics and income (fishing, agriculture), natural disasters, cost of living (increased utilities)
  - Develop a Climate Conversations program: how to process anxieties around climate change that SSW students use during placements and on campus for undergrads
Stanford Energy System Innovations

Introduction

The Stanford Energy System Innovations (SESI) projects a $438 million modernization of the campus district energy system. The transformation is from gas fired conventional power with steam distribution to electrically powered combined heat and power, when completed in April 2015, the new heat recovery system is more efficient than the existing cogeneration system on a pure natural gas basis; and save $300 million (20%) over the next 35 years compared to the conventional power system. SESI’s Category I and II GHG emissions in half, save 18% of Stanford’s total energy supply; and save $300 million (20%) over the next 35 years compared to the conventional power system.

The heart of SESI is heat recovery - capturing waste heat from the district chilling system to produce hot water for the district heating system. This is depicted in the following charts of daily (summer example) and annual heating and cooling loads.
Long Term Decarbonization Concept

- GHG Emissions
- PPA/Grid
- Cooling Tower
- Electrical Chiller
- GHX Field
- Biodiesel
- New Steam Boiler
- New Steam Turbine/ORC
- Heat Recovery Chiller
- Chilled Water
- Cooling
- Low Temp. Heating
- Low Temp. Hot Water
- Hot Water Heat Exchanger
- Steam Heat Exchanger
- Biodiesel (B100)
- Other Electrical
- Other*
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Task Group Work

Summer
Conduct Further Research
- Staff
- Faculty
- Consultants

Autumn
Prioritize Ideas and Themes
- What are the most important things we can do?

Further Community Outreach

Winter
Finalize Recommendations
Report to the Board of Trustees and Community
Fall engagement

- Curriculum and culture—33 attendees

- Presentation and Q&A on Endowments, Divestment, and Impact Investing—72 attendees and counting (5 upcoming)

- Presentation on mitigation options—56 attendees
ACIR and the SGCC

- The Advisory Committee on Investor Responsibility is a subcommittee of the Investment Committee of the Board of Trustees.

- ACIR role is to consult with the Board Investment Committee on social issues relevant to investing.

- SGCC will communicate investment/divestment recommendations to the ACIR.
80% Ideas
The world needs an aggressive, multi-faceted plan of action to address the risks and effects of global climate change.

Smith College, as a top national liberal arts institution, is prepared to lead by example.

By taking a comprehensive approach to climate change and not focusing on just one or two aspects, we can have a greater impact on the issue.

We need to incorporate all of Smith’s strengths--the education of women as innovators and leaders, our financial resources, and our historic residential campus--to model solutions that lead to a just and sustainable society for all people.
Three Themes

1. Launch the Anthropocene Initiative
2. Invest the Endowment
3. Prepare Smith for the Future
1. Launch the Anthropocene Initiative

- Infuse climate change and sustainable development concepts across the curriculum
  - Consistent with CAP’s umbrella approach, prioritize climate change in the allocation of new faculty hires
  - Develop workshops to help faculty develop new/update current courses
  - Create a climate and sustainability data integration program
  - Become a repository for campus adaptation planning/resiliency in higher education
  - Launch Sustainability Innovation Fund: Faculty, staff, and student grants for on-campus projects or research related to climate change and sustainability
1. Launch the Anthropocene Initiative

- Year-long themes for interdisciplinary partnerships and programming across Centers, departments, and offices
  - 2019-2020: tbd
  - 2020-2021: tbd
  - 2021-2022: tbd
- Include alumnae outreach and programming
1. Launch the Anthropocene Initiative

- Develop and expand experiential learning for students
  - Launch Climate Change Leadership program, to include policy advocacy training
  - Enhance Praxis and other funds for internships with climate change, environmental justice, or sustainability focus
  - Launch Campus as Classroom program
  - Launch Senior Sustainability Fellowships—place seniors in internships with various campus offices/departments to help with sustainability goals
2. Invest the Endowment

- Make recommendations to the ACIR:
  - Increase allocation in the sustainability series to $30 million
  - Consider divestment from fossil fuels if it can be done in a financially prudent manner
  - Enhanced reporting on fossil fuel exposure in the endowment
  - Funds for Smith Investment Club to manage a fossil-free portfolio
  - Develop a fossil-free option for new gifts
3. Prepare Smith for the Future

- Continue to aggressively pursue our commitment to net zero carbon emissions by 2030
  - Purchase renewable power
  - Change fuel stock
  - Continued energy system research
  - Continue funding energy efficiency measures
3. Prepare Smith for the Future

- Develop innovative partnerships with institutions and organizations to address climate change locally and globally
  - Community carbon fund
  - Vulnerability assessment, which will include addressing the health and well-being of campus community
3. Prepare Smith for the Future

- Make institutional changes so climate change and sustainability are at the forefront of administrative operations and decision-making
  - Carbon proxy pricing
  - Adaptive landscape master plan
    - Smith College Green District (with educational signage)
  - Food supply adaptation
  - Administrative and departmental offices incorporate sustainability into annual plans
What’s Next

- Comments from community by November 7th
  - Email to sgcc@smith.edu
- Draft report by end of the year
- Report to BOT for March meeting
Activity

- Does this set of recommendations reflect your aspirations and ambitions for Smith?
- What (if anything) is missing?
- How do we compare to other institutions?
Recommendations will be tied to the Strategic Plan

- **Strategic themes:**
  - 1. Face-to-face education
  - 2. Inclusion, diversity, and equity
  - 3. Experiential and applied opportunities
  - 4. Emerging methods, fields, and pedagogies
  - 5. Complex, urgent problems