Moving From Incremental to Transformative Climate Action:

Lessons Learned from Addressing the Elephants in the Room

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Carbon Neutrality Initiative
Overview

1. Why did we start talking about the elephants in the room?

2. What have we learned from 10 years of climate action plans?

Emissions Trend vs. Goal

Direct Emissions (natural gas, campus fleet and other small sources)

Indirect Emissions (purchased electricity and UCB-purchased steam)

Current Path

Carbon Neutral
How do we get from there to here?
If you were in the middle of the room the whole time, why can we not find a single witness to corroborate your testimony?
Is It All About Money??
Overall Emissions by Source

- Natural Gas: 63%
- Electricity: 29%
- Steam: 4%
- Refrigerants: 1%
- Other Scope 1: 1%
- Fleet: 2%
Why Organizational Changes Fail

- INSUFFICIENT COMMUNICATIONS (59%)
- LACK OF LEADERSHIP (56%)
What have we learned from 10 years of climate action plans??
“Insanity: doing the same thing over and over again and expecting different results.”

Albert Einstein
What we’ve learned… from 10 years of Climate Action Plans

• Process is more important than the plan itself
• CAPs haven’t been fully implemented
• Most plans aren’t formally approved
  • Even if formally approved, they don’t constitute a funding commitment or budget approval
• Limited financial analysis
  • Sometimes not even allowed to do financial analysis
• Don’t require any specific action on new buildings
What’s missing in updated CAPs?

- Only one campus listed next steps for implementation along with responsible departments
- Four campuses included some level of cost information
- Not all of the campuses quantified the carbon impact of mitigation strategies
- Five campuses have a preferred scenario for reaching CN along with quantification of each strategy
- Most don’t have specific goals, just general possible approaches/projects
Carbon Neutrality Finance and Management Task Force
Task Force Membership

Ann Carlson (Chair)
Shirley Shapiro Professor of Environmental Law
University of California, Los Angeles

David Auston
Adjunct Professor
University of California, Santa Barbara

Wendell C. Brase
Vice Chancellor of Administration & Business Services
University of California, Irvine

Dr. Sandra A. Brown
Vice Chancellor for Research
University of California, San Diego

Peggy Delaney
Vice Chancellor for Planning and Budget
University of California, Santa Cruz

Sandra Kim
Associate Vice President
Capital Asset Strategies and Finance
University of California Office of the President

Marc Fisher
Vice Chancellor & Campus Architect
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Dan Kammen
Class of 1935 Distinguished Professor of Energy
Founding Director, Renewable and Appropriate Energy Laboratory
University of California, Berkeley

Pierre Ouillet
Chief Financial Officer
University of California, San Diego

David Phillips
Associate Vice President
Energy and Sustainability
University of California, Office of the President

Pallavi Sherikar
Student Representative
University of California, Berkeley

Paul H. Watkins
Chief Administrative Officer
University of California, Los Angeles
Issues Studied by the Task Force

1. Funding and financing
   Accounting for the cost of carbon, integrating carbon management and purchased utilities budgets.

2. Energy efficiency and conservation
   Investing in deeper energy efficiency and developing and paying for qualified staff to operate finely tuned building systems.

3. New buildings
   Designing new buildings to carbon-neutral standards.

4. Communication and change management
   Engaging faculty, students, and staff in the commitment to achieving carbon neutrality.

5. Medical centers
   Addressing the barriers unique to hospitals, including regulatory requirements and the primacy of patient care and safety.
Change Management Process for Transformative Change Ideas

• Top Down Mandate + Bottom-up Ideas

• 6 months to develop report + 6 months to vet report

• Sprints: project management strategy
  o Product Owners
  o Sprint Team
  o Surveys and interviews
Two Key Conclusions

– The successful transition to carbon neutrality hinges on securing broad support for the initiative among senior administrators, faculty, and our students.

– The way in which carbon neutrality measures are implemented must respect campus autonomy in charting their own progress toward carbon neutrality while providing campuses with the leadership, tools, and authority to accomplish the goal.
Recommendations: Funding and Financing

– Integrate purchased utilities and carbon management functions as a stand-alone financial unit.
– Implement internal carbon accounting
Recommendations: Energy Efficiency

- Develop a comprehensive funding plan for energy efficiency projects
- Increase staffing for energy efficiency programs
Recommendations: New Buildings

- Prioritize net zero carbon strategies for new building projects, including all-electric designs
- Strengthen design standards and incentivize low-energy design
- Base new building design decisions on life-cycle cost analysis (LCCA)
Recommendations:
Communication & Change Management

- Position carbon neutrality as a campus and systemwide priority, especially among campus leaders
- Emphasize the connection to the UC mission
- Engage the support of the UC Regents
- Continue support for faculty engagement in curriculum development and research related to the CNI
- Engage and support students in advancing the CNI
- Continue programs that focus on energy conservation
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<tr>
<th>Recommendation</th>
<th>Next Steps</th>
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<td>Integrate Purchased Utilities and Carbon Management as a Stand-alone Financial Unit</td>
<td>Document case study/benefits from pilot campus efforts</td>
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<td>Implement Internal Carbon Accounting</td>
<td>Collect case studies where UC campuses already are using shadow prices on carbon for financial analysis.</td>
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<td>Integrate Campus-Specific Energy, Climate Action, and Long-Range Development Plans</td>
<td>Estimate what level of carbon fee would generate what revenue and how that compares to funding needs for offsets, biogas, and CN buildings.</td>
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<td>Track Campus and Medical Center Energy Efficiency Goals as New Chancellor-Level Metrics</td>
<td>Find a campus willing to pilot a more formal program</td>
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<tr>
<td>Prioritize Net Zero Carbon Strategies for New Building Projects including All-electric design</td>
<td>Develop more detailed financial analyses for campus CAPs</td>
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<td>Insert into Chancellors' annual performance reviews for President Napolitano.</td>
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<td>Develop new policy language for the Clean Energy section, and include reporting in annual sustainability report for Regents</td>
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<td>Complete cost feasibility study</td>
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<td>Develop policy proposal.</td>
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…Funding Required, Schedule, Owner, Executive Sponsor, Responsible, Consulted…
Lessons Learned

– To win support from senior administrators and faculty, give them a role, do most of the work for them, but let them steer to create real ownership

– The creation of working groups, surveys and workshops can be effective engagement strategies

– Engagement does not equal commitment

– Universities are crisscrossed with third rails, and it’s usually best to avoid them

– Faculty-led, high-level groups provide an effective way to build support for sustainability initiatives.