University of California
Office of the President
Climate Action Plan

Our plans to achieve carbon neutrality by 2025

March 19, 2019
Where are UCOP’s Facilities?

<table>
<thead>
<tr>
<th>Key</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1111 Franklin</td>
</tr>
<tr>
<td></td>
<td>1111 Broadway</td>
</tr>
<tr>
<td></td>
<td>Presidential Condo</td>
</tr>
<tr>
<td></td>
<td>UC Press</td>
</tr>
<tr>
<td></td>
<td>Kaiser Building</td>
</tr>
<tr>
<td></td>
<td>20th Street</td>
</tr>
<tr>
<td></td>
<td>Blake House</td>
</tr>
<tr>
<td>H</td>
<td>UC Center Sac.</td>
</tr>
<tr>
<td>I</td>
<td>UC Path Center</td>
</tr>
<tr>
<td>J</td>
<td>UCDC</td>
</tr>
<tr>
<td>K</td>
<td>Casa de California</td>
</tr>
</tbody>
</table>
UCOP’s Emissions by Building

- UCDC: 30%
- 20th Street: 23%
- UC Center Sac: 12%
- 1111 Franklin: 12%
- UCOP's Emissions by Building: 12%
- Kaiser: 7%
- UCPath: 8%
- Casa de California, UC Press, 1111 Broadway, Presidential Condo, Blake Estate: 8%
UCOP’s emissions are relatively small and 80% from purchased electricity.

UCOP’s emissions total about 3,000 MTCO2e per year.
Business-as-usual Emissions and Costs

$29 million
NPV of forecast energy spending 2018 - 2037
2018: $1.86 million
2037: $2.74 million
UCOP’s Plan to Become Carbon Neutral

**Total Emissions Goal**

**Planned Actions**
- UCOP: Consolidated Broadway
- UCOP: 5-year energy efficiency plan
- Plug Load Reduction Strategy
- UCOP: Solar Thermal Hot Water System
- UCOP: UCPath Solar
- UCOP: Wholesale Power Program
- UCDC: RECs + Renewable Tariff
- UCOP: Biomethane
- UCOP: Unspecified Offsets
Our plans:
Reduce space by 23% and use UC-power

Move from three existing buildings... ...into new 1100 Broadway bldg.
Our actions:
Decreased energy use

Baseline Period: 2010 to 2012
Current Reporting Period: 2015 to 2017

Annual Energy Savings: 4.7%
Our plans:
Apply full-throttle energy efficiency

Use tried and true actions: lighting retrofits and smarter HVAC
Our actions:
Install on-site renewable generation

New PV system at the UC Path Site in Riverside
Our plans:
Add solar thermal to 1111 Franklin

Reducing gas use by 70%

Donated solar thermal panels
To be installed on roof
Our plans: Use green tariffs or new renewable power purchase agreements

A load-matching renewable energy contract is in place for UCDC
Our plans: electrify over time

Gas-fired Boiler

Heat Pump
Our plans:
Use 95% biogas

Membrane system to remove pollutants from landfill gas
Our plans:
Offset remaining emissions

Measuring methane releases from upgraded landfill
Strategies to Reduce Other Emissions

- Improve options for alternative transportation
- Become the UC leader in teleworking
- Establish an offset program for air travel
- Improve options for alternative transportation
What’s this going to cost?

<table>
<thead>
<tr>
<th>CapEx</th>
<th>Energy</th>
<th>Offsets</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>$29M</td>
<td>$437k</td>
<td>$29.4M</td>
</tr>
</tbody>
</table>

**BUSINESS AS USUAL**

<table>
<thead>
<tr>
<th>CapEx</th>
<th>Energy</th>
<th>Offsets</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2M</td>
<td>$22M</td>
<td>$47k</td>
<td>$24.5M</td>
</tr>
</tbody>
</table>

**CARBON NEUTRALITY**

$4.9M less than BAU (NPV Costs 2018-2037)