



CARBONDALE SUSTAINABILITY COMMISSION

Thursday June 15th, 2023 - 5:00PM

The Carbondale Civic Center – Room 103
200 S. Illinois Avenue, Carbondale IL

AGENDA

- 1. Call to Order and Roll Call**
- 2. Approval of Meeting Minutes:** May 18th, 2023
- 3. Citizen Comments and Questions**
- 4. Presentations**
- 5. Report of Officers, Committees, and Communications**
 - a. Sustainability Coordinator Monthly Progress Report (L. Becker, attached)
 - b. Federal, State, and Local Policy Landscape Report (J. Cogie)
 - c. Former Koppers Wood Treatment Site Report (A. Beck)
- 6. Old Business**
- 7. New Business**
- 8. Announcements**
- 9. Adjournment**

Voting Members:

	Present	Absent	Comment
Treesong (Chair)			
Aur Beck (Vice Chair)			
Jane Cogie			
Kevin Clark			
Sarah Heyer			
Yoonseo Jung (CCHS Student)			
Isaac Ludington (SIU Student)			
Gayle Klam			
Joan Davis			

Ex Officio Members:

	Present	Absent

City Staff:

	Present	Absent
Lauren Becker (Staff Liaison)		

Community Members Present:



CARBONDALE SUSTAINABILITY COMMISSION

Thursday May 18th, 2023 - 5:00PM

The Carbondale Civic Center – Room 103
200 S. Illinois Avenue, Carbondale IL

MINUTES

Voting Members:

	Present	Absent	Comment
Treesong (Chair)	x		
Aur Beck (Vice Chair)	x		
Jane Cogie	x		
Kevin Clark	x		
Sarah Heyer	x		
Yoonseo Jung (Student)		x	Excused
Isaac Ludington (Student)		x	Excused
Gayle Klam	x		
Joan Davis	x		

Ex Officio Members:

	Present	Absent
Vacant		

City Staff:

	Present	Absent
Lauren Becker (Staff Liaison)	x	

Community Members Present: Justin Harrell (Lead Engineer | Southern Illinois University Carbondale)

- 1. Call to Order and Roll Call (5:26pm)**
- 2. Approval of Meeting Minutes:** April 20th, 2023 (J. Davis moved, K. Clark seconded)
- 3. Citizen Comments and Questions (None)**
- 4. Presentations**
 - Southern Illinois University (SIU) Climate Action Plan: Overview by Justin Harrell (attached)
- 5. Report of Officers, Committees, and Communications**
 - Sustainability Coordinator Monthly Progress Report (L. Becker, attached)
 - Federal, State, and Local Policy Landscape Report (J. Cogie, attached)
 - Former Koppers Wood Treatment Site Report (A. Beck)
- 6. Old Business (None)**
- 7. New Business (None)**
- 8. Announcements**

- The City Council will receive their first presentation on the concept of Energy Sovereignty, Security, & Democracy during their public May 23rd meeting.
- This Saturday at the outdoor Carbondale Community Farmer's Market folks can participate in the Cookbook Swap.
- The Women for Change March for Unity is coming up on June 3rd – volunteers are needed
- St. Louis is hosting a Native Gardens tour – perhaps we can look into something similar here in Carbondale.
- June 3rd there will be a community dinner at Washington St. offering red beans and rice with crawfish

9. **Adjournment** (6:45pm, S. Heyer moves to adjourn K. Clark seconds Chair Treesong ensures unanimous consent)

Good afternoon everyone,

The following will serve as my Sustainability Coordinator report of progress for the month of May 2023. As always please don't hesitate to reach out with questions and comments.

Table of Contents:

1. Uncategorized Updates
 2. Energy Sovereignty, Security, & Democracy Proposal
 3. GHG Emissions Tracking & Reporting (ICLEI ClearPath)
 4. Community Gardens & Pollinator-supportive Landscape Code Review & Revision
 5. City Sustainability Commission
 6. Jackson County Communities LEAP Pilot Program
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1. Uncategorized Updates
 - Continued regular check-ins with Wade Halva, Faith in Place
 - Continued regular check-ins with Justin Harrell, SIU Facilities & Energy Maintenance
 - Closed out SIU student Courtney McGowan's internship with the Planning Division, culminating in her formal presentation to interdepartmental staff on the best practices to ensure community walkability: "Walkability: A GIS Analysis & Case Study Review" This presentation was created through intensive subject matter expert interviews, literature review, and field study. (5/2)
 - Continued bi-weekly check ins with Gary Williams, City Manager
 - Presented to the "Green Guardians" at the First Presbyterian Church on the Sustainability Action Plan and progress toward its implementation within the first year (5/2)
 - Served as the guest speaker for the ICLEI Sustainability Planning Cohort Meeting (5/3)
 - Met with Keith Hindman, Facilities Manager at Shawnee Health Services to provide guidance as they begin their own sustainability planning efforts. Connected Keith with the Ameren incentive program that provides not for profits with free energy auditing on new construction, conducting a cost benefit analysis on energy efficiency standards. (5/4)
 - Attended the monthly Illinois municipal sustainability staff meeting (5/10)
 - Attended the federal "Enhanced Geothermal Shot" Summit (5/11)
 - Attended "Why Does His Back Look Like That?: The Trauma of Racism" Centerstone Webinar through SIU Carbondale (5/17)
 - Accepted an invitation to meet with Jean-Paul St. Germain to discuss his work with responsive large-scale battery storage systems to be demonstrated at the airport (5/17)
 - Met with Greater Egypt (Tyler Carpenter and Kelsey Bowe), Green Earth Executive Director Stephanie Eichholz, and Public Works Operations Director Robert Hardin to discuss applying for Delta Regional Authority funding for our proposed Stormwater Master Planning (5/30)
 - Attended DOE Energy Improvements in Rural or Remote Areas (ERA) Program Grant Funding Opportunity Webinar (5/30)
 2. Energy Sovereignty, Security, & Democracy Proposal
 - Met with Gregory Norris, ACES4Youth Founder, to present the concept of Energy Sovereignty, Security, & Democracy (5/3)
 - Met with John Coyle, practicing attorney, to present the concept of Energy Sovereignty, Security, & Democracy (5/10)

- Met with Amanda Pankau of Prairie Rivers Network to discuss the possibility of submitting an “Energizing Rural Communities Prize” application (5/11)
- Met with Doug Scott, the Vice President of Strategy at the Great Plains Institute regarding our Energy Sovereignty, Security, & Democracy proposal – received very supportive response (5/12)
- Met with Prairie Rivers Network videography/communications staff to storyboard the “Energizing Rural Communities Prize” video pitch (5/15)
- Met with Gregory Norris and Linda Flowers to present the concept of Energy Sovereignty, Security, & Democracy and receive feedback (5/15)
- Attended “Historic Funding Opportunity for Rural Electrification” watch party hosted by the USDA in Mt. Vernon to collaborate on New ERA and PACE program funding announcements (5/16)
- Provided educational “prep package” for the City Council a week prior to submission of presentation materials for the City Council meeting 5/23
- Consulted SIU law Professor Peter Alexander on the energy sovereignty, security, & democracy proposal (5/18)
- Checked in with Gregory Norris and Linda Flowers virtually prior to the public presentation to City Council on energy sovereignty, security, & democracy (5/19)
- Met with Jill Krueger, attorney with the Network for Public Health to discuss the energy sovereignty, security, & democracy proposal as well as pro bono legal assistance offered by the Network for Public Health (5/19)
- Shot b-roll and audio/video footage of the City of Carbondale and Village of Dowell, conducted interviews of key project team members to be delivered to Prairie Rivers Network for the “video pitch” portion of the Energizing Rural Communities Prize (5/22)
- Delivered b-roll and audio/video interview footage to Prairie Rivers Network (5/22)
- Presented the Energy Sovereignty, Security, & Democracy Proposal to the City Council, publicly, during the 5/23 City Council Meeting and was met with resounding directive to continue exploration (5/23)
- Finalized and submitted the Partnership Plan, Cover Page, Video Pitch, Detailed Cost Estimate, Letter of Support, Proof of Commitment, Summary Slide, Timeline, Proposed Ownership Models Graphic, and online application for the Energizing Rural Communities Prize 5/24)
- Met with Pranav Myana of AmaterTech to discuss the benefits of a hybrid AC/DC grid from an efficiency standpoint when exploring localized energysheds (5/24)
- Received notice from the OCED portal that review of our concept paper has concluded, but a decision has not yet been made final.
- Secured technical legal assistance from the Lawyers 4 Good Government entity, which will coordinate our concurrent legal and technical assessment with multiple, qualified firms, at 90% less than what these legal services would usually cost a local government (5/31)

3. GHG Emissions Tracking & Reporting (ICLEI ClearPath)

- Met with ICLEI technical support to troubleshoot forecasting energy sovereignty, security, & democracy (5/11)
- Finalized the 2019 Community-scale GHG Emissions Inventory (Baseline)
- Submitted a formal report of the 2019 Community-scale GHG Emissions Inventory (Baseline) to the City Manager, Community Development Services Manager, and the City Council. (ATTACHED)

- Presented to the City Council on the summary of findings of the 2019 Community-scale GHG Emissions Inventory (5/23)
4. Community Gardens & Pollinator-supportive Landscaping Code Review & Revision
 - Submitted two press releases to our Public Relations Officer celebrating the new changes to code protecting and encouraging both pollinator-supportive landscaping and community gardening. Once these press releases go out, I will begin to reach out to our community gardens in town and ask to meet then at their gardens to interview them. These interviews will be translated into zoning certificates (the fees for which have been waived) and they will have the option to be added to an interactive city-wide map that allows community members to find the community gardens closest to their homes and how to get involved. (5/8)
 5. City Sustainability Commission
 - Held 5/18 meeting during which the Sustainability Commission received a formal presentation from SIU Lead Engineer Justin Harrell on SIU Sustainability Action
 - Held a check-in with new commission member Joan Davis (5/31)
 6. Jackson County Communities LEAP Pilot Program
 - Met 5/11



Energy & Climate Change

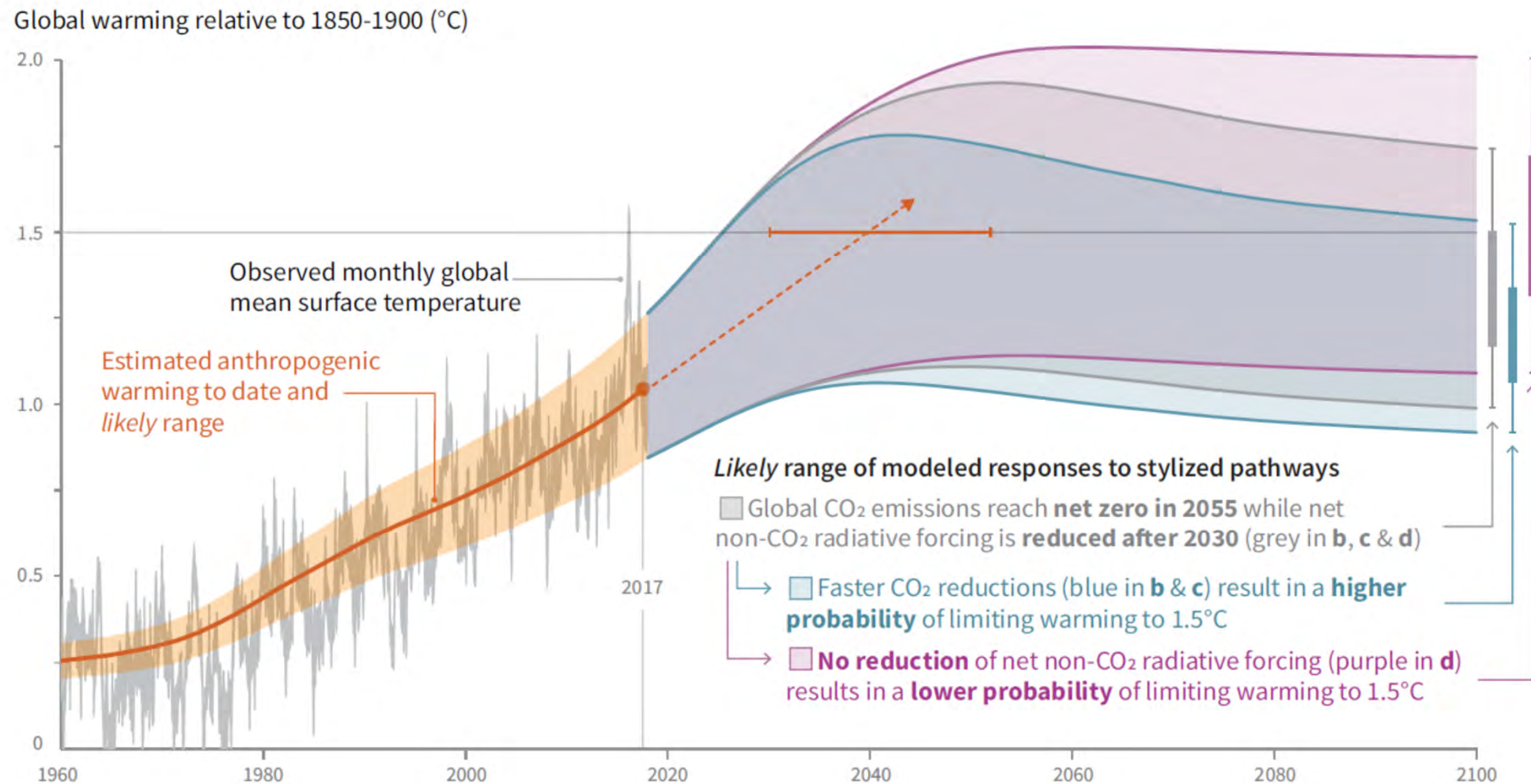
Carbondale Sustainability Commission

May 18, 2023

Justin Harrell PE, CEM, LEED AP

Facilities & Energy Management

Limit Global Warming to 1.5°C



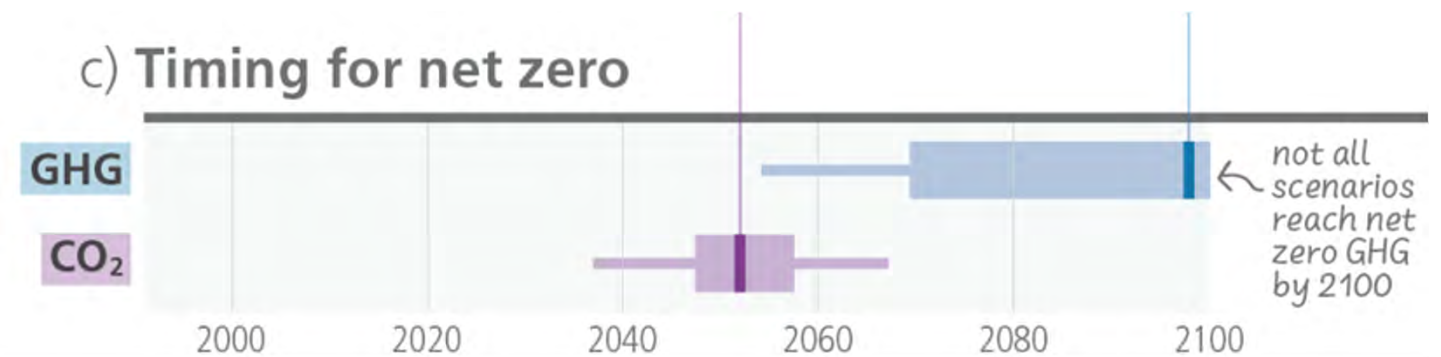
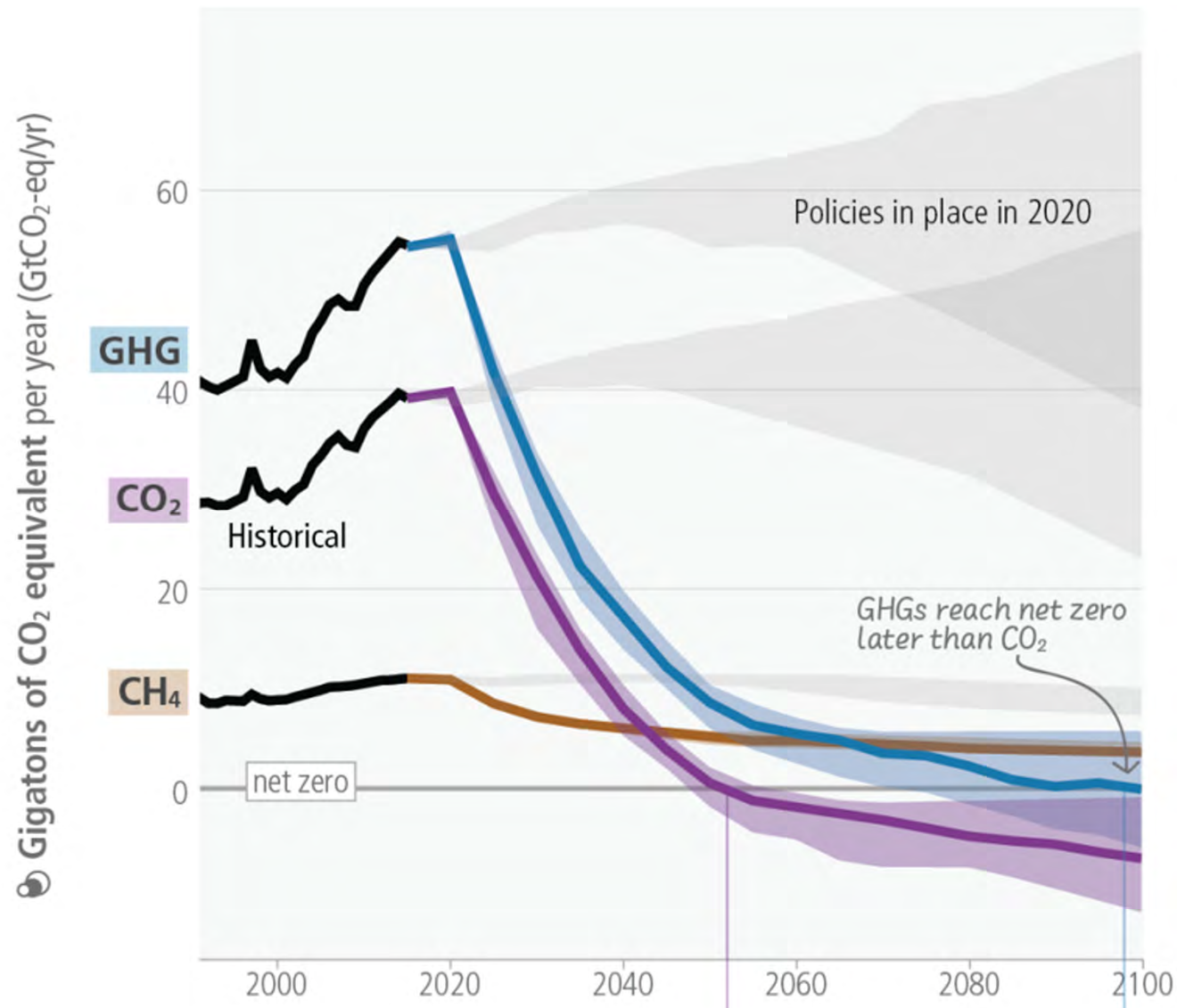
Lower risks to:

- Health
- Livelihoods
- Food security
- Water supply
- Human security
- Economic growth

IPCC, 2018: Global Warming of 1.5°C: Summary for Policymakers.

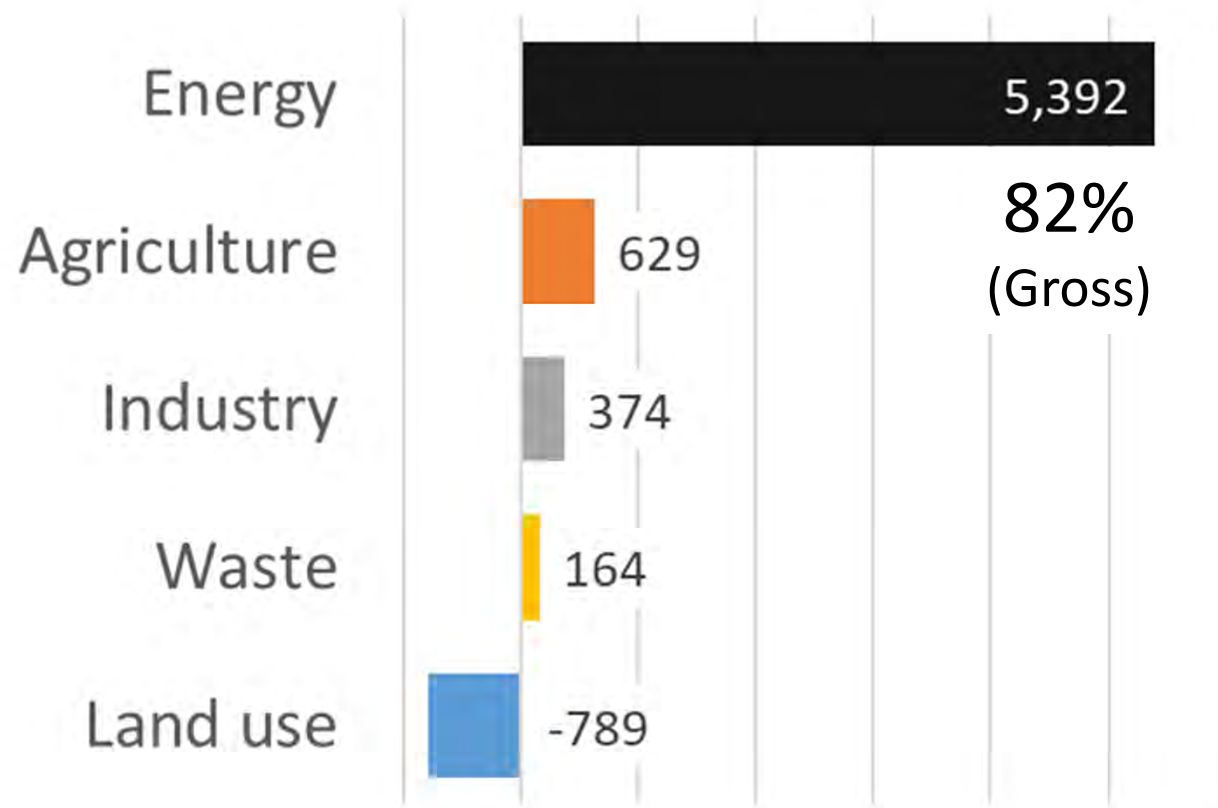
Rapid CO₂ Reductions Needed

- Global modeled pathways that limit warming to 1.5°C with no or limited overshoot reach net zero CO₂ emissions around 2050.
- Total greenhouse gases (GHG) reach net zero later.



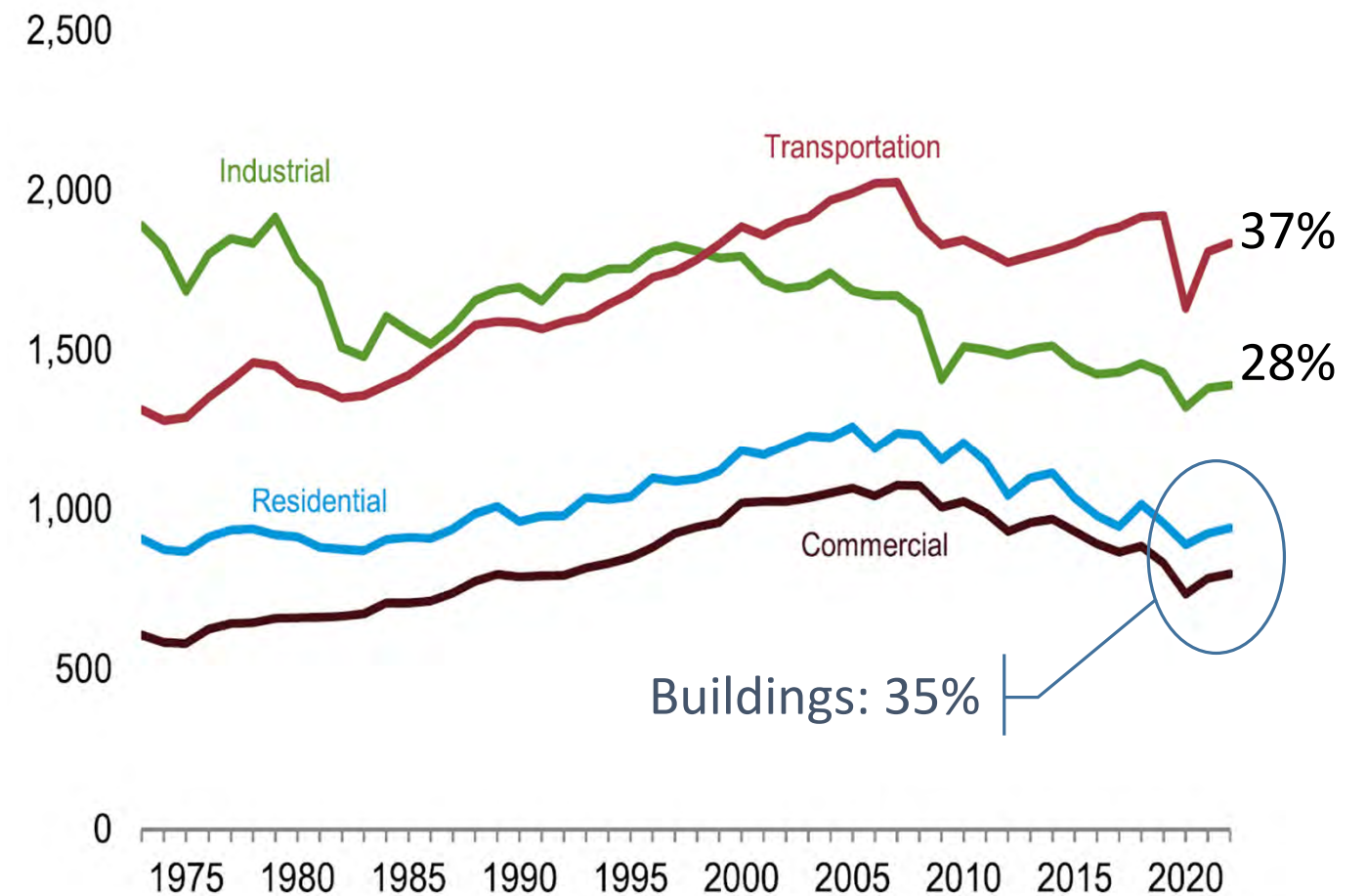
U.S. Greenhouse Gas Emissions

U.S. Emissions by Inventory Sector
MMT CO₂ eq. 2019



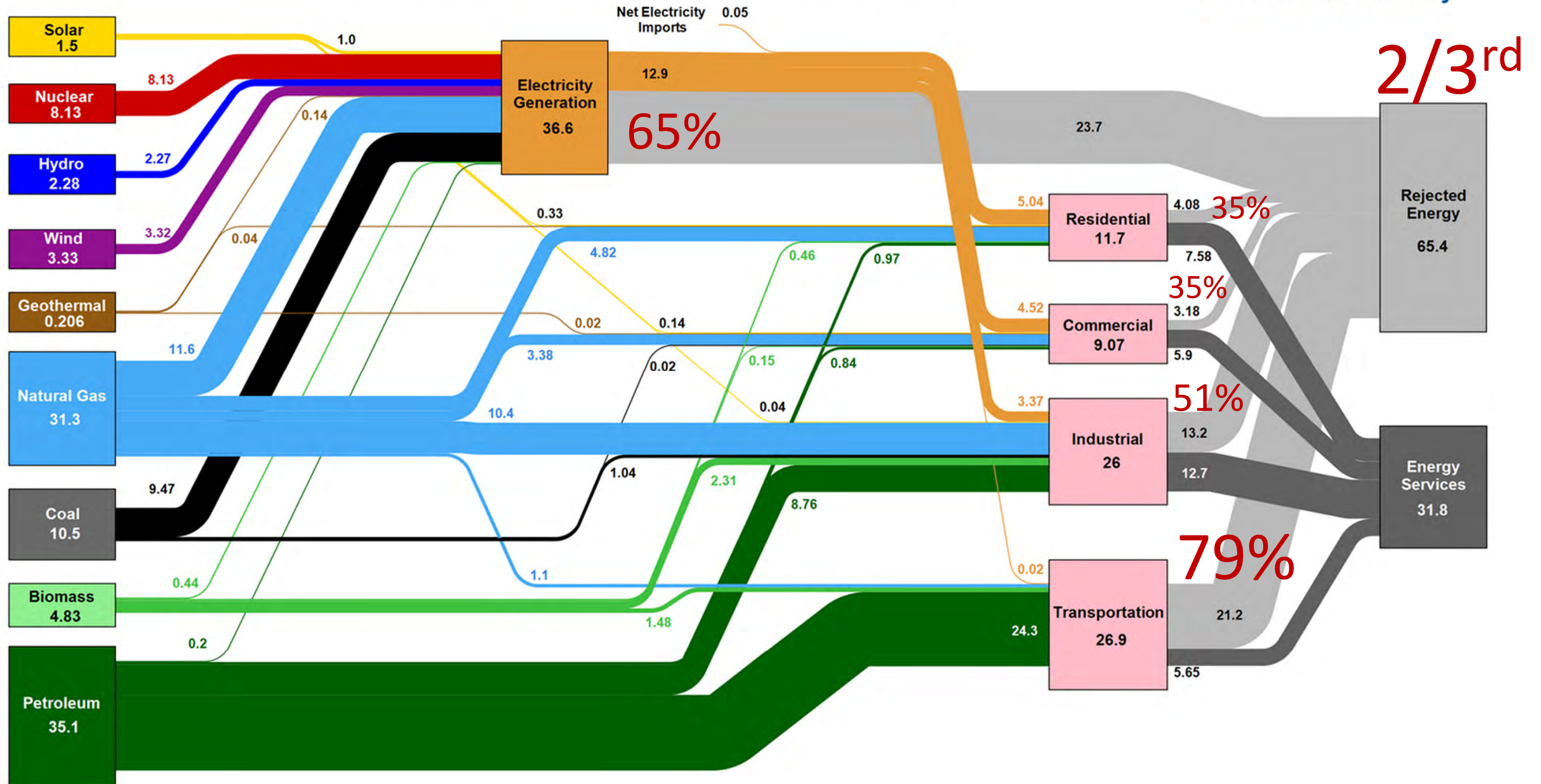
US EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks

CO₂ Emissions by Energy End-Use Sector

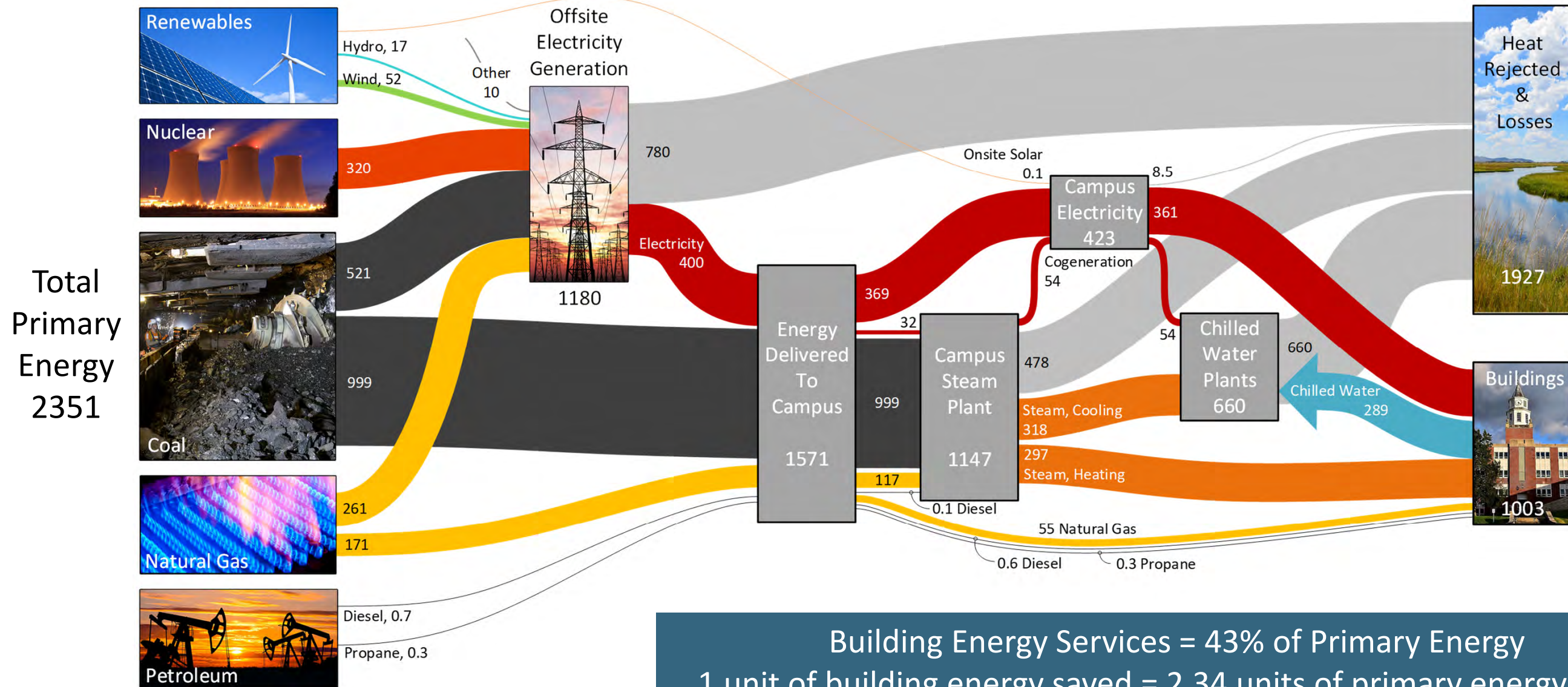


US EIA, Monthly Energy Review, March 2023

Estimated U.S. Energy Consumption in 2021: 97.3 Quads

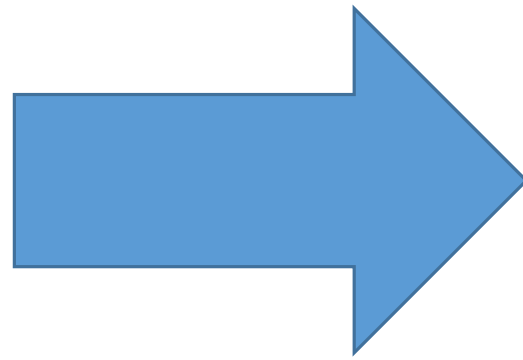


Campus Energy Flow

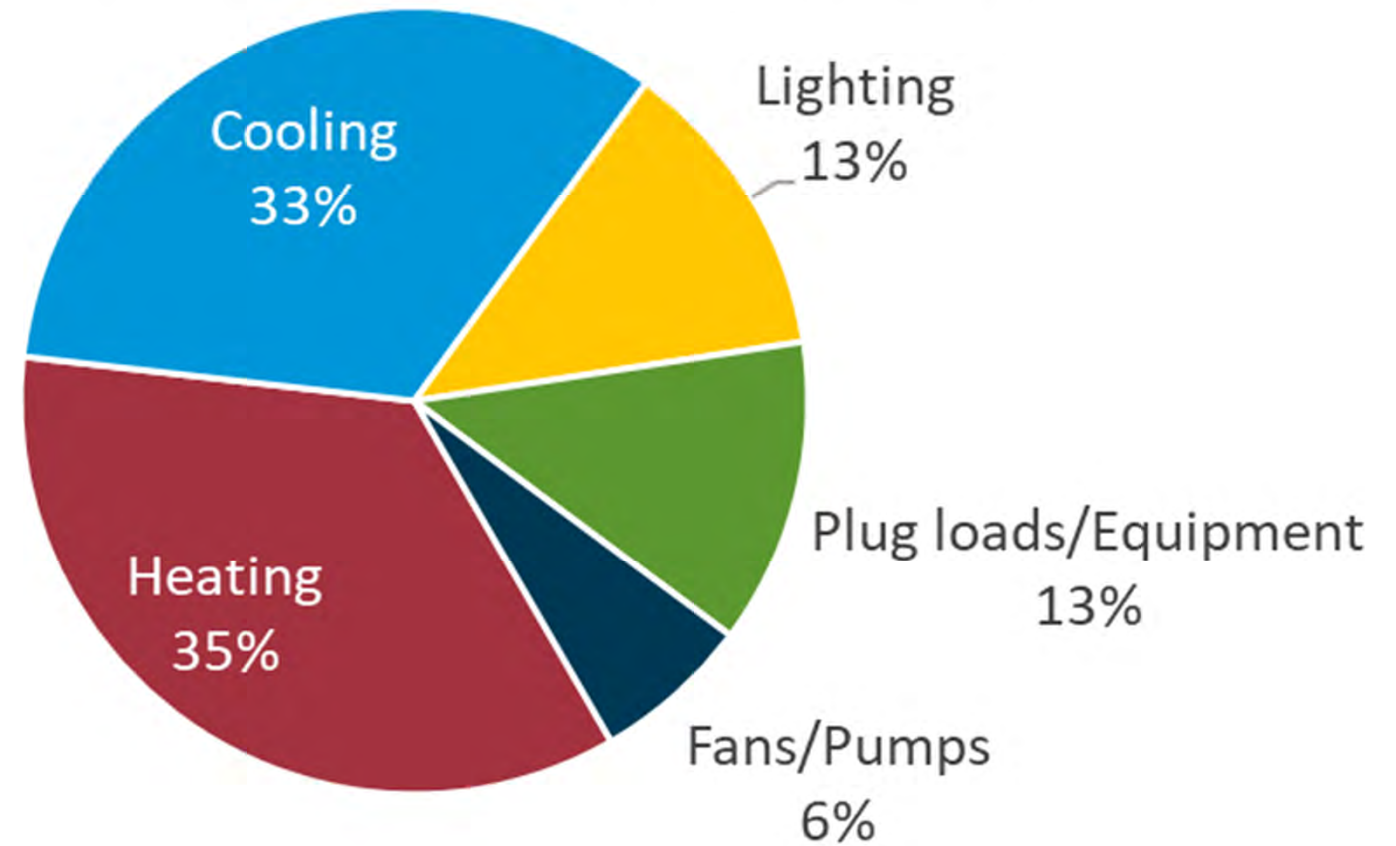


Building Energy Services = 43% of Primary Energy
 1 unit of building energy saved = 2.34 units of primary energy saved

Campus Buildings' Energy End Uses

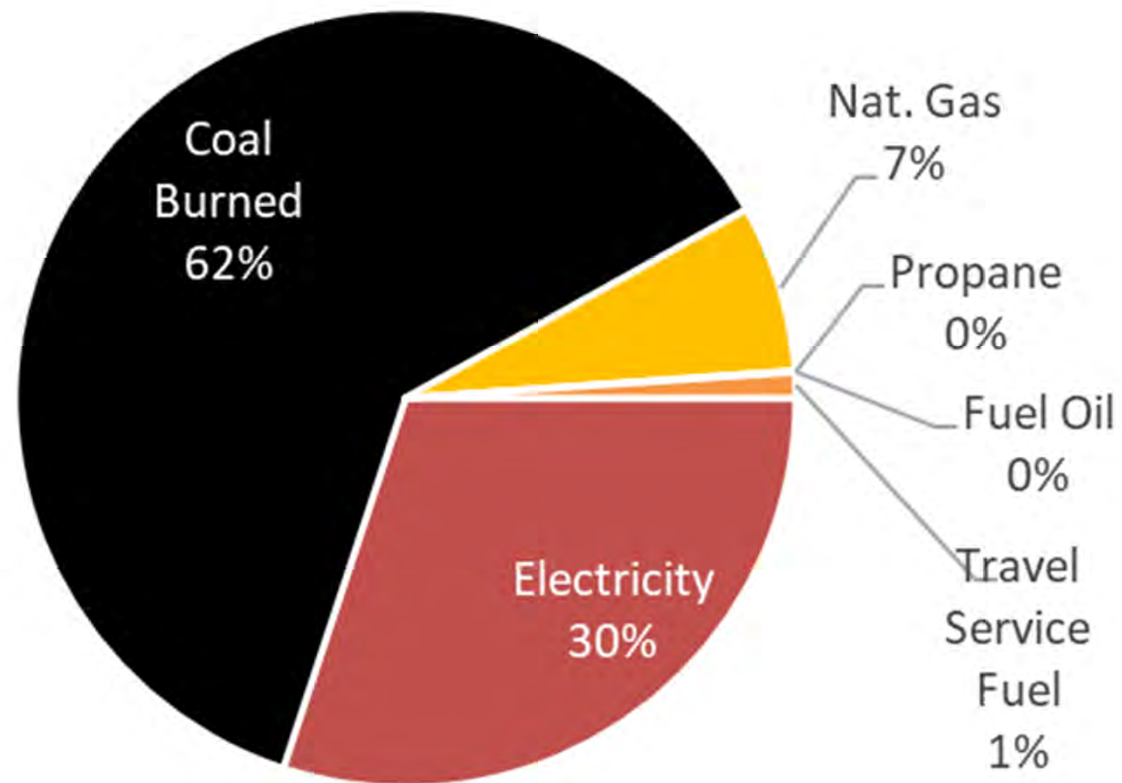


SIUC Campus Energy End Uses

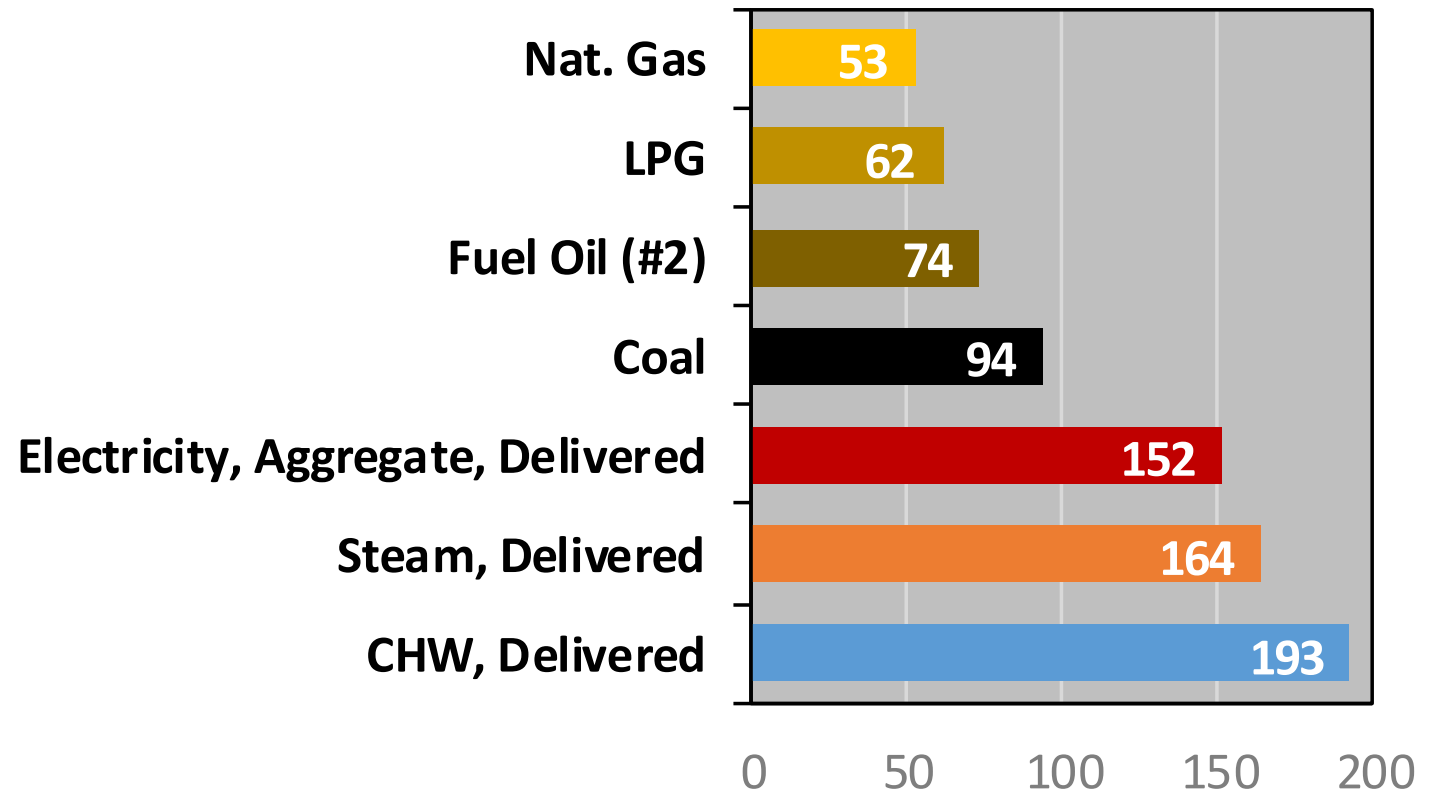


Campus Energy GHG Emissions

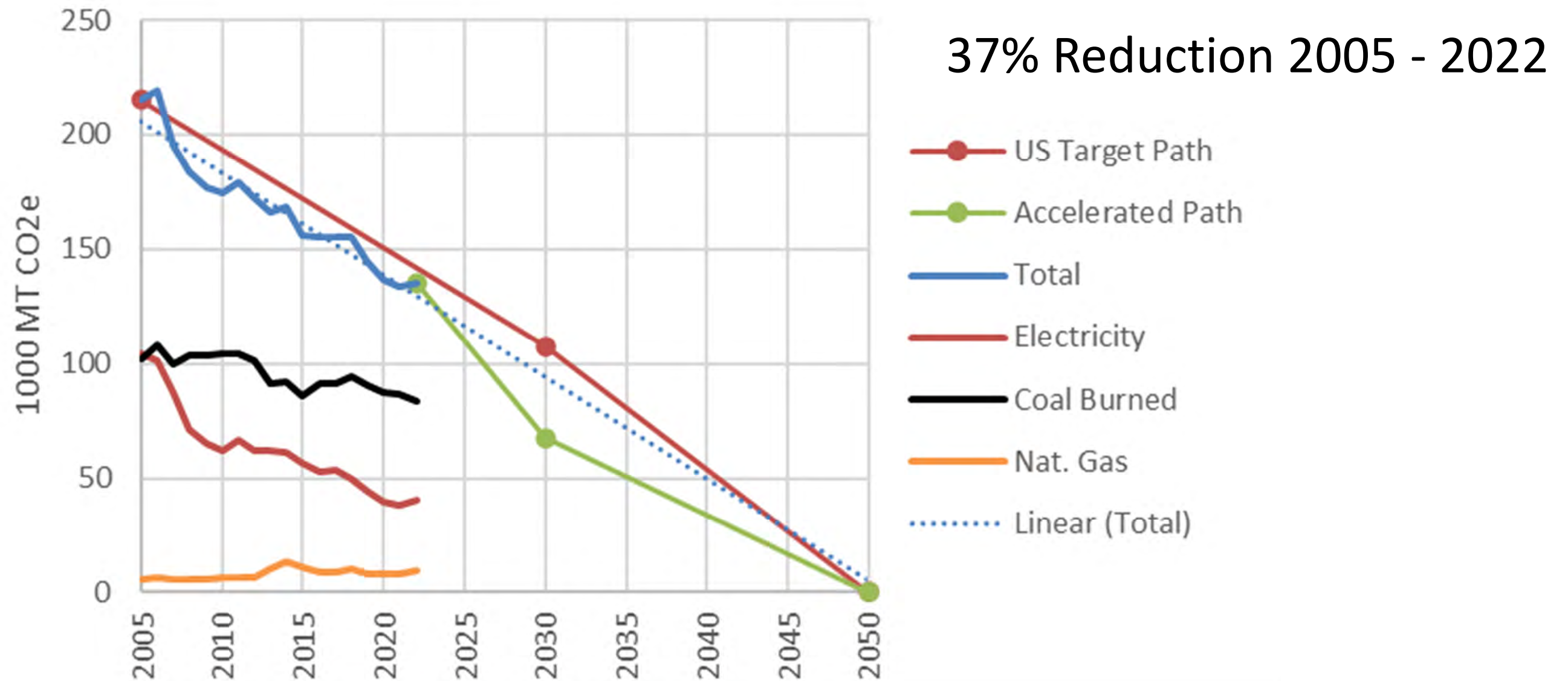
FY2022 CO2 Emissions



CO2 Emissions Factors
[kg/MMBtu]

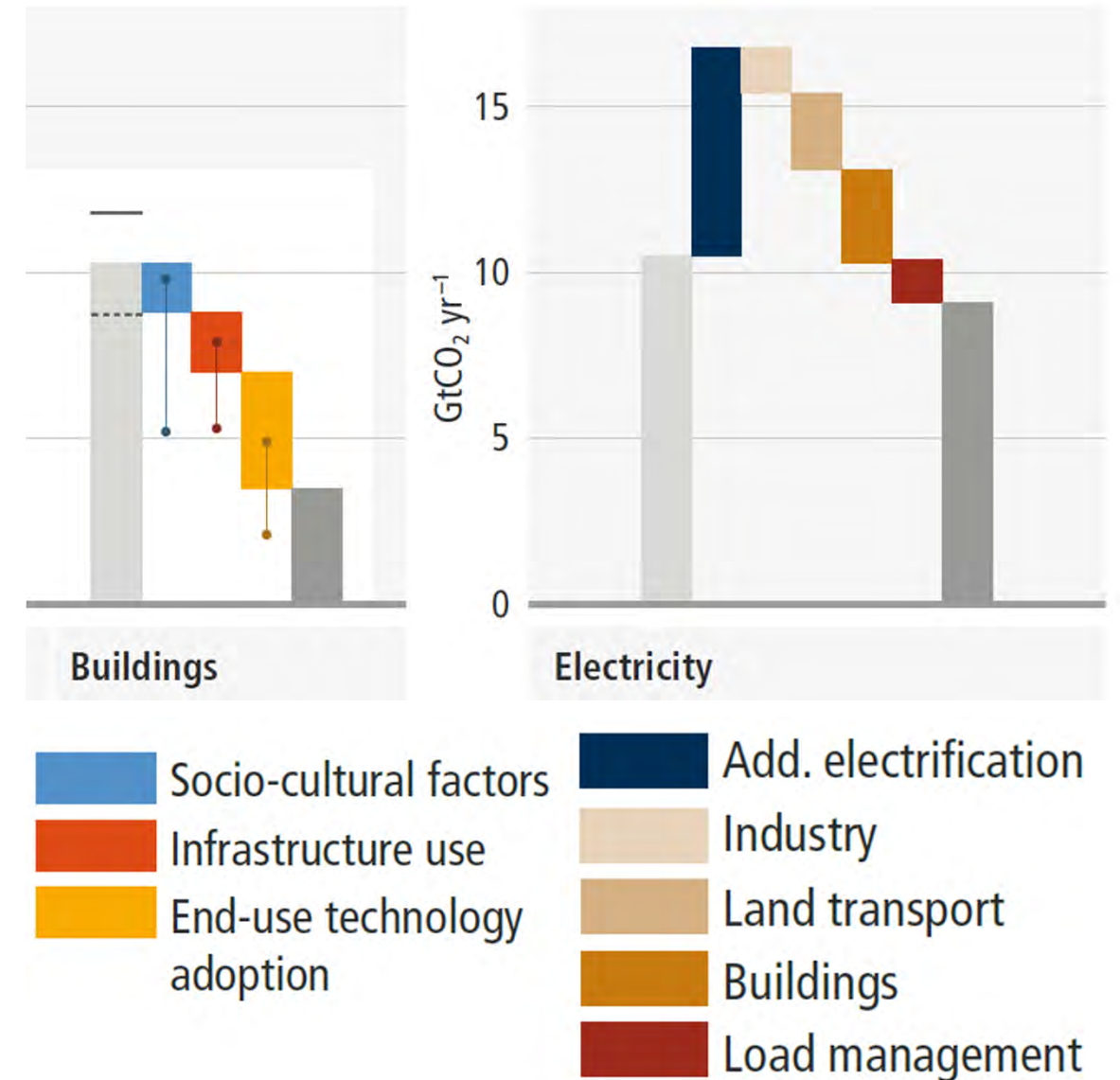


SIUC Campus Emissions Reductions



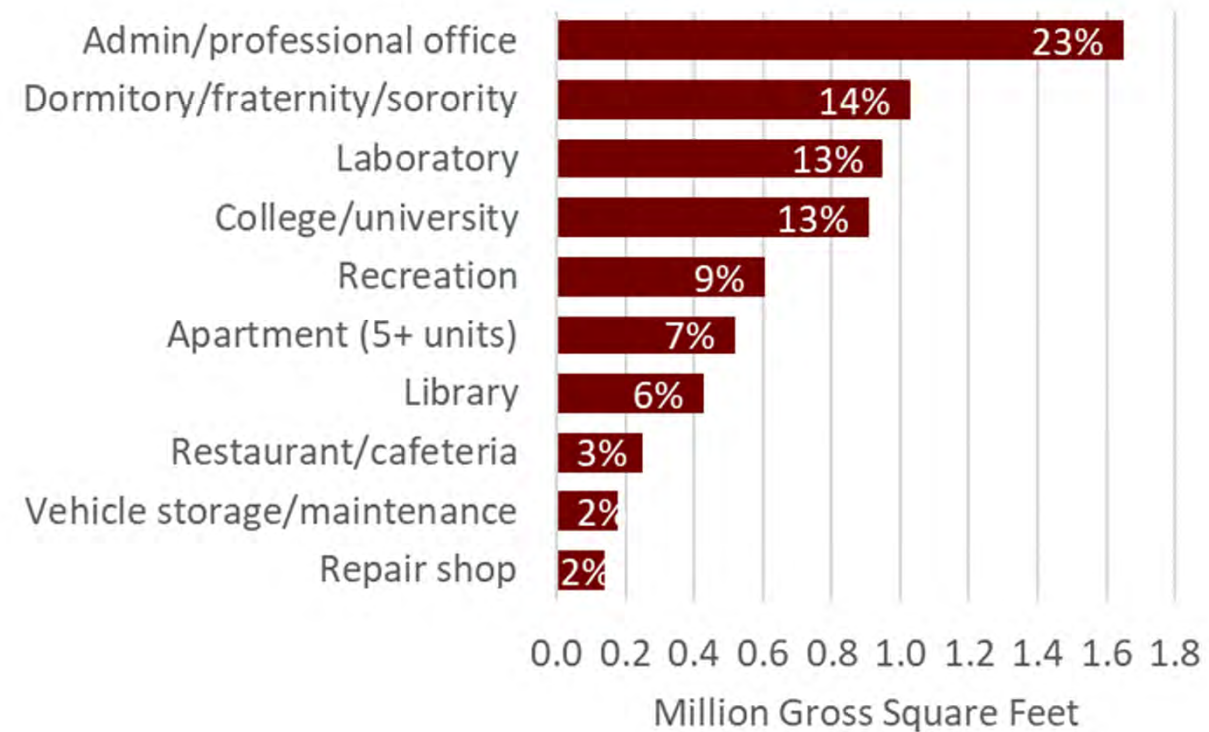
Energy Sustainability

- **Energy Efficiency & Conservation**
 - 40-70% global GHG reduction by 2050
- **Electrification**
 - Heating & Cooling
 - Transportation
- **Renewable Energy Sources**
- **Energy Storage**
 - Thermal & Electric
 - All levels from grid-serving to residential

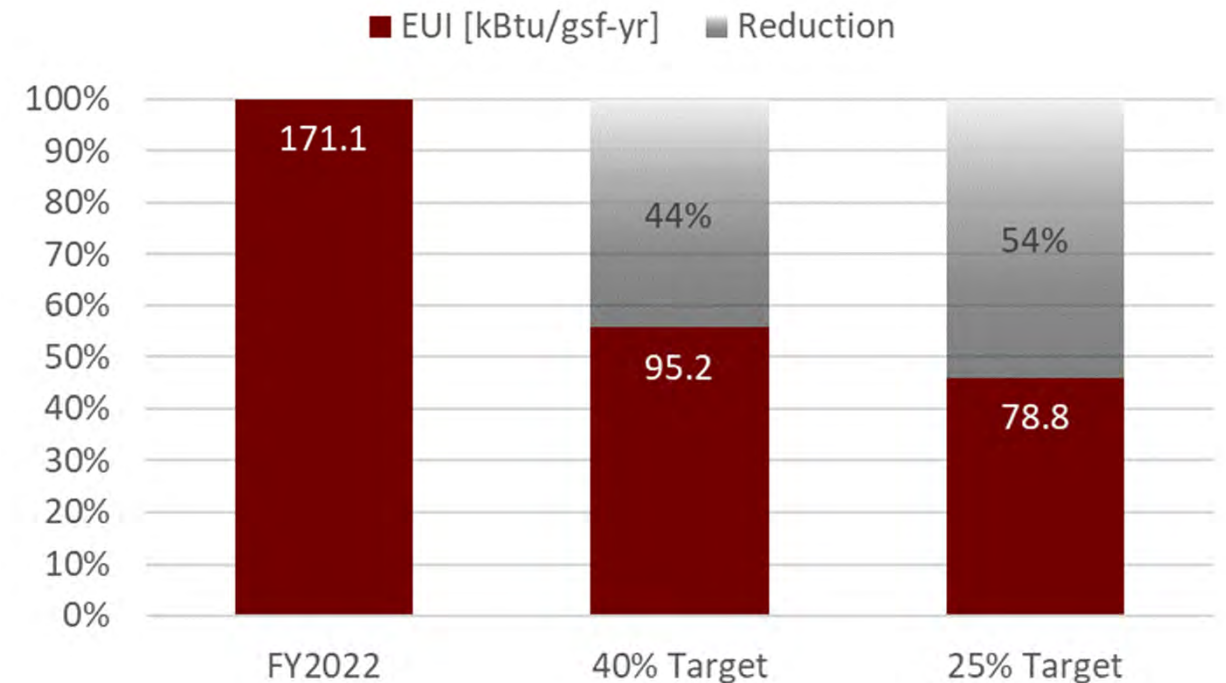


Campus Efficiency Resource

Campus Area by Building Activity Type (Top 10)



Campus Energy Performance Goals



Energy Star level performance could save 54% of energy use, worth \$6.1M/y.

Strategic Alignment

- SIU Carbondale
 - 2020 Climate Commitment – Net Zero Carbon & Climate Resilience
 - Imagine 2030 Strategic Plan – Sustainability Pillar
- SIU System
 - 2021 – 2026 Strategic Plan – Sustainable Infrastructure
- State
 - Climate and Equitable Jobs Act
- National
 - Inflation Reduction Act

Climate Action Roadmap

1 ENERGY OPTIMIZATION

1.1

Efficiency Program with
a Revolving Fund

1.2

Building Planning
& Standards

1.3

Space Utilization

2 ELECTRIFICATION

2.1

Steam to Electric
Chillers

2.2

Electrification of Heating

2.3

Fleet Electrification

3 RENEWABLE ENERGY

3.1

Offsite Renewables

3.2

On-Site Renewables

3.3

Energy Storage

4 SCOPE 3 STRATEGIES

4.1

Commuting & University
Travel

4.2

Procurement

4.3

Waste

5 CAMPUS ENGAGEMENT

5.1

Education Connections

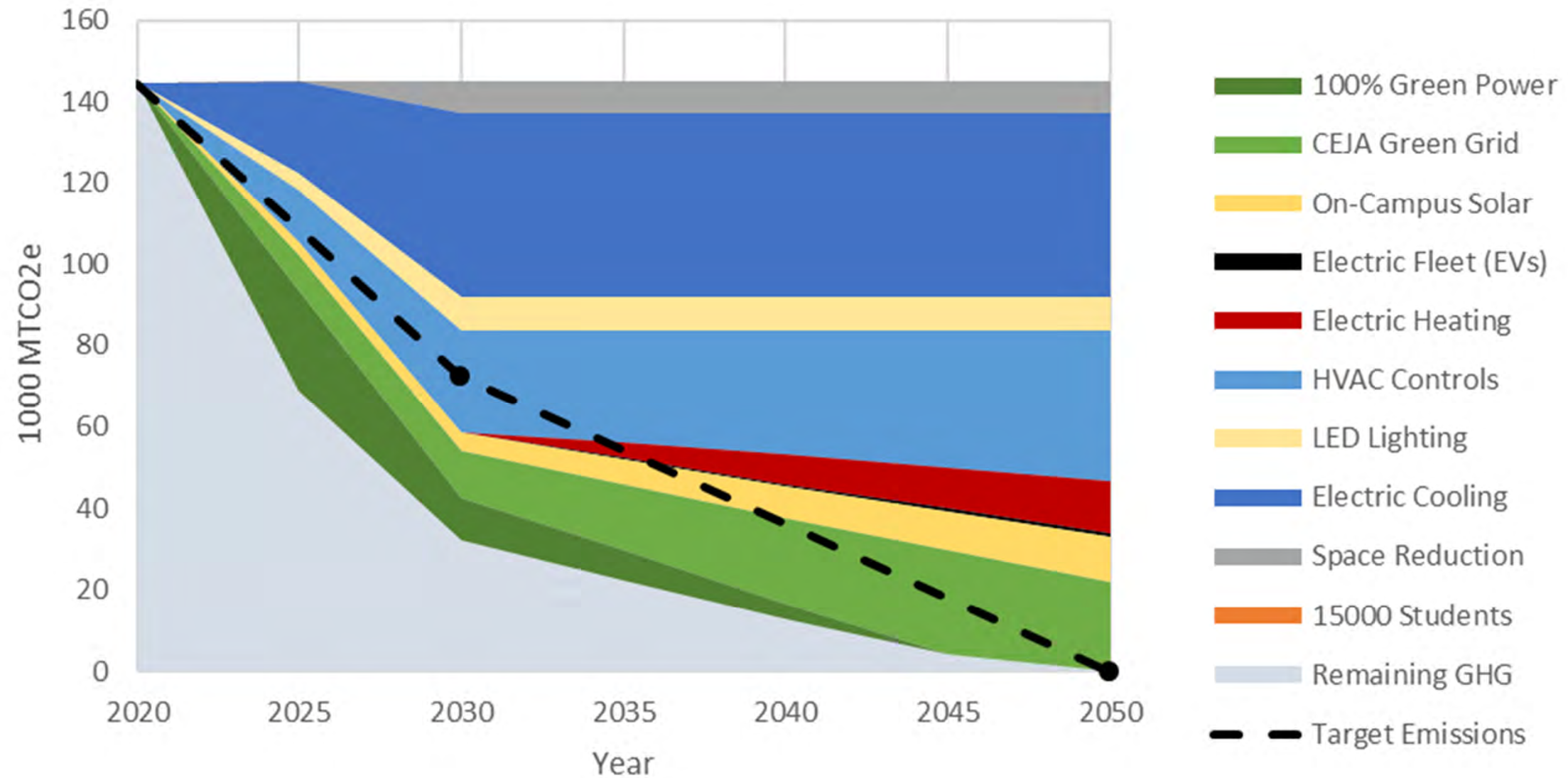
5.2

Student Experience

5.3

Staffing & Governance
Structures

Campus GHG Emissions Wedges



Takeaways

- Climate change is driven by fossil fuel energy use emitting CO₂
- 2/3rds of the primary energy in US is wasted
- Conservation & Efficiency can reduce global GHG by 40-70%
- Electrification, Renewables, and Storage are needed
- Clean energy transformation is possible with existing technology
- “Supporters of climate policies outnumber opponents **two to one**, while Americans **falsely perceive** nearly **the opposite** to be true.”*
 - 66-80% actual support vs. 37-43% perception of support

MAY 18, 2023, LOCAL & STATE UPDATES & NOTES, Sustainability Commission, J. Cogie

STATEWIDE:

VICTORY: the Illinois State House just passed the **Polystyrene Foam Ban (SB58)**, which bans the use of toxic polystyrene foam at state agencies and universities.

"Plastic waste litters our communities, ecosystems, and now also shows up in our drinking water and our bodies. State government should set an example by reducing & ultimately eliminating plastic foam waste, and today the House took an important step toward that goal," said Director Jack Darin.

Read Sierra Club Illinois' full statement: <https://www.sierraclub.org/.../sierra-club-illinois...>

OUR IL STATE HOUSE REPS--Jacobs, Friess, Severin--voted No.

OUR IL STATE SENATORS--Bryant and Fowler--voted YES!! So perhaps our visit helped. Not sure of the timing, but good news in any case. So thanks are likely in order and questions for the House Reps on their No vote.

Advanced Clean Truck Rule:

--It's still important to urge Gov Pritzker to pass the Advanced Clean Truck Rule in Illinois, to reduce heavy duty truck pollution, impacting in particular highly industrialized urban areas. To call, go to

www.bit.ly/JBcleantrucks

--Video testimonial by Tanisha Harris, a young person impacted by asthma caused by pollution including from diesel trucks during her early years living on Chicago's Southshore.

<https://www.facebook.com/watch/?v=188425910747867>

--Video of Tory, who works for Warehouse Workers for Justice and also suffers from bronchitis and asthma, contributed to by pollution from diesel trucks in the Warehouse district of Englewood

<https://www.facebook.com/SierraClubIllinois/videos/5854495901327295>

--**Governor JB Pritzker**, it's time to address heavy duty truck pollution and pass the Advanced Clean Trucks rule. Folks like Tori are dealing with increased air pollution's impacts, like asthma & bronchitis.

--The **#ACT** rule can help **#StopDieselDeathIL!**

#WeJustWantToBreathe

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### LOCAL:

**Faith in Place S IL Eco-Ambassador Program**, 5 week environmental/EJ education for youth leaders (ages 14-16)

Share this notice with any interested parties and have them reach out to me with any questions!

- Eco-Ambassadors, Info Packet:

[https://www.faithinplace.org/files/ugd/fbdf14\\_7305d58aaa8d4ab49718a35d7845c543.pdf](https://www.faithinplace.org/files/ugd/fbdf14_7305d58aaa8d4ab49718a35d7845c543.pdf)

- Eco-Ambassador Application: <https://form.jotform.com/230387176366160>

- General Information: <https://www.faithinplace.org/youth-empowerment>

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Women for Change Big Event: Unity March, Basketball Tournament & Celebration, June 3 (11:30 am Unity March, starting at Rockhill Baptist Church; 12:00 – 2 pm, Attucks Park Celebration)

***The Unity March** will bring together all civic-minded persons, and diverse groups; including religious, environmental, Greek, University and civic organizations in an effort to exemplify our goal. "Unity in the Community." You're welcome to join us on any leg of the march.