




Carbon Policy on the Road to 2024

Bass Connections in Energy:
Developing Departmental Energy Reports and a
Carbon Pricing Program for Duke University



Path to Carbon Neutrality

Where we are now

Aspirations in
sustainability leadership

34% emission reduction
by 2024

CARBON POLICY



Where we want to be

Take leadership in
sustainability efforts

Reduce dependence on
carbon offsets

Request

For CSC to:

Task a **subcommittee** to further develop and implement our recommendations

CARBON POLICY



**Campus-wide
Education**

**Targeted
Education**

Pricing Carbon

**Building
Improvement**

CARBON POLICY



**Campus-wide
Education**

Building broad
support from end
users

**Targeted
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CARBON POLICY



**Campus-wide
Education**

Building broad
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**Targeted
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Educating
decision-makers

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**Building
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CARBON POLICY



Campus-wide Education

Building broad support from end users

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Educating decision-makers

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Making cost of carbon visible to decision-makers

Building Improvement

CARBON POLICY



Campus-wide Education

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Making cost of carbon visible to decision-makers

Building Improvement

Providing resources to create change

Campus-wide Education

1

Student Engagement

- Create **webpage** dedicated to Duke's energy systems and decision-making process
- **Educate students** about Duke's energy system and create **channel for feedback**



Implementer: Sustainable Duke

Campus-wide Education

1

Student Engagement

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Staff Engagement

- Expand **staff educational programs** to incorporate carbon reduction policies and Duke's current energy efficient projects

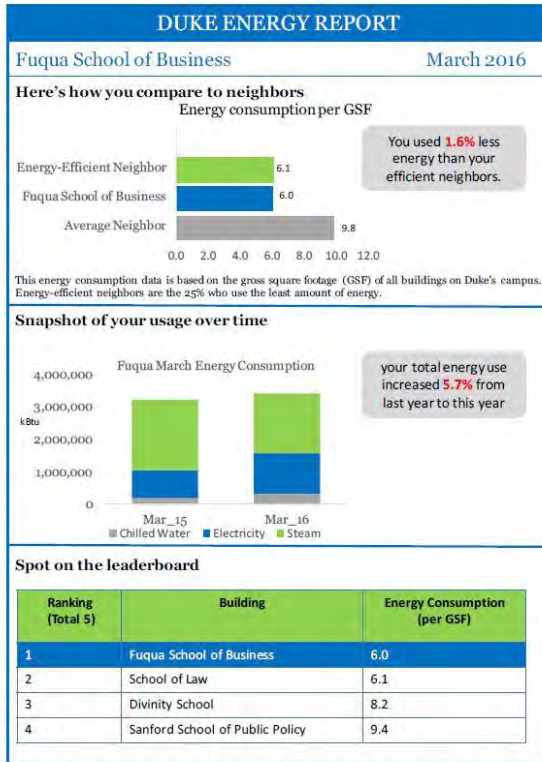
Targeted Education

2

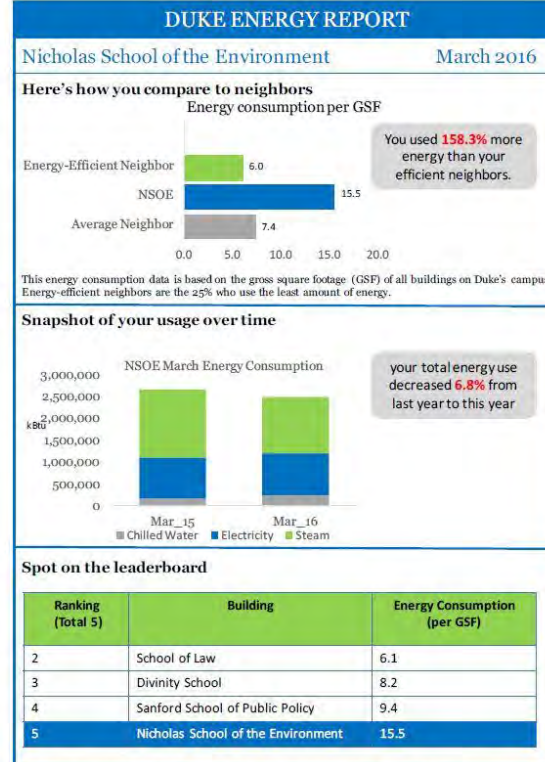
- Create and distribute **Departmental Energy Reports**
- Publicize departmental energy consumption **leaderboard**
- Create Energy Efficiency **Retrofit Guidebook**

Implementers: Campus Sustainability Committee, Sustainable Duke, Facilities & Management

Departmental Energy Reports



For more information about your energy bill/ complete leaderboards and energy efficiency tips, visit: <insert url>



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Targeted Education

2

- Create and distribute **Departmental Energy Reports**
- Publicize departmental energy consumption **leaderboard**
- Create Energy Efficiency **Retrofit Guidebook**

Implementers: Sustainable Duke, Facilities & Management

Pricing Carbon

3

- Utilize **shadow pricing** in financial models for new constructions
 - NOT an actual fee
 - Price based on cost of offsets, not social cost of carbon
 - Reduces cost in the long-run
- Implement **carbon charge** across departments
 - Charge proportional to energy consumption
 - Add budget line item as placeholder
 - Charge based on cost of offsets, not social cost of carbon

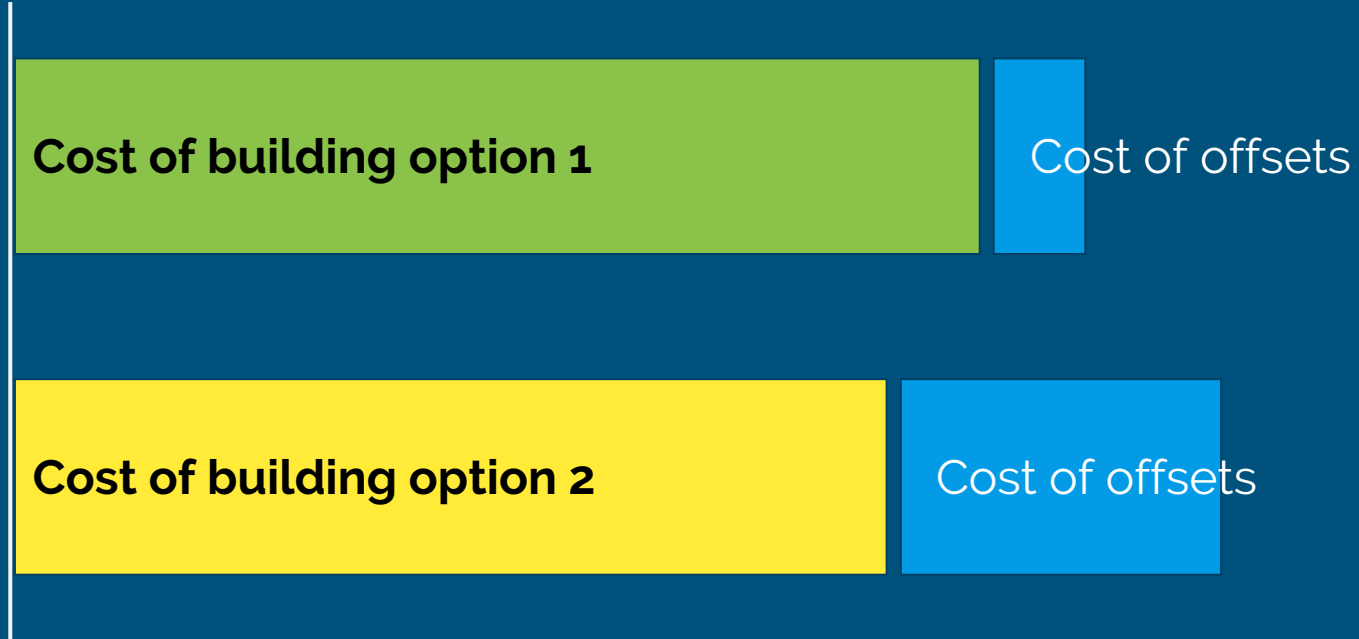
Implementers: Campus Sustainability Committee, Facilities & Management, Financial Services

Shadow Pricing

Cost of building option 1

Cost of building option 2

Shadow Pricing



Pricing Carbon

3

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Building Improvement

4

- **Increase funding** for energy-efficient projects
 - Increase allocation from Provost, OR
 - Establish revolving fund
- **Support implementation** of Sustainable Building Guideline
 - 30% improvement over baseline energy use
 - Current maximum has been 28%
 - Opportunity during revision of Sustainable Building Guideline

To Recap:

- Carbon neutrality by 2024, mainly achieved via purchasing offsets
- Our recommendations help **reduce dependence on offsets** and establish Duke as a **carbon policy leader**
- They require **institutional change** and **high-level political support**

Request: **tasking of subcommittee** to further develop and implement these recommendations

Questions?

CARBON POLICY



Campus-wide Education

Building broad support from end users

Targeted Education

Educating decision-makers

Pricing Carbon

Making cost of carbon visible to decision-makers

Infrastructural Improvement

Providing resources to create change