

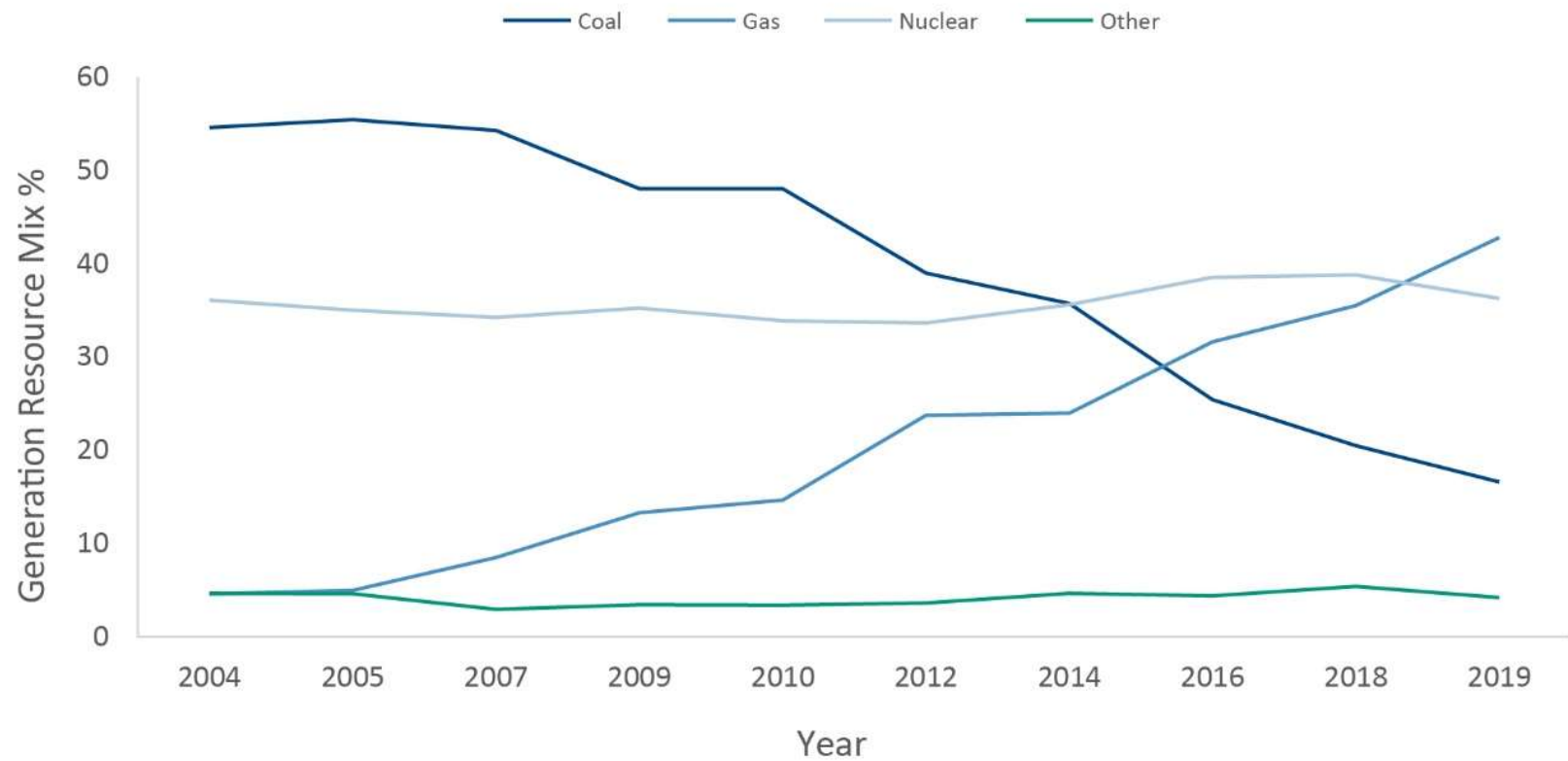
EVs at Penn

Low-Emission Vehicle Purchasing Guide
(& Other Initiatives)

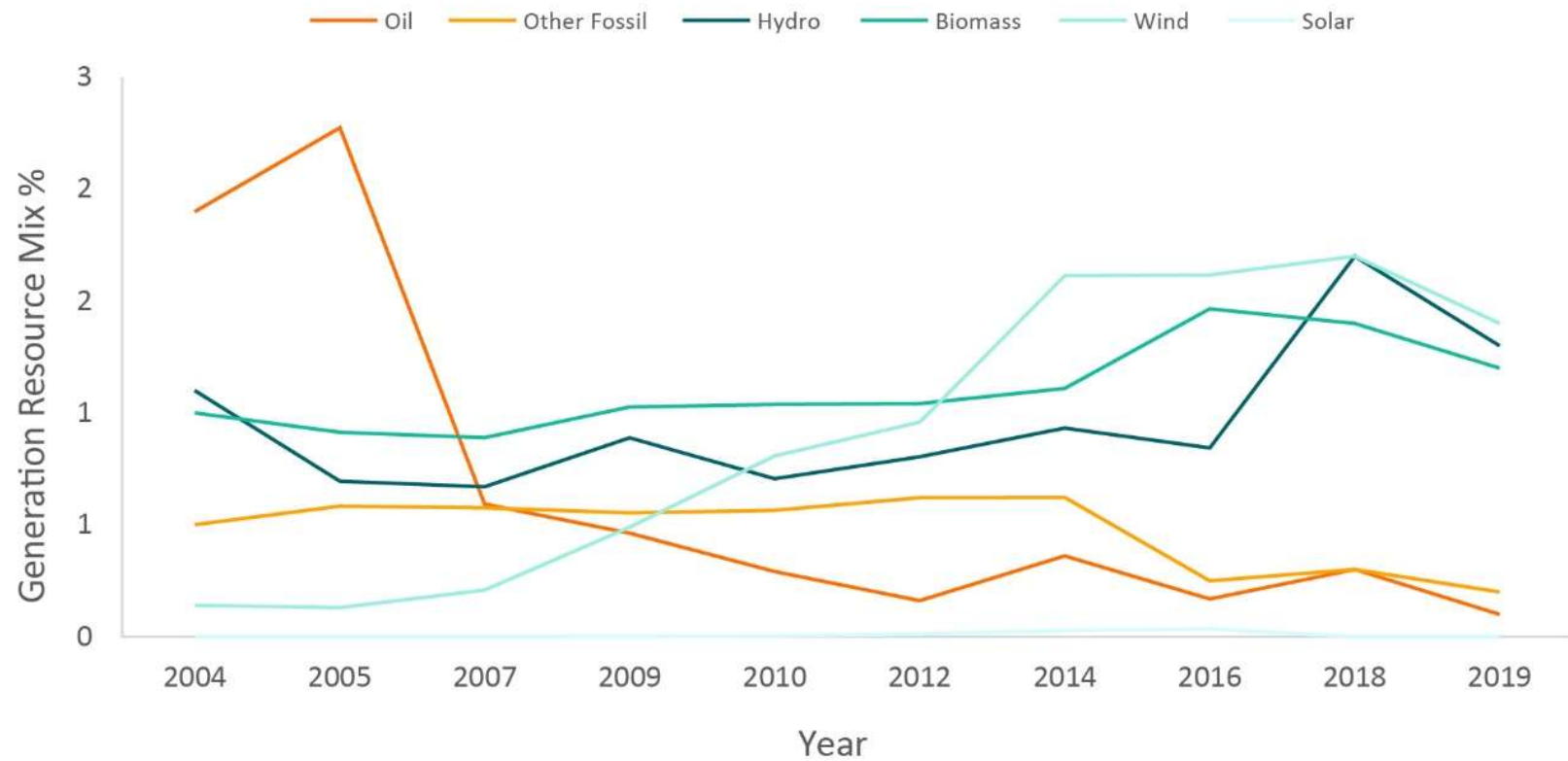
Emily Shaw :: PennSustainability Graduate Intern
September 20, 2021



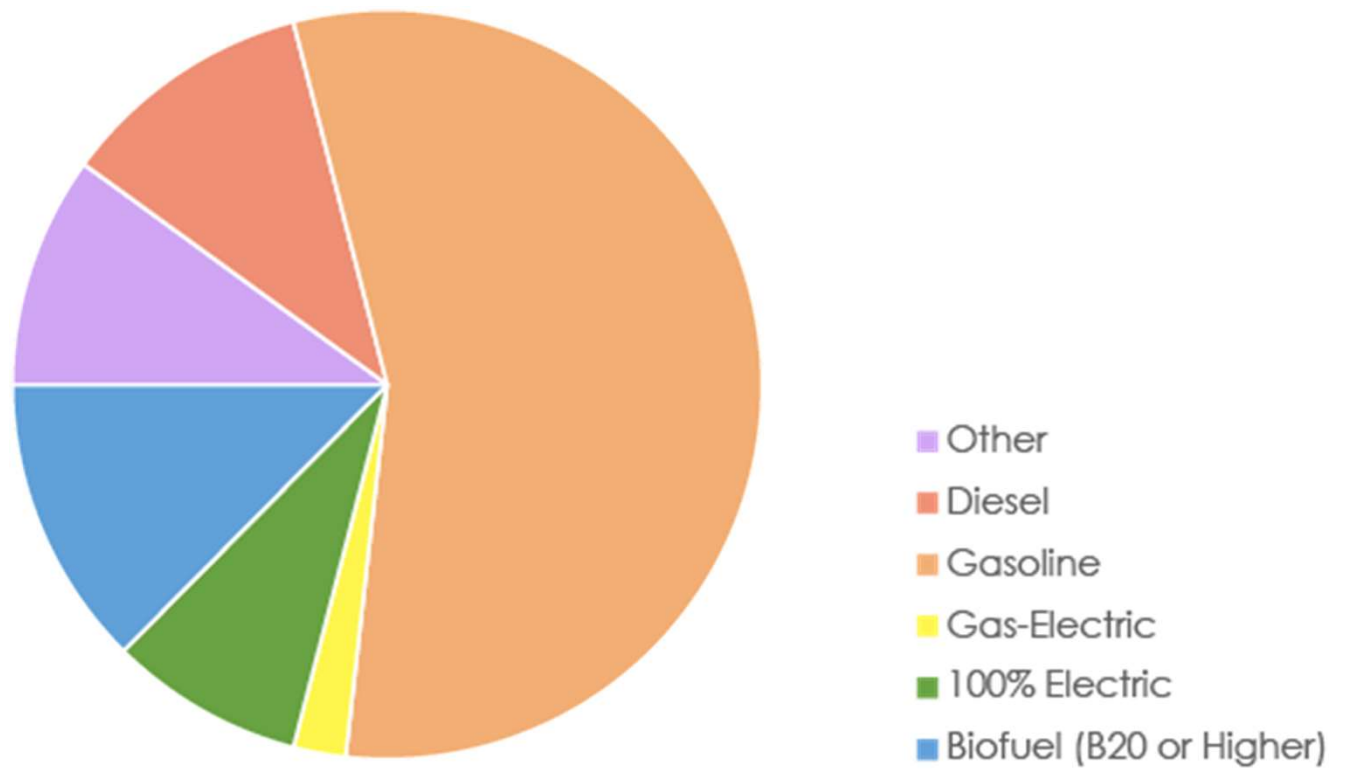
Pennsylvania's Electric Grid



Pennsylvania's Electric Grid



Penn's Fleet Makeup



Compared to Peers

- Penn ranked 5th in SCI's Transportation ranking
- Top 4 Universities
 - Columbia University
 - University of Washington, Seattle
 - Concordia University
 - New York University

Top Performers

Rank	Institution	Score	Type	Location
1	Columbia University	89.1%	Doctoral	New York, NY
2	University of Washington, Seattle	87.6%	Doctoral	Seattle, WA
3	Concordia University	81.6%	Doctoral	Montreal, QC
4	New York University	81.4%	Doctoral	New York, NY
5	University of Pennsylvania	80.6%	Doctoral	Philadelphia, PA
6	Emerson College	80.3%	Master's	Boston, MA
7	Massachusetts Institute of Technology	79.7%	Doctoral	Cambridge, MA
8	Stevens Institute of Technology	78.7%	Doctoral	Hoboken, NJ
9	University of Ottawa	78.3%	Doctoral	Ottawa, ON
10	Colorado College	78.1%	Baccalaureate	Colorado Springs, CO

Top 10 Universities for Transportation, Sustainability Campus Index

Low-Emission Vehicle Purchasing Guide



Fleets at Penn

- General findings
 - Vehicles travel short distances within the city
 - Decentralized purchasing
 - Low number of new vehicle purchases per year
 - Existing EV/AFVs precedents



Photo by Kylie Cooper, PennSustainability

Fleets at Penn

- Main concerns
 - Utility
 - Many fleets have a high number of large, hauling vehicles
 - Some fleets are highly specialized
 - Specialized maintenance
 - Wide variety of needs across university to address
 - Cost
 - Purchasing through Penn uses a bid system
 - Unsure of what types of funding resources exist/availability to the University

Background

- In 2019, Philadelphia was rated as the 18th most air polluted city in the country
- Penn's Climate and Sustainability Action Plan 3.0 aims for carbon neutrality by 2042
- Become better neighbors to our adjacent Philadelphia communities
- Gas powered vehicles cost about 4x as much to fuel compared to electric vehicles



Photo from University of Pennsylvania

Main Goals

- Guide aims to provide:
 - A general understanding of the concepts and benefits of purchasing low- or zero- emissions vehicles
 - Resources for funding
 - Recommended vehicle options
 - An overview of the purchasing process at Penn
 - Information on infrastructure and other support



Photo by Kylie Cooper, PennSustainability

Moving Forward/Initiatives

- Climate & Sustainability Action Plan 3.0
 - Expansion of EV charging stations
- More precise fleet categorization
- Addition of 3 electric vans



Moving Forward/Initiatives

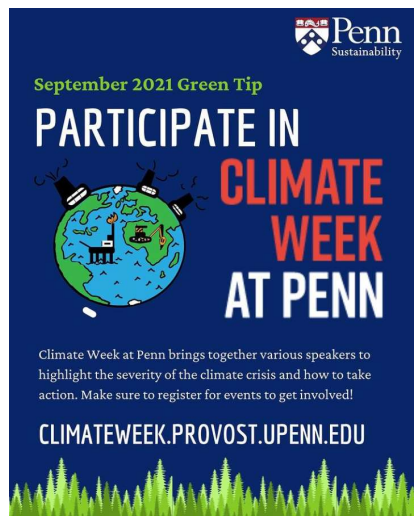
- Campus shuttle/public transportation
 - Penn Bus & LUCY
 - Evening shuttle
- Biking amenities
 - Bike path/parking/repair location map
 - Penn Bike Commuter Expense Reimbursement Program
- Penn Home Ownership Services
 - Provides incentive for faculty/staff to live in West Philly, reducing transportation costs



Photo by Kylie Cooper, PennSustainability

Keep Up With Penn's Sustainability Related Initiatives

- Browse our website at <https://sustainability.upenn.edu/>
- Email us at sustainability@upenn.edu
- Follow us on Instagram [@PennSustainability](https://www.instagram.com/PennSustainability)



Graphics on Left from PennSustainability's Instagram
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