
PURDUE GRADUATE STUDENT SENATE

RESOLUTION No. FA22 – R011

**Resolution in Support of Creating a Carbon Neutral
Purdue by 2030**



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Sponsor(s): Eleanor Didonna; Veronica Reynolds; Garrett Price; Andrew Askounis; Adam Fitchner; Claire Bohman; Matthew Thomas; Isabelle Diaz; Lilli Ferguson; Sydney Terrell; Isheeta Khurana; Mohamed Bouftas; Imon Banerjee, PGSG Senator, Statistics; Utkuhan Genc, PGSG Senator, Industrial Engineering; Bryanna Nelson, PGSG Senator, Agricultural Sciences Education and Communication; Jacob White, PGSG Senator, Computer Science; Austin Blevins, PGSG Senator, Earth, Atmospheric, and Planetary Sciences; Olivia Palepoi, PGSG Senator, Anthropology

WHEREAS, Analysis from the NASA Goddard Institute for Space Studies Surface Temperature Analysis has shown a significant global temperature rise because of human activity since the Industrial Revolution, with 9 of the 10 hottest years on record occurring in the past decade;¹ and

WHEREAS, The Purdue Climate Change Research Center (PCCRC) has determined that with continued business-as-usual, Indiana is expected to lose 16 – 20% of its corn yields and 9-11% of soybean yields by mid-century;² and

WHEREAS, The PCCRC has determined the greater Midwest can expect increased risks to public health, infrastructure, and agriculture due to increased heat wave intensity and frequency, more extreme droughts, increased heavy rain events and flooding, decreased agriculture yield, and degraded air and water quality;³ and

WHEREAS, As an increasing number of countries target net-zero emissions,⁴ the majority of Big Ten schools (including Indiana University - Bloomington) are committed to, and

¹ <https://earthobservatory.nasa.gov/world-of-change/global-temperatures>

² <https://docs.lib.purdue.edu/agriculturetr/1/>

³ <https://docs.lib.purdue.edu/agriculturetr/1/>

⁴ <https://www.un.org/en/climatechange/net-zero-coalition>

making significant progress towards, more ambitious & innovative carbon neutrality goals than Purdue University through comprehensive climate action plans; and

WHEREAS, While a primary concern for transforming Purdue University into a carbon neutral university is the financial goal of keeping Purdue at frozen tuition, the long term ROI outweighs capital costs, and additionally, Ohio State University has committed to a carbon neutral climate action plan while keeping a similar frozen tuition mission; and

WHEREAS, As one example of a nearby university, Ball State University saves \$2.2 – 2.5-million per year from its carbon neutral transformation because of the increased energy efficiency, savings due to energy independence, and annual revenue from its public-private partnership in selling carbon credits to Chevrolet; and

WHEREAS, Not only a monumental step in leading the charge for a sustainable future, carbon neutrality is also a financial strategy and marketing tool; and

WHEREAS, So far, over 4,000 tuition-paying Boilermakers, several bipartisan city and state lawmakers, and 47 Purdue Student Organizations from all spheres of interest, representing thousands more students, have signed onto the request for Purdue to commit to a carbon neutrality goal;^{5,6} and

WHEREAS, Purdue students have created a proof-of-concept climate action plan⁷ targeting carbon neutrality based on input from faculty, staff, estimates where university data is unavailable, and the analysis of costs and emissions of current infrastructure versus carbon neutrality; and

WHEREAS, This proof-of-concept climate action plan describes methods to achieve carbon neutrality, with the result of creating a worthwhile ROI and emissions reduction, including but not limited to the high-level descriptions below:

- Constructing solar panel canopies to be placed above parking lots and top floors of parking garages to decrease dependency on purchased energy, reduce energy costs, and reduce emissions
- Utilizing tire-derived fuels in current boilers to decrease dependency on purchased energy and reduce emissions
- Keeping a sustainable level of natural gas for the short term to ease the transition
- Constructing a wind farm on available Purdue-owned real estate, either near to or far from main campus, to fund other areas of the climate plan and increase revenues beyond 2030 by providing energy to the local cities who currently target net-zero emissions

⁵ <https://www.carbonneutralindiana.org/purdue-university-carbon-neutral-petition>

⁶ <https://www.carbonneutralindiana.org/blog-final-purdue-university-carbon-neutral-petition>

⁷ https://drive.google.com/file/d/176t1F5e2YVCR7Y6ELq_acfHRX5QDwaeI/view?usp=sharing

- At university-coordinated events, residence halls, academic buildings, and food courts, purchasing recyclable and compostable products rather than single-use plastic, and implementing appropriate waste disposal systems in line with Purdue Student Government Resolution 21-41
- Retro Commissioning existing buildings to optimize energy efficiency, and recognizing that retro commissioning existing buildings is equally as important as LEED certifying new buildings
- Implementing additional Level 2 and Level 3 electric vehicle charging stations in convenient locations around campus to incentivize electric vehicle ownership, and partnering to bring more electric scooters, bike sharing, and nighttime CityBus routes to decrease the amount of cars on campus overall
- Increasing native flora, rain gardens, and native tree cover to increase carbon sequestration and decrease costs associated with the strenuous maintenance required to upkeep non-native flora and current stormwater infrastructure
- Placing green roofs on building rooftops with less than a 30-degree slope to slash energy usage via thermal insulation and increase the rooftop lifetimes before costly roof replacements are needed
- Partnering with private companies to sell Purdue's carbon credits that result from emissions reductions, as well as sell solar energy credits (SRECs) in the Ohio SREC Market, to gain additional yearly revenue that may be used to further accelerate the carbon neutrality goal or the payback period for ROI
- Advertising this next giant leap to donors, similarly to how the Ever True Campaign raised between \$600 – 800 million for physical infrastructure and special innovation projects, as well as seeking grants from the State of Indiana and the U.S. Department of Energy to cover capital costs and accelerate the payback period so Purdue reaches the return on investment quicker than 2030; and

WHEREAS, Purdue University, with its various resources and the nation's best and brightest individuals, has the wherewithal and the obligation to consider its students' requests, protect the health of its future students, and to lead the charge on carbon neutrality; and

WHEREAS, Climate change is an evolving issue that will continue to negatively impact Purdue University and Indiana residents, with the future holding less favorable conditions for an economic transformation towards carbon neutral infrastructure than the present; and

WHEREAS, Purdue University takes pride in leading the world in taking giant leaps and leaving all things one brick higher; and taking a leap towards carbon neutrality now amidst evolving climate issues can prevent the need for a more costly leap in the future.

NOW, THEREFORE, BE IT RESOLVED, That the Purdue Student Government and the Purdue Graduate Student Government urges Purdue University to assign the

Campus Planning, Architecture, and Sustainability (CPAS) Office with the task of examining and discussing the student-made proof of concept climate action plan alongside its creators.

BE IT FURTHER RESOLVED, That, after meeting with the student climate plan creators to examine and discuss the proof of concept, CPAS develops and proposes to Purdue administration a plan for the West Lafayette campus of Purdue University to achieve carbon neutrality in Scopes 1 and 2 emissions by 2030.

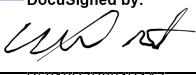
BE IT FURTHER RESOLVED, That the Purdue Student Government and the Purdue Graduate Student Government asks that Purdue University announce a commitment to achieving carbon neutrality by the end of 2023, with the consent of the University Senate and the Purdue Board of Trustees.

BE IT FURTHER RESOLVED, That the Purdue Student Government and the Purdue Graduate Student Government urge Purdue University to commit to achieving complete Scopes 1 and 2 carbon neutrality on its West Lafayette campus by the year 2030.

BE IT FURTHER RESOLVED, That the Purdue Student Government deliver this resolution to the University Senate Steering Committee for assignment to the proper University Senate Standing Committee for their consideration.

BE IT FURTHER RESOLVED, That after the Purdue Graduate Student Government has had the opportunity to consider this a joint resolution with the Purdue Student Government, the Purdue Student Government shall deliver this resolution to Mitch Daniels, President of Purdue University; Michael Cline, Senior Vice President for Administrative Operations; Jay Wasson, Associate Vice President of Physical Facilities; and the Purdue University Board of Trustees: Chairman Berghoff, Vice Chairman Lehman, Theresa Carter, Sonny Beck, JoAnn Brouillette, Vanessa Castagna, Malcolm DeKryger, Michael Klipsch, Don Thompson, and Mark Gee.

PASSED, APPROVED, AND ADOPTED this 30th day of November 2022.

DocuSigned by:

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President, PGSG

DocuSigned by:

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Senate Chair, PGSS

Certification

I, Mary Brown, Senate Clerk of the Purdue Graduate Student Senate, do hereby certify that the foregoing resolution was regularly passed and adopted by the Purdue Graduate Student Senate of Purdue University, at a regular meeting thereof held on the 30th day of November 2022 by the following vote:

AYES (43): Agricultural Economics - Haseeb Daudzai
Agricultural Sciences Education and Communication - Bryanna Nelson
Animal Sciences - Sarah Innis
Anthropology - Olivia Palepoi
Aviation and Transportation Technology - Luigi Dy (Alternate, Acting Senator)
Basic Medical Sciences - Siyuan Sun
Biochemistry - Steven McKenzie
Biological Sciences - Morgan Chaney
Biomedical Engineering - Michael Zimmerman
Botany and Plant Pathology - Ricky Critchfield
Chemical Engineering - Annie Sun
Chemistry - Solita Wilson
Civil Engineering - Agustin Quinones
Communication - Savannah Meier
Comparative Literature - Marisa J Bryans
Computer Science - Jacob White
Curriculum and Instruction - Theodora Amuah
Earth, Atmospheric, and Planetary Sciences - Austin Blevins
Educational Studies - Stephanie Contreras
Electrical and Computer Engineering - Somosmita Mitra
Engineering Education - Barbara Fagundes
Engineering Technology - Pragatheiswar Giri
English - Marisa Yerace (Alternate, Acting Senator)
Food Science - Anaël Kimble
Forestry and Natural Resources - Ken Yao Chong
Health Sciences - Brian Bozyski (Acting Senator)
Horticulture and Landscape Architecture - Camila Ulloa Gomez
Human Development and Family Studies - Amy Loviska
Industrial Engineering - Utkuhan Genc
Languages and Cultures - Santiago Parra Giraldo
Materials Engineering - Daniel Sinclair
Mechanical Engineering - Meghavin Bhatasana
Nuclear Engineering - Stepan Ozerov
Nutrition Science - Julia Choi
Philosophy - Mary Brown
Physics and Astronomy - Shayamal Singh

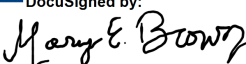
Political Science - Matthew Ellis
Public Health - Sidney Smith
Purdue University Interdisciplinary Life Sciences (PULSe) - Lauren Wilbanks
Sociology - Reilly Kincaid
Speech, Language, and Hearing Sciences - Brooke Rodgers
Statistics - Imon Banerjee
Veterinary Clinical Sciences - Ojo Oluwabunmi T.

NAYS (0):

ABSENT (3): Ecological Sciences and Engineering (ESE) - Neha Shakelly
Mathematics - Alexandra Cuadra
Technology, Leadership, and Innovation - Ralph Rivera

ABSTAINED (11): Aeronautics and Astronautics - Krishna Bansibhai Thakkar
Agricultural and Biological Engineering - Mike Sserunjogi
Agronomy - Binod Gyawali
Doctor of Veterinary Medicine (DVM) - Alaunie Smiley
Economics - Talha Cakir
Environmental and Ecological Engineering - Kendrick Hardaway
Global Supply Chain Management - Rohan Saini
Hospitality and Tourism Management - Rachel Zhang
Industrial and Physical Pharmacy - Pradnya Prakash Bapat
Interdisciplinary Biomedical Sciences (IBSC) - James Kirby (Acting Senator)
Management - Arindam Roy Chowdhury

IN WITNESS WHEREOF, I have hereunto set my hand this 14th day of January 2023.

DocuSigned by:

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Senate Clerk, PGSS