



WASHINGTON STATE
UNIVERSITY

WSU's Leadership Activities in the Energy Area



Dr. Noel Schulz, Bob Ferguson Endowed Professor
Director, Institute for Northwest Energy Futures (INEF), WSU Tri-Cities
August 20, 2025

AGI DAY 2025 - Building and Operating an Affordable, Reliable, and Secure Regional Grid



WASHINGTON STATE UNIVERSITY
TRI-CITIES

WSU TRI-CITIES

A LEADER IN RELIABLE ENERGY

Premiere Research | Hands-On Learning | Community Oriented



**1 of 6 WSU
campuses statewide**

Positioned to work on the
Energy Ecosystem

WSU System

The state's land grant university with 26,000+ students across campuses

Serving the entire state through:

- Education
- Research
- Community service and partnerships



WSU Tri-Cities

Reflecting the community we serve

Student Population:

- 1,489 students
- 51% first generation students

STEM Majors:

- 40% total enrollment in STEM

Research Strengths

- Energy
- Environment
- Agriculture



"Of" the Community

Rich and unique in energy production and capability

Region hosts bountiful energy generation from hydropower, nuclear, solar and wind resources serving demand in the state and adjacent regions.

It is also a rich agricultural area with multiple sources of biomass from which to create fuels, innovate at the nexus of agriculture and energy, and has abundant water for H₂ production.



Leading the Transition

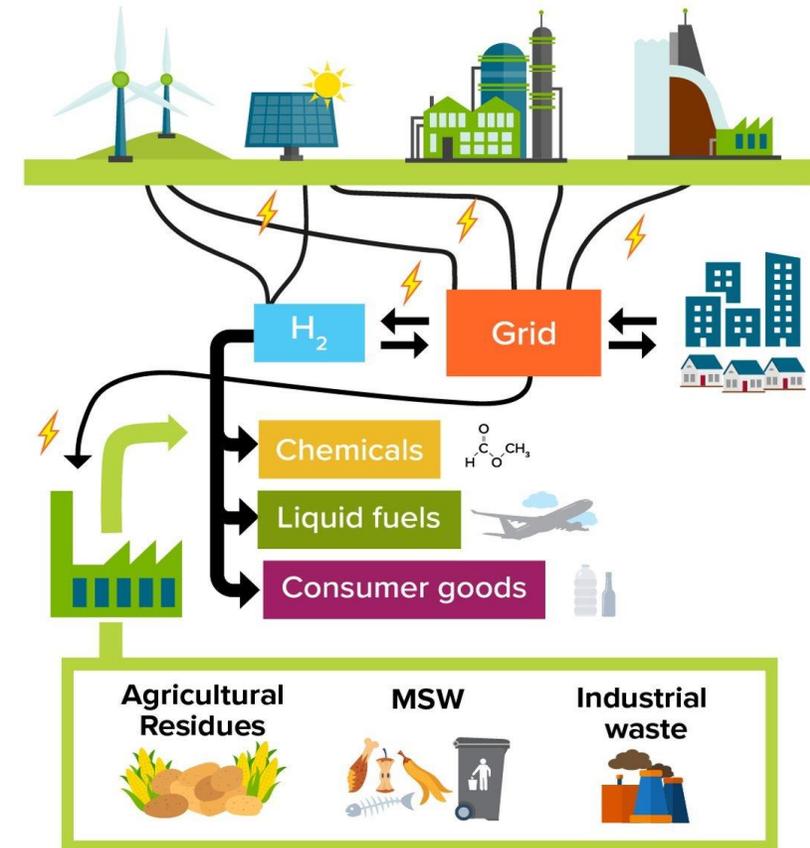
Partnerships with PNNL:

- Bioproducts, Sciences, and Engineering Lab (BSEL)
- Pacific Northwest Hydrogen (PNWH2) Hub



Institute for Northwest Energy Futures (INEF)

- Leveraging diversity of energy ecosystem players to examine energy systems



WSU-PNNL Strategic Partnership



WASHINGTON STATE
UNIVERSITY



Pacific Northwest
NATIONAL LABORATORY

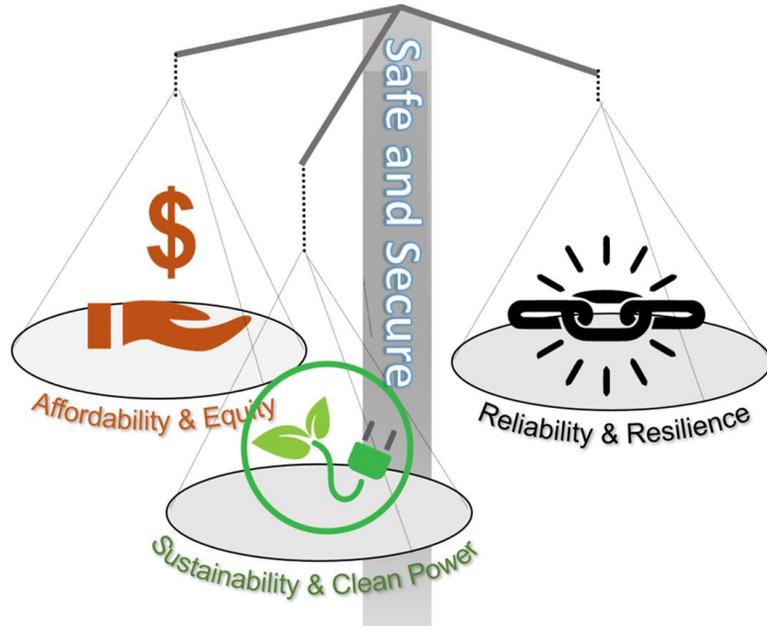


- **Research Institutes, Innovation and Collaboration**
- **Joint Appointments**
 - WSU Faculty can work directly on PNNL projects
 - PNNL Researchers can do NSF research, teach and do researcher at university
 - Over 50 faculty or researchers have joint appointment
- **Distinguished Graduate Research Program (DGRP)**
 - PhD student works with joint PNNL and WSU advisors
 - Students spend two years on campus and two years at PNNL
 - Over 50 students have been involved in the program





WSU-PNNL Advanced Grid Institute (AGI)



**Grid modernization
requires engineering
tradeoffs**

Goal: The WSU-PNNL AGI will specialize in system-centric approach to assist with the rapid decarbonization and electrification of the power grid

Key technical areas:

- Energy Analytics and Decision Support
- Power Electronics-dominated Power Grid
- Resilience to Cyber and Natural Threats



**Anamika Dubey-WSU
Co-Director**



**Wei Du- PNNL
Interim Co-Director**

Involves:

- ESIC- Energy Systems Information Center (WSU)
- INEF- WSU Tri-Cities Institute for Northwest Energy Futures
- EARNEST- Equitable, Affordable & Resilient Nationwide Energy System Transition (DOE University Consortium)

Turning today's waste into tomorrow's carbon resource



Joshua Heyne (WSU)

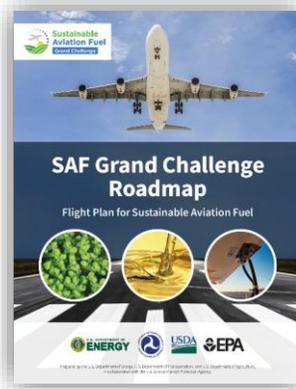


Corinne Fuller (PNNL)

National Distinctions:



Fuller awarded Secretary's Honor Award



Wolcott only academic author of SAF GC Road Map

Joint Appointments (13):



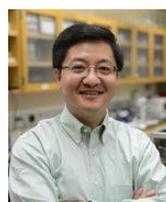
to **WSU**



to **PNNL**



to **WSU**



to **PNNL**

Shared Space:



Centroid of Bio-In, space split 53/47 PNNL/WSU Bioproducts, Sciences, and Engineering Laboratory (BSEL), WSU Tri-Cities

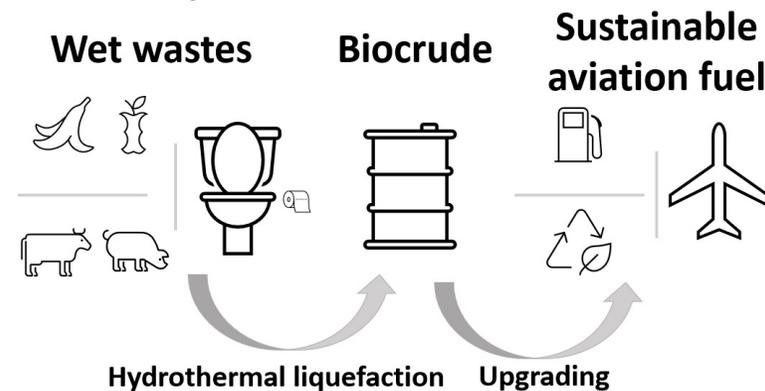
Joint Graduate Study Opportunities:

DGRP and first Alaska Airlines Fellow, Conor Faulhaber



17 Distinguished Research Graduate Program Fellows since 2018, Tutored 11 Post-Docs and Students

Joint Projects:



>\$33 million in new projects
>83 research publications



Pacific Northwest Hydrogen Hub (PNWH2)



Leveraging our PNNL-WSU partnership is a unique opportunity and a win-win



Pacific Northwest
NATIONAL LABORATORY



WASHINGTON STATE
UNIVERSITY

