

Welcome to the 2021 JISEA Annual Meeting!

Keynote: Energy Equity

14 April 2021

Introduction: Jill Engel-Cox, JISEA Director

Moderator: Liz Doris NREL/JISEA

 @JISEA1

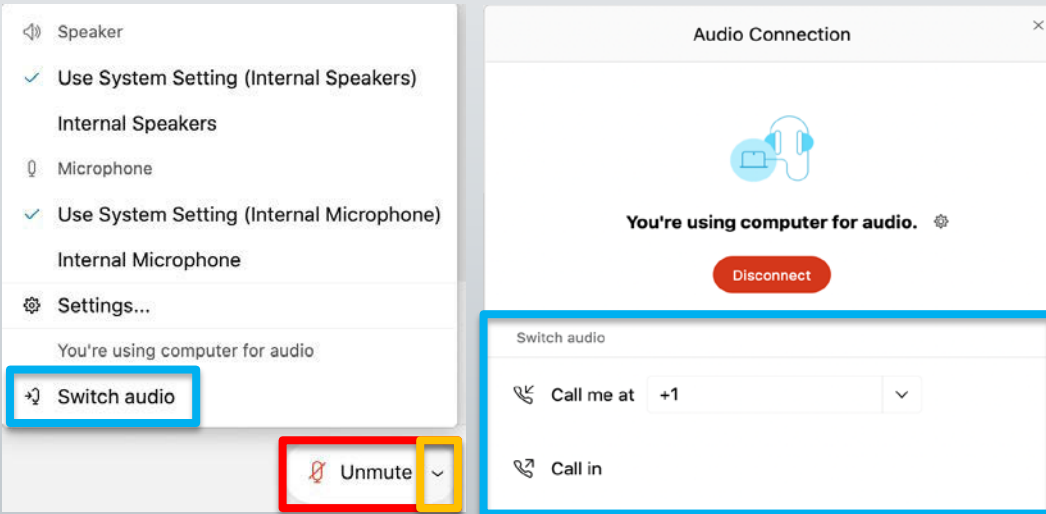
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Housekeeping and WebEx Tips

To find or switch audio options:

1. Select carrot next to Mute/Unmute button
2. Select Switch Audio
3. WebEx will display your current audio option at the top
4. Other audio options displayed under “Switch audio”



To change view options:

1. Select layout button

Layout

2. Change to:

Grid – All videos shown

Stage – Speaker highlighted, other videos below

Focus – Only speaker video shown

Message Isabel McCan if any technical problems.

Housekeeping and WebEx Tips

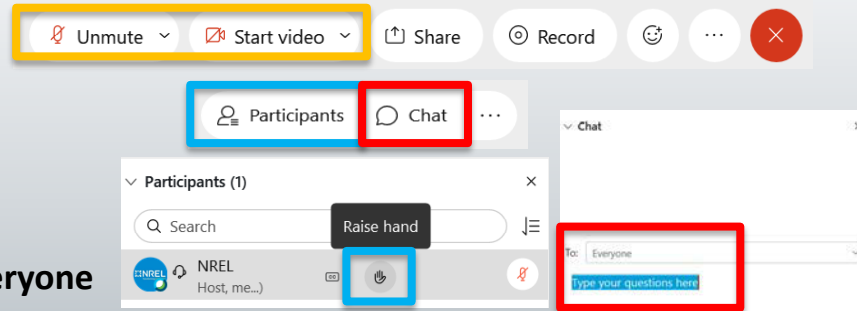
Engage!

- Answer polls
- Comment in the chat
- Ask questions



During the presentation(s):

- Stay muted
- Camera off
- If you have a question:
 - Raise your hand, or
 - Type it in the chat box to Everyone



Asking questions:

- Unmute
- Camera on



Overall Agenda: All Sessions 8:30-9:45 am MT

Monday, April 12: **Industrial Clean Energy**

At 1:00 pm MT: Interactive virtual campus tour

Tuesday, April 13: **Energy, Climate, and Air Pollution**

Wednesday, April 14: **Keynote Discussion: Energy Equity**

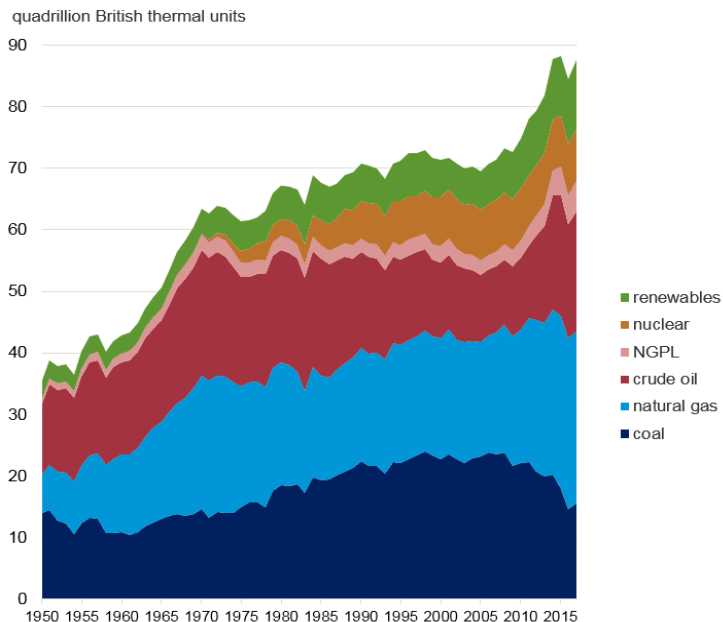
Thursday, April 15: **Sustainable Communities**

Friday, April 16: **Topic “Tables” Discussion with Experts**

All sessions include ~45-minute presentations and ~30-minute open questions & discussion.

Clean energy is growing

U.S. primary energy production by major sources, 1950-2017



Note: NGPL is natural gas plant liquids.
Source: U.S. Energy Information Administration, *Monthly Energy Review*, Table 1.2, April 2018



THE WHITE HOUSE

Administration Priorities COVID-19 Briefing Room Español

FACT SHEET: President Biden Takes Executive Actions to Tackle the Climate Crisis at Home and Abroad, Create Jobs, and Restore Scientific Integrity Across Federal Government

JANUARY 27, 2021 • STATEMENTS AND RELEASES

President Biden set ambitious goals that will ensure America and the world can meet the urgent demands of the climate crisis, while empowering American workers and businesses to lead a clean energy revolution that achieves a carbon pollution-free power sector by 2035 and puts the United States on an irreversible path to a net-zero economy by 2050. Today's actions advance those goals and ensure that we are tapping into the talent, grit, and innovation of American workers, revitalizing the U.S. energy sector, conserving our natural resources and leveraging them to help drive our nation toward a clean energy future, creating well-paying jobs with the opportunity to join a union, and delivering justice for communities who have been subjected to environmental harm.

OUR STRENGTH ABROAD REQUIRES US TO BUILD BACK BETTER AT HOME.

INTERIM NATIONAL SECURITY STRATEGIC GUIDANCE
MARCH 2021

...but not for everyone



- **Black-majority census tracts installed 69% less rooftop PV** than no-majority tracts of same household income
- **Less than half of U.S. community solar projects include low-income households**
- Nearly 60% of all new solar capacity in 2018 was utility-scale PV, expanding access. However, **benefits such as lower costs are rarely transferred directly to customers**



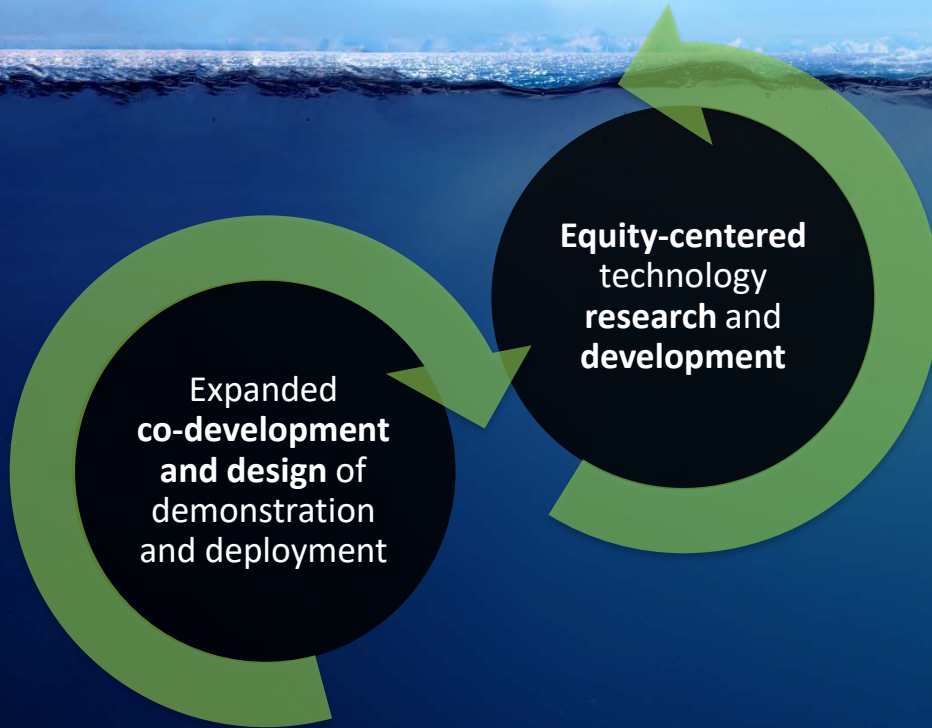
- Since 2006, **90% of electric vehicle income credits were received by the top income quintile.**
- **Renters and those living in multi-family housing often lack access to home charging locations**, where 80% of electric vehicle charging occurs.
- **37% of rental housing units have a garage or carport** compared to 78% of owner-occupied housing.



- **The least affluent 20% of households spend a 3x greater share of income on transportation** than the most affluent 20%
- **70% of American households live in neighborhoods where combined housing and transportation costs are not affordable**
- **30%-45% of urban populations exposed to poor air quality near busy roads**
- **≈10% of people with multiple disabilities have no access to paratransit** because they live in paratransit deserts

The success of a traditional technology-centric approach is limited by socioeconomic factors.

Expand local empowerment to meet national goals



Readily scalable program with vulnerable communities



Community priorities

Remote, island, and islanded community energy and infrastructure challenges, values, and goals



Partnership approach

Deep energy-sector experience, expertise of the national labs + local, trusted stakeholder organizations



Energy assessment and planning

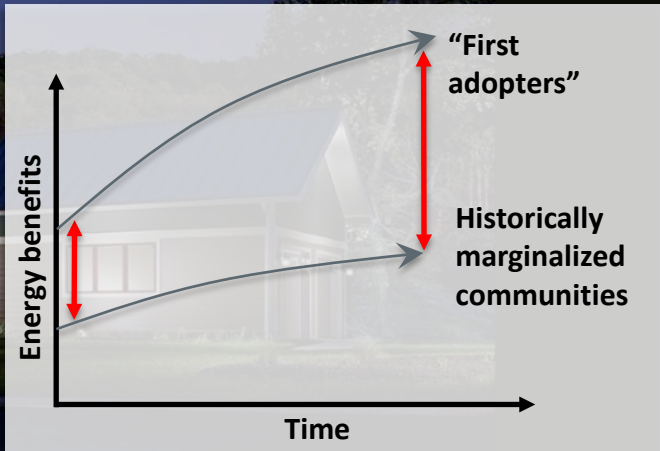
Provide resources and on-the-ground support



Resilient energy systems

Knowledge sharing → lessons learned, use cases → identified responsive technology needs

“Trickle-down” clean energy is an outcome of RD&D that does not center energy justice



We must re-imagine research, development, and demonstration to reverse the trend of clean energy solutions that increase inequities.

Centering energy justice starts with metrics

DEPLOYMENT

DEMONSTRATION

RESEARCH AND
DEVELOPMENT



Develop appropriate energy justice metrics for technology research and innovation cycle



Integrate metrics and human-centered characteristics into analysis resources and technology innovation



Thank you!

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