EESI
Environmental and Energy Study Institute

Materials will be available at:
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CONGRESSIONAL BRIEFING

Energy Efficiency Means Business Briefing Series | Agencies in Action: Federal Programs That Deliver Climate Mitigation and Adaptation Benefits Every Day

Thursday, February 24, 2022

About EESI...

EESI
Environmental and Energy Study Institute

NON-PROFIT

Founded in 1984 by a bipartisan Congressional caucus as an independent (i.e., not federally-funded) non-profit organization

NON-PARTISAN

Source of non-partisan information on environmental, energy, and climate policies

DIRECT ASSISTANCE

In addition to a full portfolio of federal policy work, EESI provides direct assistance to utilities to develop “on-bill financing” programs

SUSTAINABLE SOCIETIES

Focused on win-win solutions to make our energy, buildings, and transportation sectors sustainable, resilient, and more equitable

Policymaker Education

Briefings and Webcasts

Live, in-person and online public briefings, archived webcasts, and written summaries

Climate Change Solutions

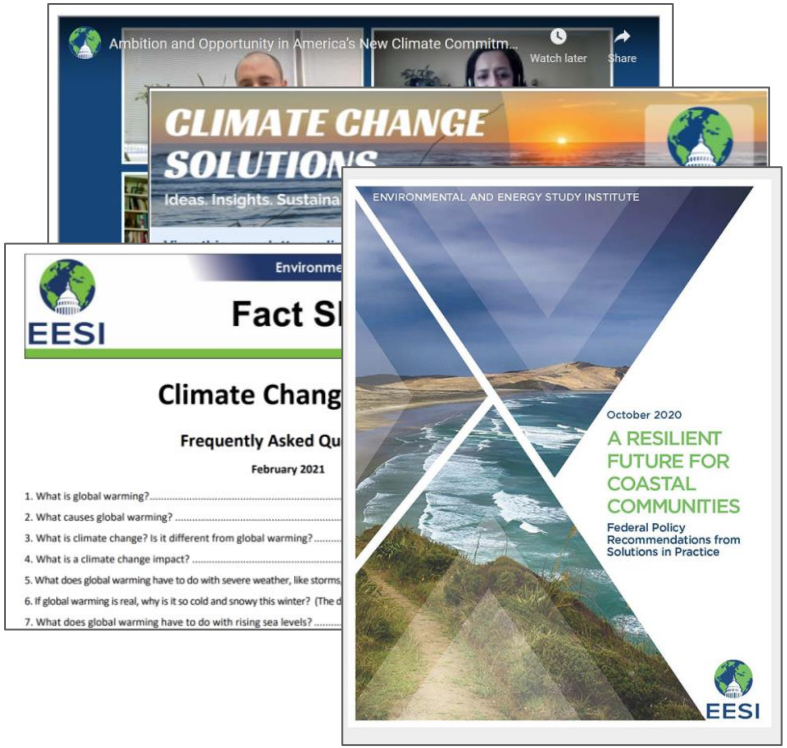
Bi-weekly newsletter with everything policymakers and concerned citizens need to know, including a legislation and hearings tracker

Fact Sheets and Issue Briefs

Timely, objective coverage of environmental, clean energy, and climate change topics

Social Media (@EESIOnline)

Active engagement on Twitter, Facebook, LinkedIn, and YouTube



Energy Efficiency Means Business

Washington's State Energy Office

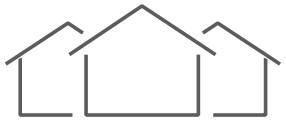
Michael Furze

ASSISTANT DIRECTOR

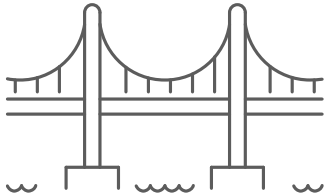
2/24/2022

Washington State Department of Commerce

We strengthen communities



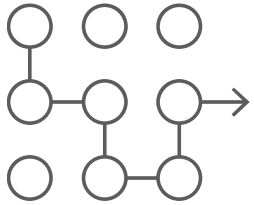
HOUSING HOMELESSNESS



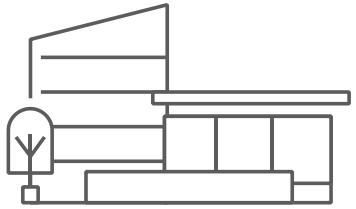
INFRASTRUCTURE

BUSINESS ASSISTANCE

ENERGY



PLANNING

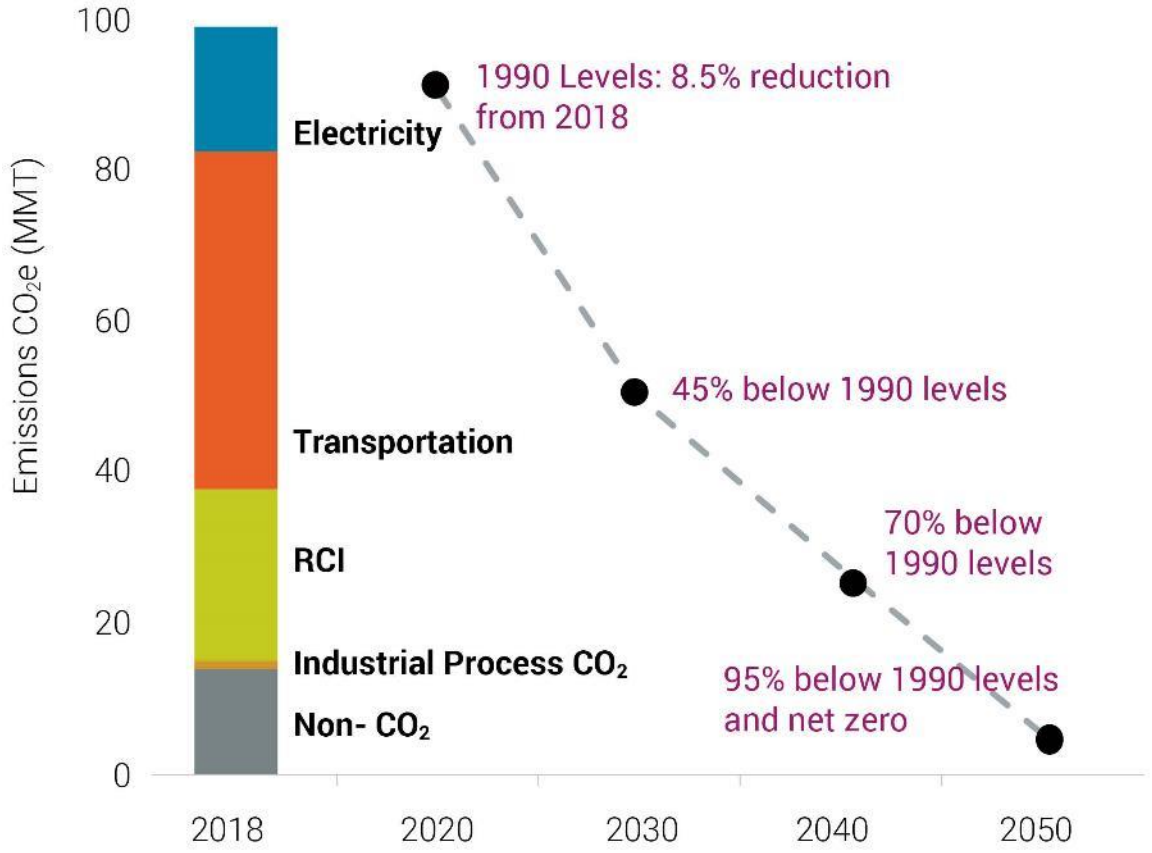


COMMUNITY FACILITIES

CRIME VICTIMS & PUBLIC SAFETY

COMMUNITY SERVICES

Meeting State Emissions Reduction Limits

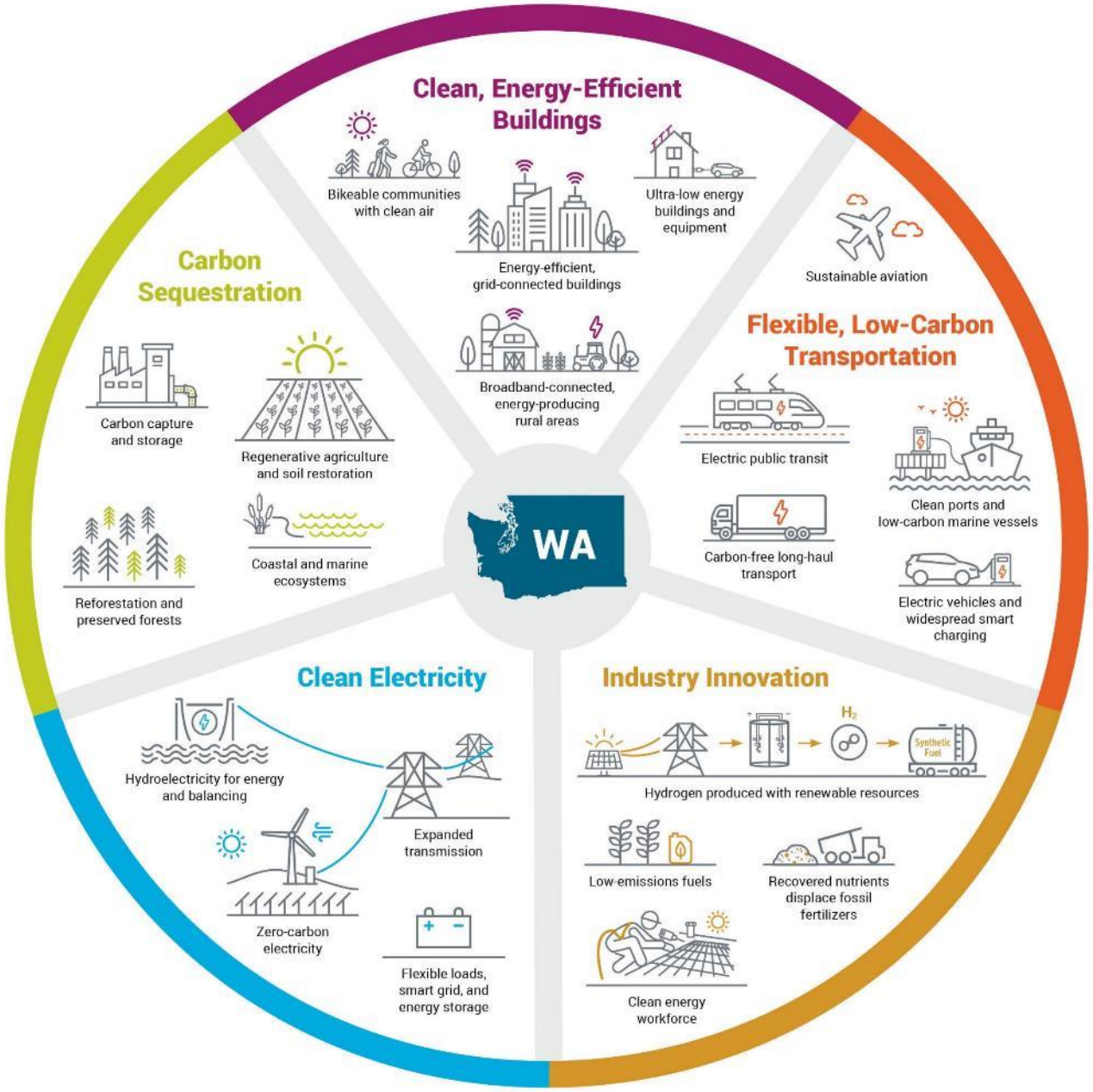


Source: Washington State Department of Ecology and Washington State.
Appendix A –Deep Decarbonization Pathways Modeling Technical Report, December 11, 2020 (p. 15).

WASHINGTON STATE 2050

Net-Zero Vision

A blueprint for how we can meet our state's climate goals to nearly eliminate the use of climate-threatening fossil fuels by 2050, while growing a prosperous economy and maintaining affordable and reliable energy supplies.



Ensure Equitable Transition for Communities

Source: Washington State Department of Commerce

- Apply explicit equity principles
- Ensure impacted communities design solutions
- Invest in equitable and inclusive transition
- Support workers in transition
- Universal broadband access as foundation for transition

Since 2010, Washington has received $50.7 million from the Weatherization Assistance Program and $10.8 million from SEP

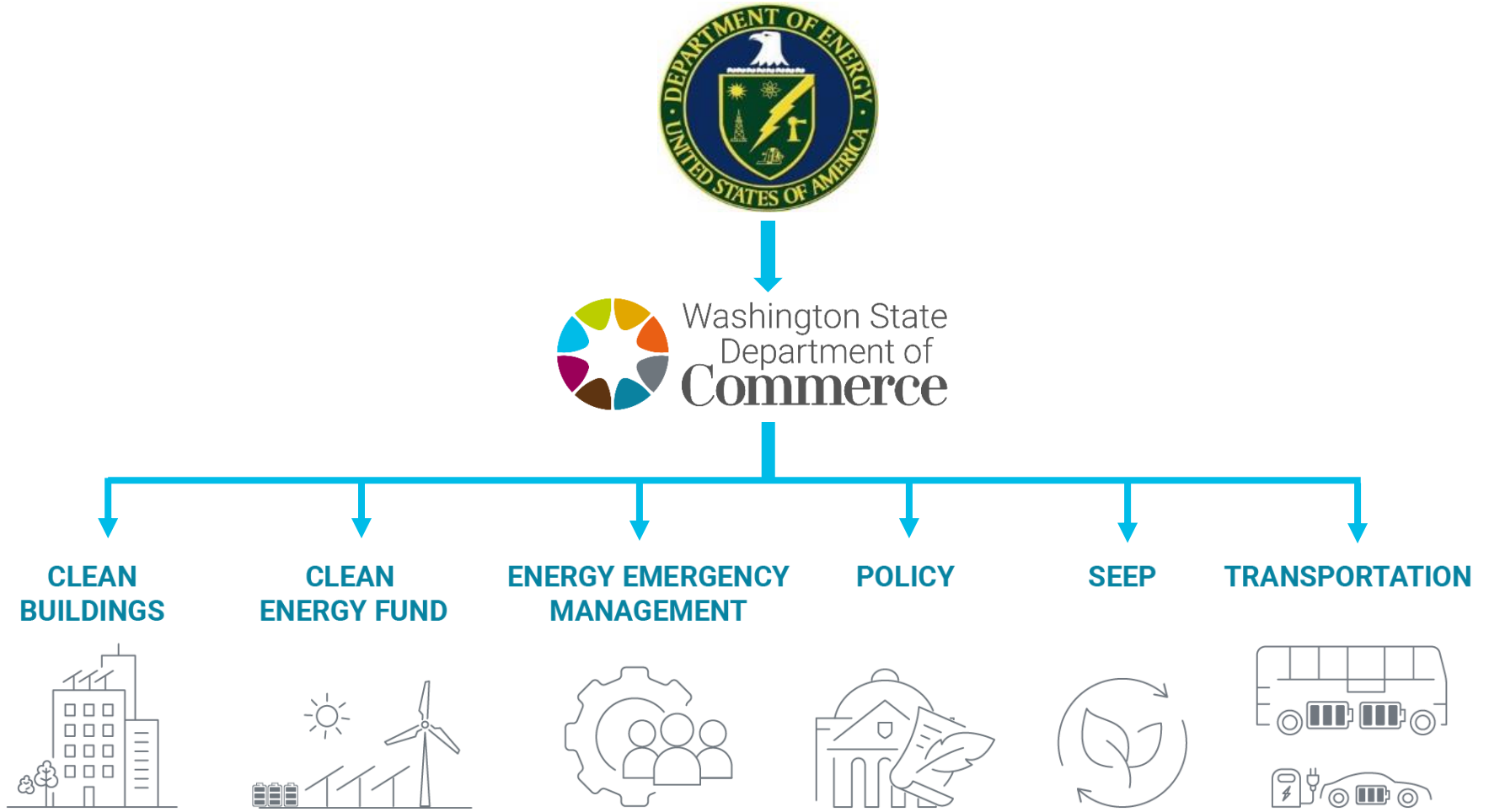
Weatherization Funding

State Energy Strategy Recommendations

- The 2021 State Energy Strategy recommends Additional Engagement and Additional Funding for Weatherization programs.
  - Expanded funding for the state's successful Weatherization Plus Health program

- It also recommends:
  - Ongoing engagement with Tribal Governments
  - Address the breadth of need for deferred maintenance to make households ready for weatherization
  - Prioritizing services to underserved households within highly impacted populations

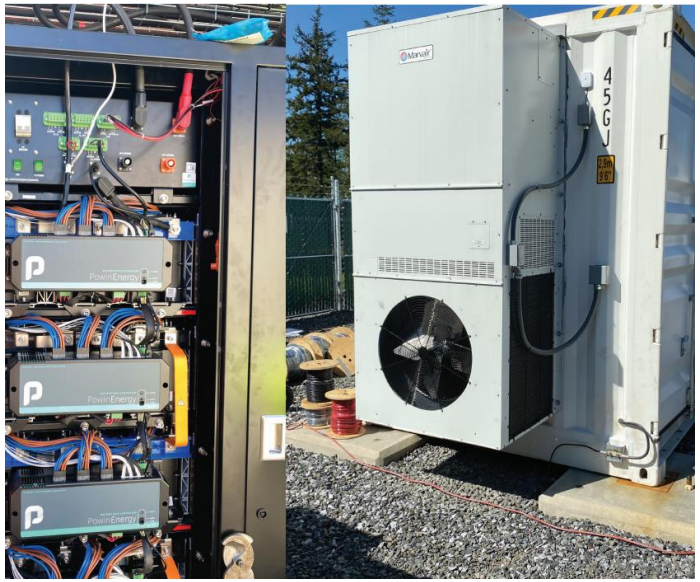
State Energy Program (SEP) Funding



Grid Modernization

- The 2021 State Energy Strategy highlights the investment in new technology and infrastructure that is required for a successful and equitable transition to clean electricity.
- Grid Modernization Program projects facilitate:
  - Integration of renewable energy sources
  - Deployment of distributed energy resources
  - Development of sustainable microgrids

Grid Modernization projects



- Horn Rapids Solar and Storage
- OPALCO Battery Storage
- Miller Community Center

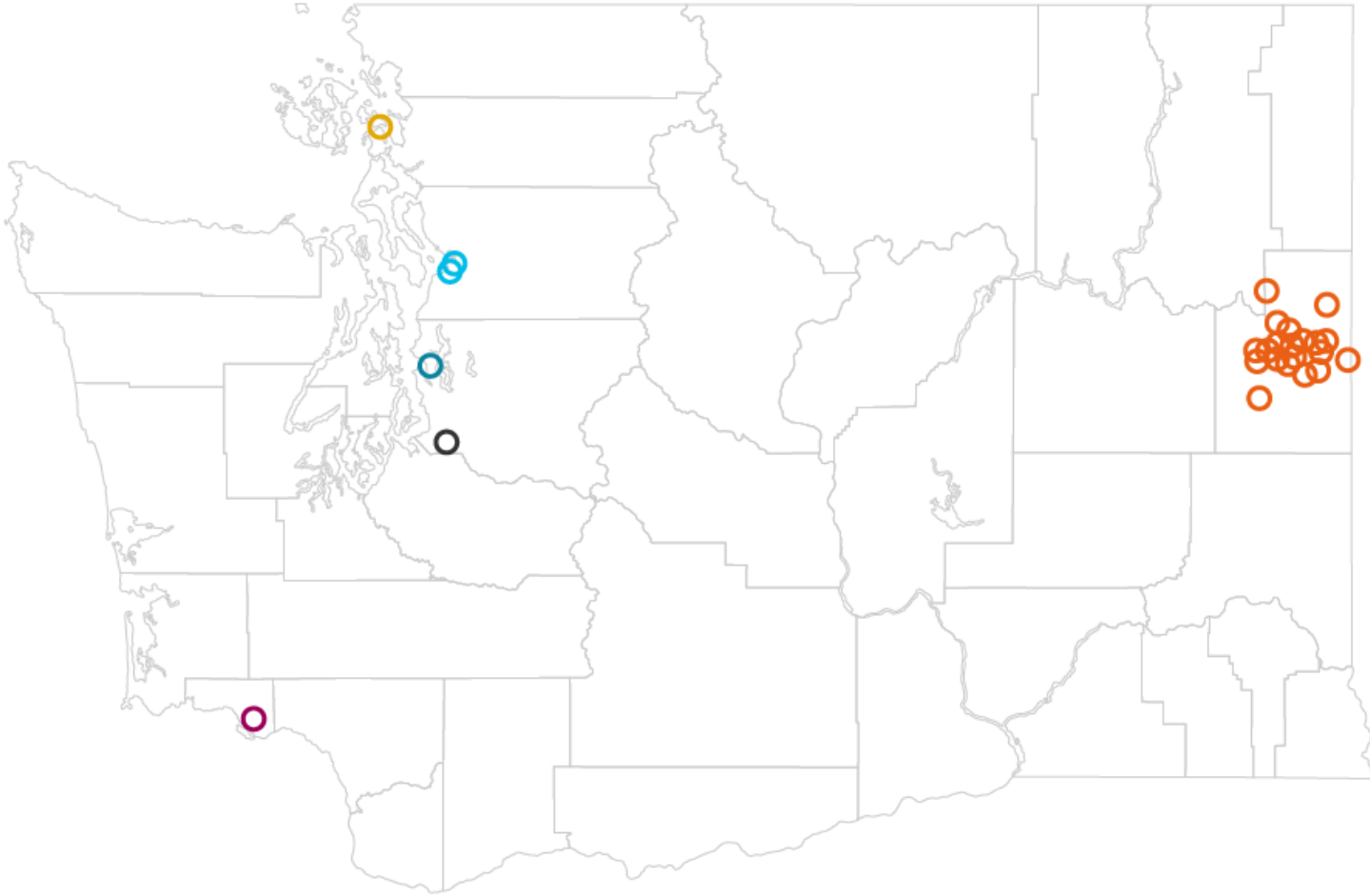
Electrification of Transportation

- The 2021 State Energy Strategy identifies transportation as largest source of GHG emissions.

- Energy Office focus
  - Innovation in the grid to support electrification transportation

- Partner focus
  - WSDOT
    - Moving people and freight
    - VW settlement
  - Ecology
    - Air quality and emissions reduction

Electrification of Transportation Project map



Description

- Seattle City Light
- Skagit County
- Snohomish PUD 1 and 2
- Cathlamet
- Spokane Regional

Thank You!

Washington State Department of Commerce

www.commerce.wa.gov

Michael Furze
ASSISTANT DIRECTOR

Michael.Furze@commerce.wa.gov

360-529-9587

Eaton Vehicle Technology Office programs

Mihai Dorobantu

2/22/2022

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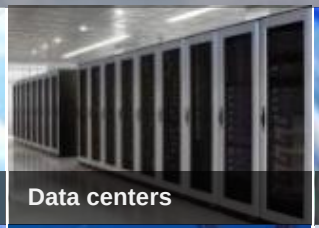

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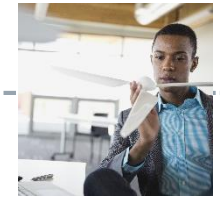

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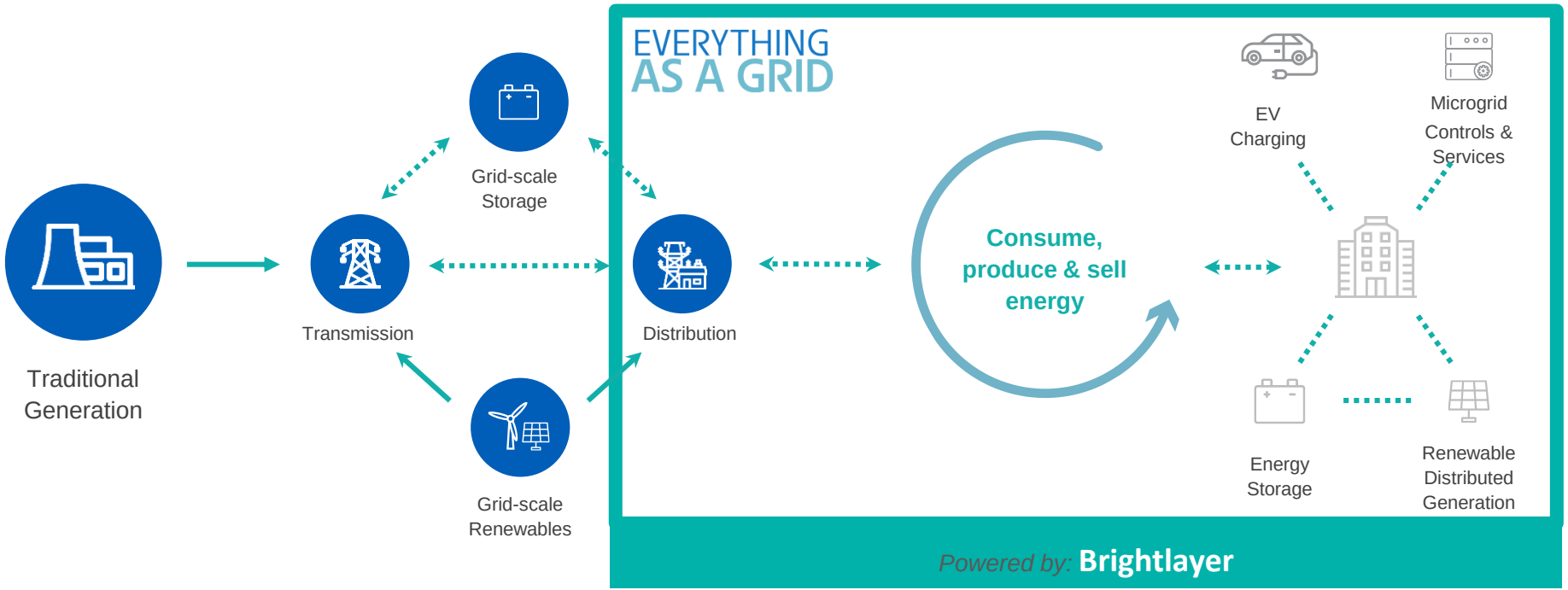

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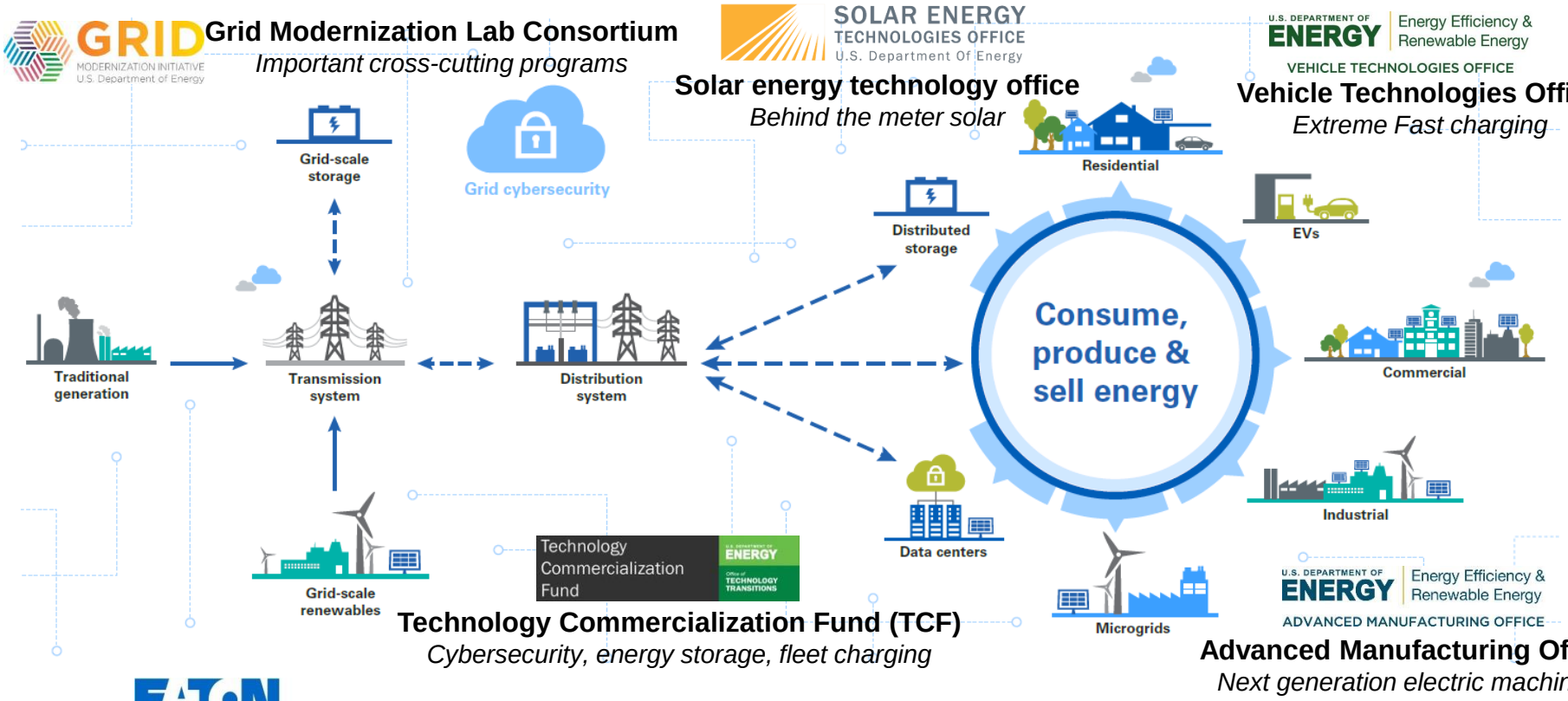

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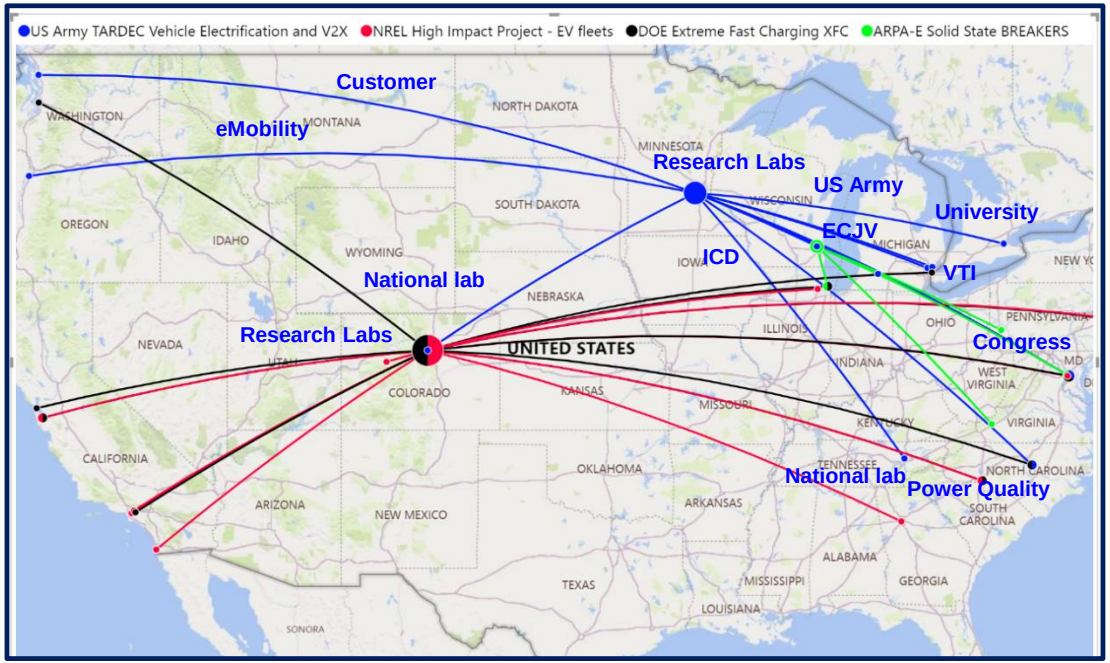

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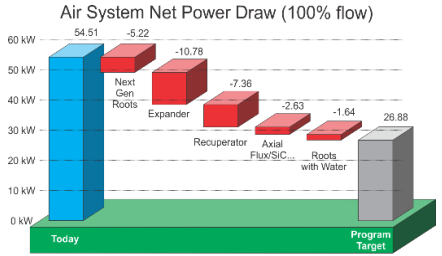

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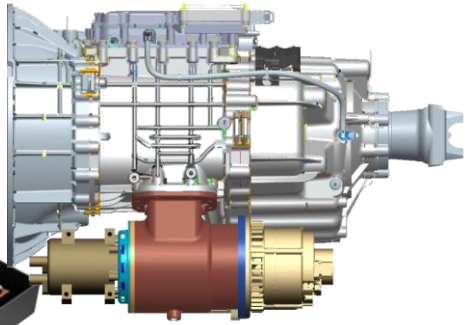

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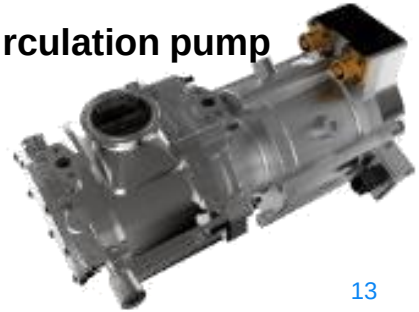

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Eaton DOE Review
Energy Efficiency Means Business 2022

Chris Hess

VP, Public Affairs

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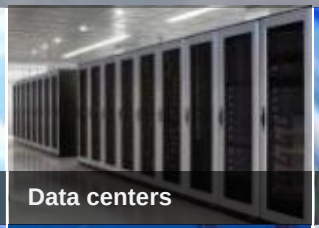

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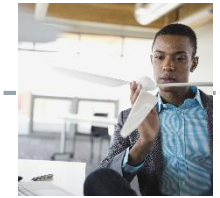

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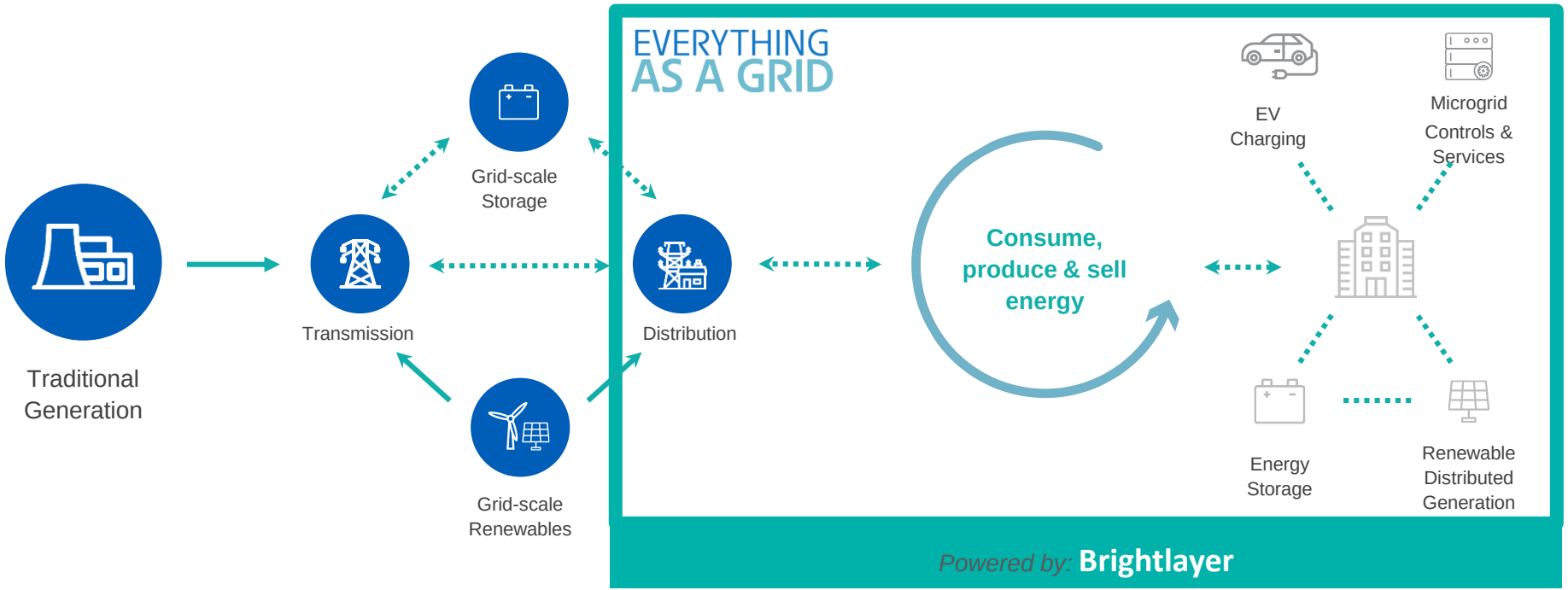

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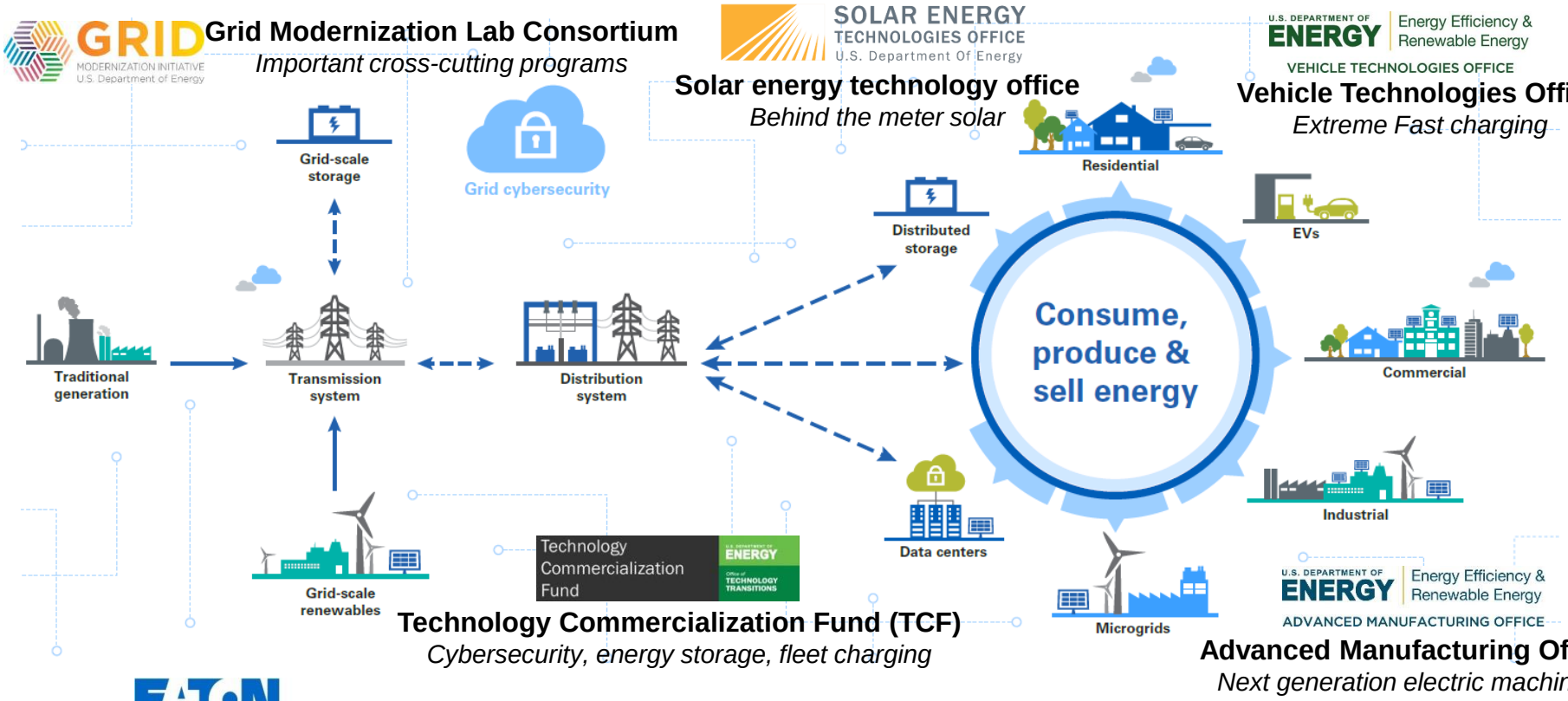

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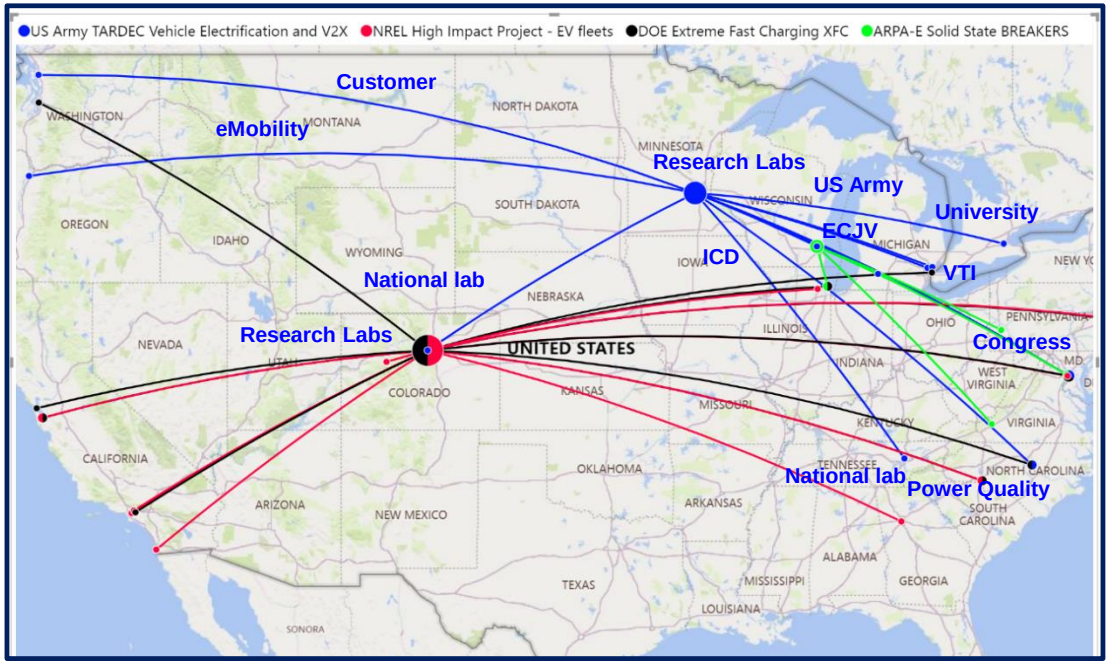

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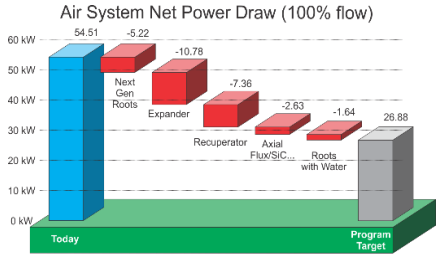

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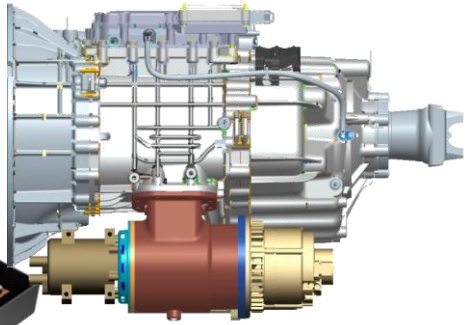

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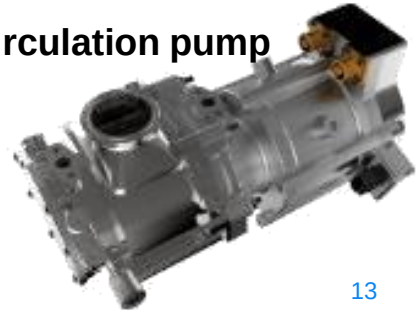
3% fuel reduction

10% lower NOx



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Energy Efficiency Means Business

February 24, 2022

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Energy Efficiency Means Business

US. Department of Energy (DOE)
Energy Efficiency and Renewable Energy (EERE)

- Buildings Technology Office
- Advanced Manufacturing Office

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Energy Efficiency Means Business

EERE BUILDINGS TECHNOLOGY OFFICE (BTO)

Improve Energy Performance and Efficiency in U.S. Building Inventory

- 129 Million Buildings
- 35%-40% of U.S. Carbon Emissions
- 74% of Nation's Electricity Use
- 39% of Nation's Total Energy Use

- Residential and Commercial
- Emerging Technologies
- Residential and Commercial Buildings
- Appliance and Equipment Standards
- Building Energy Codes

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Energy Efficiency Means Business

EERE BUILDINGS TECHNOLOGY OFFICE (BTO)

Improve Energy Performance and Efficiency in U.S. Building Inventory

- Residential Building Integration
  - 20% U.S. GHG Emissions
  - Advanced Building Construction
  - Building America
- Commercial Building Integration
  - 16% U.S. Carbon Emissions
  - 30% of Energy Used Wasted
  - Goal: 30% Reduction in Energy Use by 2030 (based on 2010 levels)
  - Goal: Zero Commercial Building Emissions by 2050
- Emerging Technologies
  - Building Electric Appliances, Devices, and Systems
  - Building Controls
  - Building Equipment
  - Thermal Energy Storage
  - Lighting R&D
  - et. al.

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Energy Efficiency Means Business

EERE BUILDINGS TECHNOLOGY OFFICE (BTO)

Improve Energy Performance and Efficiency in U.S. Building Inventory

- Appliance & Equipment Standards
  - 13% of home energy use
  - Save consumers $320 annually on energy bills
  - Washers: 75% less energy
  - Dishwashers: More than 53% less energy
  - Furnaces: 10% less energy

- Building Energy Codes
  - DOE advances and supports residential and commercial building codes
  - ASHRAE and International Code Council (ICC) develop national model codes. ASHRAE for commercial and ICC develops the International Energy Conservation Code covering commercial and residential
  - Generally adopted at the state level

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Energy Efficiency Means Business

EERE BUILDINGS TECHNOLOGY OFFICE (BTO)

Improve Energy Performance and Efficiency in U.S. Building Inventory

Fiscal Year	Appropriation
2012	**$214.7 Million**
2013	**$204.6 Million**
2014	**$173.6 Million**
2015	**$168.2 Million**
2016	**$200.5 Million**
2017	**$199.1 Million**

Fiscal Year	Appropriation
2018	**$220.7 Million**
2019	**$226 Million**
2020	**$285 Million**
2021	**$290 Million**
2022 (requested)	**$382 Million; $530 Million**
2023	**$**

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EERE BUILDINGS TECHNOLOGY OFFICE (BTO)

Improve Energy Performance and Efficiency in U.S. Building Inventory

Infrastructure Investment Jobs Act

- $225 Million in DOE grants to states for training codes officials and builders to improve the implementation of modern building energy codes
- $3 Billion for the Smart Grid Investment Matching Grant Program and provides opportunity for funding of projects and development of initiatives connected to smart grid functions for buildings, facilities, equipment, and appliances.
- $40 Million workforce training for buildings-related trades to meet innovative energy management needs at residential and commercial buildings
- $10 million for higher education institutions for training and development that facilitates energy efficiency design and implementation in the built environment, including research and development.

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EERE BUILDINGS TECHNOLOGY OFFICE (BTO)

Improve Energy Performance and Efficiency in U.S. Building Inventory

Budget Reconciliation

- $300 million to state and local governments to adopt residential and commercial building codes
- Tax Policy: 25C; 45L; 179D

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Energy Efficiency Means Business

EERE ADVANCED MANUFACTURING OFFICE (AMO)

Industrial Energy Efficiency and Environmental Performance
in the Industrial and Manufacturing Environment

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Energy Efficiency Means Business

EERE ADVANCED MANUFACTURING OFFICE (AMO)

Industrial Energy Efficiency and Environmental Performance in the Industrial and Manufacturing Environment

- R&D
  - Innovative R&D projects
- R&D Consortia
  - Public, private, academia
- Technical Partnerships
  - CHP adoption
  - Energy intensity reduction resources
- Industrial Decarbonization
  - Deployment of proven concepts in the industrial sector
- Energy Management
  - Assessment and measurement tools
- Better Plants
  - Pledge to reduce portfolio-wide energy intensity 25% over 10 years
  - Over 250 participants
- Industrial Assessment Centers
  - Energy assessments for small and medium-sized manufacturers
  - Typically $130,000 in energy savings for the business, $50,000 in first year

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Energy Efficiency Means Business

EERE ADVANCED MANUFACTURING OFFICE (AMO)

Industrial Energy Efficiency and Environmental Performance in the Industrial and Manufacturing Environment

Fiscal Year	Appropriations
2012	**$112.7 Million**
2013	**$114.3 Million**
2014	**$175.4 Million**
2015	**$194.2 Million**
2016	**$228.5 Million**
2017	**$257.5 Million**

Fiscal Year	Appropriations
2018	**$305 Million**
2019	**$320 Million**
2020	**$395 Million**
2021	**$396 Million**
2022 (requested)	**$550.5 Million; $800 Million**
2023	**$**

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Energy Efficiency Means Business

EERE ADVANCED MANUFACTURING OFFICE (AMO)

Industrial Energy Efficiency and Environmental Performance
in the Industrial and Manufacturing Environment

Infrastructure Investment Jobs Act

- $550 Million
  - Industrial Assessment Centers (IAC)
  - Grants to Implement IAC Findings for Small to Medium-Sized Manufacturers


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FPCC
FEDERAL PERFORMANCE CONTRACTING COALITION

FY2022 Appropriations
February 24, 2022

Jennifer Schafer
Executive Director
jasca@cascadeassociates.net

2022 FPCC Members

ABM Building Value

AECOM

AMERESCO

Constellation
An Exelon Company

CEG SOLUTIONS

ESG energy systems group

Honeywell
THE POWER OF CONNECTED

Johnson Controls

NORESCO
United Technologies

Life Is On | Schneider Electric

SIEMENS

Southland Energy

TRANE

FPCC
FEDERAL PERFORMANCE CONTRACTING COALITION

Looking Ahead- Bigger and Better ESPCs

The art of the possible

Cybersecurity

Making energy efficiency a top priority

FPCC
FEDERAL PERFORMANCE CONTRACTING COALITION

Executive order and EA 2020 Drive Appropriation Needs

- Energy Act of 2020 refocuses on attention on agency audits and their mandatory implementation
- Executive Order 14057 has high level goals including:
  - 100% Carbon reduction
  - 100% Carbon Free Electricity
  - 100% Net Zero Carbon Buildings/Facilities

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FEDERAL PERFORMANCE CONTRACTING COALITION

What are the benefits of Performance Contracting?

- Executive Order goals
  - Reduces carbon emissions
  - Facilitates move to 100% carbon free electricity
  - Facilitates and advances electrification efforts
  - Advances environmental justice goals
- Other Critical Benefits
  - Addresses needed resiliency and crumbling infrastructure
  - Includes operation and maintenance to ensure the government gets what it pays for
  - Guarantees performance

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DOE FY23 Request: Federal Energy Management Program (FEMP)

- Fund the FEMP program at a total of $60 M or more
  - FY22 House and Senate both recommended $60 M
  - FY21 and FY20 funding for FEMP $40 M

- Within these funds: $20 M for the AFFECT Grant Program (Assisting Federal Facilities with Energy Conservation Technologies)
  - FY22 House and Senate both recommended $20 M
  - Funding in FY21 and FY20 was $11 M

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Jobs and Climate Benefits

- Building Infrastructure improvements create 9.5 jobs per million dollars of investment
  - Direct funding of $5 B Federal investment creates 47,500 jobs
  - Funding with Performance Contracting instead creates 237,000-500,000 jobs
- Historic CO2 savings:
  - $7,500,000,000 of private sector investment over the past 20 years (much smaller than recently)
    - Is reducing CO2 equivalent by over 7 Billion lbs. ***annually***
    - Demand side reductions, via PC can reduce emissions by 50% (with the President's 2008 baseline) by 2032

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FEDERAL PERFORMANCE CONTRACTING COALITION

“Agencies in Action: Federal Programs That Deliver Climate Mitigation and Adaptation Benefits Every Day” Briefing Series

EESI
Environmental and Energy Study Institute

February 08	**Financing Inclusive Clean Energy Investments in Rural America**
February 24	**Energy Efficiency Means Business**
March TBA	**Climate Adaptation Programs across Agencies**
March TBA	**Building a Durable National Framework for Large Landscape Conservation**

EESI
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Thursday, February 24, 2022