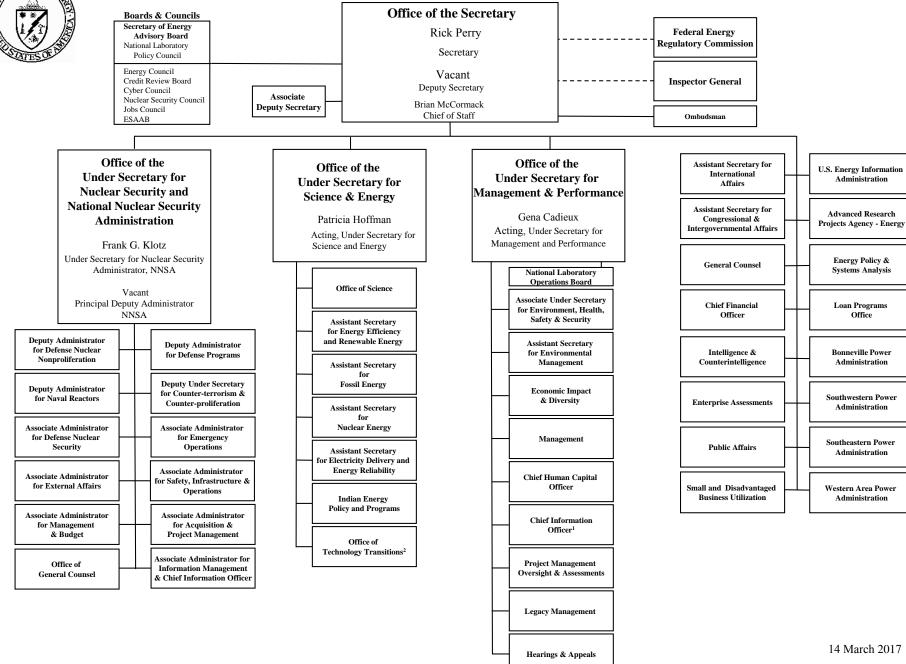
U.S. Department of Energy

DEPARTMENT OF ENERGY



¹The CIO reports directly to the Secretary for the purposes of carrying out responsibilities under Subchapter 44 U.S.C.§ 3506(a)(2)(A).

²The director of the Office of Technology Transitions also serves as DOE's Technology Transfer Coordinator who reports to the Secretary of Energy



Office of Renewable Power

EE-4

Dr. Timothy Unruh

Deputy Assistant Secretary

Solar Energy Technologies

(SETO)

EE-4S

Charlie Gay

Geothermal Technologies

(GTO)

EE-4G

Dr. Susan G. Hamm

Wind Energy Technologies

(WETO)

EE-4WE

Jose Zayas

Director

Water Power Technologies

(WPTO)

EE-4WP

Alejandro Moreno

Director

Office of Transportation

EE-3

Reuben Sarkar

Deputy Assistant Secretary

Vehicle Technologies

(VTO)

EE-3V

Michael Berube

Bioenergy Technologies

(BETO)

EE-3B

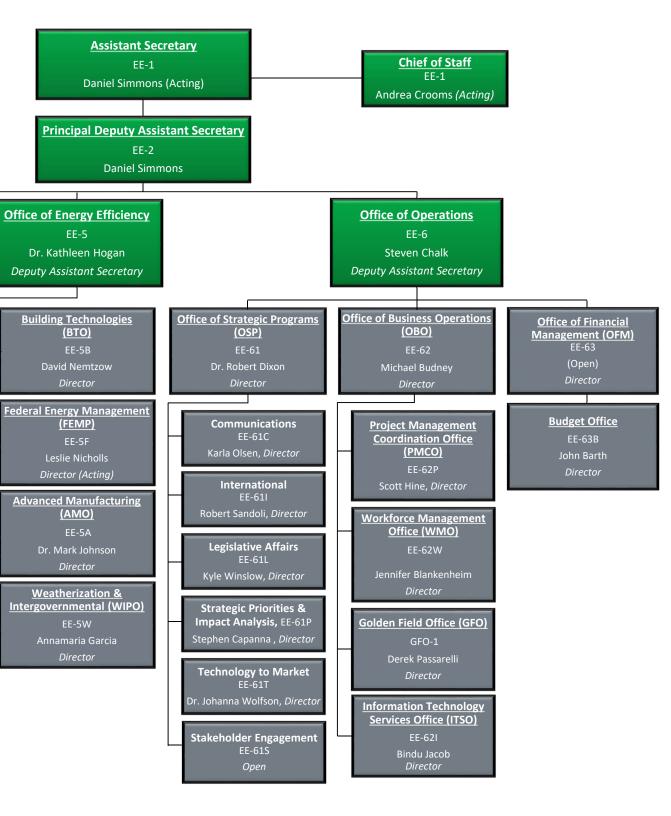
Dr. Jonathan Male

Fuel Cells Technologies

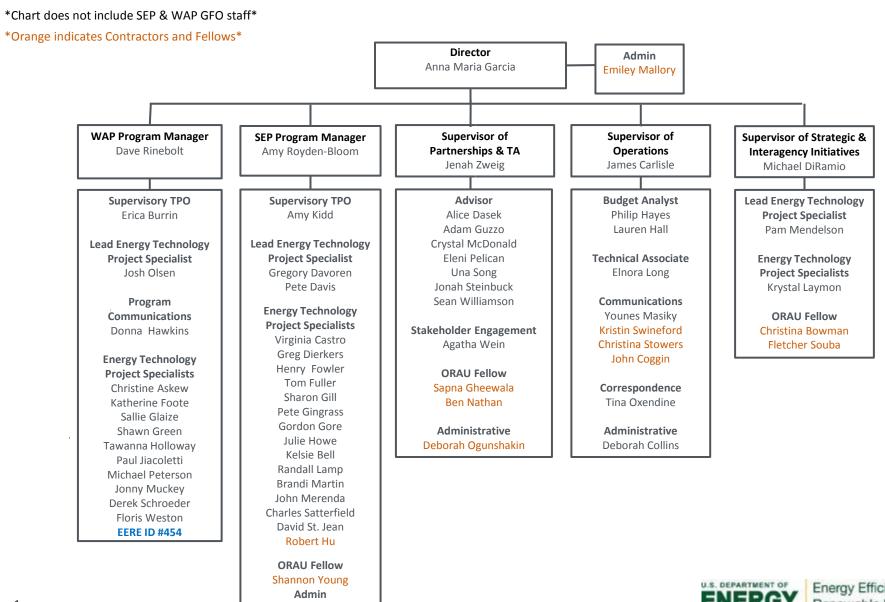
(FCTO)

EE-3F

Dr. Sunita Satyapal



WIP Organizational Chart



Michelle Burruss



Weatherization and Intergovernmental Programs Office



One of the Department of Energy's (DOE) primary forums for helping state and local governments implement cost-effective and productive energy systems for American homes, communities, businesses, and industries is the Weatherization and Intergovernmental Programs Office (WIP). WIP is part of DOE's Office of Energy Efficiency and Renewable Energy's "all of the above" national energy strategy to create greater energy affordability, security and resiliency. WIP's mission is to enable strategic investments in energy efficiency and renewable energy technologies and innovative practices across the U.S. by a wide range of government, community and business stakeholders, in partnership with state and local organizations and community-based nonprofits.

WHAT WE DO: WIP supports DOE's strategic objective to lower energy bills while expanding cost-effective energy choices for all American communities. WIP's near-term activities produce almost immediate results, saving taxpayer dollars, making full use of domestic energy resources, boosting local economic development and job creation, cutting energy waste, improving energy independence and security, and furthering the development of energy infrastructure. WIP is made up of two programs focused on state and local governments, the Weatherization Assistance Program (WAP) and the State Energy Program (SEP), and two teams that develop and deliver targeted technical assistance and strategic initiatives to state and local governments.

STATE ENERGY PROGRAM

WIP's <u>State Energy Program</u> (SEP) provides funding and technical assistance to states, territories, and the District of Columbia to enhance energy security, advance state-led energy initiatives, and maximize the benefits of decreasing energy waste. SEP emphasizes each state's key role as the decision maker and administrator for program activities within the state that are tailored to their unique resources, delivery capacity, and energy goals. State-led activities include energy emergency planning and response, low-cost financing programs for energy efficiency, performance contracting, school and public building retrofit programs and innovative energy technology demonstration projects, among other program that spur economic development, increase energy efficiency and expand domestic energy resources.

WEATHERIZATION ASSISTANCE PROGRAM

WIP's Weatherization Assistance Program (WAP) reduces energy costs for low-income households by increasing the energy efficiency of their homes, while ensuring their health and safety. The program provides funding to states and territories for locally-run weatherization services to approximately 35,000 homes every year. States contract with community action agencies, non-profits, and local governments that use in-house employees and private contractors to deliver services to low-income families. A National Evaluation of WAP found that weatherization upgrades save households an average of \$283 on their energy bills and \$514 in non-energy benefits every year. WAP has served more than 7 million families since inception in 1976.

PARTNERSHIPS AND TECHNICAL ASSISTANCE

WIP's Partnerships and Technical Assistance (P&TA) team serves at the nexus of state and local governments to catalyze lead-by-example programs by developing tools and solutions to barriers facing state and local governments; convening and creating peer exchanges to showcase public-sector leadership and effective public-private partnerships; and providing information from leading technical experts. P&TA cultivates diverse partnerships and provides technical assistance through initiatives that include the Better Buildings Challenge, Better Communities Alliance, and Accelerators.

STRATEGIC AND INTERAGENCY INITIATIVES

WIP's Strategic and Interagency Initiatives team leads inter-organizational initiatives that provide states and local governments technical assistance to help underserved communities have access to more energy choices. DOE's Clean Energy for Low Income Communities Accelerator and Remote Alaskan Communities Energy Efficiency Competition initiatives demonstrate replicable, scalable models that address barriers to energy efficiency and renewable energy access in low and moderate income communities.

WHY IT MATTERS

STIMULATING THE U.S. ECONOMY, JOB GROWTH, AND COMPETITIVENESS

WAP SUPPORTS

8,500 JOBS

AND INCREASES NATIONAL
ECONOMIC OUTPUT BY

\$1.2 BILLION
PER YEAR 1

WAP
SAVINGS-TO-INVESTMENT
RATIO IS
4.1 TO 1
INCLUDING HEALTH AND
SAFETY BENEFITS 1

SEP CREATES OR RETAINS

4,000 JOBS

NATIONALLY - ONE JOB
FOR EVERY
\$12,500 INVESTED 2

A SEP INVESTMENT OF

\$50 MILLION
REALIZES
\$225 MILLION
IN CUMULATIVE ENERGY
COST SAVINGS 2



SAVING ENERGY COSTS FOR LOW INCOME FAMILIES

- WAP has helped more than 7 million low-income families save money through energy efficiency retrofits over 40 years allowing families with elderly or disabled members, or young children, improve their health and safety while reducing household utility bills and average of \$283 per year.
- WAP provides the foundation for state and utility weatherization programs.
- Weatherization returns \$2.78 in non-energy benefits for every \$1.00 invested in the program. After weatherization, families have homes that are more livable, resulting in fewer missed days of work (i.e. sick days, doctor visits), and decreased out-of-pocket medical expenses by an average of \$514 per year. Non-energy benefits represent tremendous benefits for families whose homes receive weatherization services.

ACCELERATING DEPLOYMENT OF ENERGY SAVING TECHNOLOGIES

- WAP works with the private sector to establish industry standards including <u>Home Energy Professional</u> <u>Certifications</u>, <u>Standard Work Specifications</u>, and accreditation of national training programs.
- SEP partners with states to develop solutions to barriers affecting energy technology deployment on diverse topics that include energy data management, benchmarking, wastewater infrastructure, outdoor lighting, Energy Savings Performance Contracting (ESPC), and Property Assessed Clean Energy (PACE).

SUPPORTING STATE AND LOCAL GOVERNMENTS WITH THEIR ENERGY PRIORITIES

State and local governments possess a wealth of relevant energy efficiency and renewable energy information. Thus, WIP maintains the following platforms to share state and local government best practices:

- The <u>State and Local Solution Center</u> is a one-stop shop of impactful public sector resources.
- The <u>State and Local Spotlight Newsletter</u> is WIP's monthly newsletter for state, local, and K-12 officials with updates on relevant news, resources, and events sent to more than 8,000 subscribers.
- Public sector partners receive recognition at the annual <u>Better Buildings Summit</u> of stakeholders across key sectors; Approximately 175 state and local government leaders attend the Summit.
- <u>Technical Assistance Webinars</u> are held throughout the year to leverage subject area expertise with peer-to-peer exchange. Archives of past webinars are available on the State and Local Solution Center.

WAP data above derives from a national evaluation of the Weatherization Assistance Program led by Oak Ridge National Laboratory. The Retrospective Evaluation covers Program Year (PY) 2008 and is reflective of a typical year in WAP operations

²SEP data above derives from of a national evaluation of State Energy Program operations in 2008, led by Oak Ridge National Laboratory.



U.S. Department of Energy: Building Technologies Office

We lead a vast network of research and industry partners to continually develop innovative, cost-effective energy saving solutions—better products, better new homes, better ways to improve older homes, and better buildings in which we work, shop, and lead our everyday lives.

What We Do

The Building Technologies Office's Multi-Year Program Plan for Fiscal Years 2016-2020 provides a roadmap of our strategies and goals for significantly reducing building energy use intensity.

Why It Matters

Energy efficiency is a low cost way to save money, support job growth, reduce pollution, and improve the competitiveness of our businesses. Our homes, offices, schools, hospitals, restaurants, and stores consume a lot of energy—and money. We spend more than \$430 billion each year to power our homes and commercial buildings, consuming more than 70% of all electricity used in the United States, about 40% of our nation's total energy bill, and contributing to almost 40% of the nation's carbon dioxide emissions. And much of this energy and money is wasted—over 30% on average. If we cut the energy use of U.S. buildings by 20%, we could save approximately \$80 billion annually on energy bills, reduce greenhouse gas emissions, and create jobs.

Saving You Money While Making You More Comfortable

Energy-saving improvements save money. While there may be additional upfront costs to improve an older home or building or build a new home or office to be highly efficient, these costs are recouped through lower energy bills. On average, families spend about \$2,000 per year on energy for their homes—each family could save about \$400 each year with energy-saving upgrades.

Supporting the U.S. Economy

Many of the nation's more than 114 million homes and 87 billion square feet of commercial space were constructed before 1980—prior to the existence of today's efficient products and most equipment standards and building codes. These buildings represent large potential for energy savings, and this means local jobs. And, money saved on energy costs flows to other sectors of the economy, which can lead to the creation of new jobs.

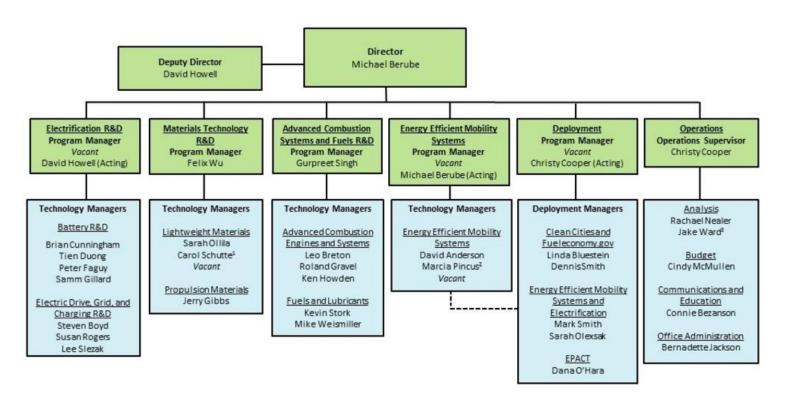
Improving Our Energy Security

Efficient buildings help us do more with less energy. This alleviates pressure on our electric grid, avoids new power plant construction, and extends our energy resources as we diversify to greater use of renewable, sustainable energy supplies. This helps to ensure we have available, reliable energy supplies well into the future.

Protecting the Environment

U.S. buildings account for nearly 40% of the nation's man-made carbon dioxide emissions, 18% of the nitrogen oxide emissions, and 55% of the sulfur dioxide emissions. These emissions—primarily from electricity generation—in turn contribute to smog, acid rain, haze, and global climate change. Improving the efficiency of the nation's buildings can play a significant role in reducing pollution. Building efficiency improvements will also help the nation achieve its goal of reducing energy-related greenhouse gas emissions 17% by 2020.

Vehicle Technologies Office



¹ Detailed to DOC/NTIS

² Detail from DOT/FHWA

³ Part time status, based at NETL-Pittsburgh

U.S. Department of Energy: Vehicle Technologies Office

What We Do

The U.S. Department of Energy's Vehicle Technologies Office supports research, development (R&D), and deployment of efficient and sustainable transportation technologies that will improve energy efficiency, fuel economy, and enable America to use less petroleum. These technologies, which include advanced batteries and electric drive systems, lightweight materials, advanced combustion engines, alternative fuels, as well as energy efficient mobility systems, will increase America's energy security, economic vitality, and quality of life.

We collaborate with industry leaders through partnerships like U.S. DRIVE and 21st Century Truck to accelerate the development of advanced technologies, including highly efficient combustion engines and fuels, lightweight materials, and advanced batteries and electric drive systems, as well as to understand opportunities to maximize mobility and minimize energy impact. Our research and development is guided by technology roadmaps and with clear goals and technical targets. Visit our success stories page to explore VTO funded research the led to commercialization.

Why It Matters

Improving vehicle efficiency is essential to reducing consumers' fuel costs, supporting domestic industry, minimizing pollution, and increasing energy security. Americans spend nearly half a billion dollars a day to import oil, with transportation accounting for 70% of domestic petroleum consumption in 2015 (Transportation Energy Data Book, Table 1.13). In 2014, oil dependence cost the U.S. nearly \$50 billion in lost potential GDP (TEDB, Table 10.5). In addition, transportation accounts for more than 26% of the country's greenhouse gas emissions.

Our research and development enables vehicle manufacturers to adopt new, efficient technologies. If companies fully develop and commercialize technologies that are currently supported by the Vehicle and Fuel Cell Technologies Offices, it could save as much as 3.1 million barrels a day or 18% of the total U.S. petroleum consumption by 2035 as projected in the Energy Information Administration's Annual Energy Outlook 2014 Reference case, according to the "Prospective Benefits Assessments of Vehicle Technologies" report by Argonne National Laboratory. For example, SuperTruck I improvements of 50% fuel efficiency in Class 8 combination trucks would save 260 million barrels of oil per year; SuperTruck II improvements of 100% fuel efficiency would save 400 million barrels of oil per year.

- Saving You Money While Meeting Transportation Needs: Purchasing a vehicle with better fuel economy can save consumers and businesses a substantial amount over the lifetime of the vehicle. The average household spends about \$2,500 on vehicle gas and oil (TEDB, Table 8.4). For example, a consumer who purchases a vehicle that gets 30 miles to the gallon instead of 20 miles to the gallon will save about \$600 a year on fuel, based on a gasoline price of \$2.36/gallon. The research and development we do in collaboration with industry and our national laboratories will maintain the safety, performance, and power of today's vehicles while allowing for significant increases in fuel economy.
- Supporting the U.S. Economy: Helping consumers spend less on fuel means that they have more
 money to reinvest in the American economy. Reducing the fuel expenses of heavy-duty vehicles,
 such as long-haul trucks and transit buses, can lower the costs of the companies running these
 vehicles to do business. These savings can increase domestic companies' competitiveness and
 potentially lower prices for consumers. Supporting domestic development and manufacturing of

- efficient and advanced vehicles helps continue America's long history of automotive production and offers great promise for the future.
- Improving Our Energy Security: Improving efficiency and replacing oil with domestic alternative fuels
 helps reduce our reliance on imported petroleum. This improves the country's resiliency against oil
 price shocks and decreases the amount of money the U.S. sends abroad. As worldwide demand for
 oil rises, these technologies will help provide Americans with greater freedom of mobility while
 increasing our energy security.
- Protecting the Public Health and the Environment: Transportation accounts for more than 26% of
 the nation's greenhouse gas emissions and 57% of the nitrogen oxide emissions, according to the
 U.S. Environmental Protection Agency. These harmful emissions contribute to global climate change
 and smog. Reducing emissions from vehicles through efficient and clean technologies can
 substantially contribute to lowering these emissions, improving public health and protecting global
 ecosystems.

U.S. Department of Energy: Clean Cities Program

The U.S. Department of Energy's (DOE's) Clean Cities program advances the nation's economic, environmental, and energy security by supporting local actions to cut petroleum use in transportation. Part of DOE's Vehicle Technologies Office, Clean Cities has saved more than 8.5 billion gallons of petroleum since its inception in 1993.

Who We Are

Nearly 100 local <u>coalitions</u> serve as the foundation of the Clean Cities program by working to cut petroleum use in communities across the country. Clean Cities coalitions are comprised of businesses, fuel providers, vehicle fleets, state and local government agencies, and community organizations. Each coalition is led by an on-the-ground Clean Cities coordinator, who tailors projects and activities to capitalize on the unique opportunities in their communities. Nationwide, nearly 15,000 stakeholders participate in Clean Cities coalitions, and through their collective efforts they are transforming local and regional transportation markets and contributing to Clean Cities' goals and accomplishments.

What We Do

At the national level, the program develops and promotes partnerships, publications, tools, and other unique resources. At the local level, coalitions leverage these resources to create networks of local stakeholders and provide technical assistance to fleets implementing alternative and renewable fuels, idle-reduction measures, fuel economy improvements, and emerging transportation technologies.

Clean Cities efforts support reduced dependence on petroleum at the local, state, and national levels. Clean Cities activities include:

- Building partnerships with local coalitions of public- and private-sector transportation stakeholders
- Developing unbiased and objective information resources about alternative fuels, advanced vehicles, and other strategies to cut petroleum use
- Advancing interactive, data-driven online tools to help stakeholders evaluate options and achieve goals
- Collecting and sharing best practices, data, and lessons learned to inform choices and build a strong national network
- Providing technical assistance to help fleets deploy alternative fuels, advanced vehicles, and idlereduction measures
- Working with industry partners and fleets to identify and address technology barriers
- Empowering local decision makers to successfully implement the best petroleum reduction strategy for their circumstance
- Seeding local alternative fuels markets through projects that deploy vehicles and fueling infrastructure.

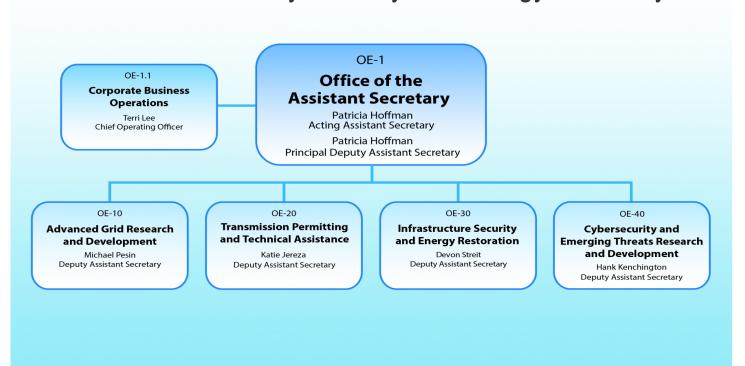
Why We're Here

Clean Cities dates back to the Alternative Motor Fuels Act of 1988 and the Clean Air Act Amendments of 1990. These laws, which encouraged the production and use of alternative fuel vehicles (AFVs) and the reduction of vehicle emissions, led to the creation of the Alternative Fuels Data Center (AFDC) in 1991. The AFDC's mission was to collect, analyze, and distribute data used to evaluate alternative fuels and vehicles.

In 1992, the enactment of the Energy Policy Act of 1992 (EPAct) required certain vehicle fleets to acquire AFVs. Subsequently, DOE created Clean Cities in 1993 to provide informational, technical, and financial resources to EPAct-regulated fleets and voluntary adopters of alternative fuels and vehicles.

The AFDC became and continues to be the clearinghouse for these resources. Its sister website, FuelEconomy.gov, provides consumers with information on fuel economy, emissions, and energy impact of light-duty vehicles, based on vehicle data from the U.S. Environmental Protection Agency. The site also provides tips for drivers on maximizing fuel efficiency. FuelEconomy.gov was created in response to DOE's requirement under the 1975 Energy Policy and Conservation Act to publish and distribute an annual fuel economy guide for consumers.

Office of Electricity Delivery and Energy Reliability



ADVANCED GRID RESEARCH & DEVELOPMENT (AG R&D)

TRANSMISSION PERMITTING & TECHNICAL ASSISTANCE (TPTA)

INFRASTRUCTURE SECURITY & ENERGY RESTORATION (ISER)

CYBERSECURITY AND EMERGING THREATS RESEARCH AND DEVELOPMENT (CET R&D)

The Advanced Grid Research & Development (AG R&D) Division is responsible for the development and management of projects for "next generation" electricity delivery technologies and supporting activities to accelerate their introduction to the marketplace.

The Transmission Permitting & Technical Assistance (TPTA) Division leads the Department's efforts to provide technical assistance to states, regional entities, and tribes to help them develop and improve their programs, policies, and laws that will facilitate the development of reliable and affordable electricity infrastructure. TPTA also authorizes the export of electricity, issues permits for the construction of crossborder transmission lines, and is leading efforts to improve the coordination of Federal transmission permitting on Federal lands.

The Infrastructure Security and Energy Restoration (ISER) Division leads efforts for securing the U.S. energy infrastructure against all hazards, reducing the impact of disruptive events, and responding to and facilitating recovery from energy disruptions, in collaboration with all levels of industry and State and local governments.

The Cybersecurity and **Emerging Threats Research** and Development (CET R&D) Division advances the research and development of innovative technologies, tools, and techniques to reduce risks to the Nation's critical energy infrastructure posed by cyber and other emerging threats. Continuing to increase the security, reliability, and resiliency of our electricity delivery system will help ensure the success of grid modernization and transformation of the Nation's energy systems.



Office of Electricity Delivery & Energy Reliability

Driving Grid Modernization to Help Ensure a Secure, Resilient, Reliable, and Flexible Electricity System

Electricity empowers Americans: It makes the lights turn on, the computer work, the heat come on along with many other basic comforts we have come to expect. In fact, the nation's economy, security, and health and safety of our citizens depend on the reliable delivery of electricity.

The Department of Energy's (DOE's), Office of Electricity Delivery and Energy Reliability (OE) is working closely with its private and public partners to strengthen, transform, and improve energy infrastructure to ensure access to reliable, secure, and flexible sources of energy.

Through research, partnerships, facilitation, modeling and analytics, and emergency preparedness, OE is driving national efforts to modernize the electricity delivery system, enhance the security and reliability of America's energy infrastructure, and facilitate recovery from disruptions to the energy supply.

Strengthening the Electricity Ecosystem

The electrical grid is more than just generation and transmission infrastructure. It is an ecosystem of asset owners, manufacturers, service providers, and government officials at Federal, state, and local levels, all working together to run one of the most complex yet reliable electrical grids in the world.

Together, we are developing the methods, strategies, and tools needed to help protect the nation's critical energy infrastructure, including the electric power grid, from disruptions caused by natural and manmade events, such as severe weather, physical attacks, and cyberattacks.

Together, we are moving the nation closer to the grid of the future – a platform that delivers reliable and affordable electricity to American consumers where they want it, when they want it, and how they want it.

Improving Lives

OE strives to improve American lives in several ways:

- Research and Development: OE works to accelerate discovery and innovation across the electricity ecosystem, fostering the new tools and technologies of tomorrow's grid.
- Cybersecurity: One of OE's top priorities is to make the power grid and oil and natural gas infrastructure safer and more resilient to cyber threats.
- National Security: OE leads efforts to protect and improve the resiliency of the energy ecosystem against all hazards. This includes the security and reliability of large power transformers, a critical component of the power grid.
- Emergency Response: OE also leads DOE's efforts to prepare for, respond to, and recover from hurricanes and floods and other events that might turn out the lights.
- Transmission Permitting: OE fosters and encourages the development of reliable and affordable energy infrastructure such as power lines.



Making a Lasting Impact in Electricity Security, Reliability, and Resiliency

The electric grid is becoming more secure, reliable, flexible, and efficient. Below are just a few of OE's accomplishments in this area which have touched businesses and consumers across the nation.

Cyber and National Security Since 2010, OE has invested more than \$210 million in cybersecurity research, development and demonstration projects that are led by industry, universities and DOE national labs. These critical investments have supported the development of more than 35 new tools and technologies now being used to advance the resilience of the Nation's energy delivery systems.

Emergency Response OE developed EAGLE-I, the first-ever technology to track and share real-time information on power and natural gas infrastructure during energy emergencies. The Environment for Analysis of Geo-Located Energy Information system delivers timely, accurate, and actionable information about the status and potential impacts of energy sector disruptions. During Hurricane Sandy in 2012, EAGLE-I was used to produce regular reports that allowed senior leadership and responders to make informed decisions that could mitigate Sandy's human and economic impacts. EAGLE-I's expanding capabilities focus on the integration and geospatial overlay of hazards across the energy ecosystem.

R&D Program Management OE successfully managed an investment of \$4.5 billion in grid modernization that was matched by private funding to reach a total of about \$9.5 billion. Of the \$4.5 billion, \$3.4 billion was used to help industry accelerate the deployment of advanced technologies that are now keeping the lights on more reliably, efficiently and cost effectively. This investment accelerated most recipients' grid modernization investment plans by 2-10 years in their estimation, thereby adding greatly to the nation's electrical infrastructure.

Transmission Permitting In September 2016, the Energy Department announced a final rule for the Integrated Interagency Pre-Application (IIP) Process for electric grid transmission. This rule is intended to encourage early engagement with stakeholders on electric grid transmission projects and increase the efficiency of grid modernization efforts. Improving the process can save time and result in more successful projects. The Presidential Permits issued in 2016 for the Lake Erie Connector, New England Clean Power Link, and Great Northern transmission lines are examples of how the IPP's collaborative principles are working.

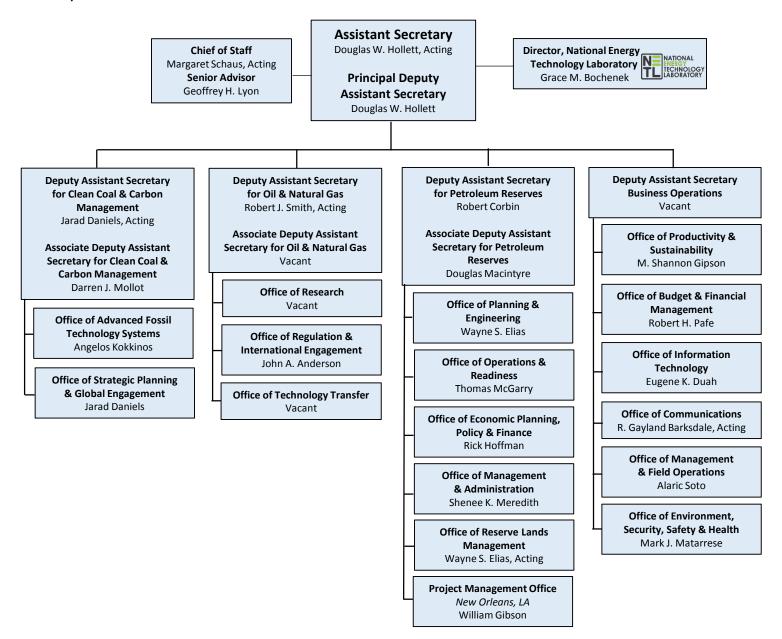
Grid Modernization Initiative

Most of OE's efforts today are being conducted through DOE's Grid Modernization Initiative (GMI). Through the GMI's Grid Modernization Laboratory Consortium (GMLC), up to \$220 million will support critical R&D at DOE's National Labs and partners in a number of key grid modernization areas.

While much progress has been made, much more work is needed. OE will continue to play a major role in addressing the immediate and long-term challenges to America's energy security, while sustaining applied research into the technologies and policies needed for the grid of the future.



Office of Fossil Energy



U.S. Department of Energy: Office of Clean Coal and Carbon Management

DOE's clean coal R&D is focused on developing and demonstrating advanced power generation and carbon capture, utilization and storage technologies for existing facilities and new fossil-fueled power plants by increasing overall system efficiencies and reducing capital costs. In the near-term, advanced technologies that increase the power generation efficiency for new plants and technologies to capture carbon dioxide (CO_2) from new and existing industrial and power-producing plants are being developed. In the longer term, the goal is to increase energy plant efficiencies and reduce both the energy and capital costs of CO_2 capture and storage from new, advanced coal plants and existing plants. These activities will help allow coal to remain a strategic fuel for the nation while enhancing environmental protection.

Carbon Capture, Utilization and Storage Research

The Carbon Capture, Utilization and Storage R&D program advances safe, cost effective, capture and permanent geologic storage and/or use of CO₂. The technologies developed and large-volume injection tests conducted through this program will be used to benefit the existing and future fleet of fossil fuel power generating facilities by creating tools to increase our understanding of geologic reservoirs appropriate for CO₂ storage and the behavior of CO₂ in the subsurface.

Advanced Energy Systems

FE's Advanced Energy Systems program focuses on improving the efficiency of coal-based power systems, enabling affordable CO₂ capture, increasing plant availability, and maintaining the highest environmental standards. The program supports gasification R&D to convert coal into synthesis gas that can be converted into electricity, chemicals, hydrogen, and liquid fuels. The program also advances hydrogen turbine designs to improve the performance of precombustion CO₂ capture systems and supports advanced combustion systems through R&D focused on new high-temperature materials and the continued development of oxycombustion technologies.

Carbon Capture, Utilization and Storage Major Demonstrations

Our CCUS Major Demonstrations program works in partnership with industry to develop and demonstrate advanced carbon capture, utilization and storage technologies at commercial scale.

Crosscutting Research

FE's Crosscutting Research program serves as a bridge between basic and applied research by fostering the development and deployment of innovative systems for improving efficiency and environmental performance through the research and development of instrumentation, sensors, and controls targeted at enhancing the availability of advanced power systems while reducing costs. The program is also active in the areas of computation, simulation, and modeling focused on optimizing plant design and shortening developmental timelines.

OFFICE OF ENERGY POLICY AND SYSTEMS ANALYSIS (EPSA) Office of the Chief Operating Officer Office of the Director for Energy Policy and Systems Analysis Office of the Secretariat for the (EPSA-10) **Quadrennial Energy Review** (EPSA- 1) 1P0 010 0000 1P0 001 0000 (QER) Lushetsky, John COO (EPSA-90) Battershell, Carol-Acting EPSA Director and 1PO 090 0000 **Principal Deputy Director** Office of Corporate Services Lushetsky, John (OD-Acting) Plowfield, Carole (EPSA-11) Sweeney, Terrenthia 1P0 011 0000 Rogers, Alexandra (C) Browne, Lametia (OD) Yunaska, Kyle Cornitcher, Marlisa Fores, Jim Camino Oliver, Rochelle (SV) Hawkins, Kelly Pickett, Renee Seldon, Teresa (C) Waller, Kloey (C) **EPSA Administrative Support** Cortes, Fave (EPSA-1, PDD, EP-90) (C) Office of Business Services Lewis, La'Shay (EPSA-10, 20, 30) (C) (EPSA-12) Millington-Price, Sherrone (EPSA-40, 50, 60) (C) 1P0 012 0000 Fonville, Annie (EPSA All Travel) (C) Wilson, Quinntella (OD) Brumbelow, Lindsay (DI) McCurchin, Deon Rush. Sonva Tull. Paulette Office of the Deputy Director for Energy Systems Office of the Deputy Director Office of the Deputy Director Office of the Deputy Office of the Deputy Director for (EPSA-40) for Climate, Environment and for Energy Security Director for Energy Finance, State, Local and Tribal Cooperation 1P0 040 0000 Efficiency (EPSA-30) **Incentives and Programs** (EPSA-60) Pablo, Jeanette (DD-Acting) (EPSA-50) (EPSA-20) 1P0 030 0000 1P0 060 0000 Griffith, Lindsey (F) 1P0 020 0000 Battershell, Carol (DD-Acting) 1P0 050 0000 Chen, Hugh (DD-Acting) Lushetsky, John (DD-Acting) Abbey, Tristan (DO) Chen, Hugh (DD) Singleton, Greg (Sr. Advisor) Cunliff, Colin (F) Office of Energy Systems Integration Analysis (EPSA-41) Office of Liquid Fuels and 1P0 041 0000 Office of Climate and Office of Energy Finance and Office of State, Local and Tribal Bauer, Diana (OD) **Transportation Analysis Incentives Analysis Environmental Analysis Policy Analysis** Bockenhauer, Sam (EPSA-31) Chao, Alice (F) (EPSA-51) (EPSA-21) (EPSA-61) 1P0 031 0000 Clement, Zachary Fields. Fletcher 1P0 021 0000 1P0 051 0000 1P0 061 0000 McMahon, Katherine (I) Schmitt, Robert Powell, John (OD) Hsieh, Eric (OD) Frisch, Carla (OD) Marks, Kathleen (OD) Gagarin, Hannah (F) Schoeberlein, David Singal, Bonita (F) Bergman, Aaron Bouzoubaa, Zineb (I) Oueid, Rima Li, Jennifer Harsanyi, Katherine Cleary, Kathryne (I) Pearce, Thomas (E) Peterson, Kimberly (I) Hendrickson, Stephen Garman, Sarah Verclas, Kirsten (F) Ruble, Isabella (F) Office of Electricity Systems Analysis Kennedy, James (F) Hodson, Elke White, Thomas (EPSA-42) Lin, Jessica (F) Murphy, Caitlin (F/DO) Wood, Alex 1P0 042 0000 Zamuda, Craig Zeng, Claire (F) Office of Stakeholder Engagement Frisch, Carla (OD-Acting) (EPSA-62) Agniel, Samantha (I) Breckel, Alex 1P0 062 0000 Office of Program and Office of Energy Efficiency Office of Energy Supply Analysis Cody Christina (DI) Horner, Nathaniel Marks, Kathleen (OD-Acting) **Innovation Policy Analysis** Analysis (EPSA-32) Grosvenor, Courtney (F) Wilson, Cynthia McGovern. Matthew (EPSA-22) 1P0 032 0000 (EPSA-52) 1P0 052 0000 1P0 022 0000 Steinberg, Ben (OD-Acting) Office of Energy Systems and Economics Analysis Taylor, Cody (OD) Easley, Kevin (DI) Jennings, John (OD) Jenkins, Sandra Ho. Hai (Hugh) Agan, John (EPSA-43) Legend: Boyd, Erin Klimaszewski, Andrew (I) 1P0 043 0000 Horner, Robert C-Contractor **DD-Deputy Director** Contreras, Diego (I) Lefler, Kelly Bauer, Diana (OD-Acting) Smith. Chad (I) COO- Chief Operating Officer F-Fellow PDD-Principal Deputy Director DI- Detailed In Menees, Sydney Lange, Ian (F) **OD-Office Director** DO-Detailed Out Teng, Joseph (F) E-Expert I-Intern Updated July 10, 2017 SV-Student Volunteer

U.S. Department of Energy: Office of Energy Policy and Systems Analysis

The Director of the Office of Energy Policy and Systems Analysis is the primary energy policy advisor to the Secretary and Deputy Secretary on domestic energy policy development and implementation as well as DOE policy analysis and activities.

The role of the Office of Energy Policy and Systems Analysis is to deliver unbiased energy analysis to the Department of Energy's leadership on existing and prospective energy-related policies, focusing in part on integrative analysis of energy systems.

The Office of Energy Policy and Systems Analysis includes the Secretariat of the Quadrennial Energy Review with primary responsibility for supporting the White House interagency process and providing to it data collection, analysis, stakeholder engagement, and data synthesis.

U.S. Energy Information Administration

