



U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability



Lamont Jackson

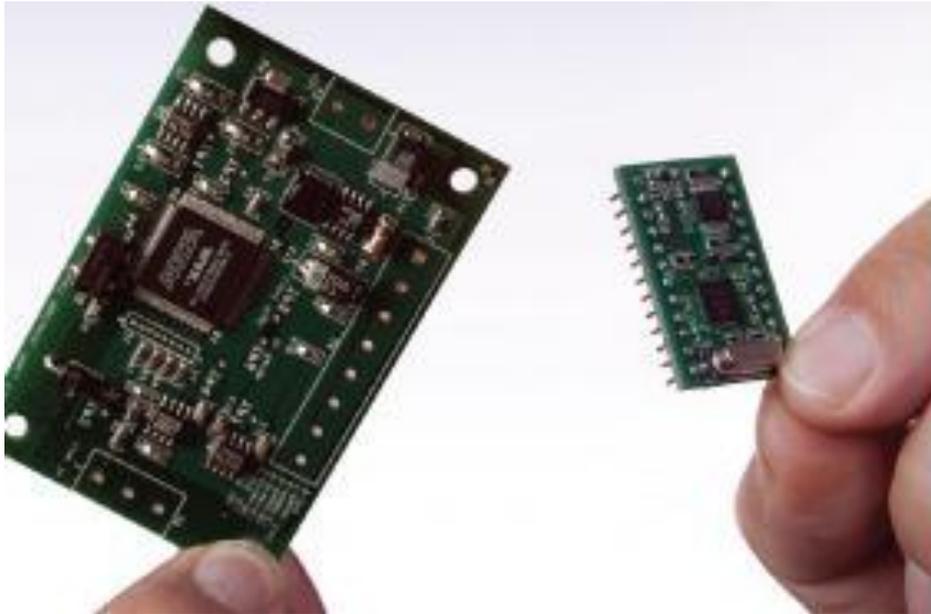
Office of Electricity Delivery and Energy Reliability

August 8, 2012



U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability



The **Mission of the Office of Electricity Delivery and Energy Reliability** is to lead national efforts to modernize the electric grid; enhance security and reliability of the infrastructure; and facilitate recovery from disruptions to energy supply.



Outline

- Background Office of Electric Delivery
- Roles and Functions
- Permits, Siting and Analysis
- Partnerships/Joint projects
- Your Input on Upcoming Training Topics



Office of Electricity Delivery and Energy Reliability (OE)



OE

**Research &
Development
(R&D)**

**Permitting,
Siting,
& Analysis
(PSA)**

**Continuing
Business
Operations
(CBO)**

**Infrastructure Security
& Energy Restoration
(ISER)**





Permitting, Siting and Analysis Division

Mission: Modernize the electric grid and enhance the reliability of the electric infrastructure by contributing to the development and implementation of electricity policy at the Federal and state levels.

Activities:

- Provide technical assistance on electricity policies, upon request, to public utility commissions, tribes, and other federal, state and regional entities.
- Presidential Permit and Export Authorizations for international trade in electricity.
- Analyses and evaluations for existing and future electricity infrastructure needs.
- Staff DOE management as needed on electricity policy.



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Research and Development

Focus:

1. Energy storage:

Focuses on grid-scale storage technologies that:

- Reduce power disturbances
- Improve system flexibility, better incorporating intermittent renewable resources
- Reduce generation needed at peak demand

2. Cyber Security:

Address weakness/vulnerability within the transmission system to reduce the risk of energy disruptions due to cyber attacks.

Collaborate with the research community in government, industry and academia to enhance cybersecurity capabilities.



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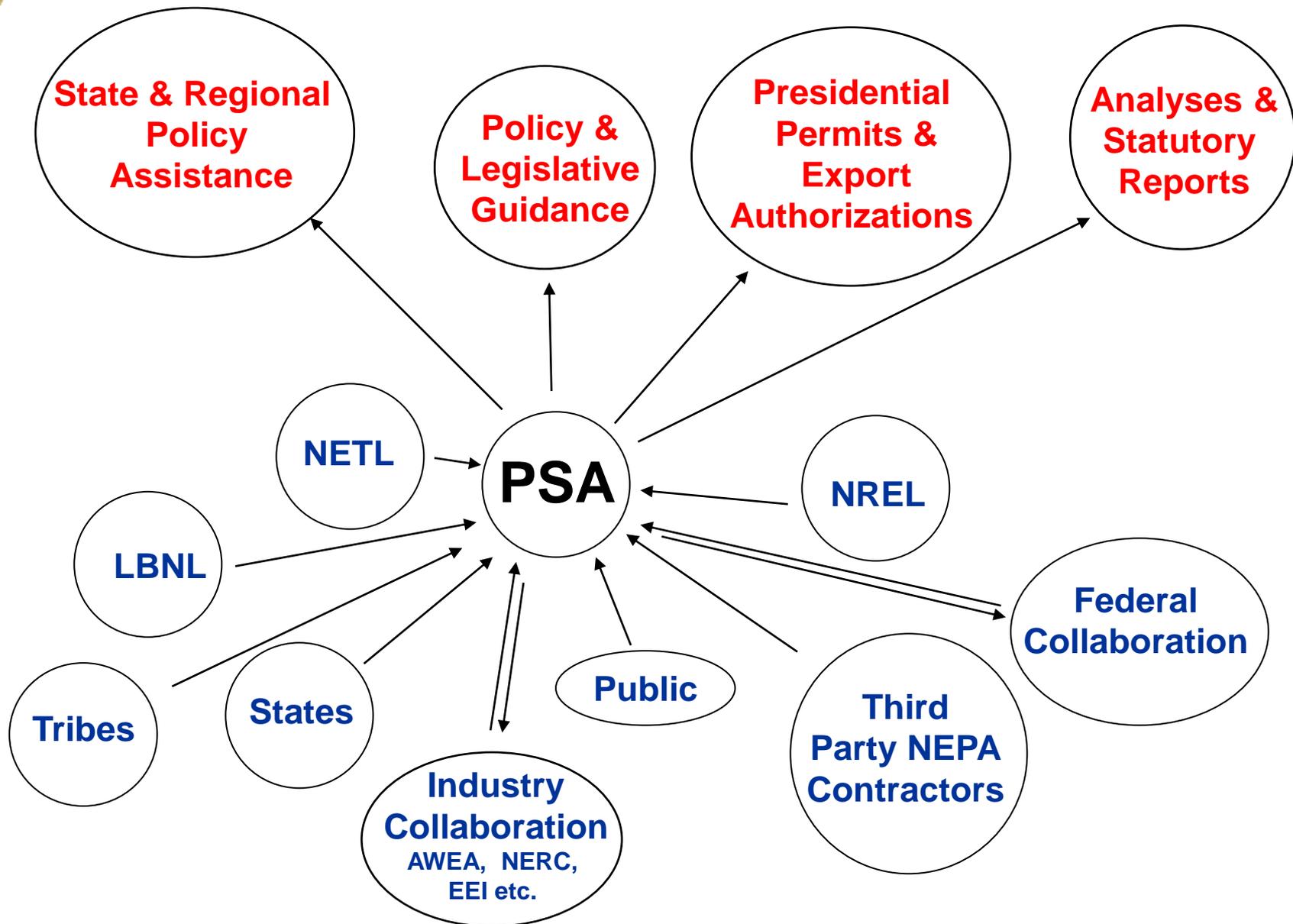
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Infrastructure Security and Energy Restoration

- **Leads national efforts to enhance the security of energy infrastructure against all threats and hazards.**
- **Carries out the Department's responsibilities to protect the Nation's energy infrastructure and key resources.**
- **The Division ensures the reliability, and security of our energy infrastructure by:**
 - **coordinating the Department's emergency preparedness, and response activities to provide impact analysis during an event.**
 - **providing assistance in securing critical energy infrastructure, both physical and cyber**
 - **leading and coordinating technical and policy support for control systems security**
 - **collaborating with all levels of government and industry to improve preparedness and response capabilities and to facilitate a speedy recovery from energy supply disruptions, thereby reducing the impact of these events**



Partnerships and Products





PSA Drivers

- **President's Renewable Energy Goal**
 - 10 percent of U.S. electricity needs from renewable sources by 2012, and 25 percent by 2025
 - Build a modern, and strong nationwide transmission system capable of delivering affordable power with zero/low carbon emissions.
- **Technical Assistance**
 - Best assistance to state officials, *on as-requested basis*, on electricity policies
 - Emphasis on promoting regional coordination among states, and other entities.



U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

OE TRIBAL ACTIVITIES IN FY 2010 - 2012

August 3, 2012

TITLE	THEME	DATE / LOCATION	PURPOSE / NEED	BENEFITS	PARTICIPANTS
Tribal Renewable Energy Analysis	Renewable Energy on Tribal lands in the Western U.S.	June 2012 / D.C.	<ul style="list-style-type: none"> Promote and analyze the relative potential for renewable energy production sites on Tribal lands to be connected to the transmission grid. Prepare a market analysis for a natural gas generator site in Northwest Arizona. 	The benefit for DOE, Tribes and the public is the have a map that depicts suitable renewable energy zones on Tribal lands. Maps will also show existing transmission lines and substations in close proximity to renewable energy zones. The market analysis will provide examples of how to sell electricity to federal agencies.	<ul style="list-style-type: none"> OIEPP WAPA OE
National Science Foundation	Education and Outreach	June 2012 / D.C.	Bring awareness to participating Minority Serving Institutions (MSI) regarding DOE programs and any potential funding opportunities.	Increased awareness and knowledge of DOE programs and activities.	<ul style="list-style-type: none"> DOE staff National Science Foundation staff OE
2012 Reservation Summit	Tribal Consultation	March 2012 / Nevada	<ul style="list-style-type: none"> Engage in Tribal consultation regarding electrification issues on Tribal lands. OE sponsored a booth. Lamont facilitated a discussion about renewable energy development in Tribal electric utilities. 	Increased coordination and awareness of electrical issues on Tribal lands. Provided input into DOE and OE activities.	<ul style="list-style-type: none"> Tribal members DOE Private industries
Wind Transmission Forum	Wind Energy Development	Feb. 2012 / Colorado	<ul style="list-style-type: none"> Educate Tribes on various wind development opportunities. Provide an opportunity for Tribal leaders to interact with wind industry executives and Federal leaders. Get up-to-date information on transmission development and planning activities in the West. Hear the latest trends in recent financing of clean energy products. Provide a venue for Tribal Leaders and executives to hear directly from and talk directly to each other regarding best practices in Tribal project partnership. 	<ul style="list-style-type: none"> Increased awareness to Tribes on the latest wind technologies. Increased dialogue between DOE, Tribes leaders, and Wind Energy Executives. 	<ul style="list-style-type: none"> Tribal members Electric Utility reps OE OIEPP



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OE TRIBAL ACTIVITIES IN FY 2010 - 2012

August 3, 2012

TITLE	THEME	DATE / LOCATION	PURPOSE / NEED	BENEFITS	PARTICIPANTS
Solar Energy Forum	Solar Energy Development	Dec. 2011 / California	<ul style="list-style-type: none"> Provides an in-depth overview of renewable energy development with a focus on solar technologies and development activities in the Southwest. Provide an opportunity for Tribal leaders and executives to get real - time regional market snapshots of solar power purchasing, project financing options and structures, and related emerging issues or trends in the solar industry. 	<ul style="list-style-type: none"> Tribal leaders and solar executives exchanged best practice models for developing solar energy partnerships and investments on Tribal lands. Tribes gained important insight on the considerations for economic solar projects. 	<ul style="list-style-type: none"> Tribal members OE OIEPP Private industries
Transmission 101 for Tribes	Tribal Education	Sept. 2011 / Colorado	<ul style="list-style-type: none"> This course was designed for the staffs of Tribal governments, Tribal utilities, Tribal enterprises, and Tribal corporations, who are responsible for developing and implementing energy solutions for Indian Tribes. Provide additional education and technical assistance on electricity and electrification issues. 	<ul style="list-style-type: none"> Increased understanding of basic fundamentals of transmission infrastructure and delivery. Tribes gained additional education and technical assistance on electricity and electrification issues. 	<ul style="list-style-type: none"> Tribal members Tribal utilities OE Western Area Power Administration (WAPA)
United States Department of Energy Tribal Summit	Tribal Education	May 2011 / D.C.	Fulfill Secretary Chu's commitment to Tribes to host a Tribal Energy Summit following the election of Barack Obama.	<ul style="list-style-type: none"> Increased conversation with Tribes and allow them access to DOE management. Increased communication and energy awareness on tribal lands. Built a better relationship between Tribes and DOE. 	<ul style="list-style-type: none"> Tribal leaders Office of Congressional & Intergovernmental Affairs (CI) OE OIEPP
2011 Reservation Summit	Tribal Consultation	March 2011 / Nevada	Engage in final Tribal consultation regarding electrification issues on Tribal lands.	Increased communication and awareness of electrical issues on Tribal lands.	<ul style="list-style-type: none"> Tribal members Federal staff Private industries
Tribal Consultation	Tribal Consultation	June 2010 - Feb. 2011 / Multiple Locations	Have dialogue with Tribal leaders regarding electricity related issues on Tribal lands.	Created and fostered a better relationship between Tribes and DOE. Increased awareness of electricity issues on Tribal lands.	<ul style="list-style-type: none"> Tribal Leaders OE
OE / OIEPP Joint Tribal Activities	Renewable Energy Dialogue	Ongoing / DOE (monthly conference calls)	Increase intra-agency dialogue with OIEPP, WAPA, and Bonneville Power Administration (BPA) on renewable energy activities.	Increased communication and better coordination of energy activities on Tribal lands.	<ul style="list-style-type: none"> OE OIEPP WAPA BPA
DOE Tribal Steering Committee	Tribal Energy Activities	Monthly / DOE	Dialogue of Tribal activities	Better intra - agency coordination and increase awareness of current Tribal issues	<ul style="list-style-type: none"> EERE OE OIEPP PMA's CI

Near and Long-Term Objectives

- Lead Federal interagency collaboration to meet the President's renewable electricity goals
- Lead development of long-term interconnection-level transmission expansion plans
- Improve and coordinate regulatory processes for new transmission facilities
- Assist utility industry in its efforts to integrate variable renewable generation and maintain system reliability
- Continue providing high quality technical assistance and support on electricity policies





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