

OPEN GOVERNMENT PLAN 3.0

U.S. Department of Energy
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INTRODUCTION

BUILDING ON A TRADITION OF OPENNESS



On his first day in office, President Obama signed the Memorandum on Transparency and Open Government and made clear his commitment to “creating an unprecedented level of openness in government.” The President laid out the three core values that would promote efficiency and effectiveness in government: transparency, participation, and collaboration.

With our tradition of science and research, the Department of Energy has long seen the benefits of providing access to information and encouraging collaboration. Over the past few years, we’ve made great strides in harnessing new technologies and tools to advance these goals.

We’re directly engaging with stakeholders and the general public more than ever before. We’ve consolidated much of our web presence onto our flagship website energy.gov, which now features a responsive design that optimizes information for users regardless of their device. We’ve also increased our use of social media platforms, including establishing the first Secretary of Energy Twitter account (@ErnestMoniz).

We’re constantly improving our Freedom of Information Act (FOIA) process to reflect a culture of openness. As Secretary, I’ve made clear our commitment to fulfill the President’s call for transparency by ensuring FOIA requests are addressed promptly and with a presumption of disclosure.

Our national labs are providing access to world-class research and equipment by working with researchers and industry through our user facilities and tech

transfer programs. The Department is also committed to fulfilling the Administration's goal of increasing public access to the results of federally funded scientific research.

We're partnering with industry, non-profits and others to find new and creative ways to leverage energy data. Our Green Button initiative is empowering consumers by providing energy usage data in real time, helping them make informed decisions about their electricity use.

We're inviting the public to combine energy data and their own creativity to make our open energy data resources more accessible, usable, and valuable. We've held "Energy Datapaloozas" and five regional hackathons in our "Apps for Energy" contest, where more than 3,500 teams have participated. And our American Energy Data Challenge is a yearlong series of challenges that is helping to amplify the value of our public data resources.

I encourage you to go to energy.gov to learn more about what we're doing to build a more efficient, effective and engaged Department of Energy.

Ernest Moniz

U.S. Secretary of Energy



OPEN GOVERNMENT PLAN 3.0

The Energy Department is committed to President Obama's mandate to make the federal government more open and accessible to the American people. The Department continues to build on the initiatives it outlined in the first two iterations of the Open Government Plan and strives to be a leader in the Open Government movement.

In the last two years since the release of the Open Government Plan 2.0, the Department has achieved some significant milestones to advance the Open Government goals of transparency, participation and collaboration -- from expanding access to its wealth of data resources, to hosting challenges and hackathons to encourage the development of new tools and applications, to streamlining and transforming the ways we interact with stakeholders, public officials, government partners, and the general public.

This updated plan shows how the Open Government values of transparency, participation and collaboration have become standard operating procedure at the Energy Department. From major initiatives to iterative improvements, offices throughout the Department are making Open Government values part of every conversation.

While the Energy Department has made great steps forward over the last years, the work is never totally complete. Building and encouraging a culture of openness is how we build a more efficient, effective, and engaged Department of Energy.



TRANSPARENCY

Transparency promotes accountability and responsibility by allowing the public and stakeholders clear and timely access to the Department's activities, policies and decision-making.

The Department of Energy is committed to a culture of transparency and proactive disclosure and uses a wide variety of tools and channels to make information available to the general public, public officials, and stakeholders.

NEW INITIATIVE: A MORE RESPONSIVE ENERGY.GOV



The Energy.gov project is a key component of the department's digital reform project for online communications.

Energy.gov is a leader in cabinet websites and recently implemented a mobile

friendly, responsive design that allows the public to access Energy.gov content in a manner tailored to any device (phone, tablet, desktop, etc.) on any platform.

The responsive project sought not only to transform existing content on the energy.gov platform into a responsive environment, but also to make real improvements to popular areas of the site that were most likely to be accessed by tablet and smartphone users.

Search functionality, including the implementation of a better faceted search experience, was optimized across devices and the search feature was made more prominent on tablet and smartphone devices. The site's popular database of energy savings rebates and tax incentives was also optimized to better meet the needs of mobile users.

Since moving to a responsive design, energy.gov has seen continued growth in tablet and mobile traffic – now nearly 20% of visitors to energy.gov are using a mobile device.

NEW INITIATIVE: EXPANDING EIA'S APPLICATION PROGRAMMING INTERFACE: API-EIA.GOV

EIA APPLICATION PROGRAMMING INTERFACE

Introduction to api.eia.gov

The U.S. Energy Information Administration is committed to making its data available through an Application Programming Interface (API) to better serve our customers. An API allows computers to more easily access our public data. By making EIA data available in this machine-readable format, the creativity in the private, the non-profit, and the public sectors can be harnessed to find new ways to innovate and create value-added services powered by public data.

Currently, EIA's API contains the following main data sets:

- 408,000 electricity series organized into 29,000 categories
- 30,000 State Energy Data System series organized into 600 categories
- 115,052 petroleum series and associated categories
- 11,960 natural gas series and associated categories
- 132,331 coal series and associated categories (released Feb 25, 2014)

On January 23, 2014, the **bulk download facility** was added. Note that on June 15, 2014, the terms of service will be amended to limit the number of calls to the API for each key to 100,000 per day. Bulk data consumers should use the bulk data file facility or risk temporary loss of access. Downloading and ingesting entire data sets via the bulk files is 20 to 30 times faster than repeated API calls and is simpler to implement.

The EIA API is offered as a free public service, although registration is required. Your registration and compliance with the [API Terms of Service Agreement](#) will help EIA monitor usage and ensure service availability. EIA data is provided free of charge and should be used in compliance with our [Copyrights and Reuse](#) page.

Get feedback? If you have recommendations regarding how we are implementing our API or are developing an app or mash-up using our data, we want to hear from you. Use the feedback button above to share your comments and activities, and see what others are saying.

The U.S. Energy Information Administration is continuing to make its data available through the agency's Application Programming Interface (API) and bulk download facility, with planned expansions in FY14 that include data from the Annual Energy Outlook, Short-

Term Energy Outlook, and Monthly Energy Review. By making EIA data available in these new formats, the creativity in the private, the non-profit, and the public sectors can be harnessed to find new ways to innovate and create value-added services powered by public data.

EIA first launched its API in October 2012, making the agency's 408,000 electricity data series more accessible than ever before. Subsequent API releases included the following data sets:

- 30,000 State Energy Data System series
- 115,052 petroleum series
- 11,989 natural gas series
- 132,331 coal series

In January 2014, EIA added a bulk download facility provides the entire contents of each major API data set in a single ZIP file. These files, along with a manifest providing update information, allow institutional customers to download and process data releases in minutes without over-loading EIA's databases.

Through the end of FY14, EIA will release the following data sets via RESTful web services and bulk data files with updates made throughout the day:

- [Annual Energy Outlook](#)—covering long-term annual projections of energy supply, demand, and prices focused on the U.S. through 2040.
- [Short-Term Energy Outlook](#)—covering monthly energy projections for the U.S. that include supply, consumption, and prices.
- [Monthly Energy Review](#)—overview of total energy production, consumption, and trade; energy prices; overviews of petroleum, natural gas, coal, electricity, nuclear energy, renewable energy, and international petroleum; carbon dioxide emissions; and data unit conversion values.

Of particular interest to developers are the geographical metadata provided with each series (for example, the longitude and latitude information of individual electricity plants). Standards-based country and state codes are provided, where applicable. These metadata permit advanced mapping applications.

The EIA API is offered as a free public service, although registration is required. Developers' registration and compliance with the [API Terms of Service Agreement](#) helps EIA monitor API usage and ensure service availability. Note that a key is not required to download the bulk data files. EIA data is provided free of charge and should be used in compliance with the [agency's copyrights and reuse](#) policy.



PROJECT OPEN DATA

At the Department of Energy, we focus on using transformative science and technology solutions to ensure America's security and prosperity. Data is a key ingredient to this mission, which is why we are so excited about the Open Data movement.

We believe providing open access to energy data can accelerate the pace of scientific discovery and empower entrepreneurs to build new products and services. We have several exciting ongoing initiatives to increase access and use of our data:

We are working to catalog all of our public data assets in a standard format and make them available. These data sets are currently spread across the agency and our National Laboratories. We want to make these resources easier to find, and so we have created a [public data listing](#). This data listing is used to populate data catalogs like the one at www.data.gov and make existing catalog resources like OpenEI.org even better. The department is committed to adding to this list and keeping the data up-to-date.

FOIA: A PRESUMPTION OF OPENNESS

In March 2009, Attorney General Eric Holder issued a memorandum to the heads of executive departments and agencies detailing comprehensive new guidelines for government-wide administration of the Freedom of Information Act (FOIA). The new guidelines directed all executive branch departments and agencies to apply a presumption of openness when administering the FOIA and to have in place effective systems for responding to FOIA requests.



Attorney General Holder's FOIA memorandum emphasized that FOIA is the responsibility of everyone in each agency, and that in order to improve FOIA performance, agencies must address the key roles played by a broad range of personnel who work with each agency's FOIA professionals.

The Attorney General's FOIA guidelines build on the principles announced by President Obama on his first full day in office when he issued a presidential memorandum calling on agencies to "usher in a new era of open government" and to reaffirm the government's commitment to accountability and transparency.

The Department of Energy's FOIA Program is administered by the Office of Management. The Director, Office of Management, is the Chief FOIA Officer for the Department. The FOIA Program is managed by the Headquarters FOIA Officer with a staff of Departmental specialists who provide agency-wide policy, guidance, and training for all employees with FOIA responsibilities. In addition, each DOE Program and Headquarters staff office has a designated FOIA Coordinator that facilitates searches and reviews of records. FOIA Coordinators consult with subject-matter-experts in their offices and Attorneys in the Office of the General Counsel to prepare the written responses to FOIA requesters.

A FOIA Officer is designated for each DOE Field Office and is responsible for processing requests for records under the jurisdiction of the Field Office. The staffs of the Headquarters FOIA Program and most Field FOIA Programs include full time FOIA Specialists.

The Department continues to work diligently to improve its FOIA performance and to integrate a "presumption of openness". The Office of Hearings and Appeals in tandem with the FOIA Office and the Office of General Council, conducts monthly trainings via conference calls for the Field and Headquarters. The training sessions cover a broad area of topics such as FOIA exemptions 2 through 6, agency records vs. contractor records, fees and fee waivers, and the Office of

Government Information Services (OGIS). The average number of FOIA Officers and FOIA professional attendees on these calls range from 35-49. The FOIA Office also conducted periodic conference calls with field personnel to discuss FOIA issues and developments. At HQ, the FOIA office held a Spring Fling training session and discussed a number of FOIA topics including procedural requirements, communicating with requesters, application of exemptions, and searching for and reviewing documents. This was attended by approximately 20 HQ FOIA professionals. The HQ FOIA office and the Office of General Counsel also conducted individual training sessions for various HQ program offices and staff that were new to processing requests. The number of attendees and topics of the sessions varied according to the needs of the office.

The Chicago Operations Office FOIA office conducted extensive training for all personnel at their six site offices that oversee Management and Operating laboratories. The site office and subject matter training sessions were customized for the organizations being trained and focused on the types of information the site office or subject matter personnel handle routinely.

The National Nuclear Security Administration conducted training for employees in their Office of Human Capital management who process FOIA requests. The training provided an overview of FOIA, agency rules, application of exemptions and examples. All employees who typically process FOIA requests attended the training and a CD version of it was made available to other agency staff.

The Bonneville Power Administration FOIA staff provided introductory FOIA training at new employee orientations.

To ensure that the agency remains committed to the President's commitment, the current Secretary of Energy issued a new memorandum for Heads of all DOE elements regarding the FOIA program on August 27, 2013, and found at <http://www.energy.gov/management/downloads/memorandum-secretary-moniz->



[freedom-information-act-foia](#). This memorandum discussed his full support of the President's commitment to open government and transparency. He encouraged the improvement of response times to FOIA requests and to closing longstanding requests. He also declared his expectation that DOE's senior leaders continue to support the President's guidance regarding transparency and to make certain that FOIA requests are responded to in an expeditious manner.

DOE is establishing methods to electronically transport responsive documents between process steps to reduce time and cost of processing. In the past three months, the Office of Classification and the Office of the Chief Information Officer have been improving our capabilities to transport large classified and unclassified files (up to about 2 GB) over existing networks between Headquarters and field components of DOE. Problems are being resolved as they arise. As our electronic capabilities improve, they are being systematically implemented. The field has begun sending FOIA cases to Headquarters electronically for classification review. For instance, a large classified file was transported electronically from Headquarters to the field (LLNL) for coordination of classification determinations. Additionally, a large redacted file work product was transported electronically from Headquarters to the NNSA Albuquerque Office.

The Office of Classification conducts online declassification redaction to reduce time and cost of processing. The Office of Classification conducted an electronic redaction of a large package (2,000 pages) instead of just bracketing the classified information. This saved the subsequent FOIA processing step from having to expend time and resources redacting bracketed documents. The Office of Classification is exploring alternative redaction software. They obtained alternative redaction software and conducted testing to identify the advantages and disadvantages of the alternative software.

DOE also has tentative arrangements to conduct a demo of software that will allow us to sort, de-duplicate and redact documents. This is contingent on the

new server that will host our tracking system. We are hoping that this product assists greatly in the reduction of time to process requests.

DOE continually strives for ways to improve our process. Issues are discussed at meetings between the Chief FOIA Officer, FOIA staff and FOIA Managers. The FOIA Office continues its monthly status meeting with the Office of General Counsel to resolve pending issues. We communicate and provide suggestions to the contractor on ways to improve the FOIA software utilized at DOE.

We work closely with the Information Technology support group in the Office of Management that provides technical support for the FOIA tracking system. Our Office of the Chief Information Officer has created a new server to better facilitate our FOIA tracking system and allow us to use certain features more efficiently. DOE continues its conference calls with DOE FOIA Officers, during which individual requests, as well as the overall process, are discussed. A desk reference guide is provided to employees with FOIA responsibilities to ensure that they are knowledgeable about procedures for processing FOIA requests.

Our monthly training calls assist in ensuring that FOIA professionals are trained and updated on current procedures. We continue to educate offices on how to conduct searches. We believe this will help to decrease the time it takes record holders to conduct searches. DOE plans to conduct a demo of software that will allow records to be de-duped electronically and search for specific responsive documents.

The public can submit their FOIA requests to DOE through an online electronic form on the public DOE web site at <http://www.energy.gov/management/office-management/operational-management/freedom-information-act>. The process for submitting and tracking requests is described on the electronic form page. To access contact information for FOIA Requester Service Centers, Public Liaisons and Officers at DOE Headquarters, field offices, power administrations and



national labs, please visit DOE FOIA Contacts page (<http://www.energy.gov/management/office-management/operational-management/freedom-information-act/foia-contacts>). The Annual FOIA Report (including staffing information) and the Chief FOIA Officer Report can be found at <http://www.energy.gov/management/office-management/operational-management/freedom-information-act/documents/annual-reports>.

A COMMITMENT TO PLAIN LANGUAGE

The Plain Writing Act of 2010 requires federal agencies to write "clear Government communication that the public can understand and use." President Obama also emphasized the importance of establishing "a system of transparency, public participation, and collaboration" in his January 21, 2009, **Memorandum on Transparency and Open Government**.

The Department of Energy is committed to writing new documents in plain language, using the Federal. We have assigned staff to oversee our plain language efforts:

- Ingrid Kolb, Director of the Office of Management, Senior Agency Official Responsible for Plain Writing
- Michael Coogan, Office of the Executive Secretariat, Plain Language Point-of-Contact

The Department requires plain language in any document that:

- is necessary for obtaining any federal government benefit or service or filing taxes;
- provides information about any federal government benefit or service; or
- explains to the public how to comply with a requirement that the federal government administers or enforces.



RECORDS MANAGEMENT

The Department of Energy (DOE) adheres to and follows the records management requirements and guidelines as defined under 36CFR and 44 U.S.C. Additionally, DOE adheres to and complies with the reporting of its records management program activities and operational status to the National Archives and Records Administration (NARA), via the annual “Records Management Self-Assessment”. Pursuant to the “Memorandum on Managing Government Records” and the supporting “Managing Government Records Directive”, DOE had identified and dedicated a Senior Agency Official (SAO) for records management, and is taking steps to meet the requirements set forth by the two initiatives, including but not limited to the consideration to use NARA’s “Capstone” approach for managing email, and the use of “flexible/bucket scheduling” of its Electronic Information Systems (EIS) and agency program records for disposition.

PROTECTING PRIVACY

Under the Federal Information Security Management Act of 20002 (FISMA) (Title III, Pub. L. No. 107-347), the Department of Energy (DOE) annually reports privacy compliance in the Senior Agency Official for Privacy (SAOP) section of the FISMA report. DOE adheres to Department of Homeland Security (DHS) direction to report the SAOP report data through CyberScope. Accordingly, the privacy compliance report identified under Section C is the SAOP Privacy Reporting Metrics and the recipients of the report is DHS and the Office of Management and Budget.



RESPONDING TO CONGRESSIONAL REQUESTS

DOE's Office of Congressional and Intergovernmental Affairs (CI) is tasked with overseeing and maintaining the Department's relationships with government entities and stakeholders. Through diligent usage of available platforms, we keep all appropriate Congressional committees, governmental organizations and other impacted stakeholders apprised of the Department's activities. The CI responsibilities and functions are discussed [on their website](#).

WHISTLEBLOWER PROTECTION

On November 27, 2012, President Obama signed into law the Whistleblower Protection Enhancement Act of 2012 ("WPEA"). The WPEA strengthens the protections for federal employees who disclose evidence of waste, fraud, or abuse that were previously protected under the Whistleblower Protection Act ("WPA"). The protections can be found in Section 2302(b)(8) and (13) of Title 5, United States Code. The purpose of these Acts is to protect federal employees and applicants for employment from retaliation in the form of an adverse personnel action, or threats to take an adverse personnel action, by a federal agency when an employee or applicant has made any disclosure of information that he or she reasonably believes evidences a violation of a law, rule or regulation; gross mismanagement; gross waste of funds; an abuse of authority; or a substantial and specific danger to public health or safety.

The U.S. Office of Special Counsel (OSC) has jurisdiction over allegations of whistleblower retaliation made by employees. Whistleblower Protection Act Complaints should be sent to:



U.S. Office of Special Counsel
Complaints Examining Unit
1730 M Street, NW, Suite 201
Washington, DC 20036-4505

The required Whistleblower complaint form is available online at OSC
(www.osc.gov)

The WPEA also requires that any non-disclosure policy, form, agreement, or acknowledgement (collectively, “NDAs”) include the statement below, and provides that NDAs executed without the statement below may be enforced as long as agencies give employees notice of the statement. Employees were sent this guidance by an all-hands email on April 24, 2013 and May 29, 2014. A link to the Office of Special Counsel’s Whistleblower Disclosure’s site is available on every page on energy.gov.

Employees have been reminded that reporting evidence of fraud, waste, or abuse involving classified information programs must continue to be made consistent with established rules and procedures designed to protect classified information.

BENEFITS.GOV

The Department of Energy partners with the Department of Labor in its use of Benefits.gov. Benefits.gov is an E-Government initiative and the official benefits web site of the U.S. Government. This website enables the Department to provide citizens with information and eligibility prescreening services for Federal and State benefit and assistance programs.



The Benefits.gov Program is one of the original E-Government initiatives, which were created with the objective of leveraging technology to increase the efficiency, and ease with which citizens interact with the government. Additionally, this initiative enables the Department to publish information online, furthering the Administration's goal of increased transparency.

The Department employs Benefits.gov to provide users with a free, easy, and confidential online questionnaire to determine the specific benefit programs for which they are likely to be eligible as well as application information for each identified program.

Citizens obtain value by more quickly identifying benefit programs for which they may be eligible, while frequently learning about benefits for which they are eligible and of which they would have never known about otherwise. Additionally, since citizens are often able to ascertain their eligibility for specific programs using Benefits.gov, agencies save additional money by not needing to review applications from citizens who are ultimately deemed ineligible. This increases the transparency of the eligibility process to the public.

The Benefits.gov program focuses on four major goals: informing citizens, improving user experience, conducting efficient operations and managing program costs. The Department utilizes Benefits.gov to inform citizens, promote awareness and ensuring content integrity of the site through implementing collaborative outreach activities.

Benefits.gov enables the Department to conduct efficient operations by maintaining compliance with laws, regulations and information technology requirements. Benefits.gov enables the Department to manage an effective program by engaging the public in a partnership in strategic governance to ensure a transparent and collaborative process.



E-RULEMAKING

The Department of Energy participates in the E-Rulemaking program in conjunction with the Environmental Protection Agency. E-Rulemaking is a Federal-wide E-Government program which operates the Federal Docket Management System (FDMS) and the Regulations.gov website. OMB Implementation Guidance, (M-03-18, August 1, 2003), for the E-Government Act of 2002, directed Federal Agencies to make their regulatory docket information accessible and searchable to the public using the Regulations.gov web site, the public facing side of the Federal Docket Management System (FDMS). FDMS meets specific Agency strategic strategies (making Information More Accessible; Innovation in Information Management; and Excellence in Information Services); the law; and to remove the institutional barriers which have made it extremely difficult for the public to navigate the vastness of Federal regulatory activities.

Through a customizable agency interface, FDMS provides the Department with the ability to manage docket materials through the use of role-based access controls; workflow and collaboration processes; creating/managing/revising content; comment management; and integrated COTS scanning solutions. Regulations.gov serves as a trusted source of Federal information providing the public with easy one-stop access to all posted agency information. This access has revolutionized the way the Department writes rules, solicits comments, and collaborates with the public in its decision-making.

GRANTS.GOV

Grants.gov provides a single website to find and apply for Federal discretionary grants. Previously, grant processes varied widely across agencies and programs,



resulting in a complicated, burdensome, and costly methodology for the public to find grants.

Grants.gov, mandated by the 2002 President's Management Agenda and Public Law 106-107, has transformed the federal grants environment by increasing transparency by streamlining and standardizing public-facing grant processes, disseminating information to simplify and improve the process for both grantees and grantors, and eliminating redundancies.

Grants.gov provides the Department with a single web site where the public can find and apply for billions of dollars in grants distributed annually. Grants.gov improves the reach of grant programs and provides the benefit of process standardization, cost savings, and increased transparency to the public. The Department has utilized Grants.gov as a way to focus on continuing to improve operations and increase usage by the public. The Department continually uses Grants.gov to engage the public and is ongoing analyses of how to incorporate new technologies to continue providing improved service at a reduced cost to the public.



PARTICIPATION

Participation allows the public and key stakeholders to engage with the Department of Energy in meaningful ways. This two-way interaction benefits both the Department as well as the public by building trust, ensuring accountability, and opening lines of communication.

The Department is fostering participation today in more ways than ever before. Through expanding the use of social media and other feedback mechanisms, the Department is making regular interaction with the citizens we serve part of our daily workflows.

Through challenges and contests, the Department is encouraging entrepreneurs, businesses and others to leverage its open energy data to empower consumers, strengthen the grid, and address climate change.

FLAGSHIP INITIATIVE: AMERICAN ENERGY DATA CHALLENGE



WELCOME TO THE AMERICAN ENERGY DATA CHALLENGE

A four-part, year-long Challenge to introduce the public to data and resources offered by the U.S. Department of Energy. Click on SIGN UP FOR UPDATES to be among the first to know about the Open Data by Design Contest beginning soon.

About Contest #2: Apps for Energy

The Department of Energy will award \$100,000 in prizes for the best web and mobile applications that use one or more featured APIs, standards or ideas to help solve a problem in a unique way.

View the winners of the Apps for Energy contest below!

[SEE THE WINNERS](#)

[SIGN UP FOR UPDATES](#)

[SEE ALL THE APPS](#)

On November 4th, 2013, the Department of Energy publicly announced the “American Energy Data Challenge”. The goal of this challenge is to introduce the public to the valuable data and resources offered by the Department, to solicit feedback about our data, to amplify the energy data available to consumers today under the Green Button Initiative and to create new ways to visualize and discover energy data, and to spur the development of new tools and services that leverage this data. In pursuit of this goal, we will fulfill additional goals and objectives outlined in several Administration policy tools.

The Challenge consists of four Contests, run over four consecutive quarters, with each building on the other, and engaging different segments of the American public.

Contest #1: “The Energy Ideas Challenge” (Nov. – Dec. 2013)

This Contest will focus on generating new ideas for using energy data to create high-value products, applications, services and research. We will award prizes for the best idea for using an existing DOE dataset, best idea for a “wish list dataset” that would be extremely valuable if made available, and best “killer idea” for a new energy related application or service that will solve real problems faced by the American public. Contest #1 judging will be broken into three parts: 1) High Value Data Exploration; 2) Dataset Wish List and 3) “Killer Ideas”.

Contest #2: “Apps for Energy II” (Jan. – March 2014)

Building on some of the best ideas generated in Contest #1, in this Contest we will reward the creators of Green Button and Open Data apps, products and services that address real world energy related problems. We will give prizes for the best use of specific DOE APIs, best use of customer Green Button data, and best app that uses one of the “killer ideas” identified in Contest #1. A series of hackathons will be held in different cities across America to generate interest in



the American Energy Data Challenge and to assist the public in building awesome Apps.

Contest #3: “Energy Data by Design” (April – June 2014)

In this Contest, we will solicit designs, visualizations and other input that improves the clarity and discoverability of energy information. We will award prizes for the best visualization of Green Button energy data, best design of an energy data catalog, and others.

Contest #4: “The American Energy Challenge” (July – Oct. 2014)

America’s energy infrastructure was designed before innovations like the Internet, wireless communications, distributed generation, and electric vehicles. This Contest will solicit bold ideas for reimagining this infrastructure. Prize categories may include best visionary ideas for vehicles, buildings, manufacturing, the electrical grid, as well as best overall vision.

Expected Completion: The final contest in the American Energy Data Challenge will conclude in October 2014.

NEW INITIATIVE: SUNSHOT CATALYST PROGRAM



The U.S. Department of Energy (DOE), Office of Energy Efficiency and Renewable Energy, SunShot Initiative (SunShot) aims to make subsidy-free solar energy cost-competitive with conventional forms of energy by the end of the decade. SunShot drives American innovation in manufacturing, engineering, and business through a series of programs designed to spark and promote market solutions to solar energy development and clean energy growth. The SunShot Initiative continues to design and implement prize challenges that allow the public to rapidly innovate and deliver valuable solutions leveraging existing tools, capabilities and data assets. The SunShot Catalyst is an open innovation program that allows the public, through a series of prize challenges, to rapidly create and develop products and solutions that address near-term challenges in the U.S. solar marketplace.

Using the America COMPETES Act prize authority, the SunShot Catalyst Program is a series of contests designed to incentivize the public to address time-sensitive market problems in the solar industry. The Catalyst Program consists of four steps with value awarded to all winning contestants totaling \$1,000,000, which includes approximately \$500,000 in cash prizes. The four steps, in each cycle of Catalyst, are as follows:

	No.	Contest Name	Total Winners	Awards
	Step 1	Ideation Contest	Up to 5 winners	\$1,000 cash per winner
	Step 2	Business Innovation Contest	Up to 20 winners	\$25,000 in services for each winner
	Step 3	Prototyping	Up to 20 finalists	
	Step 4	Incubation Contest	Up to 5 winners	\$100,000 per winner

The following is only a summary of each contest. For more information please review the full details of each contest terms and conditions as provided by the Official Rules.



STEP 1: Ideation Contest

The Ideation Contest focuses on generating and aggregating pressing U.S. solar market needs and problem statements that can be solved through automation, algorithms, data, and software by leveraging available data assets, tools, capabilities and resources. Anyone can participate in this contest by submitting problem statements online or by voting on existing submissions of problem statements during the active voting period. There will be five monetary prizes of \$1,000 each, based on the results of a subsequent Incubation Contest (Step 4).



STEP 2: Business Innovation Contest

The Business Innovation Contest (Step 2) is designed to help teams form and explore business solutions to the most compelling problems in increasing solar energy generation, with a focus on problems and challenges identified by the public during the Ideation Contest (Step 1). Anyone can participate in this Contest by submitting a Business Plan Package online featuring a five minute video describing the proposed business plan. Winners of Step 2 will be given the opportunity to participate in the Prototyping (Step 3). DOE will grant access to \$25,000 worth of online software development capabilities for every winner of Step 2. Up to 20 winners will be given the opportunity to work directly with a

crowd-centric performance-based software development platform (PSDP) for 60 days in order to develop a minimum viable product (MVP) as proposed in their business plan.

STEP 3: Prototyping

The Prototyping stage is designed to help the selected winners from the Business Innovation Contest (Step 2) complete within 60 days the development of minimum viable products (MVPs) using a crowd-centric performance-based software development platform with a budget for services not exceeding \$25,000 per participating team. During this 60-day period teams will receive from DOE-provided software developer training, support and access to the crowd-centric performance based software in order to complete the development of their MVP. Each Team is expected to work closely with the software developer to formulate their requirements and scope of work for one MVP.

STEP 4: Incubation Contest

The Incubation Contest is designed to help teams with minimum viable products (MVPs) completed during the Prototyping (Step 3) start their businesses and accelerate the offering of new products and services to the solar marketplace. To win cash awards, teams have to participate in a DOE managed publically held Demo Day. This event will showcase the teams MVPs market entry execution strategy and a 6-month growth plan. During Demo Day, teams will be evaluated by judges in accordance with the Evaluation and Judging Criteria shown in this contest. The top five winners may receive a maximum total of \$100,000 in cash prizes. Funds will be distributed in two tranches (Seed Round and Progress Round). The first tranche of \$30,000 will be given to the 5 top teams that participate in Demo Day. Those teams will be eligible for a second tranche of \$70,000 as a follow-on cash award based on the team's success in meeting its targets and goals as identified in its 6-month growth plan.

Expected Completion: Site Launched May 2014. Project Ongoing.



NEW INITIATIVE: LANTERN MOBILE APPLICATION



One of the major lessons learned in the aftermath of Hurricane Sandy and other weather related disasters is that two pieces of information are critical to survivors of these events; the location of operating gas pumps, and electrical outage information.

In many instances, gas stations had fuel in the tanks, but due to power outages, the pumps were rendered inoperable. In the case of electrical outage information, citizens were unable to easily obtain the type of actionable information they would need to properly assess how widespread outages were and expected

restore times.

To address the need for this critical information, OE leveraged the Presidential Innovation Fellow program to bring in a fellow to create a mobile application called Lantern Live for iPhones, iPads, and Android powered devices that would provide real time information to users of these mobile devices.

Version 1.0 of Lantern Live has five core features.

1. Citizens can obtain a list of gas stations with operating gas pumps based on location. This information is crowd sourced information from citizens who use the app itself to report the status of pumps at the gas stations listed in the app.
2. Citizens can find a list of utility providers covering a certain territory based on location. They can then open a utility providers electric outage map right inside the app and obtain information regarding outages and restoration times.

3. Lantern Live provides the ability to take photos of downed power lines and send them to a centralized location to be reviewed and then forwarded to utility providers in a map format. Utility providers can then make informed decisions about how to safely and effectively address those downed power lines based on the photos provided.
4. Citizens are provided with tips and guides regarding how to deal with energy related emergencies. This information is broken down into categories targeted to homeowners, business owners, and local leaders. Lantern Live also includes important and related links provided by other agencies such as FEMA.
5. Finally citizens can engage in real time communication with the Department of Energy via the @Energy Twitter feed embedded right inside the app.

INCREASING USE OF SOCIAL MEDIA

Many federal agencies are using social media as a way to engage directly with stakeholders. Whether by sharing information, breaking news or asking constituents to take action, use of social media platforms increases an agency's perceived openness, transparency and willingness to engage on important issues.

Several agencies, including the White House and the Department of Energy (DOE), have taken social media use further -- creating an internal Office of Digital Strategy that works closely with Public Affairs staff to develop social media



content around key initiatives and priorities. In addition to providing a dedicated staff to produce and promote this content, DOE's Office of Digital Strategy is also responsible for setting guidelines and developing an overall vision for the Department's social media presence.

Vision and Strategy

DOE is considered a leader among federal agencies in digital innovation and engagement through social media. We are continually exploring how best to use social media platforms to engage the public in open discussion about energy issues and how they benefit from the Department's work.

The entire Department benefits from a strong enterprise brand, embodied by Energy.gov. Social media helps to extend this brand online and further into the public sphere, using a two-tiered approach:

1. **ENERGY.GOV BRANDED ENTERPRISE ACCOUNTS.** A strong, well-developed enterprise social media brand is the primary tier of DOE's social media strategy. This tier includes any official Energy Department presence on a social media platform that is managed by staff in the Office of Digital Strategy and Communications. Offices and labs across the Department are encouraged to contribute content and ideas to these accounts by contacting DOE Digital Office staff with suggestions.

2. OFFICE-SPECIFIC SOCIAL MEDIA ACCOUNTS. On a limited, case-by-case basis, DOE Digital Strategy office approves formal requests from program and staff offices for their own social media accounts. Requests are typically approved when (1) there is a clear benefit of external office-specific stakeholder outreach that is not already being met by Energy.gov's tier-one social media efforts; and (2) the office making the request has developed an effective strategy to develop a stakeholder audience on social media.

Social Media Presence

Since establishing a social media strategy, DOE digital staff has built a robust enterprise presence on several popular social networks, including:

SOCIAL NETWORK	URL
Facebook	http://facebook.com/energygov
Twitter	http://twitter.com/energy
YouTube	http://www.youtube.com/user/usdepartmentofenergy
Flickr	http://www.flickr.com/photos/departmentofenergy/
Google+	http://plus.google.com/+EnergyGov/
Pinterest	http://www.pinterest.com/energy/
Instagram	http://instagram.com/energy
Storify	http://storify.com/energy

The Office of Digital Strategy has also developed best practices for optimal use of four of the most popular social networks: Facebook, Twitter, Flickr and YouTube. These guidelines are publicly available in the Social Media Guidance section of Energy.gov.

In addition, DOE digital staff has built out a social media presence for Secretary Moniz, the first Energy Secretary to have his or her own Twitter account, @ErnestMoniz. Secretary Moniz also has an official Facebook page.



Successes



DOE's use of enterprise-branded social media has been quite successful. In the past year, the @ENERGY Twitter account's follower count has more than doubled, and is currently approaching 200,000.

On Facebook, the trajectory has been similar. The Digital Office continues to explore new platforms, including Pinterest and Instagram, where we can engage new audiences with DOE's digital content.

In addition, live Google+ Hangout Q&As with DOE experts on topics including energy efficiency, renewable energy and popular science have attracted thousands of viewers both during and after the events.

The Secretary's social media development has also been successful. Where before the Energy Secretary had a limited social media presence, @ErnestMoniz now nearly 10,000 followers. On Facebook, Secretary Moniz's page recently eclipsed 1,000 likes.

Other initiatives -- such as the Secretary's Earth Day takeover of the @energy Instagram account, and Secretary Moniz's first live Google+ Hangout, hosted by the White House and featuring EPA Administrator Gina McCarthy -- have increased the Secretary's name recognition on social media and expanded his overall follower count.

COLLABORATION

Collaboration provides tools and mechanisms for the Energy Department to work with its government partners, stakeholders and the general public. Providing these avenues for communication and feedback make transparency and participation the standard for how the Department does business.

With its long tradition of science and research, fostering collaboration has been part of the Department's DNA since its inception. Through new technologies and initiatives, the Department continues to be a hub through which ideas and solutions connect.

NEW INITIATIVE: QUADRENNIAL ENERGY REVIEW STAKEHOLDER ENGAGEMENT



Affordable, clean, and secure energy and energy services are essential for improving U.S. economic productivity, enhancing our quality of life, protecting our environment, and ensuring our Nation's security. To help the federal government meet these energy goals, President Obama issued a [Presidential Memorandum](#) on January 9 directing the administration to conduct a Quadrennial Energy Review (QER). As described in the President's [Climate](#)



Action Plan, this first-ever review will focus on energy infrastructure and will identify the threats, risks, and opportunities for U.S. energy and climate security, enabling the federal government to translate policy goals into a set of integrated actions.

The Presidential Memorandum created an interagency task force co-chaired by the Director of the Office of Science and Technology Policy and the Special Assistant to the President for Energy and Climate Change. The Department of Energy will help coordinate interagency activities and provide policy analysis and modeling, and stakeholder engagement.

Achieving the goals of the QER will require active engagement of external stakeholders, from state and local governments, tribes, large and small businesses, to universities, national laboratories, nongovernmental and labor organizations, and other interested parties. DOE will host stakeholder engagement meetings across the country to gather public input for the QER. Expert panelists will speak on specific energy infrastructure issues. Each session will allow time for remarks from the public. A transcript of each meeting and public comments will be posted on energy.gov. Interested parties may also submit comments by sending an email to gercomments@hq.doe.gov.

DOE will host the stakeholder engagement meetings listed below. DOE will announce the dates and locations of the meetings in the Federal Register and on this website as soon as they are confirmed.

- Infrastructure Constraints—Bakken: North Dakota
- Electricity TS&D—West: Portland, OR
- Electricity TS&D—East: New Jersey
- Rail, Barge, Truck Transportation: Chicago, IL
- Water-Energy Nexus: California
- Finance and Market Incentives: New York, NY
- Natural Gas TS&D: Pittsburgh, PA
- Propane Distribution and North American TS&D: Minneapolis, MN
- State, Local and Tribal Issues: New Mexico
- Gas-Electricity Interdependence: Colorado



- Infrastructure Siting: Wyoming
- Rural Electricity Issues, Biomass Processing and Transportation: Iowa
- Business/Economic Development: Atlanta, GA
- Final Meeting: Washington, DC

NEW INITIATIVE: SCITECH CONNECT

SciTech Connect

Your connection to science, technology,
and engineering research information
from the U.S. Department of Energy

DOE Office of Scientific and Technical
Information (OSTI) developed and
launched SciTech Connect

(<http://www.osti.gov/scitech/>) in March 2013

to help increase access to DOE-sponsored R&D results. A portal to publicly-available science, technology and engineering research information from DOE and its predecessor agencies, SciTech Connect incorporates the contents of two of the most popular collections in DOE history and employs an innovative semantic search tool enabling scientists, researchers and the scientifically-attentive public to retrieve more relevant information. SciTech Connect is OSTI's most-visited resource; it accounted for nearly 40 percent of the 356 million transactions that OSTI handled in the 2013 fiscal year.

SciTech Connect includes all the full-text documents and citations previously found in Information Bridge and Energy Citations Database. Thus, SciTech Connect contains more than sixty-five years of energy-related citations created and/or collected by OSTI. There are more than 2.5 million citations, including citations to 1.4 million journal articles, 379,000 of which have digital object identifiers (DOIs) linking to full-text articles on publishers' websites. SciTech Connect also has more than 350,000 full-text DOE sponsored STI reports; most of these are post-1991, but more than 116,000 of the reports were published prior to 1990.

SciTech Connect includes technical reports, bibliographic citations, journal articles, conference papers, books, multimedia, and data information sponsored

by DOE through a grant, contract, cooperative agreement, or similar type of funding mechanism from the 1940s to today. The collection continues to grow as new scientific and technical information resulting from DOE research becomes available.

The records for the early years represent a comprehensive worldwide collection of nuclear science literature. In addition to reports from the Atomic Energy Commission and other U.S. Government agencies, the collection includes numerous non-governmental publications, as well as non-U.S. and foreign language material. In the mid-1970s, the scope of the database expanded to cover all forms of energy-related scientific and technical information.

SciTech Connect represents one of the largest deployments of semantic search by a federal agency to date. Semantic search is a way to enhance search accuracy contextually. Rather than relying on search algorithms that identify a specific query term, semantic search uses more complex contextual relationships among people, places and things. It is an especially effective search approach when a person truly is researching a topic (rather than trying to navigate to a particular destination).

SciTech Connect employs a semantic search technique known as keyword-to-concept mapping. It accepts keyword-based queries and returns concept-mapped queries as in a taxonomy; a search term is mapped to other associated terms, including narrower and related concepts.

In this way, semantic search enables the new SciTech Connect search engine to recognize and make use of the logical relations among concepts in different scientific documents, regardless of whether those documents use standard descriptors to express those concepts. As a consequence, even the casual user easily recognizes the superiority of semantic search results over traditional word/phrase search results in a side-by-side comparison.



SciTech Connect also includes a number of other features, including basic and advanced search; faceting; in-document search; word clouds; and personalization which allows users to save searches, define alerts based on saved searches and create and manage document libraries.

NEW INITIATIVE: NATIONAL LIBRARY OF ENERGY



In February 2013, DOE Office of Scientific and Technical Information (OSTI) debuted the National Library of Energy^{Beta}, a search tool designed to

make it easier for American citizens to find and access information about the Department from across DOE complex nationwide, without knowing DOE's organizational structure.

The NLE^{Beta} operates as a library that virtually integrates and makes searchable the disparate and decentralized information collections across DOE. It is an open government resource that serves as a gateway to information in all of DOE's broad mission areas: science and R&D; energy and technology for industry and homeowners; energy market information and analysis; and nuclear security and environmental management.

Through the NLE^{Beta}, a user can search websites and extensive databases hosted by:

- DOE (energy.gov);
- all DOE program offices (including Advanced Research Projects Agency-Energy (ARPA-E), Energy Efficiency and Renewable Energy, Environmental Management, Fossil Energy, Nuclear Energy, and Science);



- the National Nuclear Security Administration;
- the Energy Information Administration;
- all DOE staff offices;
- all DOE field/site offices; and
- all DOE National Laboratories and technology centers.

The NLE^{Beta} makes it possible to search all this information via a single search box.

Using federated search and indexing technology, the NLE^{Beta} retrieves relevance-ranked individual site results from 60 homepages, 300 websites, 17 databases and fully 25 million searchable pages, with hyperlinks to the databases/pages where the original content can be viewed. The NLE^{Beta} thus returns results that may cut across organization information holdings and delivers a user to the doorstep of the organization where the information was produced. In this way, the NLE^{Beta} drives additional traffic to DOE organizations' websites and databases – and preserves the identities of individual organizations and the integrity and ownership of their information.

The NLE^{Beta} complements the Energy.gov search feature by reaching deeper and typically returning more complex information. OSTI keeps the NLE^{Beta} resources current, with each component updated regularly. On a periodic basis, additional databases and searchable website content is added.



PROGRESS ON OPEN GOVERNMENT PLAN 2.0 INITIATIVES

Below are updates on the primary projects included in the Energy Department's Open Government Plan 2.0.

APPS FOR ENERGY

Launched in early April, Apps for Energy challenged software developers to build web and mobile apps that help utility customers understand and visualize their energy usage data in meaningful ways. The competition leverages Green Button -- an open standard for sharing electricity data that is available to millions of consumers and businesses across America. Apps for Energy **submissions** help consumers utilize Green Button data to save money by saving energy.

The Best Overall and Best Student apps were announced May 22 by Assistant Secretary for the Office of Electricity Delivery & Energy Reliability Patricia Hoffman at ConnectivityWeek, a gathering of smart grid industry leaders in Santa Clara, California. A diverse panel drawn from government and the energy and tech communities evaluated the apps.

EIA.GOV/BETA

Since introducing its beta website in February 2012, the U.S. Energy Information Administration (EIA) has used it as an invaluable resource for testing four additional beta products:

Application Programming Interface

EIA is committed to improving the accessibility of its data through an Application Programming Interface (API). Built in response to customer requests and to the



President's Open Government memorandum, EIA's API allows users to programmatically request specific data series and receive a nearly instantaneous response with just the data requested in a machine-readable format. APIs are the cornerstone of open government efforts as they enable the private sector to easily harvest government data and statistics to create added-value products and services. EIA launched its API service in September 2012 with data from its electricity generation surveys. Subsequent additions have made the majority of EIA's time series available through the API.

State Energy Portal

Provides the most comprehensive, dynamic, and interactive view of the U.S. government's national and state energy data and information currently available to the public. The portal was designed with a range of users in mind, including policy makers, energy analysts, and the general public, who want to locate and compare state energy data and rankings and customize their own maps and charts, using an assortment of interactive tools. The maps allow users to selectively view and combine 50 layers, encompassing energy resources, the energy infrastructure, and significant administrative boundaries. Users can zoom out to view the entire nation or zoom in to just their county.

Total Energy Interactive Table Browser

The interactive table browser lets users view the data and create interactive graphs of the Monthly Energy Review's monthly and annual data series. The interactive charts can be zoomed and downloaded as PNG or PDF files. Each table's data can be downloaded as a single Excel file with separate worksheets for monthly and annual date.



Interactive Coal Data Browser

Uses advanced interactive programming techniques to combine data from EIA's coal and electricity surveys, the Mine Safety and Health Administration, and the U.S. Census Bureau into a single web query tool. Users can select prepared reports or generate their own. Time series are provided with interactive charting and animated national, state, basin, and supplier network maps. Drill down views are provided for aggregate number where available.

NATIONAL TRAINING AND EDUCATION RESOURCE (NTER)

The NTER learning platform serves a broad range of Science, Technology, Engineering and Mathematics (STEM) customers including students, professionals, educational institutions, government agencies and other organizations. It offers thousands of multimedia, interactive courses, emphasizing energy, technology and professional development. The Department of Energy (DOE) created NTER to accelerate learning and reduce the operational costs associated with large-scale licensed applications, providing a comprehensive, low-cost training and education solution.

Customers

NTER is widely used by grantees of Trade Adjustment Assistance Community College and Career Training (TAACCCT), a federal program funded by the Department of Labor providing funding to community colleges to expand training in high-wage, high-skill occupations.

Several hundred community colleges across the nation leverage the NTER platform to deliver workforce development, training and educational content. This includes educational consortia such as The Illinois Green Economy Network, Florida Trade Advanced Manufacturing and Rio Salado College.



Government Agencies such as Defense, Energy, Education, Labor and Interior, look to NTER as an open source solution for quickly reaching large distributed populations of educators and students.

Networked Innovation for Learning

NTER makes it easy for organizations to build and deliver state-of-the-art learning experiences to diverse audiences. Offering a federated information solution and specialized search engine just for education and training, NTER delivers content to the student at the time, location and device preferred by the learner. The platform provides a full set of tools, including course authoring, a 3D world builder, and a traditional learning and content management system (LCMS). It also supports multiple content types, including images, text, multimedia and 3D, within a single course.

Advanced System Capabilities

NTER acts as a distributed repository of courses and content, with servers in federal agencies, universities, colleges, and commercial organizations. Courses can be created and maintained by local institutions but shared and accessed across all connected NTER nodes. When a new course is published to any NTER node, the search technology enables that course to be located by students and instructors across the globe. A distributed search across other institutions hosting NTER systems is a unique technology that allows the local institution to maintain control over resources while amplifying what any one institution or consortium can offer.

ENERGY.GOV PLATFORM EXPANSION

The primary mission of energy.gov was to move all staff and program offices onto a single, integrated platform and make the site a “one-stop shop” for all public information from the Department. The initiative offers numerous



advantages including increased findability of content, better search engine rankings, and elimination of duplicative content.

To date, over 90% of program and staff offices have moved onto the energy.gov platform, and the last remaining office is preparing to migrate to the platform.



Over the last year to 18 months, the site has seen almost threefold growth across most metrics – including number of content nodes, file storage, traffic, and bandwidth. Having a central platform has led to increased sharing of content, improved search engine optimization,

and reduced duplication of work and effort.

Additionally, the initiative offers potential cost savings advantages by allowing offices to eliminate duplicative contracts for hosting, development, and technical support. Energy.gov also allows the Department to more easily comply with Federal digital mandates by applying standards to one single site rather than across dozens of site.

Consolidating hosting offers many benefits to the Department. Prior to energy.gov, individual websites were hosted on numerous platforms and through numerous vendors.

Moving to a central cloud service has brought public-facing sites in the Department onto a modern, uniform platform with 24-hour monitoring and guaranteed uptime. Additionally, the Energy.gov cloud solution offers a fully-

functional backup instance hosted in Las Vegas that will continue to ensure data integrity and site availability in the event of a catastrophic event (natural disaster, blackout, etc).

Perhaps most importantly, hosting public-facing content on a separate site provides a strong cybersecurity profile. Updates, upgrades and best practices are implemented across the platform. Testing and security scans are performed at regular intervals. Additionally, Energy.gov hosts only non-sensitive personally identifiable information (PII) and is not connected to any internal servers or networks, minimizing the impacts of any intrusion or attack.

SCIENCECINEMA

ScienceCinema (<http://www.osti.gov/sciencecinema/>) uses state-of-the-art audio indexing and speech recognition technology to enable users to search for specific words and phrases spoken in video files produced by DOE national laboratories, other DOE research facilities and the European Organization for Nuclear Research (CERN), one of the world's leading particle physics laboratories. ScienceCinema's pioneering search and retrieval capability provides researchers and the public with a way to quickly access and view DOE multimedia-based R&D information.

Multimedia (which includes videos, animation, visualization, interactive publishing, images and object recognition) tools and technology are relatively new, but they are rapidly expanding as a means for scientists to record, share, disseminate and collaborate their experiments and research. While many scientific conferences, workshops and speeches are available on the web via video, searching them to locate desired information can be challenging. Because these resources offer tremendous opportunities for the future of scientific



discovery, OSTI has been at the forefront of innovations to make them more available and easier to access.

To help make DOE R&D-related scientific and technical multimedia more visible, OSTI developed and launched a video search engine in partnership with Microsoft Research in 2011. ScienceCinema's functionality is made possible by the Microsoft Research Audio Indexing System (MAVIS), a set of software components that use speech recognition technology to enable searching of digitized spoken content. For videos formats that are compatible with MAVIS, users can search for specific words and phrases, and precise snippets of the video where the search term was spoken will appear along with a timeline. Users can then select a snippet or a segment along the timeline to begin playing the video at the exact point in the video where the words were spoken. The timeline is synced with transcripts of the targeted portion of video.

ScienceCinema recently delivered a breakthrough in accessibility for hearing-impaired patrons. As part of OSTI's continuing collaboration with Microsoft Research, ScienceCinema has introduced a closed captioning option that allows users to see videos' audio in textual format for all videos added since July 2013. Users simply turn on the closed captioning feature while watching the individual video of interest.

More than 3,300 videos are currently available in ScienceCinema. Scientific videos, animations, interactive visualizations and other multimedia are expected to become an increasingly prominent form of scientific communications. The ScienceCinema database will continue to grow as new R&D-related videos are produced by DOE programs, labs and facilities and submitted to OSTI.

MULTILINGUAL WORLDWIDESCIENCE.ORG

The Department of Energy's Office of Scientific and Technical Information co-developed and hosts WorldWideScience.org, a global science gateway, to bring the world's research to DOE.

Officially launched in June 2008, WorldWideScience.org now features science and R&D results from more than 70 nations around the world. Member countries represent more than 80 percent of the world's population, and they contribute 100 portals and databases; WorldWideScience.org searches across about 500 million pages of important scientific portals worldwide.

Originally, WorldWideScience.org was limited to searching databases with English titles and abstracts. But the WorldWideScience Alliance and OSTI recognized the importance of expanding the network of databases accessible to the worldwide community in an era of increasing globalization of science. To break scientific language barriers, the global science portal set out to offer a new assistive technology. At the ICSTI annual meeting in Helsinki in June 2010, the Alliance introduced Multilingual WorldWideScience.org, which enabled the first-ever real-time searching and translation across globally dispersed, multilingual scientific literature using complex machine translations technology. This new capability is the result of an international public-private collaboration between the WorldWideScience Alliance and Microsoft Research, whose machine translation technology has been paired with the federated searching technology of Deep Web Technologies, Inc.

WorldWideScience.org allows users to search non-English databases in China, Russia, France and several Latin American countries and receive search results



translated into one of ten languages: Arabic, Chinese, English, French, German, Japanese, Korean, Portuguese, Spanish and Russian.

In 2011, WorldWideScience.org expanded its coverage to multimedia materials. It uses a unique speech-recognition technology, the Microsoft Research Audio Video Indexing System (MAVIS), enabling citizens and researchers alike to search both written and spoken words in a whole range of media. That same year, the global science gateway also extended its reach to mobile users, releasing a mobile version (<http://m.worldwidescience.org/wwsmobile/>).

Recognizing the emergence and importance of data accessibility, WorldWideScience.org now offers the capability to search scientific data collections. In November 2012, six new data sources were added to the gateway, representing a significant milestone in improving access to scientific data from around the world; another six databases were added in June 2013. Users seeking scientific datasets can conduct a real-time, one-stop search and immediately gain access not only to the metadata but also to the actual scientific data itself.

CONCLUSION

The Energy Department recognizes that transparency, partnership and collaboration are critical to the success of the Department and the nation. The Department will continue employing these principles in our strategic planning and operations, but it needs the help of the American people. Learn more about open government at the Energy Department at <http://www.energy.gov/open> and send your ideas on how the Department can improve its Open Government Plan and initiatives to open@hq.doe.gov.

