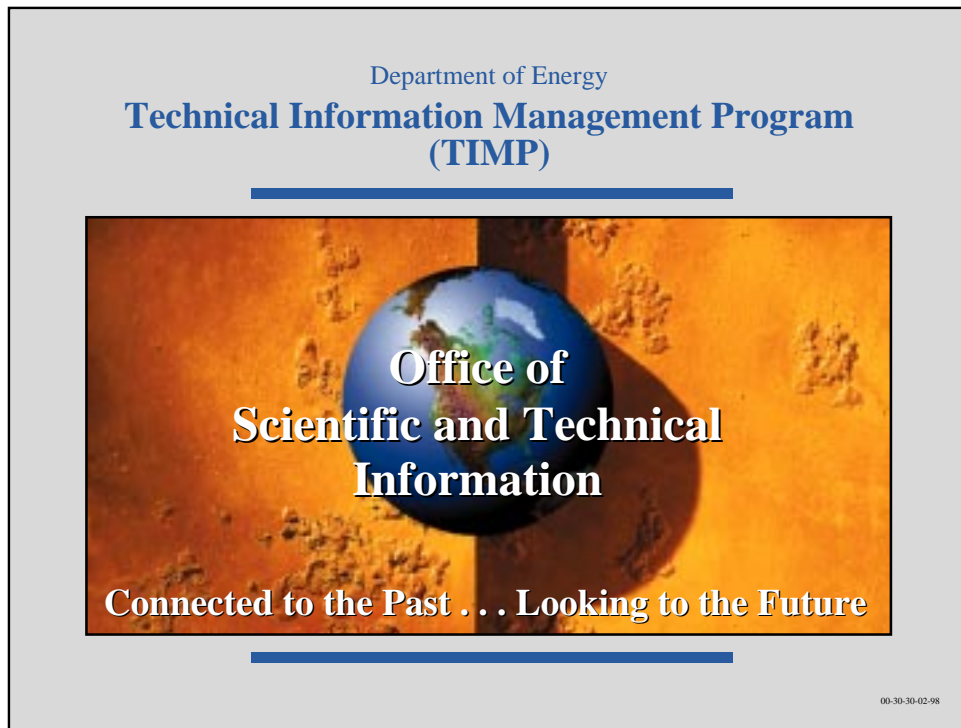


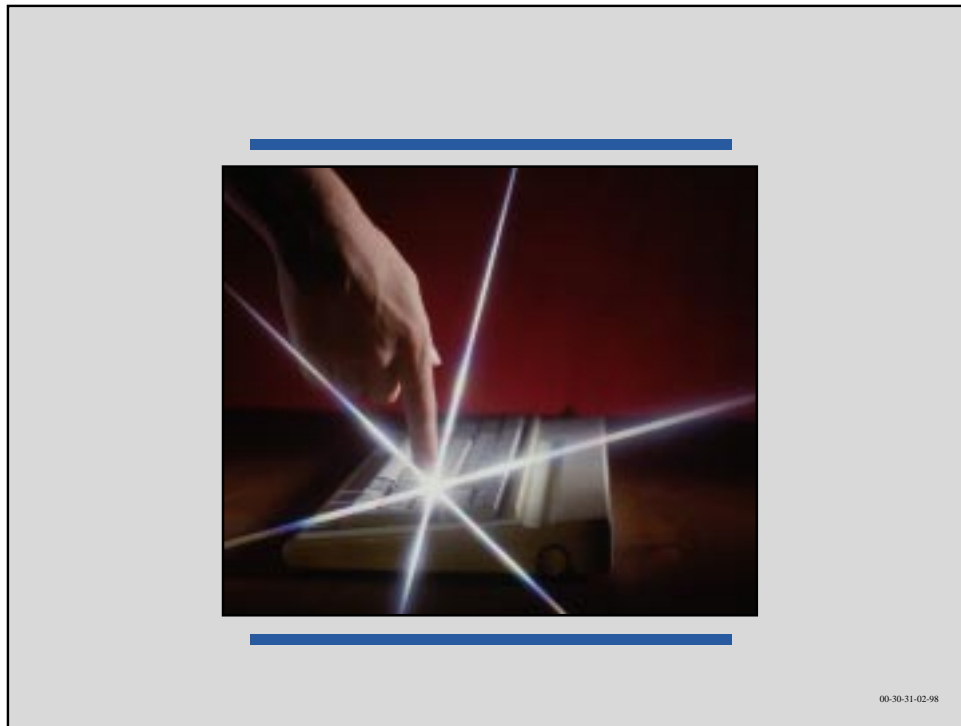
# **The Digital Library Initiative at OSTI (EnergyFiles)**

**Remarks by R. Charles Morgan  
at WATTec, Tennessee's Technology Conference**



## Introduction

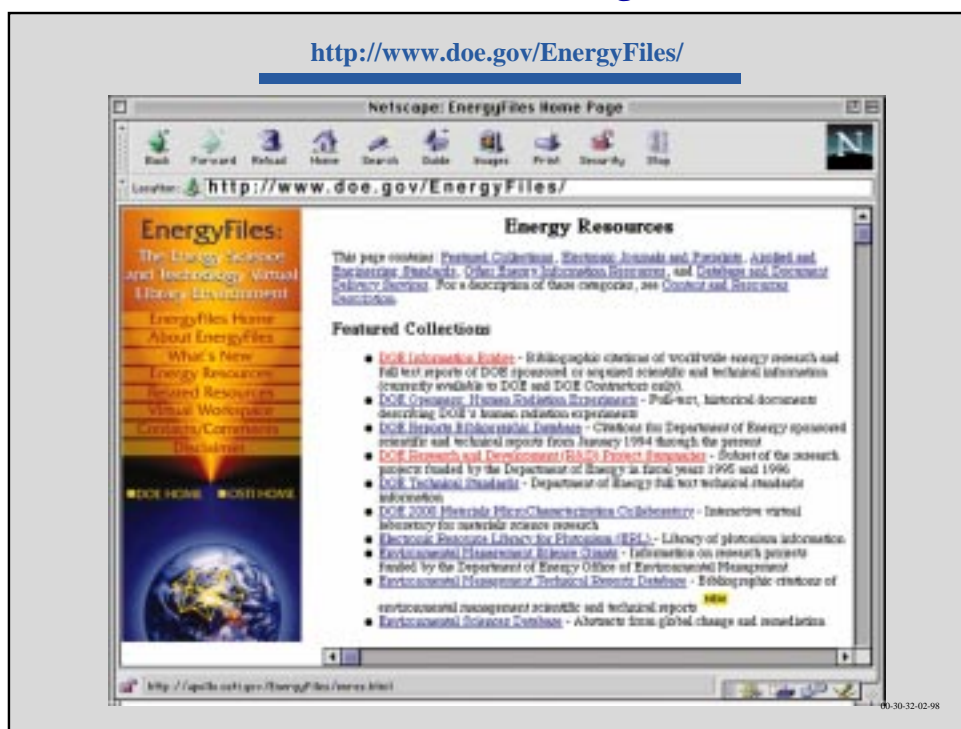
- This year the Department of Energy's Office of Scientific and Technical Information (OSTI) is 51 years old. Initially, OSTI was organized for the collection, processing and dissemination of information in paper format
- Over the years, emphasis at OSTI has shifted to the collection and dissemination of, as well as access to, electronic information
- Beginning in the early 1970's, the announcement of energy science and technology literature, including announcement of DOE reports, was made in the form of online bibliographic citations created at OSTI but offered through commercial vendors such as Dialog
- OSTI products and services have, in essence, remained the same but they have changed in both format and look as well as in dissemination channels offered
- The DOE Energy Science and Technology Database (EDB), one of OSTI's major products in the past, is changing form to look more like the DOE Information Bridge, a web-based OSTI product
- Today OSTI is challenged with maintaining a balance between paper and electronic information until both the organizations that generate and submit DOE-sponsored information and the customers who use DOE information are fully automated



### **The Digital Library Concept at OSTI (EnergyFiles)**

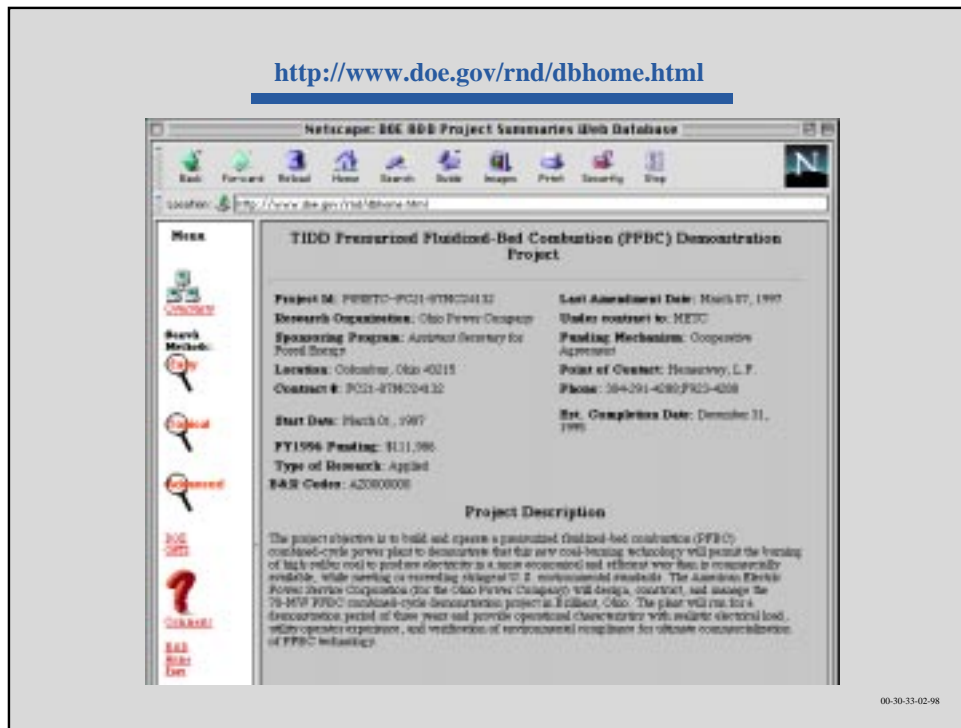
- Within the past couple of years, OSTI has made considerable progress developing Internet tools and resources in support of the establishment of EnergyFiles, the virtual library of energy science and technology, introduced to the public in May of 1997
- EnergyFiles is a discipline-based digital library initiative built on the concept of providing Just-in-Time information as opposed to collecting information Just-in-Case. The goal is to provide information to the users' desktops at the time it is needed in a form that is useful

## View Clearer Image



- EnergyFiles provides the umbrella for scientific and technical information resources, resulting both from the Department's R&D as well as from outside DOE, by bringing together reputable information sources in one web-based location
- EnergyFiles capitalizes on emerging information science and technology, builds on demonstrated advances in those areas, and responds to a widespread need of the research community
- Technology provides the opportunity to re-evaluate the cradle-to-grave information process, increasing opportunities for information access, dissemination and exploration
- OSTI is partnering with others to leverage the strengths and capabilities of the region in support of fostering digital library initiatives
- One example of such a partnership is between the University of Tennessee, Oak Ridge National Laboratory and OSTI. This group is exploring an Environmental Sciences based initiative, looking at how the environmental community finds and uses their information. Through this partnership it is intended to leverage the expertise of the local environmental community to the fullest extent possible to develop a world-class resource
- EnergyFiles provides the umbrella for OSTI's own extensive electronic information collection. Within the past two years several critical strides have been made at OSTI in delivering scientific and technical information to the user's desktop

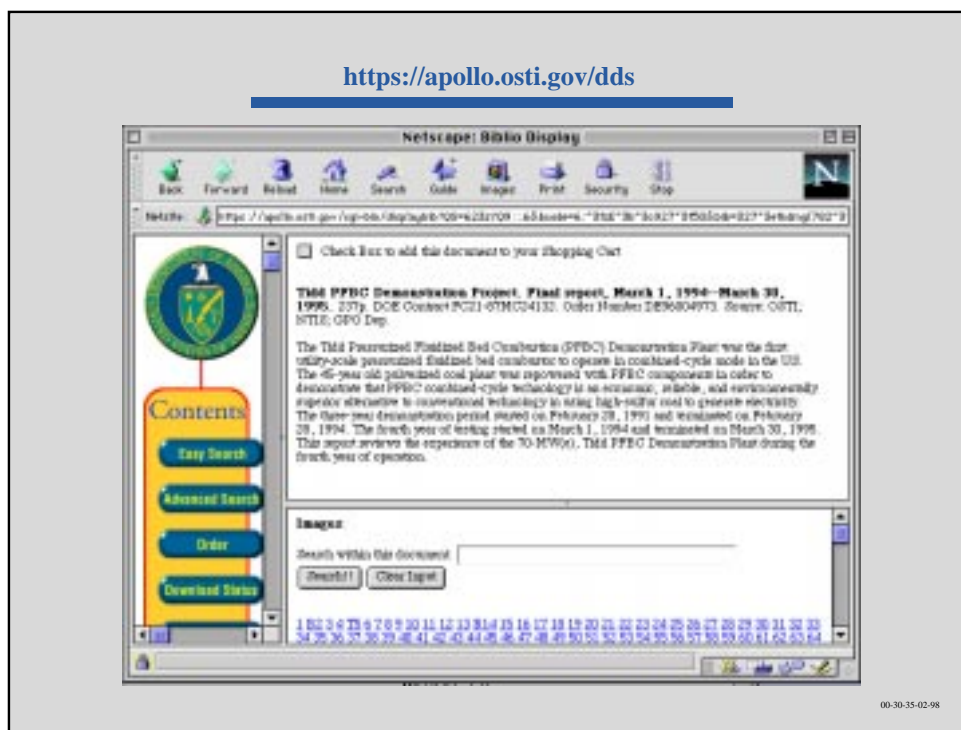
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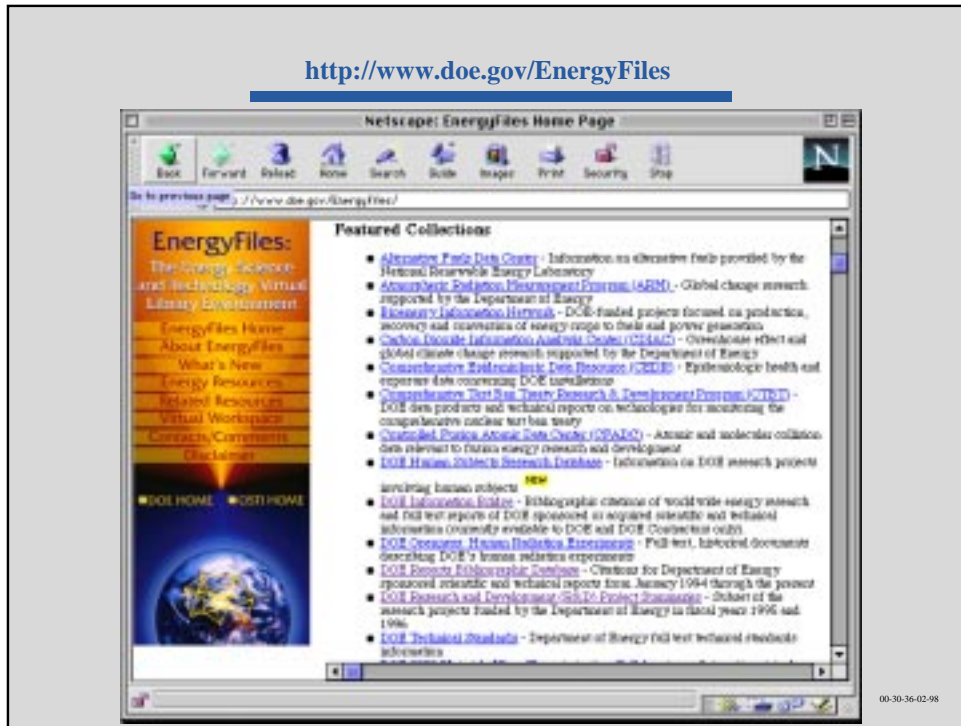
## OSTI Products Now on EnergyFiles

- **R&D Project Summaries** - This system provides public access via the Web to over 12,000 descriptions of DOE research projects under way during and since 1995.
  - In addition to providing information on these projects R&D Project Summaries is an accountability tool to facilitate understanding of how R&D money is being used and what benefits are being achieved
  - Became available to the public in June 1997. The site typically receives over 800 accesses per day and over 95% of these accesses come from hosts other than DOE sites.
  - The data is also used to fulfill reporting requirements to the White House Office of Science and Technology Policy, National Technical Information Service, and other external agencies.
  - While R&D Project Summaries highlight current and ongoing research, project results are documented through another Internet product, the DOE Information Bridge.

## View Clearer Image



- **DOE Information Bridge** - was introduced in September, 1997. This new Internet tool currently allows DOE researchers and information intermediaries to access nearly 24,000 Department of Energy R&D full-text reports at their desktop with over 1.3 million pages of text being searchable.
  - Information is being added on an ongoing basis with all DOE scientific and technical documents created since January 1996 being available. Legacy documents are scanned and added upon request.
  - Only available to DOE and contractors at present, it will become much more widely accessible through a partnership in progress with GPO. GPO will make the Information Bridge available to the public through its web-based GPO Access system later this spring.
  - These reports have only been previously available through direct paper ordering through OSTI and to the public through the National Technical Information Service.
  - Adds value to the R&D process by making research results more widely available. Facilitates the development of further research projects, getting more "bang for the buck" out of research dollars
- Other bibliographic databases generated at OSTI, such as OpenNet, a database of declassified DOE reports, are also available on EnergyFiles



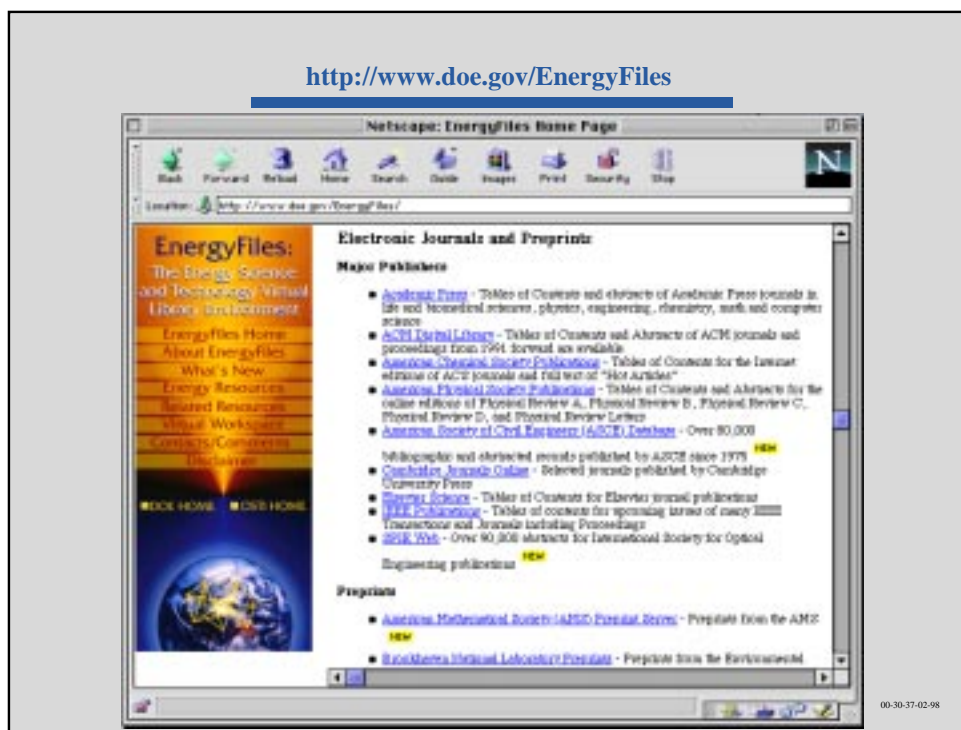
## Other Products on EnergyFiles: Present and Future Holdings

### The Virtual Library

- The library offers full-text scientific and technical information from other organizations as well
- Currently the library categorizes resources into five broad categories. These categories will continue to become more comprehensive as new collections are developed
  - **Featured Collections** - Web-based information collections are offered by various DOE laboratories and other operations. These information collections may be cross-cutting in subject matter such as several OSTI generated collections, or they may be specialized collections within a specific discipline.

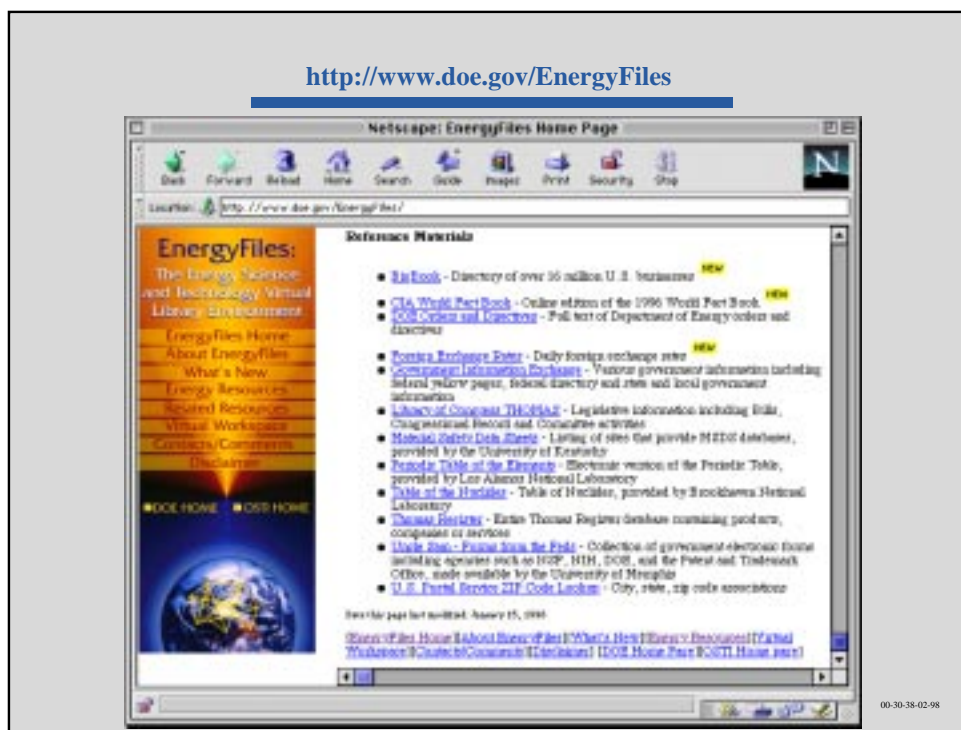


<http://www.doe.gov/EnergyFiles/enres.html>



- **Electronic Journals and Preprints** - OSTI has a collaborative electronic journals initiative underway to offer e-journals of potential interest to Departmental researchers online. This is currently in the prototype phase. Access to publicly available electronic journals and several preprint collections is provided via EnergyFiles
- **Database and Document Delivery Services** - EnergyFiles brings together several commercial outlets where additional scientific and technical information may be obtained in the form of bibliographic citations or journal articles, etc.





- **Electronic Reference and Other Supporting Materials** - today, scientists and researchers primarily have paper-based reference materials at their desks or site library. Electronic versions of many reference sources are being brought to desktop terminals through EnergyFiles.
- EnergyFiles contains two important components. In addition to the virtual library, another equally important component is called the virtual workspace. It provides a collaborative area where information may be customized, shared and explored

### The Virtual Workspace

- The Virtual Workspace, currently under development, is a hardware and software independent user interface providing a network of tools and services for the user
- Scientists, engineers, program managers and others will be able to collaborate on, document and share results of their work in a dynamic environment optimized by tools and capabilities that are accessible, useable and fully integrate
- OSTI worked on several pilot projects last fall that have been or will be incorporated into the Virtual Workspace area of EnergyFiles:

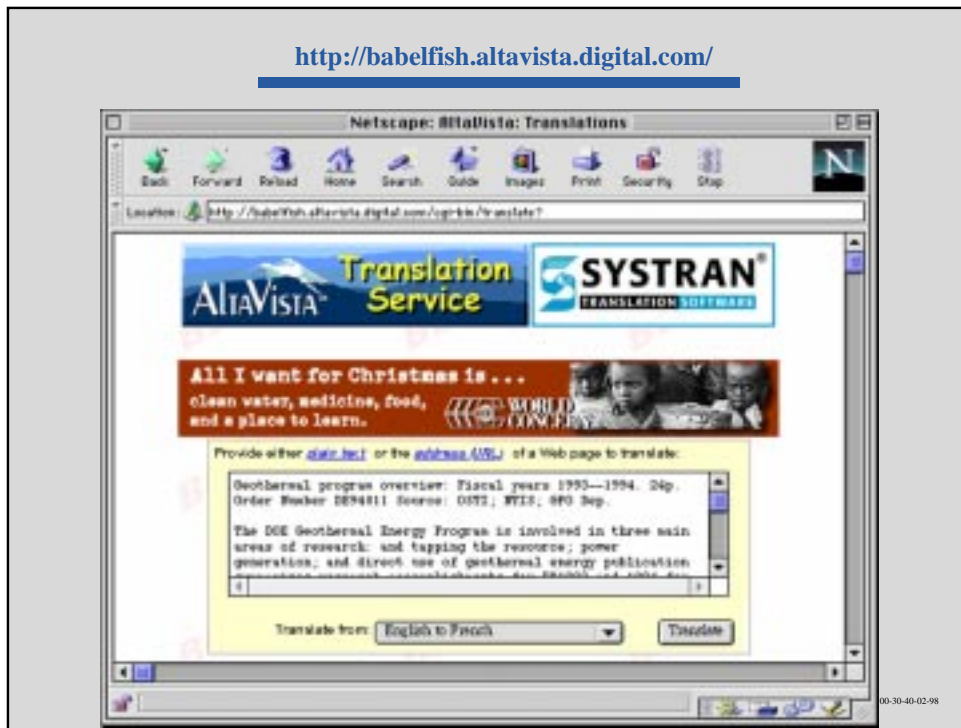
<http://www.doe.gov/webMT/home.html>



- **Department of Energy Systran Language Translator** [*DOE and DOE contractor access only*]- This web-based system translates text from 10 different languages to English or, alternatively, from English into another language. In this way worldwide research results become more accessible to the research community

Those outside the DOE community have the option of linking to a public version from the Virtual Workspace

<http://babelfish.altavista.digital.com>



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## Translation Results

### En Français:

Vue d'ensemble géothermique de programme: Exercices budgétaires 1993 -- 1994. 24p. Numéro de commande DE94011820. Source: OSTI; NTIS; Département De Gpo.

Le programme géothermique d'énergie de DAINÉ est impliqué dans trois domaines de recherche principaux: trouvant et tapement de la ressource; production d'électricité; et dirigez l'utilisation de l'énergie géothermique. Cette publication récapitule des accomplissements de recherches pour FY 1993 et 1994 pour ce qui suit: technologies géophysiques et géochimiques; slimhole forant pour l'exploration; évaluation de ressource; commande perdue de circulation; mécanique de pénétration de roche; instrumentation; Organisation De Forage Géothermique; analyse de réservoir; injection de saumure; roche sèche chaude; Les Geysers; Organisation Géothermique De Technologie; recherche de cycle de la chaleur; rejet avancé de la chaleur; développement de matériaux; et chimie avancée de saumure.

[New Translation](#)

### In English (Texte original):

Geothermal program overview: Fiscal years 1993--1994. 24 p. Order Number DE94011820. Source: OSTI; NTIS; GPO Dep.

The DOE Geothermal Energy Program is involved in three main areas of research: finding and tapping the resource; power generation; and direct use of geothermal energy. This publication summarizes research accomplishments for FY 1993 and 1994 for the following: geophysical and geochemical technologies; slimhole drilling for exploration; resource assessment; lost circulation control; rock penetration mechanics; instrumentation; Geothermal Drilling Organization; reservoir analysis; brine injection; hot dry rock; The Geysers; Geothermal Technology Organization; heat cycle research; advanced heat rejection; materials development; and advanced brine chemistry.

[New Translation](#)

[cont'd.]

- **Push Technology Applications** - OSTI will provide information of interest to individual researchers and program managers based on user-defined preferences. This will involve the development of subject- or discipline-based profiles where information about newly added R&D reports or articles will be automatically transmitted to scientists and researchers with similar interest or ongoing projects. Profiles will be completed and actual broadcast of information will begin in FY 1999.
- Other organizations will provide additional workspace tools and capabilities:
  - **Collaboratorium Applications** - Real time collaboration opportunities will be available to colleagues who work across the country from one another
  - **Peer review space** - Documents and other work may be posted for review and comment prior to publication.
- Since EnergyFiles' June 1997 inception, there have been 190,840 hits (18,974.3 per month) from all domain sectors.

### **Future Plans**

- Work is underway to establish subject categories, content and collection development criteria to make the library more efficient to use for those with specific discipline interests
- Resources and subject areas are being added on an ongoing basis so that the collection will be comprehensive and well-rounded
- OSTI has led another pilot project on distributed searching called Federated Collections. With three national laboratories across the country, OSTI explored searching across decentralized information collections which required the user to input only one query, run it against all of the collections and return one compiled set of query results. This distributed search feature will be built into the EnergyFiles, Featured Collections, in the future
- The Virtual Workspace will additional tools and capabilities in the coming year

## *Building The National Library Of Energy Science & Technology*

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### **OSTI Vision: The National Library of Energy Science and Technology**

- As a critical national resource for information science and technology, OSTI's vision is to use its capabilities, collections, technology and partnerships to build the National Library of Energy Science and Technology in Oak Ridge
- Our vision is to become the central node in a vast information network which provides a comprehensive resource in a field of national importance
- The National Library of Energy Science and Technology will link energy resources locally and across the country as well as internationally
- The National Library of Energy Science and Technology will be a virtual facility accessible at any time from anywhere to provide a foundation for education, research and economic growth to a variety of users
- Through EnergyFiles, OSTI has begun the development of the National Library of Energy Science and Technology
- OSTI did not reach this point on our own; nor can we accomplish our future goals alone. OSTI needs to work in partnership with others so we may serve others
- Together, we, OSTI, the organizations mentioned previously and other future partners, can make the National Library of Energy Science and Technology an important national resource