

**Written Statement of Owen Barwell
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Before the Subcommittee on Technology, Information Policy,
Intergovernmental Relations and Procurement Reform
Committee on Oversight and Government Reform
United States House of Representatives**

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Good afternoon, Mr. Chairman, Ranking Member Connolly, and Members of the Subcommittee. Thank you for the opportunity to speak about the Department of Energy's (Department or DOE) financial information systems and how they are integrated with government-wide systems. We have taken significant measures to meet new reporting requirements and provide data to several government-wide systems as well as ensure the transparency needed for better financial management within the Department is supported through our systems.

Overview of the Department's Financial Information Systems

In January 2003, the Department launched the Integrated Management Navigation System, iManage, to consolidate and streamline DOE business systems by integrating management information related to financial and cost accounting, travel, payroll, budget formulation and execution, procurement and contracts management, facilities management, human resources, and research and development. Since that time, we have implemented an integrated solution for managing enterprise-wide corporate business systems and information in the Department. The primary objectives of iManage are to improve financial and business system and processing efficiencies, enhance decision-making capabilities, deploy collaboration and social networking tools, and expand transparent electronic government in support of Presidential priorities. The iManage strategic theme is "Connecting our People, Simplifying our Work, and Liberating our Data." The full suite of systems was substantially deployed in 2008; since then, the iManage program has continued to invest in software upgrades and operational performance improvement.

A fully implemented iManage Program supports the accomplishment of the Department's Strategic goal to "Enable Mission through Sound Management." The iManage Program incorporates the core, enterprise-wide projects (subsystems) from three collaborating Department headquarters organizations: Office of the Chief Financial Officer, Office of Human Capital Management, and the Office of Management.

iManage is supported at the core by a portal/central data warehouse that links common data elements from each of the Department's business systems and supports both external and internal reporting. The Project Portfolio is comprised of enterprise-wide systems initiatives to include: the Standard Accounting and Reporting System (STARS), iManage Data Warehouse (IDW), iBudget, Strategic Integrated Procurement Enterprise System (STRIPES), Corporate Human Resource Information System (CHRIS), and the E-Travel System (eTS).

By managing each of these projects in the iManage program portfolio, iManage provides visibility and understanding of interrelationships, costs/benefits, and dependencies; ensures common goals and objectives are identified and followed; eliminates redundant systems and data; and provides for more efficient use of finite human resources.

Key System Elements

The Standard Accounting and Reporting System (STARS) provides the Department with a modern, comprehensive, and responsive financial management system that is the foundation for linking budget formulation, budget execution, financial accounting, financial reporting, cost accounting, and performance measurement.

STARS processes DOE accounting information, including General Ledger, Purchasing, Accounts Payable, Accounts Receivable, and Fixed Assets. The system also includes the budget execution functionality for recording appropriations, apportionments, allotments, allocations, and provides funds control for commitments, obligations, costs, and payments.

STARS is used by all DOE Headquarters and Field Organizations except for the Power Marketing Administrations (PMA). The system generates the Department's Consolidated Financial Statements, which includes the PMA data. Mandatory external reporting requirements including the SF-224 Statement of Transactions, FMS 2108 Year-End Closing Statement, and the SF-133 Report on Budget Execution are also generated from STARS.

The Strategic Integration Procurement Enterprise System (STRIPES) provides the Department with a standard system for all activities required or directly associated with planning, awarding, and administering various unclassified acquisition and financial assistance instruments. In general terms, the required activities are comprised of the following functions: acquisition/financial assistance planning; pre-solicitation documentation generation; solicitation development; evaluation and award; administration, including approving payment requests; and instrument closeout. STRIPES is an important component of the overall vision of the iManage program and has reduced the number of procurement-related electronic systems across the Department. STRIPES serves the following functions:

- Connects DOE with the Integrated Acquisition Environment, Grants.gov, FedConnect, and other iManage projects such as STARS and IDW;
- Improves the efficiency and effectiveness of awarding and administering acquisition and financial assistance instruments;
- Improves the ability of all program offices to perform DOE missions; and
- Utilizes existing enterprise financial management functionality to provide an integrated, comprehensive solution.

The Procurement and Assistance Data System (PADS) is a legacy system that collects, validates, tracks and reports procurement and financial assistance actions for the Department. These functions have been transitioning to STRIPES and the IDW; however, PADS is still used for official financial assistance reporting to USASpending.gov.

The Industry Interactive Procurement Systems (IIPS) is used to record, publish, and procure external contractual business transactions within DOE. Such transactions entail the viewing of current business opportunities, registering to submit proposals, and obtaining information and guidance on the acquisition and financial assistance award process. The functions of IIPS have also been transitioning to STRIPES.

The Funds Distribution System (FDS) is an online, interactive, financial system that provides for the receipt, control, and distribution of all obligational authority available to DOE.

iBudget is a Government off-the-shelf (GOTS) budget formulation system that DOE is implementing over several phases. The GOTS system, called Budget Formulation and Execution Manager, or BFEM, was developed and is maintained by the Department of Treasury, and is currently being used by several other federal agencies. DOE is implementing this system to achieve the following:

- Streamline business processes;
- Consolidate corporate budget data and support higher level reviews through collection of sub-organization budget requests, modifications, and justifications;
- Produce budget submissions and support the refinement of sub-organization budget submissions;
- Produce the Congressional Budget Justification and Budget Highlights;
- Enable tracking of changes (e.g., by Congress) to the budget during the budget review process;
- Allow for the creation of budget sets that can be defined for maintaining distinct phases of the budget process; and
- Integrate with DOE's IDW for additional analysis and reporting.

The iManage Data Warehouse (IDW) is a corporate enterprise system integrating financial, budgetary, procurement, personnel and program information. It is a central data warehouse that links common data elements from each of the Department's corporate business systems and serves as a "knowledge bank" of information about portfolios, programs or projects including budget execution, accumulated costs, performance achieved, and critical milestones met. The IDW Portal provides personalized dashboards, messaging (thresholds/alerts), reporting, graphing, and data exchange capabilities.

IDW contains critical information from multiple corporate systems including human resources, payroll, procurement, financial management and financial management legacy systems. This data is integrated, aggregated and summarized to provide mission critical reporting and query capability.

As a key component of the iManage Program, the Department relies on IDW for internal executive, management, and operational reporting, as well as for external ad-hoc requests for data. This data-centric approach to managing and integrating data allows the Department to rapidly respond to new and changing demands for information. IDW provides the ability to integrate information from all organizational elements in a single corporate repository.

Accomplishments

STARS

One of the key outcomes of implementing STARS has been that DOE has received a clean audit opinion since fiscal year 2007 based on the Consolidated Financial Statements generated from the system. With our legacy systems, DOE had received unqualified audit opinions in fiscal years 1996, 1997, and again in fiscal years 1999 through 2004 (the opinion in fiscal year 1998 was qualified based on Environmental Liabilities). With the mid-year implementation of STARS in fiscal year 2005, there wasn't sufficient time to transition to a new system with a new accounting structure, and to bring the auditors to level of understanding of the STARS functionality to retain the clean audit opinion.

Losing our clean audit opinion in fiscal year 2005 prompted management to create a Tiger Team to research all of the problems with STARS and to come up with an aggressive Corrective Action Plan. The Tiger Team reported 30 critical issues that they divided into three categories: People, Process, and Technology. Of the total critical issues reported, five were related with the technology, the remaining issues were related to outdated/unchanged processes and lack of training. Another contributing factor was that the Department performed a Competitive Sourcing A-76 reorganization of Accounting Operations at the same time STARS was deployed.

STRIPES

Since 2008, when STRIPES first came online, the Department has made 29,000 separate grant awards totaling \$40 billion, including significant funding under the American Recovery and Reinvestment Act (Recovery Act). During this same time, the Department has made almost 67,000 contract actions worth a total of \$47 billion. In addition, almost 90,000 contracting actions, across all award types, in STRIPES have resulted in obligations of nearly \$55 billion in the STARS system. Furthermore, STRIPES is fully integrated with FedConnect, a secure web portal that links government acquisition and grants professionals with their vendor and grant applicant communities, transmitting 64,000 transactions from STRIPES to FedConnect from 2008 until present. STRIPES is also currently transmitting over 12,000 transactions per year to the Federal Procurement Data System – Next Generation (FPDS-NG), a centralized, government-wide database containing information on all contracting actions with a value of \$3,000 or more.

Recovery Act

The level of transparency and integration achieved by the Department was apparent during the implementation of the Recovery Act. DOE met the demanding Recovery Act requirements and demanding timelines in part because of its investment in iManage and the modernization of its corporate systems. For example, the flexibility already defined in our accounting system made it very easy to capture the information needed for valuable reporting and transparency.

DOE's Business Intelligence tools within iManage allowed us to automatically send out daily financial reports (viewable on mobile phones) on DOE projects funded under the Recovery Act

to Congress and DOE executives. Additional financial, earned value management, performance, and risk information was made available on DOE's iPortal – the DOE enterprise web portal that displays performance dashboards which are accessible not only by DOE employees, but also the Government Accountability Office (GAO)—a true model of transparency that reduces data calls. Furthermore, DOE was able to link its procurement and financial systems together for Recovery Act actions to allow greater visibility into all Recovery Act recipients that was also made available to the public on-line. DOE's system integration allowed in depth cross cutting analysis.

Another example of how DOE system integration proved invaluable during the Recovery Act is how DOE helped over 4,500 DOE recipients submit quality and accurate information into FederalReporting.gov for public viewing. The information was also cross-checked using DOE's Business Intelligence tools to help us review what recipients were reporting to Fedreporting.gov versus what was being reported in STARS. Because of the timing of invoices we knew it would be difficult to reconcile data in real-time between the two systems. So, we used our BI tools to automatically send out emails to DOE Contracting Officer Representatives when large discrepancies existed between the two systems. This allowed DOE to “manage by exception” and did not have to waste time reviewing areas that didn't need attention.

One of the qualitative benefits of STRIPES was evidenced by the increased procurement speed and accuracy as well as increased vendor participation as it relates to the processing of the tremendous volume of procurement activities resulting from the Recovery Act. By enhancing the interoperability of the acquisition and financial systems and integrated STRIPES with STARS, previous workload performed by the financial personnel was reduced and in some cases eliminated.

Synchronization with Federal Corporate Systems

The Department's systems are integrated with government-wide systems on an increasingly automated basis. The current status of these ongoing integration efforts is provided below.

(STARS)

STARS information is provided to FACTS I and the Government-wide Financial Report System (GFRS) annually, and FACTS II on a quarterly basis as required by Treasury. The Intra-governmental Fiduciary Confirmation System (IFCS) interagency balances are submitted quarterly for the first three quarters. Treasury utilizes the year-end GFRS submission in lieu of a separate fourth quarter IFCS submission. Information is uploaded automatically to FACTS I, FACTS II, and IFCS systems. Information is manually entered into GFRS.

Information from FDS is uploaded into the MAX Apportionment System to request apportionment/reapportionment. This occurs at least twice per fiscal year for each Treasury Appropriation Fund Symbol (TAFS). The number of apportionments varies among TAFS, ranging from two a year, to ten or more per fiscal year.

The Reports on Budget Execution and Budgetary Resources, or SF-133s, are generated from STARS on a quarterly basis and submitted to Treasury's FACTS II system which feeds directly to OMB's MAX system.

(STRIPES)

STRIPES interfaces with the Grants.gov system via a two-way data transfer. First, DOE uses STRIPES to query Grants.gov for a list of grant applications submitted by applicants against grant opportunities posted by the agency on Grants.gov. Second, DOE uses STRIPES to retrieve all applications matching its query and assigns a unique agency tracking number to each application. In addition, once an application is successfully retrieved, STRIPES acknowledges its receipt to allow Grants.gov to initiate the disposal phase of the application. Grants.gov maintains the files associated with a grant application for a limited duration.

STRIPES is also integrated with FedConnect and Federal Business Opportunities for the "front end" of the procurement process – providing a centralized location outside the Department for publication of solicitation notices. STRIPES also is connected with government-wide systems regarding the award and modification of contracts, grants and other arrangements, including the Federal Assistance Award Data System (FAADS) and the FPDS-NG. Through February 2011, when the reporting requirement was terminated, FAADS data was uploaded via DOE's PADS using a batch process on a quarterly basis. This information is now provided to USASpending.gov in a similar format. STRIPES information is interfaced directly to FPDS-NG. Additional information is manually entered into FPDS-NG prior to the award or modification being issued. FPDS-NG then feeds data to the Federal Funding Accountability and Transparency Act (FFATA) Subaward Reporting System (FSRS), which feeds data to USASpending.gov.

Challenges to Integration

The Department's efforts to improve its financial systems have shown that the most challenging aspect of integration is change, and how change is managed. Often, the most challenging aspects of deploying and integrating business systems are helping organizations to manage change and to implement new business processes. With each iManage system implementation, there were lessons learned that improved the next system to be implemented. The major lessons learned were:

- Executive Sponsorship – Secure buy-in from the highest career-level positions;
- Funding – Build in reserve and do not discount the importance of setting realistic expectations, managing change, and training the staff;
- Adequate Staffing – Manage staff by assigning specific tasks with due dates, not on the amount of time spent on the project;
- Cultural Change – Change is hard, and communication is the key ingredient to acceptance; and
- Continuous improvement – knowing that once new systems and processes are in place, there is still room for improvement.

With each successive system upgrade or integration effort, these lessons are being applied in a rigorous and systematic way to reduce costs and increase functionality and ease of use.

Way Ahead

The Department is working to constantly improve the capability, integration, and transparency of our systems within the constraints of the Department's resources. iManage 1.0 was primarily focused of the modernization, integration and implementation of the Department's corporate financial and business systems. Significant accomplishments have been made in this area and additional work is in progress to complete the modernization of all business systems. iManage 2.0 is now shifting much of the focus to the value of providing products and services to support the Department's strategic vision, mission and decision-making, and interactive peer-to-peer participation. iManage must also address future workforce needs, specifically, by decreasing the iManage training learning curve through improved access to training; increasing access to experts and peers; utilizing a robust and secure web and remote access; and improving access to systems and information.

Within iManage, STARS and STRIPES are both undergoing their periodic upgrades to increase functionality and integration. Within our procurement systems, and as noted above, the functions of PADS and IIPS are both being migrated to STRIPES. FDS was recently migrated from a mainframe environment to a server environment and the database migration to Oracle Version 11 is currently being tested. The overall funds distribution process has undergone a rigorous Lean Six Sigma review that has identified a number of areas for increased efficiency and reduced transaction processing time. This evaluation has resulted in an ongoing upgrade to FDS that will better integrate this system with IDW and STARS; the upgrade is expected to be complete in late 2011. Finally, the Budget Formulation and Execution Line of Business solution developed by Treasury called Budget Formulation and Execution Module will be deployed at DOE to support the fiscal year 2013 Budget Formulation Process.

Conclusion

Mr. Chairman, Ranking Member Connolly, and Members of the Subcommittee, I am pleased to be here today representing the Department of Energy. Over the last several years, the Department has made significant strides integrating our financial systems both internally and with government-wide initiatives. We still have work to do in this area and we are committed to doing it as cost-effectively and efficiently as possible to further increase transparency, improve management and decision-making, and demonstrate value to the American taxpayers. I am pleased to answer any questions you may have.

Owen Barwell is the Acting Chief Financial Officer of the Department of Energy. He was most recently the Chief Operating Officer of the Loan Programs Office (LPO) within DOE. Prior to that, Mr. Barwell served as the Deputy Chief Financial Officer, a role in which he played a vital role in executing the Department's \$26 billion budget to support important energy, scientific, and national security investments. He had direct responsibility for the Department's financial management, budget formulation and execution, program analysis and evaluation, and corporate information systems organizations.

Mr. Barwell has over 22 years of experience as a business manager, management consultant, and professional accountant gained in organizations undergoing significant change. He has helped both public and private sector organizations execute strategic plans, reengineer business processes, and implement major functional business systems. His experience spans the professional services, energy, aerospace, retail real estate, utilities, and rail industries.

Throughout this experience, Mr. Barwell has also served as the Director for Enterprise Strategy and Planning at Analytic Services Inc.; in business transformation roles in the Office of the Administrator at the National Aeronautics and Space Administration (NASA); as a Principal Consultant with PricewaterhouseCoopers Consulting, based in the Washington, D.C. and London, U.K. offices; and KPMG. He has also held financial management positions in the privatized rail industry.

A native of Derby in the U.K. Mr. Barwell graduated from Lancaster University with a bachelor's degree in Economics. He is also a member of the Chartered Institute of Management Accountants in the U.K.