



**OFFICE OF INSPECTOR GENERAL**

U.S. Department of Energy

# SPECIAL REPORT

DOE-OIG-20-05

November 2019

**FOLLOWUP ON THE DEPARTMENT OF  
ENERGY'S IMPLEMENTATION OF THE  
DIGITAL ACCOUNTABILITY AND  
TRANSPARENCY ACT OF 2014**



**Department of Energy**  
Washington, DC 20585

November 6, 2019

MEMORANDUM FOR THE SECRETARY

A handwritten signature in cursive script, appearing to read "Teri L. Donaldson".

FROM: Teri L. Donaldson  
Inspector General

SUBJECT: INFORMATION: Special Report on the “Followup on the Department of Energy’s Implementation of the Digital Accountability and Transparency Act of 2014”

BACKGROUND

The *Digital Accountability and Transparency Act of 2014* (DATA Act) requires Federal agencies to report on financial and non-financial data in accordance with standards established by the U.S. Department of the Treasury (Treasury) and the Office of Management and Budget (OMB). Agency reported data is made available to the public and other stakeholders on USASpending.gov, a website operated by Treasury in consultation with OMB. In January 2017, agencies began reporting on 57 data definition elements published by Treasury and OMB, such as obligation amounts and legal entity addresses. The DATA Act requires each Office of Inspector General (OIG) to report on the completeness, timeliness, quality, and accuracy of data submitted by the cognizant agency.

In July 2018, the Government Accountability Office reported that nearly three-quarters of agencies submitted data that was not complete, accurate, or timely. In addition, our previous report on the *Department of Energy’s Implementation of the Digital Accountability and Transparency Act of 2014* (DOE-OIG-18-08, November 2017) determined that the overall quality of available Department of Energy information related to the DATA Act was negatively impacted by weaknesses in completeness, accuracy, and timeliness of information reported in the second quarter of fiscal year 2017. Consistent with guidelines established by the Council of the Inspectors General on Integrity and Efficiency (CIGIE), we completed our current review to determine the overall quality of fiscal year 2019 first quarter financial and non-financial data submitted for publication on USASpending.gov. This report documents the results of our test work related to the Department’s implementation of the DATA Act and the quality of the data submitted for the first quarter of fiscal year 2019.

RESULTS OF AUDIT

We determined that the Department had made improvements to the quality of its data since our prior report was issued in 2017. However, the results of our current review may not be fully

comparable to our prior audit due to a change in the methodologies outlined in the February 2019 *CIGIE FAEC<sup>1</sup> Inspectors General Guide to Compliance under the DATA Act (CIGIE Guide)*. Using the methodology included in the *CIGIE Guide*, we determined that the overall quality of the Department's data was high for the information reported in the first quarter of fiscal year 2019. In particular, based on a sample of 332 transaction records (records) that included nearly 14,000 required data elements, our testing for completeness, accuracy, and timeliness revealed:

- Ninety-two of 332 (28 percent) records contained at least 1 data element that was incomplete. However, when evaluating nearly 14,000 individual data elements on these records for completeness, we determined that the projected error rate for the elements was almost 1.5 percent<sup>2</sup>. Most of these errors were not attributable to the Department. A data element was considered complete if the required data element that should have been reported was indeed reported.
- One hundred sixty-three of 332 (49 percent) records contained at least 1 data element that was not accurate. During our test work over the data elements included in the records, we found that the projected error rate for the data elements was 3 percent<sup>3</sup>. A data element was considered accurate when amounts and other data relating to recorded transactions were recorded in accordance with Government-wide data standards and agrees with the authoritative source records.
- Ninety-two of 332 (28 percent) records contained timeliness issues, and we determined that the projected error rate for timeliness related to the data elements supporting the records was approximately 1.7 percent<sup>4</sup>. Many of these errors were not attributable to the Department. The timeliness of the data element was based on the reporting schedules defined by the procurement and financial assistance requirements such as the *Federal Funding and Transparency Act*, Federal Acquisition Regulations, the Federal Procurement Data System – Next Generation (FPDS-NG), Financial Assistance Broker Submission (FABS), and the DATA Act Information Model Schema.

In accordance with instructions provided in the *CIGIE Guide*, we have included a table in Attachment 4 that illustrates the error rates for completeness, accuracy, and timeliness by data element.

### **Testing Methodology**

To meet the needs of the Inspector General community, the CIGIE Federal Audit Executive Council established the DATA Act Working Group. The DATA Act Working Group developed the *CIGIE Guide* to provide a common methodology and reporting approach for the Inspector

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<sup>1</sup> FAEC stands for CIGIE's Federal Audit Executive Council.

<sup>2</sup> Based on a 95 percent confidence level, the projected error rate for the completeness of the data elements was between 1.17 percent and 1.81 percent, with a mid-point of 1.49 percent.

<sup>3</sup> Based on a 95 percent confidence level, the projected error rate for the accuracy of the data elements was between 2.60 percent and 3.35 percent, with a mid-point of 2.98 percent.

<sup>4</sup> Based on a 95 percent confidence level, the projected error rate for the timeliness of the data elements was between 1.17 percent and 2.28 percent, with a mid-point of 1.73 percent.

General community for the reviews required by the DATA Act. Our audit adhered to the February 2019 version of the *CIGIE Guide*. During our audit, we evaluated and assessed the internal controls over the Department’s and the Federal Energy Regulatory Commission’s information systems used to report financial and non-financial data. Based on test work performed, we noted that the information technology controls tested for DATA Act purposes on the Department’s financial and procurement systems appeared sufficient.

We also reviewed financial and non-financial data elements certified by the Department for the first quarter of fiscal year 2019. The chart below illustrates the five DATA Act files included in our review, contents within the files, number of standard data elements established by Treasury and OMB, and the source of data for each of the files. A detailed chart of the files, descriptions, and information data flow can be found in Attachment 3.

<b>DATA Act Broker Files<sup>5</sup></b>	<b>Contents of DATA Act Broker Files</b>	<b>Standard Data Elements Per Broker File<sup>6</sup></b>	<b>Source Systems for Broker Files</b>
File A	Appropriation Accounts	6	Standard Accounting and Reporting System
File B	Object Class and Program Activity	6	
File C	Award Financial	8	
File D1	Award and Awardee Attributes (Procurement)	40	FPDS-NG Managed by the U.S. General Services Administration
File D2	Award and Awardee Attributes (Financial Assistance)	40	FABS Managed by the Treasury

We tested all transactions included in the Appropriations Account and the Object Class and Program Activity files (Files A and B) reported by the Department. In addition, we tested the Department’s information related to the standard data definition elements established by Treasury and OMB, in accordance with the *CIGIE Guide*, using the following steps:

- We statistically sampled 332 records<sup>7</sup> from the Award Financial file (File C) and tested 6 of 8 File C data elements for each record in our sample. The Award Financial file included obligation information and was generated from the Department’s financial systems.
- In addition, for each of our sampled records, we tested the completeness, accuracy, and timeliness for 40 data elements in the Award and Awardee Attributes (File D1 and File

<sup>5</sup> The DATA Act Broker system is an information technology system developed by Treasury to standardize data formatting and assist agencies in validating data submissions before being uploaded to USASpending.gov.

<sup>6</sup> The data elements are cross-functional, and some elements appear in multiple files.

<sup>7</sup> The sample size is based on a 95 percent confidence level, an expected error rate of 50 percent, and a desired sampling precision of 5 percent.

D2). Based on our sampling methodology, we reviewed approximately 14,000 data elements for completeness, accuracy, and/or timeliness.

### **Completeness of Data**

We identified instances in which the Department's data submission was not complete. While we found that the Department's DATA Act submission of Files A, B, and C to the Treasury's DATA Act Broker was generally complete, we determined that 92 of 332 (28 percent) sampled records contained at least 1 incomplete Award and Awardee Attributes (Files D1 and D2) data element attributed to either the Department or an external agency. Based on our assessment of nearly 14,000 data elements included in the sampled records, we calculated that the sample error rate for completeness of the Department's submission was almost 1.5 percent. According to the *CIGIE Guide*, completeness of a data element was defined as the data element being reported in the appropriate Files A through D2 for each of the required data elements. During our testing of the sampled records, we found:

- Thirty-four records where the Legal Entity Congressional District data element was blank within the Award and Awardee Attributes (Procurement) file (File D1). However, none of these errors were attributable to the Department. Specifically, Department officials explained that the Legal Entity Congressional District data element was propagated or system-generated from the Data Universal Numbering System (DUNS) number in accordance with the FPDS-NG data dictionary, and the Department was not able to populate this data element.
- Nine records where the Ultimate Parent Unique Identifier and 15 records where the Ultimate Parent Legal Entity Name data element were blank within the Award and Awardee Attributes (Financial Assistance) file (File D2). Department officials explained that these were derived fields that were pulled directly by the Treasury's DATA Act Broker system from SAM.gov. Therefore, these errors were not attributable to the Department.
- Fifty-three records where the Funding Agency Name and Funding Agency Code were blank within the Award and Awardee Attributes (Financial Assistance) file (File D2). Based on our analysis, 40 of these errors were not attributable to the Department. Rather, they occurred because the Treasury's DATA Act Broker system did not accurately derive these data elements until May 2019, which was outside the scope of our fiscal year 2019 first quarter testing period. Notably, we determined that the data elements were correct when we downloaded a new D2 file from the Treasury's DATA Act Broker system in September 2019 for the first quarter fiscal year 2019 period.
- Thirteen records where the Funding Office Name, Funding Office Code, Awarding Office Name, and/or Awarding Office Code data elements were blank within the Award and Awardee Attributes (Financial Assistance) file (File D2). According to the Department, each of these errors were attributable to an update needed to the Department's contract writing system that was implemented in late October 2018 to ensure that the data elements were complete when submitted to the FABS. To its credit,

the Department has since resubmitted its submission data to FABS to ensure that the Funding Office Code and Awarding Office Code data elements were populated. By doing so, other data elements such as the Funding Agency Code and Awarding Office Name were also automatically corrected.

### **Accuracy of Data**

We identified numerous instances in which the Department's submitted data was not accurate. In particular, we determined that 163 of 332 (49 percent) sampled transactions contained accuracy errors, including records that contained errors that were attributable to both the Department and external agencies. Based on our assessment of relevant data elements, the sample error rate for accuracy of the Department's submission was 3 percent. According to the *CIGIE Guide*, data elements are considered accurate when amounts and other data relating to recorded transactions have been documented in accordance with the DATA Act Information Model Schema, Reporting Submission Specifications, Interface Definition Document, and the online data dictionary, and the recorded data agrees with the authoritative source records. In addition, we reconciled the linkages between Files A, B, and C to determine if the linkages were valid and to identify any significant variances between the files. While our test work did not identify any significant variances between Files A, B, and C, our review of the sample records and associated data elements in Files D1 and D2 revealed:

- Accuracy issues related to the Current Total Value of Award and Potential Total Value of Award data elements within the Award and Awardee Attributes (Procurement) file (File D1). Specifically, we found 66 records where the Current Total Value of Award and 77 records where the Potential Total Value of Award data elements reported did not match agency records. Department officials explained that for many of these instances, there had been hundreds of modifications made to the contracts over the years. The officials indicated that at some point during the modifications – most likely to have occurred before the DATA Act requirements – a mistake was made in recording the Current Total Value of Award and Potential Total Value of Award in FPDS-NG. As a result, the accuracy errors for these cumulative inception-to-date data elements carried through to the modifications made in the first quarter of fiscal year 2019. In addition, we found that some of these errors were not attributable to the Department. In particular, the FPDS-NG system would overwrite the cumulative total of the Current Total Value of Award and Potential Total Value of Award with the cumulative total as of the date the record was modified even if the modification was not related to these data elements.
- Forty-one records where the Legal Entity Congressional District data element was not accurate. However, none of the inaccuracies were attributable to the Department. As noted above, the Legal Entity Congressional District data element was propagated or system-generated by FPDS-NG, and the Department was not able to populate this data element.
- Nine instances where the Primary Place of Performance Address data element was not accurate within the Award and Awardee Attribute (Procurement and Financial

Assistance) files (File D1 and D2). Almost half of these errors were attributed to inaccurate data input by the Department.

To the Department's credit, we determined that all of the transactions reviewed in the Appropriation Account (File A) and the Object Class and Program Activity file (File B) were accurate. However, without assurance that all files supporting the DATA Act are accurate, the public, policymakers, and other stakeholders may make conclusions based on inaccurate information.

### **Timeliness of Data**

During our test work, nothing came to our attention to indicate a systemic issue related to the timely processing and posting of DATA Act related information. However, we found that 92 of 332 (28 percent) sampled transactions contained timeliness errors in the data elements tested. Based on our assessment of all 332 records, the sample error rate related to timeliness of the Department's submission was approximately 1.7 percent. According to the *CIGIE Guide*, if a transaction was correctly recorded in File C, but File D1/D2 data elements were not included, then those File D1/D2 data elements were considered incomplete, inaccurate, and untimely. As such, except for one error, the timeliness errors we identified occurred because required information on certain D1/D2 data elements was blank, which in turn caused these data elements to be considered untimely.

Furthermore, the *CIGIE Guide* defined timeliness of the data elements as data elements that were reported in accordance with the reporting schedules defined by the financial, procurement, and financial assistance requirements. Specifically, procurement award data elements within File D1 should be reported in FPDS-NG within 3 business days after contract award in accordance with Federal Acquisition Regulations. Additionally, financial assistance award data elements within File D2 should be reported no later than 30 days after award, in accordance with the *Federal Funding Accountability and Transparency Act*. Based on the guidance, we determined that one timeliness error occurred that was not attributable to the completeness of data. Specifically, one financial assistance award agreement was signed on December 7, 2018, but was not submitted to FABS until January 17, 2019, exceeding the 30-day requirement in the *Federal Funding Accountability and Transparency Act* for financial assistance awards.

### **DATA Act Review Process**

Many of the issues identified were outside the control of the Department. However, a number of the issues identified occurred, in part, because the Department did not have a fully effective process for ensuring the quality of its data submitted as part of the DATA Act. In particular, while certain errors may have occurred in the past, they continued to be present in the data that was reported for the period under review. For instance, as noted above, Department officials explained that the accuracy errors relating to the Current Total Value of Award and Potential Total Value of Award data elements had occurred sometime during the contract modification process and carried through to the fiscal year 2019 first quarter data that was reported. However, while the Department had implemented multiple processes to help ensure the quality of its data, the processes were not designed to review the total values for these two cumulative inception-to-

date data elements. For example, the Department's quarterly data verification and validation reviews and daily logic checks on select data elements only checked the change in the Current Total Value of Award and Potential Total Value of Award that occurred as a result of the current contract action, as required by the Office of Management and Budget memorandum on *Improving Federal Procurement Data Quality – Guidance for Annual Verification and Validation*. However, the cumulative total values for the Current Total Value of Award data element and Potential Total Value of Award data element, as reported in the Department's submission, were not reviewed.

In addition, the Department did not always ensure that data derived from external systems was complete and accurate. Specifically, some of the weaknesses we identified were attributable to external systems maintained by third parties such as Treasury and the General Services Administration. For example, in accordance with the DATA Act Information Model Schema data dictionary, Treasury's FABS derived the Funding Agency Name, Funding Agency Code, and Funding Office Name data elements. However, at the time of the fiscal year 2019 first quarter data submission, the derivation capability had not been implemented in FABS. In addition, the Legal Entity Congressional District data element was derived by the FPDS-NG system; however, there were several instances where the system failed or incorrectly derived this data element in the fiscal year 2019 first quarter data submission. While these errors were attributable to third parties, the Department did not always take steps to ensure that the information being derived was complete and accurate.

### **Impact and Path Forward**

While the Department's data was generally of high quality, without complete, accurate, and timely data, policymakers and the public may draw conclusions and make decisions based on inadequate Department DATA Act information. Specifically, not ensuring that Congressional district data elements are complete and accurate may prevent stakeholders from fully understanding where Department activities are performed and funds are spent. In addition, responsible entities may not be able to determine the value of the Department's contracts if cumulative inception-to-date total award information is not accurately reported. In light of the weaknesses identified during our review, we believe that additional action is necessary to help officials improve DATA Act reporting.

### **RECOMMENDATION**

To improve the effectiveness of the Department's DATA Act reporting, we recommend that the Deputy Chief Financial Officer:

1. Review and revise, as necessary, the Department's processes for ensuring the completeness, accuracy, and timeliness of its DATA Act submission. This includes ensuring that the Department's data elements that are extracted, derived, and reported are reviewed and coordinated with external agencies to resolve errors, as appropriate.

## MANAGEMENT RESPONSE

Management concurred with our findings and recommendation. Management commented that other than errors on data elements extracted or derived by the Treasury's DATA Act Broker system, the primary differences were between the Department's contract writing system and the General Service Administration's Federal Procurement Data System – Next Generation for two cumulative inception-to-date elements. Management stated that 92 percent of the differences in the cumulative inception-to-date totals were on older contracts that originated before DATA Act reporting began. Management also proposed corrective actions to continue improving data quality. Furthermore, management indicated that certain issues cited in the report were the responsibility of the Office of Management.

## AUDITOR COMMENTS

Management's planned corrective actions are responsive to our recommendations. Although we recognized throughout our report that many of the issues we identified were outside the control of the Department, we were required to test and report on the results of those tests no matter the root cause. In addition, we suggest that the Office of the Chief Financial Officer coordinate with the Office of Management to resolve issues in the report as it deems appropriate. Management's comments are included in Attachment 5.

### Attachments

cc: Deputy Secretary  
Chief of Staff  
Deputy Chief Financial Officer  
Director, Office of Management

## OBJECTIVE, SCOPE, AND METHODOLOGY

### OBJECTIVE

We conducted this audit to determine the overall quality of fiscal year 2019 first quarter financial and non-financial data submitted by the Department of Energy for publication on USASpending.gov. Specifically, we determined whether the Department submitted complete, timely, and accurate spending data to the Office of Management and Budget and U.S. Department of the Treasury, as required by the *Digital Accountability and Transparency Act of 2014* (DATA Act).

### SCOPE

The audit was performed between March and October 2019 at the Department's Headquarters in Washington, DC and Germantown, Maryland. The scope of the audit was limited to fiscal year 2019 first quarter financial and non-financial award data that the Department submitted for publication on USASpending.gov. This audit was conducted under Office of Inspector General project number A19TG009.

### METHODOLOGY

To accomplish our audit objective, we:

- Reviewed the DATA Act and the *Federal Funding Accountability and Transparency Act of 2006*.
- Reviewed applicable guidance and standards issued by the Office of Management and Budget, including Office of Management and Budget Memorandum M-15-12, *Increasing Transparency of Federal Spending by Making Federal Spending Data Accessible, Searchable, and Reliable*, and Memorandum M-17-04, *Additional Guidance for DATA Act Implementation: Further Requirements for Reporting and Assuring Data Reliability*.
- Reviewed prior reports and testimonies issued by the Office of Inspector General and Government Accountability Office related to the DATA Act.
- Held discussions with Department officials to gain an understanding of the processes, systems, and controls that the Department implemented to report financial and non-financial data in accordance with the requirements of the DATA Act.
- Obtained the Department's fiscal year 2019 first quarter DATA Act submissions from the U.S. Department of the Treasury's DATA Act Broker system.
- Obtained and reviewed internal controls testing reports.

- Utilized the *CIGIE FAEC<sup>1</sup> Inspectors General Guide to Compliance under the DATA Act*, dated February 14, 2019, as the framework for our review to assess the completeness, accuracy, timeliness, and quality of the financial and non-financial award data sampled. The quality of the data elements was determined using the midpoint of the range of the proportion of errors for completeness, accuracy, and timeliness. The highest of the three error rates was used as the determining factor of quality. According to the *CIGIE FAEC Inspectors General Guide to Compliance under the DATA Act*, the quality of data was high if the highest error rate was less than 21 percent; moderate if the highest error rate was 21 to 40 percent; and low if the highest error rate was above 40 percent.
- Selected a statistically valid sample of certified spending data from the reportable award-level transactions in the Award Financial file (File C). Our sample size was based on a 95 percent confidence level, an expected error rate of 50 percent, and a sampling precision of 5 percent. Based on these sampling parameters, we determined that our sample size was 332 records.
- Utilized the *CIGIE FAEC Inspector General Guide to Compliance under the DATA Act* to project error rates. For each record, we calculated the average rate of error for completeness, accuracy, and timeliness based on the total data elements required to be reported for that record. We then calculated the overall sample error rate for completeness, accuracy, and timeliness by averaging the record error rates over the total number of sample item tested. The overall sample error rates were used to project the error rate for completeness, accuracy, and timeliness and the confidence intervals of the error rates based on a 95 percent confidence level.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. Accordingly, we assessed significant internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. Because our review was limited, it would not have necessarily disclosed all internal control deficiencies that may have existed at the time of our audit. We relied on computer-processed data to satisfy our objective and tested the validity of the data by reviewing prior internal controls test work. In addition, we traced a sample of the information back to source documents. While we identified weaknesses related to the completeness, accuracy, and timeliness of the DATA Act information, we determined overall that the data was sufficiently reliable for the purposes of our audit objective.

Management waived an exit conference on October 30, 2019.

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<sup>1</sup> *FAEC* stands for CIGIE's Federal Audit Executive Council.

## RELATED REPORTS

### Office of Inspector General

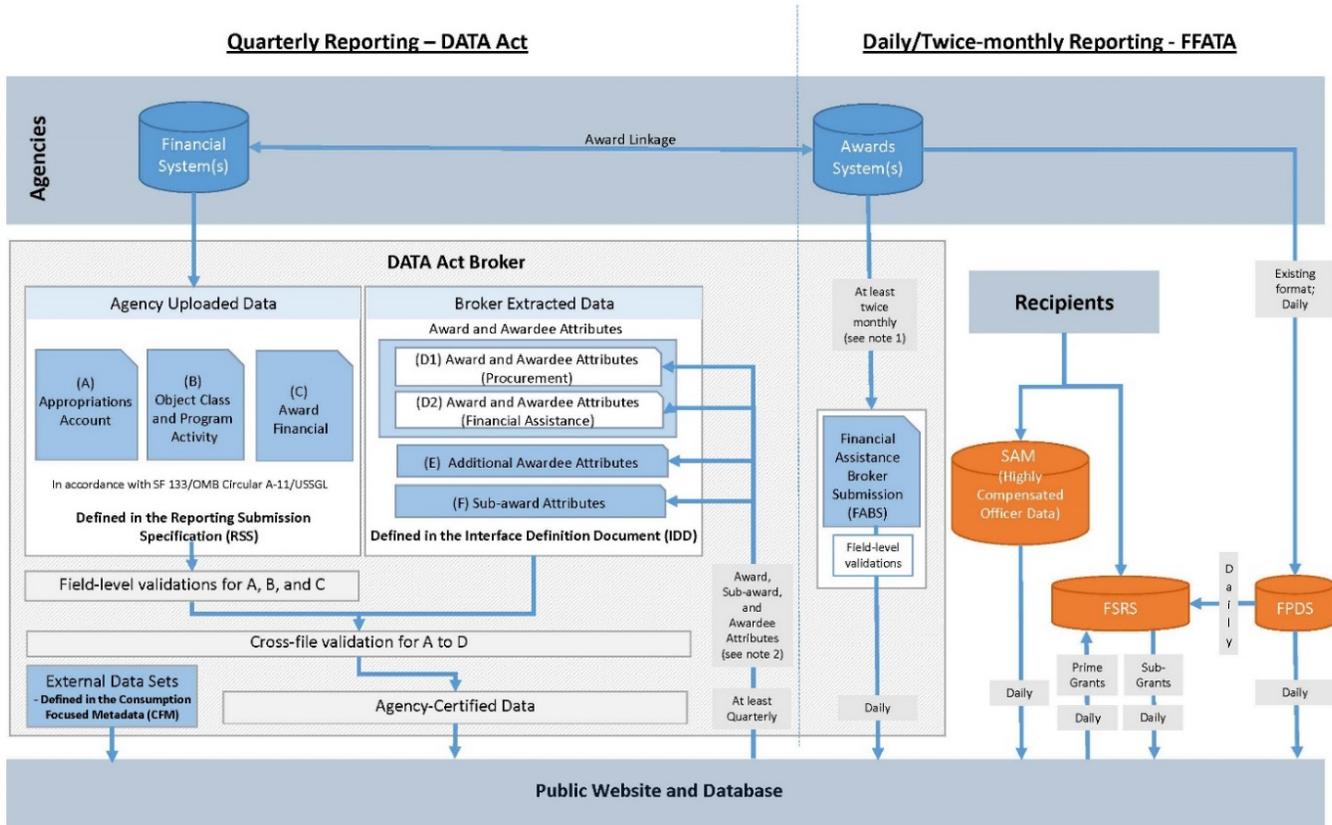
- Special Report on [\*Department of Energy's Implementation of the Digital Accountability and Transparency Act of 2014\*](#) (DOE-OIG-18-08, November 2017). We determined that the overall quality of available Department of Energy information related to the *Digital Accountability and Transparency Act of 2014* (DATA Act) was negatively impacted by weaknesses in completeness, accuracy, and timeliness of information reported in the second quarter of fiscal year 2017. In particular, we identified weaknesses related to completeness, accuracy, and/or timeliness of information in the data files tested. For instance, we found that all 354 transactions sampled contained at least 1 error. While the majority of these errors were caused by other external agencies' data management processes and were outside the control of the Department and the scope of this audit, we found that 28 percent of the 354 sampled transactions contained errors caused by Department weaknesses. To the Department's credit, we noted that 91 percent of the 23,688 data elements tested from the sampled transactions were complete, accurate, and/or timely.
- Special Report on [\*The Department of Energy's Readiness to Implement the Digital Accountability and Transparency Act of 2014\*](#) (OIG-SR-17-03, November 2016). Our review of the Department's progress implementing the DATA Act did not identify any significant weaknesses and noted that the Department appeared to be on track to meet the requirements of the DATA Act. We also found that the Department had made significant progress addressing the elements included in the U.S. Department of the Treasury and Office of Management and Budget eight-step implementation process. Specifically, the Department had taken action to address each of the planning steps included in the DATA Act readiness review guidance and was well-positioned to execute and implement goals within the required timeframes. In addition, while the potential existed that the requirements may change, the Department's actions, to date, positioned it to successfully execute the requirements of the DATA Act.

### Government Accountability Office

- [\*DATA ACT: OMB Needs to Formalize Data Governance for Reporting Federal Spending\*](#) (GAO-19-284, March 2019). The Government Accountability Office (GAO) found that the Office of Management and Budget and the U.S. Department of the Treasury have established some procedures for governing the data standards established under the DATA Act, but a formal governance structure has yet to be fully developed. With regards to one specific data governance function – making changes to existing standards – GAO found that the Office of Management and Budget did not have procedures for managing changes to the webpage it identifies in guidance as the authoritative source for data definition standards. The Office of Management and Budget also did not transparently communicate to stakeholders these changes to data definition standards.

- [\*DATA ACT: Reported Quality of Agencies' Spending Data Reviewed by OIGs Varied Because of Government-wide and Agency Issues\*](#) (GAO-18-546, July 2018). GAO concluded that the overall error rates reported by the Offices of Inspector General were not fully comparable and a Government-wide error rate cannot be projected. According to the Offices of Inspector General reports, about one-half of the agencies met Office of Management and Budget and U.S. Department of the Treasury requirements for the implementation and use of data standards. The Offices of Inspector General also reported that most agencies' first data submissions were not complete, timely, accurate, or of quality. The Offices of Inspector General reported certain errors that involve inconsistencies in how the Department of the Treasury's DATA Act Broker system extracted data from certain Federal award systems that resulted in Government-wide issues outside the agencies' control, while other errors may have been caused by agency-specific control deficiencies.
- [\*DATA ACT: OMB, Treasury, and Agencies Need to Improve Completeness and Accuracy of Spending Data and Disclosure Limitations\*](#) (GAO-18-138, November 2017). GAO identified issues and challenges with the completeness and accuracy of the data submitted, use of data elements, and presentation of the data on Beta.USAspending.gov. Awards for 160 financial assistance programs with estimated annual spending of \$80.8 billion were omitted from the data for the second quarter of fiscal year 2017. Based on a projectable sample representing approximately 94 percent of all records in Beta.USAspending.gov, GAO found that data accuracy – measured as consistency between reported data and authoritative agency sources – differed sharply between budgetary and award records. GAO also identified challenges in the implementation and use of two data elements – Primary Place of Performance and Award Description – that were particularly important to achieving DATA Act transparency goals.

## DIGITAL ACCOUNTABILITY AND TRANSPARENCY ACT OF 2014 INFORMATION FLOW DIAGRAM



Note 1: The Financial Assistance Broker Submission (FABS) replaces the Award Submission Portal (ASP).

Note 2: D1 and D2 pull in all award data associated with the submitting agency and agency-specified action dates. E pulls in highly-compensated officer information for DUNS numbers that appear in an agency's D1 and D2. F pulls in all sub-award data associated with the awards that appear in an agency's D1 and D2.

Schema Version 3.3.1  
Friday, February 6, 2015

The diagram above provides details of the reporting timeframes and sources of the data included in the *Digital Accountability and Transparency Act of 2014* Information Model Schema across the Federal enterprise.

A brief description of the content and source of each of these files is provided below.

- **File A** – includes Unobligated, Budget Authority, Obligations, and Outlay balances off agency Standard Form 133s submitted through the Government-wide Treasury Account Symbol Adjusted Trial Balance System.
- **File B** – includes Obligation and Outlay balances at the detail standard general ledger level by Object Class and Program Activity. The source for this information is agency financial systems.

- File C – includes obligation transactions at the Object Class and Program Activity level by Award Identification Number for those procurement obligations that were reported to the Federal Procurement Data System Next Generation and financial assistance obligations that were reported to the Financial Assistance Broker Submission. The source for this information is agency financial systems.
- File D1 – includes all procurement obligations reported to the Federal Procurement Data System – Next Generation for the month/quarter. This information is pulled directly by the U.S. Department of the Treasury into its DATA Act Broker system.
- File D2 – includes all financial assistance obligations reported to the Financial Assistance Broker Submission portal in the U.S. Department of the Treasury’s Broker system.

### ERROR RATE PERCENTAGE BY DATA ELEMENT

The table below illustrates the results of our testing of accuracy, completeness, and timeliness for each of the data elements tested that were applicable to our sample of 332 records. The results are listed in descending order by accuracy error rate percentage. The results represent the percentage of the 332 sampled records that contained an error related to accuracy, completeness, or timeliness. However, not all errors identified in the table below were attributable to the Department of Energy. In the body of our report, consistent with our audit objective, we determined that the overall quality of the Department's data was high for information reported in the first quarter of fiscal year 2019. In addition, we discussed the data elements that had numerous errors observed during our testing with Department officials and identified whether those errors were attributable to the Department or to a third-party system.

Accuracy (A), Completeness (C), Timeliness (T)				
		Error Rate (percentage) <sup>1</sup>		
Data Element No.	Data Element Name	A	C	T
15	Potential Total Value of Award	30.0	0.0	0.0
14	Current Total Value of Award	19.9	0.0	0.0
38	Funding Agency Name	16.0	16.0	16.0
39	Funding Agency Code	16.0	16.0	16.0
6	Legal Entity Congressional District	12.3	10.2	10.5
4	Ultimate Parent Legal Entity Name	5.4	4.5	4.8
3	Ultimate Parent Unique Identifier	3.6	2.7	3.0
42	Funding Office Name	3.9	3.9	4.2
43	Funding Office Code	3.9	3.9	4.2
48	Awarding Office Name	3.9	3.9	4.2
49	Awarding Office Code	3.9	3.9	4.2
5	Legal Entity Address	3.0	0.0	0.3
30	Primary Place of Performance Address	2.7	0.0	0.3
26	Period of Performance Start Date	2.7	0.0	0.3
31	Primary Place of Performance Congressional District	1.5	0.0	0.3
25	Action Date	1.5	0.0	0.3
27	Period of Performance Current End Date	1.2	0.0	0.3
40	Funding Sub Tier Agency Name	1.5	1.5	1.5
41	Funding Sub Tier Agency Code	1.5	1.5	1.5
28	Period of Performance Potential End Date	0.8	0.0	0.0
1	Awardee/Recipient Legal Entity Name	0.9	0.0	0.3
11	Federal Action Obligation	0.9	0.0	0.3
17	NAICS Code	0.4	0.0	0.0
18	NAICS Description	0.4	0.0	0.0
2	Awardee/Recipient Unique Identifier	0.3	0.0	0.3

<sup>1</sup> All estimates from the sample have a margin of error no greater than plus or minus 5 percentage points unless otherwise noted.

22	Award Description	0.3	0.0	0.3
32	Primary Place of Performance Country Code	0.0	0.0	0.3
33	Primary Place of Performance Country Name	0.0	0.0	0.3
36	Action Type	0.3	0.0	0.3
53	Obligation	0.3	0.0	0.0
57	Outlay	0.3	0.0	0.0
7	Legal Entity Country Code	0.0	0.0	0.3
8	Legal Entity Country Name	0.0	0.0	0.3
12	Non-Federal Funding Amount	0.0	0.0	1.3
13	Amount of Award	0.0	0.0	1.3
16	Award Type	0.0	0.0	0.3
19	Catalog of Federal Domestic Assistance (CFDA) Number	0.0	0.0	1.3
20	Catalog of Federal Domestic Assistance (CFDA) Title	0.0	0.0	1.3
23	Award Modification / Amendment Number	0.0	0.0	0.3
24	Parent Award ID Number	0.0	0.0	0.0
29	Ordering Period End Date	0.0	0.0	0.0
34	Award ID Number (PIID/FAIN)	0.0	0.0	0.3
35	Record Type	0.0	0.0	1.3
37	Business Types	0.0	0.0	1.3
44	Awarding Agency Name	0.0	0.0	0.3
45	Awarding Agency Code	0.0	0.0	0.3
46	Awarding Sub Tier Agency Name	0.0	0.0	0.3
47	Awarding Sub Tier Agency Code	0.0	0.0	0.3
50	Object Class	0.0	0.0	0.0
51	Appropriations Account	0.0	0.0	0.0
56	Program Activity	0.0	0.0	0.0
54	Unobligated Balance	N/A	N/A	N/A

## MANAGEMENT COMMENTS



## Department of Energy

Washington, DC 20585

October 31, 2019

MEMORANDUM FOR: TERI L. DONALDSON  
INSPECTOR GENERAL

FROM: R. M. HENDRICKSON  
DEPUTY CHIEF FINANCIAL OFFICER

SUBJECT: Response to the Office of Inspector General Draft Special Report,  
"Follow-up on the Department of Energy's Implementation of the  
Digital Accountability and Transparency Act of 2014"

The Office of the Chief Financial Officer (OCFO) appreciates the Office of Inspector General (OIG) providing the draft copy of Special Report, "Follow-up on the Department of Energy's Implementation of the Digital Accountability and Transparency Act of 2014."

Per the OIG report, the quality of the data reported was high, with projected error rates for completeness (1.5 percent), accuracy (3 percent), and timeliness (1.7 percent) achieved during the review of nearly 14,000 data elements. Forty-seven percent of the errors related to data elements extracted or derived from other government systems by the Treasury DATA Act Broker and OIG assessed those as not attributable to DOE in the report. There were no issues noted in the report related to DOE's File A, File B, or File C, which are populated from DOE's financial system.

Other than errors on data elements extracted or derived by the Treasury DATA Act Broker, the primary differences noted by OIG were between DOE's contract writing system and the General Services Administration (GSA) Federal Procurement Data System – Next Generation (FPDS-NG) for two cumulative inception-to-date elements: Current Total Value of Award and Potential Total Value of Award. Ninety-two percent of the differences in the cumulative inception-to-date totals were on older contracts that originated before DATA Act reporting began.

**Finding 1:** *While the Department's data was generally of high quality, without complete, accurate, and timely data, policymakers and the public may draw conclusions and make decisions based on inadequate Department DATA Act information.*

**Recommendation 1:** *To improve the effectiveness of the Department's DATA Act reporting, we recommend that the Deputy Chief Financial Officer: Review and revise, as necessary, the Department's processes for ensuring the completeness, accuracy, and timeliness of its DATA Act reporting. This includes ensuring that the Department's data elements that are extracted, derived, and reported are reviewed and coordinated with external agencies to resolve errors, as appropriate.*

***Managements Response:***

Management concurs.

DOE's OCFO and Office of Management will review existing procedures on the Current Total Value of Award and Potential Total Value of Award data elements. These offices will also consider additional procedures on Files D1 and D2 to continue improving data quality.

OIG may direct any questions or concerns to Scott Anderson, Office of Finance and Accounting, at 301-903-6206 or [scott.anderson@hq.doe.gov](mailto:scott.anderson@hq.doe.gov).

## **FEEDBACK**

The Office of Inspector General has a continuing interest in improving the usefulness of its products. We aim to make our reports as responsive as possible and ask you to consider sharing your thoughts with us.

Please send your comments, suggestions, and feedback to [OIG.Reports@hq.doe.gov](mailto:OIG.Reports@hq.doe.gov) and include your name, contact information, and the report number. You may also mail comments to us:

Office of Inspector General (IG-12)  
Department of Energy  
Washington, DC 20585

If you want to discuss this report or your comments with a member of the Office of Inspector General staff, please contact our office at (202) 586-1818. For media-related inquiries, please call (202) 586-7406.