

Special audit report requested by the Diet “Status of Development, Operation and Use of Government Information Systems”

Contents of Special audit report requested by the Diet

- ✓ **In June 2019, the National Diet requested the Board of Audit (SAI Japan) to examine Government Information Systems and report about:**
 1. Status of budget execution for the development and operation of Government Information Systems
 2. Status of competitiveness and economy of contracts concluded by each ministry and agency
 3. Status of use and effectiveness of government information systems
 4. Efforts to improve the efficiency of the overall government information systems and to reduce costs

- ✓ **The budget for information systems has been on an upward trend in recent years, and the initial budget for FY2020 was 796.7 billion yen.**

Audit Results at-a- glance

- ✓ A **high proportion** of appropriation was left **unused or carried-over** in some projects, in particular regarding development cost.
- ✓ The percentage of **single bidding** in competitive-bid contracts **was high**.
- ✓ Some systems were found to be **underutilized**, to have **no targets set for grasping the utilization status**, or to have **no monitoring system** in place.
- ✓ There was a **considerable gap** between the **actual reduction** in FY2020 in the operational cost **and the target**.

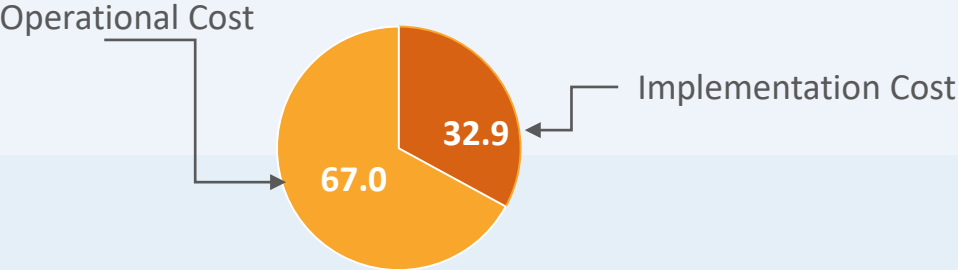
The Government should make efforts to realize the “digital government” including:

- ✓ Consideration of **grasping the status of the budget execution and using it to ensure proper functioning of the PDCA (Plan – Do – Check - Act) cycle.**
- ✓ Improving competitiveness and economy by making efforts to create specifications that do not inhibit competition.
- ✓ **Proper maintenance** of the Social Security and Tax Number System, while closely monitoring the use of IT resources.
- ✓ Considering measures to **increase the rate of electronic applications** on the related systems.
- ✓ **Providing advice and support for efforts to promote the use** of Personnel management and remuneration information system and Travel expense system.
- ✓ **Setting appropriate goals and indicators** by creating a project plan and working on improvements to achieve the goals.
- ✓ **Verifying the calculation of the actual amount of reduction in the operational cost,** and striving to calculate the actual amount of reduction cost appropriately.

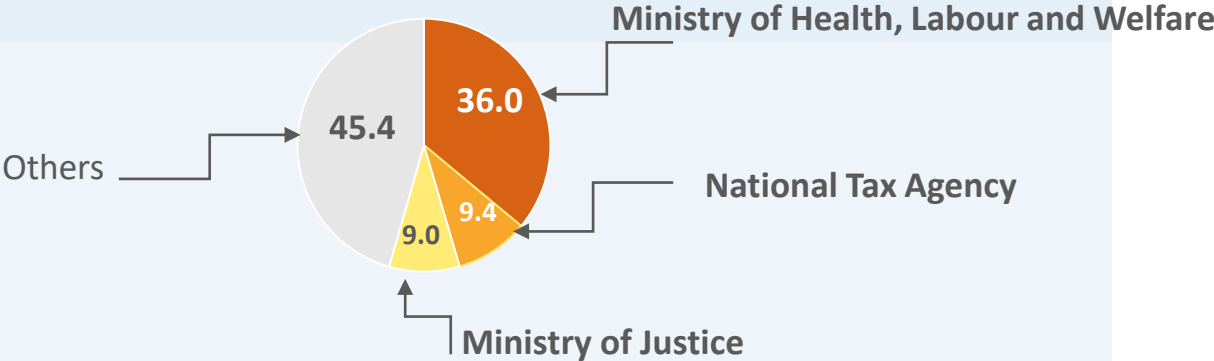
1 Status of budget execution for the development and operation of information systems

Overview of the budget for FY2018 Total 619.3 billion yen

Percentages of Implementation Cost and Operational Cost (%)

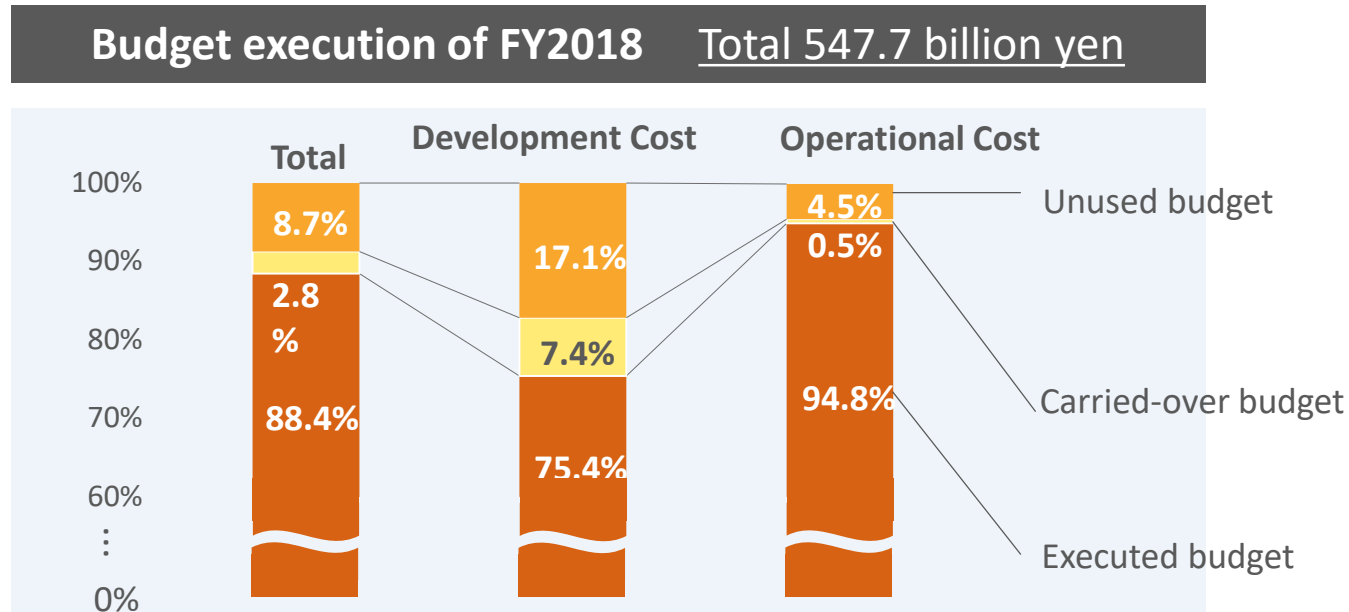


Percentages of Ministries and Agencies (%)



➤ The top three Ministries and Agency account for 54.5% of the total.

1 Status of budget execution for the development and operation of information systems (cont.)



- The percentage of the executed budget is 88.4%.
- In some projects, in particular regarding development cost, a high proportion of appropriation was left unused or carried-over.

1 Status of budget execution for the development and operation of information systems (cont.)

SAI's
opinion

- ✓ consider **grasping the status of the budget execution**
- ✓ consider **using the information of these systems' budget execution** gathered from the Ministries and Agencies to ensure **proper functioning of PDCA (Plan – Do – Check - Act) cycle.**

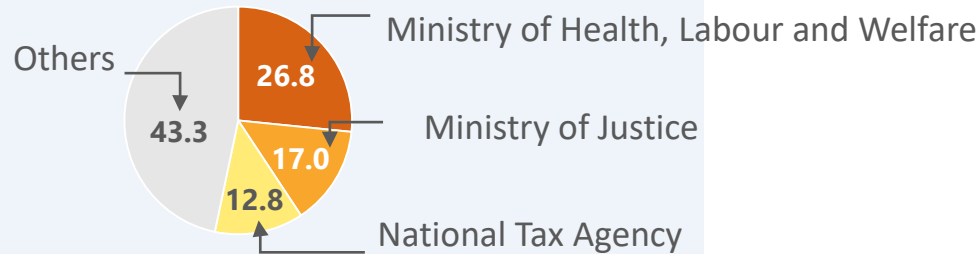
2 Status of competitiveness and economy of contracts concluded by each ministry and agency

Overview of Contracts

755 cases, 481.1 billion yen

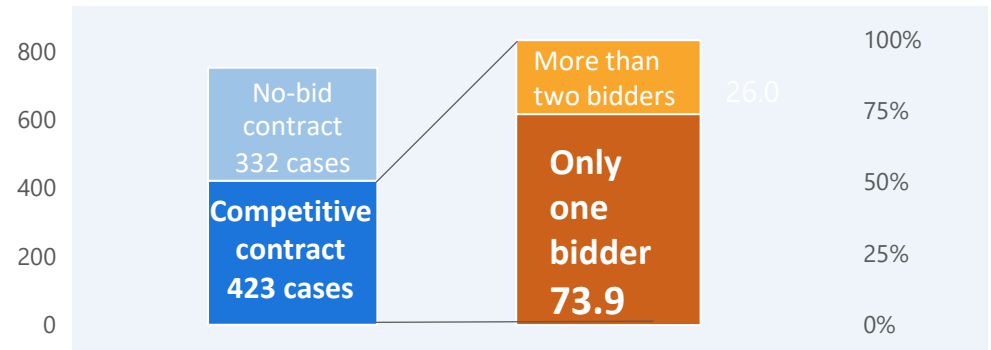
(Contracts above 30 million yen, FY2018)

Percentages of contract amount by Ministries and Agencies (%)



Cases of contracts

Percentages by number of bidders of competitive contracts (%)



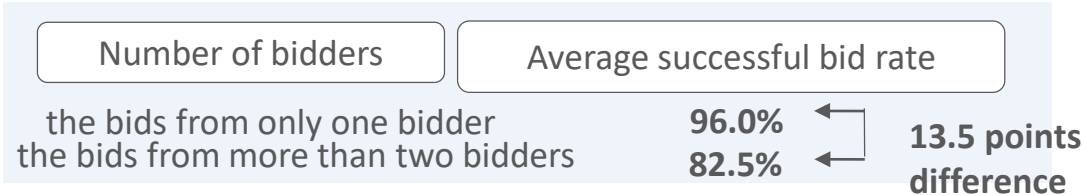
➤ High ratio of single bidder bids for 423 competitive contracts

(The percentage of single bidder for public contracts throughout the State in FY2018 was 30%)

2 Status of competitiveness and economy of contracts concluded by each ministry and agency (cont.)

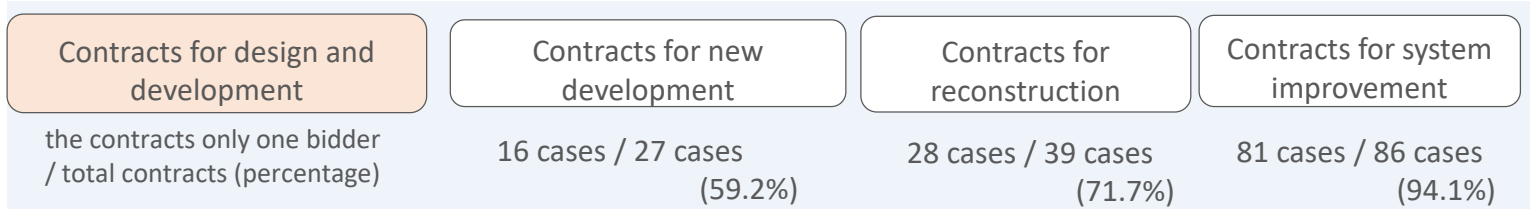
Competitiveness and Economy of the Contracts

Comparison of the average successful bid rates of sole and multiple bidders for 423 competitive contracts



➤ The average successful bid rate for bids from more than two bidders was 13.5 points lower than for single bidder bids

Comparison of the ratio of single bidder bids for contracts that include design and development of information systems



- The percentage of single bidder for system upgrade is higher than for new development.
- It is assumed that this is due to that “vendor dependency” (a.k.a. “vendor lock-in”) is more likely to occur in system improvement contracts while new development contracts allow relatively much room for new vendors to enter the market.

(note) **Vendor dependency** : a situation where the system can be provided by a specific company and it is difficult for other companies to enter the market.

2 Status of competitiveness and economy of contracts concluded by each ministry and agency (cont.)

SAI's
opinion

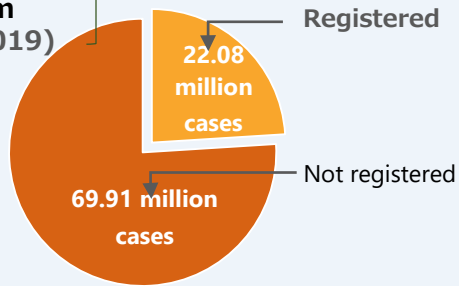
✓ Improve competitiveness and economy by making efforts to create specifications that do not inhibit competition

3 Status of use and effectiveness of government information systems

Status of use of “the Social Security and Tax Number System” (“My Number system”)

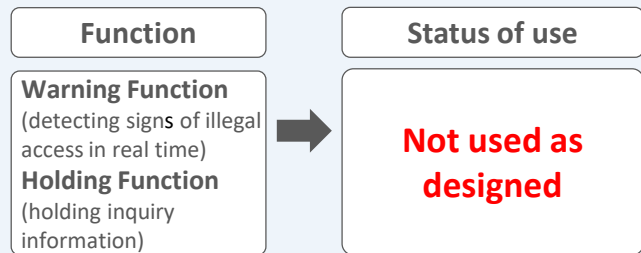
Registration status of “My number” (Individual number)

Data in Employment Insurance System (as of December 2019)



➤ Some systems were with low rate of registration of “My number.”

Use of the Personal Information Protection Committee's monitoring and supervision system



➤ Some functions have not been used as designed.

Achievement in information linkage

Estimated annual number of information linkage (A)	Actual number of cases (B) (From January to December in 2019)	Percentage (B/A)
646.83 million cases	36.03 million cases	5.5%

➤ The achievement in information linkage was less than expected.

Maximum CPU Utilization Rate

Maximum CPU Utilization Rate (%)

Information Providing Network System (Ministry of Internal Affairs and Communications)	between 0.6 and 98.3
Monitoring and supervisory system (Personal Information Protection Committee)	7.1
“Myna” (My number) portal (Cabinet Office)	4.0
Intermediate servers maintained by the government (e.g. Ministry of Health, Labour and Welfare)	between 48.8 and 99.0

➤ The maximum CPU utilization rate was low for some IT resources.

3 Status of use and effectiveness of government information systems (cont.)

Systems related to Online Procurement

Fiscal year	Total case of contracts (A)	Electronic contracts (B)	Percentage of Electronic contracts (B / A)
2016	27,983	102	0.3%
2017	27,395	152	0.5%
2018	27,567	213	0.7%

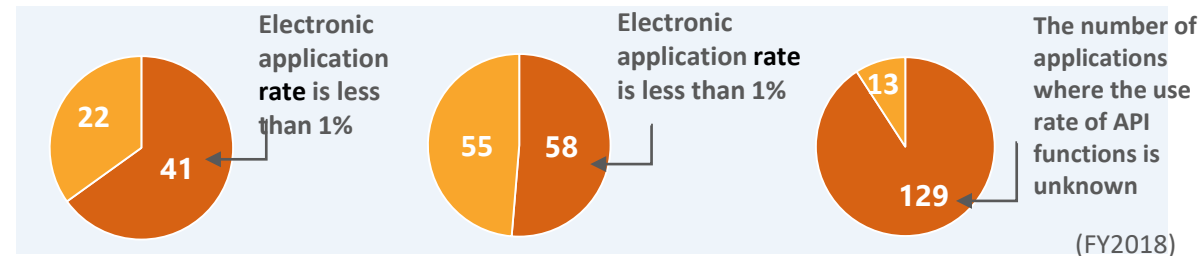
➤ **Use of electronic bidding is being promoted but use of electronic contracts is less than 1%.**

Systems related to Electronic Application

1) Procedures that cannot be completed electronically

2) Procedures that require attachment documents

3) Procedures where API (Application Programming Interface) functions are available

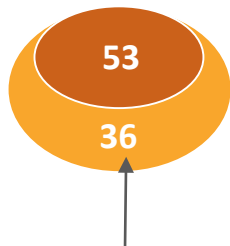


- **Many of the procedures that cannot be completed electronically and those that require attachments have an electronic application rate of less than 1%.**
- **For most of the procedures where API functions are available, the effectiveness of such functions cannot be verified.**

3 Status of use and effectiveness of government information systems (cont.)

Status of Goal Setting and Monitoring of Government Information Systems

Out of 89 systems with the total budget exceeding 1 billion yen



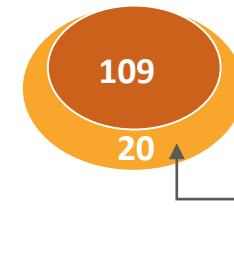
Neither project plan nor management manual were prepared.

Out of 48 systems for which the project plan was made and the goals and indicators were set



Only the indicators of business effects were set (5) or only those of information system effects were set (7).

Out of 129 quantitative indicators (35 systems) with more than 1 year of project period as of end-March, 2020



Lacking monitoring

- Many large-scale IT systems lacked project plan, properly goals and indicators.
- Some large-scale IT systems were found to lack monitoring even though goals and indicators were set.

3 Status of use and effectiveness of government information systems (cont.)

SAI's
opinion

- ✓ Ministries and agencies should monitor the use of IT resources and make **appropriate improvements** to the systems related to the My Number System.
- ✓ Personal Information Protection Committee should continuously verify whether the efforts to **monitor the supervising operations related to information coordination are actually effective in light of the purpose of early detection of inappropriate use of Information Providing Network System.**
- ✓ After considering the way it should be, ministries and agencies should **devise measures to increase the rate of electronic applications.**
- ✓ The Government should make efforts to **inform and enlighten government ministries, agencies, and private business operators so that they can use electronic contracts**, starting with those that are possible.
- ✓ Ministry and agencies should provide advice and support for efforts to **promote the** use of the personnel remuneration system and the travel expense system.
- ✓ Ministry and agencies should prepare a project plan, **set appropriate targets and indicators**, monitor the project appropriately. Continuous improvements shall be made to achieve the targets.

4 Efforts to improve the efficiency of the overall government information systems and to reduce costs

Development and Operation of Government Shared Platform System

Government Shared Platform System (First phase)
(14.6 billion yen, FY2018)

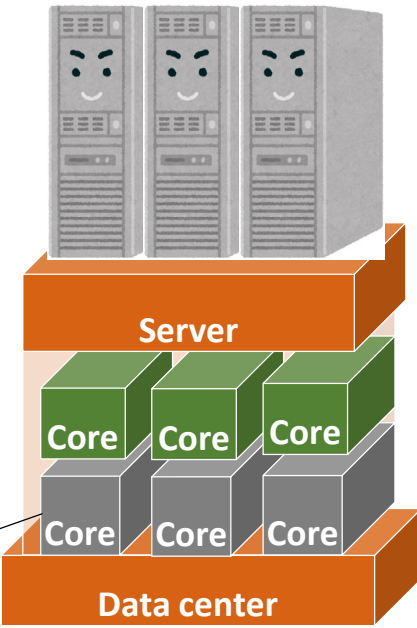
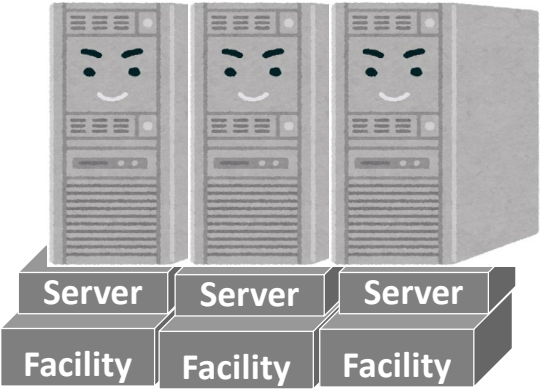
Consolidation
operational cost
reduction rate: 2.3%

Start operation in March, 2013
Cease operation by FY2023

Cloud migration

Before consolidation

Developed by Ministries and Agencies separately



Government Shared Platform System (Second phase)

Started operation in October, 2020



4 Efforts to improve the efficiency of the overall government information systems and to reduce costs (Cont.)

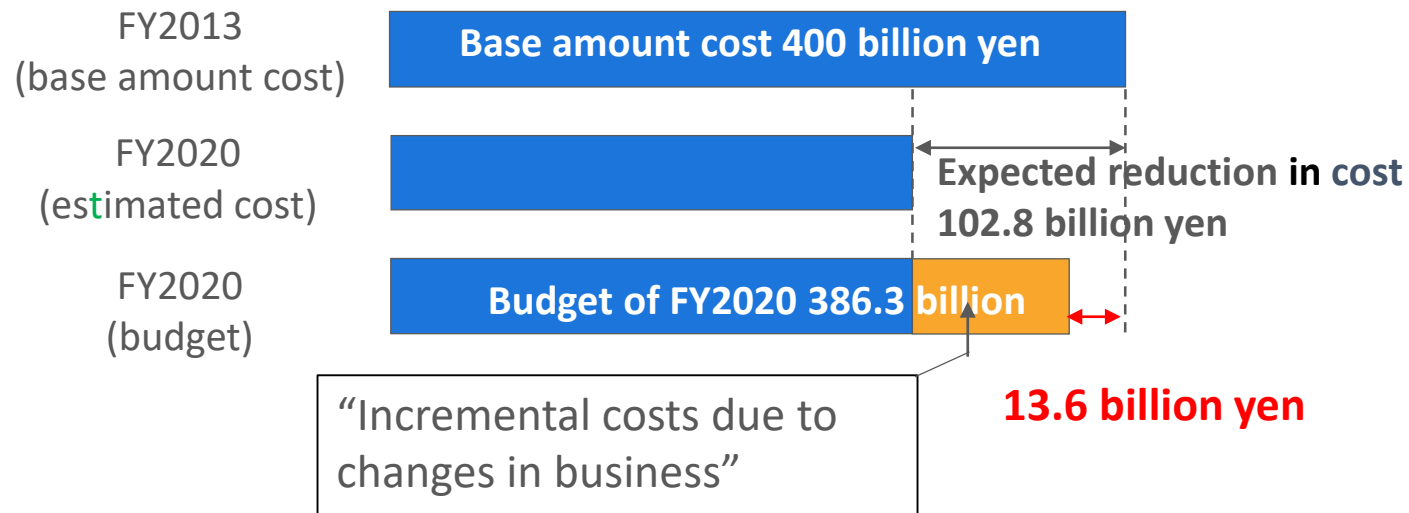
- **The total cost of 14.6 billion yen in maintenance and operation expenses in FY2018 included expenses for functions that did not have the intended effect of the project.**
 - such as 500 million yen in operation expenses for the Secure Zone.
- **The reduction rate of the operational cost borne by each ministry and agency was only 2.3% through the migration into the Government Shared Platform System (first phase). (77 systems audited)**
- **Some IT resources were not fully utilized**
 - 6,351 cores which take up approximately half of the total 12,950 cores were not used
 - There were 79 systems (91.8% of 86 systems audited) for which the monthly average CPU utilization rate was lower than 30%.

4 Efforts to improve the efficiency of the overall government information systems and to reduce costs (Cont.)

Status of reduction of expenses for operation of government information systems

Targets : operational cost except for that of Government Shared Platform System etc.

Goal : Reduce 30% of the operational cost by FY2021 (120 billion yen)



4 Efforts to improve the efficiency of the overall government information systems and to reduce costs (Cont.)

- **For the amount of reduction, the rule is to calculate the amount of reduction in operational expenses after excluding, as much as possible, "incremental costs due to changes in business" (increased operational cost in accordance with changes in operational requirements from the estimated cost).**
- **The Government did not check the adequacy of the calculation of the actual reduction amount which was done at ministry's own discretion.**
- **There was a considerable gap between 13.6 billion yen and 102.8 billion yen.**
 - **The former (13.6 billion yen) is the actual difference between FY2020 budget (386.3 billion yen) and FY2013 budget (400 billion yen).**
 - **The latter (102.8 billion yen) is the expected reduction without considering "incremental costs due to changes in business."**

4 Efforts to improve the efficiency of the overall government information systems and to reduce costs (Cont.)

SAI's
opinion

- ✓ Continuous efforts are necessary to **improve the efficiency** of government information systems and **promote cost reductions** by, for example, developing and operating the second phase of the Government Shared Platform System based on the results of the **analysis and review of the operation of the first phase**.
- ✓ Efforts should be made to calculate the actual amount of reduction in an appropriate manner by **verifying the calculation of the actual amount of reduction in the operational costs**.