SaskEnergy Incorporated

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Main points

SaskEnergy expects to invest $7.1 million in a new enterprise-wide information system (System). In this chapter, we report on whether SaskEnergy had adequate processes to implement this System.

To implement its new System, SaskEnergy used many best practices for managing large IT projects. We make one recommendation. SaskEnergy should improve its processes on realizing the benefits from the System. Achieving the benefits from the System helps SaskEnergy to operate effectively and to realize a return from its investment.

In addition, the 2003 financial statements of SaskEnergy and its companies are reliable. They had adequate rules and procedures to safeguard public resources and they complied with authorities governing their activities.

Introduction

The primary business of SaskEnergy Incorporated (SaskEnergy) is the transportation, distribution, and storage of natural gas in Saskatchewan. SaskEnergy prepares consolidated financial statements to report on its activities. The consolidated financial statements include the financial activities of SaskEnergy and the companies that it owns and controls.

In 2003, SaskEnergy had revenue of $693 million and net income of $41 million. As of December 31, 2003, SaskEnergy held assets of $1.2 billion.

In this chapter, we report on the results of our audit for the year ended December 31, 2003. We also report on the results of our audit of SaskEnergy's processes to implement its new computer system (System).

SaskEnergy's Board approved the costs to implement the System. Originally, SaskEnergy projected the cost to be $5.3 million. It now projects the costs to be $7.1 million. SaskEnergy expects to recover these costs in approximately six years by realizing benefits from the System.

Audit conclusions and findings

Our Office worked with Deloitte & Touche LLP, SaskEnergy's appointed auditor, to carry out the audits of SaskEnergy and its companies.

- TransGas Limited,
- Many Islands Pipe Lines (Canada) Limited,
- Bayhurst Gas Limited.,
- Swan Valley Gas Corporation,
- Saskatchewan First Call Corporation,
- SaskEnergy International Incorporated,
- SaskEnergy Chilean Holdings I Ltd.,
- SaskEnergy Chilean Holdings II Ltd.,
- SaskEnergy Chilean Holdings Limitada,
- SaskEnergy Mexican Holdings Ltd.,
- SaskEnergy Nova Scotia Holding Ltd., and
- Heritage Gas Limited.

SaskEnergy prepares separate audited financial statements for each of these companies. It gives these financial statements to the Legislative Assembly. In addition, it provides information about these companies on its web site at http://www.saskenergy.com and in its 2003 Annual Report.

We followed the framework in the *Report of the Task Force on Roles, Responsibilities and Duties of Auditors.* (To view a copy of this report, see our web site at http://www.auditor.sk.ca/.) Deloitte & Touche LLP and our office formed the following opinions.

In our opinion, for the year ended December 31, 2003:

- **The financial statements of SaskEnergy and its companies are reliable.**
- **SaskEnergy and its companies had adequate rules and procedures to safeguard public resources.**
- **SaskEnergy and its companies complied with authorities governing their activities relating to financial reporting, safeguarding public resources, revenue raising, spending, borrowing, and investing.**

In the next section, we present the results of our audit of SaskEnergy's processes to implement its new System.

Assessment of System implementation

Audit objective

We assessed whether SaskEnergy had adequate processes to implement its new computer system (System). We focused on SaskEnergy's processes on October 1, 2003.

Audit criteria and approach

We followed *The Standards for Assurance Engagements* established by The Canadian Institute of Chartered Accountants.

To assess the adequacy of SaskEnergy's processes to implement its new System, we used the criteria set out in Exhibit 1. We developed the criteria from our review of the selected references at the end of this chapter. SaskEnergy agreed with the criteria.

Exhibit 1—Audit criteria

To adequately manage the implementation of the System, SaskEnergy must have adequate processes to:

1. obtain and maintain senior management commitment to the project;
2. manage change;
3. plan for the measurement and reporting of benefits;
4. secure the new computer system; and
5. manage project scope, risk, costs, and schedule.

We list the detailed criteria in Exhibit 2 at the end of the chapter.

Risks and challenges

The System represents a significant investment intended to improve SaskEnergy's business management practices. The investment consists of new technology, new business processes, and new skills for SaskEnergy's employees.

The System is a complex, enterprise-wide information system. It includes financial, purchasing and inventory, human resource, payroll, and work management modules. Putting in these systems involves risk. Agencies can run into difficulties with these projects if they:

- do not invest enough money, time, and expertise to overcome the technical complexities;
- fail to change the way they work to take advantage of the system's strengths; or
- do not set up processes to ensure they identify and achieve the planned benefits.

To overcome these difficulties and achieve the planned benefits, strong project management processes and adequate system security are essential.

Conclusion and recommendation

On October 1, 2003, SaskEnergy had adequate processes to implement its new System, except for the matters reflected in the following recommendation.

1. To improve its processes for realizing the benefits from the System, we recommend that SaskEnergy:

- **clearly establish the baseline data needed to measure the benefits;**
- **clearly define its benefits realization reporting strategy including its processes to verify the benefits achieved; and**
- **report to its Board on the benefits realized including written explanations of the differences between the planned and actual results.**

Overall, SaskEnergy has done a good job implementing the System. In the next section, we highlight the key reasons for this assessment. We also describe why its benefit realization program needs strengthening, and we describe several processes that SaskEnergy could strengthen for future projects.

Detailed findings

Implementing a large complex computer system is a challenging task. It requires the planning, coordinating, and execution of many activities by people possessing the right set of skills and working together. It also requires appropriate checks and balances at key stages to ensure the project proceeds as planned and unexpected risks are properly managed.

Project strengths

We highlight five of SaskEnergy's key strengths in managing this project. These strengths are best practices and were critical in the successful implementation of the System.

- The Board approved the project and received updates on its progress. SaskEnergy's senior management was directly involved in overseeing this project. For example, there was a steering committee composed mainly of SaskEnergy's vice-presidents that met regularly, approved key decisions, and closely monitored the project's progress. This involvement greatly improved the chances of the System meeting SaskEnergy's objectives and hence its success.

- SaskEnergy ensured it had the necessary skills and knowledge to implement the System by contracting with a firm that specialized in implementing this kind of system. Using the expert assistance provided by an implementation partner greatly enhanced SaskEnergy's chances of being successful.

- SaskEnergy set up a project management office that had the required skills to supervise the project including the services of its implementation partner. Project management includes the careful management of contractual services that are critical to the success of a project.

- SaskEnergy charged its internal auditors with providing the Board with independent assessments on the project's management practices and on the development of the System's security. Internal audit also contracted the services of an expert to help it make these assessments. This expertise helped make its assessments and recommendations effective. SaskEnergy took prompt corrective action on internal audit recommendations. Obtaining and acting on this independent advice was critical to the success of this project.

- SaskEnergy ensured it had properly completed the necessary work before it implemented the System. For example, the original plan was to implement part of the System on October 1, 2003 with

the remainder on January 5, 2004. When it became apparent in the summer of 2003 that it was unlikely that everything would be ready for the first part of the implementation, SaskEnergy delayed it until January 5, 2004.

It is notable that when SaskEnergy did implement the System on January 5, 2004, it had well-defined security processes in place, it was successful in paying its employees, and it could reconcile its bank accounts.

Unfortunately, this is often not the case with many system implementations. When implementations are poorly done, agencies are often at risk due to inadequate controls. Also, they incur considerable expense and time to correct the problems.

Benefit realization needs improvement

SaskEnergy's processes for realizing the benefits of the System need improvement.

A project's success is ultimately determined by the benefits the agency achieves from it. This is because the benefits represent the return on the investment.

SaskEnergy set up a benefits realization program for the System. It identified the expected benefits, their magnitude, and the strategies for achieving them. Also, the respective vice-presidents of operations and their managers formally agreed that the expected benefits were attainable and that they were committed to achieving them.

However, SaskEnergy's benefit realization program did not include baseline data needed for measuring the benefits. It also did not set out the reporting strategy or the processes to verify the benefits achieved. Without clearly-defined starting points and a reporting strategy that includes formal reporting of verified benefits to the Board, SaskEnergy may not achieve the expected benefits from the System.

Strengthening project management

During our work, we identified several processes that SaskEnergy could strengthen for future projects. These processes deal with time and cost management, and with human resource management.

During the initial part of the project, SaskEnergy's processes for managing the project's time and progress could have been stronger. The project team had not clearly defined the sequence of activities that determined the project's duration (i.e. its critical path). Also, the processes for determining the project's percentage of completion did not produce sufficiently reliable results. As a result, the effectiveness of managing the project's time and cost was lessened during this period. The project team recognized these deficiencies and it strengthened the processes for the latter part of the project.

When SaskEnergy set the budget for this project, it did not include a contingency amount for unforeseen work. For large complex projects, it is unlikely that a project team can identify all required work at the start of the project. It is best practice to include a contingency amount in a project's budget and carefully monitor its use. When a contingency amount is not included in a project's budget, it is likely that the budgeted costs will be exceeded. Also, it increases the risk that the quality of the work will suffer due to budget pressures. SaskEnergy was committed to doing sufficient work to implement the System properly. For example, it expected to incur $0.3 million in additional costs when it moved back the implementation date described earlier.

SaskEnergy experienced a relatively high turnover of project team members. Also, some of this turnover occurred late in the project and without much notice provided to the project manager. Turnover of project staff is expected on a long project, but it needs to be reduced where possible. Turnover causes inefficiencies and increases the risk of time and cost overruns. We therefore encourage SaskEnergy to develop policies to make it attractive for staff to remain working on large IT projects.

Exhibit 2 – Detailed criteria

1. Adequate organizational processes to obtain and maintain commitment to implementing the new System.

- 1.1 Governance processes
  - 1.1.1 SaskEnergy's Board supports the implementation of the new System (Project).
  - 1.1.2 The Project Team has the authority to carry out the Project.
- 1.2 Accountability processes
  - 1.2.1 There are clear measurable performance targets for the Project's deliverables.
  - 1.2.2 Senior management takes responsibility for achieving the benefits of the new System.
  - 1.2.3 The benefits of the new System are incorporated into SaskEnergy's Business Strategic Plan and Business Plan.
- 1.3 Proactive leadership (See criterion 2.1 to 2.5 below.)

2. Adequate processes to manage change.

- 2.1 There is a sense of urgency for realizing the system benefits.
- 2.2 Senior management lead and believe in the benefits of the new System.
- 2.3 A change management team and plan is established to bring about the change.
- 2.4 There is a clear vision for the project.
- 2.5 The vision is effectively communicated.
- 2.6 There are processes to assess SaskEnergy's culture to support and sustain the change.

3. Adequate processes to measure and report on the Project's benefits.

- 3.1 The Project is supported by a Business Case.
- 3.2 The Business Case is consistent with SaskEnergy's Strategic Plan.
- 3.3 The Business Case sets out quantitative benefits.
- 3.4 The Project includes plans for realizing the benefits of the new System.

4. Adequate processes to secure the system.

- 4.1 A methodology is adopted and used to secure the System.
- 4.2 A strong team is established for securing the System.
- 4.3 Quality assurance reviews are performed on the processes for securing the System.

5. Adequate project management processes.

- 5.1 There are processes to manage and control the scope of the project (scope management).
- 5.2 There are processes to mange and control the time to complete the project (time management).
- 5.3 There are processes to manage and control the cost of the project (cost management).
- 5.4 There are processes to assess if the project is managed well and if the components of the System are being properly implemented (quality management).
- 5.5 There are processes to manage and control the selection, training, and use of staff (human resource management).
- 5.6 There are processes to manage and control the creation, communication, and storage of information (communication management).
- 5.7 There are processes to manage and control the project's risks (risk management).
- 5.8 There are processes manage and control the contracting of goods and services (procurement management)
- 5.9 There are processes to ensure that the various elements of the project are properly coordinated (integration management).

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