

**Technical Assistance to the Lithuanian National Control Commission for Energy
Prices and Energy Activities (NCC), Task No. 802**

**Alternatives for Improving Information Management at the NCC
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INTRODUCTION

As part of our assistance to the NCC under Bechtel's Work Plan Task 5, Information Technology, I submitted a draft of this report to the NCC and to USAID (John Morgan) in late April. The purpose of the report was to: 1) outline some options for our IT assistance, 2) stimulate discussion with the NCC on its IT needs and 3) reach a consensus on where we should focus our assistance. In early May we discussed the draft report with the NCC (Chairman Jankauskas and others), reaching a mutual understanding on where our help would be of most value. I have updated two sections of the report, SUMMARY and CONCLUSIONS, to reflect the results of these latest meetings. The remaining sections of the report are unchanged from the draft version.

SUMMARY

The Government of Lithuania established the NCC in 1997 to regulate energy prices in the electricity, natural gas and district heating sectors. Under a contract with the United States Agency for International Development Bechtel is providing technical assistance to the NCC in several areas, including Information Technology (IT).

The purpose of our IT assistance task is to help the NCC identify areas where its information management capabilities can be improved, then implement solutions – computer software, hardware and procedures – that help the Commission staff do their jobs better. This project builds upon similar assistance that we have provided to energy regulatory agencies in Hungary and Poland. Our project is intended to improve capabilities in price regulation; however, it can have broader usefulness to the NCC.

This report suggests several specific tasks, or initiatives, that Bechtel can undertake to help the NCC implement better information management systems. The suggestions are based on a preliminary review of NCC IT capabilities and needs conducted in Vilnius during early April. During these discussions the NCC asked us to outline some options for IT assistance, based on their needs and interests. The NCC has a basic IT infrastructure of PCs, network and general-purpose software. Our assistance would involve enhancing this basic system in one or more of these areas:

Tariffs Approval System Database software to manage data required to approve tariff applications, including calculation of energy prices. It would replace the existing system of hand calculations and Excel spreadsheets used to evaluate prices.

Customer Service System Database software to track requests from consumers for NCC assistance, particularly complaints about regulated companies.

Document Management System An electronic register, or database, to help track official documents received or issued by the NCC. This system would replace the existing paper-format document register.

General IT System Upgrades A detailed review of current NCC workflow and IT systems usage in one or more key areas, followed by upgrades to general-purpose hardware and software, such as a new file server. The goal would be to help the NCC increase the overall use and efficiency of its information systems.

Information Sharing (Intranet / Internet) Improve the NCC's ability to share information, both with the public and within the Commission, by improving its Internet web site and creating an internal "intranet" web site, or similar software to help the staff collect and share information.

We want to help the NCC develop information systems that the staff will value and use. The NCC should feel free to add to this list if there are other areas where they need our help. We do not have the budget necessary to implement every option on the list. Depending on the NCC's priorities, and subject to USAID approval, we can probably do one or two. We do not intend to begin any work that we can't complete with the time and budget available to us. At the end of this project we intend to deliver a working information system that the NCC can use and expand in the future.

We will review these assistance options with the NCC in early May. We hope to reach agreement on a specific scope of work during these meetings. If customization of software is required, we plan to work with a local software developer to implement the system. Any software custom-developed for the NCC will use the Lithuanian language. Once we reach agreement with the NCC on its priorities, we can begin implementing a system during the summer and probably complete it before the end of the year. If necessary, the schedule can extend into the first half of next year.

Following the May meetings with the NCC: (See CONCLUSIONS section, below, for full discussion.) We reviewed the IT options in detail with Chairman Jankauskas and members of the staff. The first three options, Tariffs Approval, Customer Service and Document Management systems, were eliminated as being unnecessary at this time. There was strong interest in the last item, Information Sharing, and also in IT system upgrades. The NCC needs better tools and training for sharing data internally and with the public. Specifically, the NCC needs a better Internet web site, tools and training to make information Internet-available and help on organizing internally shared data to make it more accessible to staff members. Some related improvements to the IT infrastructure will be needed, such as a new file server and printer. In June I will present a more detailed plan for providing assistance in these areas. Subject to USAID approval, we will move ahead with implementation of this plan during the summer.

TASK SCOPE AND OBJECTIVES

To fulfill its regulatory mission, the NCC needs to collect, manage and analyze information from energy companies and other sources. Bechtel's role in the IT task of this project is to help the NCC implement procedures and software that will improve the Commission's ability to manage information, particularly to support price regulation.

Bechtel's IT assistance to the NCC will build upon similar USAID-sponsored assistance that we have provided to energy regulatory agencies in Hungary and Poland. To serve Lithuania's interests the NCC will have its own unique information needs and require unique solutions; however, many of the NCC's IT challenges are similar to ones that the Polish and Hungarian agencies faced. We will share the knowledge and experience gained in working with these other agencies to help the NCC better develop its own information systems.

In early April I met in Vilnius with NCC representatives and Bechtel colleagues who have been working with the Commission on regulatory issues. We introduced our IT task to the NCC and discussed specific ways that we can help the Commission improve its IT capabilities. In the course of these meetings it became apparent that there are a number of IT solutions that could be of value to the NCC. The NCC staff did not identify any specific IT problem needing an immediate solution. Instead, they asked that we evaluate their IT needs and capabilities and suggest some solutions. The purpose of this report is to broadly outline some specific areas where the NCC's IT capabilities can be improved. Following further discussions with the NCC, we will help implement solutions in one or more of these areas. The solutions could include a combination of computer hardware, software, procedures and technical advice to help the NCC manage and use information for its regulatory work.

CURRENT PROCEDURES AND CAPABILITIES

The NCC regulates over 300 energy companies with a staff of 55 persons divided between two office buildings in Vilnius. Most of the regulated enterprises – approximately 300 in number – are small district heating companies that until now have required little regulatory attention from the NCC. The NCC became responsible for regulating the small heating enterprises in 1998, so it's likely that in the future these enterprises will demand more attention from the Commission. Other regulated enterprises include about 20 large heating companies, one integrated gas company, plus Lietuvos Energia, the electricity generation, transmission and distribution company. The number of regulated enterprises may increase in the future as existing integrated companies are split into separate entities and new companies enter the market. I met with NCC staff members involved in price regulation for each of these energy sectors.

The NCC has established energy pricing methodologies and related information requirements. I received detailed descriptions of the methodologies for the heating and natural gas sectors. The electricity methods had not been approved yet. I will review the electricity methods in May, even if they are not in final form. Because the heating sector includes the largest number of enterprises I was particularly interested in learning about procedures for evaluating heat tariff applications.

The Heat Department collects pricing data from heating companies and evaluates the data using both hand calculation and Excel spreadsheets. Companies may request up to two price changes per-year. In practice, requests have been less frequent. Most of the 300 smaller companies have not submitted their heat tariffs for NCC approval. Many of the small companies appear unprepared to understand the pricing methodologies or supply the necessary data. There are over 100 elements in the

calculation of the price for centralized heat, taking into account the separate fixed and variable components for some costs. The NCC is allowed four months to evaluate a *tariff application and issue its decision*. Decisions for heat price applications are usually issued in less than one month.

Most data submitted from energy companies come in paper format. The NCC does not have a tariff application form per se. The NCC has published the methods for computing prices. Energy companies become familiar with the methods and submit the data required to justify their prices. Companies often do not submit data exactly as required, primarily because companies' accounting methods are often not compatible with the pricing methods. *In such cases, the NCC must use some judgement to develop the necessary data from whatever information a company can provide.*

Pricing data collected by the Heat Department are stored in a combination of paper and electronic formats. Electronic files, such as the Excel spreadsheets that the NCC uses to *evaluate pricing data*, are stored on diskettes or hard disks by the staff members who review each tariff application. There is no standardized system for storing such electronic data; each person manages his own files.

The NCC has a basic IT infrastructure to support its work, including a Windows NT server, local-area network, desktop PCs with Windows 95 or 98 and MS Office software, printers and a full-time Internet connection. The NCC has a web site (<http://www.regula.is.lt>) offering information to the public, including pricing methodologies and recent *Commission decisions*. The two Commission office buildings are several kilometers apart, so staff members in the "remote" building, which includes the Heat and Gas departments, do not have direct access to the central file server. Their only electronic access to the main office is via Internet email. The NCC hopes to consolidate all departments into the main office during 1999.

The NCC has a good basic IT infrastructure, particularly considering that the Commission's budget is limited and there is no IT department or full-time support staff. The current IT system was set up and is mostly supported by Mr. Rimvydas Sinkevicius, whose primary job is to lead the Electricity Department. The limitations of staff time and IT budget are important considerations in selecting any new information systems. The NCC must be able to support a new information system after Bechtel's project ends.

Within the NCC there appears to be little use of computer software beyond the typical basic word processing, spreadsheet and email applications. For example, the Heat Department has Microsoft Access database software but is not using it. The NCC maintains a document control register for official correspondence by hand using a "log book", i.e., in paper format only. I did not discover any use of database software in the NCC. The staff appeared open to new ideas on managing information, including the use of additional software. Most people seemed comfortable using the tools they have now for their day-to-day work.

The workload and information management needs of the NCC are likely to increase in the future. As newly-formed energy companies become familiar with the regulatory procedures they will interact more with the NCC. Most heating companies have not submitted their tariffs for NCC approval. Eventually all of them will have to submit

tariff applications. In time, the amount of information that the NCC must manage, including both new and historical data, will increase. Information needs will increase even more if the NCC's regulatory scope expands into other areas, such as licensing energy enterprises.

Now is a good time for the NCC to build an information management system that will serve its future needs. The NCC's current workload is manageable and the amount of information collected to date is not overwhelming.

THE NEXT STEP: EVALUATING SOLUTIONS

Several options for improving the NCC's IT capabilities are described in the following sections of this report. We want to work with the NCC to implement solutions that will be of most value to the Commission. Since our meetings in early April the Commission staff may have developed some new ideas not included among the following solutions. The NCC staff should feel free to offer any additional ideas they have.

We will meet with the NCC again in early May to review these options, plus any additional ideas the NCC may have. When we conclude this series of meetings we hope to have agreement with the NCC on a detailed scope for Bechtel's IT assistance. The scope could include implementing one or more of the proposed solutions, including any additional tasks that the NCC may suggest after reviewing this report. We do not have the resources to implement all of the potential solutions listed; however, we will help implement one or more systems as the schedule and budget of our project permit. We expect to complete this work during 1999. If necessary the schedule can extend into next year as long as the work can be completed with the funds that we have available.

We do not intend to begin any work that we can't finish within the schedule and budget available for this project. Therefore, we may take a "modular approach" to implementing new software. The information system will be built in stages, or modules, each of which provides a complete set of functions for some regulatory task. We will implement as many modules as we can with our budget. For example, if we agree to implement database software to collect and analyze pricing data, we may divide the system into modules according to energy sector: centralized heat supply, heat distribution, electric generation, etc. We would then implement the most important modules first, according to priorities agreed upon with the NCC. If we don't have time or budget to implement all of the modules we will at least have completed the most important ones.

The NCC will have the option to further expand any system we provide after our project is complete. We intend to provide the "source code" for any software developed or customized for NCC applications. With this source code the NCC (or a contractor it hires in the future) will be able to modify or expand the software. In some cases providing source code may be restricted by a software license; however, we intend to require any developer providing software customized for the NCC to turn over any source code that the developer creates or has the right to distribute.

Specific ways to improve the NCC's IT capabilities are summarized in the following sections. The items are not necessarily listed in order of importance. I put the Tariffs Approval system first because it appears most directly relevant to the intent of Bechtel's IT task – to help the NCC on pricing issues. Also, the approach for implementing the Tariffs Approval system is described in more detail than the other proposed solutions. The general approach described to implement the Tariffs Approval system would apply to the other proposed systems.

Certainly this is not a complete list of every potential area for improving information management systems at the NCC. I have tried to suggest things that could be of value and interest to the NCC, based on our discussions. The NCC should feel free to suggest other alternatives.

TARIFFS APPROVAL

A Tariffs Approval system would help the NCC evaluate tariff applications from energy companies. The NCC would use this system to collect, store and analyze data from energy companies, or other sources, required to approve energy prices. Currently the NCC evaluates tariff applications using a combination of Excel spreadsheets and hand calculations. Data used for tariff analysis are scattered in different files and different locations, e.g., various PC hard disks, diskettes, filing cabinets. The Tariffs Approval system would organize these data into a database and standardize the procedure for computing energy prices.

The Tariffs system would include:

1. A database for data used in price calculations, plus other general information about regulated energy companies;
2. Electronic forms for entering data ("data entry screens") and, optionally, capability for automatic loading of data received in electronic format;
3. Computation of energy prices according to methods established by the NCC;
4. Status information and reports on tariff applications;
5. Other reports or analysis of pricing data, as required;
6. A record of NCC tariff decisions.

This system would be customized to use established NCC pricing methods and other procedures for reviewing tariff applications. The staff would evaluate tariff applications using this Tariffs Approval system instead of the current system of spreadsheets and hand calculations.

The Tariffs Approval system will provide several benefits to the NCC. It will better standardize the procedure for reviewing tariffs applications. Instead using hand calculations and different spreadsheets (or different copies of a spreadsheet template), everyone will use the same software to analyze pricing data. Users will not be able to accidentally modify price computation formulas. The software will be tested and the accuracy of its computations verified. For analyzing a given set of data, errors will be less likely to occur. In addition to data analysis tools, the software will provide status information on current and past tariff applications, plus a record of tariff decisions.

Another important benefit of the system will be its ability to compile a comprehensive *historical record of pricing data*. With the current procedures, historical data are scattered in different locations. These data could easily be lost. Also, data scattered in different places are not readily available for future use. The Tariffs Approval system will keep pricing data together in a central database. The NCC will be able to easily retrieve the data used to make a pricing calculation at any time. When an enterprise submits a new tariff application the old data will not be deleted. Instead, they will be archived in the database, available for future use. Future uses of these data could include analyzing trends as different cost components of the pricing models change over time. The system will help the NCC maximize the value of the information that it is already collecting.

We would implement the Tariffs Approval system using standard database software, such as Microsoft Access or Foxpro. The database would reside on a server; users would access it from their PCs. The software would have security features, including user names and passwords, that would control who could view or edit information in the database. Data entry screens, reports and other custom-built features would use the Lithuanian language. The system would run on the NCC's current Windows-based PCs and network. We would acquire any additional software or hardware (e.g., a server) necessary for the software to function. We would hire a local consultant (to be determined) to work directly with the NCC to implement the software. The consultant would function as part of the Bechtel team, speak Lithuanian and have the experience necessary to adapt the database software to NCC requirements. We would work with the NCC to agree on the specific functions needed in the software before moving on to implement it. Because the system will be built using a standard database program, such as Microsoft Access, NCC staff members familiar with using databases will be able to build custom reports or make other uses of the data beyond the basic features that we implement.

In principle the software should include data and pricing methods for all energy sectors: heat, gas and electricity. The system could be designed so that data for different energy sectors are stored in different databases, on different servers. This feature could be important if NCC departments continue to be located in separate buildings that are not linked by a local-area data network. We would probably implement the system in modules for one sector at a time. The NCC will decide which ones to do first. If we don't have the budget necessary to implement modules for every sector we will do as many as we can. We will complete a basic design of the system before acquiring or developing any software, so we should have a good idea of how much we can accomplish before work begins.

While Bechtel would be mainly responsible for developing this system, the NCC will also have important roles to play in its development. First, the NCC must see a value in having a Tariffs database and express a commitment to use the software once it is complete. We don't want to develop something that the NCC considers unnecessary or that the staff won't use. Second, the NCC will provide valuable input on design of the database, including what information should be stored and what analytical functions the software should provide. Data requirements and analytical functions appear to be fairly well defined by the approved methods for calculating energy prices. If there are additional needs for storing or analyzing pricing data the NCC will have to help define them. Once the software is in place, the NCC should participate in

testing it, using actual pricing data. The users will be trained during this testing phase. Training will consist mostly of "hands-on" instruction at the NCC offices. Finally, once the system is fully operational and Bechtel's role is complete, the NCC must be prepared to take over future maintenance of the software.

As long as there are no major changes to the pricing methodologies, the software should require little maintenance. It also should not require much support effort from the NCC's IT staff; however, we will need to explore this issue in further detail. Problems with the software that require a programmer's attention may arise from time to time. If the NCC upgrades its network or PC operating systems in the future – to new versions of Windows, for example – some modifications to the database software may be required. If in the future the NCC needs new features in the software, or there are significant changes to the pricing methods, then major changes to the software could be needed.

The Tariffs Analysis system would have a direct and lasting impact on how the NCC makes pricing decisions. It also could serve as a starting point for a broader, integrated energy database that the NCC develops in the future. Because the primary focus of Bechtel's assistance on the IT task is intended to be in the area of pricing, development of this system deserves serious consideration. If the NCC is interested and agrees to move ahead with the Tariffs system we will prepare a plan and schedule for its implementation. Work could begin during the summer and probably be complete by the end of 1999.

CUSTOMER SERVICE

The NCC must be able to respond to formal requests for information and assistance from energy customers. In particular, the Commission should be able to efficiently handle complaints from energy customers about pricing or quality of service issues. When customers are unable to resolve disputes with energy suppliers many will turn to the NCC – as they do now – for help. As awareness of consumer rights increases in the future the number of complaints or other requests for NCC assistance may also increase. The NCC should have a procedure to efficiently handle complaints or other formal requests for assistance from customers. The Commission may also need better means to collect information about the quality of service provided by energy companies.

A computer system to record and help process customer assistance requests could be one solution. The NCC could use this Customer Service system to record and track requests for assistance from consumers, including the resolution of complaints. This system would both help the NCC manage its customer service workflow and help it compile a database to help evaluate the quality of service provided by energy enterprises.

NCC staff members would use the Customer Service system to record complaints or other requests from consumers that require NCC action. We would work with the NCC to define what the scope of the system should be. It could be limited to handling complaints, or it could extend to handling an array of customer requests, from complaints to simple requests for information.

The system would include electronic forms that staff members would use to record information about a customer request. Requests could be routed to the appropriate department or staff member for action. Requests would be classified by type and the status of each request would be tracked, from initial contact with the customer to final resolution of the problem. The software would provide reports on "open" requests whose resolution is pending, requests "closed" during the previous week or month, summaries by complaint type, energy sector, energy supplier, etc. After a complaint or other request for action is resolved it would be marked "closed", but would remain in the system. Over time, the NCC would compile a database of information that would be potentially valuable in evaluating service problems within energy sectors, geographic regions and companies.

We would implement this software following the same approach previously described for the Tariffs Approval system. We would work with the NCC and a local consultant to design the system, then acquire and customize the necessary hardware and software to implement it. Unlike the Tariffs system, whose data and functional requirements are already well defined by the approved pricing methods, the Customer Service system would require a significant preliminary design effort to define what data it will store and how it will work. The NCC would need to play a major role in the design of the system.

DOCUMENT MANAGEMENT

Like most organizations, the NCC must be able to efficiently manage the flow of documents coming to and going from its offices. A Document Management system would help the NCC manage the flow of official correspondence and other important documents. The administrative staff would use this computer-based system in place of the existing manual procedure for tracking documents.

Currently, the NCC maintains a record of official correspondence in a paper-format document register. When an official document is received it is sent to a designated person who records information about the document in a log book. She then sends the document to the appropriate staff member. If the document must be passed on to someone else for action, it is routed back through the same designated "document control" person who records the new recipient in her log before passing it along. When the document is ready to be filed it goes back to the document control person, who updates the log again. While the NCC appears to be comfortable with this procedure now, there could be some benefits to updating it to an electronic system.

A simple electronic document control system would work in a way similar to the current manual system. Information about official documents would be stored in a computer database instead of on paper. Users would access this database with software on their PCs. There are several potential benefits to the computer-based approach. Built-in searching tools would make it much easier to retrieve information from the electronic document register. The register could reside on a server, allowing any authorized staff member to view it. Security features in the system could control who is authorized to edit or view information in the database. Several administrators could be given the authority to add or modify the document register, eliminating the need to have all documents routed through a single individual. Periodic backups of the server database would protect the register against loss due to theft, fire or other

disasters. The system could be designed to automatically remind users when the due date approaches for action on a document. The software could produce status summaries of information about official documents. For documents created by the NCC, the database could include "hyperlinks" to the original electronic files (e.g., in Microsoft Word), making it easy for staff member to retrieve the text of official documents that the NCC created. In principle, the system could include imaging capability, allowing the NCC to also store incoming documents in digital format. Imaging incoming documents may not be necessary or cost effective; we would have to explore further the need for this feature.

We would implement this system following the same approach previously described for the Tariffs system. We would work with the NCC to establish the features needed in the Document Management system before acquiring any software.

IT SYSTEMS REVIEW AND UPGRADES

Although the NCC has a basic IT infrastructure of PCs, server and network in place, there are some weak links in this system. The NCC has indicated that the existing Pentium server is under-powered. General-purpose software programs, such as Windows and Microsoft Office, have been acquired at different times and not everyone is using the same versions. Budget limitations have made it difficult for the NCC to upgrade its server or the software on older PCs. More importantly, the NCC may not be using its IT resources to their full potential.

One option for Bechtel assistance is to help the NCC review in detail its existing IT infrastructure and workflow, then implement some additional hardware, software and procedures to make the work more efficient. For example, we might purchase a new server, provide some additional general-purpose PC software and help the NCC implement procedures to use its IT resources better in everyday work.

Because the purpose of Bechtel's project is to help improve the NCC's regulatory capabilities, any hardware or software that we purchase must provide a direct and measurable benefit to the NCC's central regulatory mission. Before purchasing any new hardware or software, we would work closely with the NCC to establish the need for the equipment and the benefits it would provide. We can't simply make a "wish list" and start buying equipment. We would work with the NCC to develop an IT plan closely linked to the Commissions regulatory workflow.

This IT plan would identify the interaction between IT tools – computer hardware, software, network, Internet, etc. – and the NCC regulatory activities. The aim of this plan would be to identify the IT tools needed to best support specific regulatory tasks. The plan would also identify ways that the NCC should modify its procedures to be more efficient. Developing this plan would require close cooperation between Bechtel and NCC departments, with active participation of Mr. Sinkevicius.

Once developed, we would help implement the plan by purchasing additional hardware and software. We would also help implement new workflow procedures, where necessary. In principle, all of the other IT assistance options described in this report could be included in the IT plan. We do not have the budget necessary to

undertake an in-depth IT workflow analysis of each NCC department and then to implement every potential solution.

Preparing an IT plan and making some upgrades to NCC hardware and software could provide more widespread benefits to departments than the more task-specific initiatives, such as developing a Tariffs Analysis system. On the other hand, general-purpose IT improvements could be of less value to the NCC than focusing our assistance on one important area, such as Tariffs.

If we focus our assistance in one or two important areas we could still make some improvements to the IT infrastructure that would provide broader benefits to the NCC. For example, if we build a Tariffs or Customer Service database we would probably acquire a new server as part of that effort.

SHARING INFORMATION (INTERNET / INTRANET)

Another option for assistance is to help improve the NCC's ability to share information, both within the Commission and between the Commission and the public. The NCC has a full-time Internet connection to its server, which hosts a web site offering Lithuanian regulatory information to the public. The Internet server also functions as a traditional file server, enabling the NCC staff to share documents internally. The NCC web site could be expanded to offer more information and features to public users. In addition, we could help the NCC develop better ways to share information among Commission staff, perhaps also using Internet technology to build an "intranet".

Intranet web sites function the same way as traditional Internet web sites. The difference is that an intranet site stores information specifically for internal use by an organization and access to it is normally restricted to staff members. With an intranet, NCC staff members could retrieve information using familiar Internet navigation software, such as Netscape Navigator or Microsoft Explorer. A properly designed intranet would be easier to use than searching a file server for data. (It would not replace the existing file server, though.) Security features, such as user names and passwords, would prevent access to the intranet by unauthorized persons. If the Commission continues to occupy separate office buildings, both could have access to the internal web site through an Internet connection.

The intranet site could store official correspondence, procedures, energy information databases, meeting schedules and any other documents used internally by the Commission staff. It could also include interactive database applications, such as the Document Management register. Instead of searching through folders on a file server, staff members would navigate through the intranet web site to find information. They would continue to have access to the file server for documents not included as part of the web site.

The NCC would decide what information should be available on the intranet site. Bechtel would build the web pages necessary to make this information available on the NCC intranet. Once the system is built, the NCC would take over responsibility for maintaining it in the future. Maintenance tasks would include adding, updating or

removing information from the intranet web pages, updating links to other web sites and upgrading the intranet server software as necessary.

There are other technical solutions for sharing information besides an intranet. We could consider implementing a collaborative, or "groupware" system, such as Lotus Notes. Collaborative software is designed to help people who work together share information electronically. Collaborative software typically includes standard built-in features, such as email, an appointment calendar, an automated meeting scheduler, address book and Internet browser. In addition, there are tools to build databases with any information that users need to share. Any of the database applications previously discussed, such as the Tariffs Approval or Document Management systems could be implemented with collaborative software such as Lotus Notes. Maintenance tasks for a groupware system would be similar to those listed above for an intranet.

Developing an intranet or groupware system would require a significant preliminary design effort with major NCC participation. We would work with the NCC to decide what information and other features the system should provide. We might not have the necessary budget to set up an intranet including sophisticated interactive database applications. For example, although it would be technically possible to implement the Tariffs Approval system as an "intranet database", we might not have the funds to build a complete intranet site including the Tariffs Approval software.

An intranet or groupware system would provide NCC staff members with access to more information using familiar Internet web browser software. People who are generally reluctant to use computers would be more likely to use an intranet. The intranet would provide all users a faster, easier way to retrieve information. A groupware system could offer the additional benefit of built-in email, calendar and other features in one software package.

The main disadvantage of the intranet/groupware option for the NCC is the maintenance that the system would require. Maintaining the system would not be a full-time job for someone; however, the system would require some attention on a regular basis to keep the information current. Adding features to the system, such as energy-related databases, could require significant effort in the future. After being trained, routine maintenance could be handled by one or more NCC staff members. Adding major new features to the intranet or groupware systems, after Bechtel's involvement ends, would probably require the NCC to contract with an outside programmer.

CONCLUSION

Based on a preliminary review of NCC information management needs and capabilities, this report presents several potential areas where Bechtel could help the Commission improve its ability to manage regulatory information:

1. Tariffs Approval System
2. Customer Service Software
3. Document Management Software
4. General-purpose IT System Upgrades
5. Sharing Information: Intranet / Internet Development

After reviewing these options the NCC staff may have other ideas to suggest. If so, they should feel free to do so.

After reviewing these options, Bechtel and the NCC will agree on a specific plan for developing new NCC information systems. We want to implement solutions that the NCC will value and use in its day-to-day work. Due to budget and time limitations, we don't expect to provide all of the software, hardware and technical services discussed in this report. We will help the NCC implement one or more of these systems, according to the Commission's own needs and priorities.

Following the May meetings with the NCC: Following the NCC's review of the draft options plan, Charlie Zimmermann and I met with Mr. Jankauskas and Ms. Loreta Kimutyte on 6 May to discuss it item-by-item, with the following conclusions:

1. Tariffs Approval System Mr. Jankauskas saw the potential value of such a system, but he did not believe that developing it is warranted at this time. The Commission is satisfied with its present system and there simply isn't strong interest in replacing it. They would be more interested if there was a prospect of getting data from the enterprises in electronic format; however, they do not believe this could occur on a widespread basis in the foreseeable future.
2. Customer Service Software There was interest in this concept; however the Commission does not believe this software would be used enough to justify our effort in developing it. The number of consumer complaints has been only 10-15 per month. They may consider developing something simple in-house, but would rather have our efforts focused where they can offer greater benefits.
3. Document Management Software By law, the NCC must continue to use its present manual system for tracking documents. They do not want to maintain two systems, so this option was eliminated without further discussion.
4. General-purpose IT System Upgrades There is interest in this option, primarily as it relates to the 5th option. There are also some small system upgrades needed now, such as a laser printer for the main office on Algirdo St. which currently has no laser printer. There also may be a need for some additional network software licenses, as well as other items to be determined.
5. Sharing Information: Intranet / Internet Development There is strong NCC interest in this option. The Commission would like to improve its ability to share information with the public, as well as internally. They have set up a public web site with some basic information, but would like to develop it further. They are also interested in tools to help exchange documents and other data internally.

Mr. Jankauskas named Loreta Kimutyte and Rimvydas Sinkecivicus as the principal NCC contacts for developing an implementation plan. They are ready to move ahead now. We agree that over the next several weeks we will work together to prepare a more detailed plan focusing on items 4 and 5. Subject to approval from USAID, we could begin implementing the plan in June or July.

On 7 May I sent John Morgan a summary of our discussions and conclusions via email. I also began preparing a more specific outline of assistance that we might provide under items 4 and 5.

Because the laser printer is a relatively low-cost item and it is needed more urgently, we began steps to procure it immediately. We plan to purchase an HP 5000N workgroup laser printer for installation in the Algirdo office by early June.

Ms. Kimutyte, Mr. Sinkevicius and I will stay in contact via email to share ideas and gather additional information. I will return to Vilnius on 9 – 11 June to review a detailed plan of our proposed assistance.