Economic Policy Reform and Competitiveness Project

Energy Regulatory Authority Assessment Update 2008

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ABBREVIATIONS AND ACRONYMS

CAIDI	Customer Average Interruption Duration Index
CAREC	Central Asia Regional Economic Cooperation
CES	Central Electricity System
CHP	Central Heating Plant
CPI	Corruption Perception Index
ERA	Energy Regulatory Authority
ERRA	Eastern Regional Regulatory Association
EPRC	Economic Policy Reform and Competitiveness Project
MMRE	Ministry of Mineral Resources and Energy
NDC	National Dispatch Center
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
USAID	United States Agency for International Development

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EXECUTIVE SUMMARY

The Economic Policy Reform and Competitiveness (EPRC) Project, USAID Contract No. 438-C-00-03-00021-00, is supporting the work of the Energy Regulatory Authority of Mongolia (ERA). In 2006 EPRC prepared an Assessment of the Performance of ERA during 2001-2006 – the first five years of ERA operation. This report was designed to review the progress of the ERA in establishing and operating an effective regulatory body for Mongolia's energy sector. The report examines the accomplishments of ERA and measures these against the goals for the Mongolian energy sector. The goals are based on the Energy Law, USAID objectives and international best practices.

The conclusions drawn from the Assessment Report 2006 include that ERA achieved significant results in a short time, less than five years, and this report concludes that further significant results have been achieved between 2006 and 2008.

The purpose of this Assessment Update 2008 is to examine ERA's progress against the recommendations included in the Assessment Report 2006, measure the progress toward full conformity with international best practices since 2006 and make a set of recommendations for to be accomplished over the next one to two year for ERA to follow to continue to improve performance and effectiveness. EPRC is supporting ERA in performance measurement, market design, training and capacity building. This assessment process continues to be a crucial tool for ERA in the energy sector reform process since 2001.

Results of Assessment	Score
1. Clarity of Goals	4.25
2. Autonomy	3.90
3. Public Participation	4.30
4. Accountability	4.10
5. Transparency	3.70
6. Predictability	4.20
TOTAL SCORE FOR 2008	4.08

ERA made significant forward progress in the past two years. Results of this Assessment Update 2008 show an overall composite score of 4.08. The overall composite score was 3.56 in 2006, indicating that that ERA compounded the success of the first five years by adding to their accomplishments.

One recommendation is for ERA to continue the assessment process internally on an annual basis. 2011 will mark ERA's tenth year of operation and during the ten years of the ERA's existence, profound changes will have occurred in the energy sector. It is recommended that ERA complete an internal annual assessment and EPRC repeat the formal Assessment in 2011, marking the 10th anniversary of ERA's founding.

SECTION I: INTRODUCTION

The Energy Regulatory Authority (ERA) was established on April 16, 2001, by Government Resolution #83 in compliance with clause 5.12 of the Energy Law of 2001[1]. ERA regulates the energy sector in the Central Electricity System (CES). Article 8.1 of the Energy Law states that the "Duties of the Regulatory Authority shall be to regulate generation, transmission, distribution, dispatching and supply of energy". ERA has been charged with statutory responsibility for licensing, tariffs and dispute resolution. ERA is currently introducing a power market reform program that will include bilateral contracts for purchase and sale of electricity, competition among suppliers and an economic dispatch regime.

The photos below are taken from the ERA Annual Report 2007. Pictured from left to right are: Mr. Ganjuur Radii, Chairman of the Regulatory Board and Messrs. Damdinsuren Gungaarentsen and Myagmar Ravdan, Regulators of the Regulatory Board.

With support from USAID, EPRC has been working with ERA since 2003. At the request of ERA, EPRC conducted an Assessment of ERA Performance in 2006, the fifth anniversary of the ERA's founding. ERA hosted a Seminar on November 14, 2006 where EPRC presented the findings of the Assessment Report 2006. The report included a series of recommendations for improved performance in the regulatory arena. This current report provides an update of the 2006 assessment.

There are two purposes for this Assessment Update 2008. First, EPRC will check how many of the recommendations from 2006 have been implemented. Second, EPRC will conduct a new assessment using the same international measurement attributes, which will provide the basis for a new set of recommendations for ERA. ERA has accomplished a lot since 2006 and results of this Assessment Update 2008 show marked improvement since 2006. The overall composite score was 3.56 in 2006. The overall composite score rose to 4.08 in 2008, meaning that ERA has added to their accomplishments, especially in areas noted in the 2006 Assessment Report. ERA seems poised to enter a new, more advanced phase of regulation and this Assessment Update 2008 intends to support ERA in achieving these advancements.

Before turning to the new recommendations, ERA's progress on the 2006 recommendations will be examined and following, the actions of ERA in 2006, 2007 and 2008 will be examined.

[1] Energy Law of 2001, Government of Mongolia.

SECTION II: RESULTS OF RECOMMENDATIONS FROM 2006 REPORT

ERA has accomplished much in the two years since the First Assessment. They have accomplished ALL of the recommendations that are within their jurisdiction. This is a significant accomplishment.

The consultant reviewed the recommendations from the 2006 Assessment one by one with ERA and heard in detail how each action item on the recommendations list was accomplished. Table 1 shows each recommendation for which ERA had direct responsibility from the 2006 Assessment and the progress toward completion. In some instances, ERA had no control over or direct responsibility for the outcome of a recommendation. Table 2 shows those recommendations over which ERA does not have direct responsibility. Such recommendations were originally included in the Assessment to inform other stakeholders in the energy sector of the critical actions they should take to improve regulation and thus the climate for energy sector investment. Notwithstanding recommendations in this report, ERA has made outstanding strides on its own since 2006. They accomplished all Project recommendations, for which they had direct responsibility, from the 2006 Assessment.

Numbers and recommendations included in Table 1 correspond to the numbers and recommendations in the 2006 Assessment Report. The consultant interviewed ERA and examined key documents in their office and on the ERA website. It is clear that ERA has accomplished significant progress on all indicators that continue to be relevant or are within ERA's control. Some indicators, notably those relating to enactment of amendments to the Energy Law, were not relevant, as there were no amendments to the Act adopted by the Parliament. Comments are included where it is helpful in explaining results.

TABLE 1: ACTIONS INSIDE ERA
ERA ACCOMPLISHMENTS ON 2006 RECOMMENDATIONS

Recommendation	Comment	In Progress	Completed
6. Enhance ERA website	Outstanding job		Yes
7. Benchmark performance of licensees	Outstanding job		Yes
8. Designate media relations person	Performing well		Yes
9. Develop customer complaint action plan	Posted on website		Yes
11. Maintain ERA jurisdiction over tariffs	Major advances in progress		Yes
12. Prepare customer service manual	Well done		Yes
13. Continue outreach to residential customers	Performing well		Yes
14. Integrate benchmarking reports with license monitoring activities	Well done		Yes
16. Continue Assessment			Yes
21. New work plan to reflect new Energy Law	Suspended		N/A
22 Develop long range strategic plan			Yes
24.Develop long term training plan	Training ongoing		N/A
25. Consider online training	Slow internet connection		No

ERA has been especially transparent in their actions. Their website has become very robust, full of information useful to consumers, investors and companies. They publish decisions, provide details about tariffs and licenses and include information on performance of licensed companies regarding reliability and other key information for the power sector.

Table 2 describes the accomplishments of entities outside ERA, primarily regulated companies and the Ministry of Mineral Resources and Energy (MMRE). Progress here is not as significant as ERA's progress described in Table 1. Numbers and recommendations in the table correspond to numbers and recommendations in the 2006 Assessment Report. Enactment of an amended Energy Law will raise the level of accomplishment in a future assessment.

TABLE 2 OUTSIDE ACCOMPLISHMENTS ON 2006 RECOMMENDATIONS

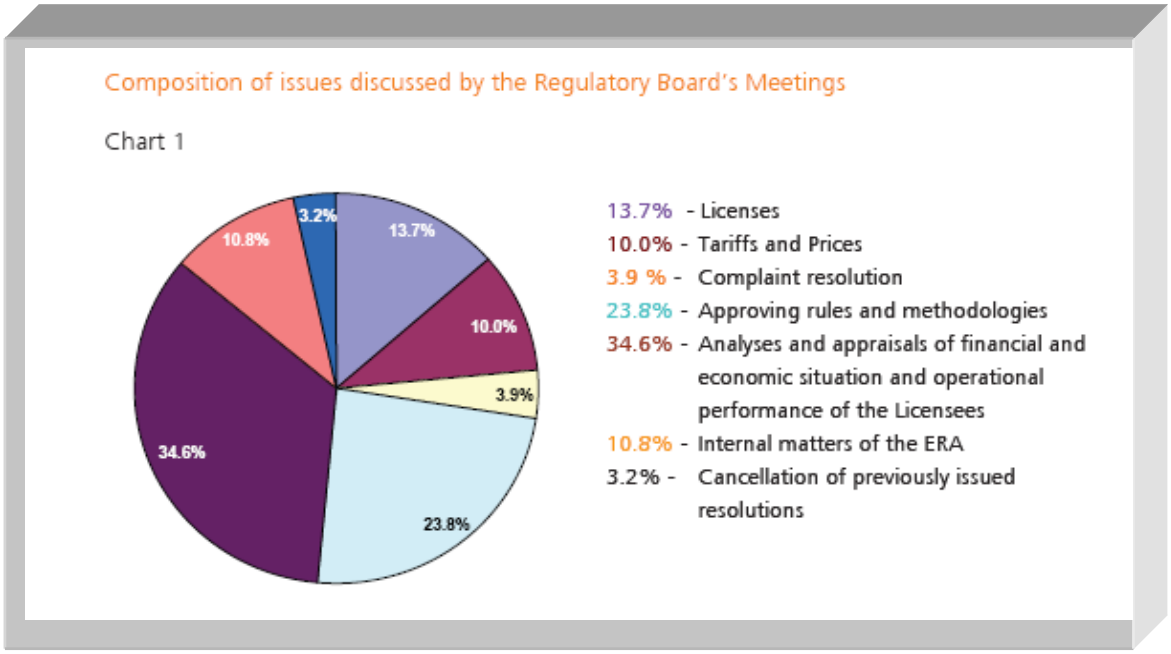
Recommendation	Comment	In Progress	Completed
1. Continued USAID support	Ongoing		Yes
2-5. Enactment of an amended Energy Law	On hold	No	No
10. Adopt corporate governance	Slow going	Yes	No
14. Ensure continued ERA jurisdiction over licensed company performance improvement.		Yes	Yes
15 Reform tariffs with new rate design (two-part tariffs) and lowered cross subsidization with changes to market design.	Tariff increase July 15 2008		Yes
16. Host policy dialogue on further restructuring in the power sector	Market design	Yes	No
18. Add to ERA jurisdiction aimag regulation	Not relevant	No	No
19. Enhance support for independent regulation	MoU signed	Yes	Yes
23. Establish Regulatory Affairs Department at regulated companies	Not ERA issue	No	No

SECTION III: UPDATE OF ERA ACTIVITIES 2006-2008

3.1 ERA Annual Report 2006

The 2006 Annual Report is a significant improvement over the 2005 Annual Report, both in content and in the accomplishments of ERA[2]. The Annual Report 2006 reflects many of the issues discussed in the Assessment Report 2006. Of special significance is the benchmarking program launched to monitor performance of licensed companies. This program will enable ERA to promote performance improvements and track historical progress. ERA is using the internationally recognized indicators[3], CAIDI, SAIDI and SAIFI to monitor reliability and service quality.

Chart 1: Types of Issues Discussed at Regulatory Board Meetings 2006



The Chart above shows the types of issues discussed by the Regulatory Board at meetings in 2006[4]. A considerable amount of meeting time, about 58%, was devoted to key regulatory issues such as tariffs, licenses, financial appraisals and operational performance of the electricity sector.

During 2006 there was no increase in heat tariffs. ERA attributed the decision to not increase heat tariffs to the fact that electricity sales increased in 2006, and hence, revenues increased, making a tariff increase less necessary to produce the appropriate revenue requirement.

For the first time, in 2006 ERA began to perform internal audits in the energy sector completed by the ERA audit group. The stated objective of ERA's new audit group, recruited and trained by EPRC, was to perform financial audits of Licensees, determine the efficiency of expenditures, assess the implementation of the International Accounting Standards and monitor compliance with the Accounting Law. The audits also examine management, planning, technology, operations and maintenance.

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[2] Energy Regulatory Authority of Mongolia, Annual Report, 2007 (English Version), Ulaanbaatar, Mongolia, April, 2008.

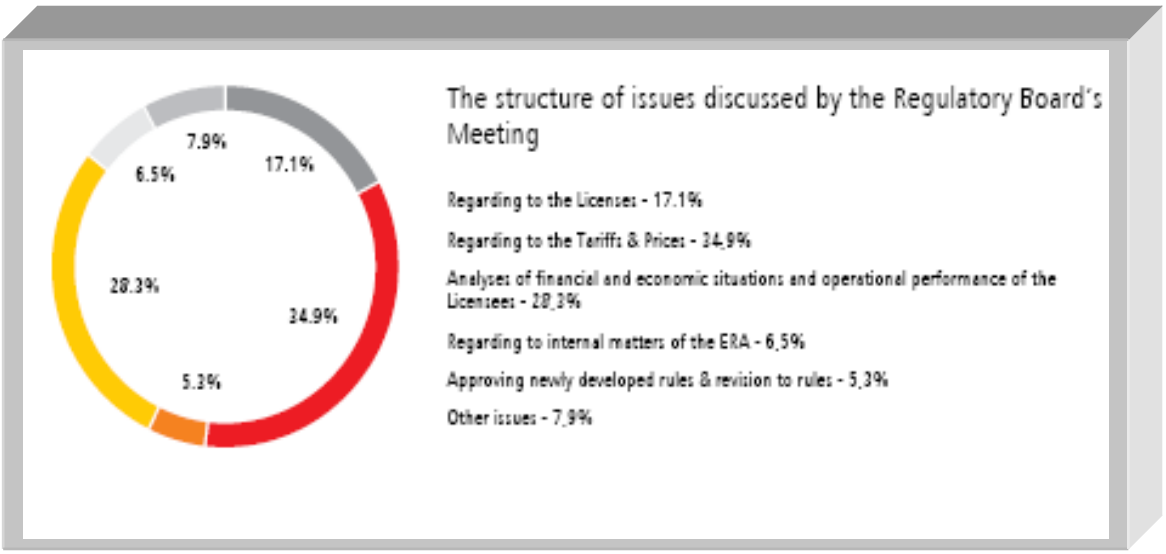
[3] CAIDI is the customer average interruption duration index; SAIDI is the system average interruption index and SAIFI is the system average interruption frequency index.

[4] Annual Report, 2007, page 7.

3.2 ERA Annual Report 2007

In April 2008, ERA published the 2007 Annual Report[5]. The ERA Regulatory Board issued 152 resolutions during 2007 and developed completely new rules and codes for Licensees which meet criteria of international standards.

Chart 2: Types of Issues Discussed at Regulatory Board Meetings 2007



In the 2007 Annual Report, ERA describes ten milestones or action items accomplished and completed in 2007.

1. The Energy Regulatory Authority of Mongolia jointly with Asian Development Bank organized a 3rd Annual Meeting of CMERF (Central Asian Regional Economic Cooperation Member Countries Energy Regulators Forum) in Ulaanbaatar city, Mongolia on 10-14 September 2007 and presented the regulatory achievements of the Mongolian energy sector since sector reform commenced in 2001.
2. As a result of great efforts made by distribution network companies operating in the Central Energy System, the required revenue collection rate of the Single Buyer Model exceeded 100% in 2007 for the first time. By achieving this success after 6 years, it became possible to establish the foundation for reducing the arrears accumulated among energy companies.
3. The auction market started in August 2007, where an incremental electricity demand is auctioned among generating licensees for the best price reducing percentages. The auction market activity held 5 times and electricity in amount equal to MNT 241.8 million was traded.
4. Exactly 5 years ago, ERA established a goal to decrease thermal power plants operating in the Central Electricity System (CES) own use of electricity from 17.0% of total electricity generation. In 2007, the own use of thermal plants in the CES was reduced to 16.5% (the percentage was 22.0% in 2001). The other two thermal power plants not connected to the CES also reduced own use of electricity in 2007. The internal consumption of the 7 thermal power plants reached 16.6% in 2007.

[5] Energy Regulatory Authority of Mongolia, Annual Report, 2007 (English Version), Ulaanbaatar, Mongolia, April, 2008.

5. In November 2007 the ERA and Energy Engineering School of the University of Science & Technology jointly organized a theoretical and practical conference for the 85th anniversary of the establishment of the Fuel & Energy sector in Mongolia.
6. In 2007 the ERA initially introduced one of the incentive regulation methods in the form of a Performance Agreement. The first Performance Agreement signed with the Baganuur-South Eastern Regional Electricity Distribution Network State Owned Joint Stock Company in 2007 was successfully accomplished and the company received a financial reward of MNT 67.4 million.
7. In accordance with to the newly approved Renewable Energy Law of Mongolia, the ERA developed and approved the first long term Power Purchase Agreement to be signed between the "Central Regional Electricity Transmission Network" State Owned Stock Company and a private investor "Newcom" Co., LTD. Approval of this agreement was the first step to encourage private sector participation in the energy sector.
8. The annual meeting of the Regulatory Boards of aimags (provinces) and the capital city was organized in three different regions (Dornogobi, Khovd and Orkhon provinces) in 2007. The ERA and State Professional Supervision Agency jointly organized these meetings and 66 members of the Regulatory Boards of the aimags and the capital city participated.
9. The ERA broadened internal energy sector auditing and ERA experts performed an audit on 6 Licensees. Based on the audit results, specific recommendations were given to the Licensees to eliminate the breaches and infringements identified through examinations.
10. The ERA prepared and published a book, "Brief Reference About 62 Energy Licensees," which contains main information on all official energy licensees.

3.3 Memorandum of Understanding with the Minister of Fuel and Energy (current MMRE)

Energy restructuring began in 2001 with passage of the new Energy Law. As restructuring evolved, not all responsibilities of the GoM, Ministry of Fuel and Energy and the ERA (hereinafter the "three parties") were clearly differentiated and not all roles were clear. Some functions were carried out jointly, some were ambiguous and in some instances it was not clear whether the Minister or ERA was responsible for a specific task. There was also the potential for confusion regarding which party held advisory or decision-making authority.

Lack of clarity in the Energy Law is not uncommon in national legislation involving the restructuring of state-owned enterprises in any country. Often there is the potential to produce some tension between the Ministry and the ERA over their respective roles. In the Mongolian case, the Ministry and the GoM were reluctant to allow ERA to act independently in some areas. This is common in a newly restructured power sector, where traditional roles change. One common result is that the new regulatory authority does not have full independence to operate effectively.

ERA drafted a Memorandum of Understanding (MoU) for the Ministry to consider, assigning tasks to ERA and the Ministry consistent with the restructured power sector. The MoU sought to more clearly set out the functions and duties of each party in a legal instrument. The new Minister of Mineral Resources and Energy, Mr. Khurelbaatar signed the MoU with Mr. Ganjuur of ERA on January 28, 2008[6]. The MoU formalized the independent status of ERA

[6] Memorandum of Understanding, January, 2008

and defined the roles of the two organizations working together. This was a very successful initiative for ERA as it clearly identified their responsibilities. A new Minister of Mineral Resources and Energy is now in office, Mr. Zorigt and the ERA hopes he will also sign such a MoU. The Minister met with ERA in late September 2008 and there is reason to believe he will agree to sign a new MoU.

The purpose of the MoU is to:

> *strengthen collaboration between the Parties on energy sector policy and strategy, regulation of the sector and certain regulatory reform issues and implementation, in particular, on matters including improvement of the financial situation of licensed companies, tariff reform, new bilateral contract power market structure; ERA annual budget preparation and approval; support of the Energy Working Group; certain heat sector issues; and sustained operation of the ERA in accordance with the provisions of the Law of Mongolia on Energy approved on February 1, 2001 (as it may be amended or restated in the future).*

3.4 Input from Discussions with the Regulatory Board

As part of the Assessment Update 2008 process, the consultant interviewed each of the three members of the Regulatory Board, Mr. Ganjuur Radi, Mr. Myagmar Ravdan and Mr. Damdinsuren Gungaarentsen.

Overview

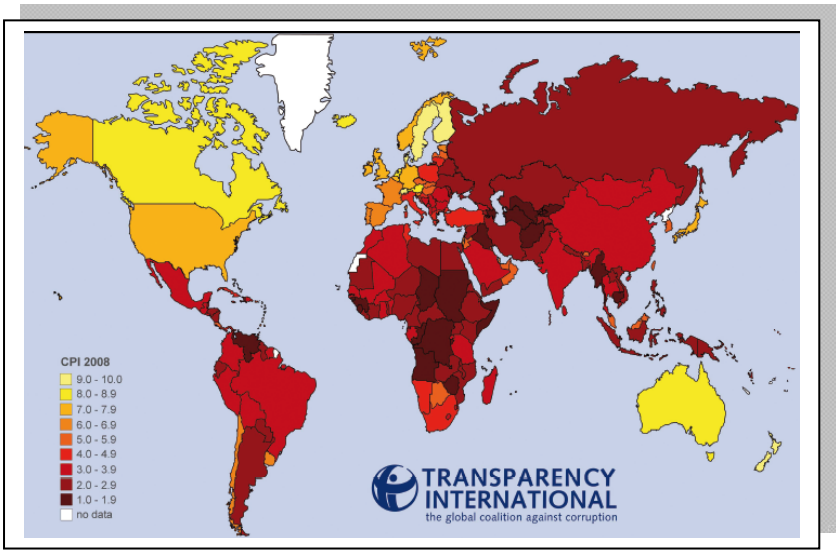
ERA completed significant work on tariff reform and performance measurement and improvement. The 3-4 year tariff plan and the 3-4 year market design plan will form the basis of ERA's long term activities. These plans are in place and are a key part of their work effort for the next three to four years. If the process to amend the Energy Law is revived, then ERA will use the tariff and market design initiatives as the basis for their input to proposed amendments.

Transparency

ERA clearly makes a strong effort to conduct their business transparently. The major regulatory documents such as licenses and tariffs are in the public domain. The regulator publishes decisions. However, they have not published the reasons behind their decisions nor is there reference to evidence in a case that led the Regulatory Board to reach a decision.

Transparency is vitally important to foreign investors. They need to know predictable outcomes of Mongolia's regulatory process. For example, if a foreign investor submits the winning bid for the international solicitation for CHP #5, then they will be awarded the contract. To determine their bid and the price they will need to be paid, they will need to be sure that the power sector is healthy enough to repay them. This depends in part on the tariffs being high enough to cover the cost of service. One example is the tariff order. They count on a healthy revenue stream at the power companies. This is one of the key factors for attracting foreign investment in the power sector. Mongolia is aware of this, and is to be commended for making a concerted effort to bring tariffs to a sustainable level. However, it is also important for ERA to state their reasons for issuing a new tariff resolution, and to post that resolution on the website in English as well as Mongolian.

Figure 1: Transparency International Corruption Perception Index 2008



Transparency International publishes a Corruption Perception Index (CPI) annually[7]. The CPI for 2008 is shown to the left. Mongolia ranked 102 out of 180 countries in 2008[8]. The index measures perception of corruption. Perception of corruption is an important factor for foreign investors and there is a close correlation between scoring high on the CPI and attracting foreign investment.

In 2006-2007 ERA commenced work with the public through a public relations and communication campaign. ERA believes the campaign was successful. One factor indicating success of the campaign is the public reaction to the significant tariff increase in 2008. There were no disturbances; there seemed to be public acceptance. ERA was apprehensive before the tariff increase about the potential public reaction, but it went smoothly. Mr. Myagmar was the leader of the public relations effort.

ERA conducted group visits to every licensee before the 2008 tariff increase went into effect. They met with the employees, including the lowest paid ones. They took the chance to see the company up close. As a result, ERA is more aware that tariff increases alone will not solve the companies' problems. They require huge investments to increase efficiency. ERA collected a lot of data, which they will publish and provide to the new Minister of Mineral Resources and Energy. ERA's efforts were very successful, and they are to be congratulated.

The ERA website is a very good example of their efforts to be fully transparent. It contains access information, emails for staff, photos for citizens to identify relevant decision makers and organizational charts to describe how the agency is organized. Resolutions and rules are posted on the website, many of them translated into English.

There is an atmosphere at ERA that speaks of transparency. While they are making a concerted effort to be transparent in all of their work, there are several significant areas where they need to make greater efforts to follow international best practices. Because ERA has become experienced in good regulation, and have in fact become the best and most independent regulatory commission in the CAREC organization, they will be in a good position to make their major activities more transparent.

ERA did not hold a public hearing on the 2008 tariff increases. They did not want to cause undue political pressure at the time of elections. Of course, this makes the process less

[7] www.transparency.org/cpi/2008.

[8] In 2006, Mongolia ranked 99 out 163 countries. This does not mean that Mongolia is perceived to be less transparent; it only means that other countries have been perceived as more transparent; they have taken more steps than Mongolia to make the government and corporation more transparent.

transparent, but it would seem that the aggressive efforts at public education compensated for the lack of public hearings, open evidence or any testimony in the case.

Not holding public hearings since 2006 is an important issue. Some licensees have said it is not appropriate for Mongolia to hold hearings, mostly because they are not used to transparency. There has been no license case before ERA since the fall of 2006 which required a hearing. In the tariff increase case of 2008, there was significant effort devoted to public education and awareness.

Notwithstanding their good efforts, not holding evidentiary hearings is unsustainable. ERA must hold hearings on issues such as major tariff changes, market design changes and licensee performance agreements to be considered truly transparent.

According to best practices, a tariff case begins with a filing from a licensed company, which provides the foundational case evidence upon which the Regulatory Board makes a decision. Other evidence in such a case may be introduced by interested parties, such as large consumers or residential customers.

Once evidence has been introduced by the company and interested parties, the regulatory commission - and other parties to the case - may ask questions about the evidence. This part of a rate case is known as the evidentiary hearing. This is distinguishable from a public hearing, as only the parties providing written evidence as parties to the case may ask or answer questions. Of course, it is open to the public, but the public is only very rarely interested. At the Regulatory Board's discretion, public hearings may also be held. Public hearings are advertised in advance and are open to the public and anyone not a formal party to the case who wants to make a comment.

At the very least, ERA should be holding evidentiary hearings. The evidence in the case should be transparent, and it should be evident to any observer that there was evidence in the case upon which the regulator based a final decision. The regulator should state the reasons behind making a decision and reasons why the evidence was compelling. If there is no evidence in the case for the decision, then the whole regulatory process comes into question.

For outcomes of the regulatory process to be predictable to outside observers, regulatory principles for tariff setting should be set out in transparent documents. ERA has made a legitimate attempt to do this. However, they need to go to the next step and incorporate these methodologies into a published tariff order that provides evidence and reasons for the decision.

In a country with a robust judicial system, the Courts would not uphold such a decision. The decision making is only fully transparent when examiners can see the specific evidence in the case that formed the basis of the final decision. If the regulator does not have sufficient evidence to reach a decision, they must attempt to enter the evidence in the record during the evidentiary hearing. If the evidence is lacking, the petitioning party (in this case, the companies asking for tariff increases) has not met the burden of proof, and the tariff case request is denied. This is a basic regulatory practice.

❁ERA will need to begin holding evidentiary hearings in tariff cases to meet international standards of transparency.

Rules and procedures

ERA has issued a number of rules and procedures designed to describe the practice of regulation and the interaction between regulated companies, ERA and the customer. The new draft regulations are listed on the ERA website. They include: electricity consumption rule, grid code, heat consumption rule, connection rule for central heating supply, and the methodology for determining tariffs.

Each work year begins with the issuance of Order #1 from the Chairman, which sets a work plan for the year. Each department developed its own plan and implemented it. They rely on a set of 19 internal rules. ERA created an incentive program for innovation among employees. In 2007 they honored four employees for outstanding performance.

Tariff change

EPRC has assisted the ERA with the development of a tariff reform plan to rationalize the current retail tariff regime consistent with the ERA's responsibilities under the Energy Law and its commitments in the MoU. EPRC issued a report that outlined the rationale for tariff reform that presents the methodology and schedule (i.e., the "tariff reform plan") for periodic adjustments to the retail tariff regime according to the issues and priorities of the ERA[9].

According to the Tariff Reform Plan, a large increase in retail electricity tariffs is required as summarized below:

- Despite substantial improvement in the past three years resulting from implementation of international accounting standards, there remain a number of inappropriate accounting practices in the sector. The more material of these involve using tax accounting treatment for capitalized maintenance and the lack of properly valued property, plant and equipment. The financial effect of adjusting for these categories plus several lesser items would necessitate a 33 billion MNT revenue increase to bring the power sector to break-even. This is equivalent to 25% of the 2008 revenue forecast, and still would not be sufficient to bring the sector to financial self-sustainability. This figure is understated as there is no provision for either a return on capital or for a working capital allowance (i.e., the financing of daily cash flows). Further, it is recognized that much of the required ongoing maintenance has been deferred, so a higher expenditure is required to avoid the premature deterioration of sector assets.
- The electricity licensees indicate that due to increasing input prices they need a tariff increase if they are to maintain current levels of service, let alone fund much needed improvements. These tariff increases would be in addition to those resulting from the adjustments to accounting practices identified above. The 4% tariff increase in October 2007 and the recently imposed increase in the time-of-use tariff for the Entity class representing a 3% increase in revenues did not keep pace with Mongolia's 14% inflation rate in 2007.
- Increasing electricity demand and retirement of aged and inefficient generation equipment that has reached the end of its useful life require that Mongolia construct new generation, transmission and distribution facilities or risk stunting economic growth and facing power/heat shortages.
- Government social initiatives such as connection of customers in the Soums to the main power grid and the Renewable Energy Law will put increasingly upward pressure on retail tariffs.
- A comparison with the international community confirms that Mongolia's retail tariffs are far below levels needed to maintain the financial integrity of the power sector. Mongolia's residential and industrial retail tariffs are only 26% and 46%, respectively, of the international average.

The most recent large tariff increase went into effect on July 15, 2008. The purpose of this timing was to avoid politicization of the tariff increase prior to the election of June 30, 2008.

[9] EPRC, "Proposed Tariff Reform Plan for Mongolia's Central Electricity System", Douglas Bowman, Ulaanbaatar, Mongolia, May, 2008.

Historically ERA approved small, gradual yet intermittent tariff increases. The July increase was about 28% for electricity and 38% for heat. This is an increase in revenues to the companies of about 56 billion MNT. For the companies, 26 billion MNT is accounted for in increased coal prices.

Of course there is still a uniform national tariff, while the various distribution companies have different cost of service which enables cross subsidization between regions and consumer classes. As is the case with most countries in similar circumstances, this system is not at all transparent. It is also not sustainable if there is any desire for the operating companies to be financially self sustaining entities.

Historically ERA was allowed small, gradual increases at the behest of the GoM. The 2008 tariff increase was a major departure from the historical practices and was consistent with the Tariff Reform Plan. Prices had been well below costs. This increase was an effort to bring more revenue to electricity companies so that they would have sufficient funds to pay for operations, maintenance and improvements.

As described elsewhere in this Assessment Update 2008, ERA board members and staff devoted significant effort to public education concerning the tariff increase of 2008. The tariff increase was accepted by the public, with little unusual or negative reactions. For this, ERA's efforts were very successful.

Rate design

ERA also changed the rate design. One of the Board Members was in charge of the Working Group that addressed the two-part tariff. They established lifeline tariffs. They instituted progressive block tariffs. The results have not been seen fully yet, but it is hoped that this first step will be one of several, because the ERA thinks rate design needs further improvement. The Working Group recently visited rural areas, where rate design does not help the populations as much as needed. The rural poor may carry a disproportionate share of the inclining block tariff. ERA will slowly eliminate the cross subsidies between electricity and heat. They revised the time of use (TOU) rate by increasing the night time tariff.

Market design

EPRC has submitted a report to ERA[10] that outlines the rationale for change in the electricity market design, recommends a design that will increase competition while taking into account current technical and financial constraints within Mongolia and advises on next steps for implementation of the new market design.

In light of current circumstances in Mongolia, it is recommended that an electricity market design with wholesale competition, unbundling of market functions along current lines and a power pool with central dispatch operating along-side a system of financial bilateral contracts be implemented. As there are numerous financial and technical constraints facing Mongolia's power sector at the current time, it is proposed that this market design be implemented initially with a system of bilateral vesting contracts covering all electricity sales in the Central Electricity System (CES). This will enable early introduction of competitive market principles before financial and technical constraints are fully addressed. Further, the vesting period will provide market participants with valuable training in the principles of competitive markets and the opportunity to demonstrate accountability by honoring contractual obligations and resolving disputes in accordance with regulations.

[10] EPRC, Proposed Competitive Electricity Market Design for Mongolia's Central Electricity System", Draft Report prepared by Douglas Bowman, Ulaanbaatar, Mongolia, September, 2008.

ERA efforts to change the market design are still at the concept stage. Consensus building meetings have taken place with stakeholders via a newly formed New Market Working Group, and future meetings are planned. The market design plan, along with tariff reform, will form the basis for ERA's long term plan.

Despite current limits, there has been some competition at the margin. They have introduced "auction trades" in addition to a spot market. It affects small amounts of incremental load at the margin. It will be impacted by the improved two-part generation tariff. [

Licensing compliance

With support from EPRC, ERA recently started to implement performance agreements with operating companies, beginning with the performance measurement system developed in 2006[11]. ERA instituted performance reporting standards, data requirements and analysis.

As of 2008 there are now three performance agreements in place with one generation company and two distribution companies under performance agreements. The social cost component of tariffs (including 13 month salary, housing allowance and other benefits to employees) are now under incentives through the performance agreements. Baganuur received a 60 million MNT reward under the program in 2007.

Performance agreement information is publicly available on the ERA website. Posting to the website not only makes ERA more transparent, but it also motivates the companies to perform better, given that they know their performance results will be made public.

There is a level of concern over the question of licensing compliance. ERA is not clear about best practices for appropriate sanctions for non-compliant companies. There may be two or three companies that are close to being in non-compliance. ERA is working closely with these companies, trying to persuade them to come into compliance.

Mr. Ganjuur wants the company law to accurately reflect the licensing process and provide for strict compliance measures. In the case of a non-compliant company, ERA may need the authority to impose sanctions on the non-compliant company. The Executive Directors of the licensed companies are appointed by the Ministry, so they tend to be more receptive to the Ministry and the SPC rather than ERA. Currently the penalties for non-compliance are very low.

Recommendation: ERA may want to impose stronger penalties for non-compliance with license conditions. This may require amendments to the Company Law and the Licensing Law, which may be appropriate as Parliament considers amendments to the Energy Law.

It was explained that there are many steps between full compliance and suspension or revocation of a license. ERA should explore a range of possible sanctions to apply to regulated companies in their compliance with ERA license conditions.

Annual reports

The ERA's 2006 and 2007 Annual Reports were very well done. They contribute significantly to the accountability of ERA, in the scoring in this Assessment Update 2008 and on the ground in Ulaanbaatar. They demonstrate that ERA holds itself fully accountable for meeting legal obligations and public expectations.

Website

[11] EPRC, Performance Measurement, Proposal for Expanding the ERA's Financial Benchmarking System and Implementing Performance Agreements, Report prepared by David Morse, Ulaanbaatar, Mongolia, August, 2006.

The website is now quite robust, providing information on all aspects of ERA work, both in English and Mongolian. There is a scoring provision on the Mongolian version of the website. Approximately 60% of the viewers said the website was good; 38.9% said it was not good. ERA may be disappointed with this score, but the consultant indicated that the English version of the website was very good.

Translating every resolution of the Regulatory Board into English is time consuming, and probably unnecessary. They intend to post only the key documents in English.

Operating improvements

In 2001 collections at generation companies were approximately 75% of what was actually owed. In 2008 collections were almost 100%. ERA set targets for generation companies own use of electricity in hopes to reduce the amount of electricity required for plant operation. The performance agreements will help to reduce this amount.

New capacity

Expansion in the electricity generation and transmission systems is a vital part of the national energy policy. ERA will eventually be able to measure its success in the amount of new capacity that has been added to the system. Mongolia ranks below neighboring countries in electricity generation capacity and electricity consumption per capita. A similar chart was published in the Assessment 2006, using 2006 data. Mongolia's position has declined very slightly since 2006, in electricity consumption per capita and in the two international indices, Transparency International and Global Competitiveness Index. All the other countries in the chart, Russia, China, South Korea, Japan and Kazakhstan, have increased generation capacity and consumption per capita.

In order for Mongolia to keep pace with economic growth in neighboring countries, and to be able to maintain a strong domestic economic growth rate, Mongolia needs to consistently add new capacity over the next ten years.

Table 3: Energy Consumption Comparisons 2008

COUNTRY	Population Growth %	Industry Growth %	TI Scores 163 Countries	WEF Scores 125 Countries	Generation MW	KWH/ Person
Mongolia	1.49	3.9	102	101	832	1075
Russia	-0.47	7.4	147	58	217,158	7002
China	0.63	13.4	72	34	662,380	3149
South Korea	0.30	5.5	40	11	62,232	7991
Japan	-0.14	1.3	18	8	247,946	8220
Kazakh-stan	0.37	7.2	145	61	17,157	4982

Energy data from: International Atomic Energy Agency, www.iaea.org, and US Energy Information Agency, www.eia.doe.gov. Population data from World Factbook, www.cia.gov North Korean data from same sources except for population data which is from www.asiasource.org. TI/WEF scores are from Transparency International 2006, www.transparencyinternational.org and the Global Competitiveness Index 2006-2007 from the World Economic Forum, www.weforum.org For TI and WEF Scores, 1 is best, rising scores indicate lower performance. North Korea is not part of the Global Competitiveness Index.

The long-anticipated tender for CHP-5 has been issued. It is expected to produce approximately 300 mw of electricity and corresponding heat. Responses to the tender were due in mid-October, 2008 but were postponed until November. This is a very significant step for Mongolia. Bidder interest was very high. The Dorgon Hydro plant is to serve the western states with 12 mw. There is a new wind farm generation license that will generate 50 mw when constructed. One private sector developer wants to build a 12 mw coal gasification facility.

Table 3 shows comparative figures for population growth, industry growth, scores from Transparency International, scores from the World Economic Forum on economic competitiveness, generation capacity and per person kwh electricity consumption. Countries in the group are Mongolia, Russia, China, South Korea, Japan and Kazakhstan. The data shows

that Mongolia has significantly less per person electricity capacity than any other country in the group. This suggests that expanded capacity in electricity generation will be important for Mongolia in relation to its trading partners.

ERA participated in the recent CAREC (Central Asia Regional Economic Cooperation) meetings held in Bishkek. Mr. Ganjuur made two presentations, one on consumer complaint procedures and one on the regulation of renewable energy. EPRC/ERA may send consultants to other regulatory agencies in the region, as it is believed that Mongolia is ahead of the other countries in the region in terms of its regulatory development program.

To summarize the section above, the consultant has evaluated ERA based on in depth discussions with the regulatory board members and senior managers and a number of project consultants, in terms of the indicators that Stern and Holder first developed in 1999. These are clarity of roles, autonomy (where the MOU with the Ministry was mentioned), accountability in terms of ERA's Annual Reports, transparency in the many efforts to make ERA actions fully open to observers and predictability. These six themes are reflected in ERA activities in 2006 and 2007 to a high degree.

3.5 Goals for 2008

On its website, ERA published a set of ten goals for 2008[12]. This is a very transparent and open practice, clearly describing staff roles, showing accountability to the public for actions during the year. Here are the goals they have adopted.

1. To reduce the electricity transmission and distribution losses in Central Energy System by 1.0 units from the loss level reached in 2007;
2. To develop a standard on reliability of electricity supply and level of service by the supplier and get a final approval from related authorities;
3. To make an assessment of techniques and technology of district heating network of Ulaanbaatar city and an analysis of financial-economical status of Ulaanbaatar District Heating Network State Owned Joint Stock Company;
4. To upgrade and determine the structure of internal information database of the Energy Regulatory Authority and put the developed data into the database for regular use by all ERA personnel;
5. To upgrade the web-site of the Energy Regulatory Authority, both the Mongolian and English versions, to update the news and to achieve to an assessment by the licensees and consumers that the website of ERA would be the best model in the energy sector;
6. To develop a design and policy to be followed in the future on electricity tariff for consumers in the countryside and who have no access to the centralized grid system;
7. To conclude a "Performance Agreement" with some of the Licensees concerning their main economic indices;
8. Based on a careful consideration of the problems that may arise in implementation process of introducing a new methodology for setting the capacity and energy tariff of the energy generators, the Energy Regulatory Authority will make necessary changes in draft of the methodology and approve. The methodology will be introduced in 2008.
9. To develop a proposal on reducing the receivables and debts of the main Energy companies and to seek to possibly settle the matter by the Ministry and Cabinet;

[12] http://www.era.energy.mn/eng/modules.php?ss=4&id=57

10. To develop a methodology for setting capacity and energy tariff for electricity consumers. The ERA will start to adopt the new method in 2008.

SECTION IV: ANALYSIS BY DEPARTMENT

In meeting with individual departments at ERA, it is obvious that they have a clear sense of their responsibilities. Roles are well-defined and duties are described on the website. Clear definition of roles is a key factor in the success of any regulatory agency.

4.1 Legal and Administration

The Legal and Administration Department is responsible for managing the docket, resolving customer disputes, administering public relations, internal management, organizing trainings and promoting public participation. The Department is under the direction of Mr. Kishigt Tamir. In 2007, the ERA received and resolved a total of 66 complaints, requests and official letters from the Licensees and consumers. Between July 2001 and 31 December 2007 the ERA received and resolved a total of 363 complaints, requests and official letters from the licensees, consumers and other related organizations.

Recommendations in assessment 2006

Mr. Kishigt reviewed each recommendation for which his department was responsible, based on the Assessment 2006. He prepared a detailed matrix which described the action taken by date by task. He accomplished all the recommendations, except those related to changes in the Energy Law, which became moot with there being no amendments to the law.

Rules of ERA

Mr. Kishigt is responsible for developing the internal rules and procedures of ERA. There are 17 operating rules that have been adopted by the Regulatory Board. These concern administrative matters such as employee compensation and reward, motor vehicles, computer system, database management and related matters.

Customer complaints

Mr. Kishigt explained that there have been over 400 customer complaints addressed to ERA since the beginning in 2001 including complaints addressed to distribution companies. Some of these complaints should have gone directly to the Distribution Companies before the ERA in compliance with the Consumer Complaint Resolution Rule adopted in 2005. Mr. Kishigt has worked with the Distribution companies and the customers to be sure that the companies make an effort to address customer concerns. He also prepared a set of rules for ERA to apply to customer complaints.

Photo here is of Mr. Kishigt Tamir, Director of the Legal and Administration Department at ERA.

Website

Mr. Kishigt's department is responsible for managing the ERA website. He said it was difficult to maintain the English version of the website, translating all the documents. The consultant explained that selecting only the key documents for translation to English was acceptable. The consultant also pointed out that the website is very useful as it is currently designed. It provided lots of useful information in English. The Mongolian version has even

more detail, especially as relates to the new tariffs, which are being translated and will be posted in English shortly.

Computers

ERA recently upgraded the computer system purchasing new equipment and software developed in Mongolia and suitable for ERA. Mr. Kishigt would like to have exposure to operations of other regulatory commissions, even just through a handbook describing how other commissions operate computers, database and decisions.

4.2 Pricing and Tariffs

Photo here is of Ms. Ganchimeg, Head of the Pricing & Tariff Department. She is responsible for the following activities:

1. To develop methodology for setting tariffs, to determine a structure of tariffs by each type of license, to review and approve, monitor compliance and publicize tariffs for licensees.
2. To analyze the financial and economic situation of licensees, to establish methodology of determining cost structures.
3. In order to use a tariff setting methodology to create and maintain a database on operational performance indices of Licensees and financial statements and costs structures, the database should be updated regularly.
4. To provide Regulatory boards of the capital city and aimags (provinces) with professional assistance and support on tariff setting issues.

Tariff increase July 2008

Much of the work of Mrs. Ganchimeg's department has been focused on the tariff increase formalized by the Tariff Resolution issued by ERA on 15 July 2008. Prior to the company filings, ERA sent a letter to companies describing the filing requirements. Companies submitted their requests for tariff increases consistent with ERA methodology. These documents included presentations and data. ERA then analyzed the submissions.

Photo here is of the 2008 ERA Tariff Department from the ERA Tariff Website.

A key part of the tariff change process was public education. Mrs. Ganchimeg was directly involved in the public education and media awareness effort. It involved a lot of time and effort. The Regulatory Board met at each company. The meetings were very useful and included a broad range of people from the companies. ERA invited 2-3 reporters or other media representatives with them each time they visited a company. Guidelines were issued by ERA for the companies to follow in the media effort. ERA urged companies to participate and have articles published in the media about their need for a tariff increases. As a result, consumers began to pay more attention to energy issues.

Local reporters in more remote areas found this process very interesting. ERA also realized the need and importance of training the media on energy issues. They found it helpful to focus on a few media experts who became familiar with energy issues. By being frequently invited to attend energy events, the media experts are beginning to understand the issues.

ERA is presently in the middle of further education processes for consumers. There are lots of questions as to how it will work and if they really have to pay the new customer charge, which is 1000 MNT. ERA wants to protect their decision so they are reaching out to consumers to help them understand what is happening. The callers are mostly residential customers; those who are educated but do not necessarily have access to the internet, so they call in person rather than going to the website.

New steps

ERA is also waiting to see what the impact of the rate increase will be on the companies. They do not know exactly how the increase in price will affect demand. Once ERA has more results from the rate impact, they will be able to see what tariff increases are required next, probably gradual but frequent increases.

The next steps are based on the tariff reform plan. They are now defining the commercial class of customers, which will be retail establishments, hotels, bars and so forth. It will probably be introduced next year. They are now working on research, getting data from the distribution companies and defining the cost of supply by customer class.

Staff training

Ms. Ganchimeg has eight staff working for her, specializing in generation, heat, distribution and transmission. She also has a three person auditing unit. Training opportunities often require English or Russian language proficiency. Not everyone can qualify. The ADB CAREC project helps with support. The slower internet speed at ERA hampers their ability to take advantage of online training.

4.3 Licensing

The photo to the left is Monkhoo Munkhtulga, Head of the Licensing Department. The number of energy Licenses granted by ERA has increased each year since 2001. In 2007, 64 energy entities holding 10 categories totaling 142 licenses operated in the energy sector. This compares to the initial 18 major licensees at the commencement of ERA operation. As of October 2008, they have licensed 69 companies.

The Licensing Department of ERA began monitoring Licensees' compliance with the terms and conditions of their licenses, their operational performance and the benchmarking program based on quarterly performance indices and prepared regular assessments starting in 2005. EPRC provided technical support for this effort.[13] Photo of the Licensing Department from the ERA Licensing Department Website on the next page.

The Licensing Department is responsible for the following activities:

1. To issue, revoke and suspend licenses for electricity generation, heat production, electricity transmission, electricity and heat distribution and supply
2. To set the terms and requirements of licenses and monitor implementation

[13] See EPRC, David Morse, op.cit.

3. To set, approve and amend the related rules that should be followed by Licensees, to settle disputes arising among the Licensees
4. To provide technical and methodological guidance to Regulatory Boards of aimags and the capital city

Activities 2008

Much of the Licensing Department's work has focused on the licensing of 69 companies who were granted 151 different licenses. These companies are required to submit periodic compliance reports. With support from USAID and EPRC, ERA has instituted a system of performance measurement, reporting and improvements. The Licensing Department reviews the reports and performs an evaluation on a select number of indicators, usually six or seven, depending on the type of company. They then rank the companies on their compliance and performance.

The results of this ranking are posted on the ERA website; it is very transparent. It is interesting to note that the top 5 companies are generally the same for each successive ranking although not always in the same order. The remainder of the companies will vary in performance from month to month. Some months a company may be in the middle and the next very low; there are frequent changes.

If companies are not in compliance, they are first sent a letter, then a warning letter. Most of them usually comply at the warning letter point. If they can't, they usually send a letter explaining why not. 100% is full compliance. The lowest score was 75%. One of the toughest areas for companies to comply is in financial indicators, especially the terms of payment to reduce past arrears. This is often where the companies have difficulty with compliance. They cannot meet the financial targets.

Performance reporting protocol is being extended to performance agreements. ERA has signed performance agreements with one company in 2007 and a total of three in 2008. These agreements allow companies that are performing well and improving and delivering value to customers to receive a financial reward for success.

Extended time period for licenses

ERA is in the process of extending the time period for validity of licenses. This of course means less regulatory intervention and allows the companies to operate with a longer term view. They have extended the validity period for generation licenses from 5 to 10 years. The heat and distribution licenses have been extended from 3 to 5 years. They are slowly extending the terms of all the licenses.

Next actions

Market Design. With support from EPRC and USAID, the ERA Licensing Department will be implementing a new market design. They agree in principle on the market design plan and the implementation plan, as prepared by EPRC. They are supportive of a simple start that then builds in complexity step by step. They recognize it will be a financial and technical challenge

to implement. One ERA employee was moved from the Tariff Department to the Licensing Department to work on the new market design and implementation thereof.

Customer Service Standards. The Licensing Department is developing new customer service standards. Presently 60-70% of service interruptions are for planned outages for maintenance. The Licensing Department plans to monitor the duration of the outages, even those that are planned outages. The new standards should include the maximum length of time for duration of interruptions and also the maximum duration for maintenance outages. They will also cover the maximum time for addressing consumer complaints and the maximum waiting time for new service installation. These standards are under final review. They will go to the National Center for Standardization and Metrology, who must review new standards. The discussion has been delayed due to reorganization of the government following the June 2008 elections. Mr. Munkhtulga hopes the standards will be adopted by the end of the year.

New Licenses. The Licensing Department will be responsible for issuing new licenses as more facilities come on line. These will likely include CHP#5, the licensing of which will be a considerable undertaking. Then there will also be a small coal gasification plant in the west, a private plant at Tavan Tolgoi, and commissioning of the Taishir Hydropower Plant at 11 mw. As the private sector becomes more active in the energy sector, more licenses will also be required.

Performance Agreements. They intend to continue expansion of the performance agreements. They hope to sign agreements with the two largest facilities this year, CHP#4 and the UBEDN.

Energy Demand. There has been a huge increase in demand for electricity and heat over the past few years. Electricity demand has grown about 10% annually and demand for heat has grown about 5-7% annually. The Mongolian system can meet this level of increased demand for two more years only. Mongolia can increase purchases of electricity from Russia but only a small amount is available and the contract with the Russians would need to be renegotiated. ERA will provide the guidelines for negotiating contract revisions.

Training. Mr. Munkhtulga has sent his staff to ERRA Eastern Regional Regulatory Association, Eastern Europe, (sponsored by USAID) training on heat regulation in November 2008 in Hungary. The ERA also participates in the Competition, Tariffs and Legal Committees of the ERRA. Training on the new market design will be very important for his staff.

SECTION V: SURVEY OF EFFECTIVENESS UPDATE 2008

5.1 Methodology

In the 2006 Assessment Report the consultant used the six measures of effective regulatory institutions developed by Jon Stern and Steve Holder, of the London Business School, who published a landmark report about measuring effectiveness of electricity regulatory agencies in 1999[14].

In 2006, Jon Stern revisited this study and published an article that examined regulatory governance and realization of its expected impact on investment. Dr. Stern demonstrated a 15-20% average investment increase in electricity generation capacity for average performance on his 1999 indicators[15]. Dr. Stern concluded that regulatory governance does matter. In the long-run (i.e. after about 10 years or more), best quality regulatory governance is associated with about 15-20% higher generation capacity per head. Each one point increase in the index implies 4-5% increase in generation capacity per head in the long run.

It is concluded that there is sufficient evidence showing that the indicators for regulatory effectiveness chosen by Stern and Holder in 1999 are good measures. Above average performance on these indicators will result in above average performance of the regulator. Good performance on these indicators equals effective, sustainable regulation and will result in enhanced investment in electricity generation. After all, that is one of the key objectives of the regulatory process, creating a sustainable power sector with sufficient resources to meet growing customer demand and support economic growth in Mongolia.

Table 3: Effectiveness Indicators

1. **Clarity of roles and objectives**
2. **Autonomy of the regulator**
3. **Public Participation**
4. **Accountability of the regulatory**
5. **Transparency of the process**
6. **Predictability of outcomes**

Stern and Holder chose six indicators to assess performance of regulatory agencies. These indicators were used to measure the effectiveness of ERA. These six indicators are shown in the table to the left.

In the 2006 Assessment Report it was noted that a number of other assessments of regulatory effectiveness were reviewed. Especially useful is the Handbook for Evaluating Infrastructure Regulatory Systems[16] published by the World Bank shortly before the 2006 report was issued. It is noted here again that this book has provided much valuable information for ERA. Brown, Stern et al use ten indicators that are very similar to the six developed originally by Stern, and thus the consultant continues to rely on the six indicators Stern first developed for his 1999 work. Nothing is omitted. It is also recognized that there are real benefits to be obtained by using the same indicators that used in 2006 for purposes of comparison.

5.2 Application to ERA

Methodology

[14] Stern, Jon and Steve Holder, "Measures of Effective Regulation", World Bank, March, 1999.

[15] Cubbin, J.S and Stern J., (2004), "Regulatory Effectiveness: The Impact of Good Regulatory Governance on Electricity Industry Capacity and Efficiency in Developing Countries". AEI Brookings Joint Center for Regulatory Studies, June, 2004. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=695385

[16] Brown, Ashley C., Jon Stern, Bernard W. Tenenbaum and Defne Gencer, "Handbook for Evaluating Infrastructure Regulatory Systems", World Bank, 2006.

An Assessment Matrix was designed for the six indicators. The Matrix appears in Annex A. The matrix was used to score perceived performance by ERA on each of the six indicators. Performance was assessed by the three ERA Regulators, three top regulatory staff and four professional energy staff of the EPRC Project. The assessors looked at ERA's 2006-2008 performance on each of the 6 indicators. Each indicator has 3 or 4 explanatory sub indicators, derived from the Stern and Holder report, and clarified for the Mongolian situation. This provides 20 measures of effectiveness based on internationally recognized indicators.

Scoring

Possible scores ranged from 0.00 to 5.00, with 5.00 being the best score and 0.00 being the worst possible score. Scoring was completed by ERA and EPRC.

Table 4: Scoring System

- **0.00 is bottom score**
- **2.50 or better is above average performance**
- **3.50 or better is very strong performance**
- **4.00 or better is outstanding performance**
- **5.00 is perfect score**

- **Scores above 2.50 indicate better than average performance and are expected to produce better than average investment in electricity generation capacity**

5.3 Survey

EPRC's Energy Team completed the survey by October 10, 2008. The four members of the technical team most familiar with ERA activities took part[17].

5.4 Findings

ERA has achieved significant accomplishments since 2006. The organization has become more transparent and the gains in transparency are extraordinary. ERA has been able to develop appropriate tariffs, performance agreements, licenses and consumer complaint mechanisms. They have clarified their goals by signing the MOU with the Ministry of Fuel and Energy for future collaboration.

Table 5: Results of Assessment

	Score 2006	Score 2008
1. Clarity of Goals	2.90	4.25
2. Autonomy	3.12	3.90
3. Public Participation	3.70	4.30
4. Accountability	4.10	4.10
5. Transparency	3.83	3.70
6. Predictability	3.71	4.20
Overall composite score	3.56	4.08

[17] Russell Brown, Amgalan Nordov, Douglas Bowman and Mary Capito.

ERA held steady or improved performance on all but one indicator, and especially those over which they have jurisdiction, such as clarity of goals, autonomy and public participation.

Clarity of Goals

Clarity of Goals	**2006 Score:**	**2.90**
	2008 Score:	**4.25**

While the Energy Law passed in 2001 has not changed, the actions and role of ERA are much clearer. This is a significant improvement in perception, not based on any change in the legal framework for ERA. This means that ERA has accomplished the marked improvement here solely on its own efforts. As evidenced, clarity is very important for companies operating in the energy sector and for potential investors in the energy sector in the future. ERA is to be congratulated for their marked improvement in this indicator.

Autonomy

Autonomy	**2006 Score:**	**3.12**
	2008 Score:	**3.90**

This finding, based on hours of research and discussions with ERA personnel and international consultants, shows a growing recognition of ERA's efforts at impartiality and fairness, especially in the recent tariff case and ERA's interplay with both licensees and customers. Even though the underlying legal authority is unchanged, ERA appears to be exercising more autonomy and independence.

Public Participation

Public Participation	**2006 Score:**	**3.70**
	2008 Score:	**4.30**

This indicator showed the greatest increase in two years. In addition to the actions stated in the Annual Report and shown on the website, ERA clearly made a concerted effort to reach out to stakeholders during the tariff case in 2008.

Accountability

Public Participation	**2006 Score:**	**4.10**
	2008 Score:	**4.10**

High scores on accountability remain unchanged. ERA has maintained a tradition of issuing Annual Reports that hold ERA accountable for fulfilling their legal mandate and for meeting and exceeding public expectations. Somewhat lower scores that might be merited here show that elected officials and the judicial process are slower to accord the full authority that ERA requires to more fully meet international best practice indicators.

Transparency

Public Participation	**2006 Score:**	**3.83**
	2008 Score:	**3.70**

This indicator is based on perception. The perception is that ERA had a great opportunity for more transparency during the 2008 tariff case. They did make a real effort to increase public participation, which was very successful. However, they lack a full system for collecting evidence in a way that can be seen from the public. The consultant and assessment team were very satisfied with the evidence seen, but it should be made more publicly available. If so, this step would contribute to greater transparency, and in the future, more confidence from outside investors.

Predictability

Public Participation	**2006 Score:**	**3.71**
	2008 Score:	**4.20**

There was improvement in the predictability of outcomes from the regulatory process in Mongolia. The tariff case of 2008 and the robust information on ERA's website contributed to the notable gains in this indicator.

SECTION VI: RECOMMENDATIONS

The consultant and assessment team noted very positive findings related to the performance of ERA, and noted considerable overall improvement since 2006. Based on the results of the Assessment Update 2008 and on knowledge of international best practices in regulation, the following recommendations are made.

1. Follow future and imminent amendments to the Energy Law so as to ensure continued high scoring on international best practices.
2. Implement two-part tariffs at generating companies.
3. Continue to move to fully implement the new market design providing for bilateral contracts and multilateral contracts for purchase and sale of electricity.
4. Consider imposing stronger penalties for non-compliance with license conditions. This will require changes to the Company Law and the Licensing Law, which may be appropriate as Parliament considers amendments to the Energy Law.
5. Consider augmenting the complaint process in light of the new market design contract potential disputes.
6. Finalize market design and structure. ERA, shareholders and EWG approval received.
7. Prepare the market implementation action plan. Development, negotiation and agreement on action plan with stakeholders
8. Develop metering code
9. Develop transmission services agreement
10. Develop connection agreements
11. Amend licenses as needed to reflect above codes
12. Develop tariffs to be reflected in vesting contracts for interim use and model bilateral contracts for final market use. Be prepared to allocate contract quantities among market participants and continue development of two-part tariffs for each generating company.
13. Approve final contracts.
14. Address ancillary service issues including procurement process and tariffs.
15. Develop credit guarantees
16. Develop ethics norms for the National Dispatch Center to act as System Operator, and other Market Participants
17. Develop procedures related to treatment of confidential information
18. Financing and acquisition of NDC software
19. Technical assistance and training for the National Dispatch Center to operate the new market
20. Provide technical assistance and training for other market participants
21. Develop market testing, implementation and debugging procedures
22. Completion of subsidies analyses, proposals for retail tariff designs including lifeline tariffs, and proposed plan of action for gradual tariff increases
23. Establish cost-of-service and revenue requirement estimates by company and customer class and continually provide refinements.
24. Continue implementation of the generation two-part tariff consistent with ultimate market with bilateral contracts

25. Implement a performance-based (incentive) retail tariff development program and process for Transco and Distribution Companies
26. Develop tariffs for services provided by Transco and Distribution Companies consistent with a performance-based regulatory regime
27. Assist companies with implementation of the two-part tariff and performance-based regulation methodologies
28. Present and discuss regulatory audits to energy sector shareholders and stakeholders
29. Formulate, revise and implement rules and procedures in such areas as customer service, tariff methodology, licensing procedures, etc., as required
30. Perform a comprehensive audit of ERA management, operations and administration; Audit to be updated by first quarter of 2009. Another update in second quarter of 2011 - the 10th year of ERA existence.
31. Improve corporate governance at licensed companies; ensure audited financial reports of licensed companies are in compliance with IFRS based standard accounting policies and practices
32. Hire and train new staff of approximately 3-6 people to handle the growing workload primarily in the Tariff and licensing departments.
33. Companies are passing their customer complaints along to ERA. These companies need to take commercial responsibility for their customers. ERA should require them to establish a tracking mechanism for customer complaints and file regular reports with ERA about their own progress in addressing customer needs.
34. ERA should only be handling customer complaints that cannot be resolved at the company level.
35. Put box on website for calculation of tariff. Examples from Egypt: http://www.egyptera.com/en/Bill_Calculation.htm

SECTION VII: NEXT STEPS

One of the recommendations is that ERA continue the assessment process internally on an annual basis. In 2011 ERA will have been operating for ten years. The energy sector of Mongolia will have undergone profound change during that time. It is recommended that EPRC repeat the formal Assessment in 2011, which would mark the 10th Anniversary of ERA's founding.

EPRC urges ERA to implement the recommendations contained herein and suggests internal assessments at the end of 2009 and 2010.

SECTION VIII: CONCLUSIONS

ERA has made significant progress in two years. Their scores showed improvement in every indicator over which they had control. The only drop was in perception that other parties in the Government of Mongolia were not as supportive of ERA as they could be. ERA has done a superb job in performing to international best practices for an energy regulatory authority.

ANNEX A: QUESTIONNAIRES

ANNEX A: QUESTIONNAIRES

EVALUATION OF REGULATORY EFFECTIVENESS
ENERGY REGULATORY AUTHORITY
USAID/EPRC MONGOLIA

Please score each indicator as follows 5=excellent, 4=very good, 3=good, 2=fair, 1=poor and 0=failure		
Outside Indicators: Governance		
Indicator	**Sub Indicator**	**Joint Score**
1. Clarity of goals		**4.25**
	Does the primary legislation set out clear definition of ERA's functions and duties?	4.4
	Is ERA clearly responsible for regulating licensed companies or are there any functions carried out jointly, or any that are ambiguous, between ERA and those of the relevant Ministries?	4.1
	Is it clear what the role of the Ministries are and what is the role of ERA? Is there political interference?	3.9
	Is appointment and dismissal clearly stated in the Law? Is there political interference?	4.6
2. Autonomy		**3.9**
	Are the members of ERA appointed by the Prime Minister and only dismissed by Law?	4.5
	Does ERA have independent financing over which it has sole control?	3.4
	Can ERA issue decisions on tariffs or licenses without effective intervention from the Ministries or Parliament?	3.9
3. Public participation		**4.3**
	Does ERA formally involve regulated firms, other industry firms, consumers and others on major decisions?	4.9
	Are consultation responses made public (either in full or in a summary of responses)?	3.8
	Does ERA offer opportunities for public hearings on key issues such as tariffs and licenses?	4.2

PERFORMANCE ASSESSMENT MATRIX

Please score each indicator as follows 5=excellent, 4=very good, 3=good, 2=fair, 1=poor and 0=failure		
Inside Indicators: Content		
4. Accountability		**4.1**
	To whom is ERA accountable (government, parliament, courts?)	4.8
	Does ERA file reports with elected officials regarding performance of the regulatory body?	4.9
	Is there a facility for judicial review under primary law?	3.5
	Is there a formal mechanism for regulated firms to challenge regulatory decisions?	3.2
5. Transparency		**4.1**
	Are major regulatory documents (e.g. licenses) in the public domain?	3.8
	Does ERA publish major decisions (or advice)?	4.0
	Is the evidence that ERA uses to make their decisions available for examination free of charge by interested parties or the public?	4.5
6. Predictability		**4.2**
	To what extent are regulatory principles (on Tariffs, licenses, customer service) set out formally and publicly?	4.5
	Does ERA follow their published methodologies and past precedence or are there frequent changes in personnel and direction?	4.5
	Is there a published timetable of regulatory events every year?	3.6