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Kazakhstan: Power Sector Reform

Restructuring Kazakhstan's Electric
Power Industry

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RESTRUCTURING KAZAKHSTAN'S ELECTRIC POWER INDUSTRY

**"Defining Regulatory Functions and Concepts
for Kazakhstan's Electric Power Sector"**

Revised Paper Prepared by Latham & Watkins
for Consideration by the Working Sub-Group
on the Electric Power Law

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FORWARD

The Republic of Kazakhstan was formed in December, 1991 following the break-up of the Soviet Union. Since its formation, the Kazakhstan Republic has tried to improve its economy by decreasing its energy import dependency, maintaining or increasing energy exports, reducing inefficiency and by broadening its own manufacturing base. In 1994, the government of Kazakhstan (the "GOK") began to develop measures aimed at the systemwide privatization and demonopolization of the Kazakhstan electric power sector. The GOK's draft privatization plan calls for the ultimate transformation of state-owned electric power generation and distribution enterprises into private joint stock companies. The State Electric Energy Company ("SEEC"), a corporation created in 1992 (as Kazakhstanenergo), will remain as the central management entity for the unified electric power system (the "Electric Power System") providing central dispatch and transmission for Kazakhstan's republican power network (the "Republican Power Network").

In conjunction with its privatization and demonopolization goals, the Kazakhstan electric power community is now focused on two principal tasks: (1) selecting an appropriate market structure to develop the Kazakhstan electric power industry, and (2) preparing a legal and regulatory framework, including comprehensive legislation, to establish a legal background against which the power industry can function and develop.

In September of 1994, the United States Agency for International Development ("USAID") initiated a joint Kazakhstan-American working group project with SEEC and the Ministry of Energy and Coal Industry (the "MOEC") to assist with these two important tasks. The project will involve the work of a number of experts from both countries and three discreet working groups. These groups are the Private Investment Working Group ("PIWG"), the Legal and Regulatory Working Group ("LRWG"), and the Restructuring and Privatization Working Group ("RPWG"). The LRWG has been initially charged with assisting the MOEC in developing the key laws, regulations and ordinances required to restructure and privatize the electric power sector in Kazakhstan, including the drafting of a republican electricity law (the "Electric Power Law"). At meetings held in December, 1994 in Almaty, the Working Sub-Group on the Electric Power Law, comprised of representatives of the MOEC, USAID, RCG/Hagler Bailly and Latham & Watkins (the "Electric Power Law Working Sub-Group"), agreed that Latham & Watkins on behalf of the LRWG should draw on its energy sector experience and familiarity with international energy legislation and regulatory structures to produce a discussion paper highlighting the significant issues, and making specific recommendations as to those issues, relevant to the Electric Power Law. After this original discussion Paper was written, the Electric Power Law Working Sub-Group held a series of discussions on the Paper in February, 1995, in

Almaty This Revised Paper is based on the original Paper and incorporates the agreed-upon revisions and suggestions made at the February meetings

The purpose of this Revised Paper, then, is to articulate goals for regulation of the Kazakhstan energy sector and to make specific recommendations with respect to a system of regulatory bodies and the delegation of regulatory functions in order to facilitate the drafting of legislation. Of course, many of the concepts discussed herein can be implemented by laws or decrees separate and apart from the Electric Power Law

SECTION I

GOALS OF REGULATION

As a backdrop for its discussions on regulatory functions and structures, the Electric Power Law Working Sub-Group has proposed several important goals for the regulation of electric power. Effective electric power regulation in any jurisdiction should

- Promote the efficient operation of the power sector
- Ensure the reliability and safety of the power sector
- Protect the rights of electric power consumers
- Provide for the development of sufficient capacity to meet the demands of electric power consumers
- Minimize bureaucracy and the cost of regulation

More specifically, the Electric Power Law Working Sub-Group has developed a set of specific goals for the implementation of power sector regulation in Kazakhstan. These specific goals take into account the political and economic realities of Kazakhstan today. Regulation of electric power in Kazakhstan should

- Preserve the benefits of the Kazakhstan power system's current operation as a unified complex
- Maintain prices at socially acceptable levels
- Distribute the benefits derived from reform of the Kazakhstan power sector in an equitable manner
- Encourage private investment in the Kazakhstan power sector
- Increase reliance on competition as a market regulating force
- Create the economic pre-conditions for the efficient use of energy and protection of the environment

SECTION II

KEY ELEMENTS OF A KAZAKHSTAN REGULATORY SYSTEM

The LRWG has identified certain key elements which will be instrumental in the achievement of the aforementioned goals and the implementation of the GOK's privatization plan. Set forth below are six specific recommendations that we believe should be essential components of the Electric Power Law.

A The Electric Power Law should establish organizations with discrete regulatory functions to regulate the Kazakhstan electric power sector

The regulatory framework for the Kazakhstan electric power sector will be defined by the Electric Power Law. The LRWG envisions that the principal regulatory bodies will be the Republic Energy Regulatory Commission ("RERC") at the republican level and the Oblast Energy Commissions ("OECs") at the local level. The fundamental task of the RERC will be to regulate wholesale power transactions. In addition, OECs for separate geographically defined regions will be created, and each OEC shall be responsible for regulating retail power transactions in its locality. The Electric Power Law will make the RERC and the OEC permanent organizations and will define their proposed regulatory functions and authority. In addition, the Electric Power Law should clearly specify the rights and responsibilities of the MOEC and the Council of Ministers with respect to the energy sector in Kazakhstan.

B The RERC should regulate interregional aspects of the power sector and OECs should regulate local concerns

The LRWG believes that the Kazakhstan power sector should be principally regulated by the RERC, which will be responsible for the development of a wholesale power market and for regulating certain monopoly aspects of transmission and distribution. The OECs, on the other hand, should be empowered to regulate the retail market and address local concerns. This division of authority between one central and many regional commissions takes into account the relative advantages of regulation at both levels. Dividing up regulatory responsibility for regulation along coherent, practical lines will serve to promote the efficient operation of the power sector.

The nature of the electric power sector dictates that some aspects of the industry be addressed on a systemwide basis. Examples of such aspects include the wholesale power market, interregional power transmission and the import and export of power from the

system. A central commission like the RERC is the only viable means of addressing such multi-regional issues.

The existence of a central regulatory commission also makes sense for Kazakhstan from a practical standpoint. There are still insufficient resources at the disposal of regional or local governments to regulate wholesale or retail power markets without the guidance and support of the federal government. Furthermore, a system built on regionally-independent commissions presents the danger of inconsistent regulatory policy development between regions and the potential for inconsistent application of standards and enforcement mechanisms.

There should be substantial harmonization of the OECs' procedures by the RERC. This will ensure that consistent regulatory policy is applied in different regions around Kazakhstan. It will also prevent a distortion of the electricity market due to rates based on political as opposed to economic factors.

A separate issue will be the number of OECs to be established. The option suggested by the MOEC provides for 19 separate OECs, one OEC for each oblast in Kazakhstan. This scheme -- not unlike what is presently done in the United States -- has the advantage of ensuring that similarly-situated energy consumers within each oblast will be treated fairly with respect to retail rates. Another option would be to structure the jurisdiction of the OECs in such a way as to mirror the service areas of the 10 distribution energos or energy unions (each, an "Energo"). Under this scheme, there would be 10 OECs, one for each Energo. The latter option ensures that each Energo will not be forced to operate under the conflicting policy choices of two or more OECs and can thus charge uniform rates throughout its service area. However, it is possible that this one-on-one structure might produce circumstances where the relationship between Energo and OEC is viewed as either too close for customer comfort, or too adversarial for investor comfort.

Whatever number of OECs there are ultimately, such commissions will be uniquely situated to regulate the retail market. In addition, OECs are also best situated to address specific consumer protection issues because of their proximity to consumers and their direct contact with electricity retailers.

C The authority of the RERC should be closely tailored to eliminate the possibility of overlapping jurisdictions

Not all federal regulatory functions need to be performed by the RERC. There are, for example, various existing Kazakhstan government bodies that are competent to assume regulatory responsibilities. For example, the Ministry of Ecology and Bioresources (the "Ministry of Ecology") is probably the best agency to regulate environmental

matters and the Ministry of Finance (or the newly-formed National Securities Commission) should regulate securities transactions as they would in other Kazakhstan industries. Allocating regulatory responsibilities to other governmental entities serves the purposes of lessening the central regulator's overall regulatory burden, preventing redundancy, and avoiding the possibility of inconsistent results. Federal government agencies that can assist in various aspects of regulation include

- MOEC - energy policy
- Ministry of Oil and Gas Industries - oil and gas policy
- Ministry of the Economy - economic planning
- Ministry of Ecology - environmental matters
- Ministry of Finance (or National Securities Commission) - securities transactions
- State Antimonopoly Committee - concentration of market power
- State Property Committee - privatization

D RERC and OEC members should be insulated from undue political pressure

The autonomy and independence of the RERC and OECs should be strengthened by instituting fixed committee terms, allowing committees to control their own budgets and authorizing committees to hire, fire and promote their own staffs.

The independence of the regulatory commissions is essential to the achievement of several of the goals stated above. For example, the commissions will need to make tough tariff decisions to ensure that different groups of consumers are fairly treated. In addition, the commissions must have the institutional will to enforce licensing requirements involving safety standards.

Furthermore, a viable long-term electric power industry in which investors can earn a fair rate of return on capital requires effective and consistent economic regulation. The commissions will be responsible for balancing the interests of consumers and power sector service providers. Effective regulation can only occur if the committees are insulated from undue political pressure so that a rational balance can be struck between the desirability of low prices and the need for fair returns on invested capital.

Prerequisites for such autonomy are (1) defined powers, responsibilities and authority of the RERC and the OECs, (2) fixed terms for commission members with protection against geographic reassignment or other retribution for unpopular decisions, (3) authorization for the commissions to establish their own budgets, and (4) authorization for commissions to hire, fire and promote their own staffs

E A system of checks should be put in place to control the commissions' statutory authority, budgets and specific decisions

Autonomy does not mean that the regulators can be permitted to be above the law and divorced from other organs of the GOK. There must be accountability and effective oversight of the RERC and the OECs. This can only be achieved as follows. First, the authority of the RERC and the OECs should be precisely defined and limited by the Electric Power Law. The responsibilities of these regulatory bodies, therefore, should be changed only through legislative amendment or by decree. Second, the budgets of the OECs should be reviewed by the RERC, and the budget of the RERC should be reviewed by the Council of Ministers and ultimately by the Supreme Soviet, the Kazakhstan Parliament. Third, financial accounts of the RERC and OECs should be audited by the Ministry of Finance. These three measures will help to prevent the burgeoning of a regulatory bureaucracy, one of the regulatory goals stated above.

Finally, the basis for the RERC's and OECs' decisions should be detailed in writing and subject to judicial challenge. This measure will ensure that the authority of the committees is checked by judicial scrutiny.

F The Electric Power Law and all regulations issued under it should be presented to the public in a manner that will help encourage its support and participation in the process of regulation

In order for regulation to be effective, it is important that it be perceived by the Kazakhstan public as fair and appropriate. One of the above-stated goals for the Kazakhstan power sector is the protection of consumer rights. Consumers must be informed of their rights in order to exercise them. To this end, the proposed legal framework should include rules that are accessible and easily understood. Also, the purpose of the regulations should be apparent to the untrained reader. Important rules and regulatory decisions should be published in national and appropriate local media.

Where possible, the public should be given some forum for participation. To our knowledge, it is not a tradition in Kazakhstan for the public to have an opportunity to comment on proposed regulations or rulemaking. Developing an appropriate public forum will be one of the most difficult regulatory challenges for the RERC and OECs.

SECTION III

SUMMARY OF PROPOSED STRUCTURE FOR KAZAKHSTAN ELECTRIC POWER SECTOR

Although the model is still being developed, the MOEC is considering several important revisions to the structure of the Kazakhstan power sector. Before detailing the LRWG's recommendations regarding regulatory functions and structure, it may be useful to identify the various entities envisioned by the preliminary MOEC model and provide an overview of the model itself. Our recommendations regarding the regulatory structure and provisions of the Electric Power Law are based on the assumption that the preliminary MOEC model will be adopted in a substantially similar form.

The MOEC model is comprised of three principal groups of entities. The model contemplates a number of independent generation companies, one central dispatch and transmission company and various distribution entities. The specific nature of the entities that make up each of these groups is outlined below.

A Generation

At the beginning of a four to six year transition period ("Phase I"), all of the existing small generators will be privatized and all new generators will be owned by private investors. The five or six largest thermal plants and all of the large hydroelectric plants will be formed into separate joint stock companies, although the controlling interests in these entities shall be initially retained by SEEC with minority interests sold to the public. It is estimated by the MOEC that SEEC will control approximately 80% of all generating capacity during Phase I. Toward the latter part of Phase I, the state's shares in these large plants will be sold to private investors ("Phase II").

By Phase II, all generators in the MOEC model shall have become privately-held entities licensed by the RERC to produce electric power. These generators should be able to enter into long-term contracts for the sale of power to a wholesale market administered by SEEC.

B Transmission and Dispatch

Transmission and dispatch in the MOEC model will be accomplished through and by SEEC. SEEC, an existing entity owned 100% by GOK, currently owns and operates all high voltage transmission and central dispatch assets within the Republic of Kazakhstan and will continue to do so under the MOEC model. SEEC shall be allowed to operate the

entire transmission and dispatch system under a RERC license. The MOEC hopes that over time the Republican Power Network will extend to all parts of Kazakhstan and be interconnected with the other NIS states.

C **Distribution**

The MOEC model will initially rely on the existing 10 Energos to distribute power within each of the 19 oblasts in Kazakhstan. The Energos, which are currently owned by SEEC, will all be privatized during Phase I. The result will be the creation of a republic-wide network of independently operated distribution entities. The privatized Energos should have the right to purchase power on the wholesale market under a RERC license and resell such power to consumers. Energos should also be obligated to provide power to all customers in their defined regions. This entails the ownership, operation and maintenance of regional power supply systems. Ultimately, the LRWG envisions that some consumers will be able to purchase power directly from the wholesale market.

D **Auxiliary Enterprises**

SEEC currently owns a number of enterprises which support and service SEEC's generation, transmission and distribution assets. Such enterprises, many of which have already been transformed into joint stock companies, include construction companies, repair and maintenance companies and minor manufacturing facilities. Most if not all of these enterprises will be privatized during the Phase I period, according to the preliminary MOEC model.

SECTION IV

REGULATORY FUNCTIONS

The creation of a comprehensive regulatory structure for the Kazakhstan electric power sector requires the consideration of certain fundamental regulatory functions. The LRWG has delineated several key regulatory functions, as are detailed below. For every function, we have also made specific recommendations as to how such function should be performed and which regulatory body should perform it.

A Planning

In a market-oriented economy, planning is conducted by market participants. The MOEC model would create markets for the generation and distribution of electricity. Therefore, the decisions of individual generators and distributors within a regulated industry will replace a great deal of the planning that was previously necessary. However, even after the implementation of the MOEC model, regulation must ensure that important policy and planning functions are carried out by appropriate entities.

1 **Energos should be required to submit forecasts and energy plans to the OECs for review**

Although distribution under the MOEC model is performed by a relatively large number of independent Energos, oversight of planning is essential to meet energy needs. Since Energos are entrusted with the responsibility of providing service to the retail customers in their regions, they must plan and acquire the resources necessary to satisfy their customers' needs. Each year, each Energo should be obligated to prepare 5-year and 15-year demand forecasts and an energy plan. OECs should, in turn, review and approve these forecasts and plans. Based on these forecasts, SEEC should prepare and submit coordinated plans to the RERC for approval.

Such forecasts would achieve two purposes. First, OECs would be able to monitor the Energos' commitment and plans to satisfy their service obligations. Second, assuming that OECs are given the responsibility to regulate rates at the retail level, OEC approval of investment plans would provide additional assurance to regulated entities that they will recover expenditures made consistent with such approved plans, thereby encouraging investment.

2 **SEEC should be required to prepare an investment and resource plan for the Electric Power System**

While the MOEC will be responsible for making overall policy choices for the energy sector, as discussed below, planning for the sector on a yearly basis should be performed largely by SEEC. Since transmission and dispatch under the MOEC model would remain the province of SEEC, the proposed regulatory system must ensure that SEEC takes adequate measures to ensure the continued operation of its facilities and the expansion of such facilities when needed. Under the proposed power sector structure, SEEC should have the primary responsibility to prepare Kazakhstan's investment and resource plan for the Electric Power System, which such term should be defined in the Electric Power Law to include specific facilities, transactions and all other activities by electric power sector participants that affect the "national interest" of Kazakhstan. This plan, based in large part on the plans and forecasts prepared by the Energos, should be reviewed by the RERC to ensure that proper resources have been committed to the planning process.

3 The MOEC, in consultation with the Ministry of Oil and Gas Industries and the Ministry of Economy, should be responsible for the development of a systemwide energy policy and a strategy for its implementation

The MOEC is well-prepared to produce a systemwide energy policy and strategy plan since it currently performs this function. For example, in its policy defining role, the MOEC may determine that Kazakhstan should place a greater emphasis on the use of renewable fuel resources, increase the use of nuclear technology or decrease the use of "dirty" fuels by means of tax incentives. The MOEC should also develop strategic plans for implementing its policy choices. Furthermore, its ministerial status affords the MOEC the broad vision that is necessary to weigh competing policy concerns. The MOEC also has close ties with the federal administration, a link that will help the MOEC integrate its strategy into cross-sector economic efforts. In particular, the MOEC should consult with the Ministry of Oil and Gas Industries and the Ministry of the Economy in the preparation of its policy and implementation strategy to ensure that they fit into the government budget and strategic economic plan.

4 The MOEC should conduct research with respect to new technologies and energy conservation programs

An important function of the MOEC should be to conduct research with respect to innovative energy technologies which will benefit the industry as a whole. This research could be funded by assessing an annual charge or "research contribution" against energy sector companies which would then be placed into a fund to be used by the MOEC in its energy sector research efforts. The assessments would be properly included in tariffs and the costs of research passed through to energy consumers.

5 The RERC should not be responsible for the approval of government plans for arranging new generation and transmission resources

Publicly financed projects may be necessary as a last resort if the private sector does not invest in adequate power resources. Ultimately, each market participant, and in particular the Energos, should be responsible for arranging new generation and transmission resources. An important issue to be discussed will be whether in the long term Energos should be allowed to own generation assets. In any event, in the near term, the responsibility for arranging new generation and transmission resources should stay with the GOK.

To eliminate conflicts of interest, the RERC should not be responsible for developing government-financed projects. This function should be performed by the MOEC or the Ministry of Economy, which is already in charge of Kazakhstan's long term economic development. However, because of its unique position in the market and its understanding of needed investments, SEEC should be obligated to prepare initial case studies and proposals of investment projects for submission to the MOEC or the Ministry of Economy, as appropriate. This would be a continuation of a function that SEEC now performs and would ensure consistency with SEEC's investment and resource plan.

6 Investment projects at the local level should be promoted by the local governmental bodies

Nothing in this Revised Paper should be construed to imply that local governments cannot take an active role in the promotion of power generation or the improvement of other power sector facilities. Local governments are keenly aware of the present system's deficiencies and are positioned well to encourage local investment. Indeed, one of the primary goals of reform is to encourage independent participation in power generation. Local governments play a key role in attracting investors and providing the local support necessary for the development of power projects.

B Licensing

The Electric Power Law should establish a licensing regime under which each electric power market participant (except non-power generating consumers) receives a license to engage in a specified commercial activity. The following specific recommendations address the issuance and content of such licenses.

1 The RERC should issue licenses for generation, SEEC and the Energos

All licenses should initially be issued by the RERC and should be designed to cover the specific function licensed (e.g., generation, transmission or distribution). The RERC is best prepared to create and preserve a consistent procedure by which licenses are issued and to ensure that there is a "level playing field" for initial entry into the market. With regard to the licensing of Energos, however, the appropriate OEC should be required to approve the license before it is issued by the RERC.

In order to perform this function, the RERC should be empowered by the Electric Power Law to develop licensing rules and conditions.

2 OECs should issue licenses for the resale in their respective regions of electricity bought from Energos

Due to their regional character, OECs are close enough to retail customers to closely monitor the resale of energy by third parties under contract with Energos (to the extent any exists). OEC's performance of this function would also help encourage competition within the distribution sector since it would impose less of a burden on resellers to apply to OECs for a license than to the central RERC. Like the RERC, the OECs should be empowered by the Electric Power Law to develop licensing rules and conditions in order to carry out this function.

3 SEEC and the Energos should receive licenses only in return for certain service guarantees

Licenses granting exclusive service areas should be created and issued to SEEC and the Energos. Distribution licenses should allow for the provision of services in defined geographic "service territories" for a fixed period of years. In addition to the right to provide service, such licenses should also give holders the right to request the condemnation of land. For the foreseeable future, service territories should be drawn along the geographic lines of service being provided by the 10 Energos.

The SEEC transmission and dispatch license should allow SEEC to provide dispatch and transmission services of the Electric Power System covering the entire territory of Kazakhstan. SEEC's license should have an unlimited term.

Each license essentially serves as a contract, pursuant to which the Energos are given an exclusive service territory in return for assuming an obligation to serve all customers within that territory. Fixed terms should require such licenses to be periodically renewed and the performance of the license-holder assessed. At the distribution level, renewals may occur on a competitive basis according to the judgment of the regulator.

4 The effectiveness of licenses issued by the RERC should be conditioned on certain duties

Licenses need to clearly define the licensee's duties. Some duties are important enough that they should be statutory prerequisites to the issuance of licenses. The following duties should be included in the Electric Power Law as conditions to licenses' effectiveness:

- the obligation to serve all non-delinquent customers on a non-discriminatory basis,
- the maintenance of economic and efficient service (including, for SEEC, merit dispatch and the development of operating and pricing rules for transactions within a republic-wide power market),
- modernization of facilities,
- compliance with all GOK laws,
- compliance with RERC and OEC regulations, including performance standards, reporting requirements, standardized accounting rules, and codes of conduct,
- limitations as to certain business activities,
- the development and maintenance of cost-reflective tariffs that are fair to consumers, appropriately define customer classes, encourage efficiency and ensure the financial viability of the regulated entities, and
- agreement to submit to appropriate dispute resolution forums

Licensing procedures and the approval process should be equitable for all market participants. To the extent that various OECs obtain approval functions, their procedures should be harmonized and subject to RERC review.

5 Licenses should not be required for very small facilities, "inside the fence" industrial facilities or consumers

There is little need to regulate the production of power by consumers when such power does not ever reach the wholesale market. However, at least during Phase I, generators should not bypass the wholesale market and distribute electricity directly to other entities.

6 The renewal of licenses should be conditioned on certain performance standards established by the RERC or the OEC (for resellers)

Participants should be forced to uphold certain minimum levels of service quality. The denial of renewal applications should be an important tool for the commissions to enforce performance rules. However, the commissions should be careful not to establish performance standards that are unattainable under the applicable rate regime or given the overall state of the industry.

C Rate Regulation

Rate regulation will play an important role in the development of Kazakhstan's electric power industry at both the wholesale and retail levels. At the wholesale level, regulations should facilitate the development of an efficient, reliable and cost-based wholesale power market. They should also be designed to promote competition. In other words, they should be flexible enough to be modified as the market develops.

At the retail level, rate regulators should have the purpose of restricting the monopoly tendencies of distribution companies and protecting power consumers. As in the wholesale market, retail rate regulation should strive for efficient use of assets and the sale of power at economical costs. At both levels, rate regulation should be transparent and easy for the public and the electric power industry to understand.

In recommending changes to the Kazakhstan system, one should keep in mind the overall objectives of rate regulation. These include (1) permitting sellers to recover their costs of providing service, including a sufficient profit margin to finance capital improvements and new construction, (2) protecting consumers against excessive prices, (3) encouraging efficiency by making the regulated company's profitability depend on its ability to control costs, and (4) encouraging the efficient usage of electric power by setting rates that send price signals regarding the relative availability of power. In general, the RERC should monitor tariffs to ensure that the portion of revenues set aside for capital improvements and other costs are in fact used for those purposes. Ultimately, electric power rates should reflect the costs of providing service. Such rates are likely to differ by time, by customer class, and by type of electric service.

1 The current rate-making procedure should be revised to eliminate political influences

Today's system for establishing rates involves substantial work by other Kazakhstan government bodies, the Kazakhstan State Committee on Pricing Policy and the Ministry of Economy still largely perform rate calculations. As a result, rate making is the subject

of considerable political oversight. In order to attract private investors to the Kazakhstan market, the current decision-making structure should be revised to eliminate this political influence. In addition, economic regulation in Kazakhstan should be made substantially more transparent.

2 The RERC should perform rate making for the following electric power transactions

- wholesale power purchases from generating companies,
- wholesale power sales to Energos,
- SEEC transmission and dispatch services,
- direct power sales to ultimate consumers from the Electric Power System (when and if allowed),
- cross-border sales, and
- power market pricing

3 Each OEC should perform rate making for the following electric power transactions

- power sales by Energos to captive retail customers,
- "low voltage" transmission services provided at the regional level, and
- localized power procurement arrangements with suppliers outside of the Electric Power System (to the extent permitted)

4 In the retail market, the OECs should use the cost-of-service method to set tariffs

In the retail market, the OECs should be primarily responsible for the approval of tariffs. There are essentially two possible models for rate making at the retail level: cost-of-service and indexation.

Under the cost-of-service model, the regulatory process begins with a request by the Energo to the OEC for approval of electric power rates. As an initial matter, the OECs will allow the Energos to pass through to their customers the amounts paid to SEEC for

wholesale power. The OECs should then review an Energo's operating expenses and decide which expenses are allowable. Next, the OECs should determine the "rate base." This is done by ascertaining the net amount of capital investment the Energo has made. Capital investment includes tangible property such as plant and equipment as well as intangible property such as working capital and leases.

There are alternatives for valuing capital investment. Plant and equipment, for example, can be valued at its original cost. Considering possible inflationary trends in Kazakhstan, however, replacement cost might be more appropriate.

This cost information should then be used to determine an Energo's "cost-of-service" (the amount of money it needs to cover its variable and fixed costs including a fair rate of return on investment). This computation is usually made on the basis of the costs and sales of the Energo in some "test period." That is, some historical or projected period should be selected and the revenues required to cover the expected costs of the Energo in that "test period" determined.

The final step is rate setting. The cost-of-service to be recovered should be divided among the different classes of service or customers and converted into unit prices (e.g., tenge per kilowatt hour). When the rate for each class of service is multiplied by the expected sales and totaled, the total expected revenue should equal the cost of service. These rates should remain in effect until the next rate calculation. Rate calculations ("rate cases") should be conducted on a regular basis.

Rates should not be so low as to be confiscatory. Since we believe that there is no constitutional or judicial precedent in Kazakhstan to ensure that rates are not confiscatory, the Electric Power Law should contain some basic criteria that the OECs must apply in order to prevent a confiscatory result. Additionally, Energos should be able to terminate service to customers who have not paid their electric power bills for a specified period of time.

The indexation model, by contrast, sets an Energo's rates by using a formula involving changes in prices other than the Energo's costs. Indexed regulation specifically involves an initial determination of the base price an Energo will charge when regulation begins. The regulator then permits the regulated firm to adjust that base price periodically in accordance with some pre-approved "index" (e.g., consumer price index). In England, for example, rates are adjusted using the UK Retail Price Index. If such a system were to be used in Kazakhstan, however, adjustments must be made for productivity improvements and for any significant cost-increasing investment, such as a new transmission line or substation. Various other adjustments to reflect changes in the Energo's situation can be built into the index, but complexity increases substantially with every adjustment.

There are two distinct disadvantages to the indexation model which may make it impractical for the Kazakhstan power market. The first is the lack of any stable index upon which regulators can rely. The second is an inability to accurately establish a "true" base price. Given the constantly changing economy in Kazakhstan, there is as of yet no reliable index upon which a pricing system can rely. Additionally, the economics of most companies in Kazakhstan fluctuate in the course of a very short time frame and in ways that cannot be reflected in any simple price-adjustment formula. Therefore, under an indexation model there would be a need for numerous periodic reviews of the regulated firm's costs and revenues to insure that equity investors are recovering some but not excessive profit. This means that even with indexed regulation, something like the type of investigation required by the "cost-of-service" rate regulation would need to take place. Kazakhstan is only in the early stages of making transition from a subsidized power market to one in which prices accurately reflect costs. Given the lack of any reliable index and the irregularity of costs, the indexation method of rate-making is likely to produce results that are unacceptable to either regulators or power consumers.

Additionally, prices used as the "base prices" for electric power must be viewed by the Kazakhstan public as economically acceptable. This is vitally important for attracting private investment (both foreign and domestic) in Energos. Retail pricing in Kazakhstan will be the subject of debate.

5 The RERC should cause all market participants to use a uniform system of accounting in order to ensure fair rate-making

Assuming that the cost-of-service model will be used, one of the cornerstones of successful rate-making will be the establishment of a uniform system of accounting to be used by all market participants. The RERC and each OEC should have as one of their primary initial tasks, the establishment of uniform accounting rules to be used for all cost calculations at the wholesale and retail level. Such procedures should be used by SEEC for general accounting activities as well as for the preparation of wholesale price data to be reviewed by the RERC.

6 The RERC should regulate rates for power markets and capacity contracts

Generators should be paid for energy and capacity separately. If a national power market is established, each generator in the market should receive payments for energy when dispatched at the highest bid price in each hour of dispatch. Assuming any "old plants" are still in existence during the final stage, they should continue to receive cost-based payments, as discussed in Section VI. Capacity payments should be paid by SEEC as provided in individual contracts. All such contracts should be regulated by the RERC.

Additionally, all contracts between SEEC and the Energos should include the price for transmission on the republic-wide grid. The RERC should regulate such price which should include SEEC's costs of transmission and dispatch as well as a regulated margin to allow SEEC to earn a fair profit.

D Financial and Securities Regulation

An important function of the regulatory system is to monitor financial and securities activities of power sector participants. Three important regulatory considerations should be addressed: (i) investments in non-core businesses (e.g., not related to the electric power supply business), (ii) issuance of securities and assumption of liabilities by energy sector participants and (iii) business combinations.

1 The RERC should have authority to regulate investments in non-core businesses, the issuance of securities and the assumption of liabilities through the licensing procedure

One could argue that there is no special need for involving the RERC in the securities transactions of private electric power companies. Securities regulation for all Kazakhstan businesses is currently being administered by the Ministry of Finance under the Law on the Availability of Securities and Stock Exchange of Kazakhstan. In the future, the newly-formed National Securities Commission will be the primary regulator of securities transactions in Kazakhstan.

However, RERC review of investments in non-core businesses (and core businesses) is justified since existing regulation would not protect captive consumers. Consumer interests in the power sector differ greatly from the general anti-competitive effects that the Ministry of Finance or the State Antimonopoly Committee is prepared to control. For example, an Energo that decides to speculate in timber probably would not run afoul of securities laws. However, irresponsible investment could hurt consumers by threatening an Energo's financial health. In a similar way, imprudent decisions regarding the issuance of securities or the assumption of debt could directly threaten an Energo's financial health. In each case, the increased costs of a financially unsound Energo could easily translate into higher retail rates.

The RERC is in a unique position to protect consumer interests in the power sector since the licensing process allows it to closely monitor non-core investments. In issuing licenses to SEEC and the Energos, the RERC can narrowly describe the business activities in which they may engage. These entities would be able to expand into other businesses or make non-core investments only by amending their licenses in accordance with the conditions the RERC determines are appropriate to protect consumers interests. In addition, the

RERC should have approval authority in cases where a regulated entity decides to issue securities or assume liabilities over a specified level

2 The RERC should have authority to approve business combinations that are not technical violations of antimonopoly laws

Questions of market domination, it can be argued, currently fall within the regulatory domain of the Kazakhstan State Antimonopoly Committee or the Ministry of Economy. Granting separate authority to the RERC to approve financing transactions, it can be argued, would be unnecessarily duplicative and burdensome and would have the effect of discouraging investment.

Nonetheless, we believe that the RERC should have a limited role in protecting consumers and investors given its unique knowledge of the power industry. Business combinations and alliances could affect the power market in subtle ways that would not be evident to outside regulators. Moreover, since the power sector actually functions as a number of licensed monopolies, it would be difficult for either the State Antimonopoly Committee or the Ministry of Economy to apply the same standards that it employs in its regulation of other sectors.

Therefore, the RERC should have the power to approve business combinations that could potentially threaten consumer rights even though they do not technically violate existing anti-monopoly statutes. This concept would keep the jurisdictions of the RERC, the State Antimonopoly Committee and the Ministry of Economy from overlapping while preserving the RERC's right to oversee crucial transactions.

E Environmental and Land Use Regulation

An increasingly important and pervasive issue for all industries in Kazakhstan is that of environmental protection.

1 We recommend that the RERC not be directly involved in environmental regulation of the electric power sector

In general, the RERC should not be directly involved in environmental regulation of the electric power sector as there is already established a competent government agency for these issues -- the Ministry of Ecology. In addition, at the local level, some oblasts and cities, such as Almaty, have issued their own environmental ordinances, although the level of enforcement of these codes is not known. If the RERC were to get involved, it would need to develop the necessary environmental expertise, thus duplicating technical resources already existing in the Ministry of Ecology and in these local agencies. Moreover,

combining responsibility for economic regulation and environmental regulation creates conflicts of interest between the goal of keeping electric rates low and the goals of environmental protection. It would be prudent, however, to require that the Ministry of Ecology consult with the RERC as republic-wide environmental policies are developed for the power sector. Similarly, local environmental regulators should consult with the OECs with respect to ordinances which affect the electric power generation or distribution businesses.

Unlike the regulation of business combinations and new business ventures, environmental compliance does not directly effect power consumers. As we previously stated, the RERC stands in a unique position to protect power consumers. However, the costs of environmental damage are borne by the population generally or by inhabitants of specific regions. The RERC is not the proper authority to protect the interests of such groups.

To ensure the electric power industry's compliance with environmental regulation, the RERC licenses issued to SEEC and the Energos should include a condition requiring compliance with all applicable rules and regulations of the Ministry of Ecology and appropriate local agencies. The Ministry of Ecology should also be authorized to request that the RERC revoke a license upon a determination that a generator or an Energo failed to comply with such environmental regulations.

2 We recommend that the RERC be given the authority to override regional land-use restrictions in certain situations

Permission to build specific power plants is a subject separate and apart from licensing of commercial activity. The new regulatory framework must require permits for the construction of specific power stations and transmission lines. As a general matter, the RERC should not become actively involved in the regulation of the use of land and water resources. Authorizing the use of land resources to build a power plant or to distribute power is appropriately handled by local governments given the impact on the local environment and local population. Similarly, the use of water resources is the proper domain of the Committee on Water Resources.

At the same time, however, the Electric Power Law must preserve the GOK's right, in specific situations, to override the decisions of local authorities. The use of land for transmission, for example, should be subject to some regulation at the federal level. In the case of nuclear power projects, permission-granting authority should be retained exclusively by the GOK regulatory bodies which oversee the nuclear industry in Kazakhstan. The GOK should also have the authority over hydroelectric power projects to the extent they impact on the interests of several regions.

The RERC should only reverse decisions by local governmental authorities and grant authorization to construct power plants or transmission facilities if it concludes that such facilities are necessary to promote the "national interest " This determination can be made only after balancing all the competing uses of the land and evaluating the opinions and recommendations of all interested parties, particularly the local and governmental authorities who would otherwise have been responsible for licensing land use Having obtained the RERC's authorization, investors need assurance that they can obtain the necessary land Therefore, the authorization obtained should also include the right of eminent domain

In addition to the above authority, the RERC should review and approve all SEEC plans for constructing transmission facilities Such approval should also include the right of eminent domain

F Data Collection and Dissemination

1 We recommend that the RERC and OECs be repositories of information that may be useful to market participants and the public

The RERC and the OECs should amass a large repository of information useful to all industry participants, and the Energos and SEEC should be required to submit considerable information to these regulators in the course of their business The RERC should be principally responsible for determining the type and form of information that needs to be collected from the industry and making such information available to the public The RERC should harmonize such forms and procedures to be used by the OECs, although the OECs should be responsible for collecting information in each service territory

All information (other than that which is commercially sensitive or proprietary) should be made publicly available The RERC and each OEC should maintain well-organized libraries, where the public would be permitted to conduct information searches Such libraries should be open at times that are convenient to the general public

2 We recommend that the RERC issue periodic reports on the power sector

The RERC is the governmental entity best suited to assess the adequacy of the private sector's investment in power resources, the development of competition, and the health of the industry The RERC should be required to submit periodic reports to the MOEC regarding the status of the electric power sector utilizing the information it receives from the transmission and distribution companies An evaluation of the competitiveness of the industry, barriers to market entry, and recommendations thereto, should be included in these reports

Reports should be prepared by means of a process that solicits opinion and comment from all concerned parties, including the regulated entities, industrial customers and the provincial governments. Recommendations that the RERC prepares for reforming the electric power sector should be made available for public comments before being formally submitted to the MOEC.

3 We recommend that the RERC not be involved in the government-sponsored promotion of power sector development projects

Promotional efforts by the GOK to encourage private investment will probably be required for the foreseeable future and should be concentrated under one government entity. Promotional efforts may include such assistance as aiding developers of power projects in their efforts to obtain permits and providing fiscal incentives to encourage investments.

This promotional role should be assumed by the MOEC and not by the RERC to ensure that RERC does not have a conflict of interest when it comes time to regulate such projects. Ultimately the primary work could be delegated to SEEC or another entity best suited to perform this function. Such work could be periodically renewed and approved by the MOEC. Vesting this authority with the RERC would not only complicate the RERC's regulatory tasks, but would result in the RERC becoming intimately involved in Energos' procurement decisions.

G Safety and Reliability

An important aspect of regulation is to ensure that electric power facilities are constructed and operated pursuant to certain minimum safety and reliability criteria that will prevent accidents and hazards to citizens and property. Safety and reliability criteria should also apply to consumers, especially large-industrial consumers. Appropriate regulatory bodies should be responsible for the establishment and enforcement of safety and reliability criteria.

1 The RERC should be responsible for the development and approval of industry safety and reliability standards for construction enterprises

In the past, power plant construction was conducted by state enterprises pursuant to standards established by the government bodies to which they were subordinate and by certain other key organizations. Such organizations included the State Energy Control and Surveillance Organization and the State Inspectorate of Power Stations and Transmission Lines. To our knowledge, there was not then, nor is there now, any licensing or permitting of construction firms in the power industry.

Since the MOEC model would entail the engineering and construction of power generating and distribution facilities by private enterprise, both foreign and domestic, some level of approval is recommended. The RERC as the primary regulator of the wholesale market seems best prepared to assume responsibility for such approval. More specifically, the functions formerly performed by the State Inspectorate of Power Stations and Transmission Lines and the State Energy Control and Surveillance Organization should be transferred to a department within the RERC. As a practical matter, the employees of these two organizations could become part of the RERC's staff.

2 The RERC should be responsible for the safety and reliability of operators and consumers

With respect to plant operation, safety standards are currently addressed by divisions within the MOEC and SEEC. These divisions establish safety and technical operating standards, including criteria for frequency and voltage use and efficiency by consumers, and safety and technical criteria for power supplying organizations.

We recommend that the functions currently being conducted by these divisions be combined into one body within the RERC.

3 The RERC should establish uniform safety and reliability standards for the consumption of electric power

Although it would be impracticable to license all electricity consumers, the RERC should recognize the safety and reliability concerns that exist at the level of electricity consumption.

H Labor Relations

Another function that should be addressed by the regulatory structure is the approval of trade union agreements with power sector labor unions and the regulation of minimum wage standards. The LRWG believes that wage agreements for the power sector are currently executed by SEEC, the MOEC and the power sector trade union. As a result of such agreements, the minimum wage for power sector employees is substantially higher than the minimum wage for the general population. In the future, following divestment of Energo and SEEC assets, each power sector company should have to execute trade union agreements on its own, without the aid of SEEC.

We recommend that the RERC be obligated to approve such agreements.

I. Private Investment

Reducing barriers to trade in energy and energy technology across international borders and encouraging private investment are both vital steps to restructuring and developing Kazakhstan's energy power sector. In conjunction with the regulatory structure described in this Revised Paper, the Electric Power Law should promote investor confidence in Kazakhstan's electric power sector by promoting competition, allowing profits earned in the industry to be freely transferred out of Kazakhstan, creating transparent conditions for investors and safeguarding investors against government expropriation, among other measures. The RERC should also be expressly prohibited from discriminating against foreign investment and cross-border sales (except where an issue of "national interest" is at stake), and the Electric Power Law should reference those laws and international agreements of general applicability to foreign investment, including the Law On Foreign Investments and the European Energy Charter Treaty.

J Enforcement

Power sector participants should be required to comply with their service obligations as defined by their licenses and the RERC's and OECs' regulations. Such obligations should include the duty to provide service on a non-discriminatory basis as well as to comply with performance standards.

1 We recommend that the RERC's and the OECs allocate enforcement responsibilities

OECs should monitor service quality and investigate consumer complaints. Major service problems identified by the OECs should be brought to the attention of the RERC for enforcement action. The RERC should then be able to levy monetary fines to encourage compliance and, under extreme circumstances, the RERC should have authority to revoke service licenses for poor performance.

Enforcement actions should be taken by the RERC only upon an adequate evidentiary record. This would require that (1) the OECs submit periodic reports on the performance of the Energos, (2) consumers be able to challenge the OECs' failure to address service complaints adequately by taking an appeal to the RERC, and (3) RERC enforcement actions be effected by written decisions after having provided the appropriate parties with an opportunity to address allegations regarding inadequate service.

The specifics of procedures for reports, investigations and enforcement actions can be developed by the RERC and the OECs in consultation with each other. It is understood that there may be circumstances in each region that warrant variations between service

It may also involve consideration of the local governments which the OECs are better prepared to handle. Differences between regions may result in separate rules being prepared by the OECs with approval from the RERC. On the other hand, the RERC should, to the extent possible, require the harmonization of service obligations to prevent extreme disparity between service territories.

If an OEC is exercising an enforcement task, it should be empowered to issue fines and to take other actions. Where a particular violation requires a license revocation, the OEC should be authorized to request that RERC institute a speedy review proceeding. Such proceedings should include standards of review that place the burden on the market participant to show cause why the revocation is not warranted.

2 We recommend that the RERC monitor activity in the wholesale market

The RERC should have enforcement responsibilities over participants and transactions in the wholesale market. Enforcement actions could be initiated upon complaint of a private party, at the request of a local government or appropriate federal entity, or on the RERC's or an OEC's own initiative. Penalties should be imposed only after an opportunity for response by the accused party. To be effective, the enforcement action must be designed to reflect the severity of the violation. Enforcement actions should include monetary penalties, equitable remedies such as divestiture of assets, as well as the revocation of licenses. In instances of fraud or corruption, criminal penalties may be appropriate.

K Dispute Resolution

One of the most important tasks to be performed by the RERC and the OECs will be the resolution of certain disputes. Because of their role in regulating and monitoring electric power industry transactions, the RERC and the OECs should be uniquely qualified to resolve disputes between power sector participants especially as they pertain to conflicts over such matters as rate-making and service obligations. At the same time, the ultimate authority for dispute resolution should be vested in the Kazakhstan court system.

1 We recommend that the OECs have initial jurisdiction in disputes between consumers and Energos

OECs should perform one very basic dispute resolution function. They should review disputes between consumers and Energos as well as between two Energos located in the OEC's service territory. OECs should have no appellate review function.

2 The RERC should have original jurisdiction and appellate review in certain disputes between market participants

The RERC should have original and appellate jurisdiction. The jurisdiction of the RERC should be "administrative" in nature. Namely, it should cover disputes between specific participants involving issues that are not within the exclusive province of the Kazakhstan courts. In general, the RERC should be the forum of first review for disputes between

- an OEC and a consumer,
- an OEC and an Energo,
- two Energos,
- two OECs,
- SEEC and a generation company or Energo, and
- a generation company and an Energo over wholesale transactions (when and if allowed)

The RERC should have appellate jurisdiction over appeals of OEC decisions by customers or Energos. The law should require that all electric power market participants be required to submit to the RERC jurisdiction for administrative proceedings. A similar condition should be included in the license of each market participant.

3 We recommend that RERC decisions be reviewable by the Kazakhstan Supreme Court

Ultimately, decisions by the RERC with respect to non-constitutional issues should be reviewable first by an appellate court within the Supreme Court "system," the general jurisdiction courts, and ultimately by the Supreme Court itself. The Supreme Court system in Kazakhstan has the authority to hear challenges to government agency decisions, and it is thus appropriate for the Supreme Court to also hear appeals of RERC decisions. As provided by statute, questions regarding constitutional challenges to the Electric Power Law or the exercise of RERC jurisdiction should be appealable to the Constitutional Court. These rights to judicial review are ones that should not be waived or rescinded by the government.

Another option would be to create a special "appeals panel" to review RERC decisions. However, there may be some practical problems with using a special panel. First, creating such a panel would create a potential for substantial conflict with the authority of the Supreme Court. In addition, establishing a new independent body with powers above the RERC could substantially undermine the credibility of the RERC and its decisions. The

mere existence of a superior body might promote a tendency to appeal each and every decision. Furthermore, if the Kazakhstan Supreme Court retains the ultimate power to review RERC decisions, the resolution of disputes is likely to be lengthened to such an extent that justice may not be served by the time a final decision is reached.

However, we recognize that as a practical matter, the existing court system in Kazakhstan may not have sufficient expertise to review detailed rate-making decisions. To address this problem and to strengthen the court's ability to review power sector cases, it might be advantageous for the Supreme Court to appoint specific judges or panels of judges to specialize in these types of cases. These judges would receive training and background in electric power industry issues. They could also consult with experts in the course of rendering an opinion.

In addition, it might be advantageous to create an independent 3-person "appeals panel" comprised of two senior government officials and one supreme court judge to review cases involving rate determinations. In effect, this panel would have a very narrow subject matter jurisdiction, leaving all other cases (e.g., disputes over fines levied by the RERC or RERC decisions to revoke licenses) to be reviewed by the regular appeals court. The panel would be subject to very strict time limitations and would be limited to a review of the rate-making calculations and procedures used in formulating the rates in question. Decisions would be made by majority vote of the panel.

SECTION V

STRUCTURE OF REGULATORY BODIES

The revised market structure proposed by the MOEC will make new and different demands on Kazakhstan's system of energy regulation. The regulatory bodies created by the Electric Power Law must be prepared to perform the regulatory functions assigned to them under new structure.

To meet the regulatory goals set forth in this Revised Paper, the regulatory bodies should be made internally efficient. Efficient internal organization will translate into lower regulatory costs and quick, effective performance of regulatory functions. The internal structure of the regulatory bodies also affects the ability of such bodies to work together within an overall system of regulation. The following recommendations should assist the GOK in the design of internally efficient and well-integrated regulatory agencies. Specifically, they propose a structure for the RERC and OECs.

A Republic Energy Regulatory Commission

Under the regulatory structure described herein, the RERC would have six general functions: (a) rate regulation, (b) licensing, (c) establishing and approving service codes and procedures, (d) information collection, dissemination and resource planning, (e) dispute resolution, and (f) enforcement. To perform these functions effectively, the RERC must be prepared to collect and analyze tremendous amounts of information in a necessarily short period of time. It must also have the institutional will to assert its regulatory role in an environment dominated by large, powerful institutions.

To accomplish these functions, we recommend that the RERC be a small, multi-member commission made up at least partially of technical experts. The Chairman of the revised RERC should have significant powers of delegation and the ability to hire a large professional staff. The RERC structure proposed here also would require the annual submission of a budget and the preparation of materials that keep the Kazakhstan public informed of RERC actions. These recommendations would make the RERC an independent, capable regulatory agency.

For purposes of this Revised Paper, we have assumed that RERC will only regulate electric power in Kazakhstan. However, once RERC has been established, the GOK could easily give RERC regulatory jurisdiction over other areas, such as coal, oil, gas and perhaps even telecommunications.

1 The RERC should be structured as a multi-member commission

There are two alternative structures for the design of a regulatory body: single administrator or multi-member commission. A single administrator is generally considered more efficient than a multi-member commission. A single administrator has greater control over staff and is able to render decisions more quickly. On the other hand, a multi-member commission is considered more politically neutral, has more people to make decisions and to carry out RERC's functions and is less susceptible to improper influence and political interference.

Regulation of the electric power sector involves a number of difficult technical, engineering and economic issues. Placing the entire responsibility for regulating Kazakhstan's electric power sector on a single individual might push such a person beyond his or her limits. A multi-member commission, if properly structured, can bring together the diverse set of specialties required for informed decisions and makes it possible for experts from various fields to interact and contribute. Thus, we recommend that the RERC be a multi-member commission.

2 The size of the current RERC should be small

A large RERC allows representation from a broad cross section of interest groups and expertise. On the other hand, an overly large RERC would prove unwieldy and experience bottlenecks in decision-making. Furthermore, a large commission may open the door to "political" instead of "practical" decision-making.

After careful consideration of commissions of different sizes, we recommend a five member commission. This is a logical size for a number of reasons. First, a small commission will substantially increase the RERC's efficiency and rate of decision-making. At the same time, a group of five is large enough to allow representation by different interest groups.

Second, a small board will enhance each member's ability to contribute. A large commission would make the responsibility of its members extremely diffuse, if not perfunctory. A small group would facilitate meaningful dialogues between members that would not be possible in a large group. Since under the regulatory structure proposed herein the RERC would have the important tasks of monitoring and facilitating the growth of the power industry, its size must be kept within limits. Such limits should allow for cohesion and unity of purpose among RERC members while providing sufficient manpower to perform regulatory functions.

3 The RERC should be partially composed of experts from important technical fields

The RERC should to be structured according to functional expertise rather than along interest group lines. While it is certainly important that appropriate interest groups are represented on the RERC, there should be a legal requirement that certain defined areas of technical expertise be represented as well. Important areas of expertise include economics, law, finance/accounting, engineering and management. Of course, more than one of these areas can be covered by one person. The Electric Power Law should require that these five functional areas be taken into account in the course of the selection process.

4 RERC members should be appointed by the President and the Council of Ministers

Inasmuch as the RERC would be created under federal law, its members should be appointed by senior officials of the GOK. The most appropriate official to appoint the Chairman of the RERC is the President after consulting with the Prime Minister, the Council of Ministers should appoint the remaining members of the RERC. Of course, all members of the RERC will need to meet the minimum qualifications specified by statute.

The position of Chairman of the RERC should be equivalent to that of a cabinet minister, and the positions of the remaining RERC members should be akin to that of deputy ministers.

5 Members of the RERC should be appointed for a fixed term of years and such terms should be staggered

Members of RERC should be appointed for a fixed term and should work on a full-time basis. To aid in setting up the RERC as a politically independent agency, members of the RERC should be appointed for a period of five years and should have staggered terms. Thus, a new member should be appointed or an incumbent reappointed every year. It is recommended that the first members have different terms of service, so as to permit such staggering.

It is recommended that each member be eligible to serve no more than two five-year terms. Members appointed initially will be able to serve their first term plus one additional five year term. This serves the important purpose of precluding the creation of permanent alliances and influence by interest groups. For instance, the limitation to two terms would discourage individuals from viewing employment as a member as one's primary career. Also, a periodic influx of new management would be healthy for the RERC.

6 Members should be removed from the RERC only for cause after public hearing

For the RERC to be able to make politically-difficult decisions regarding rates and other sensitive areas, members should not fear retribution for making such decisions. To ensure this independence, prior to the conclusion of their fixed terms, members should be dismissed only for malfeasance or mental illness. Members should not be reassigned to other positions or forced to leave without their consent. Removal should only occur according to a legislatively defined process.

The process of removal should function as follows: if the President or the Council of Ministers believes a member of RERC is either guilty of malfeasance or mentally ill, the President or the Council of Ministers, as appropriate, should be required to serve that member with a charge sheet outlining the charges warranting the member's removal. The member should then be able to reply to the charges in writing within a fixed period of time. If the charges are denied, the President or the Council of Ministers, as appropriate, should appoint a court judge to hear the charges. The hearing officer should be empowered to hold a hearing with both sides being given an opportunity to present their respective positions. The hearing officer should then prepare a report rendering a verdict to be submitted to the President and the Council of Ministers. Only after this process has been completed should a member be removed from the RERC. Furthermore, the removal process should be subject to the appellate review of the Supreme Court.

7 The RERC Chairman should be appointed by the President and given powers of delegation and appointment

As stated above, the President in consultation with the Prime Minister should designate which member of the RERC shall serve as Chairman and Chief Executive. The remaining four members should report to the Chairman. The Chairman should have the authority to delegate decisions to any individual member, whose decision would stand as a decision by the commission. However, such delegated authority should not extend to rate determinations and determinations regarding license requirements. In addition, decisions by individual members through the exercise of delegated authority should be appealable to the full commission. Finally, the Chairman should have the authority to hire and fire staff.

The RERC chairmanship should not rotate. During any absence, the Chairman should appoint one of the members as Acting Chairman to act with the authority of the Chairman.

8 Each member should be assigned oversight responsibility for specific regulatory tasks

Each member of RERC should be assigned a priority task by the Chairman -- *e.g.*, tariff reform, performance standards, license and accounting standards. In these areas, we would expect staff to report to and work directly with individual members. The priority tasks should be rotated among members at defined intervals in order to broaden members' expertise and experience. Details as to how responsibilities will be assigned and rotated should be established by the RERC.

9 Each RERC member should meet certain minimum professional qualifications

Members of the RERC should be highly qualified professionals, and the Electric Power Law should specify minimum qualifications for members. In each case, we recommend the following basic requirements:

- at least ten years of relevant experience in management, government, or business,
- an advanced degree in the member's area of expertise,
- at least five years' practical experience in the member's area of expertise,
- relevant work experience in Kazakhstan, and
- a clean personal record, reflecting professional integrity and honesty

10 The RERC Chairman should be an experienced professional with management experience

The Chairman for the RERC should be a highly respected and recognized individual with at least fifteen years of senior management experience. The Chairman of the RERC should have a rank equivalent to the head of a State Committee and have an accounting/financial, engineering, legal, or economics background. Furthermore, the RERC Chairman should have the following minimum qualifications:

- at least fifteen years of relevant experience in management and in government or business,
- an advanced degree in management, engineering, finance/accounting, law, or economics,

- at least five years' working experience in Kazakhstan, and
- a clean personal record, reflecting both integrity and honesty

11. The Electric Power Law should provide for a permanent RERC professional staff

The creation of substantial staffs for the RERC will be very important. The RERC will require a highly qualified and professional staff with special backgrounds and areas of expertise.

We envision a staff of one to two hundred workers with a 30-person professional staff for each of the RERC's functional departments. These professionals should be supported by a capable support staff to perform necessary functions such as accounting, human resources, library, secretarial, and other administrative functions.

Compensation is a critical issue as it applies to members and professional staff. In order for the proposed structure to work effectively, compensation must be provided. Additionally, compensation must be substantial enough to attract the appropriate talent and expertise needed to run the RERC. The members, in particular, should be paid a salary level which insulates them from financial pressures and incentives from various interest groups. The professional staff should be paid compensation that is commensurate with their capability and expertise.

RERC members and staff should be prohibited from owning any interests whatsoever in the generation, transmission, distribution or intermediary services of the electric power industry. This prohibition should also apply to ownership of any parent or subsidiary companies of organizations participating in the electric power industry.

The RERC should have the sole authority to hire and dismiss its technical and support staff. This function should be exercised by the Chairman, to whom the staff would report. Although it is assumed that the staff would be comprised of permanent employees, the RERC should function like a private sector organization without the usual government-type restrictions on hiring and dismissal. Thus, the Chairman should be able to dismiss staff for non-performance, low levels of output, malfeasance, doubts about integrity and honesty or interpersonal problems that hinder working relationships. The Chairman should be the final decision-maker on hiring and firing staff although consultations should be held with the other members to obtain their opinions.

12. The RERC should be divided into departments along functional lines representing different key professions

When selecting an internal structure, the RERC should be organized around the three different aspects of its operation. These are (a) regulatory functions, (b) the entities to be regulated, and (c) staff characteristics. One of these aspects should be used to structure the primary departments of the RERC. Next, one of the two remaining characteristics should be used to structure the major subdivisions of the departments. Finally, the remaining aspect of the RERC's operation should be used to structure further sub-departments.

For example, the RERC could choose to have a primary department devoted to licensing, the Licensing Department might be subdivided into subdivisions for generation and transmission. At a third level, within the generation subdivision, there could be offices for accounting, legal matters and economics.

Which internal organization is most desirable depends in large part on what aspects of the RERC should be initially emphasized. For example, an organization concerned with procedure should structure first along functional lines. Conversely, an organization concerned about the entities it regulates should be structured around the entities it regulates.

In the near term the RERC will have a need to build an organization that delineates responsibility along functional lines. We recommend that the RERC be divided into departments along functional lines such as "standards," "rate making" and "licensing," with the different professions represented on the staff split among the departments.

All staff officers should report to the Chairman. However, the members should not merely have decision-making responsibilities, but should take an active role in the day-to-day activities of the RERC. The members' ongoing responsibilities in the areas assigned by the Chairman will probably lead them to operate by means of task forces put together from the different offices or by coordinating the flow of advisory and decision documents among staff departments and offices. The development of internal staff reporting and management mechanisms is best determined by the RERC itself.

13 RERC decisions should be made by a legislative-type process according to a voting procedures adopted by the RERC

The RERC must develop administrative procedures for making decisions. Although certain decisions can be delegated to individual members or even staff, all significant license, rate enforcement, rulemaking and policy decisions should require formal deliberation among the several members acting as a single body. Such decision-making would require applications and other filings by regulated companies to be submitted in writing and in

forms as devised by the RERC. Similarly, public comment typically should be in written form, although oral comments could be requested in certain circumstances.

The decision making process should include a time limit for making decisions -- e.g., five months for rate determinations and ninety days for all other matters. Further, the decision making process can include provisions for open meetings, with minutes of the meeting kept and made available to all interested parties.

Decisions by the RERC should be made according to a voting procedure established by the RERC and the vote of each member should be recorded for the public record. All members should be required to vote on all matters submitted for formal consideration. Such procedures will provide for dissents by individual members. If unable to attend meetings physically, members should be allowed to vote by proxy or through submission of written communication to the Chairman. As a general rule, four members should be present for a quorum on major issues, such as a rate determination, review of investment and resource acquisition plans, and promulgating of rules and regulations. On less crucial matters, three members will constitute a quorum.

RERC decisions should be made by a legislative-type process. Under a legislative-type process, the RERC should gather information from interested parties, staff, panels of experts convened by the commission and other sources that the commission can subpoena to testify. This recommendation reflects the limited staffing resources that the RERC would have and the benefits of avoiding delays associated with formal adjudicatory proceedings (i.e., proceedings in which a judicial officer takes testimony offered by interested parties). A legislative-type proceeding would enable the RERC to use a variety of resources as it sees fit.

14 The RERC should prepare and submit its own budget to the Ministry of Economy or Council of Ministers for inclusion in the government budget

In order to ensure the proper functioning of the tasks being assigned to the RERC, the institution of a budgetary process is necessary. To preserve the independence of the RERC, it is critical that the RERC budget not be politically manipulated. The private sector should not be in a position to influence commission decisions through the budgetary process.

On an annual basis, following the regular GOK budget cycle, the RERC should draw up its own budget. The RERC should also review and approve each OEC budget and submit a combined budget to the Ministry of Economy or Council of Ministers (or other appropriate Ministry) for inclusion in the government's budget for submission to the

Parliament The Parliament would then pass the budget outright or refer it back to the RERC for revision

15 The RERC should operate as a self-funded agency

The RERC budget should be substantially funded by annual fees assessed against regulated companies Such user fees could be levied on the basis of kilowatt/hour sales on the wholesale or retail market or percentages of annual revenues Other revenue sources could be filing fees paid by companies regulated by the RERC, fines and confiscations, and interest and profits from the administration of the RERC's own funds

If the RERC collects levies and fines in excess of its budget during a fiscal year, excess funds should be paid over to the government, ensuring that there is no incentive for the RERC to abuse its enforcement authority If the RERC finds its allocated budget insufficient to provide for its functions, it may be given the authority to collect additional license fees up to a maximum of 15% of its annual budget However, a strong justification for such additional fees should need to be submitted to the Ministry of Economy or Council of Ministers (or other appropriate Ministry) Parliament should have the authority to decide on the reasonableness of the increase after the fact If Parliament finds the budgetary increase unacceptable, it should then have the option of subtracting the same amount from the following year's budget

All funds collected by the RERC should either go to the RERC itself or be placed in the Republican treasury, although if the RERC's funds are placed in the Republican treasury, they should be segregated from other government funds and only be allowed to be used by the RERC In either case, the RERC should only be permitted to use such funds after an appropriate budget allocation has been approved by the government

16 The RERC should be required to publish opinions and certain other documents to keep the public informed of its actions

The RERC should be required to issue decisions and opinions in written form, setting forth the technical and legal basis for its decisions These decisions and opinions should be published and made available to the public These requirements should help ensure that the RERC's actions are supported by legitimate, well-reasoned arguments

The RERC should prepare several types of documentation, including

- An annual report describing activities and indicating the trends for the following year, and

- A "State of the Industry" Report

In addition, the RERC library should develop and maintain a computerized database of the publications on-hand or readily available from other sources. The public should have access to all materials collected by the RERC, including investment and resource acquisition programs and the contracts and reports of regulated companies.

17 The RERC should institute measures to ensure public participation in its function

One of the RERC's primary goals should be to protect the interests of power consumers. The RERC should institute, where practicable, measures to insure there is adequate participation by the public in rate hearings, complaints against industry participants, and other issues of concern to the general public. Notice of requests for regulatory action should be published in a widely-read newspaper or other widely-circulated document. Such notice should be given sufficiently in advance to allow time to formulate meaningful comments.

B Regional Energy Commissions

With certain exceptions, the internal structure of the OECs should be the same as the RERC structure proposed above. The following is a list of those aspects of the OECs' recommended structure that differ from that of the RERC.

1 The members of the OECs should be nominated by local governments

Given the OECs' crucial role in serving regional interests, local government authorities should participate in the appointment of OEC members. Still, OECs would be federally-chartered. Therefore, the final appointment of members should be made by a federally-authorized person or persons. This could be accomplished by the RERC Chairman pursuant to certain criteria following a regional government nomination process. Under this structure, the regional governments would nominate alternative candidates for seats on OEC boards, and final appointment would be limited to those candidates nominated by the regional governments. If such nominations are not made within a limited period of time, then the RERC or its Chairman should be able to make appointments.

2 Members of each OEC should be residents of the region served by such OEC

OEC members should represent interest groups that are "regional" in character and should be responsive to the service area that they regulate. Therefore, we recommend that there be a legal residency requirement for OEC members. Additionally, OEC members should

represent a cross section of each region's industry. We, therefore, recommend standardization of OEC membership composition requirements so that the same "types" of interest groups are represented in each region. Further, there should be some control over the member selection process so that an appropriate political balance is maintained.

3. The Chairman of each OEC should be appointed by the RERC Chairman

The RERC Chairman is best situated to appoint persons to OEC Chairmanship positions. The RERC Chairman should have a good knowledge of the electric power sector on the federal and regional levels. The RERC Chairman would have experience with regional candidates through the OEC member appointment process. The RERC Chairman's power to appoint replacements for outgoing OEC Chairmen is the type of weak link that is necessary to keep the RERC and OECs independent, yet cooperative.

Lastly, each OEC Chairman should be given the rank of a senior regional official.

4 The professional staff of each department within the OECs should be composed of approximately 10 persons

Legislation should limit the number of professional staff in order to restrict the natural growth of bureaucracy. Due to the large number of OECs, the staff each OEC must be closely watched. A staff of 10 persons in each department should be sufficient to handle the tasks assigned to OECs.

5 OEC budgets should be submitted to the RERC for approval before inclusion in the government budget

The RERC is best situated to evaluate the budgetary needs of each of the OECs. The RERC is familiar with OEC functions and their approximate costs. The alternative of having every OEC submit a budget to the Ministry of Economy or the Council of Ministers would unnecessarily burden agencies and lead to inconsistent budgetary oversight.

SECTION VI

TRANSITION PERIOD (PHASE I)

The success of any effort to restructure the Kazakhstan power sector will depend on the design of a workable transition program. The timing of regulatory changes and the authority of each regulatory agency during the Phase I period should be set forth in detail. Of course, neither the MOEC nor the GOK has as of yet determined what the final energy sector structure will look like. Notwithstanding this fact, the following recommendations might help ensure a successful transition period.

A During the transition period, SEEC should assist in the creation of the wholesale market

In the initial phase of the transition stage, SEEC should be responsible for negotiating power purchase contracts with all generators. To increase competition in the longer term, these contracts might eventually be transferred to the Energos.

During Phase I, SEEC could coordinate the purchase of electric power (capacity and energy) from generation companies and arrange for the sale of that power to Energos under a unified market tariff. Generators could be required to provide all of their power to SEEC and Energos could be required to purchase power under the unified market tariffs.

Over time, power generated from nuclear power generators, SEEC corporatized generation subsidiaries, privatized independent generators and foreign generators could be sold on the emerging wholesale market. These sale transactions should be administered and dispatched by SEEC on the basis of a generator's actual variable costs or bids. The generators with the lowest actual variable costs will be dispatched first. The dispatch regime should be based on cost criteria compiled by the generators and collected by SEEC on a regular basis. The RERC should review this process and institute a uniform system of accounts to be used by all generators and SEEC.

B We recommend that during Phase I, the RERC oversee SEEC's purchase of power from generators

The RERC should have substantial oversight responsibilities over wholesale transactions and their pricing. An effective power market operation and pricing rules will be needed to ensure merit dispatch of generation and an efficient and reliable supply of power. The RERC should also review all contracts entered into between SEEC and generators or between the Energos and generators.

Tariffs for wholesale power purchases should be calculated by SEEC based on the monthly cost data collected from generators and should be reviewed and approved by the RERC. If dispatched, a generator should be paid its actual costs. This will include both variable and fixed costs. The RERC should allow all generators to receive a price for energy and capacity that allows them to recover costs and earn a fair profit. A distinction, however, might be made between plants in existence on the date of the new law (and built with public funds) and newly built or substantially rebuilt facilities. New generators should be allowed to recover an unregulated profit. Existing generators should be allowed to recover a regulated profit margin. This profit margin could be tied to any number of market factors. It could, for example, be tied to a fixed percentage that would be sufficient to allow generators to raise money from investors.

In addition, the RERC should conduct an advance prudence review for all new generators and determine what new generation is needed and what new plant construction or plant refurbishing should be allowed to be conducted. The definition of "new generator" might include any plant or facility that has received investments following the Electric Power Law's "effective date" in an amount that exceeds 20% of the total value of the plant's or facility's assets on the date the prudence review is made.

SEEC should employ a cost-of-service methodology in calculating tariffs paid to generators. The computation should be done on a "test period" basis. Initially, costs should be estimated monthly, based on the previous month's costs. The prescribed profit margin should then be added to this calculation to come up with the price to be paid to the generator.

The RERC's functions should include an accounting function and market monitoring function. Through the establishment of a Uniform System of Accounts and review of SEEC calculations, the RERC can ensure that costs are reported properly. The RERC should also monitor the profit margin and the criteria for its adjustment. These margins will need to be based on current market trends and will need to be adjusted periodically.

C During Phase I, the RERC should approve all purchases of power by Energos from SEEC

After considering various structural options, the GOK may decide that wholesale power should be purchased by Energos at prices that reflect the average cost of generation in the national republic-wide market plus the cost of SEEC's services. Under this structure, rates should be prepared by SEEC and approved by the RERC. First, SEEC should calculate one combined "weighted average" market input price ("MIP") for the wholesale market. This price should be the average price paid to all generators in the market, weighted

according to the proportion of energy dispatched from each generator in the wholesale market

Second, the MIP should be combined with SEEC's transmission and dispatch costs to form a Uniform Power Market Tariff rate ("UPMT"). There could be one UPMT for the entire wholesale market or three separate tariffs for each of Kazakhstan's three regional systems. A uniform UPMT has the advantage of helping to prevent retail rate imbalances across regions during Phase I. In either case, the RERC should have exclusive authority to approve final wholesale prices.

Additionally, to encourage the efficient use of electric power, wholesale rates could have a "time of day" structure that distinguishes between "peak" and "off-peak" hours. Under this structure there would be two prices available to purchasers depending on the time of day: an "off-peak price" that applies in the evening hours when customer demand is low and a "peak price" applying during the busiest hours of the day in periods of high customer demand (which reflects the increase in costs of generation during times of high demand). The wholesale price may also contain a two-part tariff. One part would contain an energy charge to cover variable costs (kwh) and the other part would contain a capacity charge to cover fixed costs (kw).

D We recommend that during Phase I, OECs have responsibility for regulating rates on the retail market

In the retail market, rate regulation during the transition period should be very similar to rate regulation thereafter. In both cases, the OECs should be primarily responsible for retail rate approval.

E The MOEC should monitor the progress of privatization

The MOEC should assist in the process of transforming the power sector to a market-based system and monitor the progress of privatization. Once the privatization of a particular entity has taken place, the MOEC, to the extent feasible, should assist the new entity in its transition to its role in the restructured industry.