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*Economic Policy Reform and  
Competitiveness Project*

# Support of the Energy Sector Master Plan for Mongolia

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## **ABBREVIATION AND ACRONYMS**

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COP	Chief of Party
EPRC	Economic Policy Reform and Competitiveness Project
ERA	Energy Regulatory Authority
EWD	Energy Working Group
GOM	Government of Mongolia
MOF	Ministry of Finance
MOFE	Ministry of Fuel and Energy
SESS	Sustainable Energy Sector Strategy
SPC	State Property Committee
USAID	United States Agency for International Development
WB	World Bank



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## **INTRODUCTION**

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Primary objective of this trip was to:

- Provide support in EPRCs efforts to develop and implement a Public Education program for the energy sector.
- Provide further assistance to the GOM efforts to develop a viable coal program
- Provide further assistance to the Strategic Planning exercise, if possible
- Provide assistance to the Energy Working Group, as required
- Fill-in during the almost three weeks of absence of the resident EPRC Energy Advisor

The consultant departed home early morning of Thursday, May 24 and traveled via San Francisco and Seoul to Ulaanbaatar, arriving in the evening of Saturday, May 26, after an overnight layover in Seoul, Korea.

The consultant departed Ulaanbaatar on Monday, July 2 to return home to Sacramento via Seoul, Korea with an overnight layover in Seoul, Korea, Arriving in Sacramento on Tuesday, July 3, 2007.

During this term of consultant's assignment not much progress has been achieved in all of the areas of anticipated activity. Following is a summary of developments during the term of the assignment.



## **SECTION I: ENERGY SECTOR PUBLIC EDUCATION/INFORMATION CAMPAIGN**

During the Consultants first visit to Mongolia in November-December 2006 the need for Public Education/Information was identified as a priority area of activity. The urgency was stemming from the recognized lack of real progress in Energy Sector restructuring activities, that need to be implemented to, over time, make the sector commercially viable and financially self sustaining. Most stakeholders in the energy sector recognize that, in spite of some efficiency improvements (such as improved rates of revenue collection, reduced T&D losses and reduced energy use by power plants), the energy sector was far from reaching commercial viability and financial self sustainability. The sector was operating under make-believe conditions imposed by incestuous management arrangements, unreal operating targets and with the “assumption” that the sector licensees were making profits even after paying taxes. Over the past year the WB and EPRC repeatedly pointed out that the average retail tariffs of about 4.2 cents/kWh only partially covered the cost of supply. The coal suppliers are not receiving adequate payments for the coal they deliver, no adequate maintenance is being performed on the operating assets of the Energy Sector, thus the assets are being run into the ground. The Sustainable Energy Sector Strategy (SESS) approved by the Mongolian Cabinet in 2001 clearly established the objective of achieving, as soon as possible, commercial viability of the energy sector and the need for private investment in support of system expansion and asset replacement. With the exception of the establishment of the Energy Regulatory Agency (sponsored by EPRC with USAID funding), very little if any additional headway has been made in achieving the SESS objectives. The asset unbundling that was not custom tailored to meet the needs of the small Mongolian systems, in some cases is actually counterproductive. All assets, with one exception, still remain under total government ownership and management making improvement extremely difficult or even impossible.

Surprisingly it appears that the current MOFE minister repeatedly told the public that electricity tariffs will not be increased, adding that they will actually go down when Egiin Hydro and other renewable energy projects (such as the 50 MW wind farm) come on line. This is not even close to the reality, since both Egiin River and the wind farm projects have their estimated buss bar electricity prices (7-9.5 cents/kWh) significantly above the current retail tariffs of 4.2 cents/kWh. Based on a survey of public opinion conducted by the ERA in 2006 (see ERA 2006 Annual Report) and based on random opinion samples, the public uniformly believes that electricity will be cheaper after renewable energy is tapped via the above mentioned projects.

Due to the perceived political sensitivity of the Public Education program by the EPRC management, with the recognition that the MOFE minister is unlikely to support the program, EPRC decided to seek sponsorship of the program by the key GOM sector stakeholders, namely MOF, SPC, MOFE and the ERA. The objective was to get the Minister of Finance to be the lead sponsor. This decision to seek GOM sponsorship, “politicized” the Public Information effort, increased its profile and it virtually paralyzed the progress to start and implement the program. After realization that it is unlikely the Minister of Finance will become a visible sponsor of the program, a first meeting with about 12 journalists was only held on June 22. At the end of the meeting, almost entirely conducted in Mongolian, it was concluded that the journalists need and desire basic education on energy. They want to understand how energy is generated, transmitted and distributed, what are the viable primary energies that can be used, what are the energy development experiences of other countries, etc. In other words, the journalists were asking for the education that was originally proposed by the consultant, before the Public Education process was “politicized”. Unfortunately, very valuable time to lay a foundation for a fact-based energy sector reporting, that would lead to

constructive dialogue within the Mongolian society, has been lost. With the urgent need for tariff increases, there is a significant risk that this highly charged issue, particularly in the context of the past disinformation, may lead to a premature high jacking of the Public Education campaign, before the journalists are able to stimulate constructive (vs. destructive) dialogue.

Additional problem that still remains, in the consultant's opinion, is the EPRC management's insistence that the energy education is provided by GOM officials. This is neither necessary nor desirable. It is recognized that the GOM is very short of capable staff (the Ministry of Finance stated that they believe there are only three people in the MOFE who actually do work). In addition, in the shadow of the disinformation provided to the public by the current MOFE minister (and never corrected by the ERA) and in the context of the forthcoming elections, it is hard to see how this path can be successful. In addition, with all communications conducted in Mongolian without proper translation, any inputs/corrections/redirections by the expat advisor(s) will be difficult, if not impossible.

During the Energy Working Group meeting conducted on June 28, the urgent need for the public education campaign was again underscored by Mr. Sukhbaatar of MOFE. During the same meeting, Mr. Jensen of EPRC outlined his approach to the Public Education campaign, underscoring his view that the program should almost entirely implemented by GOM representatives, because the EPRC/USAID should not be viewed as interfering in the sensitive internal Mongolian issues of tariffs, etc. The Consultant disagrees, as he repeatedly stated, with this view and the approach proposed by Mr. Jensen. The approach may be "politically" safe and easy, but will not do much for solving the Energy Sector problems. In the Consultants experience, foreign parties (consultants) are frequently better positioned to tackle sensitive issues, such breaking the taboo of public information in sectors where disinformation is the norm. The draft agenda of the next three Public Education meetings with journalists (with the next meeting to be held on July 5) circulated to the EWG members on June 29 and the approach calling for GOM staff to make most of the presentations to the journalists, confirm EPRC's intention to follow the questionable path.

## **SECTION II: COAL PROGRAM**

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During the timeframe of this assignment, the coal program was still awaiting Parliamentary approval. Several meetings, including a Saturday-Sunday marathon meeting, were held with Mr. Boldkhuu who leads to coal program effort within the MOFE. The prime objectives of the meetings were to:

- Learn about the progress achieved so far;
- Convince Mr. Boldkhuu to focus the program on private sector investment and away from GOM-funded, research-based programs;
- Share experiences with Mr. Boldkhuu on selecting strategic partners that would be most beneficial to Mongolia;

Mr. Boldkhuu is a very dynamic, inquisitive individual who wants to improve his English language skills and developed the best coal program within the constraints of today's Mongolia. He believes that because of a long working relationship with the current MOFE minister, he has the Minister's ear and may be in a position to significantly influence the outcomes.

Mr. Boldkhuu has traveled to several countries, namely France, in search of support for the coal program. He believes that France will be very supportive, including the provision of funding. He also noted that he was trying to get US mining companies such as Peabody Coal interested, but found that they are not as responsive and eager as French and other companies.

The Consultant recommended Mr. Boldkhuu to consider using strategic partnership(s) as a strategy for the development of the Coal Program. Based on the Consultants research, there is significant international interest in the Mongolian coal resources. If the path of strategic partnership(s) is pursued with the right partners, funding will not be a problem as long as the GOM lays a project/program development foundation that will assure transparency, predictability and sustainability of arrangements/contracts. The public must understand (must be educated) the costs and realistic benefits of natural resource projects. It is the transparency of project development and contract award processes and the educated public that will assure sustainability of mineral resource developments. It will take many years to develop the mineral industry in Mongolia and billions of dollars in investment will be needed.

Based on discussions with Mr. Boldkhuu he understands the need for developing a solid foundation for the Coal Program, but it is not clear whether he has a concept of how to do it and the ability to significantly influence its establishment.

Mr. Boldkhuu urged a meeting with the MOFE Minister to correct the misperceptions the Minister holds about the energy sector. Mr. Boldkhuu believes that the Minister wants the best for Mongolia, but is being misinformed by MOFE staff and others. The Consultant agreed to meet with the Minister, subject to approval and participation by the resident EPRC energy advisor. As of the Consultants departure no meeting with the Minister was arranged although the resident EPRC advisor and the EPRC COP both agreed to meet with the Minister if he requests the meeting.

In conclusion, the Consultant encouraged Mr. Boldkhuu to keep asking questions, but informed him that at the present time it was unlikely that major financial or technical assistance was forthcoming from USAID, unless there was a major change/expansion in the USAID-funded energy program in Mongolia.



### **SECTION III: EGIIN RIVER HPP**

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Based on a meeting with Mr. Erdembileg of MOF, EPC turn-key bids from Chinese companies for the Egiin River project were opened on June 19. He had no further details.

No progress has been made with negotiating the loan agreement. The GOM is waiting until the procurement was finalized and the project cost is known, before proceeding with the loan finalization.

The previously prepared by EPRC Egiin River reports, produced no response from the Egiin River WG. Mr. Erdembileg talked with the Vice Minister of MOF about the recommendation to consider a strategic partner for the development of the project, but the VM indicated that it can be considered later.

No further activity is contemplated by the Consultant in this area. It is disappointing to see how little constructive attention this very large investment (\$300-380 million) is getting! It clearly points out the serious staffing constraints faced by the GOM.



## **SECTION IV: STRATEGIC PLANNING**

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In an attempt to follow up on the Strategic Planning inputs provided by the Consultant during the February-April 2007 timeframe, the Consultant contacted the Head of ERDC, MOFE, Mr. Altangadas. Mr. Altangadas was away from UB and indicated that he will be unavailable during the Consultants stay (five weeks) in UB. Contrary to the prior commitment made by the ERDC to provide responses to the Consultants paper addressing the strategic planning issues, nothing has been done and no progress was made in preparing a new strategic plan, declared objective of the MOFE.

As a result of total lack of response by GOM to the recommendations made by the Consultant (to completely change the Strategic Planning process and make it functional), no further activities are planned by the Consultant in this area.



## **SECTION V: ENERGY WORKING GROUP**

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After repeated efforts, the EWG finally met on June 28. The following issues were discussed and agreements reached:

### **TOPIC No.1**

Proposal and offer to develop operating procedures or "rules" for operations of the EWG. This includes possible membership expansion, regular meeting dates, rotation of the chairmanship, etc. With the recognition that the EWG has not been functioning with any degree of efficiency, the objective of this topic was to seek ways to improve the efficiency of the EWG.

After extensive discussion of the above subject the following agreements have been reached:

- There was an agreement to expand the EWG by inviting the WB and KfW to participate in future meetings
- There was an agreement for the EWG to meet regularly every month on a second Thursday at 1500 hrs; however there will be no meeting during the month of July due to traditional Mongolian holidays
- There is an agreement in principle to rotate the Chair and Co-Chair responsibilities amongst the permanent members of the EWG, but no details have been discussed
- EPRC was assigned to develop operational procedures for the EWG and present them at the next meeting of the EWG in August 2007
- Representative of the MOF indicated that in comparison to the other WGs, the EWG has made very little progress; he was willing to even attend weekly meetings of EWG if that would accelerate progress; he also suggested the development of energy sector strategy to better outline what needs to be done; he was informed by EPRC and the MOFE that sector strategy exists, but implementation of the strategy stalled in recent years; EPRC/USAID stated that they were ready to support constructive actions, but were at a loss as to what needed to be done since many recommendations made by EPRC/USAID have never been responded to by GOM; this lack of engagement was particularly puzzling since everyone seems to recognize the serious problems facing the energy sector; EPRC agreed to provide its recent papers dealing with energy sector issues to the MOF representative to bring him up to date;
- Mr. Sukhbaatar underscored the need for the same individual representing each EWG organization to assure continuity and to make real commitment by the organizations possible

### **TOPIC No.2**

Sharing of agendas/minutes of sector agencies' (ERA, SPC, MOFE and MOF) meetings with other state energy entities (**EPRC**). The objective of this topic was to gain access to up to the minute energy sector information, thus making the EWG actually functional rather than just perfunctory, as has been the case so far.

Mr. Sukhbaatar agreed to provide the EWG with instructions issued by the MOFE Minister for the "monthly" meeting of the energy sector enterprises; it is unclear what this means; through subsequent statements made by Mr. Sukhbaatar it appears that there actually are weekly meetings of the energy sector entities; further clarification is necessary

Request was made for the SPC, ERA and MOF to also provide information from its energy sector meetings, to keep the EWG up to date on sector developments; no clear response was

made by the representatives of these organizations, perhaps because of the fact that they were temporary/new participants in the EWG

### **TOPIC No.3**

Status of the proposed public information and education campaign for the Mongolian energy sector (**EPRC**). This issue was already addressed in this report.

- EPRC representative provided an update on the status of the PE/PI program and explained future plans for the program
- Mr. Sukhbaatar underscored the importance of the PE/PI program and explained his view on the contents of the program, but did not make any commitment for MOFE to actually contribute to the program

### **TOPIC No.4**

Potential use of private sector management contracts to improve operations of energy distribution companies and other assets (**SPC**).

- The SPC representative was not in a position to comment on this issue, since he was NOT briefed by Mr. Bailikhuu about this issue
- Mr. Sukhbaatar agreed that Management/Operating Contracts could make a significant contribution to the process of addressing major operational/financial problems of energy sector enterprises; he agreed to review the information provided by the EPRC to the SPC and study/discuss it with the MOF and SPC and provide a recommendation as to whether or not this mechanism should be pursued, to the next EWG meeting to be held in August;
- Neither the SPC nor the MOF made any commitments, probably due to the fact that the SPC and MOF representatives present at the meeting were not familiar with the issue.
- EPRC offered to provide additional information on Management/Operating Contracts to all interested parties as required, to facilitate accelerated decision-making process.
- In response to Mr. Sukhbaatar's enthusiasm for the Management/Operating Contract approach, the USAID Country Representative, Mr. Barry Primm committed to fund a 2-3 week visit to Mongolia by an expert familiar with Management/Operating Contracts to support the development of this program
- In addition USAID explained that the WB operated Global Partnership for Output Based Aid may be in a position to fund the development and implementation of a Management/Performance Contract, particularly if this effort is presented as an urgently needed intermediate step on the path to commercialization of energy services with the objective of achieving financial self sufficiency and sustainability of the energy sector.

### **TOPIC No.5**

Define/identify the process and timeline needed to raise retail energy tariffs (ERA).

- Mr. Sukhbaatar pointed out that it is the responsibility of the MOFE to set retail tariffs and that he repeatedly urged the Regulator to increase tariffs
- Mr. Sukhbaatar acknowledged that his Minister previously insisted that energy tariffs must be reduced; subsequently, after more information was presented to him, the Minister talked about no change to the energy tariffs; now Mr. Sukhbaatar believes that his Minister agrees that energy tariffs will have to be increased

- Mr. Sukhbaatar stated that the MOFE approved coal price calculation methodology that would lead to coal price increases, based on proposals submitted by the state-owned coal mines supplying the power plants with coal; he agreed to provide a copy of the methodology and the MOFE approval to the EWG
- Request was made for the ERA representative to comment on, or explain, the details of the anticipated energy retail tariff increases; the representative declined to do so pointing out that the previous tariff increase proposals received from the energy sector licensees will have to be resubmitted after the coal price increases are in effect
- Collective view was that there should be only one tariff increase and therefore the increase should be delayed until coal price increases are in effect
- No one could offer any estimate when the energy tariff increases, or even the coal price increases, may come into effect, but it will not be before Nadam as suggested in prior meetings with various energy sector stakeholders
- All participants unanimously agreed that tariff increase was urgently needed to assure the survival of the energy sector
- It was concluded that if the coal mines do not increase coal prices, there will be no retail energy (electricity and heat) tariff increase



## **SECTION VI: ERA ANNUAL REPORT**

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On May 31 the Consultant was asked to assist the ERA in the translation of the ERA's Annual Report (AR) into English. The AR was already published in Mongolian and Mr. Kishight, Head of Legal, Administrative and Public Relations division of the ERA already prepared a rough English translation of the AR. After a preliminary review of the AR, the Consultant pointed out two issues: 1) The text needed to be completely rewritten in English in order for the intent to be properly presented; 2) The AR was making or repeating statements of fact that are unlikely to be true or are known to be untrue. The ERA agreed for the text to be rewritten in order to clearly present the intent of the individual sections of the AR. Initially the ERA suggested to clarify the problem areas by changing the text, but the Consultant pointed out that this was an English translation of an already published Mongolian report, therefore the two ARs should be identical and the ERA agreed.

Two major problem areas identified by the Consultant concern tariffs and related issues and the renewable energy. The AR gives reader the impression that there was no need to increase tariffs during 2005-6 because it was possible to reduce losses and increase other operating efficiencies of the regulated energy sector entities. The AR actually seems to report that the world-class financial reports filed by sector enterprises show that all taxes and fees being paid and the enterprises still report profits. The AR does not provide any qualification of this information in spite of the fact that the World Bank and the EPRC, as well as some ERA staff, recognize that the declared profits are fictitious and in fact the energy sector is bankrupt and in need of nearly doubling the energy retail tariffs.

In the renewable energy area the report presents the publics' understanding (obtained through public polling by the ERA) that renewable energies are cheap and more reliable than the current coal based energy supply. Thus the public expectation is for the tariffs to go down when wind and hydro power projects are brought into use by completing the already licensed wind farm and Egiin Hydro power generating projects. It is likely that this misunderstanding is the result of the misguided statements made by the current MOFE minister and possibly by other officials as well. The AR does not correct this misunderstanding even though it is clearly established that the wind farm will supply power at 9.5 cents/kWh and Egiin Hydro at about 6-7 cents/kWh (not counting transmission and distribution losses and costs). With the current retail tariffs at about 4.2 cents/kWh, tariff decrease is impossible without significant GOM subsidies.

The fact that the AR of the ERA does not seek to point out the facts and sector problems related to cost of supply and tariffs, raises serious risk for the ERA when the tariff increases will be sought and when the facts are eventually presented to the public. The ERA's existence is very fragile, since most people do not understand the vital role the ERA must play in commercializing the energy sector operations. Unfortunately, the AR documents the ERA falling short of the objective to present facts in order to benefit all stakeholders and protect the public interest. The political sensitivity of tariffs is recognized, but without establishing the facts, there is very little prospect of achieving the commercial viability and financial sustainability of the sector. The 2006 ERA Annual Report makes the ERA to appear as a part of the problem and not the agency that will find the solutions.



## **SECTION VII: SUMMARY**

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The Minister of Fuels and Energy and his deputies, have been unavailable to discuss the grave energy sector situation with the EWG. However, during the past six months they have been making comments to the press indicating that retail tariffs will actually go down once Egiin River HPP comes on line. They have also been blocking tariff increases, including coal price increases (for power generation). This suggests that the sector is facing a crisis of a major proportion. On the other hand the Minister of Finance agrees that the energy sector is bankrupt and major tariff increases are needed to assure gradual sector recovery.

The MOFE Minister does not participate even in the Energy Sector Working Group set up by the Minister of Finance to address the critical problems in the sector. The Co-Chair is USAID, and all EWG activities are the result of EPRC/USAID efforts. This is a totally unsatisfactory situation that needs to be corrected. If the MOFE Minister has the time to drive to and attend the wind farm ground breaking ceremony as he did on June 21 (time investment of at least 4 hours) he should be able to sit down with the EWG Co-Chair for half hour and agree on priority sector issues. If the GOM does not take the necessary steps to correct the current situation, the EWG will continue to be non-functional.

One solution to the problem may be USAID declining to provide any further support to the energy sector outside the very limited assistance provided to the ERA, until real progress is made by the Mongolian side in addressing the concerns expressed by USAID and the World Bank. Unfortunately, if broader changes are not implemented in the energy sector in the near future, it is possible that a significant part of USAID funded work may go to waste.

USAID/American Embassy in Ulaanbaatar should file a written notice with the IFC and EBRD concerning their support of the wind farm project. With bus bar electricity from this private sector investment priced at 9.5 cents/kWh for 20 years, this project is not viable under the current conditions within the bankrupt energy sector. It is interesting that the MOFE minister and Mr. Sukhbaatar both favor the wind project, yet it is questionable whether they provide any real support for tariff increases that are needed to make the sector commercially viable. Under the direction of the fundamentally flawed Renewable Energy Law promulgated early in 2007, the wind farm private sector investment is to be cross subsidized by the other energy sector enterprises. However, since it is recognized that all of the enterprises are currently bankrupt and doubling of the retail tariffs will be needed just to assure the sustainability of the energy sector, the wind power private investment will be receiving government/consumer subsidies. This will likely lead to a backlash against private investment, once the public learns the true cost of wind power. The stated objective of NewCom to expand the currently proposed 50 MW wind farm to 150 MW as soon as possible increases the urgency to act.