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# **ASSESSMENT OF KORPORATA ENERGETIKE E KOSOVES (KEK) PROGRESS TOWARDS PRIVATIZATION: An Update of the 2006 Qualitative Assessment**

**Balkans and Regional Energy Market Partnership Program**  
Cooperative Agreement EEE-A-00-02-00054-00

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An Update of the 2006 Qualitative Assessment**

**Prepared for:**

**USAID's Mission in Kosovo  
under the Balkan and Regional Energy Market Partnership Program**

**Cooperative Agreement EEE-A-00-02-00054-00**

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**Table of Contents**

<b>Conclusions and Recommendations .....</b>	<b>3</b>
<b>Executive Summary.....</b>	<b>5</b>
<b>Assessment Update Objectives.....</b>	<b>10</b>
<b>Consultants Background .....</b>	<b>11</b>
<b>Methodology .....</b>	<b>12</b>
<b>Financial Findings.....</b>	<b>13</b>
<b>Financial Reporting Now Timely and Improving .....</b>	<b>14</b>
<b>2009 Tariff Filing Completed.....</b>	<b>15</b>
<b>Zero Based Line Item Budgeting Implemented.....</b>	<b>16</b>
<b>KEK Is Now Creditworthy.....</b>	<b>16</b>
<b>Improved Payment Systems.....</b>	<b>16</b>
<b>No Formal Risk Management Plan.....</b>	<b>17</b>
<b>Improving Internal Controls .....</b>	<b>18</b>
<b>Revenue Protection and Anticorruption Program Underway.....</b>	<b>18</b>
<b>Metering .....</b>	<b>21</b>
<b>Collections .....</b>	<b>23</b>
<b>CCP and CAS System .....</b>	<b>25</b>
<b>ABC Feeder Rankings.....</b>	<b>26</b>
<b>Information Technology.....</b>	<b>27</b>
<b>KEK Information Technology Operations greatly enhanced .....</b>	<b>27</b>
<b>Mining and Generation Update and Issues .....</b>	<b>28</b>
<b>Mining .....</b>	<b>28</b>
<b>Generation .....</b>	<b>28</b>
<b>Externalities.....</b>	<b>33</b>
<b>Procurement Law continues to restrict progress .....</b>	<b>33</b>
<b>KEK Governance and GoK involvement in KEK management.....</b>	<b>34</b>
<b>KEK Management Needs Continuity Through Privatization .....</b>	<b>35</b>
<b>Rule of Law Issues will continue to hinder KEK management for a long time.....</b>	<b>35</b>
<b>Relationship With Energy Regulatory Office (ERO) Has Worsened .....</b>	<b>35</b>
<b>No Progress On Collections From Minorities .....</b>	<b>36</b>
<b>Summary of Recommendations.....</b>	<b>37</b>
<b>LIST OF CONTACTS .....</b>	<b>38</b>
<b>APPENDIX A - EXIT BRIEFING POWERPOINT.....</b>	<b>A1</b>
<b>APPENDIX B - Key Definitions Used in the Metering Industry.....</b>	<b>B1</b>
<b>APPENDIX C – Metering, Billing and Cash Collection Control Assessment .....</b>	<b>C1</b>

## Conclusions and Recommendations

KEK, backed by PA Consulting, is implementing sound commercial management practices that support the goal of privatizing the Network and Supply division. It is too soon to conclude if these changes will have a material and sustainable effect on the company's operations and financial disposition. What is clear is that to the extent there has been progress toward commercial viability since 2006, these reforms should be considered stop-gap measures designed to prevent further deterioration of the value of the asset in the lead up to privatization.

KEK is beset by well known problems that impede full implementation of the practices introduced by PA consulting. These include external factors that preclude disconnections; termination of employees; collection from minority enclaves; and timely and efficient procurement as practiced by other national utilities. As in many state-owned utilities, KEK also suffers the effects of political patronage and meddling from its Government of Kosovo appointed Board of Directors, which frequently countermands decisions taken on the basis of sound commercial practice.

These external factors continue to leave on-going KEK operations at risk. They will affect the outcome of a successful privatization of KEK Distribution and the value that the investor will assign to it; depending on the way the planned Law on Privatization of KEK Distribution addresses these external factors. Inexperienced management; lack of capital for metering the network and customer facilities; and extraordinarily high commercial losses resulting from customer non-payment and street level corruption among feeder specialist teams and customers are among some of the internal factors exacerbated by the external environment.

Therefore, the team concurs with the GOK and USAID officials interviewed during the two week assessment of KEK: the only viable solution to the problems plaguing KEK is to privatize it as quickly as possible. The team concludes that a successful privatization will require a reinforcing network of legislation, regulation and a purchase contract designed to mitigate the negative external factors. This will give a private owner the potential to invest capital and fully implement the internal management changes necessary to drive commercial sustainability.

As such, it is essential that the USAID's *KEK Network and Supply Project* continue providing advisory services to KEK into and through privatization of KEK Distribution. The changes at KEK have been positive and demonstrate sound management practices. However, they remain fragile. The lack of continuity in KEK senior management, coupled with changes in the Board of Directors and their interference with management, gives further support to this recommendation.

While KEK and the USAID *KEK Network and Supply Project* are effectively focusing on the planned privatization of KEK Distribution, the mobilization of the Transaction Advisor for KEK Distribution will require that both KEK and PA Consulting provide the Advisor with

additional level of effort which at this time is not well defined but that USAID may have to be ready to respond to.

The adequacy of power supply is an on-going concern that will affect privatization of KEK Distribution, accentuated if Kosovo A and B units are excluded from the NKPP Project. These units are ageing, not well maintained and subject to failure. The question is not if, but when, they will fail. It is possible there will be a transition period before distribution privatization is completed, and an even longer transition to the time when the new NKPP power plant is operating. During this time, electricity supply will be dependent on Units A and B and imports. Should the plants experience a lengthy outage the new owner of distribution will be dependent on imports to satisfy domestic demand, leaving it at the mercy of the regional power market, as well as to constraints on the high voltage network and to budget support from the GOK to finance imports.

If the Kosovo A and B units are excluded from the NKPP, USAID should consider actions necessary to ensure that the A and B units are able to continue to supply the domestic needs of Kosovo during the privatization of the distribution system and in the post privatization period.

## Executive Summary

The USEA Assessment Team found many improvements in two areas of special importance to a successful privatization of KEK Distribution: Financial, and Billings and Collections. These areas are also the principal focus of the USAID technical assistance program *KEK Network and Supply Project*. It also found that since the 2006 Team visit the areas of Mining and Generation operations have stabilized, but the generation units remain highly vulnerable to failure. Further, there has been little or no progress in resolving external issues, widely recognized and largely out of KEK's direct control (and discussed in the 2006 USEA Assessment), that continue to be obstacles in achieving significant improvements in KEK's commercial operations.

**Progress Towards Privatization of KEK Distribution:** The team found that KEK, with assistance of PA Consulting is taking steps towards privatization of the distribution function, specifically, having completed the financial unbundling in advance of the legal creation of a new company, referred to in this report as KEK Distribution, which is scheduled for March 31, 2009. KEK also has underway an Asset Inventory of its Network Division and its Supply Division that will form part of the new company. It is also identifying its existing liabilities to disaggregate them between the incumbent KEK (Mining, Generation), and new KEK Distribution. An employee census is underway and due this month, and an Off-take Contract for power between incumbent KEK and KEK Distribution will be drafted in the following weeks; also to be started soon is what expected to be a lengthy process of asset registration, due to a long history of rather casual approach to acquiring proper titles and other legal procedures. Several important items are pending, including the selection and contracting of a Transaction Advisor by the Ministry of Economy and Finance, and passage of a Law on Privatization of KEK Distribution as proposed by the Ministry of Mining and Energy. Also undecided are the details of the unbundling of functions currently undertaken by KEK Headquarters, especially its Corporate Services Division, and the allocation of staff performing these functions.

**Progress Towards Commercialization:** The team found that KEK is implementing sound operational business practices appropriate to the local environment and business culture, specifically in financial operations and in metering, billing and collections processes (summarized below), although in some cases the reforms are too recent to be reflected in terms of significant improvements in KEK's results and its interrelated Key Performance Indicators (KPIs). It is clear, of course, that the process reforms aimed at improving KEK's commercial operations also support privatization of KEK Distribution, targeted for closing at the earliest at the end of 2009, by which time the new processes will provide a full year picture to evaluate measurable improvements. Still, there are very encouraging partial operational results, such as a December 2007 to December 2008 comparison of improvements in the Ferizaj District where reports showed billing increased by 14%, collections increased by 58%, and percentage collections versus billed improved by 21%. KEK has also greatly improved the information in its billing and accounting data bases, having purged from its records so-called "passive customers" (inactive accounts), and brought in-house the billing and accounting software programs (CCP and CAS) into a strengthened Information Technology (IT) Department.

**Continuing Obstacles with External Factors:** As noted above, there has been little progress in resolving external factors that continue to significantly affect KEK's operations and results. They remain a problem for the privatization of KEK Distribution. Most have been documented in the USEA 2006 Assessment and remain essentially unchanged.

- Failed tenders managed by KEK's procurement department (which since the 2006 USEA Team visit has been centralized into one office at KEK Headquarters), cause significant delays in critical purchases of new equipment, services and refurbishments. Conditions imposed by Kosovo's Procurement Law are the most oft-cited reason for failures, as well as frequent protests by losing bidders. As the largest procurement entity in Kosovo, the KEK's purchasing processes are also said to be influenced by external and internal factors.
- Government interference with KEK Management has arguably worsened since Kosovo's Independence, with frequent changes in the membership of the KEK Board of Directors (BoD), most recently changed in February 2009. The previous BoD, seemingly not understanding its corporate role, among other, ordered what amounted to a €6 million increase in worker payroll while reducing salaries of senior management by as much as 40%, which has made it difficult to hire qualified managers; it also reversed a decision by KEK management to discontinue the billing contract with RTK.
- Workforce reduction is constrained by union rules and a judiciary whose rulings favor protection of workers jobs, whether the separation is for non-performance, theft, corruption, or for other reasons; courtroom rules of evidence place a high cost to KEK to pursue cases of separation for cause. Reinstatement of employees separated for cause, which is the current norm, reflects negatively in the performance of the entire workforce.
- KEK Management needs continuity. In the last three years few KEK senior managers have held their positions long enough to implement new processes and introduce reforms before being re-assigned. This is a weakness in KEK's governance that will reflect in the upcoming privatization. As of March 2009, the third Managing Director in three years is serving as Acting, as are most of the Directors of KEK's Divisions. Further, KEK has not succeeded attracting outsiders for senior positions, specifically a CFO, because it cannot compete on salaries with other companies in Kosovo.
- The relationship between KEK and the Energy Regulatory Office (ERO) has evolved into a sharply adversarial relationship. In part the differences stem from ERO rules issued during the UNMIK administration, which are more apropos to utilities in northern Europe than to Kosovo. The disconnection rules, which require multiple notices prior to termination of service, stand out as especially discordant with the reality in Kosovo
- There is no progress on collections from minorities in enclaves and in the north of Kosovo, which account for approximately 10% of the electricity available for sale.

Collections continue to be insignificant among enclaves, and the north does not pay at all. Enclave communities outside of Northern Mitrovica are treated as “C” class customers under the ABC program. As such, they subject to load shedding as are all other “C” customers. Yet Northern Mitrovica, which represents 70% of the minority consumption, cannot be cut off due to political reasons and because KEK does not have access to the substation north of the Ibar river. As a result, this population is served as an “A” customer. Proposals to construct a new substation that would allow KEK to control electricity flow to this region have not been implemented, and the political reality makes it unlikely KEK (or a private owner) can do so without a political solution involving Serbia.

**Financial Management Has Improved Significantly:** Financial processes that have improved include: financial reporting, now completed by an external auditor for 2006 and 2007 (and awaiting approval of the Audit Committee of the BoD), and increases and strengthening of the staff in accounting. A Chart of Accounts was finalized and has been approved by the ERO. KEK is now in the process of tendering for a major international external auditor for the 2008 financials, and in preparation for privatization, these financials will be unbundled. Zero-based budgeting has been implemented since the 4<sup>th</sup> quarter of 2008. Improved payment systems are being introduced to increase its cash flows from customers, including the KOS-Giro system of payment, a new Direct Debit option for customers with checking accounts, and payroll deduction of electric bills from KEK employees. Currently, 7.9% of payments to KEK come through the KOS-Giro system, with a 50% increase in usage from the 1<sup>st</sup> Quarter 2008 through the 4<sup>th</sup> Quarter 2008. Other financial measures the team evaluated included KEK’s internal controls, which were found lacking due to a delay in the appointment of an Audit Committee. The appointment of the audit committee has been further delayed because the most recently named BoD has yet to meet. BoD interference in the Revenue Protection and Anticorruption unit has prevented appropriate staffing and operation. Its investigations of energy accounting, meter reading, bill delivery, disconnection and payment control require continued management support, beginning with appropriate staffing levels.

**Financial Condition has Improved But Is Not Yet Sound:** While it is highly likely that the 2008 financials will contain a qualified auditor’s opinion as to the financial condition of KEK (due to issues of inventory valuation and asset ownership that it is working hard to resolve), KEK succeeded in securing a line of credit of €20 million with Raiffeisen Bank (Vienna). This is extremely significant, since in 2006 the USEA assessment reported KEK was in near-bankruptcy. Improvements leading to the line of credit include better management of KEK’s finances; stricter cash flow management; more stringent controls; and overall improved management. These are all positive developments, but do not yet make KEK a self-sustaining company as it prepares for privatization. This is evident when reviewing collections performance, which amounts to no more than 45% of the value of the electricity it has available for sale. As a result, KEK remains dependent on the Kosovo Consolidated Budget (KCB) for power imports and, at times, for capital expenditures.

**Generation Units Remain Vulnerable to Failure:** The Kosovo A and B generation units remain vulnerable to failure despite their relatively problem-free operation in the past three years. The coal supply, which was daily at critical levels, is vastly improved since 2006.

Several generation capital expenditures are in the pipeline. Chief among these is the new water treatment system for Kosovo B, which is considered the “critical path” to reduced vulnerability, followed by turbine rotor replacement. Until replacements and repairs are completed, a Risk Assessment prepared by PA Consulting reveals that the risk of a failure of Kosovo B units due to failure of a generator rotor at 50%, while that of a failure of Unit B’s transformers at 60%. The impact of a major outage in the generation system on KEK, or on the privatization or post-privatization of KEK Distribution is incalculable, as KEK would be dependent on expensive purchased power and the availability on capacity of the transmission system to carry the increased load.

**KEK’s Metering, Billing And Collections Operational Performance Has Improved:** Based on the review of reports, interviews and comparison to the 2006 Second Field Visit assessment by USEA, billing and collection operational performance improvement can be attributed to improved management and accountability. Significant emphasis has been placed on increased controls on meter readings; field verification of abnormal meter reading data; intensified disconnections for non-payment; improved reporting and the implementation of the new district structure (District Feeder Teams, discussed below) and clean-up of the Customer Care Package (CCP). These processes, procedure and operational changes are good practices, and appropriate for KEK, considering its culture and the significant amount of external influence/intervention involved. In the few short months the changes have been implemented, they appear to be having a positive impact on billing and collection performance by ensuring accountability. Although improvement has occurred, it will be challenging to sustain this performance with the existing regulatory, political and corporate culture environment. Privatization of the distribution company is, and should be, the primary long term strategy.

**District Feeder Teams Have Allowed Billing And Collections To Increase, But Improvements Remain Fragile:** Feeder Teams are now responsible for meter readings; bill delivery; disconnections; accounting for all energy delivered to the feeders; and enforcing payment discipline through effective disconnections. The ability to both reward performance and discipline for non-performance is essential to ensure continued and sustained improvement in collections. Employees are being held accountable, with bonuses for performance and consequences for non-performance, although external influence (as discussed among Externalities above) continues to limit the ability to make justifiable terminations permanent. Further refinements can be achieved by continuing to standardize policies and procedures. Individual performance standards must be clear and appropriate (utilizing readily available benchmark data for comparison).

Another opportunity for operational improvement is to utilize the handheld meter reading devices currently owned by KEK, but not utilized due to employee resistance. The reluctance of employees to fully deploy electronic transfer from handheld meter readers is an indication of continued performance problems among feeder specialists.

**Lack Of Meter Ownership By KEK Continues To Be A Challenge And Will Reflect Negatively In Privatization:** It remains common practice for KEK customers to own (and buy) their meters, even though the law in Kosovo stipulates the meter is to be owned by the utility. KEK would benefit from ensuring that a project plan is developed (and executed

against) to assume ownership of all meters over a reasonable timeframe. The challenge for KEK is that capital spending for 2009 allocated for meters for currently un-metered accounts, new customer meters and damaged meters is for only 7,000 to 10,000 units. KEK adds 10,000 new customers to its system per year. This makes significant gains towards universal KEK ownership of the 330,000 customers meters a very lengthy process that will have to be completed by new owners of KEK Distribution

**ABC Feeder Rankings Is Flawed:** While the ABC ranking of feeders is utilized for dispatch under constrained conditions (load shedding), the ranking is also used to incentivize payment. This is discriminatory because the interruption occurs at the feeder rather than at the customer premise level, effecting both good paying and poor paying customers. This creates customer dissatisfaction with KEK. It is also discriminatory according to ERO and the law. It may not even reduce demand, as it is believed that customers use the same amount of electricity (or more) during compressed time periods, which places stress on the distribution network. KEK, along with PA Consulting, has evaluated (and would recommend) electrical system investments of approximately €50 million to enhance the capacity of the distribution system that will be necessary to carry the full load and eliminate load shedding.

## Background

In 2006, the United States Energy Association (USEA) prepared a Qualitative Assessment of Preparations for Transition to Local Management within the Korporata Energjetike E Kosoves. This report provided a benchmark of the performance of KEK at the conclusion of its management contract with the Electricity Supply Board of Ireland (ESBI). Later in 2006 the ESBI left Kosovo and turned over management of KEK to local managers. In December of 2006 the USAID-funded *KEK Network and Supply Project* implemented by PA Government Services was mobilized. The project provides advisory services to KEK managers. At the time of the USEA Assessment Team's visit to Kosovo in early 2009, PA Government Services (PA Consulting) had eight resident advisors working in KEK.

The United States Energy Association (USEA) has been assigned update the 2006 report by assessing KEK's progress toward more commercial operations and its preparedness for the privatization of its distribution and supply functions. Specifically, this update seeks to review KEK's progress and deficiencies in three areas deemed critical to its turnaround in 2006:

- 1) improving collections by instituting new procedures, policies and technologies;
- 2) strengthening internal budgeting and financial management data collection and reporting systems to improve revenue collection, reduce theft, waste and abuse; and
- 3) developing the human resources within KEK to institute these changes on a sustainable basis.

The updated assessment seeks to recognize the KEK Network and Supply Project, implemented by PA Government Services and the role it plays in advancing the commercial development of the electricity sector in Kosovo. The update also seeks to inform USAID/Kosovo's evaluation of the current design and implementation (results and progress) of the KEK Network and Supply Project and to recommend changes, if any, that would strengthen the support provided by the project to aid in the overall improvement of KEK's performance and the Government of Kosovo's effort to privatize the KEK distribution and supply function. The update further seeks to document KEK's achievements toward Network and Supply Project objectives and indicators and to point out key problems that need to be addressed and recommend modifications to USAID assistance to resolve them.

### ***Assessment Update Objectives***

This assessment update has four main objectives:

- To provide an informed and unbiased opinion of KEK management and performance, including achievement of performance indicators in the KEK Network and Supply Project.
- To make recommendations on how overall KEK performance can be improved in preparation for privatization of its distribution network and supply functions.
- To delineate key steps necessary to prepare and unbundle the distribution function for privatization.

- To propose other management areas in which assistance is needed to ensure sound operation of the distribution and generation operations until they are sold, indicating critical path items as well as assistance priorities.

### ***Consultants Background***

USEA selected an assessment team from experts in the relevant technical areas of this assignment:

Andres Doernberg is retired after working for ten years in as a contract employee at USAID's Bureau for Europe and Eurasia's Energy and Infrastructure Division, where he had backstopping responsibilities for energy programs managed by its USAID missions, including, among other, USAID Kosovo. In this capacity he brings into the team a familiarity with the objectives of the KEK Network and Supply Project and of the situation in KEK and Kosovo at the time the project was designed. Prior to USAID, he worked for three years for an institutional contractor supporting USAID, with primary responsibilities for USAID's energy efficiency in Ukraine. His consulting career includes work for NRECA in El Salvador and for ADB in Myanmar. Earlier he worked for ten years for International Resources Group.

P. Kevin Ellison is Director; Meter Services Organization (MSO) of the Customer Service Business Unit (CSBU) of Southern California Edison Company (SCE), CA, since 2006 where he is responsible for all aspects of the end-to-end meter process (includes meter specification, selection, procurement, engineering, quality control, meter reading, field services provision and revenue protection). MSO has over 1, 400 employees committed to safely providing timely and accurate services to customers throughout the SCE 50,000 square-mile service territory. He earlier served as Director of Government & Institution (G&I) Accounts in the CSBU. Prior to SCE, Mr. Ellison was a Financial Advisor with Merrill Lynch in Louisville, Kentucky and was COO of C2 Facility Solutions - Louisville, Kentucky. He also spent 24 years with LG&E Energy Corp. (Louisville Gas and Electric Company and Kentucky Utilities) as Director of Customer Service and Marketing, as Director of Sales and Marketing, as Director of Customer Service, and as General Manager, Retail Electric Marketing and Sales.

J. Stanley Graves is the retired Vice President of Human Resources of Commonwealth Edison in Chicago, Illinois, USA. In his 20-year career with the Company he was also the officer responsible for the entire 12,000MW fleet of fossil fired power plants. After retirement Mr. Graves has been involved with numerous projects in the former Soviet States and Southeastern European countries. Mr. Graves was a member of the 2006 Qualitative Assessment Team.

Roger Kovack is the retired Comptroller of Commonwealth Edison Company in Chicago, Illinois, USA. During his 26-year career with the Company he managed several key functions of the finance and accounting areas. After leaving Commonwealth Edison, he was Chief Financial Officer of a privately held plastics manufacturer. While at Commonwealth Edison, Mr. Kovack was the project officer for the "sister utility" relationship with Polish Power Grid from 1992-1997, part of the USAID Utility Partnership Program.

After retiring, he has also participated in several workshops, seminars, and other activities in Central and Eastern Europe, Southeast Europe, the Middle East, and the Far East. Mr. Kovack was a member of the 2006 Qualitative Assessment Team.

William Polen is the program manager for Europe and Eurasia for the United States Energy Association. As USEA's program manager for Europe and Eurasia, Mr. Polen directs the association's cooperative programs with the US Agency for International Development, US Department of Energy and US Trade and Development Agency in the Southeast Europe and the nations of the former Soviet Union. Mr. Polen was a member of the 2006 Qualitative Assessment Team.

### ***Methodology***

The team worked in Kosovo from February 23 to March 5, 2009. During the visit they held interviews with senior managers of KEK, including all Directors of Divisions, as well as with PA Government Services, USAID, the Ministries of Economy and Finance, of Mining and Energy, the regulator ERO, and the transmission company KOSTT. Some 29 interviews were conducted, plus selected follow-up meetings. Selected site visits were conducted, specifically with the head of the Pristina District Feeder Project as it is being implemented to look at typical meter installations.

Prior to departure the team reviewed over one hundred documents provided by USAID Kosovo related to the electricity sector since 2006, and specifically, documents relevant to USAID's KEK Network and Supply Project. During the field visit the team was provided with additional documents to review, including the auditor's provisional financial statements for KEK for 2006 and 2007, the most recent filing with the ERO for a tariff increase, and statistics of energy and funds flow for 2006, 2007, and 2008.

A de-briefing meeting was conducted on March 5 for the USAID/Kosovo Mission Director and senior mission staff prior to the team's departure. PA Government Services was also de-briefed, with their entire team in attendance. A copy of the briefing is attached in Appendix A.

## Financial Findings

While many issues remain, the USEA Assessment Team found significant improvements are being made in KEK's financial management since the 2006 USEA Qualitative Assessment. However, the improvement does not mean that the financial condition is sound, nor does it mean that the financial systems or KEK's staff is strong enough to be sustainable without outside assistance. There remain a significant number of challenges that need to be resolved as KEK prepares itself for privatization.

The following table shows the most significant factor in the weakness of KEK's financial condition. This is KEK's overall collection rate compared to total electricity flow into the KEK system:

### Collections as a Percentage of Energy Supplied to the KEK Network

	<u>MWH</u>	
<b>Total in to KEK (Gross)</b>	<u>4,728,894</u>	
<b>Customer Billing:</b>		
<b>CCP</b>	2,306,395	49%
<b>Direct bill</b>	473,449	10%
<b>Other</b>	<u>16,167</u>	<u>0%</u>
<b>Total Billed</b>	2,796,011	59%
<b>KEK internal use</b>	107,141	2%
<b>Minorities (unbillable)</b>	375,553	8%
<b>Minorities (billed but not collectable)</b>	51,446	1%
<b>Technical losses</b>	704,843	15%
<b>Unaccounted for energy losses</b>	693,899	15%
<b>Other</b>	<u>16167</u>	0%
	<u>4,728,893</u>	100%
	<u>Euros</u>	
<b>Energy Billed</b>	178,440,000	
<b>Euros collected</b>	134,604,000	
<b>% Collected to billed</b>		75%
<b>% Collected to energy available to KEK (75.4% x 59.1%)</b>		45%
<b>Source: Energy Flows DSO including 220 and 110 KV - 2008</b>		

The USEA Assessment Team's August 2006 reported that payment for approximately 35% of the energy supplied to KEK distribution was collected. In 2008, that percentage has increased to 45%. While the improvement is noteworthy, no utility can survive on a long-term basis with a collection rate so low. The stress of such a low collection rate can be seen in the draft 2007 audited financial statements expected to be approved by the Board of Director's Audit Committee.

Specifically, the draft financial statements contain a footnote with the following statement:

"These financial statements have been prepared on the assumption that the Company will continue as a going concern. The Company's operations are largely dependent and supported by various grant funds. Management considers that sufficient outside funds will be also available in the foreseeable future so as to enable the Company to pay its debts as they fall due and do not reflect the adjustments, which would be required to the value of assets and maturity of liabilities if this were not the case."

Given the extremely low collection rate of customer billings KEK has disclosed in the financial statements its dependence on outside funding to meet its obligations. Any increase in collections from customers will lessen the reliance on outside funding. However, for the foreseeable future KEK does not expect enough improvement to eliminate its dependence on grant funding. Dependence on outside grant funds brings a high degree of risk to KEK's financial operations.

### ***Financial Reporting Now Timely and Improving***

Financial Statements for the years 2006 and 2007 have been completed by the external auditor and are awaiting approval by the Audit Committee of the Board of Directors. These statements make adjustments to the Cash Flow Statements. Also, the VAT and RTK liabilities that were reported in the statements were revised, as there were indications that those liabilities had been greatly overstated.

To support the effort to improve the accounting activity at KEK, the accounting function was staffed and strengthened. A new Accounting Methodology Manager was appointed to assure compliance of KEK accounting with the IFRS, based on the development and implementation of improved accounting policies and procedures and the introduction of new transaction manuals.

A Chart of Accounts was finalized. A group of specialists from KEK (CFO, Accounting Methodology Manager and the Director of Tariff and Regulatory Affairs) worked to apply a uniform approach to regulatory recording and reporting and was instrumental in getting the COA approved by ERO.

For the year 2008 and the three months ended March 31, 2009 a tender is underway to hire an external auditor. The qualification criteria for the tender limits the potential pool of

auditors to major international audit firms capable of providing confidence to potential investors during the due diligence process. The 2008 audit will include an audit of the three months ending on March 31, 2009. This coincides with the separation of KEK distribution from KEK generation and mining, giving each entity audited beginning balances for the new businesses.

It should be noted that both the 2006 and 2007 contain audit opinions that are qualified with respect to certain accounting items. PA Consulting is working on these issues and reports that the 2008 audited financial statements will most likely contain a qualified auditor's opinion with respect to inventory valuation and asset ownership issues. As 2009 continues these issues must be addressed with utmost urgency and resolved prior to tendering KEK to an outside investor.

### ***2009 Tariff Filing Completed***

In February 2009 KEK filed a Tariff Application asking for rates to be increased to support a revenue requirement of €63,015,582. The filing featured separate revenue requirements for Mining, Generation, Network and Supply divisions, and each division being assigned annual expenses, return on assets, other assigned costs, and an allocation of headquarters' costs. This methodology will be significant in the due diligence process, as it will provide investors with a picture of disaggregated costs and return structures in each of the four divisions.

The following table is from the 2009 KEK Tariff Application showing each component of each division's allowed revenue requirement:

#### **2009 Revenue Requirements for Each Component of Each Division**

Line No.	Item Description	Mining	Generation	Network	Supply	Total KEK
1	Annual Expenses	48,726.0	34,494.2	20,094.0	19,904.5	123,218.7
2	Return	6,136.3	4,704.0	1,797.7	41.2	12,679.2
3	Supply Margin (@3% of PP)				2,387.0	2,387.0
4	Imports				23,187.5	23,187.5
5	Purchases at Network Voltage				3,015.0	3,015.0
6	Revenue Credit (Eligible Customers)				-9,420.0	-9,420.0
7	Bad Debt Expense				3,182.6	3,182.6
8	Other Operating Income	-1,290.0				-1,290.0
9	Exports				-6,200.0	-6,200.0
10	Allocated HQ Costs	5,825.0	2,754.5	2,931.5	744.5	12,255.5
11	Total Allowed Revenues	59,397.3	41,952.8	24,823.2	36,842.3	163,015.5

### ***Zero Based Line Item Budgeting Implemented***

KEK, with assistance from PA Consulting, revised its operation and maintenance and capital to reflect its performance during the first 9 months of 2008. That was done to ensure that budgeted expenses did not exceed expected revenues. Also, during the 4<sup>th</sup> quarter of 2008 KEK began a zero-based, line item budgeting program. Detailed budget requests were prepared without regard to previous spending levels. KEK managers defended their budgets during budget hearings administered by PA Consulting and senior KEK management, during which proposed expenditures were ranked to determine appropriate spending levels for all operating, maintenance and capital accounts. Based on their rankings the 2009 line items were grouped into “survival”, “good year” and “great year” categories. The Board of Directors approved the “survival” budget for KEK in 2009.

Month to month reallocation of unspent funds will either be re-budgeted into future periods for the same line item, or considered available for other line item expenditures in future months. This approach is a significant improvement over the budgeting methodology employed in 2006. The zero-based line item approach instills spending discipline, control, evaluation, planning, and communication.

### ***KEK Is Now Creditworthy***

KEK has established a line of credit with Raiffeisen Bank (Vienna) for borrowing up to €20 million at the rate of Euribor plus 4.85. Credit worthiness is a marked improvement from the near bankrupt financial situation reported in the 2006 assessment. The Line of Credit is a result of several factors, including:

- Improved control of KEK’s finances
- Stricter cash flow management
- Enforcement of more stringent financial controls
- Confidence in improved management; and
- many other factors

The continued availability of a line of credit will be of utmost importance in the lead up to privatization.

### ***Improved Payment Systems***

KEK is instituting significant improvements to its payment systems to improve intake of revenue from customers. The three most significant improvements are:

- KOS-Giro system
- Direct Debit
- Direct collection from payroll for KEK employee bills

KOS-Giro is a payment mechanism whereby customers may pay their bill at a local bank, which in turn posts the payment to KEK's bank account. There has been slow but significant improvement in the use of KOS-Gyro, as indicated below.

### Use of the KOS-Giro Payment System

2008 Quarter	Number of Payments	Amount (€000)
<b>First</b>	3,490	1,822
<b>Second</b>	5,258	2,158
<b>Third</b>	5,339	2,286
<b>Fourth</b>	7,086	3,093
<b>Year 2008</b>	21,173	9,359
<b>Source: KEK Supply Division</b>		

Use of Kos-Giro increased by nearly 50%, comparing first quarter payments to fourth quarter payments, 2008.

KEK is preparing to institute a direct debit system whereby customers authorize automatic payment of the electric bill on a monthly basis through a direct withdrawal from their bank account. The automatic feature benefits both the customer and the company by ensuring timely payment.

Use of these two advanced payment systems used to collect revenue in a customer friendly, and controlled way will inspire the confidence of potential investors, who will most certainly employ similar systems in the other distribution systems they own.

All KEK employees are now required to pay their electric bills through an automatic payroll deduction each month. That method provides for the following:

- a steady cash flow stream from all employees
- eliminates the perception that if KEK employees do not pay their bill, then the rest of the customers do not have to pay their bills
- eliminates any other corruption temptations that can arise during disconnection or collection, sending a signal to employees that corruption will be no tolerated.

The fact that the nearly 7,500 employees of KEK are also customers with excellent payment history is a significant accomplishment for KEK and demonstrates the potential to implement a similar system for other government employees.

### ***No Formal Risk Management Plan***

The 2006 USEA Assessment found a formal risk management plan in place as a component of the ESBI Financial Recovery Plan. During the 2009 visit, no such risk management plan appeared to be in use on a formal, structured basis. However, it should be

noted, that during the Team's interviews with PA Consulting, proper risk management techniques were used by PA to manage KEK's finance and operations.

KEK managers should follow a formal risk management plan specific to the company's problems, goals, and structure. This would become their basis for making decisions going forward as a company preparing for privatization. Implementation of a risk management plan would also strengthen KEK's managers, making them desirable for a potential investor in the post privatization period. Lacking a formal risk management plan, inconsistent decision-making can occur, direction can waver, and strategy can be inconsistent.

### ***Improving Internal Controls***

Internal audit at KEK has been in a state of flux since the second quarter of 2008 when KEK's Board of Directors reorganized the department and began showing a lack of interest. Reference is made to PA Consulting's various quarterly reports for specific information regarding the events surrounding internal audit. At the time of this writing, KEK still did not have a properly functioning internal audit department. The appointment of a new Audit Committee by the Board of Directors was expected during the Team's field visit, but by the conclusion of the visit no Audit Committee had been appointed.

### ***Revenue Protection and Anticorruption Program Underway***

A focused effort has been placed on the Revenue Protection (RP) function at KEK. The primary functions of RP are loss reduction; identification of theft and fraud; and improving overall Network and Supply division efficiency.

PA Consulting reported that as a result of investigations performed by the RP Unit, some number of KEK employees who were stealing electricity was identified and disciplinary action was taken. RP is also engaged in analyses of Network and Supply operations to identify inefficiencies. Investigations have been conducted and analyses performed in energy accounting, meter reading, bill delivery, disconnection and payment control. Reasons for under-performance are identified, and ways for improving performance are proposed and implemented. Most importantly, the RP unit conducts inspections in districts in order to disclose electricity theft, and detect illegal consumption. The unit also and examine the efficiency of disconnections, accuracy of billings, and the performance of technical and supply staffs, etc. Both comprehensive inspections and spot checks are carried out on a regular basis.

Staffing the RP units in all seven KEK districts has commenced, but additional staff is required. Clearly, the development and implementation of the RP function is a good step toward reducing theft and corruption. Much more is needed to ensure KEK collection improvements occur and are sustained.

## Metering, Billing and Collections Assessment

While many issues remain, many significant improvements are being made in the management and operation of the metering, billing and collections functions. However, the improvement does not mean that the condition is sound, nor does it mean that the changes or KEK's staff is strong enough to be sustainable without outside assistance. There remain a significant number of challenges that need to be resolved as KEK prepares itself for privatization.

Appropriate KPIs are clearly in place, with numerical monthly performance targets. Controls have improved; including a strict control of the CCP so only the billing manager has authority and is responsible for changes in CCP. A real focus is apparent regarding cleaning the database in CCP, which has operational benefits and will support due diligence during the privatization process.

The critical KPIs to support Billing and Collection improvement include:

- % of Billed from Energy Available For Sale (EAFS)
- % Collected from Billed
- % from Energy Available For Sale

These are appropriate key operational performance measures. Results from 2006 to 2008 indicate that KEK is achieving decreases in commercial losses, i.e., losses incurred to irregularities both from external factors (illegal connections, tampered meters) and well as internal factors (performance of meter readers). This is shown in the table below in terms of an increase in the percentage of electricity billed to electricity available for sale, which grew from 68.3% in 2006 to 76.3% in 2008. Results also show, however, that there is no improvement whatsoever in the percentage of collections to billings, which remain at 74-75%, and this lack of progress in collections underscores the finding, detailed in previous section, that the financial condition of KEK is still unsound.

### Performance of KEK Supply 2006-2008

(excludes electricity to minorities; also excludes sales to direct customers)	2006	2007	2008		2006	2007	2008
Energy Available for Sale (a)	2928 gwh	3031 gwh	3017 gwh		-	-	-
Energy Billed (b) (c)	2000 gwh €126.1M	2059 gwh €136.5M	2303 gwh €161.0 M	(b)/(a)	68.3%	67.9%	76.3%
Collections (d)	€93.5 M	€103.3M	€118.8M	(d)/(c)	74.1%	75.7%	73.8%

Source: prepared from data provided by PA Consulting

**Note:** the differences in gwh between Energy Available for Sale and Energy Billed are the commercial losses (illegal connections, irregularities in metering). These losses exclude technical losses in distribution (due primarily to outdated and overloaded equipment), which were 24.8% in 2006, 25.4% in 2007, and 26.2% in 2008 of the energy available for sale. Additional technical losses in transmission, incurred by KOSTT, amount to 5%.

Billing and collection operational performance improvement can be attributed to improved management and accountability. Significant emphasis has been placed on increased controls on meter readings, field verification of abnormal meter reading data, intensified disconnections for nonpayment, improved reporting and the implementation of the new district structure. This process, procedural and operational change is having a positive impact on billing and collection performance, by emphasizing accountability at all levels of management.

It will be challenging to sustain improvement within the existing regulatory, political and corporate culture environment. Therefore, privatization of the distribution company is, and should be, the primary strategy toward improving collections.

Changing customer perception towards KEK and improving bill payment must be a short term focus. Providing payment options is one way to improve perception. The existing payment options seem appropriate. The KOS-Giro payment mechanism, the planned direct debit option and the existing KEK payment offices provide customer choices, which will improve customer satisfaction and the overall perception of KEK. They also meet the expectations of the regulator.

It is worth noting that KEK has a focus on helping its customers control costs by reducing energy usage, which has the opportunity to improve customer perception of KEK. This focus, which has started via small scale communications efforts, is an energy efficiency program. KEK has a stated goal of reducing average usage of customers by ten percent. Communication and education are a good start to assist in meeting this goal. That said, additional communication and specific energy efficiency programs will be needed to meet the ten percent reduction goal.

The collection of KEK employee payments directly from their paychecks has proven to be an excellent way to ensure timely payment. It provides another control/review opportunity for KEK in its effort to reduce internal corruption among its 7,500 employees.

The Kos-Giro system (the payment of electricity bills through all commercial banks in Kosovo) went 'live' at the end of the fourth quarter 2007. Household and small commercial customers' participation in KOS-Giro can be improved with increased promotion. A flyer that is provided to each customer with the bill and when making a payment at a cash office has resulted in increases in the number of payments and amounts received through the Kos-Giro System during the fourth quarter of 2008. Currently, 7.9% of payments to KEK come through the KOS-Giro system, with a 50% increase in usage from the 1<sup>st</sup> Quarter 2008 through the fourth quarter of 2008. Participation should increase with additional promotion.

The structural changes in the supply division have been positive and demonstrate sound management practices, appropriate for the cultural and legal environment that exists in Kosovo today, but they remain fragile. The ability to both reward performance and discipline for non-performance are essential to ensure continued and sustained improvement in the area of collection. Early indications are the changes have improved collection, but the changes are so new that we are not in position to state if the collection improvement is sustainable, especially without changes to stakeholder interference regarding terminations of employees and pursuit/prosecution of customers for theft.

## ***Metering***

### Meter Ownership

It remains common practice for KEK customers to own their meters, even though by law, the metering point is to be owned by the utility. Most meters are located inside customer premises, making it more difficult for KEK feeder specialists to gain access and make timely reads. As the meter is KEK's cash register, it is imperative that KEK take ownership of the meters on its system. KEK should also, over time, develop a program to move meter terminals outside and replace all existing meters.

KEK should continue to ensure capital spending on metering occurs, with a focus on meter installation on currently un-metered accounts, new customer meters and damaged meters. Estimates are that KEK adds 10,000 new customers to its system per year, but that KEK supplied meters available for installation in 2009 will range from only 7,000 to 10,000. This is significantly short of meeting growth requirements and making any gains in domestic customer metering. It is instructive to note that as of this writing, KEK had failed to complete procurements for residential meters in January 2009 and commercial meters in February 2009.

KEK would benefit from ensuring a project plan is developed and executed to assume ownership and replacement of all meters over a reasonable timeframe, though this will most likely be a task left to the owner of the privatized KEK distribution.

### Technical Specification for Meters Developed and Implemented

KEK, working with PA Consulting, developed a series of technical specifications for KEK metering requirements. These specifications provide the foundation for competitive bidding and acquisitions of metering products. However, as noted above, KEK does not have

sufficient capital to replace the existing installed meter base or even to keep up with new customer connections.

#### Advanced Metering or "Smart Metering"

KEK currently has installed approximately 3,000 advanced meters or "Smart Meters" that can provide remote meter reading, remote disconnection/re-connection and tamper detection services. Advanced metering provides utilities with a more efficient means to provide real-time pricing and other time-based rates, which can drive energy management or demand response programs and monitor certain aspects of the distribution system for efficiency. Advanced metering systems also allow utilities to collect off-cycle reads when a customer moves in or out of a premise, and in the case of electricity delivery, remotely connect or disconnect service.

KEK lacks the telemetry necessary to fully utilize these smart meters. It must complete the procurement necessary to obtain the telemetry services that will allow remote communication and full utilization of their functionality. Today, these meters are manually read and disconnect and/or reconnect must occur manually, negating their benefits.

The cost of smart metering continues to decline as utilities world-wide migrate to this technology to reduce operation costs and provide additional products/services to customers. The private owner of KEK will certainly evaluate this technology and will most likely consider adopting it. In the short term, providing "Smart Meters" for the largest customers should be a KEK priority, as the expectations and requirements of these customers are typically higher than the normal domestic customer.

One opportunity for quick operational improvement in the supply division is to utilize the existing handheld meter reading devices, which are a significant improvement over the paper based process currently in use. KEK has approximately 340 handheld devices that, if used properly, will streamline data capture and entry. The information captured using the handheld is electronically transferred from the handheld to the CCP system. This IT system interface is already in place.

Using a handheld device eliminates the need to manually enter data, increasing overall process efficiency. It reduces errors and improves meter read to bill print cycle time (and cash flow). In addition, handhelds provide additional control to ensure that meter reads are "actual reads", and not falsified reads entered by employees in inappropriate fashion (such as when meter readers enter false data while sitting in a coffee shop). KEK claims that its employees have been trained at least twice on the use of the handhelds, but have been resistant to utilize the technology out of fear the handhelds would expose low levels of production or corrupt practices (as information would then be available to detect that employees are actually reading meters. Fifty of the existing handhelds are equipped with GPS capability so actual employee location would be available to measure performance).

## ***Collections***

### New Structure and Organization in Supply Developed and Implemented

The District Feeder Project, initially tested in the Ferizaj District, was introduced in September 2008, with the aim of improving the amount of energy billed and collected, as well as focusing on management and accountability for results.

Feeder Teams are now responsible for:

- Meter Readings
- Bill Delivery
- Disconnections
- Accounting for all energy delivered to the feeders
- Enforcing payment discipline through effective disconnections

Feeder Teams are assigned based on Sub-District, Substations and Feeders. Responsible persons are assigned to each feeder. Each feeder team has daily work plans. Reporting relationships within the district have changed. A matrix organizational structure has been established, but it is not clear that the hierarchy of the authority, especially at and above the District Manager level, has been clarified. A clear improvement is that the responsibility and rewards structure has been established for the members of the team members.

The new structure and processes have allowed billing and collection to increase. Daily reporting and analyzing of performance appears to be in place, and observation showed district management utilizing the detail. The causes of commercial losses are being identified and addressed. People are being held accountable and paid for performance. Non-performance is being addressed within KEK, although external influence continues to limit the ability to make terminations permanent.

Clearly, a significant amount of structure was put in place to ensure the new process would be successful. New job descriptions were developed. A new compensation system was developed to support the improvement effort, and to reward performance. New meter route management was implemented. One person or team now has responsibility for the end-to-end process (Meter Reading to Bill Delivery, including Disconnection/Reconnection of service). In addition, feeder specialists, who have the best knowledge of the distribution system, are assisting in cleaning up customer accounts and sketching the distribution system connections.

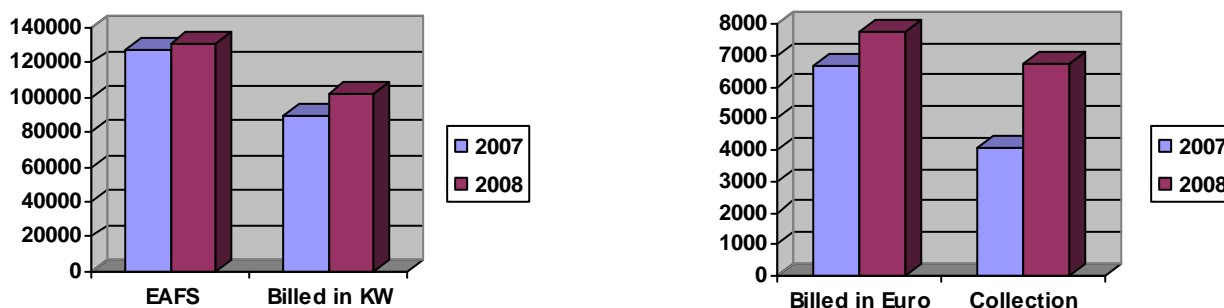
KEK must ensure that a single source of reporting truth exists (standard, clear reports) for all critical operational metrics and when any methodology changes (such as the increase in reclaimed losses billed), reports that are modified should be labelled/and or footnoted to identify such changes.

Although the feeder team approach has improved management and accountability, operational improvements can be achieved by continuing to standardize policies, procedures and ensuring standard processes are in place. Individual performance standards must be clear and appropriate (utilizing readily available benchmark data for comparison). For instance, opportunities exist for the feeder specialist classification to improve individual employee performance and utilization in the following areas:

- % Collected from Billed
- Number of Meter Reads per day
- Number of Disconnections per day

Ferizaj District Pilot Results

During the pilot project period, reports showed the district’s billing increased by 8% and collections by 26% (an additional €2.622 million was collected). This was significant, because the district’s overall performance increased by 25% in 2008 as compared to 2007.



Using December 2008 versus December 2007 results for Ferizaj District, it is evident that billing increased by 14%, collections increased by 58% and collections versus billed improved by 21%.

**Collections Improvement Example:  
Ferizaj District  
December 2008 versus December 2007 Performance**

Date	District	Energy Billed (€000)	Collections (€000)	% Energy Billed vs. EAFS	% Money Collected Vs. Money Billed
Dec-07	Ferizaj	1857	1020	36%	55%
Dec-08	Ferizaj	2119	1619	70%	76%

### *Impact of the Feeder Pilot on other Districts*

During the pilot project period, reports showed that KEK increased billing by 7% and collections by 8% (an additional €12,510 million was collected). Thus, overall performance increased by 10% in 2008 over the comparable period in 2007.

In our opinion, the ability to sustain this improvement is questionable, specifically without support to ensure employees are terminated for theft and internal corruption; customers are required to pay for service and are disconnected and prosecuted where theft has been documented.

### ***CCP and CAS System***

The cleanup of the Customer Care Package (CCP) is an important initiative; both to support the impending privatization effort and to support the current effort to improve billing and collections.

The Customer Care Package (CCP) and the Customer Accounting System (CAS) were developed around 2002. Issues were recently identified regarding the developer of the system (Komtel) performing accounting functions within the CAS), which is clearly bad practice. In addition, Komtel employees had access to CCP information, which is in violation of standard control procedure and had the potential to allow corruption activity. KEK has addressed these issues with improved controls, contract changes with Komtel and increased internal IT efforts.

An outstanding problem is that Komtel has failed to deliver to KEK all of the up-to-date IT system manuals that Komtel has developed for CCP and CAS. Moreover, KOMTEL continues to own the source code for the systems. The absence of these updated manuals prevents KEK from efficiently taking over the maintenance and servicing of the CCP and CAS systems. KEK and PA Consulting are addressing these issues at this time. A specific date of completion to accomplish this important effort should be assigned and an individual KEK leader assigned accountability for successful execution of this effort.

The initial CCP data base was populated with information from paper documents. Not all of the information was accurate (garbage in-garbage out). Before the clean-up, the system contained information on approximately 379,000 customer accounts. As KEK identified opportunities to better account for energy that was previously unaccounted for, reviews of system information supported the assumption that some consumers are not included in CCP or are included with inaccurate data. KEK claims that that in the years since the development of CCP, many “customers” were added that did not exist.

The specific objective of the CCP clean-up effort has been to ensure every consumer of electricity with a facility that is connected to the KEK network is in CCP and those that customers that do not have actual connections are removed. Key information in CCP includes accurate information for each customer (meter serial number, meter constants, name, national

ID number, service address, billing address, feeder, phone number, etc.),. This work needs to be completed and processes established to ensure information remains accurate. An accurate customer database will be essential information for investors conducting due diligence. This should continue to be one of the highest priorities for KEK in the lead up to privatization.

### ***ABC Feeder Rankings***

The ABC ranking of feeders is utilized for dispatching under constrained conditions (load shedding). Feeder rankings change monthly following the assessment of the collection status of customers on the various feeders. Although the rankings are used to support improvement in collections, this is clearly not support by the ERO or the law, which puts KEK at risk.

The ABC approach is inherently flawed. First, since interruption occurs at the feeder versus customer premise level, interruption impacts both good paying and poor paying customers. This creates customer dissatisfaction with KEK. KEK is seeking to increase customer satisfaction improvement in payment, but the existing ABC approach negatively impacts this effort.

Doubt exists whether the ABC approach actually reduces consumption. It is believed that customers that are interrupted are utilizing the same amount of electricity (or more), just using it in compressed time periods. This puts additional stress on the distribution system and sometimes increases purchased power requirements (and costs).

KEK along with PA Consulting has evaluated (and would recommend) electrical system investment of approximately €50 million. This investment end load shedding caused by insufficiencies in the 0.4 kV feeder level. This approach would reduce stress on the distribution system infrastructure, help to reduce purchased power costs and enable KEK to more fairly disconnect customers with poor payment history. It is clear that with limited funding, an investment of this magnitude will be undertaken by the private investor of KEK distribution following the privatization process.

### **Energy Accounting**

Our review of the monthly energy accounting process and report reveals that the process is clearly documented and understood; the reports are reviewed for accuracy and utilized to assist in the improvement of collections and reduction of commercial losses.

### **Metering, Billing and Collections Controls**

The team did an assessment of the controls in regards to the metering, billing and collection process. Using a standard set of questions, followed up by discussion, the team found that the controls in place in the meter, billing, and control areas are consistent with industry standard practice and appear to be in place. The questions and responses to the team from PA Consulting can be read in their entirety in Appendix C.

## **Information Technology**

### ***KEK Information Technology Operations Greatly Enhanced***

KEK has established an information technology department, now called Information Systems, performing most of the functions that were previously provided by an outside vendor. This provides KEK with improved control in addition to significant cost savings. The system was built from the ground up, with four new computer experts hired, some of whom have certification from Microsoft and other vendors. Specifically, KEK IT professionals now perform CCP and CAS maintenance, but still need current manuals. This limits and controls access to the two data bases, the ability to change processing structure, and provides an environment that will allow KEK to process information to better suit its needs.

KEK has begun to modernize its IT network hardware server system by establishing a controlled access room to house its processing equipment. A data warehouse will be built in the next 6-8 months. A formal plan is for IT management across all KEK divisions and districts is in place and KEK should strive to continuously improve the function. There are now 14 decentralized servers in each district and in the HQ, as well as at the mining department.

The transfer from the outside vendor of the CCP and CAS software packages only occurred in December 2008, and the IT department has encountered a number of glitches that it has successfully resolved. These include the issuance of bill off an obsolete customer database for CCP, and bills for commercial customers prepared using an outdated VAT.

The modernization of the IT software and hardware infrastructure provides KEK with more timely and accurate information. While improving current operations, it will also provide any new investor the ability to integrate new systems more efficiently and at lower cost. As a result, the IT investment made prior to privatization should be recovered in the purchase price for KEK distribution.

## **Mining and Generation Update and Issues**

### ***Mining***

The drastic situation in 2006 has been at least partially rectified. Two days of coal supply for the A units is now twenty days. The same supply is now available for the B units, as well. However, the mine continues to operate with ancient equipment. Some spare parts are 25 years old and some original equipment is over 50 years old. The procurement law has forced some delays in purchasing spare parts.

Despite the equipment deficiencies the mine has improved operations. Output in 2008 was 7.9 million tons, which was an 18% improvement over 2007 production of 6.7 million tons. Changes of conveyor belt size and configuration and new management contributed to this improvement.

In order to ensure continued adequate supply the mine now has a three-part plan:

- Long term: Develop Sibovc
- Mid-term: Develop SW corner of Sibovc, 9 million tons annual which will last until 2024
- Short term: Current mines plus Sitnica, 14 million tons reserve which will last until 2010

If the plans are executed fuel should not be a restricting factor for Generation. However, in order to fulfill coal requirements, KEK reports that new mining equipment must be in place by July 2010 to augment the current truck and shovel operation.

### ***Generation***

The system is vulnerable to outages and potential large expenditures for purchased power because of the age and previous maintenance policies and practices of the generating units.

Major components have been identified as possible risks. They are:

**Risk Failure and Expected Value of Risk for Selected Generation Components**

<b>Component</b>	<b>Risk of Failure</b>	<b>Expected Value of Risk</b>
<b>Unit B1 generator rotor (Thermal imbalance)</b>	50%	€60 Million
<b>Unit B2 generator rotor (Thermal and dynamic imbalance)</b>	50%	€64 Million
<b>Unit B1 low pressure turbine rotor (Turbine blade cracks)</b>	25%	€60 Million
<b>Unit B2 low pressure turbine rotor (Turbine blade cracks)</b>	40%	€96 Million
<b>Unit B1 Auxiliary Transformer</b>	60%	€3 Million
<b>Unit B2 Main transformer</b>	60%	€121 Million
<b>Unit A3/A5 main transformer</b>	40%	€34 Million
<b>Palaj Substation (serving the mines)</b>	30%	€41 Million

PA has documented KEK’s current (Generation and Network) equipment risks and potential costs. The numbers shown above are from that study.

Efforts such as increased maintenance cycles, replacement of worn components and increased inspections should be undertaken to reduce the probability of failures.

**KOSOVO B**

The Kosovo B Rotor failures are well documented. As early as 1995 and 1996 turbine blade failures were experienced. Numerous repairs have been necessary. The root cause of these failures has been identified as inadequate water treatment and insufficient control of the water fed to the boilers. The most severe failures occurred at the last stages of the low-pressure steam turbines where the steam changes from superheated into the saturated and wet steam state. The failures began with minerals settled out from the steam forming deposits on the metal surfaces that in time produced corrosion followed by cracking of LP rotator blades

New rotors have been procured for Kosovo B 1 and Kosovo B 2. Expected deliveries are June 2010 for B1 and October 2010 for B2. The Water system has not been purchased and is just now being tendered again. Because of procurement problems the first bids were thrown out and the process started over. It is imperative that the water system installation is completed before the turbine rotor installation. The water system installation is now the critical path item in the schedule. Purchase and delivery of the water system should be expedited.

## KOSOVO A1/A2

Generating units A1 & A2 have not operated for some time. Unit 1 entered commercial operation on October 20, 1962. Its capacity has decreased in the last years of operation and it is estimated that the unit is capable of generating no more than 20 MW. A2 entered commercial operation on November 13, 1964. It has not been in operation since 2002. Capital cost estimates have been prepared. Unit A1 estimates total €22,600,000. The estimates for A2 total €9,400,000.

The COO will be presenting the estimates for rehabilitation of the units, cost of purchased power and other relevant information such as transmission line capacity to the Board of Directors in the near future. The objective is to determine whether it is practical and economically attractive to rehabilitate these units and operate them on stand-by and during peak system demand for an additional 5 to 7 years. In the event that the New Kosovo Power Project (NKPP) is delayed, KEK Units A and B must continue to supply all power to Kosovo and may need this capacity.

Efforts to reduce the vulnerability of the system and increase capacity are mandatory. If there are no megawatts supplied to Distribution, Distribution will have no megawatts to sell. It is especially necessary in case the NKPP owner does not take ownership of KEK Units A and B, for these units to supply power to Kosovo for the foreseeable future, even beyond the start of NKPP.

## Human Resources Issues

Unbundling of KEK Distribution will require major decisions regarding staffing of business support units (e.g. Corporate Services in HR, External Relations, Information Technology, Procurement, as well as Accounting), which have yet to be made. A decision of providing the unbundled KEK Distribution with its own business support units would call into question whether sufficient managers and support staff are available for both companies.

An assessment of HR issues since the 2006 assessment indicates that there appears to be no concerted effort to reduce the number of employees, which remain high. The HR manager cited only his new policy of not allowing employees to remain after 65 as a method of controlling payroll. In 2006 there were efforts to reduce the payroll e.g., outsourcing of non-core activities. It seems that the efforts to reduce payroll costs have been shelved. In Generation and the Mine the number of employees is well above European or American standards. Generation maintenance numbers are high because the maintenance staff is sized to do all overhaul work. Most American plants are staffed to handle routine maintenance and minor outages only. Contractors are brought in for major overhauls thus eliminating the need to have large staffs year round. Realizing the difficulty of terminating employees and the social considerations the numbers should at least be reduced by not replacing departing employees.

Numerous managers complained about the inability to terminate employees and keep them off the payroll. In many cases the courts cited a lack of evidence as the reason to return the employees to the payroll. Human resources should ensure uniform policies and procedures for counseling, warning, disciplining and terminating employees. All managers and supervisors should periodically go through refresher training and sign acknowledgements that they have received the training. With proper documentation the success rate for keeping employees off the payroll might improve.

Communications is always important and particularly when major changes are in progress. HR, in conjunction with Public Relations, has an opportunity to improve communications internally and externally. With the rapid changes occurring KEK should explain to employees what the changes are, why they are necessary and to the extent possible how the changes will affect them. KEK needs the support of the public and the government. Employees can be a positive or a negative factor in securing this support. These efforts should include, in addition to internal and external publications, supervisor to subordinate meetings. These should be carefully scripted to ensure a consistent message.

The Board of Directors should undertake a comprehensive compensation survey in order to document and understand the market for skilled employees. We were told that craft employees received a 17% increase while some managers had their pay cut. In 2006 KEK was unable to hire a competent CFO because the offered salary was well below market. It appears that the board is still unwilling to compete for the top management talent. Adjustments to the structure would facilitate the hiring of qualified individuals for important functions, e.g., audit staff, information technology and executive directors. Until KEK can compete with other

major corporations in compensation issues it will be unable to attract the qualifications needed to manage this complex situation.

It was confirmed that PA Consulting has developed and presented new KEK employment regulations to KEK's Acting Managing Director, with the recommendation that the new regulations be implemented during the first quarter of 2009. The regulations prepare KEK for unbundling and support privatization. The Managing Director confirmed he would be signing these in the near future. These changes are critical to support the efforts going forward.

Another initiative underway is development of one-year contracts for KEK Network and Supply employees. With the unbundling of Distribution, Generation and Mining, the new contracts will be necessary. If KEK can successfully secure contracts with this defined time period (one year versus perpetuity), it better prepares the organization for privatization and makes employee discipline easier.

## **Externalities**

Progress on issues outside the control of KEK Management that have affected the performance of KEK from the time of the TAM management contract (and earlier), have been limited, and continue to hinder its progress towards successful privatization or commercialization. The list of these issues resembles the one identified in the 2006 USEA Assessment, which were the subject of meetings of the now disbanded inter-agency Joint Task Force (JTF).

### ***Procurement Law Continues To Restrict Progress***

The 2006 Assessment Report identified Procurement as a “restriction to progress” in several of KEK’s departments. This continues to be the case in 2009. The principal problem is a high rate of “failed procurements” where the Procurement Department is forced to re-tender purchases due to technicalities, most prominently not meeting requirements in the Procurement Law. Protests by losing bidders are also common as they avail themselves of various steps envisioned in the law. The problems with procurement have long been identified as one of the “externalities” hindering the performance of KEK that, among other, were discussed by the former inter-agency PISG/UNMIK Joint Task Force (2005-2007).

The law’s requirement of minimum three bids frequently cannot be met due to the unique nature of the equipment and spare parts required by KEK. It most recently has caused delays in the contracting for refurbishment of excavators and conveyor systems for the Sibovc SW mine, as well as the new water treatment plant for Kosovo B, the latter identified by this report as being on the critical path for maintaining a reliable supply of electricity in Kosovo. The lack of multiple bidders has also delayed deployment activation of installed “smart meters” because there are only two telecom providers in the country, although the team was informed that a winner has finally been selected. Instances of failed procurements are amply documented in PA Consulting progress reports.

KEK’s Director of Procurement, reported that a draft of a new Procurement Law is being sent to Parliament, and he cited obstacles encountered by other government organizations in contracting for goods and services (specifically, the agency that is furnishing Kosovo’s embassies abroad). The team understands that PA Consulting is ready to provide KEK with legal support to ensure that the new law addresses the unique needs of KEK.

PA Consulting claimed that KEK has made use of exemptions in the Procurement Law, using its clause on “emergency” procurements for the specific case of spot purchases of imported power to get around the minimum number of bidders. KEK’s Director of Procurement also added that negotiations for purchased power (as opposed to tenders) can lead to lower import costs, but the government has been erratic in allowing (and disallowing) use of the appropriate clause in the Procurement Law to allow negotiations, and that in one instance negotiations led to a reduction of €4 million in a contract for imported power.

Requirements of transparency (“open tender”) in the law also preclude forms of closed-door negotiated procurements that may be in the best interests of KEK, and which may

be envisioned in the sale of KEK Distribution. The soon to be hired Transaction Advisor for KEK Distribution will need to focus on these issues, and ensure that the new law does not become an obstacle for the privatization process.

Conflicting information was offered as to whether after privatization the new owners will have to comply with the terms of the Procurement Law. It appears it will have to unless it seeks an exemption. Elsewhere we were informed that if the Government retains less than 51% of the shares in the privatization (a likely scenario in the case of New KEK Distribution), the procurement law does not apply.

During the 2006 visit the Assessment Team noted that under ESBI the procurement function had been decentralized among KEK's Departments. Procurement has since been centralized again. There are currently 10 licensed procurement officers in KEK's procurement department. No decision has been made on whether the new KEK Distribution Company will have its own procurement department by splitting the group in two, or whether this and other corporate services will serve both the new and the incumbent companies.

### ***KEK Governance And GOK Involvement In KEK Management***

With Independence of the Republic of Kosovo in February 2008, a transition to GoK governance of KEK was completed. In April of 2008 a new Board of Directors (BoD) was appointed. This first post-independence BoD was very active in the management in the company that PA Consulting considered damaging to KEK, a micromanaging that went far beyond a the role a BoD ought to undertake.

In the first three months after it was appointed, the BoD:

- reduced the salaries of senior KEK management to up to 40%, and at the same time increased those of KEK workers that led to an increase of the payroll of € 6million
- changed the membership of the Audit Committee, it delayed the approval of the 2006 and 2007 financial statements
- forced a change of KEK's Chief Financial Officer
- reversed the earlier decision of KEK's management to end the contract with RTK (Radio Television Kosovo) for billing and collection of RTK fees by KEK. This deepens KEK's financial problems because it pays RTK on the basis of fees billed, and is stuck when collections fall below 100%

A new BoD was appointed in February 2009. By the time the team departed (first week of March 2009), the new BoD had not formally met. It is hoped that the new BoD will take on a more apt role of policy and oversight, but this remains to be seen. Its members are attending training sessions with experts that are aimed at instilling among the inexperienced members lessons of the appropriate role and responsibilities of corporate BoDs and their role vis a vis the hired managers.

KEK management also continues to need to heavily interact with the Government and the Ministry. This was also the case before Independence with the Provisional Institutions and the Ministry. As owner of KEK, and as provider of frequent budget support and/or loans to KEK, the government has inarguably a voice in KEK's affairs. Where the line between GoK recent interactions in KEK's management, and its role in protecting its assets as owner of the company is a point of valid discussion. Unlike the current Minister's predecessor, who in 2007 fired the KEK Managing Director, the new Minister has not, to our knowledge, had a role in changes in senior management at KEK.

### ***KEK Management Needs Continuity Through Privatization***

The current lack of formal appointments to KEK senior management positions is a serious obstacle to commercialization. The third Managing Director in three years is currently acting, as are most of the Directors of KEK's Divisions. Several factors contribute to the lack of continuity in senior management, most importantly the February 2008 milestone of Kosovo's Independence and the post-independence appointments of the new Ministers of the new Government of Kosovo, as well as the appointment of new Board of Directors for KEK (three in the last two years). The problem is that in the last three years few of them have held their positions long enough to fully develop and implement new processes and introduce reforms that become permanent before being re-assigned. This is a weakness in KEK's governance that will reflect in the upcoming privatization. It will be beneficial to Kosovo to have prospective buyers carry out their due diligence on a KEK led by senior managers that are duly appointed to their positions and have amassed experience at these positions.

### ***Rule of Law Issues Will Continue To Hinder KEK Management For A Long Time***

Workforce reduction is constrained by union rules and a judiciary whose rulings favor protection of workers jobs, whether the separation is for non-performance or for other reasons; courtroom rules of evidence place a high cost to KEK to pursue cases of separation for cause. Reinstatement of employees separated for cause reflects negatively in the performance of the entire workforce.

KEK's Anti-corruption and Internal Audit Department, whose activities are described in the discussion on Improving Internal Controls, has documented numerous cases of lack of cooperation by police and courts. Cases are slow to reach justice: the department in recent months acted on 30 criminal cases against 37 employees, of which the courts have recently taken up 3 cases.

### ***Relationship With Energy Regulatory Office (ERO) Has Worsened***

Relationship between KEK and the Energy Regulatory Office (ERO) has evolved into a sharply adversarial relationship. In part the differences stem from ERO rules issued during the UNMIK administration viewed as more appropriate to power companies already commercialized, like those in northern Europe, such as the disconnection rules that are highly protective of customers and which stand out as especially discordant with the reality in

Kosovo. The Team learned that, in recognition of the burden on KEK of the existing disconnection rules, the Prime Minister's Office issued a draft of a new rule, which has since been withdrawn.

ERO also has, according to KEK, a very complex methodology for tariff application which has become another source of friction between KEK and ERO. ERO, on the other hand, views KEK's ABC load-shedding program as discriminatory and in violation of ERO and EU principles.

As a result of their differences, the two organizations today only communicate in writing. This is regrettable, as it is especially important in advance of the privatization of KEK Distribution that the two organizations collaborate. The market rules in which the new company will operate need to be issued by KEK, specifically on the responsibilities for power imports after the unbundling of KEK Distribution. Also, the specific role of ERO in the privatization tender process needs to be defined in the Privatization Law for KEK Distribution to be issued later this year after the Transaction Advisor is mobilized.

### ***No Progress On Collections From Minorities***

There is no progress on collections from minorities in enclaves and in the north of Kosovo, which account for approximately 10% of the electricity available for sale. Collections continue to be insignificant among enclaves, and the north does not pay at all. Enclave communities are treated as C customers under the ABC program and are subject to load shedding as all other C customers; the north of Kosovo, which represents 70% of the minority consumption, cannot be cut off because KEK does not have access to the substation, and thus are essentially A customers under ABC; proposals to build a new substation which KEK can control have not been implemented, and the political reality makes it unlikely KEK (or a private owner) can do so without a political solution involving Serbia.

## Summary of Recommendations

- USAID should continue providing advisory services of PA Consulting to KEK into and through privatization of KEK Distribution.
- USAID should consider amending the PA Consulting scope of work for a certain level of effort necessary to support the transaction advisor
- Maintain continuity of senior staff at both New KEK Distribution and the incumbent KEK Mining & Generation to ensure improvements in commercial operations
- Accelerate meter installation and complete activation of handheld meter reading
- Staff the technical specifications department
- Re-establish the Audit Committee and establish a functioning audit department
- Develop a formal risk management plan
- Allow further development of IT
- Accelerate procurement and installation of the water treatment system at Kosovo Unit B
- Improve internal and external KEK communications

## **LIST OF CONTACTS**

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## **APPENDIX A – EXIT BRIEFING POWERPOINT**



**USAID** | **KOSOVO**  
NGA POPULLI AMERIKAN  
OD AMERIČKOG NARODA

# Assessment of KEK's Progress Towards Privatization

March 2009



# Assessment

- Who we are
- Why we are here
- Methodology
- Key Areas of Concentration
- Findings
- Conclusion



## Who We Are

- Andres Doernberg
- P. Kevin Ellison
- J. Stanley Graves
- Roger Kovack
- William Polen



## Why We Are Here

- Assess Accomplishments/Weaknesses since 2006 in the areas of Collections, Financial Management and Controls, and Corporate and Human Resource Management as they relate to the following objectives:
  - Improve the ability of the Managing Director of KEK to provide overall strategic guidance to the company, with particular emphasis on enhancing KEK's own revenues
  - Increase collections through support to the Network and Supply Divisions to accelerate potential future private sector participation
  - Improve the institutional, policy and legal environment in which KEK operates so that it is supportive of KEK's collection efforts.
  - Preparation of KEK Distribution functions for privatization
  - Support to KEK commercialization
  - Anti-corruption efforts – the reduction and prosecution of fraud, waste, and abuse
  - Legal and regulatory support
  - Normalization of service to enclave communities



## Methodology

- Conducted 27 interviews with various stakeholder groups
  - PA Consulting
  - KEK Management
  - Government Officials
- Document Reviews
- Field Observations



## Areas of Concentration

- KEK's progress towards privatization
- KEK's progress on commercialization as it prepares for privatization
  - Credit and collections
  - Financials
  - Generation and other Operations
- Other Issues



## Privatization Findings

- The team found that KEK is progressing towards privatization, with specific focus on:
  - Financial unbundling complete, legal unbundling expected March 31
  - Transaction Advisor selection is pending
  - Supply and Network Asset Inventory underway
  - Liability Identification Underway
  - Data Room development planned
  - Employee census due by March 9
  - Market Rule Revision required
  - Asset registration is an issue
  - Staff allocation after unbundling is undecided
  - Board structure and governance after unbundling



## Commercialization Findings

- The team found that KEK is implementing sound business practices that are appropriate for the local environment, business culture, and support privatization; but:
  - External factors, which include the political, legal, and regulatory environment continue to be a detriment towards commercialization and privatization, and must be addressed
    - Procurement
    - Judicial
      - Corruption
        - » Stealing
        - » Electricity Theft
    - KEK does not have the flexibility needed to reduce the workforce (for non-performance or other reasons)
    - Relationship with the ERO
    - Lack of Rule of Law
    - Service to enclaves
- Without resolving these issues, commercialization progress towards privatization is severely threatened



## Commercialization-Credit and Collections

- New Organization and Structure Implemented in Supply Division District Feeder Project
  - Improved management, accountability and controls
- Customer Care Package (CCP) cleanup
- Technical Specifications Developed for Meters
- Meter Ownership Issue
- Improved metering, billing and collections controls
- Energy Accounting Improvements



## Commercialization-District Feeder Project

District Feeder Teams are now responsible for:

- Accounting for all energy delivered to the feeders
- Meter Readings
- Bill Delivery
- Disconnections
- Enforcing payment discipline through effective disconnections



## Commercialization-District Feeder Team

- KPIs are in place, with numerical monthly performance targets
- Controls have improved; including a strict control of the CCP so only the billing manager has authority and is responsible for changes in CCP
- Cleaning of the database in CCP underway
- Worker performance standards established
- Critical KPIs to support Billing and Collection improvement include:
  - % of Billed from Energy Available For Sale
  - % Collected from Billed



## Commercialization-District Feeder Project

- Operations Recommendations:
  - Complete implementation of Meter Reading Handhelds
    - Improved accuracy
    - Reduced cost
    - Improve cycle time
    - Better employee controls
  - Continue to improve individual employee performance and utilization
    - % Collected from Billed
    - Meter Reads per day
    - Disconnections per day
  - Ensure management reporting comes from a consistent data source and methodology changes are clearly noted



## Financial Findings

- Financial reporting improved
  - 2006 & 2007 Financial Statements ready for Audit Committee approval
  - 2008 and 1<sup>st</sup> Qtr. 2009 Audit work tendered on an unbundled basis
- 2009 Tariff Filing Completed
  - Unbundled basis for tariffs
- Zero based line item budgeting implemented
  - Budget amount equals collected revenues
- KEK is now creditworthy
  - €20m Raiffeisen Bank credit line
- KEK IT is improving
  - CCP and CAS maintenance now performed by KEK IT professionals
  - A KEK IT improved network infrastructure is in place



## Financial Findings

- Improved payment systems
  - KOS-Giro (increased customer usage, now 7.9% of payments, 50% increase since 1<sup>st</sup> Qtr 2008)
  - Direct Debit
  - Direct collection from payroll for KEK employee bills
- No formal risk management plan
- Improving internal controls
  - Revenue Protection
  - Internal Audit (Audit Committee issues remain)
  - Anti Corruption
  - Technical Specifications (Staffing issues remain)
- Continued problems with inventories
  - Warehouse records not linked to CAS



## Generation Issues

- Generation units remain vulnerable to failure. Loss of any unit will have significant economic impact and will impair commercialization and privatization of distribution
  - Detailed risk assessment prepared by PA Consulting
    - Unit B2 main transformer
    - B1 & B2 turbine rotors
    - Water treatment system must be completed before Unit B turbine rotor work can be completed
    - Further analysis of A1 & A2 units is warranted



# HR Management Findings

- Maintain management stability
- Internal communications (and change management) is critical to successful commercialization, unbundling and privatization



# Other Operational Findings

- Purchased power (Imports) relies on KCB support
- ABC is still an issue
  - ERO concerns
  - Physical network impacts
  - Creates Customer dissatisfaction
  - Questionable impacts on load reductionDisparity exists in regards to service to minorities
- Mine situation currently stable (short term improvements implemented), but investment in equipment required for 2010



## Summary of Commercial Recommendations

- Maintain continuity of KEK staff and advisors
- Complete utilization of handheld meter reading
- Accelerate meter installation
- Establish audit committee and functioning internal audit department
- Allow further development of IT
- Develop formal risk management plan
- Staff technical specifications department
- Accelerate generation water treatment system
- Internal and external KEK communications



# Conclusion

- Preparation for a successful privatization is the primary focus.
- Changes at KEK have been positive and demonstrate sound management practices, but they are fragile. PA Consulting services have proven beneficial and similar services will be needed into and through privatization.
- Without changes to the external environment to support privatization, ownership changes will not be realized, leaving on-going KEK operations at risk.
- Without adequate power supply, the privatization of distribution will fail since there will be inadequate electricity to sell

## APPENDIX B

### Key Definitions Used in the Metering Industry

As the Automated Meter Reading industry has matured, more and more industry jargon and acronyms have arisen in an effort to distinguish newer technologies and software applications from the more primitive AMR units, such as walk-by and drive-by. Below are some key definitions:

**Automated Meter Reading (AMR)** – The ability to collect aggregated energy usage automatically via communications hardware, including wireless radio frequency (RF), power line carrier, and other telecommunications devices. Some industry advocates have narrowed the definition of AMR to “mobile” technologies such as handheld (walk-by) or drive-by devices.

**Advanced Metering** – Meters and communications hardware capable of recording energy usage either in real-time or other time-measured increments, such as every 15 minutes, and able to transmit data two-way on demand or in pre-defined schedules. Advanced Metering can refer to solid-state meters pre-equipped with a two-way AMR device or older meters with an advanced metering device retrofitted on them, thus providing the same two-way capabilities.

**Advanced Metering Infrastructure (AMI)** – This is a term that emerged out of the United States of America, specifically the state of California when the state began its ongoing metering initiatives several years ago and has since spread throughout the industry. AMI includes the communications hardware and software, advanced meters and all data management systems necessary to store, validate and transmit the vast amount of data that will be collected via a true advanced metering system.

**One-way metering** – This term refers to mobile technologies and some more primitive forms of power line carrier, fixed radio frequency and telephony applications. A one-way system allows the utility only to collect data in an inbound capacity from the meter.

**Two-way metering** – This term is associated with advanced metering, as stated above, and offers the utility the ability to collect data on demand or in pre-defined schedules. In other words, the utility can communicate with the meter at any given time, and the meter has the ability to “dial out” or transmit readings to the utility on a predetermined schedule.

**Advanced Meter** – A meter equipped with advanced metering capabilities. It is sometimes referred to as a “smart meter.”

**Smart Grid** – While this term has several definitions, generally, it is the combination of several advanced sensory, automation and analytical technologies, including AMI, in-premise communicating devices, advanced distribution (and transmission) system equipment and advanced software and IT assets. Smart grid technologies rely on wired or wireless data transport networks that can send data at speeds giving end-users information in near real-time. The overriding purpose of smart grids is to modernize electric grids with new technologies, thereby improving operational capabilities and creating opportunities for load and demand curtailment. Smart grid is an evolving concept that covers micro generation (solar and wind) and power storage. It also encompasses emerging technologies such as plug-in hybrid electric vehicles.

It should be noted that advanced metering and AMI provide utilities with a more efficient means to provide real-time pricing and other time-based rates, which can drive energy management or demand response programs; monitor certain aspects of the distribution system for efficiency. Advanced metering systems also allow utilities to collect off-cycle reads when a customer moves in or out of a premise, and in the case of electricity delivery, remotely connect or disconnect power.

## APPENDIX C

### **Korporata Energjetike E Kosoves Metering, Billing and Cash Collection-- Control Assessment Questionnaire Response of PA Consulting**

#### **Metering**

##### **Meter Reader Training**

- Describe how meter readers are trained to get obtain accurate reads.

##### **RESPONSE:**

There is no special training module for meter readers. Reading is done by the “Feeder Specialists” (FS) who are responsible for reading, as well as for bill delivery, disconnections and control. Feeder Specialists have a written procedure to follow and the Sub-District coordinators and FS receive instructions how to conduct reading verbally by the district Supply Manager on a monthly basis since obtaining accurate readings is a priority for KEK.

- Does this training include how to obtain visual reads and record these reads on either hardcopy or into a handheld device?

##### **RESPONSE:**

Feeder Specialists receive instructions to complete all sections of the reading lists and the district supply manager explains how to write information in the hard copy. Feeder Specialists are instructed to record in the reading list information if there is no access, meter is damaged, meter needs to be audited, meter was changed, seal is different, seal is missing, seal is OK, building is destroyed, customer temporary is not there, customer cannot be found, etc. Meter reading lists have to be signed.

In the case of handhelds, IT personnel conduct a separate training session. All information on the paper reading list is contained in the handheld device.

- Does this training include safety and accident prevention?

##### **RESPONSE:**

Every meter reader must attend safety training conducted at KEK’s central training center.

## Scheduling Meter Reads

- What are the procedures for scheduling and assigning meter reads and pick-up reads so that these reads are obtained in an efficient manner?

**RESPONSE:**

Meter reading routes are now established based on the 10/0.4KV Transformer Stations. A specific “Feeder Specialist” or “Feeder Team” is assigned to each Transformer Station. Every effort is made to read the meters of all customers on the TS in one day. All customer reads are scheduled over a 5 day period (the last 3 days of one month and the first 2 days of the next month). Lists are prepared by the Billing group in each district and given to the Feeder Specialists each day. Reads must be returned at end of the day, except for a few remote areas (in which case they are returned the next morning). Every District Coordinator at the end of the month closely cooperates with billing Manager to get Reading lists for Feeder Specialists

- How often are meters to be read per regulatory requirements?

**RESPONSE:**

Once per month

- Describe the procedures complying with these requirements.

**RESPONSE:**

Readings are done each month.

## Performing Meter Reads

- Do the hand held devices for meter reads perform basic validation in order to identify any reads that are unreasonable either in general or in light of the usage and/or demand history for the meter being read?

**RESPONSE:**

Yes. The Reader is notified if the current read produces consumption +/- a given percentage of the prior month

- Do these hand held devices display a meter id which the reader can use to verify that they are reading the correct meter?

**RESPONSE:**

Yes

## Administrating Meter Reads

- What are the pre-established productivity goals for meter readers?

**RESPONSE:**

200 meters per day per employee is the standard. A 5% error rate is the tolerance. A 5%-10% error rate results in the employee receiving a warning. More than 10% error rate is grounds for termination.

- Do any meter reading handheld devices which are used to record visual reads include a read date and time stamp so that management can retroactively gauge whether the meter reader was probably actually at the physical location where the read was obtained
  - The above read dates and time stamps enable management to determine whether a meter reader may be recording cumulative and any demand reads without actually visiting a physical location.

**RESPONSE:**

Yes. Read date and time is recorded.

- Do the meter reading supervisors/management have a way to readily determine whether they received back a read for each meter read that was assigned?

**RESPONSE:**

For Handhelds, for each consumer scheduled, the reader must either enter a read or a reason for no read.

For paper reads, the Billing Clerk receives the assigned reading lists and is responsible to check if either a reading or reason for not reading is shown for each meter.

- What are the controls for ensuring that all meter reads received back are uploaded to the central processing application?

**RESPONSE:**

For handhelds, the system reports the status of each route scheduled for the day to insure it is uploaded

For paper reads, the billing clerk is responsible to enter the data from the read document to the system.

## **Estimating usage**

- What is the written policy as to how consumption and demand are to be estimated?

### **RESPONSE:**

The Regulator allows estimated billing to be used. The CCP System was designed to allow 4 options to determine estimated usage. Currently, the policy is to base the current consumption on the average of the six monthly values for the same season (Winter/Summer) last year.

All demand meters **MUST** be read every month. Estimation is not allowed.

- What are the procedures for estimating usage and demand?

### **RESPONSE:**

See above

- Describe how estimates are documented.

### **RESPONSE:**

All estimates are documented in the CCP System. It shows the results of the reading data from the field indicating the reason for the estimate (generally “No Access”). The amounts to compute the estimated bill are determined by the system using the estimation method described above.

- Do these procedures include the use of relevant historical data and are they automated to the extent possible?

### **RESPONSE:**

Yes. They use historical data contained in the system and are fully automated.

## **Billing**

### **Training**

- How are billing personnel trained to be knowledgeable in the tariffs they bill?

### **RESPONSE:**

Billing personnel are primarily responsible for entering the reading data. All tariff matters are handled by the system. Three bills are manually computed (for the 3 customers served at 110KV) by an experienced person at the headquarters.

### **Administration**

- What are the billing productivity standards?

### **RESPONSE:**

All meter read data must be entered within 24 hours. After entering readings, bills are produced and delivered within 5 days (2 days for verification and production of bills, 3 days for delivery).

- Does the billing system report billed and unbilled revenue so that management can determine whether the above productivity standards are being met?

**RESPONSE:**

CCP reports all billed revenue. KEK does not record unbilled revenue.

**Validation**

- Does the billing system perform extended reasonableness validations on cumulative meter consumption and any related demand reads?

**RESPONSE:**

The billing system was designed to enable reasonableness validations. The primary validations being utilized are for “Zero” reads, reads which produce negative billing, and readings that produce an extremely positive bill. The system provides the capability for the user to develop specialized flag reports.

- Describe the validations which either the billing or some other upstream system perform on interval data to determine whether the meter is function properly and whether there are any missing meter data intervals?

**RESPONSE:**

Please define the term “interval data”.

**Exception processing**

- Does the billing system identify instances where it has not received meter data when expected?

**RESPONSE:**

Receiving and inputting meter reading data for every customer every month is the responsibility of every billing clerk.

- Does the billing system provide exception tracking which enables management to readily determine which accounts have not been billed and why, such as awaiting a pick-up read?
  - Does this tracking enable billing system users to document, when required, the nature and status of these exceptions via user transcribed notes in conjunction with any related self-documenting system generated events?

**RESPONSE:**

Every customer is billed every month. All history is contained within CCP

**Internal Processing**

- Does the billing system separately account for each customer non energy charge?

**RESPONSE:**

Yes.

- Is the billing system logically organized such that it rolls the energy charges for individual service level account statements into invoice totals for upstream customer accounts?

**RESPONSE:**

Yes, for certain customers with multiple locations. Examples are IPKO (Internet and cable television), Customs Service, and Post & Telecom.

- When a billing includes estimated usage and/or demand, is this disclosed to the customer on the related billing?

**RESPONSE:**

Yes

**Historical Reporting**

- Describe the consumption, demand and billing history which the billing system provides for each customer at the service level.

**RESPONSE:**

Every month of consumption for every customer and each related charge is contained in each customer's record.

- Does the billing system coincidentally provide a history of the meters used at each installed service address?

**RESPONSE:**

Yes

**Customer Contentment**

- Describe the customer survey programs, if any, which KEK management uses to gauge how satisfied their customers are with the metering, billing and cash collection services that KEK performs.

**RESPONSE:**

A customer survey was conducted in 2005. In that survey, customers were asked for their input and opinions on items such as:

- Regularity of reading
  - Regularity in billing
  - The clarity of information on their bills
  - Waiting time at cash offices
  - Issuance of a receipt for each transaction.
- 
- What procedures are followed to help ensure that the above survey results are accurate, timely and legitimate?

**RESPONSE:**

The survey was developed and conducted by the KEK Customer Care Department under the direction of ESBI.

**Cash Collecting**  
**Policies and Training**

- Are customers instructed to pay using currency or other means?

**RESPONSE:**

Given that the vast majority of customers (in terms of numbers and amount billed) are households and small commercial entities, most payments are made in cash at KEK customer offices. Larger customers pay using bank transfers. During 2008, the Kos-Giro payment mechanism was introduced and approximately 8% of payments were made at banks using this transfer mechanism. KEK conducted a promotion campaign for Kos-Giro via television and newspaper. In addition, Raiffeisen Bank (KEK's host bank) had posters displayed in its branches. KEK had posters in each customer office and a flyer was delivered to each customer.

- What training do accounts receivable personnel receive in order to record cash remittances in a timely and accurate manner?

**RESPONSE:**

Each customer cash remittance is entered to the CCP system upon receipt in the customer office and the customer is given a receipt produced by the system. Cashiers and finance people receive training and certificates are awarded regarding cash posting in CCP.

- Is it written policy that accounts receivable are personnel are required to immediately forward any currency remittances they find, to their supervisor?

**RESPONSE:**

Unlike in the US, there is no functional post office in Kosovo and, therefore, there is no centralized processing of customer remittances which would fit the scenario described.

- Is it written policy that the accounts receivable personnel who open customer remittance envelopes are not to carry personal cash while on duty?

**RESPONSE:**

Unlike in the US, there is no functional post office in Kosovo and, therefore, there is no centralized processing of customer remittances.

### Processing Customer Collections

- Are customer remittance checks restrictively endorsed by administrative utility personnel as soon as possible?

**RESPONSE:**

Checks have not been used in Kosovo since the war in 1999.

- Do accounts receivable personnel use euro batch totals to control the entering of customer remittances into the Accounts Receivable system?

**RESPONSE:**

Each customer remittance is entered to the system immediately upon receipt in the customer office. A report is prepared at 16:00 each day of amounts posted in the system by each cashier and that is used to balance the cash drawer and make the bank deposit.

- What is the formula for applying partial payments?

**RESPONSE:**

The vast majority of payments are partial payments. They are posted to the customer account when received.

- Are customer remittances deposited into the bank as soon as possible?

**RESPONSE:**

Every customer office deposits the receipts for the day in the bank prior to the bank closing time

- Are the bank deposits for customer remittances reconciled to the above Euros batch totals?

**RESPONSE:**

Every office must reconcile their postings to customer accounts to the bank deposit in Euros each day.

**Historical Reporting**

- Does the accounts receivable system retain remittance and write-off history for individual customer accounts?

**RESPONSE:**

All history for every account is retained in the system