

S E P T E M B E R 1 9 9 9

## TermoCandelaria Achieves Financial Close

### Innovative Financing Package Attracted Pioneering Insurance Company Guarantee



*KMR Power, Centre Solutions, and Bank of America — financial close team members*

**KMR** Power Corporation announced in mid-June that it has achieved financial close for its latest venture in Colombia, the 314 MW gas-fired TermoCandelaria Project. The \$175 million project, operating as a merchant plant, will sell its electricity into the Bolsa, or spot market. The simple-cycle plant will be located in Cartagena, near KMR's existing Mamonal Plant and represents the firm's largest undertaking in Colombia to date.

TermoCandelaria, which is 100% owned by KMR, is being financed under a unique two-tranche bank facility structure created for this project by the company. It consists of a US\$90 million senior loan and a US\$85 million subordinated loan.

Not only is the project financing pioneering in that an insurance company is guaranteeing a large portion of the debt, it represents the first true flow of commercially underwritten project finance debt for an infrastructure project in Latin America since the economic crisis spread throughout the region.

Banc of America Securities, a subsidiary of Bank of America, served as Financial Advisor to KMR and Arranger of the senior loan. In this capacity, the bank underwrote US\$40 million of the senior debt and funded the US\$85 million subordinated debt.

Centre Solutions of Hamilton, Bermuda, a wholly-owned subsidiary of the Zurich Financial Services Group of Switzerland, is providing a full guarantee of the US\$85 million subordinated debt, and is also taking a US\$35 million participation in the senior loan.

Instituto de Fomento Industrial (IFI) and Banco de Bogotá (Nassau) Ltd., both Colombian institutions, are providing the balance of the financing. IFI was the Arranger of the local debt, utilizing both dollar and peso financing.

This creative financing package was jointly developed and structured by KMR Power, Banc of America Securities and Centre Solutions. Successfully bringing in Centre Solutions as the guarantor of nearly 50% of the project's debt financing provided KMR a viable platform to attract commercial banks to step up for the rest of the financing.

"Since banks have significantly reduced lending capacity for project finance in Latin America, and because the capital markets and other financial guarantors are not currently supporting Latin American high-yield offerings for non-recourse projects, it is difficult to raise capital for ventures, even

those with tremendous profit potential," said David Wasserman, CEO of the Centre group of companies. "By using insurance capital in innovative ways such as absorbing power price volatility risks associated with merchant power, we were able to help KMR secure banks' lending commitments, and complete the development of their TermoCandelaria project."

Centre Solutions vice president Stephan Marti added, "We found the project attractive because it made sense in the overall nature of Colombia's electricity market. Hydropower still accounts for 75% of generation, which meant the risk under consideration was hydro risk and how it filtered through to thermally generated power. We looked at where it would come in at a favorable price. The fuel supply contracts were also attractive."

"Given the lack of capacity for subordinated debt right now, it is a very efficient and effective way to solve that particular need," observed Centre's chief underwriting officer, Tom Dixon.

Colombia currently has 11 GW of electric generating capacity consisting of nearly 73% hydro and 7% coal. It will add another 3 GW by 2000, and an additional 6 GW by 2010. The Government of Colombia is encouraging the trend toward gas-fired plants to reduce outages caused by drought. Approximately 56% of generation capacity, and 41% of distribution assets are now privately held.

"The closing of the TermoCandelaria Project demonstrates that a well-structured project can be successfully financed under even the most challenging circumstances," according to Alan R. Rosenberg, Managing Director and Global Head of Power Project Finance at Bank of America. "KMR persevered in overcoming obstacles that would have caused other power developers to walk away on multiple occasions. Bank of America is very pleased to be a part of the team," he continued.

See **TERMOCANDELARIA PROJECT**, continued page 2-3

is published by  
K&M Engineering and  
Consulting Corporation

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## Letter from the Chairman

Dear Friends:

The past six months, through the dedicated efforts of our K&M group of companies' employees and consultants, has witnessed significant accomplishments. Our newest facility under construction in Cartagena, Colombia, the TermoCandelaria Power Project, reached financial close despite challenging market conditions in the region. KMR Power, the developer-owner, has 100% equity interest in the project. K&M Engineering was awarded the EPC contract, in consortium with Siemens-Westinghouse. This represents K&M's largest turnkey contract to date. KMR's Termovalle Power Project in Cali, Colombia was commissioned and is now in full commercial operation. K&M successfully concluded the study for restructuring of Ecuador's electric sector. Existing assets have been transferred to the new electric authority and are poised for commercialization. In Egypt, as a testimony to K&M's prior work on behalf of Telecom Egypt, a new five-year contract was awarded to K&M/GTE to complete

phase two of the TSS/OSP project. K&M's BOT consulting assignments in five countries are coming to fruition, bringing private power to new markets. The Azito project in Cote d'Ivoire and Rades II project in Tunisia have reached financial close and commenced construction. Negotiations were concluded for the Meghnaghat project in Bangladesh, with construction ready to begin. Vietnam's Phu My 2,2 project and Jordan's Samra project are in the final stages of selection and negotiation with developers. And, K&M looks to new horizons internationally with the award of two new consulting projects in Laos and Mauritius, and domestically with new technical and engineering support work on behalf of the U.S. Department of Energy, Federal Energy Technology Center.

*Michael Kappaz*  
Chairman and CEO  
K&M Engineering and Consulting

## TermoCandelaria Power Project

314 MW gas-fired, US\$175 million  
Cartagena, Colombia

# KMRpower



- KMR Power 100% developer-owner-operator
- First use of insurance guarantee
- First 100% merchant plant in Colombia
- US\$90 million senior debt
- US\$85 million subordinated debt
- Long-term gas agreement
- Advanced gas turbine technology utilization
- Lowest cost thermal project when completed
- Commercial operation 3rd quarter 2000

## Construction Commences at TermoCandelaria

*Site construction of the 314 MW simple cycle plant commenced in June with clearing and draining of the greenfield property. Piling is currently underway with completion of the gas turbine-generator foundations to follow. K&M, Siemens-Westinghouse, and local contractors are currently working on the site.*



# TermoCandelaria Achieves Financial Close



“Not only does TermoCandelaria underscore our unwavering commitment to and belief in the country’s energy sector, it also reinforces our ability to devise creative financing strategies to get projects closed, even under difficult market conditions,” commented George Kappaz, President and Chief Executive Officer of KMR.

He continued, “In this case, together with Bank of America and Centre Solutions, we developed a highly innovative capital structure for the project. Given the recent and current market conditions, getting a deal closed in Latin America did not prove to be an easy task. However, we believed that the strength of the project and our structure would speak for itself. As our third project in Colombia, TermoCandelaria now gives KMR a diversified and very strong strategic position in that country.”

Ralph Fairbanks, KMR Power Vice President — Project Development, added “As I survey the past several years, the impression that has lasted with me the most is a statement made by Michael Kappaz at the 1993 Mamonal closing. He characterized the effort as bigger than any individual and bigger than that of any individual company — but not bigger than that of the collective effort of all the parties. This was especially true for TermoCandelaria. The ability of each individual on this project to keep his or her ‘eyes on the prize’ resulted in the closing of a landmark deal.”

The Legal Advisor team for the TermoCandelaria financial close consisted of K&M Corporate Counsel Cindy Shepard, Orrick, Herrington & Sutcliffe (sponsors), White & Case (senior lenders) and Latham & Watkins (sub-lenders).

TermoCandelaria will consist of two 160 MW gas-turbine units (314 MW net), a 220 kV switchyard, 8 kms of 220 kV transmission line to connect the plant to the national grid, water and wastewater treatment systems, and miscellaneous support facilities.

The plant will employ two highly efficient Siemens-Westingshouse 501F gas turbines operating in simple-



*Top: “A toast to the financial close and the KMR, Centre Solutions, Bank of America Team.”*

*Center: KMR Project team (left to right) Dennis Slavich, Fred Reveiz, Karen Donatelli, Tim Trainum, and Ralph Fairbanks.*

*Bottom: KMR legal advisor, Mark Coleman, partner, Orrick, Herrington and Sutcliffe (left) and K&M corporate counsel Cindy Shepard (right).*

cycle. The 501F gasturbine, with dry low NOx combustors, is one of the most advanced machines in the industry with an efficiency of 56% in combined cycle and 36.5% in simple cycle operation.

The turnkey engineering, procurement and construction (EPC) contract is being performed

by a consortium consisting of K&M Engineering and Siemens-Westingshouse. Siemens-Westingshouse will provide the power island equipment, while K&M will provide the balance of the plant equipment and materials, perform the civil works and complete the plant erection. This is a precedent-setting project for K&M as it represents the first true turnkey EPC contract the firm has entered into to date.

North American Energy Services of Bellevue, Washington will provide operations and maintenance services. Fuel will be supplied by Texaco-Colombia, a subsidiary of Texaco, Inc. and transported under a long-term contract by Promigas S.A., a private gas transporter.

Construction commenced in June 1999, with the first unit expected to come on line within ten months, and the second following two months later. Upon completion, TermoCandelaria will join KMR’s two operating plants in Colombia — Termovalle and Mamonal. It is expected to become one of the lowest cost thermal electric generation facilities in the country.

KMR’s 240 MW Termovalle Power Project, which has been in operation since 1998, is widely recognized as the first major emerging markets, PPA-based independent power project to be implemented without any government guarantees. The 100 MW Mamonal Power Project, which is hailed as Latin America’s first non-recourse project financed greenfield power project, has been in operation since 1993. These three projects will continue to contribute significantly to meeting the country’s rapidly growing energy needs.

For further information, contact KMR project manager, Ralph Fairbanks at KMR-Arlington or K&M project manager, Riad Khalil at K&M-Washington. ■

## Latin American Energy Ministers Summit

Initiated in 1994 as an outgrowth of the first Summit of the Americas, the Hemispheric Energy Initiative brings Western Hemisphere energy ministers together annually to discuss regional trade, finance, and energy issues.

In July, U.S. Department of Energy Secretary Richardson hosted the first major conference of energy ministers held jointly with the private sector, “Energy Challenges Facing the Americas: A Vision for the 21st Century”

Ministers representing 34 countries and 500 energy company executives met to discuss regional integration, privatization, investment incentives and clean energy development. Energy company representatives were invited to participate in a series of roundtable discussions.

Recognizing that input from the business sector is an essential factor in formulating energy policy in Latin America, the ministers recommended establishment of a Business Forum to enhance public-private participation and facilitate exchange of ideas. Future Business Forum meetings will coincide with the annual ministerial summit.

At the conclusion, the ministers issued a joint “Declaration” that outlined their commitment to:

- expansion of regional energy trade and integration of electricity grids
- development of policy, legal and regulatory frameworks to facilitate infrastructure construction participation in the clean development mechanism and other programs to address environmental concerns



## VISION 21: Aiming for 70% Efficiency

Since 1992 DOE has been at the forefront of R&D to develop a new class of Advanced Turbine Systems (ATS). This new generation of turbines should enter demonstration phase in 2000, and commercialization in 2002. Two classes of turbines are being developed under this program: 1) simple cycle, less than 20 MW, for distributed generation, industrial and cogeneration use, and 2) combined cycle, greater than 20 MW, for large baseload, central station generation use. These new systems have achieved 60% efficiency (utility scale), 15% efficiency improvement (industrial use), 10% reduction in cost of electricity, NOx emissions less than 9ppm, and fuel flexibility.

VISION 21 seeks to build upon the success of the ATS program. Through public-private partnerships with industry, business, universities and others, VISION 21 will examine a range of technologies to address environmental and other concerns, yet remain cost effective. A new class of fuel flexible generation facilities will integrate new concepts for high efficiency power production with advanced pollution controls. An ambitious target of 70-75% efficiency for combined cycle gas turbines and 60% for coal-fired plants has been set. VISION 21 PowerPlex will converge the capability to process coal, natural gas, biomass, petroleum coke, or a combination thereof.

## K&M to Partner with E<sup>2</sup>S

An exciting opportunity has opened to K&M to partner with two prestigious global technology companies to complete new work on behalf of the U.S. Department of Energy, Federal Energy Technology Center (DOE/FETC).

Energy and Environmental Solutions (E<sup>2</sup>S), the lead contractor, is a recently formed joint venture between Science Applications International Corporation (SAIC) and EG&G Technical Services.

As part of the E<sup>2</sup>S support team, K&M will provide a variety of Program, Product, and Project Engineering and Analysis (P<sup>3</sup>EA) specialized technical and engineering services (T&E) to DOE/FETC over a five year period.

DOE/FETC has a long track record of seeking and providing practical solutions to energy and environmental problems through innovative public-private partnerships. The E<sup>2</sup>S team brings a strong background in technical and engineering support services to DOE/FETC to this project.

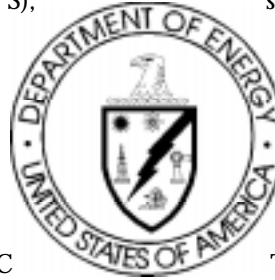
Since 1991, K&M has carried out 43 task orders for DOE/FETC supporting a variety of products and programs including clean coal technologies,

environmental management, natural gas supply and storage, natural gas processing and new advance power generation systems. In addition, K&M has completed numerous technical, engineering and feasibility assessments. This new P<sup>3</sup>EA work is separate and in addition to K&M's existing contract with DOE/FETC.

Primary areas to be addressed in this new contract are fossil energy and environmental management activities, planning and program management support, modeling and simulations T&E support, cost engineering, estimating and analysis T&E support, product and project T&E support, and communications and outreach support.

"K&M is pleased to be a member of the E<sup>2</sup>S team. We look forward to our expanded role assisting DOE/FETC in its mission to address a variety of energy and environmental problems as well as develop and commercialize new technologies," remarked K&M senior vice president William Drotleff.

For further information contact K&M project manager John Rezaiyan at K&M-Washington. ■



### Philippine Delegation



*K&M chairman Michael Kappaz met with Philippine president Joseph Estrada in late April. The delegation discussed business and investment opportunities in the Philippines.*

*Center: President Estrada, left of center, former U.S. Ambassador to the Philippines Philip Kaplan, right of center, K&M chairman Michael Kappaz.*

### Agreements Signed to Implement Meghnaghat

After nearly a year in negotiation, the Bangladeshi government signed four agreements with U.S.-based AES Corporation in late-July for installation of the 450MW Meghnaghat combined cycle power plant, the largest private sector power project in Bangladesh. The four agreements include: Implementation, Power Purchase, Land Lease and Gas Supply. AES will invest US\$300 million in the project.

When completed within 37 months, the Meghnaghat facility will sell power to the Bangladesh Power Development Board (BPDB) and serve 16% of the country's population.

From 1996-1997 K&M served as principal consultant to the Government of Bangladesh. K&M performed a power sector review, structured the Meghnaghat project, assisted in the review of prequalified bidders, drafted the bidding documents, and made recommendations to the BNDP for final selection of the developer. The Meghnaghat BOT project attracted wide interest from international power developers as well as local and private sector investors. It is the first private power project to be implemented under Bangladesh's private power policy, adopted in 1996.

Separately, K&M is currently serving as technical advisor to PriceWaterhouseCoopers under a World Bank contract assisting Bangladesh to undertake a review of its entire infrastructure to expand its privatization efforts, determine viable projects in the power, telecommunications and water sectors, and set up an investment fund. ■

# Ecuador's Restructured Electricity Sector

**K&M** has completed its consulting services assignment, initiated in mid-1997, on behalf of the Government of Ecuador (GOE) for the restructuring of the country's electric power sector and the implementation of a new commercial and regulatory framework.

Through a comprehensive management consulting and commercial evaluation program, in conjunction with the GOE, the K&M team led virtually every phase of Ecuador's power sector reform.

The in-country team was headed by K&M project director, Andrew Ottolenghi, who worked closely with Ecuador's Consejo Nacional de Modernización del Estado del Ecuador (CONAM) as well as local legal advisors Teran Moscoso Abogados. In addition, Washington-based K&M project manager, John Rezaiyan, and K&M director of finance and consulting services, William Kappaz, coordinated key elements of the project with team members Booz, Allen & Hamilton, C.C. Pace, and Coudert Brothers.

This World Bank-funded assignment assisted CONAM to address the key elements required for implementing privatization legislation enacted in 1996 that paved the way for private sector participation in the energy sector.

K&M's efforts culminated in April when the assets of INECEL, the former state utility monopoly, were transferred to the new electricity authority, CONELEC. Ecuador's electric sector restructuring unbundled generation, transmission and distribution assets. A single transmission company, Transmisión Eléctrica del Ecuador will operate the National Interconnected System. Eighteen distribution companies, six power generators, and one transmission firm will be sold or put out for concession by late 1999. The six generation and one distribution companies are valued at nearly US\$2 billion.

Several tenders are in the pipeline to modernize and upgrade the grid, specifically addressing the system's weakest and oldest facilities. Improved lines will link the communities of Milagro and Machala on the west coast, and add new capacity to Chone on the central coast. Plans also call for improved interconnection with nearby Peru and Colombia.

Recently, CONELEC awarded BOT contracts to two international consortia to construct two new hydroelectric plants, which had been in the planning stages for nearly two decades. A number of other new projects are in various stages of development in order to meet the country's severe energy shortage.

Simultaneously, Ecuador's oil sector is undergoing restructuring. The private sector is encouraged to participate through production joint ventures to explore and develop new oil fields. Ecuador is also working with private oil companies to improve the country's aging pipelines, and to build a new pipeline to transport heavy crude.

With the successful restructuring, Ecuador is now poised to promote and attract potential private investors. "While it might take a little more time for the international investment community to feel comfortable with the economic and political environment in Ecuador, once things stabilize a bit locally, investors will find a solid regulatory framework, a new wholesale market, and a group of professionals welcoming new investment and improvements in Ecuador," concluded William Kappaz.

For further information contact K&M project manager John Rezaiyan at K&M-Washington. ■



## *Electric Sector Restructuring Components*

- Establish the agency responsible for regulating the electric sector, including the agency functions, staffing requirements and organizational structures.
- Demand forecast analysis, broken down by distribution companies, used for the asset evaluation and establishment of commercially viable business units.
- Modeling of expansion and dispatch plan to determine projected market prices, unit dispatch, unit costs and revenues. Data used to evaluate newly created commercial business units.
- Design new tariff structure for wholesale and retail markets, and draft tariff regulations.
- Draft legal documents required for the formation of new business units.
- Draft the legal instruments required for sale or auctioning of government-owned generation, transmission and distribution assets.
- Legal and financial analysis of newly established business units to be privatized.
- Identification of appropriate structure for and drafting of Guarantee Regulations as a means to promote private sector investment.
- Draft dispatch regulations and related dispatch manual and principles.
- Develop and draft supply regulations, which establish the standards and procedures related to the distribution and marketing of electric energy services, and the relationship of distributors with consumers.

## K&M AWARDED FINANCIAL ADVISORY PROJECT IN LAOS

K&M has been selected to provide financial advisory services to the Asian Development Bank (ADB) to complete financing for the 60 MW Nam Leuk Hydropower Project in Laos PDR.

The ADB is providing a technical assistance grant to the state utility, Electricité du Laos (EdL), to select a private sector operator to take an ownership role in the project and finance a US\$20 million shortfall in project costs.

K&M will examine the financial viability of the project, assess different ownership options for private sector participation, prepare an RFP and conduct evaluations, and support EdL during negotiations with the selected operator.

K&M's recommendations will be discussed with the existing lenders to the project, the ADB and Japan's OECF. This assignment will run through December 1999, to coincide with the projected completion of construction.

Installed capacity in Laos is 490 MW, almost all of which is generated from the abundant hydro resources in the country. While domestic demand is limited, EdL hopes to export a significant share of its future generating capacity to EGAT, the public utility in Thailand. Laos has untapped hydro potential of up to 20,000 MW, of which only one percent has been utilized.

For further information contact K&M project manager Don Purka at K&M-Washington.

### COLOMBIA

#### TERMOCANDELARIA PROJECT

August

"KMR Hits the Spot"  
Deal Analysis  
*Project Finance*

July

"Colombian Merchant  
Plant Signs"  
*Project Finance*

"KMR Closes Financing  
on Third Colombian  
Thermal Plant"  
*Latin American  
Power Watch*

"KMR Closes US\$175  
Million"

*Project Finance  
International*

"KMR Closes Deal for  
Cartagena Power Plant"  
*South America Report*

"KMR Sets Financing For  
Third Power Plant"  
*Lagniappe Monthly on  
Latin American Projects  
and Finance*

"KMR has achieved  
financial close for the 314  
MW gas-fired Termo-  
Candelaria project"  
*Power Engineering  
International*

June

"KMR Power Closes  
Financing for 314-MW  
TermoCandelaria Project  
in Colombia"  
*Global Power Report*

"Small Dealers Pick Up  
the Slack in Project  
Finance"  
*Investment Dealers Digest*

"Centre Uses Financial  
Power to Help Generate  
Electrical Power in  
Colombia"  
*Business Wire Global*

"KMR Wraps up  
TermoCandelaria  
Financing—Colombia"  
*Business News Americas*

"KMR Power Corp.  
Closes Colombia  
Financing"  
*Oil Daily*

## K&M Team Leads Technology Training in Egypt



Telecom Egypt's Training Director, Eng. Shawki Abdel Moneim (left) accepts self-paced computer training materials from K&M Training Specialist, Dr. George Lear (center) and K&M Computer Specialist, Patrick Purtell. This display is part of a series of 180 telecommunications, management, and computer training packages which will serve Telecom Egypt's staff throughout Egypt.



K&M Computer Specialist, Patrick Purtell (left), looks on as K&M's Computer-based Training Specialist, Dr. Amgad Bayoumi (right), shows Telecom Egypt Training Director, Eng. Shawki Abdel Moneim (center) how to connect to a remote site for a PC video conference.

Under the USAID-funded institutional development program to benefit Egypt's telecommunications sector, K&M is introducing state-of-the-art training techniques and technology. The K&M team, Dr. George Lear and Patrick Purtell, have been developing several initiatives aimed at modernizing the Telecom Egypt training department.

### Training MIS

With growing demand and changing technology, modern telecommunications companies must manage their training departments to provide personnel with appropriate skill and knowledge when it is needed, where it is needed and at a reasonable cost.

The team's computerization specialist has been supporting a database design and development program aimed at enabling the training department to improve the management of its work program, facilities, and personnel.

Last year, the Telecom Egypt Training Department's twelve regional locations and nearly 400 staff members provided approximately 12,000 client training days. And, next year's demand is even greater.

The K&M work program component of the new system will monitor training needs, course development, course delivery and evaluation. The system will also handle planning, scheduling, and administration of the formal training program.

In addition, the Training MIS will monitor the training facilities in terms of equipment and supply inventory, laboratory use, maintenance, and technology upgrades.

An additional component of the system will be the Human Resource Information System (HRIS), which will enable the Training Department to manage its most important feature, its people.

The HRIS is being developed in accordance with International Telecommunications Union guidelines and will serve as a model for other departments in Telecom Egypt, and telecommunications training departments in the entire Arab region.

### Computer Technology Training Program

K&M's initial assessment of institutional development needs at Telecom Egypt identified a lack of conventional PC-based office technology. In response, the team strongly recommended the acquisition of workstations and developed a plan to train 3,000 new workstation users.

The plan called for several training approaches:

- Conventional, formal training at the Training Center laboratories;
- External training at specialized facilities; and
- Self-paced CD-ROM and CBT (computer-based training) courses.

To date, through the USAID-approved vendors, over 800 Telecom Egypt staff have been trained in PC workstation operating systems, word processing, spreadsheet packages, database packages, presentation/graphics software and how to use the Internet.

### Self-paced Learning Center

Telecommunications companies in the developed world use technology-based training systems for up to 40% of the training for Outside Plant Technicians. For training in other job positions, the companies have seen the value of this approach as well. As a result the use of computer-based training, CD-ROMs, interactive videos, and internet-based training is growing.

K&M is helping Telecom Egypt to realize the potential of applying modern technology to its training program through the design and implementation of a Self-paced Learning Center at their Nasr City headquarters.

The laboratory will be equipped with 16 PCs, video equipment, ISDN internet connectivity, and the most comprehensive library of telecommunications training resource materials in the region.

In addition, the K&M program is assisting staff at the training center to develop and produce their own computer-based training programs to serve the



## K&M and GTE Awarded Additional TSS/OSP Work

**K&M** and GTE were awarded a contract to develop Phase Two of the Telecommunications Sector Support/Outside Plant (TSS/OSP) project currently under way on behalf of Telecom Egypt.

Nearly 400,000 lines will be added to modernize and expand Egypt's fixed telephone system in the greater Cairo, greater Alexandria, and Port Said areas over the next two years, bringing the total of Phases One & Phase Two up to 580,000 lines.

The total turnkey construction contract, valued at US\$65 million, is the largest OSP project to date under USAID-sponsored programs in Egypt (going back to 1982).

Beginning July 1999, K&M and GTE will install additional digital switching systems, outside plant networks and a network operations center consisting of 1,500 km of new copper cables, 60 km of new fiber optic cables, 2.96 fiber optic cable rings (one in Cairo, one in Alexandria), and 5k lines of wireless local loop using CDMA technology.

K&M recently completed a five year contract for Phase One of the project that resulted in an additional 180,000 digital switching system (DSS) lines in 11 exchanges, and 120,000 cable pairs in 8 exchanges. K&M's portion of the work concentrated on design and construction of the local network, while GTE focused on installing the switching systems and control equipment.

For further information, contact K&M resident manager Joseph Shanley at K&M-Egypt. ■



*TSS/OSP work in progress*

*Training Center staff members join K&M staff at the video conferencing demonstration held recently at Telecom Egypt's Nasr City Training Headquarters.*



*Left to right: Eng. Shawki Abdel Moneim (TE), Eng. Zaki Hanna (TE), Eng. Fawzi Assisi (TE), Madam Sonia Tawfik (K&M), Dr. Attaya Ayed (TE), Eng. Azza Gohary (TE), and Amgad Bayoumi (K&M).*

### Technology Training - *continued*

company's unique needs. This assistance includes selecting and training a team of Telecom Egypt staff in the principles of self-paced training design, graphics and motion, pedagogical sequencing and branching, course authoring packages, and program evaluation.

#### Distance Learning Program

Telecom Egypt has approximately 400 branch exchanges spread unevenly over the entire country. The main population centers of Cairo, Alexandria and the canal region comprise approximately 80% of the lines. The rest of the lines are found along the Nile River south of Cairo, the desert oases, Sinai and the coastal resorts. Serving the telecommunications training needs of these remote regions is a challenge that can be served through "distance learning."

While definitions vary for the term "distance learning," it simply means teaching and learning from a distance. The actual event can range from a simple lecture via conference call, to a full network of specialized training studios linked for live instruction. In addition, the internet, corporate intranet, and other server-based applications may also be included under the general term "distance learning."

The K&M Team has planned and designed a distance learning program at Telecom Egypt that will

provide live broadcast training programs and meeting capability on line. In addition, the plan calls for specialized workstations to be installed at strategic locations throughout the country to serve the technical training needs at remote locations.

This service will be provided through connectivity to a corporate server at the Telecom Egypt Self-paced Learning Center permitting access to approximately 180 self-paced program titles, "on-line" technical manuals and other important information.

#### Telecom Egypt Training Center Web Site

The K&M Team has provided training and supported the development of a web site for Telecom Egypt's Training Center. Through this site (currently under construction), the organization posts general information, administrative procedures, the course catalog, class schedules, and other important information.

The web site provides timely detailed data for both Egyptian and regional clients who seek information about the Training Center's programs. In the future, the site will be expanded to provide on-line training, testing, and other services.

For further information, contact Dr. George Lear, senior training consultant, at K&M-Egypt. ■

## K&M/KMR In the News

### EGYPT

#### TSS/OSP PROJECT

"GTE/K&M Set for More Telecom Work"  
*Middle East Economic Digest*  
May

#### TELECOM EGYPT

"Six Shortlisted for Mandate to Sell Telecom Egypt"  
*Middle East Economic Digest*  
July

### GENERAL

"Pausing For Thought"  
Latin American Roundtable  
*Project Finance*  
March

### MAURITIUS

"Feasibility Study Underway for New Power Plant in Mauritius"  
*Fuel Oil in World Markets*  
August

"K&M Receives Contract for Mauritius Feasibility Study"  
*Independent Energy*  
July/August

"Mauritius: K&M study nears end"  
*Financial Times Energy: African Energy*  
July

"K&M Awarded Feasibility Study"  
*USEA Update*  
June

"Private Power Study"  
*Modern Power Systems*  
June

"Private Power Project for Mauritius"  
*Power Engineering International*  
June

"K&M Engineering Studies Feasibility of Mauritius Project with TDA Grant"  
*Global Power Report*  
May

# K&M/C&P Lunch Seminar Series

## Interdisciplinary Aspects of Infrastructure Project Development

K&M Engineering and Chadbourne & Parke jointly hosted an informal brown-bag lunch seminar series during July and August on basic technical, legal and financial aspects of infrastructure project development. The series, designed to educate engineers, attorneys, financial analysts, multilateral lenders and others regarding aspects of project development beyond their respective areas of expertise, attracted an average 70-80 participants at each session.

Kudos to K&M corporate counsel Cindy Shepard and C&P attorney Jim Scarrow, who initiated and hosted the series, and to speakers K&M technical director Marty Tormey, C&P attorney Ken Hansen,

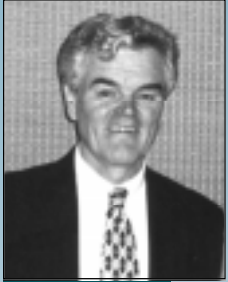
C&P attorney Jim Scarrow, and K&M project development and finance manager Loren Rodwin for their excellent and well-received presentations. K&M's Oanh Ly and C&P's Wendy Phinney receive special thanks for handling the guest lists and lunch arrangements.

"The feedback from participants was overwhelmingly positive," remarked Cindy Shepard. Attendees found the presentations extremely useful and relevant to their fields of expertise. Discussions are underway to create a second series for the fall of 1999.

For further information contact K&M corporate counsel Cindy Shepard at-K&M Washington.



K&M Corporate Counsel  
Cindy Shepard and C&P  
Attorney James Scarrow



K&M Technical Director  
Martin Tormey



Chadbourne & Parke  
Partner Kenneth Hansen



K&M Project  
Development and  
Finance Manager  
Loren Rodwin



Chadbourne & Parke  
Attorney James Scarrow

### July 20

#### "Basic Power Plant Engineering Factors"

*Speaker:* Marty Tormey, Technical Director, K&M Engineering

Marty Tormey provided an overview of the principal technical aspects of power plant design and operation, focusing on issues frequently encountered in power plant transactions. Concepts such as capacity, energy, efficiency and heat rates, reliability and availability, commissioning, dispatching, hot and cold starts and load duration curves were discussed.

### July 27

#### "Project Finance 101"

*Speaker:* Kenneth W. Hansen, Partner, Chadbourne & Parke

Ken Hansen, former General Counsel at the U.S. Export-Import Bank, discussed, from a lender's perspective, who's who in a project financing transaction — their various roles, their respective interests, and the network of contracts that allocates risks and responsibilities among them. He concluded this basic overview with a "top ten" list of hot topics in international project finance.

### August 3

#### "Project Finance of Wastewater Treatment Projects"

*Speaker:* James W. Scarrow, Attorney, Chadbourne & Parke  
*and*

#### "Financial Modeling Basics"

*Speaker:* Loren Rodwin, Project Development and Finance Manager,  
K&M Engineering

In the first part of this two-topic session, Jim Scarrow discussed project financing of wastewater treatment projects, highlighting some of the differences between water and power projects. In the second part, Loren Rodwin discussed the development and use of financial models, drawing on examples from both power and water projects.



# Speakers Bureau and Conferences

*K&M/KMR executives participated in a variety of trade missions, conferences, seminar roundtables, power delegation briefings, meetings and presentations. This offers opportunities to exchange ideas and share important experiences with counterparts, project developers and government officials throughout the world.*

## September

Michael Kappaz, speaker  
Integrated Energy Summit  
Topic: "Identifying Future Trends and Opportunities in Gas and Power Privatization and Private Sector Participation"

Sponsor: World Economic Development Congress  
Washington, DC, USA

George Kappaz, speaker  
Integrated Energy Summit  
Topic: "Project Finance: Determining Your Future Options for Capital Markets Financing. Project Finance and Local Finance for Infrastructure Projects"  
Sponsor: World Economic Development Congress  
Washington, DC, USA

Douglas Schultz, speaker  
Private Power in Africa: Opportunities, Regulatory Reforms, Financing and Risk Management  
Topic: "Ghana Industries Power Project: Case Study"  
Sponsor: Center for Business Intelligence  
Washington, DC, USA

## August

Michael Kappaz, speaker  
U.S. Department of State, briefing for newly appointed ambassadors  
"Infrastructure Development: Global Perspectives"  
Sponsor: Business Council for International Understanding  
Washington, DC, USA

## July

Michael Kappaz and George Kappaz, participants  
Global Power Summit  
"The Shift Continues: From Power Deals to Energy Portfolios"  
Sponsor: Cambridge Energy Research Associates  
Gleneagles, Scotland

John Kuspa, speaker  
U.S.-Central and Eastern Europe Electricity Management Development Institute  
Topic: "Competitive Bidding for IPPs"  
Sponsor: U.S. Energy Association  
Bucharest, Romania

Denis Slavich, speaker  
U.S. Department of State, briefing for newly appointed chiefs of mission  
Promoting U.S. Commercial Interests  
Topic: "Effect of Host Country Economic Policy on U.S. Business"  
Sponsor: Business Council for International Understanding  
Washington, DC, USA

## June

Michael Kappaz, speaker  
Foreign Service Institute Seminar for DCMs/POs  
Promoting U.S. Commercial Interests  
Topic: "Global Changes and Their Impact on U.S. Business Operations"

Sponsor: Business Council for International Understanding  
Washington, DC, USA

Michael Kappaz, participant  
Challenges of the New Millennium  
Bretton Woods Committee Annual Meeting  
Washington, DC, USA

William Kappaz, speaker  
Foreign Service Institute Seminar for Senior Commercial Officers-ASEAN Region  
Topic: "Structuring Successful Water/Wastewater Projects"  
Sponsor: Business Council for International Understanding  
Washington, DC, USA

## May

Loren Rodwin, speaker  
Seminar for Senior Commercial Officers in Africa, Near East and South Asia.  
"Structuring Successful Water/Wastewater Projects"  
Sponsor: Business Council for International Understanding  
Grand Junction, Colorado, USA

## April

Michael Kappaz, speaker  
Power Sector Briefing for  
U.S. Department of State, Bureau of Western Hemispheric Affairs, Office of Summit Coordination  
Sponsor: Business Council for International Understanding  
Washington, DC, USA

Michael Kappaz, participant  
1999 USA Meeting  
Operating in a New Global Market Place  
U.S. Chamber of Commerce in collaboration with National Chamber Foundation  
Sponsor: World Economic Forum  
Washington, DC, USA

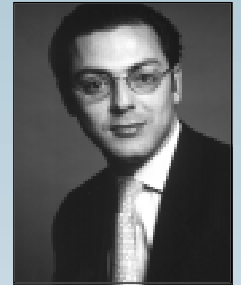
Douglas Schultz, participant  
"Attracting Capital to Africa"  
Sponsor: Corporate Council on Africa  
Houston, Texas, USA



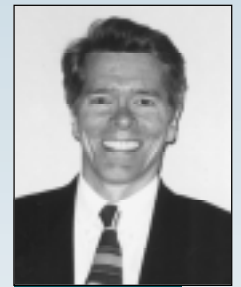
*K&M Power  
Douglas Schultz*



*K&M Project Manager  
John Kuspa*



*K&M Director of  
Finance and Consulting  
Services William Kappaz*



*K&M Project Manager  
Henry Steingass*

## Washington Opera Ball

One of Washington's annual traditions, the Opera Ball culminated a star-studded season with a series of events in June including a diplomatic reception, pre-ball dinners at 33 embassies, and the Opera Ball "La Joie de Vivre" hosted by the Ambassador of France and Madame Bujon de l'Estang at the embassy residence. Leading French designer, Christian Lacroix, conceptualized the 'millennium fantasy' decor that delighted over 900 guest.

K&M was pleased to support this gala event that raised \$475,000 for the nation's capital resident company, headed by world-renowned tenor, Plácido Domingo. K&M chairman Michael Kappaz serves on the Board of Directors of the Washington Opera.

The 1998-99 season highlighted an appearance by Jose Carreras. One of the "Three Tenors" and long-time friend of Domingo, Carreras made his company debut in "Sly" in March.

## Latino Student Fund



**K&M** chairman Michael Kappaz was appointed to the Board of Directors of the Latino Student Fund in May. He has been active in this charitable organization for several years and currently serves as Chairman of the Development Committee.

The Fund is dedicated to help broaden educational opportunities for Hispanic students from pre-kindergarten through twelfth grade in the Washington metropolitan area. It provides scholarships, bilingual assistance, tutoring, mentoring and internships to students in over 60 private schools.

The Latino Student Fund is a beneficiary of the recently launched Community Relations Program sponsored by the InterAmerican Development Bank. Since the early 1980s the Latin American and Caribbean population in the Washington, D.C. area has nearly tripled. A broad range of corporations and private individuals also support the Fund. At its annual "Showcase of Scholars" in May, the Fund announced it had doubled the number of scholarships during the past year.

K&M currently sponsors a high school student, who attends Stone Ridge School of the Sacred Heart

in nearby Bethesda, Maryland. She is a highly motivated, hard-working student and is very well-thought of by her advisers. K&M is honored to assist this deserving student, now a sophomore, for a second year.

And, in August, K&M announced that the company will offer office space to the Latino Student Fund in an effort to assist this rapidly growing organization. ■



*Latino Student Fund executive director Marisa Ramirez de Arellano presents scholarship*

### EMPLOYEES:

OUR MOST VALUED ASSET

*New Employees*

#### K&M ENGINEERING

**Joshua Johnson**  
Engineer

**Donna Taylor**  
TermoCandelaris  
Program Administrator

#### K&M POWER

**An To**  
General Ledger Clerk

## Walter Brown Retirement

**I**n June, K&M-Egypt hosted a retirement luncheon in honor of Walter Brown. Mr. Brown had a 50 year career in the telephone business. Since 1995 he served as K&M's OSP Supervisor for the greater Cairo and greater Alexandria areas. During this time he was responsible for the installation of 60,000 OSP lines for the TSS/OSP Phase I project. He also supervised engineering planning and survey activities for installation of 300,000 lines for Phase II.

Dubbed the "senior statesman," he is highly respected by all of his colleagues in Egypt. Joseph Shanley, Resident Manager, K&M-Egypt quipped during his farewell remarks, "The only reason Alexander Graham Bell called for Watson was that Walter had the day off."

K&M management joins with his colleagues in wishing Walter Brown a well-deserved retirement, and recognition of the significant contribution that he made to the success of the TSS/OSP project in Egypt. ■



*K&M/GTE colleagues congratulate Walter Brown on his retirement. Left to right: Dr. Dale Higgins, GTE Regulatory Specialist, Walter Brown, K&M OSP Supervisor, Joseph Stanley, K&M-Egypt Resident Manager, Wayne Ray, GTE TSS Program Director, and Dr. Amr Badwai, GTE NOC Manager.*

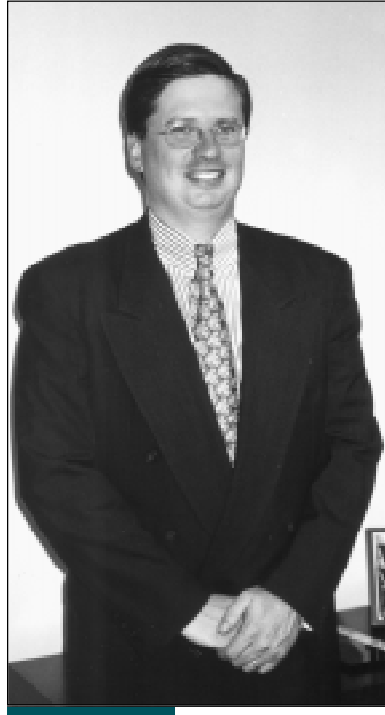
## Meet Our Manager

Ralph W. Fairbanks III is KMR's Vice President — Project Development and has been with K&M and KMR since 1992. While Mr. Fairbanks has been intimately involved with all aspects of KMR's portfolio of projects, he most recently served as Lead Development Manager for the 314 MW TermoCandelaria Power Project, which achieved financial close on June 10, 1999. Since its closing, TermoCandelaria has been noted in the media as a success as much for its unique and creative financing structure as for the project's and KMR's ability to attract \$175 million of debt financing in an emerging market hard hit by a searing economic crisis.

As Lead Development Manager, Mr. Fairbanks held overall responsibility for the coordination and completion of the project development and financing of TermoCandelaria.

Mr. Fairbanks held a similar position of responsibility for the Termovalle Power Project, a \$150 million, 240 MW facility in Colombia, which is in commercial operation. For that project, which is hailed as the first major emerging markets utility PPA-based independent power project to be implemented without any government guarantees, Mr. Fairbanks handled the debt financing discussions; power purchase agreement negotiations; EPC, O&M, fuel supply and water supply agreements; political and commercial risk insurance issues; and permitting, legal and tax structures as well as a host of other contracting and legal issues.

Mr. Fairbanks served with K&M Engineering and Consulting Corporation prior to joining George



### Ralph Fairbanks

Vice President —  
Project Development

**KMRpower**

*"Ralph Fairbanks is unfazed by big challenges. His thorough analysis and unwavering focus have resulted in a truly remarkable achievement with the closing of TermoCandelaria."*

K&M chairman  
Michael Kappaz

### EXPERTISE

Debt Financing &  
Syndication  
Feasibility Analysis  
Legal and Tax Structure  
PPA / EPC Contracts

Fuel Supply / Transportation  
Partnership Agreements  
Credit Agreements  
Security Agreements  
Intercreditor Agreements

Regulatory Restructuring  
Participation Agreements  
Interest Rate Hedging  
Economic Analysis  
Project Permitting

Kappaz in his endeavor to create a separate company based on the project development division of K&M. While at K&M, he worked as a Project Manager on the 100 MW Mamonal Power Project, the first non-recourse greenfield power project to be financed in Latin America. In addition to his myriad insurance, tax and financial duties, Mr. Fairbanks was responsible for the project's \$35 million debt syndication to OPIC.

George Kappaz, President and Chief Executive Officer of KMR Power Corporation, speaks highly of the man who has been by his side throughout KMR's history. "Ralph is the cornerstone of our development group. I would put him up against any top developer in the business. His ability to handle many issues and aspects of a project while maintaining an incredible degree of focus on each task is amazing. I was very proud of our TermoCandelaria team, and give Ralph a great deal of credit in getting this very challenging project across the finish line."

Prior to joining K&M and KMR, Mr. Fairbanks served as an Economist and Project Manager with Nathan & Associates, performing economic analyses on many infrastructure sectors, including power.

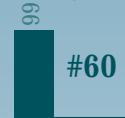
Mr. Fairbanks holds a Bachelor of Science degree in Business Economics from Brown University. His assignments at KMR have taken him around the world, and his bilingual skills (English and Spanish) have made him quite an asset to the company. Mr. Fairbanks lives in Potomac, Maryland with his wife and three children. ■

## K&M/KMR Rankings

*Engineering News-Record*  
June

**TOP 100**  
CONSTRUCTION  
MANAGEMENT  
FIRMS IN USA

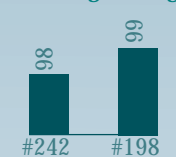
—K&M Engineering—



*Hispanic Business*  
June

**TOP 500**  
HISPANIC FIRMS  
IN USA

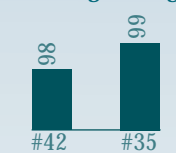
—K&M Engineering—



*Hispanic Business*  
July/August

**TOP 50**  
HIGH-TECH  
HISPANIC  
FIRMS IN USA

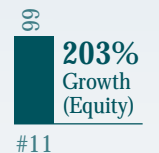
—K&M Engineering—



*Global Power Report*  
August

**TOP 25**  
HIGH-GROWTH  
GLOBAL  
INDEPENDENT  
POWER COMPANIES

—KMR Power—





# K&M OFFICE LOCATIONS

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Arlington, Virginia 22209  
Tel: (703) 247-3500  
Fax: (703) 276-1515  
www.kmrpower.com

## KMTel L.L.C.

1000 Wilson Boulevard • Suite 902  
Arlington, Virginia 22209  
Tel: (703) 247-3500  
Fax: (703) 276-1515

## K&M Global Construction

1655 N. Fort Meyer Drive • Suite 700  
Arlington, Virginia 22209  
Tel: (703) 465-5104

## Colombia

K&M Servicios Tecnicos (K&MST)  
Centro Ejecutivo, Carrera 3,  
Oficina, 902 Bocagrande  
Cartagena, Colombia  
Tel: (011) 57-56-655-510/651-830  
Fax: (011) 57-56-655-629

## KMCC/Termovalle Project

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Km. 6 Via Yumbo - Aeropureto,  
Apartado Aéreo 4307, Palmira Valle  
Cali, Colombia  
Tel: (011) 57-2-280-1047  
Fax: (011) 57-2-280-1048

## Egypt

53 El Manial Street  
Eighth Floor  
Manial Rodah  
Cairo, Egypt  
Tel: (011) 202-365-4340/8  
Fax: (011) 202-365-4346/7

## El Kureimat Project

c/o Raytheon Ebasco Overseas Ltd.  
29 Corniche El-Nile Street  
Omar Ibn El-Khattab Tower, Flat #206  
Maadi, Cairo, Egypt  
Tel: (011) 202-378-7025/6/7  
Fax: (011) 202-378-7024

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