

# K&M NEWS

K&M Engineering and Consulting Corporation

SEPTEMBER 2000



320 MW Termocandelaria Power Project, Cartagena, Colombia. Photo courtesy of Siemens Westinghouse.

## Termocandelaria A Colombian First

*KMR Power's latest power project has started commercial operation. Billed as the country's first 100% merchant plant and underpinned by an innovative financing package, Termocandelaria could set the trend for future Colombian power development.*

A version of the following article, written by K&M News Editor Linda Ivanov, first appeared in July 2000 (vol.8 Issue 6)  
*Power Engineering International*

**Location:** Cartagena, Colombia.  
**Operating start date:** June 2000.  
**Sponsor:** KMR Power Corporation (100 per cent).  
**Description:** 320 MW (net) natural gas-fired, simple-cycle combustion turbine plant; 220 kV double-circuit transmission line, and associated facilities.  
**Contractors:** Siemens Westinghouse (2 x 160 MW nominal 501F turbines), K&M Global Construction (engineering, procurement and construction), North American Energy Services (operations and maintenance), Texaco-Colombia, a subsidiary of Texaco, Inc. (fuel supply) and Promigas (gas transport).  
**Total debt:** \$175 million.  
**Arrangers:** Banc of America (senior loan), Centre (subordinated loan/insurance guarantee) and Instituto de Fomento Industrial (local debt).  
**Participant:** Banco de Bogota (local debt).  
**Financial adviser to sponsor:** Bank of America Securities.  
**Financing:** Two-tranche bank facility, \$90 million senior loan and \$85 million subordinated loan.  
**Legal advisers:** Orrick, Herrington & Sutcliffe (sponsors), White & Case (senior lenders) and Latham & Watkins (sub-lenders).

The 320 MW natural gas-fired Termocandelaria Power Project, located in an industrial zone on the outskirts of Cartagena, Colombia, began commercial operation in June 2000. Structured as the country's first 100% merchant plant, Termocandelaria is now selling electricity into the Bolsa, which is Colombia's largely unregulated wholesale spot market. Utilizing advanced gas turbine technology, it is one of the lowest-priced thermal generation facilities in the country.

As the newest gas-fired plant in Colombia, Termocandelaria sets the likely trend for Colombia's power generation choice of the future and contributes significantly to the country's strategic plan to realign its generation base, which is currently heavily dependent on hydro power.

Project owner, KMR Power Corporation of Arlington, Virginia, achieved financial close in June 1999 by structuring an innovative financing package utilizing a first-ever insurance guarantee as a surrogate for capital. The company attracted \$175 million in debt financing despite a sharp decline in the Colombian economy and Latin American lending in general.

In 1998, as KMR Power was in the process of launching a 144a bond offering, Brazil devalued its currency. This set off a regional recession that hit Colombia hard. By 1999, the country had sunk into its worst recession in 70 years. Alarmed at the unstable economic and political environment, most financial institutions pulled their money out of the country. Concurrently, heavy rainfall in 1998 and 1999 boosted hydro generation levels and spot power prices plunged.

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# U.S.-Korea Committee on Business Cooperation

## K&M CEO Elected Vice Chairman



*Korean Vice Chairman, Korea International Trade Association Vice President Kun-ho Cho (left) and U.S. Vice Chairman, K&M Chairman/CEO Michael Kappaz (right).*

In late 1999, a Memorandum of Understanding was signed between the U.S. Department of Commerce and Korean Ministry of Commerce, Industry and Energy to form the bilateral U.S.-Korea Committee on Business Cooperation (CBC). Originally established in 1995, the new MoU renews the committee's expired charter. The CBC will develop stronger commercial ties and promote trade between the two countries. It will convene an annual meeting, alternately in the United States and Korea.

The CBC is a public-private partnership consisting of government and private sector representatives from both countries. On the government side, international trade experts at the cabinet and subcabinet level will work with private sector committees representing a variety of industry sectors.

Two private sector committees, serving as Advisory Councils to their respective governments, will function as a mechanism to facilitate the provision of information, analyses and guidance for the mutual benefit of the two countries. It will serve as a forum for high-level discussions on ways to extend the U.S.-Korea economic relationship.

Their primary purpose will be to provide written advice to the two governments on a variety of issues, such as a) identifying commercial opportunities, impediments and issues of concern to the business communities of both countries; b) improving the dissemination of appropriate commercial information in both markets; and c) adopting sectorial approaches to addressing specific problems and making appropriate recommendations to decision-makers.

The CBC is chaired on the government side by the U.S. Secretary of Commerce Norman Y. Mineta and Korean Minister of Commerce, Industry and Energy Young-Ho Kim.

U.S. government participants include representatives from the U.S. International Trade Administration, U.S. Import Administration, U.S. Commercial Service, U.S. Department of Commerce Office of Market Access and Compliance, industry sector desk officers, and U.S. embassy officials based in Korea.

On the private sector side, K&M Chairman/CEO Michael Kappaz was elected Vice Chairman of the U.S. committee. The secretariat will be managed by Mr. Kappaz's executive office at K&M. In addition, K&M Senior Vice President William Drotleff was selected to serve as a member of the CBC. The Korean Vice Chair is Korea International Trade Association Vice President Kun-ho Cho.

A kickoff meeting for U.S.-based participants was held at the U.S. Department of Commerce in early-June to discuss establishment of a secretariat, identify priority working groups, develop a work plan, and discuss scheduling a full plenary meeting in Washington to be held in the fall.

A follow up meeting to initiate U.S. committee activities was held at K&M headquarters in late-June. CBC Vice Chairman Michael Kappaz led discussions on goals and objectives. The committee agreed to limit participation to

the fifteen existing members who will solicit information from industry sources and report back to the committee.

After discussions between counterpart vice chairmen, six initial working groups were organized, group leaders appointed and statements of purpose/focus were developed. These include:

- **Environmental/Energy/Infrastructure.** Robert Cardell, Babcock & Wilcox (US) and Young-Soo Han, Korea Association of Machinery Industry (Korea). Harmonize standards and regulations to promote private sector participation; expanded investment opportunities.
- **Intellectual Property.** Ray Calamaro, Hogan & Hartson (US) and TBD (Korea). Increase trade through greater transparency and protection mechanisms.

through greater transparency and protection mechanisms.

- **Transportation.** Spencer Kim, COBOL (US) and Duck-Young Chung, Korea Automobile Manufacturers Association (Korea). Identify impediments and promote cooperation.

- **Information Technology/Telecommunications.** Stewart Davis, User Technology Associates (US) and Choon-Ho kim, Korea Electronics Technology Institute (Korea). Market access on equal par in both countries and ease of joint venturing.

- **Biotechnology.** Thomas Gephart, Ventana Global (US) and Wan-Kyoo Cho, Bioindustry Association of Korea (Korea). Enhance technology transfer and trade relationship.
- **Semiconductor.** Mitchell Tyson, PRI Automation Group (US) and Jung-Hun Suh, Korea Semiconductor Industry Association (Korea). Identify trade, regulatory and technology issues to improve business cooperation.

Direct communications between these counterpart working groups will finalize specific goals and objectives, develop working papers and subsequently make recommendations to their respective governments. In order to prepare for the first plenary session in the fall, a joint US and Korean counterpart meeting took place in early-September in Washington, D.C.

Representing the CBC, in mid-June, K&M Chairman Michael Kappaz and K&M Senior Vice President William Drotleff participated in the "A New Korea for a New Century" forum hosted by the Korean Ambassador to the United States Hong Koo Lee. The business exchange was sponsored by the Korea Economic Institute of America and the Washington International Trade Association. The ambassador shared his perspective on regional development, investment climate and trade dispute issues.

K&M/KMR have had a presence in the Korea power industry for the past several years. K&M is assisting Korea Electric Power Company as Owner's Engineer on their 1,200 MW Ilijan project in The Philippines (see story on next page), and KMR is developing the 200 MW SiHwa cogeneration project.

For further information, contact K&M Senior Vice President, William Drotleff at K&M-Washington.

In May, K&M was awarded a new assignment as On-site Owner's Engineer to Korea Electric Power Company (KEPCO) for its 1,200 MW Ilijan Power Project in the Philippines. A resident project manager, Jules J. LaMontagne, was dispatched to the site to facilitate activities during the construction and start up phases of the project. Since 1997, K&M has served as overall Technical Advisor to KEPCO. As such, K&M assisted in the review and negotiation of major project agreements and risk mitigation components. K&M also performed a technical due diligence on the use of the MHI 501-G advance technology gas turbine.

## Ilijan Power Project The Philippines



KEPCO was awarded a 20-year build-own-transfer (BOT) contract in November 1997 to develop the natural gas-fired facility in Bantangas, south of Manila. A corporate vehicle, KEPCO Ilijan Corporation (KEILCO), was formed from a consortium of Asian companies with KEPCO maintaining a majority stake. The Ilijan project will not only be one of the largest power facilities in The Philippines, it will be one of the largest combined-cycle plants in Asia.

Construction commenced in March 1999 with nearly \$200 million bridge funding infused by KEPCO, including a \$72 million security deposit. The Washington Group International, which recently purchased Raytheon Engineering and Constructors, Inc. (RE&C), serves as the project's EPC contractor. The EPC contract scope was segregated to a RE&C subsidiary, United Engineer's International, Inc. and the construction contract scope to another RE&C subsidiary, Raytheon-Ebasco Overseas, Ltd.

By August, the plant was nearly 32% complete with major equipment arriving and being set on site. The civil works are well progressed with four GT foundations, two ST foundations and four HRSG foundations complete. The turbine building steel erection is complete with its enclosure proceeding smoothly. The control building and diesel building foundations are complete with steel erection in progress. Offshore works are proceeding on the fuel unloading terminal, including the circulating water intake and outfall under sea piping.

The Ilijan facility consists of 2x600 MW units (2 blocks of 2x1 configuration), including two gas turbines and one steam generator combining for 600 MW per block. In addition, under separate contracts, associated 54 kilometers of 500 kV EHV transmission line, substations, interconnection facilities and 15 kilometer gas supply pipeline are under construction. The gas turbines are dual-fueled using natural gas as the primary fuel and distillate #2 as the backup fuel.

Made feasible by the discovery of the Camago-Malampaya natural gas field off northwest Palawan, the Ilijan project was implemented as a significant component of The Philippines' overall strategy to launch its natural gas industry. The US\$5 billion Malampaya gas-to-power

project is the largest industrial investment ever undertaken in The Philippines. The upstream component is being developed by Shell Philippines Exploration B.V. (SPEX), Texaco Philippines, and Philippine National Oil Company-Exploration Corporation. This gas-to-power project consists of development of the gas field, as well as construction of the onshore processing facility, offshore and onshore pipelines, loading terminal which will supply gas to four new power plants that will generate 3,000 MW electricity. Ilijan is among this group of new combustion-turbine facilities under construction in the Bantangas region that will utilize the natural gas. Others are the 1,000 MW Santa Rita, 500 MW San Lorenzo and 300 MW San Pascual projects.

By year-end 2000 the gas supply system will be 75% complete with gas sales anticipated to commence in October 2001. The natural gas will replace 30% of expensive imported fuel oil utilized in the Luzon region resulting in significant savings, greater efficiency and improved environmental benefits. The Ilijan facility will generate lower levels of sulfur dioxide, particulates, and dioxide per megawatt than currently produced by power plants in-country.

In June, NAPOCOR awarded the turnkey contract for the Ilijan Gas Pipeline Project. Construction of the 16-inch diameter onshore high-pressure pipeline is under way. It will connect the Ilijan facility to the Shell Refinery in nearby Tabangao.

In May, NAPOCOR selected Japan's Sumitomo Group to construct the transmission line connecting the Ilijan power plant to industrial and residential end-users through the Luzon grid. The project also requires installation of additional 230/500 kV substation equipment, including the protection and communication systems.

Last fall, Philippine utility and government officials gathered at the construction site to participate in ground breaking ceremonies for the project. Among dignitaries present were the President of the Philippines, KEPCO's President, and prominent members of the energy industry, including the Philippine Energy Minister, and NAPOCOR's President. "The Ilijan project is the culmination of years of effort by KEPCO to expand its presence in the international marketplace through the active utilization of its advanced technologies," a KEPCO official remarked.

The Ilijan project will make an important contribution toward the country's ambitious goal to fully electrify all areas by 2004. Recently, President Estrada ordered the National Electrification Administration to fast-track projects in order to meet this goal three years earlier than originally scheduled. With demand growing at an estimated 6.3% per year, nearly \$2.75B per year in investment is required, most of which will come from the private sector.

For further information, contact K&M Technical Director Marty Tormey at K&M-Washington.



*KE&M Resident Manager Jules LaMontagne (left) and KE&M Senior Vice President William Drotleff (right). MHI-G turbine arrives on site (below).*



# TermoCandelaria



Photo: Sergio Barake, K&M-Colombia, Termoconstruct

(Continued from page 1)

With a history of highly-successful, pioneering projects in Colombia, KMR Power remained convinced that sound fundamentals for the proposed TermoCandelaria merchant plant were in place and determined to press forward. KMR Power looked at the solid long-term need for thermal generation to balance the country's over-reliance on hydro power, increased demand for new energy (6% per year, 300 MW average) to promote economic development and competition in the sector, and predicted "average" long-term energy spot prices.

country's over-reliance on hydro power, increased demand for new energy (6% per year, 300 MW average) to promote economic development and competition in the sector, and predicted "average" long-term energy spot prices.

## Colombia's First 100% Merchant Plant

"As Colombia's economy has grown over the past 25 years, its electricity consumption has quadrupled."

### Colombia's Profile

The 320 MW TermoCandelaria project represents KMR Power's largest undertaking in Colombia to date. It doubles the firm's generation base in the country, making the company one of Colombia's largest private power generators. KMR Power's two previous projects include a 240 MW natural gas-fired combined-cycle project (with oil-fired backup capability). In operation since 1998, it is widely recognized as the first major emerging markets, PPA-based independent power project to be implemented without any government guarantees. Its earlier project, a 100 MW natural gas-fired combined-cycle facility in operation since 1993, is hailed as Latin America's first nonrecourse project financed greenfield power project. These three natural gas-fired projects are part of the country's strategic plan to

expand its portfolio of thermal assets. They contribute significantly to meeting Colombia's rapidly growing energy needs.

Because two-thirds of Colombia's generating capacity comes from hydropower, available generation capacity and electricity prices are influenced by the availability of water. This has led Colombia to limit future expansion of hydro facilities, and look rather towards gas-fired plants for their generating capacity. The 320 MW

TermoCandelaria facility joins a series of large thermal facilities currently in operation.

New hydro plants have a high capital cost relative to simple-cycle and combined-cycle gas plants (US\$1,200 per kW for hydro, not including interest during construction ("IDC") and current construction costs typically run US\$500 per kW.

Colombia currently has 11.2 GW of electric generating capacity consisting of nearly 67% hydro and 33% thermal. The majority of this capacity (59% generation and 41% distribution) is now privately owned. Colombia's central, departmental, and municipal governments own the remainder. (See chart)

The 320 MW TermoCandelaria facility is part of 3 GW entering commercial operation by the end of 2000. An additional 6 GW is planned by 2010, primarily developed by the private sector. Construction of new assets are scheduled at a rate of 308 MW per year between 2000 and 2004, increasing to 468 MW per year from 2005 to 2010. Of the 1,700 MW currently under development, 1,108 MW (65 per cent) are hydro.

As Colombia's economy has grown over the past 25 years, its electricity consumption has quadrupled, reaching just over 44,000 GWh by 1998.

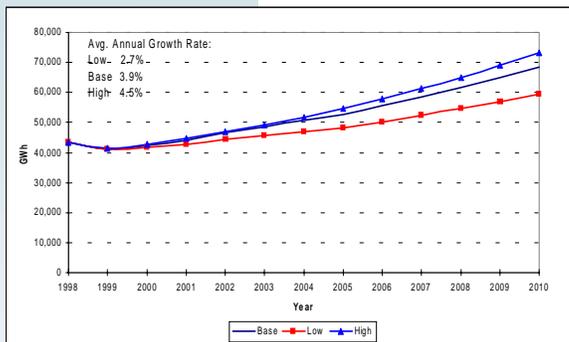
Industrial consumption is projected to grow an average of 6.4 per cent annually through 2010, overtaking residential consumption, which should remain constant over the same period as a result of the penetration of natural gas into the sector. Commercial consumption has a projected growth rate of 4.4 per cent per year with government consumption increasing at a pace of 9.4 per cent per year over the period.

### Insurance Innovation

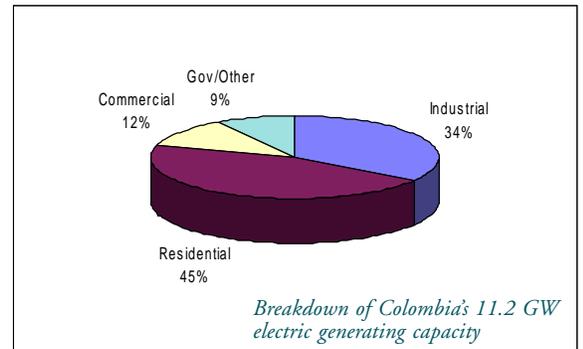
Knowing that an innovative financing structure was necessary to overcome short-term unfavorable conditions and hydro-related price volatility, KMR Power developed a deal that brought in participation by an insurance company as the guarantor of nearly 50 per cent of the project's debt financing. This provided a viable platform to attract commercial banks to step up for the rest of the financing. Banc of America Securities (a subsidiary of Bank of America) served as Financial Advisor to KMR Power and Arranger of the senior loan.

The two-tranche bank facility consisted of a \$90 million senior loan and a \$85 million subordinated loan. The presence of a guarantee allowed Bank of America to underwrite \$40 million of the senior loan. Centre of Hamilton, Bermuda (an AA-rated wholly-owned subsidiary of Zurich

"An innovative financing structure was necessary to overcome short-term unfavorable conditions and hydro-related price volatility."



Growth in maximum demand for capacity (source UPME)



# TermoCandelaria

Financial Group of Switzerland) provided the guarantee on the \$85 million subordinated loan. Centre also took a \$35 million participation in the senior loan. Instituto de Fomento Industrial (IFI) and Banco de Bogotá (Nassau) Ltd., both Colombian institutions, provided the balance of the financing. The Legal Advisor team consisted of Orrick, Herrington & Sutcliffe (sponsors), White & Case (senior lenders) and Latham & Watkins (sub-lenders).

## Turnkey Development

The TermoCandelaria plant is located in the department of Bolívar in Northern Colombia. The project is part of the electric power generation capacity expansion plan for the Caribbean Coast of the country, and contributes to the economic growth and development of the region. The presence of TermoCandelaria fosters competition in the country's energy sector and will assist in attracting new industries to what is one of the country's principal economic centers. Furthermore, the new facility provides jobs to nearby communities with the added benefit of improving local sanitation services.

The \$100 million EPC contract was implemented on a turnkey basis by a consortium consisting of Siemens Westinghouse of Orlando, Florida and K&M Global Construction of Washington, D.C. (a subsidiary of K&M Engineering and Consulting Corporation). While Siemens Westinghouse provided the combustion turbine generators, K&M procured the balance of the plant's equipment and materials. In addition, K&M was responsible for a complete range of engineering, procurement and construction services as well as plant erection and final balance of plant testing and commissioning. Unit 1 entered commercial operation on June 1, 2000, followed by full operation of Unit 2 at the end of the month.

North American Energy Services of Bellevue, Washington provides operations and maintenance services. The natural gas is supplied by Texaco-Colombia, a subsidiary of Texaco, Inc., and transported through the Ballenas-Cartagena pipeline under a long-term contract by Promigas S.A., a private gas transporter.

## Technical Components

TermoCandelaria consists of 2 x 160 MW (320 MW nominal) gas turbine generation units utilizing Siemens Westinghouse 501F advanced technology operating in simple cycle. The generators are hydrogen-cooled (Unit 1) and air-cooled (Unit 2), with dry low NO<sub>x</sub> combustors. The 501F is one of the most advanced machines in the industry with an efficiency of 36.5 per cent in simple cycle operation. It consumes natural gas at approximately 86 million ft<sup>3</sup>/day under full load at normal site conditions of 27.5°C, 83 per cent relative humidity and sea level elevation. Emissions are less than 50 ppm of NO<sub>x</sub> at full load. SO<sub>2</sub> emissions are negligible due to the prior treatment of the natural gas in the drilling fields to remove the sulfur and sulfur-containing compounds.

Transmission and distribution facilities consist of one 220 kV air-insulated switchyard and 0.6 km of new double-circuit 220 kV transmission lines. The switchyard and transmission line between the substations includes complete protection and control systems. In addition, a metering system was provided to measure electric energy transfers.

The air-insulated 220 kV switchyard, designed and procured from Alstom, is a breaker and a half design. It consists

of four bays (two transmission circuits and two generators). Modifications were made to existing substations to include new protection panels, relay protection, and fiber optic telecommunication equipment and panels.

The water supply to cool various equipment is taken from the raw water pipeline of the local water system through the nearby pumping station. The water then goes through a primary treatment facility at the site to provide service and cooling water.

## Privatization Pace Delayed

While the Colombian government continues to seek private sector investment to fund 9,000 MW new generation requirements over the next decade, privatization plans for existing assets have slipped in the wake of the recession. Driving the push for privatization, despite poor economic conditions, are market concentration rules requiring that no generation, distribution or power marketing company can hold more than 20 per cent of the national market by 2002.

Investors' wariness, coupled with depreciation in the value of local assets, has forced the government to reschedule sale of several high profile generation companies until later this year. First on the block is Isagen, Colombia's second-largest generating company. Additionally, 14 regional electric companies clustered in the central areas, will be restructured and bundled for sale in 2001.

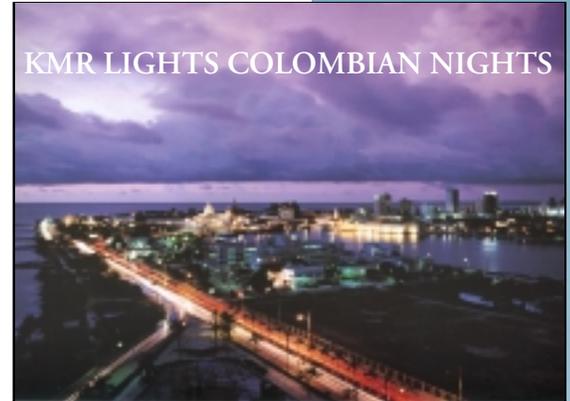


Photo: Jaime Borda Martelo

**“TermoCandelaria sets the likely trend for Colombia's power generation choice of the future.”**

## Sets Trend for Thermal Facilities

Completion of the privatization program is an integral part of Colombia's agreement with the IMF, which pledged a 3-year \$2.7 billion credit line in December 1999 to help stimulate the economy. Government officials are holding back sales, partly due to political pressure by labor unions and activist groups demanding that state-owned assets not be 'given away,' in the hope that recovery will bring higher prices. However, the privatization scheme should build up steam again once the government emphasizes that the program must move forward despite slow economic recovery.

For further information contact K&M Project Manager, Riad Khalil at K&M-Washington

Photo: Sergio Barake, K&M-Colombia, Termoconstruct



# Speakers Bureau

## JULY

**Michael Kappaz**, participant Global Power Summit “The Global Power Business: Realigning Expectations with Reality.” Sponsor: Cambridge Energy Research Association. Gleneagles, Scotland

**Douglas Schultz**, speaker Financing Latin American Power Projects Session on Economic Climate and Funding Sources for Latin American Power Projects. “Adapt Project Finance Structure to Rapidly Evolving Economic and Market Conditions: Colombia Case Study.” Sponsor: Center for Business Intelligence. Miami, Florida, USA

**George Stockton**, speaker Project 2000 MW Roundtable. “Bases Fondamentales pour la Structuration d’un Projet IPP.” Journées d’études sur la Restructuration du Secteur de l’électricité et de la Distribution du Gaz par Canalisation. Sponsor: Ministère de l’Energie et des Mines. Algiers, Algeria

**Karen Harbert**, speaker “Public/Private Partnerships” and “Case Study on Colombia Aid Package.” Deputy Chief of Mission Training, Foreign Service Institute. Sponsor: Business Council for International Understanding. Washington, DC

## JUNE

**Michael Kappaz/William Drotleff**, participants “A New Korea for a New Century.” Sponsors: Embassy of Korea, Korea Economic Institute of America, and Washington International Trade Association. Washington, DC

(continued page 7 sidebar)

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# K&MST Receives Medal of Merit



*Left to right: Denis King (KMR Power); Jose Kappaz (K&MST General Manager); Rick Ortiz (U.S. Commercial Service, U.S. Embassy-Colombia); Karla King (Commercial Attache, U.S. Embassy-Colombia); Augusto Martinez (Office of Mayor of Cartagena); Diana de Lequerica (Colombian-American Chamber of Commerce Director); Jaime Borda (Colombian-American Chamber of Commerce Board of Directors President)*

### Colombian-American Chamber of Commerce

The Board of Directors of the Colombian-American Chamber of Commerce of Cartagena

In recognition of growth, significant activities and energetic leadership, as well as of the support to the Colombian-American integration programs and of its important contributions to benefit the City of Cartagena, chose:

K&M Servicios Técnicos (Colombia) Ltda.  
as the  
1999 Colombian-American  
“Company of the Year”

and confers upon it the  
Colombian-American  
“Medal of Merit”

in the empresarial category, bestowed on  
May 18, 2000, in a special ceremony

*Jaime Borda Martelo*  
President, Board of Directors

*Diana de Lequerica*  
Executive Director

### HISPANIC BUSINESS

July 2000

## TOP 50

HIGH-TECH  
HISPANIC  
FIRMS IN USA  
—K&M Engineering—

# #36

### HISPANIC BUSINESS

June 2000

## TOP 500

HISPANIC  
FIRMS IN USA  
—K&M Engineering—

# #229

### WASHINGTON BUSINESS JOURNAL

May 2000

## TOP 25

ENGINEERING  
FIRMS IN WDC  
—K&M Engineering—

# #22

## Meet Our Manager

Cindy Shepard serves as K&M's Corporate Counsel. As such, she not only handles a traditional portfolio of corporate contractual and legal issues, but serves as legal adviser on K&M's international private infrastructure project assignments. In keeping with the firm's approach of providing a balanced team of legal, finance and technical experts to its clients that is unique in the industry, Ms. Shepard's legal perspective is integral to that strategy. Her contribution assists K&M in delivering sound projects that attract investors and reach financial close.

Citing her dual roles as corporate counsel and project legal adviser, the diversity of business lines covered by K&M, and the constant changes in international infrastructure development, Ms. Shepard says that working at K&M is never dull. She remarks, "each assignment offers lessons to stimulate professional growth and an opportunity to serve on a team consisting of professionals with a high degree of expertise."

Since joining K&M in 1994, Ms. Shepard has been involved in a number of BOO/BOT transactions for countries implementing their first IPPs, including projects in Africa, Asia, Latin America and the Middle East. In her capacity as legal adviser for these procurements, often working in conjunction with local and outside counsel, she reviews host country legal and regulatory environments, and structures Implementation, Power Purchase, and Fuel Supply Agreements.

Specifically, Ms. Shepard has served on the K&M project team for the 350-450 MW Al-Samra BOT in Jordan, 700 MW Phu My 2, Phase 2 BOT in Vietnam, and the 100 MW BOT feasibility study assignment in Mauritius. She developed a model Power Purchase Agreement for the 288 MW Azito BOT in Côte d'Ivoire, provided support on the 450 MW Meghnaghat BOT in Bangladesh and a proposed IPP thermal project in the Dominican Republic.

In her capacity as Corporate Counsel, Ms. Shepard formulates and negotiates the firm's contracts with clients, teaming partners and foreign representatives. She reviews the terms and conditions of Requests



### Cindy Shepard Corporate Counsel

"Ms. Shepard is a unique asset to K&M. She provides a superb legal and risk evaluation complement to K&M's technical and financial skills."

*Michael Kappaz,  
K&M Chairman/CEO*

#### EXPERTISE

International transactions including contract review, drafting and negotiation

IPP security packages, Implementation, Power Purchase, and Fuel Supply Agreements

Engineering, Procurement and Construction Issues and Contracts

Legal and Regulatory Framework Analysis

Government contracts counseling

for Proposals, writes and oversees corporate legal policies and counsels on a wide variety of other legal issues, including government contract matters. In addition, she oversees the firm's insurance program.

Ms. Shepard's other Asian experience includes negotiating K&M's role as Owner's Engineer for the 1,292 MW Hub River BOO in Pakistan. In Latin America, Ms. Shepard was integrally involved in transactions relating to K&M/KMR's three BOO thermal facilities in Colombia, namely the recently completed 320 MW TermoCandelaria project, the 240 MW Termovalle project, and the 100 MW Mamonal project.

Most recently, for the TermoCandelaria project, Ms. Shepard led negotiations on behalf of K&M for the \$100 million EPC contract with Siemens Westinghouse. This transaction included the EPC contract and all related documentation as well as corporate structuring.

When K&M formed its spin-off telecommunications line of business, Ms. Shepard led the firm's corporate structuring activities for KMTel L.L.C. She subsequently participated in KMTel's bidding and ultimate award of a PCS license auctioned by the U.S. Federal Communications Commission.

Prior to joining K&M, Ms. Shepard practiced law for five years in the Corporate and International Trade groups at Pillsbury Madison & Sutro, K&M's outside counsel, where she worked on structuring and documenting the equity investment side of K&M/KMR's 100 MW Mamonal project.

Ms. Shepard holds a J.D. from the University of California, Davis, an M.A. in American Studies and a B.A. in English from the College of William and Mary. She is a member of the District of Columbia and California (inactive) Bars, the American Corporate Counsel Association, and the American Bar Association.

Before entering graduate school, Ms. Shepard spent four years teaching English to junior and senior high school students in Virginia Beach, Virginia. She originally hails from Springfield, Ohio and currently resides in Alexandria, Virginia.

#### K&M/KMR IN THE NEWS

"TermoCandelaria: A Colombian First"  
*Power Engineering International (July)*

"Financing Water Infrastructure: Fundamentals for Attracting Private Sector Investment" *International Desalination Association (July)*

"Hispanics Today" K&M interview. *NBC Television, Channel 4, Washington, D.C. (June)*

"Thermic K&M Lights up the Coast"  
American Chamber of Commerce, Colombia  
*Business Colombia (June)*

"Côte d'Ivoire IPP Opens New Chapter for African Project Finance and Privatization," article by former K&M Project Manager Henry Steingass and Former Minister of Planning & Development, Côte d'Ivoire, Tidjane Thiam. *Power Economics (May)*

"Top Project Finance Deals" TermoCandelaria  
*Global Finance (April)*

## Speakers Bureau

**Karen Harbert**, speaker  
"Private Power in Africa:  
A Business and Investment  
Agenda for Africa."  
Sponsors: World Energy  
Council, United States  
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Dakar, Senegal

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#### Community Relations

Washington Opera Ball  
hosted by Ambassador of  
Japan and Mrs. Yanai, at  
the embassy residence,  
preceded by dinners  
hosted by participating  
embassies (June). Opera  
Ball kick-off party  
hosted by Secretary of  
Defense and Mrs. Cohen  
at Diplomatic Reception  
Room, the Pentagon  
(May)

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