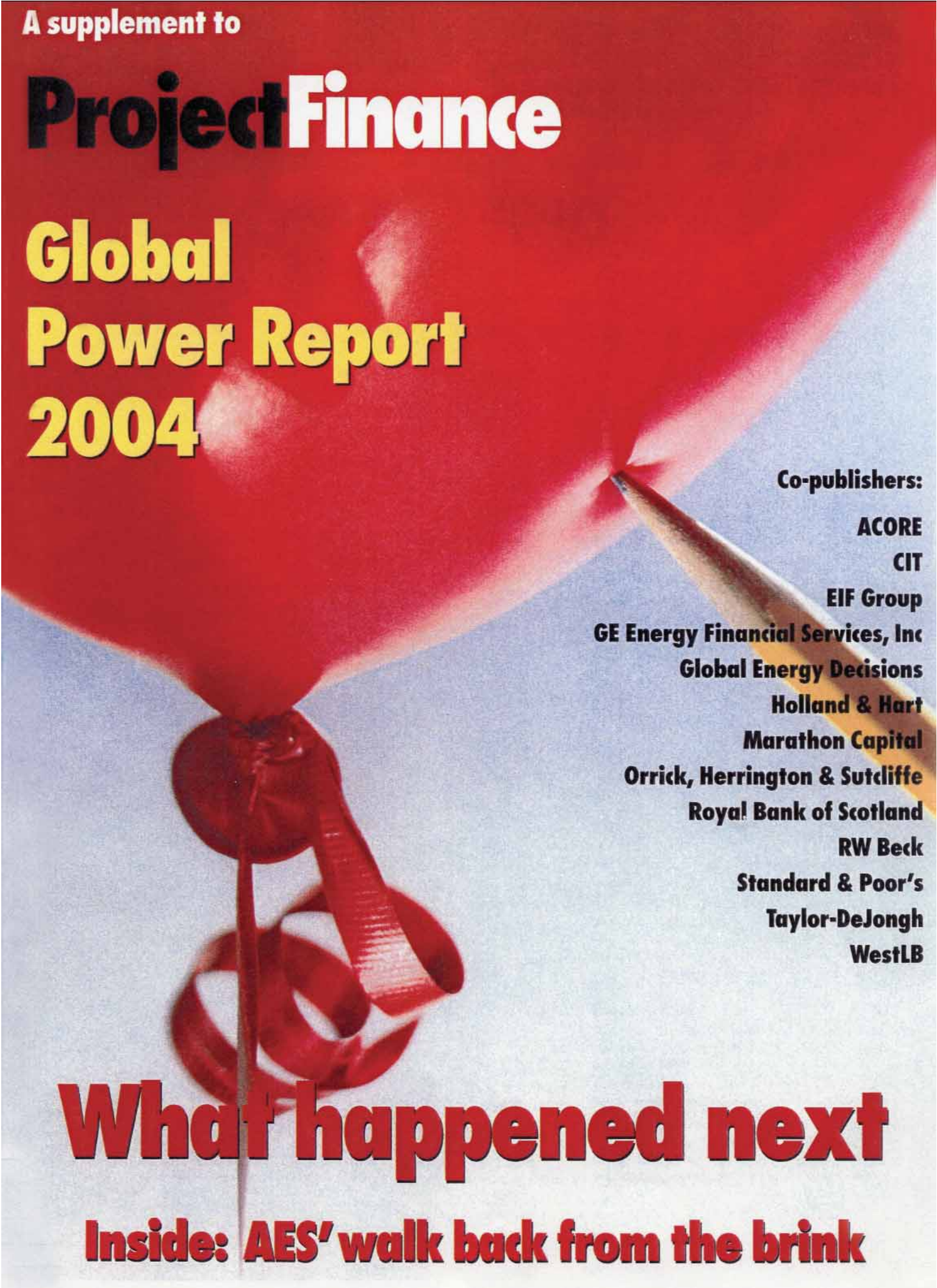
A supplement to

ProjectFinance

Global Power Report 2004



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What happened next

Inside: AES' walk back from the brink

Financing the Mexhidro project required considerable time – and nerve. The result? An innovative renewables financing – the first in Mexico. By Marc Frishman, vice-president, Conduit Capital Partners.

Hydro powered

Mexhidro is a portfolio of small hydroelectric self-supply projects located in Western Mexico that sells peak energy to industrial and municipal consumers. Phase I of the project consists of three plants totaling 52MW. The project is unique in that it utilizes existing infrastructure, thereby greatly reducing one of the largest risks in any greenfield hydro project, civil works construction. The sponsors, a partnership between majority shareholder Conduit Capital's Latin Power II and a company formed by local Mexico City businessmen, overcame significant challenges during the development of the project and the effort to conclude non-recourse financing. Success was achieved when the sponsors were joined by a lending group consisting of Scotiabank Inverlat, the FMO (Dutch Development bank), and Banobras (the Mexican infrastructure development bank) which contributed $35 million in long-term debt to the $68 million project. Banobras also is participating with a separate $6 million tranche to finance the Mexican Value Added Tax.

While the well-known Mexican Government IPP program, which uses the CFE as an off-taker, has been a great success for the Mexican government, not many other private power projects have been realized, aside from the well documented large plants with companies such as Cemex and Peñoles as offtakers.

The background

The Conduit Capital investment team manages investments in operating power plants throughout the Latin American and Caribbean region including Brazil, Chile, Colombia, Guatemala, Honduras, Jamaica, and Peru. Several years ago, Conduit saw an emerging opportunity in Mexico due to the tremendous requirement for capital investment and limited resources to meet the need. The Mexican Ministry of Energy (SENER) projects in its "Prospectiva del Sector Electrica 2003-2012" that the country's demand will grow at 6.3% per year and require the addition of approximately 28,862MW of new generation capacity. This demand growth plus other required sector infrastructure, will require $64 billion of investment by year 2013, of which approximately one half is expected to come from the private sector. While there continues to be great political debate on the opening of the Mexican power sector, a sound legal structure for private participation has existed since the 1992 amendment to the Electricity Law (Ley del Servicio Público de Energia Eléctrica) and the 1994 amendment to the Organic law of the Federal Government (Ley Orgánica de la Administración Pública Federal). These amendments created the legal structure for private investment in the power sector under several specific scenarios, which include cogeneration, self-supply, independent power production (IPP), of more than 30MW of which the energy must be sold to the Comisión Federal de Electricidad (CFE), small power production of less than 30MW, of which the electricity must be sold to the CFE, exports and imports. In addition to the established legal structure, the Mexican economy was strong and has since reached investment grade status, which further interested Conduit in participating in the Mexican power sector.

While the well-known Mexican Government IPP program, which uses the CFE as an offtaker, has been a great success for the Mexican government, not many other private power projects have been realized, aside from the well-documented large plants with companies such as Cemex and Peñoles as offtakers. In an effort to locate investment opportunities, the Conduit investment team thought that an appropriate place to start would be to review the permits granted by the CRE, which are listed on their website. Scores of permits have been granted by the Mexican government over the past several years (the Ministry of Energy lists 213 from January 1994 to June of 2002 alone) but few projects have made it into operation as entrepreneurial, first-time power project sponsors quickly realized the difficulties of successfully developing a greenfield plant. From these listed permits, Conduit identified and contacted a Mexican developer that held several permits for projects of mid-size capacity. The developer had previously been involved in the construction business and over the past 40 years had built irrigation dams for the Mexican government throughout the country. As the Mexican power sector began to open, the developers realized that these sites could also be used to mount hydroelectric generation equipment and produce electricity. While the project still required significant investment and development, the major risk of building the dam is removed. Thus, in 1999 the developers began what they expected to be a quick development period. ▶

◂ The hurdles

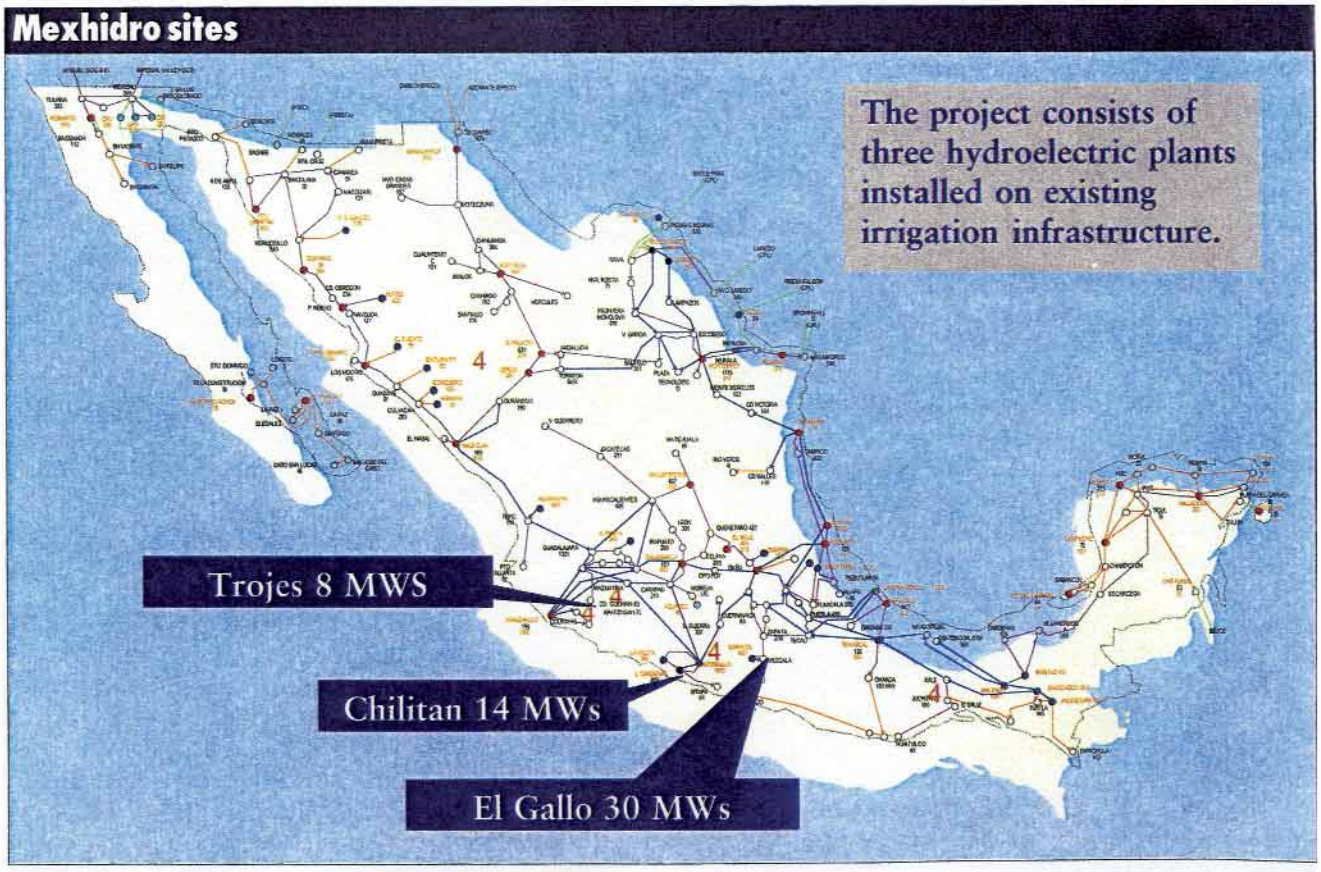
But even with the inherent benefits of utilizing existing infrastructure, the project faced enormous challenges from a financing perspective. While there was interest in investing in Mexico, the majority of lenders in the banking community are focused on the large IPP projects which came with, in essence, a sovereign-guaranteed offtake through the CFE long-term PPA. While project finance is never easy, these IPP projects have one government-backed off-taker, normally one contract to build the plant (EPC), and one operator. This structure is much different from the more complex Mexhidro transaction. As a result, there was initially limited interest from the banking community in participating in the first small private renewable power project, which included three separate greenfield hydro plants and several partner/offtakers. At the same time, the sponsors quickly found that inviting in industrial partners and signing up long-term PPAs in a business environment in which a one-year contract is a long-term commitment was a major challenge. Every large industrial company was being routinely approached and offered power purchase contracts with power plants that were promised to be built and put into operation in two years.

As Mexico does not have a long history of private power development, most of these sponsors do not have a track record to point to and an overwhelming majority of these projects have never broken ground. Consequently, there exists a tremendous lack of credibility in the marketplace, which made it extremely confusing for potential offtake partners to know which group is serious and which is simply wasting time. Thus, Conduit and the local Mexican partners developed a commercial strategy to demonstrate the reality of the project, and elected to construct the first plant, Trojes (8MW), on an all-equity basis, once sufficient industrial partnerships had been created and capacity had been contracted. The initiation of construction of Trojes sent a strong signal to the marketplace that the sponsors could be trusted to bring the plants into operation and deliver the promised energy and peak-hour savings. Trojes was constructed on-time and on budget under a turnkey engineering, procurement, and coonstruction contract with Alstom Power. The plant went into operation on 1 April 2003 and after meeting budget in 2003, Trojes has generated over 20% greater revenues than expected.

Small hydroelectric plants are relatively simple to operate, and with the Mexhidro project being the first private hydro facility in Mexico, there were not many options for plant operators. Thus, the sponsors engaged a new company headed by a well-respected Mexican power sector professional who previously headed the operation and maintenance division of most of CFE's hydro electric portfolio throughout the country. Similarly to the sponsors, this individual had seen opportunity in the emerging Mexican private power sector and had assembled a solid team of ex-CFE professional hydro operators. This company has operated Trojes perfectly for the past 17 months and will continue its role in the next two plants in Phase I.

The calling card

With the initiation of construction of Trojes, the project sponsors were able to point to a project that actually had a plant in construction and was more than an idea on paper. With this, local industrial companies began approaching the project sponsors to inquire about a potential partnership for



Source: Conduit

the next plants in which they too could achieve savings on their peak energy rates. The sponsor could thus sign agreements with well-known industrial companies and the balance of the capacity was assigned. This achievement, the sponsors believed at the time, would finally allow for successful debt financing and the initiation of construction of the next two plants. However, during the time that it took to assign the total capacity, Alstom Power had gone through a major restructuring coupled with the sharp rise in the Euro against the US dollar, and could no longer undertake the EPC contract that had been negotiated. The sponsors finally reached agreement with Voith Siemens of Brazil for the EPC contracts on the next two plants.

Throughout the development process, the sponsors continued to review interest from lending institutions. It was important to partner with a group of lenders that believed in the future of the Mexican power sector and would dedicate substantial resources to a relatively small debt facility and a project with a complex structure that incorporates cross-default guarantees for, essentially, three separate project financings in one. After a great deal of review, the sponsors agreed to move forward with a group of lenders that included FMO, Banobras, and Scotiabank Inverlat. The due diligence, as is always the case, took quite some time, as the lenders had to review all of the documentation for not just one plant but for three. As with all Conduit Latin Power investments, the project is required to comply with World Bank Environmental and Social Guidelines. Many hydro projects today never make it past this environmental review, as it is incredibly difficult to comply with these standards, since often dam construction results in changes in water flow, the disruption of ecosystems, and the relocation of residents. The fact that the project utilizes existing dam infrastructure made environmental compliance more manageable. In addition to the typical technical, environmental, and legal review, extensive analysis was conducted on the hydrological data that had been recorded at the sites – in some cases over the past 30 years. While financing a renewables project with an uncertain fuel source such as water or wind is always a challenge, the extensive site data made the lenders comfortable.

The sweeteners

During the financing process, Mexhidro did benefit from some unexpected developments. In the interest of promoting renewable energy projects in Mexico, the government instituted the "Contrato de Interconexión para Fuente de Energia de Energia Renovable", a new renewable interconnection agreement that enables the Mexhidro plants to mitigate some of the volatility normally associated with renewable resources. The agreement allows an approved renewable electricity generator to transmit excess energy into the grid and create an energy credit which can be used at any time within the year. Thus, at times of greater generation, the company can accumulate credits in the energy bank for future use when there is lower than expected production. This ability further allows Mexhidro to control normal volatility risk. Another welcomed opportunity, and one that was not contemplated at the outset of development, was the signing of an agreement with the World Bank's Prototype Carbon Credit Fund for expected carbon credit sales. This additional revenue further supported the financing of the company.

Turbine installation at a Mexhidro site.

As the due diligence process continued, the sponsors made the decision to initiate construction of the second plant, Chilatán (14MW), and not wait for financial close. Since sufficient capacity had been assigned to industrial off-take partners, substantial progress had been achieved with the lenders' review, and the sponsors had sufficient capital to complete construction of Chilatán without additional debt resources, the sponsors believed that the greatest value could be created in continuing the progress of the project. Thus, after completing the engineering and design work, construction of the second plant was begun by Voith Siemens in May 2004 and continues on schedule. The average construction period for the three plants is approximately 20 months.

The lending group concluded negotiations and closed the financing on 13 August 2004. The lender's legal counsel in the transaction was Mayer, Brown, Rowe & Maw in the US and Franck, Galicia y Robles in Mexico. The Sponsors were represented in the US by Clifford Chance US and by Ritch, Heather, y Mueller in Mexico. The lenders engineer was Acres International. With successful close, Voith Siemens will begin construction of the third plant of Phase I, El Gallo (30MW) in November. Mexhidro already has permits for several additional sites and expects to bring them on-line in Phase II of the process, to continue to add additional capacity to the company portfolio.

There is currently great discussion about the opportunities for private investment in the Mexican power sector and projects such as Mexhidro are critically important to the country in demonstrating that a project with strong fundamentals and the proper structure can be realized. As more small private power projects begin to come on-line, the sector will gain momentum as both financial participants and partner/offtakers will become more comfortable and interested in making the long-term commitment required to achieve a successful project financing. ■