

# *Energy Efficiency Financing Task Force*

*October 10, 2003*

Another front started by BCEEP in the energy efficiency area was contributing to the development of a.

It has long been recognized that third party financing is a key bottleneck to expanding the commercialization of energy efficiency projects in Brazil.

The Financial Task Force for Energy Efficiency Projects (FTF) was established informally in January 2001 at a meeting in Rio de Janeiro sponsored by IIEC with resources of the Moriah Foundation. It has sought since its beginning to encourage a dialogue between key players in this market: energy efficiency service providers (ESCOs); financial agents; consumers and government. This dialogue is crucial to familiarize the players' of each others' perspectives and needs and to define the measures needed to break the impasse in third party financing.

Subsequently the FTF became an important element of USAID's Brazil Clean and Efficient Energy Program (BCEEP). This has involved the four BCEEP partners for energy efficiency – INEE, ABESCO, EIC and IIEC<sup>1</sup> - since its inception. It has also involved Febraban (the Brazilian bankers' association), BNDES, PROCEL, state industrial federations and other stakeholders.

During 2001 the FTF evolved slowly, with limited resources from USAID (both through BCEEP and the USAID/IIEC contract with INEE, which terminated in that year) and complementary initiatives by ABESCO. In October, 2001, the World Bank began specific preparations to support the FTF in the context of a broader program involving Brazil, India and China.<sup>2</sup>

The World Bank commitment added substantial prestige and potential resources for the FTF. In January, 2002, a Brazilian delegation<sup>3</sup> met with Indian and Chinese counterparts in a meeting in India which concentrated on the issues of commercial bank financing for ESCO projects. However, the effective liberation of World Bank resources for in-country programs suffered many delays and did not begin in Brazil until March 2003. During this period (in June, 2002) the coordination of the FTF was passed from being a joint effort of ABESCO and INEE to being the responsibility of Ibmecc – a business school with particular strength in finance.

Despite the delays with the World Bank, the FTF advanced along three broad lines of work with BCEEP resources, to address the major bottlenecks for financing EE projects: (1) the design of financial intermediation mechanisms; (2) instruments for the financial analysis of projects; and (3) developing the basis to bring good quality efficiency projects for financing.

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<sup>1</sup> The National Institute for Energy Efficiency (INEE) is a NGO that has been involved with EE and cogeneration for at least 8 years and has about 90 associates from the energy sector, industry, government and research centers . Econergy International Corp. (EIC) is a technical, financial and economic consulting firm composed by a multinational team that serves clients such as fund managers in the energy and environment industries, internationally experienced in addressing renewable energy and efficiency project financing difficulties and structures. The International Institute for Energy Conservation (IIEC) is a US NGO working to promote industrial and commercial EE projects and develop models for financing. The Brazilian Association of Energy Services Companies (ABESCO) is a trade association to promote ESCO activities.

<sup>2</sup> United Nations Foundation Project Review Form: *Developing Financial Intermediation Mechanisms for Energy Efficiency Projects in Brazil, India and China.*

<sup>3</sup> The delegation included: Alan Poole of INEE, Eduardo Moreno of ABESCO, Walsey Magalhães of the BNDES, Manuel Siqueira of Bradesco and Emídio Lopo Almada Neto BMC. The latter two represented Febraban, the Brazilian bankers' association.

With regard to financial intermediation mechanisms, the initial emphasis was on developing a Guarantee Fund to cover medium term bank credit. This was made explicit by the Brazilian delegation at the World Bank meeting in India in January 2002.<sup>4</sup> Econergy and INEE analyzed the design issues for a Guarantee Fund for ESCO projects with BCEE resources and presented them at a seminar on August 16, 2002.<sup>5</sup> The concept of a Guarantee Fund is polemical in the Brazilian financial community. It had been rejected for years by the Ministry of Finance, but was accepted in principle in mid-2002.

The work by Econergy and INEE argued that while a Guarantee Fund is clearly a key ingredient for opening access to credit, it must be complemented by greater access to equity or “risk” capital. This line of parallel development has been maintained by Ibmecc in its work contracted by the World Bank since March, 2003.

In terms of analysis tools, a financial model for evaluating projects with Performance Contracts, including income statements, balance sheets, and cash flow projections, was developed and distributed to stakeholders. The ESCO Finance Tool is a sophisticated modeling tool that enables a user to easily view an ESCO project from the customer, lender and equity investor perspective significantly aiding the ultimate financing of such projects.<sup>6</sup> EIC provided a detailed list of risks and mapped possible financing sources.

With regard to the third line of work, USAID and BCEE addressed issues related to adapting performance contracts to Brazilian conditions, including the presentation and discussion of alternative models of contracts, the verification of results and the arbitration of disputes.

INEE developed a first set of performance contract models with contributions from Econergy. This work involved resources from BCEE and the earlier USAID/IIEC program. This material was published in late 2001. Two basic generic models (guaranteed performance and shared savings) were adapted to Brazilian jurisprudence and described, as well as two variants of the latter model (including one based on Chinese experience).<sup>7</sup>

The next phase of work, begun in 2002 and now being completed, was to describe the differences between the models (especially regarding the structure of financing and payments) and factors to consider in choosing between them. This involved both reports<sup>8</sup> and seminars.<sup>9</sup> This kind of analysis and discussion is a necessary complement to the publication of generic models, if performance contracting is to become a commercial practice. For now, the development of generic models has gone about as far as is possible on its own. Advances in adaptation to the Brazilian market will occur principally in conjunction with the

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<sup>4</sup> Sanford Selman; *Developing Financial Intermediation Mechanisms for Energy Efficiency Projects – Focus on Commercial Banking Windows for Energy Efficiency. Summary of Workshop held January 16-18, 2002*; consultant report to the World Bank.

<sup>5</sup> T.H. Stoner and A.D. Poole; *Developing a Guarantee Fund for Energy Efficiency Projects in Brazil*; EIC and INEE, October, 2002. This work also discussed experiences with guarantee mechanisms implemented successfully in other emerging ESCO markets, especially China and Eastern Europe.

<sup>6</sup> T.H. Stoner and A.D. Poole; *A Financial Model for Evaluating Projects with Performance Contracts Report to the Energy Efficiency Financial Task Force*; EIC and INEE; June, 2003

<sup>7</sup> These models can be found on INEE’s website: [www.inee.org.br](http://www.inee.org.br). There are some changes being introduced in these generic models as time goes by. In addition, USAID financed the development of generic models directly with ABESCO under the Nexant program. This work built from INEE’s prior effort and added a model of a letter of intent - a crucial step in contract negotiations. Unfortunately ABESCO resisted all attempts to discuss and compare the parallel work.

<sup>8</sup> A.D. Poole and T.H. Stoner; *Alternative Financing Models for Energy Efficiency Performance Contracting*; INEE and EIC, July 2003; Osório de Brito and Duval Vianna; *A Montagem de um Contrato de Performance*; INEE, setembro de 2003.

<sup>9</sup> One on May 14, 2002 an introductory seminar led by Shirley Hansen, was attended by over 100 people. On August 19-20, 2003, a more in-depth seminar on performance contracting was attended by about 30 people.

experience of negotiations of specific contracts. Out of this practical experience a “first generation” model(s) that actually work in Brazil can emerge.

Performance contracting implies some kind of mutually (between the ESCO and the client) agreed procedures for verifying the results. INEE has continued its work of adapting the International Performance Measurement and Verification Protocol (IPMVP). The latest edition of the Protocol was translated and simple case studies developed. These case studies have been learning exercises in diagnostics, not full applications of M&V for performance contracts. However, a basis has been established to provide advice to ESCOs and consumers on the use of measurement and verification not only for performance contracts but energy management more generally. INEE is establishing a “Forum of M&V” to more actively involve a wider group of interested professionals.

The FTF also came up with an alternative solution for the high cost and delays of the Brazilian judicial system’s customary mechanisms in dealing with contract conflicts that require specialized technical knowledge, by establishing a Chamber of Arbitration with capabilities for energy efficiency contracts. A four-week course on arbitration procedures in energy contracts was held at Ibmec in July-August, 2002 with 30 students.

In March 2003, after many delays, the World Bank/UNF/UNEP mobilized resources of US\$130,000 for the Energy Efficiency Working Group during the following 12 months, under the coordination of Ibmec (though it started to play a leading role in the group at least since July 2002). Ibmec organized the First International Roundtable on Financing Energy Efficiency on April 2<sup>d</sup>, attended by over 50 people, with significant participation by from the banking, private, and government sectors.

With this the FTF entered a new phase. Under the new workplan, agreed with the World Bank<sup>10</sup> two streams of activity are proceeding in parallel.

The **first stream** (“Financing Mechanisms”) is the continued development, design and movement towards implementation of possible financing mechanisms for ESCOs. A loan guarantee fund, financed with government and possibly IFC support, remains a possibility, but increasing emphasis is now being given to possibilities involving equity investment. The development of a local investment fund for ESCOs will be actively explored with potential investors. Another possibility is the development of a “super ESCO”, or specialized leasing company, which could provide equipment on lease for the projects of small ESCOs. Use of Special Purpose Companies for initial or large energy performance contracting projects, utilizing a mix of investor equity and loan financing, also will be further explored.

The **second stream** (“Pilot Transactions”) seeks to close at least four financing transactions involving ESCOs or energy performance contracting, hopefully by the end of December. The project will organize a Committee to solicit project proposals through an open process. The project will help the Committee to screen the projects, and complete technical reviews and evaluations to the extent needed to present to potentially interested banks and investors. The concept is to help several projects which are already fairly close to obtaining financial backing to reach closure, and thus gain both practical experience and market credibility through actual cases.

While the process suffered some delays, approximately eight projects were received by Ibmec and project screening should begin by mid October.

The BCEE supported a Workshop on *Developing the Business of Performance Contracting* held August 19<sup>th</sup> to 20<sup>th</sup> to provide capacity building to more than 10 ESCOs interested in participating in the contest on

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<sup>10</sup> Ibmec; *Brazilian Energy Efficiency Financing Work Group Revised 2003 Workplan for UNF/ESMAP Program*, August, 2003.

performance contracts, measurement and verification of project results and business plan development. This Workshop was BCEEP's last scheduled contribution to the FTF. The presentations are available on INEE's website.

The efforts to develop mechanisms and models for actually financing energy efficiency projects pioneered under BCEEP will be continued in the next two years through the Energy Efficiency Working Group (as the Financial Task Force is now called) with World Bank/UNF/UNEP support. It should, however, be recognized that these resources are still quite small relative to the challenge, which is substantial. Indeed, until today no energy efficiency project has obtained medium term credit, nor have there been any performance contracts with the private sector. The World Bank is actively encouraging the Working Group to find complementary resources. Training and capacity building among consumers, financial agents and EE service providers is one area that clearly needs reinforcement urgently. Another area is improved definition of market segments and potential projects.