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Mexico – Policy And Regulatory Support In Electric Sector And Support For Clean Technologies Deployment

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23865-105-0007

Mexico – Policy And Regulatory Support In Electric Sector
And Support For Clean Technologies Deployment

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LAG-1-00-98-00006-00
Task Order No. 105

TRIP REPORT

Task Order Name & Number: 23865-000-TM-01 (Mexico: Policy and Regulatory Support in Electric Sector and Support for Clean Technologies Deployment)

Country of Assignment: **MEXICO**

Dates of Trip: July 23-30, 2001

Name: Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Purpose of Trip: **Meetings on Finalization of Environmental Permitting Handbook and Legal Manual**

Summary: Contractor traveled to Mexico City to complete work on the Spanish versions of the Environmental and Legal manuals. During the course of the period from July 23 to 30, Contractor was in regular contact with Jorge Landa, USAID/Mission, regarding progress in the preparation of the manuals and arrangements for finalization and distribution; officials at the Secretariat of Environment and Natural Resources (SEMARNAT), regarding final comments by the Secretariat on earlier drafts; and several of the members of the review committee, regarding any final comments and input on the documents.

The remainder of the time spent in-country was dedicated to working sessions in the Contractor's office for the purpose of preparing the final drafts in Spanish and arranging for printing and reproduction.

TRIP REPORT

Task Order Name & Number: 23865-000-TM-01 (Mexico: Policy and Regulatory Support in Electric Sector and Support for Clean Technologies Deployment)

Country of Assignment: **MEXICO**

Dates of Trip: July 9-12, 2001

Name: Edward Hoyt (EIC)
Ricardo Rojas (EIC)
Phil Doyle (EIC)

Purpose of Trip: **Meetings on Finalization of Environmental Permitting Handbook and Legal Manual**

Summary: Contractor personnel based in Mexico City and Washington, DC, traveled to Contractor's home offices in Boulder, Colorado, for working sessions for the finalization of the English versions of the Environmental and Legal manuals with Boulder-based staff involved in preparation of the handbook. Contractor was in regular contact with USAID/EET regarding details of final text for the manuals, and dedicated the rest of the time to working sessions on the finalization of the Environmental and Legal manuals.

TRIP REPORT

Task Order Name & Number: 23865-000-TM-01 (Mexico: Policy and Regulatory Support in Electric Sector and Support for Clean Technologies Deployment)

Country of Assignment: **MEXICO**

Dates of Trip: November 14-24 2000

Name: Edward Hoyt (EIC)
Ricardo Rojas (EIC)
Daniela Brandão (EIC)
Jordan Blackman (EIC)

Purpose of Trip: **Meetings on Finalization of Environmental Permitting Handbook, Preparation of Legal Manual, and Program Development**

Tuesday, November 14, 2000

No formal meetings were held. During the course of this day, Blackman and Rojas worked together at the offices of EIC Consultores de México (EIC/Mexico) on the preparation of the legal manual draft.

Wednesday, November 15, 2000

No formal meetings were held. During the course of this day, Blackman and Rojas worked together at the offices of EIC Consultores de México (EIC/Mexico) on the preparation of the legal manual draft.

Thursday, November 16, 2000

Meeting: Legal manual team working session

Place: EIC Consultores de México (EIC/Mexico)

In attendance: Pedro López (legal specialist)
Jordan Blackman (EIC)
Ricardo Rojas (EIC)
Edward Hoyt (EIC)

Summary: The working group met to review the discrete elements of the draft of the legal manual, to identify what gaps remained, to discuss how to address these gaps, and to make assignments for the following days.

Friday, November 17, 2000

No formal meetings were held. During the course of this day, Hoyt, Blackman and Rojas worked together at the offices of EIC Consultores de México (EIC/Mexico) on the preparation of the legal manual draft.

Monday, November 20, 2000

Meeting: CFE

Place: Loredo, Mexico City

In attendance: Eduardo Flores-Magón (CFE)
Pedro López (legal specialist)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)
Jordan Blackman (EIC)

Summary: The legal manual working group reported to Flores-Magón on the extent of progress in the preparation of the first draft of the legal manual. The team also discussed the extent to which changes could be expected in the procedures and permits required for generation and transmission projects once the Fox administration took office. Flores-Magón said that there would likely be little, if any, change in the requirements. López noted that the current requirements for new capacity are such that a large volume of projects would be bid during the course of 2000, creating significant demand for the type of information presented in the manual. Hoyt explained what the next steps would be in the completion of the manual and the beginning of the review process.

Tuesday, November 21, 2000

Meeting: USAID Mission/Mexico

Place: U.S. Embassy

In attendance: Anne McDonald (USAID)
Jorge Landa (USAID)

Summary: This meeting served as a briefing to the Mexico Mission on progress in the preparation of the legal manual. Hoyt described the status of work on both the environmental permitting manual as well as the legal manual, and described the next steps in the preparation of the drafts for review and comment. McDonald asked whether Contractor had any contact with the transition team of then president-elect Vicente Fox. Hoyt noted that Eduardo Flores-Magón of CFE, who has been in regular contact with the transition team, had tried to schedule a meeting with the Mission, but had been unable to due to scheduling difficulties. Hoyt indicated that he would encourage Flores-Magón to try to reschedule before the inauguration of the Fox administration, on December 1.

Meeting: Comisión Reguladora de Energía (CRE)

Place: CRE, Horacio 1750, Mexico City

In attendance: Elizabeth Fortoul (CRE)
Jordan Blackman (EIC)
Daniela Brandão (EIC)
Ricardo Rojas (EIC)

Summary: The purpose of this meeting was to confirm details of the natural gas permitting process applicable to projects using natural gas, for the preparation of the first draft of the legal manual. Elizabeth Fortoul is Adjunct Director General of the Natural Gas Office at the CRE and she provided detailed comments on the natural gas permit process.

Meeting: Comisión Reguladora de Energía (CRE)

Place: CRE, Horacio 1750, Mexico City

In attendance: Carlos Muñoz (CRE)
Jordan Blackman (EIC)
Daniela Brandão (EIC)
Ricardo Rojas (EIC)

Summary: The purpose of this meeting was to review details of the permitting process for private generation projects of all types permitted under current law, for the preparation of the first draft of the legal manual. Carlos Muñoz is Operations Director at the CRE and he provided detailed comments on the electric energy permit process. Discussion focused on the details of permit revocation.

Meeting: Comisión Nacional del Agua (CNA)

Place: CNA, Insurgentes Sur 1863, Mexico City

In attendance: Héctor Cruz (CNA)
Alicia Muñoz (CNA)
Daniela Brandão (EIC)
Ricardo Rojas (EIC)
Edward Hoyt (EIC)

Summary: The purpose of this meeting was to gather comments and suggestions from the CNA regarding the draft of the environmental permitting manual. CNA had been given a copy of the draft in October, and formal comments were requested on those segments of the manual dealing with the CNA. Cruz provided detailed comments, leading to significant modifications to the draft, both on the flow-charts as well as the

accompanying annotations. Cruz agreed to review the modified flow-charts in a subsequent meeting with Brandão and Rojas on November 23.

Meeting: Instituto Nacional de Ecología (INE)

Place: INE, Revolución 1425, Mexico City

In attendance: Alejandro Olivera (INE)
Daniela Brandão (EIC)
Ricardo Rojas (EIC)
Edward Hoyt (EIC)

Summary: The purpose of this meeting was to review the comments and suggestions made by the INE on the draft of the environmental permitting manual in October. INE had been given a copy of the draft in September, when Sam Schweitzer had requested a quick review of the document by the office of undersecretary Juan Carlos Belausteguigoitia of SEMARNAP. The request had been turned over to Pedro Alvarez-Icaza, at SEMARNAP, who had been the original point of contact at INE while still director of environmental impact there. Alvarez-Icaza had turned the matter over to Fedro Guillén, current director of office of environmental impact, and Guillén had provided written comments in October. The purpose of this meeting was to review the comments provided by INE in October with Alejandro Olivera, who authored them. The meeting produced a series of significant modifications to the draft, both on the flow-charts as well as the accompanying annotations. Olivera agreed to review the modified flow-charts in a subsequent meeting with Brandão and Rojas on November 24.

Meeting: Asociación Mexicana de Energía Eléctrica (AMEE)

Place: Techint, Campos Eliseos 400-1, Mexico City

In attendance: Eduardo Andrade (AMEE)
Edward Hoyt (EIC)

Summary: The meeting was intended to include a presentation by Hoyt of the content of the environmental permitting manual as well as the legal manual to members of the AMEE that had expressed interest in participating in the review team. Representatives of the interested companies were unable to attend, so Hoyt reviewed the content of the manuals with Andrade, who is president of the association. Andrade said that he thought that the manuals were a valuable contribution to the development of the sector, and noted that his impression was that the Fox administration would push for a more rapid pace of capacity expansion using the existing IPP contracting mechanisms, and would not be able to implement sweeping changes in the sector very quickly. Since these are covered extensively in the two manuals, the documents could play an important role in promotion of investment in the sector in the first year or two of the Fox administration.

Wednesday, November 22, 2000

Meeting: Dirección General de Recuperación y Conservación de Suelos
(DGRCS)

Place: DGRCS, SEMARNAP, Los Viveros de Coyoacán, Mexico City

In attendance: Guadalupe Rivera (DGRCS)
Victor Huitrón (DGRCS)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)
Daniela Brandão (EIC)

Summary: The purpose of this meeting was to gather comments and suggestions from the DGRCS regarding the draft of the environmental permitting manual. DGRCS had been given a copy of the draft in October, and formal comments were requested on those segments of the manual dealing with the DGRCS. Rivera and Huitrón provided detailed comments, leading to slight modifications to the draft, both on the flow-charts as well as the accompanying annotations.

Meeting: Comisión Federal de Electricidad (CFE)

Place: CFE, Reforma 164, Mexico City

In attendance: Humberto López (CFE)
Sergio Palafox (CFE)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)
Daniela Brandão (EIC)

Summary: The purpose of this meeting was to gather comments and suggestions from the CFE regarding the draft of the environmental permitting manual. CFE had been given a copy of the draft in October, and formal comments were requested on those segments of the manual dealing with the CFE. López and Palafox provided comments, leading to some modifications to the draft, both on the flow-charts as well as the accompanying annotations. The CFE's comments focused on the distinction between procedures undertaken by CFE in the optional site case and those undertaken by the developer in the "alternative site" case, and coincided with the comments received from INE on the subject.

Thursday, November 23, 2000

Meeting: Comisión Nacional del Agua

Place: CNA, Insurgentes 1863, Mexico City

In attendance: Héctor Cruz (CNA)
Alicia Muñoz (CNA)
Ricardo Rojas (EIC)
Daniela Brandão (EIC)

Summary: The purpose of this meeting was to review with CNA the changes made on flow-charts as well as the accompanying annotations on the draft of the environmental permitting manual regarding the comments and suggestions that CNA made in the previous meeting (November 21). Cruz and Muñoz reviewed the new version and they agreed with its content. They asked for a copy of the final version of the permitting manual.

Friday, November 24, 2000

Meeting: Instituto Nacional de Ecología (INE)

Place: INE, Revolución 1425, Mexico City

In attendance: Alejandro Olivera (INE)
Ricardo Rojas (EIC)
Daniela Brandão (EIC)

Summary: The purpose of this meeting was to review with INE the changes made to the flow-charts as well as the accompanying annotations in the draft of the environmental permitting manual, as per the comments and suggestions that INE made in the previous meeting (November 21). Olivera reviewed the new version and he agreed with the content. He asked for a copy of the final version of the permitting manual.

TRIP REPORT

Task Order Name & Number: 23865-000-TM-01 (Mexico: Policy and Regulatory Support in Electric Sector and Support for Clean Technologies Deployment)

Country of Assignment: **MEXICO**

Dates of Trip: October 16-29, 2000

Name: Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Purpose of Trip: **Meetings on Finalization of Environmental Permitting Handbook, Preparation of Legal Manual, and Program Development**

Monday, October 16, 2000

Meeting: Legal Manual working group

Place: EIC offices, Mexico City

In attendance: Pedro López (independent legal counsel)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Summary: The working group reviewed the materials that Pedro López has gathered to create the basis for the initial draft of the Legal Manual. The team reviewed materials for Section 5 (legislative and regulatory overview), and discussed items for inclusion in Section 8 (description of project types).

Tuesday, October 17, 2000

Meeting: USAID Mexico Mission

Place: US Embassy

In attendance: Jorge Landa (USAID/Mexico)
Edward Hoyt (EIC)

Summary: The purpose of the meeting was to brief the Mission on progress with the two handbooks. As of mid-October, the environmental permitting handbook was under review and Contractor was collecting further comments and recommendations regarding the document. The legal manual, meanwhile, was also under preparation.

Landa also described the situation of the training activity with PEMEX. He noted that the contractor for the work had been selected and that it was mobilizing for the first training session in early November.

Wednesday, October 18, 2000

Meeting: Mexican Electric Energy Association

Place: Los Almendros, Mexico City

In attendance: Eduardo Andrade (AMEE)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Summary: The meeting with Andrade focused on a discussion of current developments on the Fox Transition Team's development of the incoming administration's proposals for the electric sector. Andrade noted that it appears that Fausto Alzati, who is ostensibly the head of the energy working group on the Team is losing favor within the group. He also noted that AMEE would be meeting with Barry Worthington of the USEA in Houston during the TDA Latin America projects conference (October 23-25) to discuss the possibility of a seminar on electricity and development in November. The purpose of the seminar would be to underscore the need for restructuring that will accelerate growth in the sector, and enhance the understanding of congressman of the subject.

Meeting: National Ecology Institute (INE)

Place: Office of Environmental Impact, INE, Mexico City

In attendance: Fedro Guillén (INE)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Summary: Contractor met with Guillén as the initial draft of the environmental permitting handbook that was left with Juan Carlos Belausteguigoitia had been referred to Guillén, via Pedro Alvarez-Icaza (former head of environmental impact at INE). Guillén reported that the draft was still under review, and that INE would have comments by October 25. He noted that the fact that the draft was in English slowed down the process of its review. Contractor received the comments on October 27 and is reviewing them to determine how they might be incorporated into the draft.

Monday, October 23, 2000

Meeting: CFE
Place: CFE, Mexico City
In attendance: Sergio Palafox (CFE)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Summary: Contractor met with Palafox (in the absence of Humberto López) to review the contents of the environmental permitting handbook, and left a copy of the most recent draft of the document for review. Contractor and Palafox agreed that a follow-up meeting to obtain CFE's comments would be scheduled for mid-late November, tentatively November 16-17 or 21-22.

Meeting: CFE
Place: CFE, Mexico City
In attendance: Eugenio Laris (CFE)
Edward Hoyt (EIC)

Summary: Contractor briefed Laris on the progress of the working group for the environmental permitting handbook. Laris was informed that a copy of the draft handbook would be left with López's office for review.

Tuesday, October 24, 2000

Meeting: CFE
Place: CFE, Mexico City
In attendance: Eduardo Flores-Magón (CFE)
Edward Hoyt (EIC)

Summary: Contractor briefed Flores-Magón about progress on the legal manual, and reported on initial comments received from Arturo López (Bechtel/Mexico). Flores-Magón noted that concerns about too much detail in the document or changes made by the Fox administration should not be of concern. He also indicated that the document should stress that the rationale for the handbook is based to a significant extent on the fact that capacity growth in Mexico has been slower in the Zedillo administration than in the previous two administrations, and that reinforcement of the transmission system was imperative in order for the added capacity to actually be of use within the system. He noted that the capacity shortfall varied from region to region, with some areas facing generation severe capacity constraints.

Meeting: Legal Manual working group
Place: EIC
In attendance: Pedro López (independent legal counsel)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Summary: The working group continued to review the materials that López has collected, and to refine the content of other sections of the legal manual. Work focused on Section 8 and the flowcharts in Section 6.

Wednesday, October 25, 2000

Meeting: Dirección General de Recuperación y Conservación de Suelos (DGRCS),
Secretaría de Medio Ambiente, Recursos Naturales y Pesca (SEMARNAP)
Place: SEMARNAP, DGRCS, Mexico City
In attendance: Guadalupe Rivera (DGRCS) Ricardo Rojas (EIC)
Victor Huitrón (DGRCS) Edward Hoyt (EIC)

Summary: Meeting had originally been scheduled with Rafael Obregón, but he was unable to attend at the last minute. Discussion focused on two subjects: (1) the preparation of a needs assessment for training and capacity building, and (2) the environmental permitting handbook.

Rivera noted that the issue of the training needs for SEMARNAP were being discussed with the Planning Undersecretariat, and that no decision of guidance from that office had been received. Rivera did not expect that there would be any clear decision until late in November, if at all.

Contractor reported that a draft of the environmental permitting handbook had been prepared, and requested comments and input from the DGRCS. Rivera indicated that the office would review the document, and expressed interest in receiving a copy of the draft in Spanish as soon as it is ready.

TRIP REPORT

Task Order Name & Number: 23865-000-TM-01 (Mexico: Policy and Regulatory Support in Electric Sector and Support for Clean Technologies Deployment)

Country of Assignment: **MEXICO**

Dates of Trip: September 12-14, 2000

Name: Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Purpose of Trip: **Meetings on Finalization of Environmental Permitting Handbook, Implementation of Legal Manual, and Program Development**

Tuesday, September 12, 2000

Meeting: Instituto de Investigaciones Eléctricas (IIE)

Place: IIE, Cuernavaca, Morelos

In attendance: Dr. José González Santaló (IIE) Nohemi Zerbi (USAID)
Dr. César Romo (IIE) Edward Hoyt (EIC)
Dr. Samuel Schweitzer (USAID) Ricardo Rojas (EIC)

Summary: The focus of this meeting was the proposed clean combustion seminar. IIE expressed its willingness to participate in the event if so instructed by the Secretariat of Energy (SE), through the Office of International Affairs (OIA), which is headed by Lourdes Melgar. IIE would not take any initiative to organize the event, and asked that USAID approach SE/OIA to determine whether SE supported the implementation of the proposed seminar. USAID and IIE agreed that USAID would do this.

Wednesday, September 13, 2000

Meeting: Undersecretary of Environment for Planning

Place: SEMARNAP, Mexico City

In attendance: Dr. Juan Carlos Belausteguigoitia (SEMARNAP)
Dr. Samuel Schweitzer (USAID)
Edward Hoyt (EIC)

Summary: This meeting consisted of a briefing for Dr. Belausteguigoitia on USAID's progress to date in the preparation of the Environmental Permitting Handbook. USAID

reported that a draft has been prepared and will be submitted to a review team in the U.S. for comment. At the same time, USAID requested that the Office of the Undersecretary give the document a preliminary review and determine the extent to which the draft meets specific criteria proposed by USAID in a follow-up memorandum to Dr. Belausteguigoitia. SEMARNAP's initial review will be completed by the end of September, and USAID said that it expected to have the draft completed by mid-November.

Meeting: Dirección General de Recuperación y Conservación de Suelos (DGRCS), Secretaría de Medio Ambiente, Recursos Naturales y Pesca (SEMARNAP)

Place: SEMARNAP, DGRCS, Mexico City

In attendance: Guadalupe Rivera (DGRCS) Nohemi Zerbi (USAID)
Victor Huitrón (DGRCS) Edward Hoyt (EIC)
Dr. Samuel Schweitzer (USAID)

Summary: The meeting focused on ensuring that the DGRCS understands what is needed in order to proceed with the development of a training program on environmental impact issues for the natural resources area of SEMARNAP. USAID stressed that there appeared to have been a misunderstanding regarding the need for a formal agreement between DGRCS and USAID as the focus of work in developing the program. No such agreement need be discussed until after it is clear what the substance of the USAID involvement requested by DGRCS should be. DGRCS and USAID agreed that the next step should be preparation of a proposed plan for the training program, beginning with a procedure for the key components of the program to be developed. EIC will follow up with DGRCS to ensure that a draft plan is developed.

Once such a draft plan is developed, a coordination meeting between Undersecretary for Natural Resources Jorge del Valle, Undersecretary Belausteguigoitia and DGRCS head Rafael Obregon should be staged to finalize the proposed work program.

Meeting: CFE and Mexican legal counsel for Legal Manual

Place: Bellinghausen, Mexico City

In attendance: Dr. Eduardo Flores-Magón (CFE) Ricardo Rojas (EIC)
Dr. Samuel Schweitzer (USAID) Edward Hoyt (EIC)
Pedro López (independent legal counsel)

Summary: This conversation focused on the state of affairs within CFE regarding the work being undertaken by the Fox Transition Team, as well as the substance of the proposals being considered for the electric sector restructuring. According to Flores-Magón, the thrust of the Transition Team's work has been to find those measures that could be implemented without congressional action. If the need for congressional action can be avoided, the new administration will be able to move more quickly and

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demonstrate results more quickly. Among other things, the proposed actions might include increasing transparency of information on node prices, changing the limitation on excess power sales to CFE, and altering the definition of public service to include only residential and agricultural uses, thereby freeing the private sector to expand into the market for private power.

In addition, the discussion covered the issue of investor risk, something that the CFE does not appear to have taken as seriously as it should. Specifically, the perception that CFE is part of the government makes it more difficult for companies to assess contract risk. If CFE were to be treated as a stand-alone corporation, in control of its own resources, it would be easier to assess CFE's risk.

Meeting: Office of International Affairs, Secretariat of Energy

Place: Secretariat of Energy

In attendance:	Dr. Lourdes Melgar (SE)	Ana María Sánchez (SE)
	Dr. Dionisio Pérez-Jacome (SE)	Edward Hoyt (EIC)
	Dr. Samuel Schweitzer (USAID)	Ricardo Rojas (EIC)
	Dr. Eduardo Flores-Magón (CFE)	

Summary: The focus of this meeting was to clarify the positions of SE and USAID regarding the respective roles of USAID and SE (including other agencies in the sector, such as CFE) in the preparation of the Legal Manual and the Environmental Permitting Handbook. Pérez-Jacome stated that he believed that USAID had ignored the SE's instructions to make sure that it did not involve the Secretariat in the development of the documents. USAID, for its part, noted that it understood that it had done so, but in any case, hoped that eventually SE would decide that the documents were useful contributions to the sector and would approve inclusion of a statement on the documents that SE had collaborated in their preparation. Melgar indicated that she would consult internally and come to a decision regarding the Secretariat's position on the handbooks.

Separately, Melgar reported that the SE receives numerous requests for support on energy-related issues from countries in Central America, and that she would be willing to consider supporting the proposed combustion seminar or another activity as an activity undertaken under the USAID-SRE agreement on technical cooperation.

Thursday, September 14, 2000

Meeting: Mexican Electric Energy Association (AMEE)

Place: Westin Galería Plaza Hotel

In attendance:	Eduardo Andrade (AMEE)	Ricardo Rojas (EIC)
	Dr. Samuel Schweitzer (USAID)	Edward Hoyt (EIC)

Summary: Discussion focused on the activities of AMEE in support of the Fox Transition Team's working group on the electric restructuring proposal. Andrade reported that there seemed to be a division between those on the team who opposed taking action that would require congressional action – especially constitutional reforms, which require a two-thirds majority and state ratification – and those who believe that only such measures requiring congressional action will ensure the creation of a truly competitive market. Andrade indicated that the private companies in the electric sector in Mexico want to see the following changes made:

- Transparency in node prices for sales to CFE;
- Elimination of the 20-MW limit on excess power sales;
- Change Articles 27 and 28 of the Constitution to eliminate CFE's monopoly on electricity sales in the country;
- Open access to the transmission grid.

Without these basic issues, Andrade said, private investors would not feel comfortable operating in the Mexican market and investment would be limited.

Meeting: Electric Sector Reform Working Group of Fox Transition Team

Place: Fiesta Americana Hotel

In attendance: Jorge Leal (Fox Transition Team) Edward Hoyt (EIC)
Dr. Eduardo Flores-Magón (CFE)
Dr. Samuel Schweitzer (USAID)

Summary: As the result of a chance encounter with Eduardo Flores-Magón, who was with Jorge Leal, a conversation regarding the Transition Team's activities and potential interest in working with USAID took place. In addition, Leal was told of the work that USAID is performing on the Environmental Permitting Handbook and the Legal Manual.

Leal reported that President-elect Fox is close to making a decision regarding the announcement of the new administration's objectives with regard to the restructuring of the electric sector. The emphasis appears to be on actions that require a minimum of legislative action, following the recommendations of Fausto Alzati and Francisco Kuri Pérez (heads of the energy group, and working on petroleum issues). Leal also said that he expected that Juan Bueno, who is leading work on the restructuring proposal, would be interested in discussing how USAID might support activities.

Leal noted that the Transition Team has already had contact with the U.S. Embassy. He noted that the Team had met with the Ambassador over dinner. He indicated that he would follow-up with Paul White.

TRIP REPORT

Task Order Name & Number: 23865-105 (Mexico: Policy and Regulatory Support in Electric Sector and Support for Clean Technologies Deployment)

Country of Assignment: **MEXICO**

Dates of Trip: May 9-12, 2000

Name: Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Purpose of Trip: **Environmental Handbook Research Meetings and & Legal Handbook Development**

Wednesday, May 10, 2000

Meeting: Comisión Federal de Electricidad (CFE)

Place: Comisión Federal de Electricidad (CFE)
Subdirección de Programación
Mexico City

In attendance: Dr. Eduardo Arriola (CFE)
Dr. Eduardo Flores-Magon (CFE)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Summary:

The meeting began with Dr. Flores-Magón alone in a discussion of the legal handbook, and Dr. Arriola joined the meeting briefly to discuss the state of the possible activity in support of renewed efforts to establish a high-voltage interconnection with Guatemala.

On the subject of the interconnection, Dr. Arriola confirmed that a CFE delegation would travel to Guatemala to determine whether the Guatemalan government and the Instituto Nacional de Electricidad (INDE) is "serious" about establishing the interconnection, on May 25, 2000 (not May 20, as Rodolfo Santizo had originally indicated).

Arriola noted that CFE, through its international projects division, has contracted to build plants in several Central American countries, but often has not received paid for the work it completes, because the debt to Mexico is cancelled as the result of a diplomatic agreement between Mexico and the foreign country. He noted that CFE does not have the resources to engage in such activities, even it is paid back, in Guatemala.

Arriola indicated that INDE would have to perform the work itself, or enter into a joint venture with private companies to construct the new lines. He noted that the requisite technical studies have been performed, and INDE appears to have given consideration to the possibility of joint ventures or concessions to private companies to build and operate transmission lines.

In the discussion regarding the legal handbook, Dr. Flores-Magón indicated that he thought a letter of confirmation from USAID regarding the project would be helpful, and should signal the general content of the handbook, the review process, and the role of the counterpart agencies, as well as request participation in a "kick-off" meeting in June. He said that the main concern for SE is that it should have a "veto" regarding the manner in which material is presented in the handbook, to avoid content that might be considered politically sensitive. He also noted that any comments or clarifications that the counterpart agencies might have regarding the proposed content of the handbook or the process for its preparation would be received in the process of confirming participation in the meeting(s).

Flores-Magón also agreed to support the process of confirming participation by communicating with Dionisio Pérez-Jacome (SE) and Rubén Flores (CRE) to elicit any comments or reservations that they might have and confirm their role in the preparation of the handbook. Ricardo Rojas will follow-up with Flores-Magón and the CRE on this point.

Meeting: Secretaría de Medio Ambiente, Recursos Naturales y Pesca (SEMARNAP)

Place: Secretaría de Medio Ambiente, Recursos Naturales y Pesca (SEMARNAP),
Dirección General de Recuperación y Conservación de Suelos (DGRCS)
Mexico City

In attendance: Rafael Obregón (DGRCS)
Guadalupe Rivera (DGRCS)
Victor Huitrón (DGRCS)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Summary:

The meeting focused on developing a more detailed concept for the training course that Obregón mentioned to Sam Schweitzer during his visit in early March.

Obregón noted that the main thrust of the course should be watershed management issues, with the other subjects being covered in modules within the course. The other subjects that were mentioned by Obregón in a communication from the DGRCS in April include global information systems (GIS), soil mapping, management of water resources for irrigation, planning processes, certification of sustainable practices by landowners, and financial mechanisms to create economic incentives for sustainable watershed management.

Obregón and his team thought that the course should be directed at SEMARNAP staff, state-level officials in the SEMARNAP Delegaciones as well as the state environment agencies, and

consultants who prepare environmental impact assessments for state-level and federal-level permitting processes. He expected that an average of 30 to 40 participants might be expected from each state, yielding a total of about 900 to 1,200 nationwide. Regional courses could be held for participants from several states in different parts of the country, reducing the number of actual courses held to between 10 and 15 events. Obregón and his team thought the courses should be between three and five days in length.

Obregón confirmed that SEMARNAP's Centro de Capacitación y Educación Ambiental para un Desarrollo Sustentable would likely be available to provide logistics for the courses, and should be involved in the planning process. Obregón concurred with the idea of staging a meeting between training specialists from USAID and SEMARNAP to prepare a more detailed proposal for the training program for internal use by USAID to raise funds for the program.

Lastly, Obregón noted that Paul White had discussed with the previous Undersecretary of Natural Resources of SEMARNAP, (Francisco) Villalobos, the possibility of organizing an international seminar on the use of fire in agricultural and land-use activities. Since a new undersecretary, Jorge Delvalle, has taken over, Obregón thought that the timing was good for a proposal to organize training activities on the broader, but related issue, or watershed management. Issues related to the use of fire might be included in the watershed course. Obregón also stressed the need to establish activities that would carry over into the next federal administration, which takes office in December.

Meeting: Mexican legal counsel for legal handbook

Place: EIC Consultores de México
Mexico City

In attendance: Pedro López (independent legal counsel)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Summary:

Meeting focused on how to contract the involvement of López in each of two phases of development of the legal handbook.

López agreed to a small, short-term contract (fixed price) to assist in the preparation of the extended outline of the handbook, and said that he would have time to participate in this work during the second half of May, with a target date for completing a draft by June 2. Since the details of how would should proceed on the first draft would not be clear until an outline and scope of work for preparing the draft could be established, work by López and any other lawyers in the second phase would be defined subsequent to the completion and approval of the extended outline.

López provided some initial ideas for additions to the outline as presented in the concept paper. He said that bidders frequently ask about the provisions for handling the transition toward a

restructured electric sector, such as provisions for renegotiating contracts concluded as part of the IPP bids now being undertaken by CFE. He also noted that bidders often need guidance on issues related to establishing their legal status in Mexico, and are not aware that participation in the bids need not require establishing a legal presence in Mexico.

Thursday, May 11, 2000

Meeting: Nuevo León state agencies (1)

Place: Secretaría de Desarrollo Urbano y Obras Públicas (SEDUOP) del Estado de Nuevo León, Subsecretaría de Ecología (SSE)
Monterrey, Nuevo León (NL)

In attendance: Teresa González (SSE/SEDUOP)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)

Summary:

This meeting was originally planned with the Undersecretary of Ecology, Julián de la Garza, but he was called away at the last minute and asked Teresa González, director of the Land Use office, to attend the meeting.

González provided an overview of the permitting process at the municipal and state level. She noted that this was changed as a result of the implementation of a new state environment law, passed in 1999, that establishes the minimum requirements for municipal governments to observe in the land-use permitting process. The new law, Ley de Ordenamiento Territorial, Asentamientos Humanos y Desarrollo Urbano del Estado de Nuevo León, was passed on March 3, 1999. González noted that electric sector projects fall largely under federal jurisdiction according to current law and regulations, but that the land use permits are required, and are governed by the current environmental law as well as the state land use plan.

She also described the state land-use plan in place since 1988. The plan is complemented by municipal level plans known as "partial plans." She observed that the municipalities in the Monterrey Metropolitan Area (MMA) have a substantial level of autonomy compared to municipalities in the rest of the state, but even so the requirements established in the former set of municipalities were largely similar to those established for the latter. The latter are referred to as the "agreement municipalities."

The permitting process begins at the municipal level, but may require the inclusion of permits issued by federal agencies, including the CNA and INE. Depending on whether the municipality is an "agreement municipality" or not, the state may play a greater or lesser role in the review and final approval of the land-use permit request.

Lastly, González suggested that the team meet with Valentín Martínez, in the Urban Development Subsecretariat.

Meeting: Nuevo León state agencies (2)

Place: Secretaría de Desarrollo Urbano y Obras Públicas (SEDUOP) del Estado de Nuevo León, Subsecretaría de Desarrollo Urbano (SDU), Monterrey, NL

In attendance: Valentín Martínez (SDU/SEDUOP)
Edward Hoyt (EIC)
Ricardo Rojas (EIC)

The meeting with Martínez focused on the status of municipalities in the AMM and elsewhere in the state that are not agreement municipalities, and those that are. Martínez said that regardless of their status, the municipalities had to adhere to the basic requirements established in the state law. The involvement of the state agencies in the process in agreement municipalities reflected the relative lack of capacity in those municipalities to receive, review and decide on land use permit requests. He reported that the new law, by devolving the permitting process to municipalities, had actually increased the level of effort required of the subsecretaría on a day to day basis, and may well have created extra work and confusion for companies seeking permits. In the case of those municipalities that depend more heavily on the state agency for support and guidance, Martínez agreed that submissions of land use requests at the municipal level might usefully be accompanied by filing a copy with the state authorities.

Although municipalities throughout the state are obliged to adhere to the minimum requirements, Martínez noted that some in the AMM might have stricter requirements than others, given the specific geographical and other characteristics of the municipality. He included San Pedro in this category. At the same time, he observed that the municipalities of Apodaca and Escobedo would be the most useful ones to contact from the non-agreement municipalities, since both are expected to grow substantially in the future, generating increased electric sector infrastructure requirements. He suggested that EIC meet with the Land Use directors for both of these municipalities.

Meeting: Coahuila state agencies

Place: Secretaría de Planeación y Desarrollo (SPD) del Estado de Coahuila
Dirección de Prevención y Control de la Contaminación
Saltillo, Coahuila

In attendance: Sergio Martínez Alfaro, SPD
Sergio Vilés, SPD
Edward Hoyt, EIC
Ricardo Rojas, EIC

Summary:

The meeting focused on the permitting process in Coahuila state, which has recently been the site of investment by Electricité de France (EdF), which is constructing the Saltillo power plant.

Martínez confirmed that the general outlines of the permitting process for Coahuila are the same as those described by the officials in Nuevo León. The major difference that Martínez described has to do with the level of autonomy granted to the municipalities and the arrangements made to have a representative of the state government in each one. Each municipal government office offers “one-stop shopping” through a so-called “*ventanilla única*” staffed by municipal and federal officials. In this fashion, although the state does play a part in the processing, review, and final approval of the land-use permits, the activity takes place at the local level to a greater extent than appears to be the case in the smaller municipalities in Nuevo León. The concentration of population in Coahuila is principally in two municipalities (Saltillo and Torreón), which encompass 50% of the state’s population. This is probably a lower degree of concentration than occurs in Nuevo León, where the eight municipalities that make up the AMM account for the bulk of the state’s population.

Martínez noted that certain aspects of plant operation are regulated at the local level, and would require registrations and filings with the state agency. These include emissions into the atmosphere, the generation of non-hazardous solid waste, and vibrations or noise. Martínez also reported that given the failure of projects in the past it is now considered good practice to schedule public hearings on the project as part of the permit submission – he noted that EdF has done this for the Saltillo power plant.

Friday, May 12, 2000

Meeting: Tamaulipas state agencies

Place: Secretaría de Desarrollo Urbano y Ecología (SEDUE) de Tamaulipas
Dirección General de Recursos Naturales y Medio Ambiente (DGRNM) and
Dirección General de Desarrollo Regional y Urbano (DGDRU) and
Secretaría de Desarrollo Económico y Empleo (SEDEEM)
Ciudad Victoria, Tamaulipas

In attendance: Jorge Fernández Villareal, DGRNM/SEDUE
Gerardo Barrios, DGRNM/SEDUE
Heberto Cavazos, DGRNM/SEDUE
Javier González, DGDRU/SEDUE
Jorge Ojeda, SEDEEM

Summary:

This meeting, for which Jorge Fernández called representatives of three agencies with a stake in the permitting process, focused on the land-use permitting process and how the state environmental agency gets involved while remaining subordinate to federal agencies, which have jurisdiction over most aspects of electric sector projects.

Fernández noted that SEDUE has jurisdiction over natural resources, environment and urban development issues, and handles the development and application of rulemaking. Within SEDUE, the DGDRU has authority over those land use permitting issues addressed at the state level, and works with the municipal governments who have jurisdiction over permit issuance. Finally, Ojeda reported that SEDEEM's jurisdiction is over the regulation of commercial and employment activities. Since the previous administration (1993-1999), Tamaulipas has had a specialized new business "ombudsman" agency in place, called SAIET, to assist in the permitting process and identify ways to simplify the permitting process.

Javier González noted that the most important consideration regarding land use permitting was the determination whether the permit was certification or a change in land use (*certificación de uso de suelo* or *cambio de uso de suelo*). He suggested that for most cases, a change in land-use permit would be required. This, he noted, is likely to be a more laborious process than the certification of land use. Land use is regulated in the Ley de Desarrollo Urbano and the Ley de Fraccionamientos, both of which date back to 1984 and are currently slated for revision and updating. In the course of reviewing a request for land use, the municipality will work closely with the state SEDUE, and is likely to base its decision on the findings and recommendations of the state agency.

The state environment agency does not involve itself extensively in the environmental review of electric sector projects, since these fall under federal jurisdiction, but does provide technical support to the DGDRU in cases where the land-use change permit requires a review of the environmental impact assessment of a given project. The description of the process given by González and Barrios suggested that a project developer should consult with the state agency early on in the process, and should actually begin the land-use permitting process by preparing its impact assessment (MIA) and submit it to SEDUE for review in advance of requesting the land-use permit, so that the municipal authorities would have two reviews on which to base their decision – that of the INE on the approval based on INE's jurisdiction to regulate the industrial activity involved in the project, and SEDUE's to issue a finding regarding the feasibility or appropriateness of authorizing a change in land use for the project. SEDUE may recommend that the land-use permit, once issued, contain conditions, in much the same way that the permit issued by INE may include conditions – beginning with the requirement that the project obtain the requisite land use permit from the DGDRU.

Subsequently, once the land use permit has been issued, the project developer will have to work with the local authorities to secure the registrations for the project for solid waste generation, the disposition of solid waste, compliance with air emissions requirements, noise and vibrations and thermal and light pollution.

Fernández and Cavazos also reported that the DGRNM, along with the Universidad Autónoma de Tamaulipas (UAT) is organizing a series of courses (ultimately intended to be a degree or certificate program) in a range of disciplines associated with environmental permitting, environmental impact and risk assessment, and waste management. The courses will be held at facilities of the UAT in various cities around the state, with instructors participating from these same locations, via close circuit television or internet hook-ups. The ultimate objective is to improve the quality of environmental management by state officials and of EIAs submitted by

private firms. The state agency has a list of registered EIA service providers – and to be recognized in the state, a document prepared for a federal level filing would have to be made by a registered consultant at the state level – and hopes to establish a certification program. There is a cost recovery requirement for participants.

TRIP REPORT

Task Order Name & No.: Environmental Permitting Handbook for Mexico TO,
No.23865-000-TM-01

Country of Assignment: Mexico

Dates of Trip: January 18-20, 2000

Name: Edward Hoyt (EIC)

Purpose of Trip: Attend meetings with key government officials and corporate officers involved in the permitting process relating to electricity generation and transmission, to inform on progress in preparation of the handbook, and additional meetings on the development of the minihydroelectric options paper, the legal handbook, and identification of new activities

Background

The trip of January 18-20, 2000, by Edward Hoyt (EIC) was made with Rolf Anderson (USAID/ENV), with support in Mexico City from John Paul Moscarella (EIC/Mexico) and Ricardo Rojas (EIC/Mexico). Jorge Landa and David Antonioli of USAID/Mexico mission also attended several of the meetings. The visit covered activities being executed (Mexico energy sector environmental permitting handbook) and several activities under development (legal handbook, minihydroelectric options paper, clean combustion seminar, and DDF landfill gas recovery) as well as some projects that have been identified but require further development (CFE climate change data system, collaboration with the Asociación Mexicana de Energía Eléctrica, or AMEE).

No meetings were scheduled on the follow up for the PEMEX demonstration of REACH, as these are not appropriate until PEMEX has taken appropriate steps to initiate a bid for plant retrofits. It was agreed, however, that contacts should be made to ensure that PEMEX has received the message informally that USAID would consider supporting the monitoring and verification work of the retrofit, which would be financed by PEMEX.

Tuesday, January 18

Meeting: Initial briefing
Location: US Embassy
Attendees: Rolf Anderson, Edward Hoyt, John Paul Moscarella, Ricardo Rojas, Jorge Landa and David Antonioli

The EIC IQC team briefed Anderson and the Mission on the current state of work on the environmental permitting handbook. Hoyt reported that a draft extended outline of the handbook has been prepared in English (for circulation to selected reviewers in the U.S. as part of the peer

review process) and in Spanish for circulation to the counterpart agencies with which the EIC permitting handbook team is working (CFE, SE, INE, along with SEMARNAP/RN and STPS). The Spanish version reflects initial comments received from the U.S. reviewers. In the next two to three weeks, comments will be received from the Mexican counterpart agencies, and will be incorporated into the document. A revised version will be distributed, with a request that any additional comments be received by a to-be-determined deadline, at which point work will proceed on the first draft of the handbook. The primary purpose of the meetings with Dionisio Pérez-Jacome (SE), Teresa Morales (INE), and Eugenio Laris (CFE), was to deliver the draft extended outline, request comments, and explain plans for ongoing work.

In the discussion on the handbook, Anderson stressed the need to ensure that the Mexican agencies had expressed "ownership" of the project. This would be reflected both in the level of participation in the comment process, as well as in the way the published document will reflect the role of the counterpart agencies. He indicated that the meetings with CFE, SE and INE should attempt to gauge the level of "buy-in" for the project.

The discussion also considered the fact that a key change in the environmental impact assessment process handled by INE, the new rulemaking governing procedures for filing EIAs, has not yet been made official. Anderson suggested that the manual should be prepared on the assumption that the rulemaking will not be official by the time the manual is ready for publication, along with an Annex covering the changes in the new rulemaking in case it is ready.

The discussion also covered the purpose of the meetings with Luis Almeida (Aseinco), Eduardo Andrade (AMEE) and Pablo Mulás (PUE/UNAM), Eduardo Flores-Magón (CFE), Rita Saucedo (CFE), Sergio Cuéllar (DDF), and César Romo (IIE). The meeting with Almeida would address the minihydroelectric options paper, the meeting with Romo would address the clean combustion seminar, and the meeting with Flores-Magón would cover the legal manual. All three projects under development. The remaining meetings would seek to identify new program activities for which concept papers could be prepared if deemed appropriate.

Wednesday, January 19

Meeting: Dionisio Pérez-Jacome, Office of Investment Promotion, SE
Location: SE
Attendees: Rolf Anderson, Edward Hoyt, John Paul Moscarella

Hoyt explained that the purpose of the meeting was to brief Pérez-Jacome on progress with the environmental permitting handbook and to discuss the development of the minihydroelectric options paper and the legal manual.

In the discussion of the environmental permitting handbook, Pérez-Jacome indicated that he considered the effort to be a useful contribution to the electric sector in Mexico. He noted that for the purposes of the internal review, the document should not include a specific reference to the participation of the SE in its preparation, until the question could be reviewed internally. He noted that the political climate on the issue of electric sector restructuring made this a sensitive issue. He asked that a copy be formally sent to Undersecretary Jorge Chávez-Presa, and suggested that the EIC team ensure that the Office of the Environment of the SE be consulted in the review of the outline.

On the minihydroelectric options paper, Pérez-Jacome indicated that the issue of ownership of hydroelectric sector assets made consideration of the existing minihydroelectric assets a delicate issue politically. He suggested that the study could address the options for promoting investment in new facilities as opposed to existing facilities. He noted that he did not see a need to forward the proposed activity to the Transformation Committee in SE for review, but that it should still be careful to remain within current SE policy. He also noted that the SE is working with CONAE and CNA to review ways for the permitting process for hydroelectric plants to be streamlined and simplified.

On the issue of the legal handbook, Pérez-Jacome expressed concerns that the document, if it contains material critical of the current regulatory framework, could be politically sensitive for the SE. He suggested two approaches to the project: (1) for the report to be "independent," meaning that there would be no publicly acknowledged role in the project for SE, only support and assistance; or (2) that the project be delayed until later in the year, after the presidential elections, which are scheduled for July 2. He noted also that Congress would likely take up the question of the Zedillo administration's restructuring proposal after the elections, probably in the Fall session beginning in September. He indicated that he looked forward to further contact on the subject.

Action items:

- Forward copy of extended outline to Chávez-Presa
- Schedule meeting with Office of Environment to review draft outline
- Review how the legal manual might be undertaken as an "independent" review of the legal framework for the electric sector

Meeting: Teresa Morales, INE
 Location: INE
 Attendees: Rolf Anderson, Edward Hoyt, Ricardo Rojas

Hoyt briefed Morales on the progress to date in the development of the handbook, and explained the background to the project. He also asked for an update on the publication of the new rulemaking.

Morales noted that there have been changes at INE, the most significant of which is that Pedro Alvarez-Icaza has move from his position as head of the INE's Office of EIA, with Dr. Fedro Guillén (with whom the meeting was originally scheduled, and later passed to Morales) assuming that position.

Morales did not have any information as the reason for the delay in publishing the rulemaking in the *Diario Oficial*, the equivalent of the Federal Register in Mexico. She expressed confidence that it would be published, however, since the extensive consultations with different stakeholders that went into its preparation made it difficult for an alternative to take its place. Further, the change is also a keystone of the Secretary of the Environment's work program before leaving office in December, 2000. The new rulemaking had originally been anticipated for September, 1999. She noted that several other initiatives, such a phased implementation of decentralization of the environmental permitting process to the state delegations of SEMARNAP. She noted that ten states were targeted for implementation of the decentralization activities in the near term: (Jalisco, Quintana Roo, Baja California, Baja California Sur, Sonora, San Luis Potosí, Guanajuato, Querétaro, Nuevo León and Chihuahua).

Morales also noted that while the rulemaking has not been published, INE is taking steps to incorporate key elements of the new rulemaking (simplification of the EIA process, exemptions for certain types of projects when executed in accordance with NOMs) into its activities even before the rulemaking is published. Accordingly, she suggested that the environmental permitting manual base its presentation of the EIA process on the new rulemaking rather than the existing situation.

Morales indicated that the EIA Office would review the extended outline and would provide comments. Morales also suggested that a copy of the document be sent to Undersecretary Juan Carlos Belausteguigoitia (SEMARNAP), with a copy to Dr. Fedro Guillén.

Action items:

- Send copy of extended outline to Belausteguigoitia, with copy to Guillén

Meeting: Luis Almeida, Aseinco
 Location: Las Mercedes
 Attendees: Rolf Anderson, Edward Hoyt, John Paul Moscarella, Jorge Landa, David Antonioli

The objective of the meeting with Almeida shifted as a result of the conversation with Pérez-Jacome. Given the concerns of Pérez-Jacome on the treatment of the ownership of hydroelectric assets in the context of the national debate over restructuring, and his suggestion that the options paper focus on new facilities, discussion focused on how the concept paper for the activity could continue to address the issues as proposed, without causing difficulty in the internal review at SE.

Almeida said that he thought it was unlikely that Pérez-Jacome would relax his request that the study not address existing facilities. He reported that he had several meetings scheduled with senior officials in SE and SEMARNAP, including Dr. Alberto Jaime at CNA and Héctor Olea of CRE, during which he expected to learn more about the activities underway on how to facilitate issuance of permits of minihydroelectric facilities.

Action items:

- Consider alternative approaches for the minihydroelectric options paper and revise the concept paper

Meeting: Rita Saucedo, CFE
 Location: CFE
 Attendees: Rolf Anderson, Edward Hoyt, Ricardo Rojas, Jorge Landa, David Antonioli

The purpose of this meeting with Saucedo, who is in the Distribution Division of CFE, was to explore CFE's interest in the development of a system to gather and distribute data to quantify the emissions from normal operations thereby allowing quantification of the emissions reduction benefits generated by energy efficiency and other projects within CFE. Saucedo was the primary CFE contact on the certification of CFE's Ilumex DSM project in Monterrey and Guadalajara in 1999, which had underscored the importance of regular access and collection of data. Antonioli had participated in that work as a consultant before joining the USAID Mexico mission.

Hoyt and Antonioli noted that there had been several approaches to CFE, through Saucedo, to consider the development of a project to create the data collection and dissemination system.

There would be several constituencies for this information. In addition to the evaluation of USAID/Global and USAID/Mission activities (a key part of the Agency's internal review process), JI and CDM project developers need the data to evaluate projects, the environmental authorities need it for similar purposes, and energy sector institutions such as FIDE and CONAE require it to estimate the environmental benefits of their activities. Hoyt noted that EIC and Mexico Energy IQC team member Center for Clean Air Policy (CCAP) had approached Saucedo for more recent data to update the results of the Ilumex certification exercise and to create a mechanism to obtain new data on a regular basis. Antonioli noted that the Mexico's Asociación de Tecnicos y Profesionales en Ahorro de Energía (ATPAE) had also approached Saucedo together with Hagler-Bailly with the objective of developing a data collection and dissemination system.

Saucedo said that she and her superior in the Distribution Division, Enrique Vargas Nieto, were convinced that CFE needed to develop data in order to respond to future requests from project developers, CFE clients, and the environmental authorities for accurate and comprehensive data. She noted that the bottleneck in obtaining data, in the Ilumex certification exercise as well as other activities, had been the control center, CENACE. Officials in charge of managing information at CENACE argue that they do not have the staff, time or resources to manage the large volume of data to provide the processed information that would be necessary. She noted that there seemed to have been a change of attitude on the issue at CENACE, with no further progress.

Discussion focused on how this situation might be overcome. Landa, Hoyt and Saucedo concurred that interested parties in the energy sector should be consulted to develop a core group of support that could ultimately lead to a request from a senior official to CENACE that the data be made available. Efforts to institutionalize this information's collection, processing and dissemination would follow.

Antonioli noted that in addition to the discussions over how the project could be launched, USAID/Mission and USAID/Global needed to consider how the project might be funded as well as how to ensure the transparency of the consultant selection process.

Action items:

- Internal discussion at USAID on funding mechanism for project
- Development of concept paper for the project

Meeting: Pablo Mulás, PUE, and Eduardo Andrade, AMEE
Location: Sanborn's
Attendees: Rolf Anderson, Edward Hoyt, Ricardo Rojas, David Antonioli

The purpose of meeting with Mulás and Andrade was to identify ways that the Restructuring and Clean Energy Technologies TO might support activities of both organizations, the University Energy Program of the UNAM and the Mexican Electric Energy Association in the area of restructuring.

In the near term, Mulás said that there was no need for support for seminars and meetings being organized by PUE together with another organization with the acronym AMEE (Mexican Energy Economics Association). He understood that there might be possible ways for the program to support PUE in other ways, however. A conference in May could benefit from experts from the U.S., for example.

Andrade mentioned some specific ways that the program might support the activities of his AMEE. One would be to provide technical support or presenters for an industry conference on deregulation that AMEE is planning May (PowerMex). He also noted that a senior U.S. energy official would be an important draw for the AMEE annual meeting in November; Andrade suggested U.S. Energy Secretary Bill Richardson.

Andrade also described the efforts of the Association to lobby on behalf of the restructuring initiative of the Zedillo administration. He said that a study of electricity and poverty, as well as the development of examples of the socioeconomic benefits of electricity sector development, were activities that the Association wanted to pursue in order to challenge opposition legislators in Congress as well as sectors opposed to restructuring, such as the unions.

Hoyt noted that it would be helpful for AMEE to consider how specifically USAID might support the Association's efforts, with emphasis on concrete deliverables and work products that might be useful. Anderson suggested that some of the information for a communications strategy for the AMEE might be something that the TO could support.

Action items:

- Consider whether AMEE might provide an alternative counterpart to SE for the legal handbook and the minihydroelectric study if SE decides that the subject is too sensitive for it to support openly a USAID-funded activity
- Consider whether AMEE's interest in the socioeconomic impacts of increased electricity availability, spurred by private investment, could be supported with a TO, given the interest within USAID in this aspect of the Restructuring and Clean Energy Technologies TO

Thursday, January 20

Meeting: Eugenio Laris, CFE
Location: CFE
Attendees: Rolf Anderson, Edward Hoyt, Ricardo Rojas, John Paul Moscarella

The purpose of the meeting with Laris was to update him on progress in the preparation of the permitting handbook and present the extended outline for review and comment by CFE. He indicated that he would circulate the draft for review and would instruct José de Jesús Castellanos, the lead person in his office on permitting issues, to provide follow up.

A second objective was to note that the seminar on transmission permitting that CFE is planning to hold with SEMARNAP provided an opportunity to expand the activity currently underway, for USAID to provide support for participation by U.S. experts, if this were considered helpful by CFE and SEMARNAP. Laris expressed interest in this possibility and said that he would communicate the opportunity to Castellanos.

Separately, Laris reported that CFE is planning a new Río Bravo bid, in which CFE will request energy and capacity at a receipt point near the border, with bidders free to propose constructing a plant on either side of the border, with transmission from the U.S. the case of a plant on the U.S. side. This development is consistent with the ideas discussed in the 1997 cross-border transmission report, and reflects CFE's continued movement toward more integrated energy

markets with the U.S. The Naco/Nogales bid has also been invalidated and CFE's to do so has been upheld by SECODAM. A rebid will be forthcoming in 2000.

Action items:

- EIC to follow up with Castellanos to determine whether support for the transmission-line seminar is appropriate, and if so, define the specifics
- EIC to follow up with Castellanos and López regarding comments on the extended outline

Meeting: Eduardo Flores-Magón, CFE
 Location: CFE
 Attendees: Rolf Anderson, Edward Hoyt, Ricardo Rojas

The purpose of the meeting was to review development of the concept paper for the legal handbook, and comment on the feedback provided by Pérez-Jacome.

Hoyt and Anderson described the feedback on the draft provided by other USAID contractors. Among other items, the suggestions made included adding reference to environmental legislation in the report, discussing the overall Mexico investment climate, and arbitration.

Flores-Magón noted that the environmental issues could be included. He said that arbitration does not appear to be an issue any longer, given changes in bidding and contracting procedures. He added that the issue of the investment climate and considerations such as the credit rating for Mexican institutions might be a touchier consideration for SE. It may be preferable, from SE's perspective, to leave that issue out. The overarching objective of the legal manual, Flores-Magón said, is to describe the situation as is, giving investors a clear and candid view of what is required to develop and execute projects, as well as obtain the necessary permits for them. He reiterated CFE's view that such a document is needed, independent of the administration's efforts to secure electric sector reform – in part because numerous issues that would be addressed in the manual are related to laws outside the energy sector and would not be affected by the reforms.

Action items:

- On the legal handbook, consider how USAID might support it with only behind-the-scenes support from SE and CFE

Meeting: César Romo, IIE
 Location: EIC
 Attendees: Rolf Anderson, John Paul Moscarella, Jorge Landa, Ricardo Rojas

The purpose of the meeting with Romo was to define the agenda for the clean combustion seminar to be held in cooperation with IIE. The purpose of the seminar is to expose representatives of Central American utilities to the advances made in Mexico in the conversion to natural gas at CFE firing heavy fuel oil. In the meeting, discussion focused on the design of the seminar. A preliminary agenda for the seminar could include the following: a) design of high efficiency burners, b) the use of fuel oil, c) emulsion use, and d) conversion of generator to natural gas.

In the meeting, it was agreed that USAID would review the program of topics to be covered in the seminar during the first half of February. In the meeting, IIE agreed that the seminar should be rescheduled to a date in May.

Action items:

- USAID will review the program to determine whether it covers all the clean combustion it would like to see covered in the seminar.

Meeting: Sergio Cuéllar, DDF, Conrado Sarmiento, DDF
Location: Office of Municipal Works, DDF
Attendees: Rolf Anderson, John Paul Moscarella, Ricardo Rojas

The purpose of the meeting with Cuéllar and Sarmiento was to confirm the interest of DDF in receiving technical support from USAID in the form of a study to assess the feasibility of generating electricity from methane gas recovered at DDF landfills.

The feasibility study would complement the decommissioning process of the "Santa Catarina" landfill, which located in km 22.5 in the Mexico-Puebla highway. DDF expects to close the landfill during 2000, and Cuéllar said that USAID support for an assessment of the potential for landfill gas extraction would be timed perfectly. The "Santa Catarina" landfill has surface area of 34 hectares, of which 82% has been used for solid waste.

The need to close the landfill arises from the fact that the site has reached the maximum height at which it can be used safely and without compromising the site's stability.

DDF will need to prepare a Closing Project Document, for which the proposed feasibility study would be a valuable addition.

Action items:

- Given the interest of DDF in receiving support from USAID for the preparation of a site assessment and feasibility study, USAID should consider the whether the project meets internal criteria

Conclusion and Recommendations:

The permitting handbook is proceeding well, and all three major counterpart agencies expressed support for the project and readiness to provide comments. This suggests they are committed to the project and using its results.

There is support for the legal handbook from both SE and CFE, but concern at SE as to how to handle the possible political ramifications of working in collaboration with USAID on a touchy issue in domestic politics. The political concerns are more at SE than CFE. The mission concluded that USAID should explore whether the handbook might be prepared "independently," with support for but no formal ownership of the project, or whether AMEE could be the institutional partner. AMEE is well regarded at SE, and is interested in working with USAID.

The minihydroelectric options paper faces similar concerns over the potential political fall-out of a study that might contradict the SE's stated position regarding hydroelectric assets. A similar approach ought to be considered in order to resolve the problem of the institutional partner.

With respect to the combustion seminar it is necessary that USAID review the program in order to check if the seminar covers all the important topics about clean combustion.

With regard to the possibility of working with the DDF on a landfill gas capture assessment at Santa Catarina, the timing could not be better for supporting DDF with an assessment and feasibility study for an electricity generation project. USAID should review the project and if it fits program criteria, indicate its interest to DDF.

Finally, on PEMEX, the mission agreed that a written response to the letter to USAID should be prepared, but it should be non-committal. Meanwhile, informally the message should be conveyed that USAID would sponsor the monitoring and verification work on the emissions reductions if PEMEX goes ahead with plans to procure the retrofits.

Outstanding Issues or Work Remaining to be Done:

The following is a summary of the action items from the text.

- Forward copy of extended outline to Chávez-Presa
- Schedule meeting with Office of Environment to review draft outline
- Review how the legal manual might be undertaken as an "independent" review of the legal framework for the electric sector
- Send copy of extended outline to Belausteguigoitia, with copy to Guillén
- Consider alternative approaches for the minihydroelectric options paper and revise the concept paper
- Internal discussion at USAID on funding mechanism for project
- Development of concept paper for the project
 - Consider whether AMEE might provide an alternative counterpart to SE for the legal handbook and the minihydroelectric study if SE decides that the subject is too sensitive for it to support openly a USAID-funded activity
- Consider whether AMEE's interest in the socioeconomic impacts of increased electricity availability, spurred by private investment, could be supported with a TO, given the interest within USAID in this aspect of the Restructuring and Clean Energy Technologies TO
- EIC to follow up with Castellanos to determine whether support for the transmission-line seminar is appropriate, and if so, define the specifics
- EIC to follow up with Castellanos and López regarding comments on the extended outline
- On the legal handbook, consider how USAID might support it with only behind-the-scenes support from SE and CFE
- Consider the possibility of supporting the DDF with an assessment of landfill capture at the Santa Catarina landfill

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Wednesday January 19, 2000

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Thursday January 20, 2000

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Tuesday January 18, 2000

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Wednesday January 19, 2000

TRIP REPORT

Task Order Name & No.: Environmental Permitting Handbook for Mexico TO,
No.23865-000-TM-01

Country of Assignment: **MEXICO**

Dates of Trip: Nov 15 - 22, 1999.

Name: John Paul Moscarella (EIC)

Purpose of Trip: **Environmental Permitting Handbook**

Tuesday November 16, 1999

Place: Comisión Federal de Electricidad (CFE)
Gerencia Comercial
Subdirección de Distribución

Other

Assistants: Lic. Rita Saucedo (CFE)
Lic. Ricardo Rojas (EIC)

Summary:

We met with Saucedo in order to discuss various environmental issues, especially with regards to the CFE's distribution division. Saucedo briefed us regarding CFE's energy savings programs and in particular we discussed the compact fluorescent lamps (CFLs) retrofit project ILLUMEX, which has received GEF and Government of Norway support as well as a loan from the World Bank.

Sauced informed us that the CFE is beginning to explore a global climate change strategy and she also mentioned that CFE is interested in obtaining USAID support for this strategy. We discussed various possible projects, such as clean combustion technology retrofits and other supply side as well as demand side energy projects, which could provide the basis for their climate strategy. We agreed to discuss this with the Climate Change Advisor at the USAID Mission in Mexico.

Tuesday November 16, 1999

Place: Secretaría de Obras y Servicios
Dirección General de Servicios Urbanos (DGSU)
Departamento del Distrito Federal (DDF)

Other

Assistants: Raúl Cuellar Salinas (DGSU)
Ing. Conrado Sarmiento
Lic. Ricardo Rojas (EIC)

Summary:

We met with staff at the Urban Services ("DGSU") division of the Mexico City Government ("DDF") to discuss the possibility of a landfill gas conversion project. In particular, there is an opportunity at the border of Mexico City with Estado de México in a place called "Santa Catarina" to develop a project called "Biogas Energy Project of Sanitary Refill" to enable the generation of energy for self-consumption for the municipality and to reduce the emission of greenhouse effect gases like methane.

DGSU expressed an interest in USAID support for the project and we were briefed as to some of the benefits resulting from the project, especially in the reduction of emissions of methane and other greenhouse gases (GHG) by the avoided thermal emissions resulting from fossil fuel plants.

Activities to do:

1. Contact Mr. Sergio Cuellar to organize a visit to the "Santa Catarina" site.
2. Contact Mr. Sergio Cuellar in order to express the interest of USAID to support a feasibility study.

Tuesday November 16, 1999

Place: American Embassy
USAID

Other

Assistants: Mr. Paul White (USAID Mission Director, Mexico)
Lic. Jorge Ianda (USAID, Mexico)
Mr. David Antonioli (USAID, Mexico)
Lic. Ricardo Rojas (EIC)

Summary:

We discussed the following issues with the Mission:

1. Permits Handbook. Up to now, EIC has been engaged in the process of obtaining information from the various Secretariats regarding formats and procedures that enable the national and/or international investor to know the required permits in order to construct plants to generate electricity and to distribute it.

2. Biogas Landfill project. The results of the meeting with the Secretaría de Obras y Servicios were explained in order to explore the interest of the Mission to support this project through the funding of a study.

3. CFE Climate Change Strategy project. The meeting with CFE was discussed and the Mission's Climate Change Advisor suggested he would look into this among other projects for the Mission's climate change portfolio.

4. Mini-hydro Project. There is a great opportunity to obtain private resources to finance minihydros that can generate up to 5 MW. Currently they are regarded as a big cost for the government. There are also some interesting flood control aspects to this project as the mini-hydro plants are located in the states of Veracruz and Tabasco where recent flooding has caused severe damages.

5. Workshop on Clean Combustion Technology. The Institute of Electric Investigations is willing to participate in a seminar on clean combustion technology. We will be meeting with IIE later in the week.

Wednesday November 17, 1999

Place: Instituto de Investigaciones Eléctricas (IIE)

Contact: Dr. César Romo (IIE)

Summary:

We met with Cesar Romo of IIE to discuss the "Clean Combustion Workshop" that would be held in conjunction with IIE to showcase both US and Mexican technologies in a broad event with participants from Central American utility and other energy related agencies. We discussed logistics and topics for the workshop as well as planned a preliminary agenda. The next steps are to develop a concept paper for broad circulation and discuss with USAID Missions and Counterparts in the region.

Wednesday, November 17, 1999

Place: ASEINCO

Contact: Lic. Luis Almeida (ASEINCO)

Other
Assistants: None

Summary:

We have been discussing with Almeida, former Subdirector for Planning at CFE, the interest expressed by various Mexican energy agencies in finding an appropriate solution for several mini-hydroelectric plants that the CFE owns, but which are out of service currently. After discussing various issues relating to the nature of the project and its objectives, we agreed to prepare a concept paper to be circulated to the Ministry of Energy ("SE"), the CFE and the Mission as well.

Thursday November 18, 1999

Place: PROTEXA

Contact: Eduardo Andrade, President of the Asociación Mexicana de Energía Eléctrica (AMEE)

Summary:

AMEE was recently formed in order to represent the interests of the private sector in face of the Electric Reform. In this way, the companies can have a stronger channel of communication with the government and verify that the suggestions made by the private sector are taken into consideration, in order to avoid the imposition of the government point of view. Also AMEE is interested in the cross-border electric issue.

There is also an upcoming workshop Mexico's proposed deregulation plan and to discuss various market models for a competitive wholesale market.

Monday November 22, 1999

Place: CONAE

Contact: Ing. Odón de Buen, Director General

Other

Assistants: Ing. Gustavo Dominguez, CONAE
Ricardo Rojas, EIC

Summary:

CONAE is interested in fostering new technologies for the energy efficiency market as well as develop new financing mechanisms to serve this growing industry. Specifically, Mr. De Buen is interested in foreign technology and financial firms participation in the ESCO Conference that will take place at the Auditorium of CFE's Technological Museum in Mexico City on February 14th and 15th.

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Tuesday November 16, 1999

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Wednesday November 17, 1999

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Director General

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TRIP REPORT

Task Order Name & No.: Environmental Permitting Handbook for Mexico TO,
No.23865-000-TM-01

Country of Assignment: Mexico

Dates of Trip: October 18-29, 1999

Name: Katherine Wang (EIC), John Paul Moscarella (EIC)

Purpose of Trip: Attend working and informational meetings with key government officials and corporate officers involved in the permitting process relating to electricity generation and transmission

Background

The purpose of this trip was to begin the process of information gathering on the requirements and procedures for obtaining the various necessary permits in Mexico for electricity generation and transmission projects in order to compile an environmental permitting handbook. Interviews were scheduled for two national level agencies, the national electricity company CFE and the National Ecology Institute INE prior to the arrival of Katherine Wang and JP Moscarella in Mexico City. The plan for use of time during this trip is to focus initially on national level permits for completing the first section of the environmental permitting handbook.

Separately, follow up was conducted on other T.O. activities regarding a landfill gas activity, an assessment of mini-hydro potential, and the installation of a retrofit at a refinery in Mexico.

Thursday, October 21

Time: 9:30 – 11:30
 Place: Office of Urban Projects, Government of Morelia, Mich.
 Participants: John Paul Moscarella, Edward Hoyt, EIC
 Roberto Cadena, CFE
 Salvador González Valencia, Ayuntamiento of Morelia

The purpose of the meeting with Salvador González was to investigate the potential interest of the the city government of Morelia in requesting USAID funding for a feasibility study for a biogas capture project at the new landfill that the city plans to build. The biogas would be used to generate electricity which would be used to serve municipal electric loads – water pumping, street lighting, and other consumption. The study would involve USAID subcontractors and CFE's renewable energy division, which is based in Morelia, to provide support on the electric systems aspects of the project.

González expressed interest a biogas recovery project, but at the same time noted that the most recent meetings with technology providers for the landfill project had revealed the competitiveness of using a “dry landfill” technology, which produces little methane gas suitable for capture and use in an energy project. González noted that the price per ton of municipal waste offered by the dry landfill was \$4.00 to \$5.00, substantially less than the nearest competitor which offers a “wet” landfill that would be susceptible to biogas extraction at \$8.00 to \$10.00 per ton. González indicated that the City of Morelia has not yet made a final decision regarding the selection of the provider and technology, leaving open the possibility that Morelia could choose a wet landfill and hence be interested in considering a biogas recovery component to the project.

González suggested that several other municipal governments around the country, including several where landfills have already been built and inaugurated, could provide promising opportunities. González mentioned the cities of Laredo, Tamaulipas, where SETISA opened a moder landfill in 1995, Puebla, Monterrey, Querétaro, Mérida and the Federal District. González also provided contact information at several of the companies that are operating or developing landfills in Mexico.

In the Federal District, there is one relatively well sealed landfill where a biogas capture project could be implemented. To date, no development of biogas capture potential has taken place. Any earlier USAID-supported effort to develop a project with the former, PRI administration (1994-1997) did not have any success. The new PRD government has undertaken some initiatives that could signal readiness to consider a biogas project – among other things, the mayor announced plans to contract a major power generation equipment supplier to construct a power plant in Morelos state to supply the Federal District government under the self-supply provisions of the current energy law.

Thursday, October 21

Place: Petróleos Mexicanos (PEMEX)
 Subgerencia de análisis de procesos de servicios auxiliares
 Other
 Assistants Ing. Alfredo Cortés, PEMEX

Summary:

We were unable to meet in person with PEMEX due to a scheduling conflict, but we had an extensive conference call with Cortés of PEMEX regarding the retrofit of PEMEX boilers with REACH technology at the Madero refinery. There are some administrative issues concerning PEMEX's ability to move forward with the pilot demonstration project as agreed earlier with USAID. Further consultations need to be made internally at PEMEX and then a follow on meeting with USAID is recommended.

Friday, October 22

Time: 09:00 – 10:00a
 Place: US Embassy, Mexico City
 Other participants: Edward Hoyt, EIC Mexico; Ricardo Rojas, EIC Mexico, JP Moscarella, EIC; Katherine Wang EIC with Paul White, USAID and Jorge Landa, USAID

Meeting with Paul White and Jorge Landa to discuss outline and strategy for handbook. Issues discussed were: what should the handbook include and what would bring value to the handbook. The meeting also covered discussion of two additional AID projects with which EIC is involved in, that of the landfill gas recovery and an assessment of mini-hydro generation in Mexico to earn GHG credits for certification.

Monday, October 25

Time: 9:30a-10:30a
 Place: INE library
 Participants: Edward Hoyt, EIC Mexico; Ricardo Rojas, EIC Mexico, Katherine Wang EIC

Visit INE Library in morning. Research computer database for info on electricity projects. Info acquired included "Manifestación de Impacto Ambiental" (MIA) and "Informe Preventivo" for projects, Risk Assessments. Secured a good number of references to look up at a later time. Subsequent visits were made on Tuesday and Wednesday.

Time: 10:30a – 2:00p
 Place: CFE, Mexico City
 Participants: Edward Hoyt, EIC Mexico; Ricardo Rojas, EIC Mexico, Katherine Wang EIC with Humberto López, CFE;

Meeting with Humberto López and Sergio Palafox. Reviewed the MIA process. The stages of the MIA process are, the initial *Informe Preventivo* submitted to INE for review; INE decides whether an MIA is necessary and at which level (general, intermediate, specific), CFE prepares MIA for submittal to INE and also includes environmental requirements in bid documents for plant construction; INE issues a *Dictamen* or conclusion about the MIA with recommendations for environmental mitigation or for project to be located in another site.

Tuesday, October 26

Time: 9:00a-7:00p
Place: EIC Mexico Office, INE Library
Participants: Edward Hoyt, J.P. Moscarella, Katherine Wang

Reviewed new information found on the Internet. In lieu of a visit, conducted phone interview with Wilfrido Chino of the Safety Permitting Division at the Secretariat of Labor and Social Security (STPS) about permits issued by that department. Learned from the interview that several requirements that previously were separate are now under one procedure, the procedure to satisfy safety requirements of high-pressure vessels.

Wednesday, October 27

Time: 4:00p – 6:00p
Place: Electricité de France (EDF), Mexico City Office
Participants: Edward Hoyt, Katherine Wang, Ricardo Rojas with Rudolfo Salmón

The purpose of this meeting was to interview an independent, private power company with experience going through the permitting process in Mexico. Ricardo Rojas set up the meeting with Rudolfo through a contact at the EdF. EIC questioned Rudolfo on the MIA process and the preparations for environmental risk study (ER). Mr. Salmón recounted EDF's experience using two active power projects in Mexico – the Saltillo natural gas plant and the Rio Bravo natural gas plant.

One of the most important things learned from this interview is that the permitting requirements as spelled out in the bid documents by CFE are not comprehensive, and sometimes out of date. EDF discovered they had to meet certain permitting requirements not initially stated in the bid documents. Salmón and EIC went over some of the requirements not mentioned in the original bid documents.

The meeting also covered the process of obtaining water permits. Through EdF, EIC learned about the distinction between free zones and restricted zones, where the permitting procedure is more stringent.

Due to the immense success of this meeting, EIC decided to pursue additional interviews with IPPs in Mexico, namely Public Service of New Mexico (PNM) and AES from the United States, Iberdrola from Spain, and Union Fénosa through contacts at those companies.

Wednesday, October 27

Time: 7:30pm - 9:30pm
Place: Sevilla Plaza Hotel
Participants: Edward Hoyt, EIC Mexico; Ricardo Rojas, EIC Mexico, Katherine Wang EIC, Met with Jeff Harris, Director, Public Service of New Mexico

Met with Jeff Harris, who is directing Public Service of New Mexico's efforts to develop a cross-border interconnection project, linking the Palo Verde generation station to the

Northwest system in Mexico. Jeff indicated that he is "confused" as to CFE's intentions with respect to cross-border interconnection. He has heard contradictory signals from CFE and SE regarding their intentions and capability to support the project. He also noted that PNM has undertaken a substantial amount of work to prepare documentation for the permitting process, when this needs to be initiated. He has had preparatory meetings with INE officials to prepare for the Mexican permitting process. Harris added that the uncertainty surrounding the restructuring proposal and support for new interconnection projects is putting PNM in a difficult situation with respect to their current activities. The company has not determined whether to end the process and start over once the new regulatory framework is in place, or continue with their current activities – "if we stop now, we'll have to restart the process altogether at a later time." Mr. Harris' current sentiment is that to start over at a later time would again entail the same investments in money and time that PNM has already made, and therefore it is preferable to continue with current activities.

Thursday, October 28

Time: 9:30 – 12:00
 Place: INE building, Mexico City
 Participants: Edward Hoyt, Katherine Wang, Ricardo Rojas with Pedro Alvarez-Icaza Longoria

Informational meeting with environmental permitting director at INE. Mr. Pedro Alvarez notified us of the imminent release of a new regulation (*reglamento*) governing the MIA process. Purpose of the new policy is to simplify some procedures, define projects types that are exempt from the full MIA process. The draft of new policy has been submitted to various agencies for review and comments and should be published by the end of November. The *reglamento* contains specific language governing electric sector projects.

Mr. Alvarez provided copies of the draft *reglamento* and turned us over to his assistant Rosa Gómez. We were then introduced to Amador Ríos with whom we made an appointment to meet the following morning for detailed questions.

Friday, October 29

Time: 9:30 – 11:30
 Place: INE building, Mexico City
 Participants: Edward Hoyt, Katherine Wang, Ricardo Rojas with Amador Ríos

Discussion with Amador Ríos on questions generated from EIC's review of the new draft MIA policy. Issues discussed include definitions for land use types classified by INE, conditions of exemption from submitting an MIA. Also discussed were the conditions and requirements of submitting a risk study (*Estudio de Riesgo* or ER) and a discussion of the two new MIA categories – the regional MIA and the local MIA.

One of the main things learned is that the purpose of the MIA exemptions is so that reviewers at INE can focus on those projects in the most sensitive environmental areas. Projects exempted from the MIA process are those built in suburban and urban areas, agricultural land, for example.

INE's goal in this respect is to shorten the turnaround time for MIAs. As such, INE also plans to hire additional staff at the state and municipal level and to decentralize the review process to the state and municipal level as much as possible.

Conclusion and Recommendations:

The trip was a successful beginning for the Environmental Handbook Project, and also provided useful insights into the other activities considered in the T.O.

Outstanding Issues or Work Remaining to be Done:

1. Follow up with PEMEX regarding retrofit pilot project
2. Follow up with Morelia municipality regarding potential options study
3. Continue drafting the Environmental Permitting Handbook.

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TRIP REPORT

Task Order Name & No.: 23865-000-TM-01 (Mexico: Policy and Regulatory Support in Electric Sector and Support for Clean Technologies Deployment)

Country of Assignment: **MEXICO**

Dates of Trip: Aug. 16-19, 1999.

Name: Sam Schweitzer and John Paul Moscarella (EIC)

Purpose of Trip: **Meetings with USAID counterparts in the Mexican Energy Sector**

Monday August 16, 1999

Place: U.S. Embassy

Other assistants: Paul White, AID Mission Director
Jorge Landa, USAID/Mexico
Victor Mendez, Commerce Attaché
Elsa Aviles, Science & Technology
Larry Kerr, Science & Technology

Summary:

This meeting served to debrief the various agencies at the U.S. Embassy on the activities under the current task order. We discussed the following projects: Environmental Handbook for Electric Generation and Transmission in Mexico, PEMEX Pollution Control Technology Installation, Clean Combustion Technology Seminar, and a couple of other activities which are less defined at this time. There was great interest and keen support expressed by ECON and others regarding the PEMEX project in particular. We also discussed the agenda for the following day's Binational Energy Committee Meeting of the Working Group. Areas of interest to the BNC currently in the task order were to be highlighted at the meeting with the Mexican representatives.

Monday August 16, 1999

Place: Secretaría Medio Ambiente, Recursos Naturales y Pesca (SEMARNAP)

Other assistants: Lic. Juan Carlos Belausteguigoitia, Undersecretary of SEMARNAP
Vicente Aguilar, Secretaria de Energía (SE)
Paul White, USAID
Jorge Landa, USAID

Edward Hoyt, EIC

Summary:

At this high-level meeting, we discussed the proposed Environmental Permits Handbook for Electric Generation and Transmission, and the Undersecretary expressed great support. He also thanked USAID for all the support his agency has received in the past. The Undersecretary considers the Handbook to be very important in facilitating new investment in this sector in Mexico. The Undersecretary has also informed his counterpart, Jorge Chavez Presa, the Undersecretary of Energy and immediately arranged for USAID to meet at the Energy Ministry on this topic.

Monday August 16, 1999

Place: Grupo Protexa & Asociación Mexicana de Energía Eléctrica (AMEE)

Other

assistants: Lic. Eduardo Andrade, Grupo Protexa, and President, AMEE
Jorge Landa, USAID
Edward Hoyt, EIC

Summary:

We met with Eduardo Andrade to discuss AMEE and some areas of mutual interest with USAID's current activities in Mexico. In the last visit, we had discussed the idea of organizing a non-governmental working group of private sector utilities, energy developers and energy users on both sides of the U.S. and Mexico border. We learned that AMEE has many U.S. member companies already and that it would perhaps be better to work through AMEE rather to set up a new organization. AMEE is working with the Secretaría de Energía (SE), and with the new Division of Modernization at Comisión Federal de Electricidad (CFE) to jump start a competitive power market in Mexico, in advance of the expected energy reforms. This "shadow" market would operate as a proxy to the power exchange until this is formally set up. We noted that USAID works closely with the U.S. Energy Association (USEA) and other energy associations to create partnerships. We agreed to follow up with USEA and others upon our return to Washington and to pursue a US partnership for AMEE. They are particularly interested in learning how US power pools operate, such as the Pennsylvania, Jersey and Maryland (PJM) power pool.

Monday August 16, 1999

Place: Secretaría de Energía (SE)

Other

assistants: Lic. Jorge Chavez Presa, Undersecretary of SE
Lic. Juan Ramon Mota, SE
Jorge Landa, USAID

Summary:

We met with Undersecretary of Energy, Jorge Chávez Presa, at the urging of the Environment Undersecretary, with whom we had met earlier in the day. The SE Undersecretary is to be the Chairman and host of the Binational Energy Committee meeting the following day. He expressed support and interest in the Handbook project and was very pleased with USAID's activities in Mexico to date. He was keen to expand the scope of the handbook to include electric generation as well as transmission projects. He immediately facilitated a meeting with the CFE's vice president, Eugenio Laris, for new projects to begin the process of getting a work scope approved.

Tuesday August 17, 1999

Place: Petróleos Mexicanos (PEMEX)
 Subgerencia de análisis de procesos de servicios auxiliares

Other
assistants: Ing. Antonio Cobian, PEMEX
 Ing. Alfredo Cortés, PEMEX
 Ing. Hector Díaz Chávez, PEMEX
 Lic. Jorge Landa, USAID
 Lic. Edward Hoyt, EIC
 Ing. Adrian Escofet, Alesco
 Ing. Daniel Vincent, EPT

Summary:

The meeting served to go over all of the outstanding issues vis-à-vis the installation of Electric Power Technologies (EPT) REACH at 3 boilers at the PEMEX Madero refinery. PEMEX was still waiting for all the documentation to be reviewed by their staff, although USAID, EPT and their affiliates in Mexico, Alesco, had delivered all the documents requested by PEMEX to demonstrate the unique characteristics of REACH technology. Once these issues have all been satisfied, Cobian, Diaz and Cortes assured us that they at PEMEX will proceed with a positive recommendation to the internal technical committee meeting, known as the COTECO by its Spanish acronym. Once the COTECO has made a decision, PEMEX and USAID will proceed with the project based on a mutual understanding to be documented in a letter of understanding. The draft letter of understanding has been submitted to PEMEX and a final approval of COTECO is needed in order to sign and execute that agreement.

Tuesday August 17, 1999

Place: Comisión Federal de Electricidad (CFE)
 Sub-Dirección de Proyectos Externos

Other
assistants: Lic. Eugenio Laris, CFE
 Ing. José de Jesús Castellanos, CFE

Summary:

We met with Laris and Castellanos at the request of the Undersecretary of Energy. We brief CFE on the Environmental Handbook project and they express keen interest in this activity as it will be very useful to CFE for the new generation and transmission projects, for which the contract or do themselves directly. CFE expresses an interest in having this posted information posted on their web page, and we discuss the format of the final report (English and Spanish) and the agency credits. Laris appoints Castellanos to be the main point of contact and we agree to visit with them during the first week of September to begin gathering the basic information necessary to start the process.

Wednesday August 18, 1999

Place: Breakfast with Luis Almeida
Other
assistants: Lic. Luis Almeida, former VP, CFE
Lic. Jorge Landa, USAID Mexico
Lic. Edward Hoyt, EIC

Summary:

We had a discussion with Mr. Almeida about the restructuring process in Mexico and the likelihood for a reform package to pass the Mexican congress in the current year. We also briefed Almeida on the current activities of USAID with the SE and the CFE, and he proposed analyzing an area of interest to CFE and USAID which needs a solution, which is the small and mini-hydroelectric facilities owned by CFE, but which are not in operation. Almeida suggests that USAID and CFE conduct a joint analysis of this issue and look into possible solutions, which may involve a partial divestiture of these assets to private sector participants, and then this would allow these to be rehabilitated with the attendant positive impacts on greenhouse gas emissions. Almeida agreed to prepare a brief concept paper on the proposed project.

Wednesday August 18, 1999

Place: Secretaría de Energía (SE)
Other
assistants: Lic. Ricardo Calvo, SE
Lic. Saul Schwarz, SE
Lic. Jorge Landa, USAID Mexico
Lic. Edward Hoyt, EIC

Summary:

This meeting served as a debrief to the previous day's Binational Committee (BNC) Meeting. According to the SE, the BNC meeting was very useful and the areas where USAID has been most active – renewables, efficiency, clean technologies – were highlighted by Undersecretary of Energy, Jorge Chavez Presa, and TJ Clouthier, the US

Deputy Secretary at U.S. DOE, also remarked about the usefulness of USAID's activities in the context of bilateral working groups. We briefed the SE about the current T.O. activities in Mexico, namely the environmental permitting handbook, especially. They expressed support for this idea and showed us previous work that SE had carried out with regards to the handbook they prepared in 1996 for permitting cogeneration projects. Both SE representatives offered any direct help they would be able to provide for this handbook activity and also expressed support for the other areas under discussion, including the interconnection with Guatemala.

Wednesday August 18, 1999

Place: Comisión Federal de Electricidad (CFE)
Sub-Dirección de Programación

Other
assistants: Ing. Eduardo Arriola, CFE
Ing. Eduardo Flores-Magon, CFE
Lic. Jorge Landa, USAID Mexico
Lic. Edward Hoyt, EIC

Summary:

We briefed CFE on our meetings in Mexico during this trip and we discussed mainly the cross-border transmission interconnection issues with the U.S. There are several utilities that have filed for Presidential Export Permits, and many have encountered environmental permitting issues (primarily in the US) and CFE confirmed their interest in such a permitting handbook. One such project, "Frontera Generation", is moving forward and has received a go-ahead to tie-up with CFE's substation on the Mexico side just south of Texas in Tamaulipas. This is a low-tension interconnection that will feed some 500 MW of capacity from Texas into Northeast Mexico. Arriola also expressed interest in another potential USAID activity supporting private investment in Mexico: *a legal handbook on transmission investment*. Apparently, many investors have been misled by the current legal framework which can lead to misinterpretation about CFE's ability to sign contracts negotiated directly. We discussed the "Ley de Adquisiciones Públicas" and its ramifications at length and CFE agreed to bring this issue to SE's attention for USAID's consideration. We also discussed the potential southern border interconnection with Guatemala, and this too is a project with some legal and regulatory barriers associated with it. Primarily, as a result of the deregulation in Guatemala, the national utility is unable to sign long term contracts; the wholesale market administrator would now be able to authorize a new transmission project with Mexico and this would have to be voted on by the shareholders (i.e. the market players). USAID has been discussing this interconnection project in Guatemala with counterparts there, and CFE expressed an interest in pursuing this activity after consultation with the Guatemalan counterparts.

Thursday Aug. 19, 1999

Return to Washington, DC.

Conclusion and Recommendations:

The trip was successful in that USAID's role continues to be highlighted in the bilateral energy relations between the U.S. and Mexico. This was confirmed by the Binational Committee meeting held during the trip in Mexico City.

A new activity was agreed upon with the Mexican counterpart agencies regarding the "Environmental Permitting Handbook for Generation and Transmission Projects." Other activities were discussed and a similar guidebook for a legal framework in Mexico regarding crossborder transmission interconnections was also discussed, as well as initial discussion were held regarding an initiative to divest some small renewable energy assets currently owned by the CFE.

Further progress was made on the PEMEX demonstration project at the Tampico Madero refinery with state-of-the-art clean combustion technology.

Also, this lead to a potential new activity regarding a clean combustion technology seminar in conjunction with the Instituto de Investigaciones Eléctricas (IIE) and the Mexican foreign assistance program to invite various Central American utilities and power companies to engage in the area of cleaner combustion technologies. This event would be held in Mexico, with joint support from USAID and the Mexican foreign assistance program.

Outstanding Issues or Work Remaining to be Done:

1. Initiate work on the "Environmental Permitting Handbook for Generation and Transmission Projects to Expand the Electric System in Mexico."
2. Finalize the PEMEX and USAID joint demonstration project agreement, and continue with the negotiations between PEMEX, EPT and USAID in order to reach an agreement on the scope of work.
3. Interface with AMEE regarding U.S. power pools.
4. CFE will consult with its colleagues at SE regarding the Legal Handbook proposal.
5. CFE will consult with its colleagues in Guatemala regarding.
6. Work with IIE to develop a concept paper for the clean combustion seminar.

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Presidente

TRIP REPORT

Task Order Name & No.: 23865-105 Mexico: Policy and Regulatory Support in Electric Sector and Support for Clean Technologies Deployment)

Country of Assignment: **GUATEMALA**

Dates of Trip: July 19 - 22, 1999

Name: Rolf Anderson (G/ENV/EET), John Paul Moscarella (EIC)

Purpose of Trip: **Meetings with USAID counterparts in the Guatemalan Energy Sector**

Tuesday July 20, 1999

Place: Empresa de Transporte y Control de Energía Eléctrica del INDE (ETCEE)

Other assistants: Ing. Otto Girón, Gerente

Summary:

We met with ETCEE's General Manager, Ing. Girón, to discuss ETCEE's activities and their interest in a cross-border interconnection with Mexico. We were given a presentation on all their activities since they were created as a subsidiary of Guatemala's national utility INDE, in 1996. Since 1996, when the electric reforms were adopted ETCEE has expanded its system dramatically, but a new transmission interconnection with Mexico has not been installed yet, although there's great interest in such an investment. This is apparently due to various factors, primarily INDE is no longer able, under the new deregulated market framework to sign long term power contracts with Mexico's national utility, CFE.

We discussed the general characteristics of the proposed interconnection from Tapachula in Mexico to the Brillantes substation in Guatemala. We were informed that the rough estimate of the total project cost is \$32MM, for approximately 100 km line, 90 km of which would be in Guatemala. There are several legal and regulatory hurdles to overcome and USAID can play a key role in bringing the right investors to the table as well as assisting in understanding some of the economic and financial barriers. Finally, we discussed some of the relevant factors to consider on who should participate in a working group to analyze this project.

Tuesday July 20, 1999

Place: Instituto Nacional de Electrificación (INDE)

Other assistants: Ing. Rodolfo Santizo, Presidente del Consejo Directivo

Summary:

We met with INDE's Chairman of the Board, Ing. Rodolfo Santizo, who indicated to us that INDE's primary interest is to have INDE gain access to the lower electric generation costs in Mexico, in order to pass through these lower wholesale costs to end-users in Guatemala. We discussed the previous efforts by CFE and INDE to develop a cross-border interconnection line, and Santizo remarked that there are new challenges to implementing such an infrastructure project due to the deregulation in the Guatemalan market, which essentially prevents INDE from signing long term power off-take contracts. Therefore, among the key issues to be analyzed in a new joint study with the Mexicans are the wholesale market prices in Guatemala, transmission wheeling tariffs and generation costs in Mexico. Also, Santizo noted, the analysis should consider the involvement of the El Salvador utility, CEL, because the local Guatemalan market may not be a large enough demand for all the capacity of the new transmission line from Mexico.

Thus, a regional infrastructure effort is suggested, which is consistent with USAID's Post-Mitch Hurricane strategy for the region. We also discussed relevant members to consider including in the USAID working group.

Wednesday July 21, 1999

Place: Comisión Nacional de Energía Eléctrica (CNEE)

Other

assistants: Ing. Enrique Moller, Presidente
Lic. Rodolfo Ferber, Director
Lic. Minor Lopez, Director

We met with the Chairman and the two other directors of the CNEE, Guatemala's newly created regulatory agency. Ferber and Moller are in fact former INDE staffers, who have personal experiences with CFE and INDE's previous efforts to get an interconnection implemented between Guatemala and Mexico. CNEE, after the initial reservations derived from their previous experience, indeed expressed a great deal of support for the proposed project and we discussed some of the new deregulated market issues facing the interconnection. In particular, CNEE mentioned that the new transmission line would need to have the approval of 70% of the shareholders in the Wholesale Market Administrator (AMM, in Spanish). Also, CNEE's view was that it was important to establish a customer base for the new project (i.e., end-users signing long term power off-take contracts) and that these firm buyers should represent from approximately a third to one half of the proposed capacity of the line.

On the investment mechanisms, we discussed how the project could be financed, and whether the end-users should also be project investors in the project, or whether the investment can be derived solely from the parties interested in building and owning the new project. We agreed that the USAID-INDE study should focus on these issues among others.

Wednesday July 21, 1999

Place: Asociación del Mercado Mayorista (AMM)

Other
assistants: Ing. Elmer Ruiz

We met with Ing. Elmer Ruiz of the AMM, as the head of AMM, Luis Herrera was ill and could not be in attendance. We had a long discussion with Ruiz about the mechanics of the wholesale market in Guatemala, which was extremely useful and insightful. AMM showed great support for the proposed interconnection project as it fits perfectly with their mandate and we discussed various modalities for the project, under the new deregulated electric market law (no. 93-96), such as by agreement of the project "sponsors" or by competitive bid. AMM offered their informational and staff support for the proposed initiative.

Conclusion and Recommendations:

This trip was very useful in terms of the information obtained and the contacts made with key decision-makers of the most important agencies of the energy sector in Guatemala. There is a great deal of technical work that has been carried out to date regarding the proposed interconnection line. However, since the deregulation in Guatemala, and the proposed reforms in Mexico, an interconnection project will indeed need to be financed under very different project finance modalities, perhaps even as a merchant power project. Thus, the key issues are rather legal, regulatory and economic and not necessarily technical, which is precisely a priority area for this work: removing barriers to investment. Furthermore, given the nature of the proposed investment includes El Salvador, there is indeed a regional dimension to this project and it has significance in the post-Mitch environment.

The Guatemalan agencies all expressed their keen support, and we believe that these actors can be the lead counterparts for the USAID initiative. It is recommended therefore that Guatemala be the "center" of activities for this project.

Outstanding Issues or Work Remaining to be Done:

1. Follow up with CFE and other relevant parties in Mexico
2. Determine the nature and the members of the working group
3. Convene a kick-off meeting.

Listing of Contacts Made:

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Tuesday, July 20, 1999

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Wednesday, July 21, 1999



U.S. AGENCY FOR
INTERNATIONAL
DEVELOPMENT

MEMORANDUM

April 28, 1999

TO: File

FROM: G/ENV/EET, Samuel Schweitzer

SUBJECT: Trip Report to Mexico City, April 19 to 23, 1999

COPIES: Distribution

The purpose of this TDY was two-fold:

1. Meeting with PEMEX to discuss collaboration on the introduction of cleaner combustion technology (modified REACH).
2. Meeting with CFE to discuss continuation of cross-border work as well as to explore other areas of collaboration.

The following are the highlights of the key meetings held during this TDY (Attachment A - Itinerary)

Meeting with PEMEX

Over the past three months informal discussions were held with PEMEX on the possibility of a cost-share program between PEMEX, USAID, and the U.S. technology provider of REACH. This technology is a modified version of the technology used at Manzanillo and it allows the combustion of heavier fuel oil (higher viscosity), yet, reduce significantly the emissions of NO_x.

After visiting Manzanillo, PEMEX expressed a strong desire to enter into a collaboration, which will demonstrate the technology at the power plant of the Salina Cruz refinery.

In preparation for the TDY discussions, we have prepared the attached concept outline (Attachment B). Although, there is very little doubt that the REACH technology will not produce the expected results, it is important that Electric Power Technology (EPT) – the REACH technology provider – recovers its financial contribution if, for political reasons, PEMEX does not replicate the technology.

During the meetings with PEMEX and with EPT, the procurement issues associated with retrofitting two or more additional boilers with the REACH technology have been discussed. The only open issue is whether this will be done through sole source procurement or through an open bid. PEMEX will hold more internal discussions before meeting with USAID again in early June so that this activity can start.

Meetings with CFE

During this TDY a number of meetings were held with CFE during which specific areas of collaboration have been discussed.

There is a strong interest on the part of CFE to collaborate in the following activities:

1. Lessons learned from the public debate in the U.S. regarding the consumer (and state) benefits of restructuring the power sector. This has been proposed by CFE as a joint U.S./Mexico effort under the auspices of USAID, "driven" by CFE - in order for the jointly derived conclusions to have credibility within both CFE and the Ministry of Energy (SE).
2. Landfill methane recovery for conversion to electricity is a new area of activity for CFE. Municipalities in Mexico pay the highest rate for electricity (14 cents per kWh). CFE is convinced that many cities would consider investing the additional resources it takes to modify design/construction of new landfills allowing methane recovery. While CFE has all the expertise of using methane, the landfill aspect is not an area in which they have a high degree of comfort. They requested USAID to provide the TA of a couple of experts who would join a CFE small team to study the generic issues and options for the introduction of methane recovery in all municipalities that will, in the future, build new landfill sites. This is an area of U.S. expertise and might also help, down the road, to open opportunities to U.S. investors/developers while contributing to the GCC work of USAID.
3. In the near future, increase in electricity trade across the border requires the construction of new cross-border transmission lines. The environmental issues associated with such projects on the U.S. side are well known. Less known are the Mexican regulations/requirements on both the Federal and the State level. This is important information for CFE, the U.S. and Mexican developers, and the Ministry of Environment that is responsible for permits, environmental impact assessment, etc.

A "handbook" outlining the required procedures, permits, etc., would be of much value on both sides of the border. Such work would also shed light on gaps on the Mexican-side that might be closed by providing TA and expertise to the Mexican Ministry of Environment. Collaboration on this activity would require direct interaction with the Ministry of Environment.

4. There is a DOE/CFE cross-border working group. This group looks at issues from the government's point of view (as long as CFE is part of the Mexican Ministry of Energy). The private sector in Mexico, as well as utilities/developers on the U.S. side of the border, has a strong interest of having informal discussions related to their common interests. This can be done through a small private sector U.S./Mexico working group, which USAID can help set up by serving as a broker. Representatives of the U.S. private sector and representatives of the Mexican private sector see a unique role for USAID's help.

While all these activities are consistent with USAID's overall interests and could, in principle, be implemented very soon - things on the USG-side are introducing some difficulties.

My meetings with CFE's senior VP and the Ministry of Energy (SE) have clearly indicated that USDOE has convinced SE that USAID has no role to play in the Mexican power sector. CFE does not share this view. However, since CFE "reports" to SE it cannot unilaterally decide to collaborate with USAID.

What this means from a practical point of view is that the work with PEMEX can proceed as well as the collaboration listed in items 2, 3, and 4.

The final decision will rest the USAID/Mexico, which will be discussing some of these issues with the Embassy this week.

ATTACHMENT A

AGENDA

Monday, April 19, 1999

Traveled to Mexico City

- 4 p.m. USAID/Mexico**
- 5 p.m. CFE, Gerardo Hiriart**
- 8 p.m. Protexa, Eduardo Andrade**

Tuesday, April 20, 1999

- 11 a.m. PEMEX, Alfredo Cortes**
- 1 p.m. CFE, Mauricio Toussant**
- 5 p.m. SE, Dionisio Perez-Jacome**
- 8 p.m. EPT, Dan Giovanni and Adrian Escoffet**

Wednesday, April 21, 1999

- 8:30 a.m. IIE, Jose Gonzalez-Sautalo and Cesar Romo**
- 11 a.m. EPT, Dan Giovanni and Adrian Escoffet**
- 12 p.m. LyFC, Kenneth Smith**
- 2 p.m. Aseinco Internacionales, Luis Almeida**
- 4 p.m. USAID/Mexico**
- 5:30 p.m. CFE, Eduardo Arriola**
- 7:30 p.m. PNM, Jeff Harris and Mark Harlan**

Thursday, April 22, 1999

Traveled to DC



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TRIP REPORT

Task Order Name & No.: 23865-000-TM-01 (Mexico: Policy and Regulatory Support in Electric Sector and Support for Clean Technologies Deployment)

Country of Assignment: **MEXICO**

Dates of Trip: Apr 19 - 22, 1999.

Name: Sam Schweitzer and John Paul Moscarella (EIC)

Purpose of Trip: **Meetings with USAID counterparts in the Mexican Energy Sector**

Monday April 19, 1999

Place: Comisión Federal de Electricidad (CFE)
Gerencia de Proyectos Geotermoeléctricos

Other assistants: Dr. Gerardo Hiriart (CFE)
Ing. Roberto Cadenas (CFE)
Lic. Jorge Landa (USAID)
Lic. Ricardo Rojas (EIC)

Summary:

This meeting explore ways in which USAID can help CFE in the development and financing of projects in the municipal solid waste and landfill gas technologies area.

In particular there is an opportunity in the city of Morelia, state of Michoacán to develop a project called "Biogas Project of Sanitary Refill" to enable the municipality to generate 5 Mw for self-consumption and to reduce the emission of greenhouse effect gases like methane.

Follow on Activities:

1. Contact the municipal president of Morelia, Mr. Salvador Galván Infante (PRI, official politic party) in order to communicate him the benefits of this project and the ways in which he can facilitate the USAID work.
2. If the authorities of Morelia support this initiative, then it would be necessary to develop a feasibility study regarding the technical and financial implications of this project.

Monday April 19, 1999

Place: Dinner with Eduardo Andrade, President of the Asociación Mexicana de Energía Eléctrica (AMEE)

Other assistants: Lic. Ricardo Rojas (EIC)

Summary:

This meeting had the purpose to explore ways in which USAID and AMEE can collaborate in mutually beneficial areas.

AMEE was recently formed in order to represent the interests of the private sector in face of the Electric Reform. In this way, the companies can have a stronger channel of communication with the government and verify that the suggestions made by the private sector are taken in consideration in order to avoid the imposition of the government's point of view. Also AMEE is interested in the cross-border electric issue.

Tuesday April 20, 1999

Place: Petróleos Mexicanos (PEMEX)
Subgerencia de análisis de procesos de servicios auxiliares

Other assistants: Ing. Alfredo Cortés (PEMEX)
Lic. Jorge Landa (USAID)
Lic. Ricardo Rojas (EIC)

Summary:

This meeting had the purpose of establishing the main points of the PEMEX, EPT and USAID collaboration on the installation of new technology.

PEMEX is interested in having more efficient installations, especially in their refinery boilers. EPT has the appropriate technology to obtain a substantial amount of pollution reduction through their REACH application.

Follow on Activities:

1. Continue with the negotiations between PEMEX, EPT and USAID in order to reach a beneficial agreement for everybody. It is necessary to have the feedback of Mr. Delgado (Mr. García's chief), who in principle supports the demonstration.

Tuesday April 20, 1999

Place: Comisión Federal de Electricidad (CFE)
Dirección de Modernización y Cambio Estructural

Other
assistants: Lic. Carlos Baltazar (CFE)
Lic. Luis Alvarado (CFE)
Lic. María Teresa Suárez (CFE)
Lic. Jorge Landa (USAID)
Lic. Ricardo Rojas (EIC)

Summary:

This meeting had the purpose of reviewing USAID's potential role in the face of the Electric Reform.

CFE is interested in knowing the results of the Boarder Electricity Study that was elaborated three years ago but it needs to be actualized. Although CFE has the operating knowledge and the Ministry of Energy has the strategic and economic information, CFE shares the same objectives of the Ministry of Energy.

CFE needs to know more about the electric regional markets in the United States. USAID is willing to help but Mr. Baltazar asked about the letter of understanding that exist between USAID and CFE.

Follow on Activities:

1. CFE will check the letter of understanding that it has with USAID, and then it will consider the support activities mentioned above.

Tuesday April 20, 1999

Place: Secretaría de Energía (SE)
Dirección de Promoción de Inversión

Other
assistants: Lic. Dionisio Pérez-Jacome (SE)

Summary:

This meeting reviewed recent US-Mexican bilateral issues vis-à-vis electric reforms.

Wednesday April 21, 1999

Place: Breakfast with Instituto de Investigaciones Eléctricas (IIE)
División de Sistemas Mecánicos

Other
assistants: Dr. José Gonzalez (IIE)
Dr. César Romo (IIE)
Lic. Jorge Landa (USAID)
Lic. Ricardo Rojas (EIC)

Summary:

This meeting reviewed ways in which IIE can support USAID after EPT had obtained the approval of PEMEX to install the new technology in the PEMEX refinery plant.

Follow on Activities:

1. Follow up with IIE after negotiating project with PEMEX.

Wednesday April 21, 1999

Place: Petróleos Mexicanos (PEMEX)
Subgerencia de análisis de procesos de servicios auxiliares

Other
assistants: Ing. Alfredo Cortés (PEMEX)
Lic. Jorge Landa (USAID)
Mr. Dan Giovanni (EPT)

Summary:

This meeting had the purpose to gather PEMEX, EPT and USAID in order to define the key elements to be considered before reaching an agreement for the installation of new technology provided by EPT for one plant of PEMEX and financed by USAID.

Follow on Activities:

1. Continue with the negotiations between PEMEX, EPT and USAID in order to reach a beneficial agreement for all parties concerned.

Wednesday April 21, 1999

Place: Luz y Fuerza del Centro (LFC)
Subdirección de Planeación Estratégica

Other
assistants: Ing. Kenneth Smith (LFC)
Lic. Jorge Landa (USAID)
Lic. Ricardo Rojas (EIC)

Summary:

This meeting had the purpose to review potential USAID support for LFC, in the face of the Electric Reform. USAID offered to help LFC in organizational, financial and marketing analysis, or we can form a joint working group.

Wednesday April 21, 1999

Place: Lunch with Luis Almeida, former planning vicepresident of CFE

Other
assistants: Lic. Ricardo Rojas (EIC Consultores de México)

Summary:

This meeting had the purpose to get some feed back from Mr. Almeida relating to the Ministry of Energy.

Activities to do:

1. Follow up with the Ministry of Energy from Mexico.

Wednesday April 21, 1999

Place: Comisión Federal de Electricidad (CFE)
Subdirección de Planeación

Other
assistants: Dr. Eduardo Arriola (CFE)
Dr. Eduardo Flores Magón (CFE)
Lic. Ricardo Rojas (EIC)

Summary:

This meeting had the purpose to get some feed back relating to the earlier proposals for joint collaboration with USAID.

Activities to do:

1. CFE will follow up with the Ministry of Energy..
2. USAID will send a letter to CFE (Mr. Arriola) outlining areas for collaboration.

Thursday April 22, 1999

Return to Washington, DC.

Conclusion and Recommendations:

This trip was very useful in terms of the information obtained and the contacts made with key decision-makers of the most important entities of the Energy Sector in Mexico.

Although for political reasons the timing is not appropriate for the immediate approval of the Electric Reform, it will take place in the near future, maybe in the beginning of the next administration. However, putting aside the political issue, it is clear that Mexico needs investments of US\$25 billion in order to satisfy the demand for electricity and the best way to obtain it is through a strong leadership that help increase the credibility on the Mexican Government.

Outstanding Issues or Work Remaining to be Done:

1. Contact the municipal president of Morelia, Mr. Salvador Galván Infante (PRI, official politic party) in order to know the benefits of this project and the ways in which he can facilitate the USAID work.
2. Interface with AMEE.
3. Continue with the negotiations between PEMEX, EPT and USAID in order to reach an agreement on the scope of work.
4. CFE will check the letter of understanding that has with USAID and then it will consider the support of USAID.
5. Follow up with IIE.
6. USAID will keep in touch in order to support LFC, before and after the Electric Reform takes place.
7. CFE (Dr. Eduardo Arriola) will review a proposal by USAID and talk with SE (Mr. Dionisio Pérez Jácome).

Listing of Contacts Made:

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Tuesday April 20, 1999

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Comisión Federal de Electricidad (CFE)

Monday April 19, 1999

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Wednesday April 21, 1999

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Tuesday April 20, 1999
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Monday April 19, 1999
Tuesday April 20, 1999

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Wednesday April 21, 1999

Potential Follow-on Work:

1. Activities with AMEE regarding the Electric Reform.

MEMORANDUM

August 31, 1998

To: Sam Schweitzer, G/ENV/EET

**Cc: Dan Vincent, Bechtel
Edward Hoyt, EIC**

From: John Paul Moscarella

Re: Trip report for August 17-22, 1998 Mission

This memorandum summarizes the contacts and meetings made by Sam Schweitzer, G/ENV/EET, Jorge Landa, AID/Mexico, and John Paul Moscarella, Econergy International Corporation (EIC), and Edward Hoyt, EIC/Mexico, during the USAID mission to Mexico, August 17-22, 1998. The section labeled "observations" is intended to present suggested next steps.

Tuesday, 18 August 1998

Name and Organization

Contact Information

Lic. Luis Almeida, Independent Consultant

Summary

Luis Almeida was formerly the Subdirector of Planning at the Comisión Federal de Electricidad (CFE), and had been instrumental in USAID's previous work regarding "Crossborder Legal and Regulatory" study in particular. We discussed general restructuring trends at CFE and the Secretaria de Energía (SE) initiative regarding cross border interconnections with the US. We learned that CFE has been restructured to face the new challenges of the competitive energy sector. The "old" CFE is now under a Subdirector General, Osvaldo Gangoiti (formerly Subdirector for Generation), and under this department are the Subdirector for Planning (now Eduardo Arriola), Transmission (Raymundo Campos), Generation (now Manuel Macias), and Distribution (Alejandro Hernandez). The "new" CFE consists of two new divisions, including the Subdirector for Externally Financed Projects, i.e. IPP projects, (Eric Butcher) and the Subdirector for Modernization and Structural Change (Ricardo Samaniego), and there is the old treasury department with a new appointment, the Subdirector of Finance and Administration (Antonio Cervera). The overall head of CFE is still the Director General, Rogelio Gasca Neri.

Observations

Almeida was noting the interesting structural changes at CFE probably indicated that the Energy Ministry (SE) and the Finance Ministry (SHCP) were trying to induce changes at CFE by introducing their former staffers into key subdirector positions of Finance and Modernization. We were advised to work with both the CFE and the SE on the new USAID activities.

Name and Organization**Contact Information**

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Comisión Federal de Electricidad (CFE)

Ing. Jose Santalo Gonzalez
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Summary

We discussed the results of the USAID project with CFE, at the Manzanillo plant, where it was retrofitted with REACH technology. This meeting was attended by IIE representatives as well, and it was intended to provide an update on the project. Generally, the project was considered a success: the REACH has been installed on one of the six units at the Manzanillo Power Station, the combustion temperature problems have been resolved satisfactorily with independent tests, and CFE intends to implement REACH at all six units of the 1,900 MW plant, beginning with the sister Unit II. Also, CFE is considering installing REACH at the Tula and Salamanca plants next.

Observation

CFE will move forward with REACH, and thus they are pleased with the AID program. However, they have indicated that for the time being they would like to continue to implement this project without further support from AID. We left them with an open offer to support the next steps on Unit I at Manzanillo, such as a fabric filter installation, because although there has been a noticeable particulate matter (PM) reduction, there remains significant SOx emissions, or to deploy REACH in other generating stations owned and operated by CFE. IIE has been a solid technological partner in this project, and they may have other initiatives to bring to AID's consideration, which were discussed briefly after the CFE meeting ended.

Wednesday, 19 October 1998

Name and Organization**Contact Information**

Ing. Kenneth S. Smith
Subdirector de Programación
Luz y Fuerza del Centro (LFC)

Summary

This is the second visit with LFC regarding their interest in working with AID. LFC is the electric distribution company serving metropolitan Mexico City, and it was founded in 1902 and nationalized in the 1960s. LFC is facing a very significant demand growth of approximately 5%, which projects a total demand of nearly 6,700 MW in 2000, and they project a 46% overall increase in electric distribution from 1994-2003. Several projects are discussed in broad terms, such as the repowering of the Valle de México plant and other old generating plants, part of LFC's relatively small generating capacity of some 800 MW, but LFC's main problem is the

transmission and distribution system losses due to theft and outdated equipment LFC is also still negotiating a contract with CFE ever since it was divested from CFE in 1994. This was an area where they felt that USAID support could be helpful regarding the new regulatory frameworks for these power sales contracts. Also, LFC is actively analyzing various restructuring options.

Observation

Several proposals were mentioned by LFC, and they have indicated that they would like to study a couple of options and present these formally to AID for consideration. We offered to discuss with CFE the proposed contract restructuring work with LFC.

Name and Organization

Contact Information

Lic. Gloria Soto Montes de Oca
Ing. Carlos Morfin
Secretaria del Medio Ambiente
Departamento del Distrito Federal (DDF)

Summary

DDF representatives Soto and Morfin outlined the DDF's technology deployment strategy for cleaner air in Mexico City. There is a big push to get natural gas powered vehicle fleets onto the streets, and the debate has oftentimes been stymied by the attendant fueling stations infrastructure requirements. The DDF would like to retrofit the ubiquitous gas stations to natural gas retail outlets as well, but there's much debate on how this could be achieved given that the new natural gas distribution companies may not be able to get into an arrangement with PEMEX. They are working to have more vehicles converted to natural gas and to install more natural gas service stations. They also have a DDF bid for 500 natural gas fueled vehicles. DDF has no jurisdiction on heavy industry, as this is regulated by federal environment agencies, and as such their efforts are targeted on "light" industry (food, textiles, etc...). Another main concern is the water quality.

Observation

DDF officials concede that they are limited in what they can do because of a severe budget constraint. There are a number of interesting clean technology initiatives, being carried out mainly by the government research agencies, like the Instituto Mexicano del Petroleo (IMP), or by the universities, like the UNAM. The next steps should review some of these activities and consider DDF as well.

Name and Organization

Contact Information

Dr. Pablo Mulás del Pozo
Programa Universitario de Energía (PUE)
Universidad Nacional Autonoma de Mexico
(UNAM)

Summary

Dr. Mulas had been the head of the Instituto de Investigaciones Eléctricas (IIE), before spending some time as an advisor to the Secretary of Energy, and has now been asked to fill this post of head of energy programs at Mexico's most prestigious university. Dr. Mulas is very familiar with AID's programs in Mexico and informed us that PUE and IMP are actively conducting research for locally developed technologies to respond to global warming.

Observation

We agreed that it would be useful for PUE to present some ideas for collaborative work in the upcoming weeks. One of the areas where there may be a link is to a DDF initiative for electric vehicles and public transportation.

Thursday, 20 August 1998

Name and Organization

Contact Information

Dr. Ricardo Samaniego
Subdirector, Modernización y Cambio
Estructural
Comisión Federal de Electricidad (CFE)

Summary

Samaniego is familiar with AID's work from his previous post as Policy Director at the ministry of energy, SE. He was the closing speaker at the Phoenix conference on Crossborder Electric Power Trade, co-hosted by AID and CFE among others. He is now in charge of a new department at CFE, and is charged with creating the strategic business units and implementing these in the next year or two. He also reports directly to the Board of Governors of CFE, Secretary of Energy is the Chair, and not to the Director General, which is an interesting indication of the new priorities at CFE. Samaniego mentioned the US-Mexico Energy Working Group on the Binational Committee and suggested that all the activities under the crossborder energy issue should be channeled through this committee. On CFE's side, the work on crossborder will be managed by the Planning department. He also mentioned that there was a keen interest in restructuring efforts and support.

Observation

Samaniego is beginning to get organized in his new position and it will likely take some time to have his office up and running. He is also clearly supportive of AID and the work carried out in Mexico so far. The next steps are to revisit with him as soon as he has a clearer picture of his priority areas.

Name and Organization

Contact Information

Dr. Eduardo Arriola
Subdirector de Programación
Comisión Federal de Electricidad (CFE)

Summary

Dr. Arriola has recently rejoined CFE after a long and distinguished career there of over 25 years, and he has taken his former post again as the main architect of CFE's expansion planning. He was joined by Eduardo Flores Magon, also formerly with the ministry (SE), and we discussed the various crossborder interconnection projects being proposed.

Arriola confirmed that CFE and SE are very seriously considering buying firm transmission power from the US via interconnection projects. Briefly, in Texas, the interconnection project with El Paso Electric Co. is in advanced discussions and will likely be a DC intertie. Also, discussions with Central and South West (CSW) in east Texas are centered around a high tension transmission line of 138 kV. In California, CFE has been in discussions with several utilities like Los Angeles Department of Water and Power (LADWP), San Diego Gas & Electric (SDGE) and others. In Arizona and New Mexico, there are several energy companies interested in transmission including SRP, APS, Enron, Tucson Electric and NRG has filed for a presidential permit to export power.

Observation

CFE is interested in working with AID on environmental issues regarding crossborder interconnection, especially vis-à-vis the environmental permitting issues, and they offered to bring this to the ministry's attention. We mentioned that we were visiting with the ministry the next day and invited them to join our meeting.

Friday, 21 August 1998

Name and Organization

Contact Information

Lic. Dionisio Perez-Jacome
Director
Secretaría de Energía

Lic. Ricardo Calvo
Secretaría de Energía

Summary

We were joined by Eduardo Flores Magon of CFE in this meeting, and Sam Schweitzer presented the USAID study on Crossborder power trade issues to Perez-Jacome. He has been in this post since the new Secretary, Luis Tellez, was appointed in the fall of 1997. SE mentions that USAID's support for crossborder work will be important. In particular, the discussion focuses on key areas of concern to SE; namely, the environmental impact of the proposed transmission lines, as well as the siting of the new generation capacity required, and finally the technical issue of synchronization of the two grids.

Much work needs to be done in all of these areas as well as economic modeling of the proposed new power market in Mexico; and both CFE and SE were looking to push the issue and look for ways in which to cooperate with AID.

Observation

SE and CFE noted that there was a planned meeting in Washington for the Binational Committee's Energy Working Group for the beginning of September. We agreed to discuss further the proposed support work with them after the results of that bilateral consultation.

Name and Organization

Contact Information

Ing. Raymundo Campos
Subdirector de Transmisión
Comisión Federal de Electricidad (CFE)

Summary

We met with Ing. Campos at the CENACE or control center headquarters of the CFE, and we discussed the various interconnection projects being proposed by US utilities. Campos is a 35 year veteran of CFE and is primarily responsible for technical management of the grid. His division oversees a wide array of studies, including detailed technical feasibility studies for new interconnection projects.

He confirmed that several interconnection project drafts had been reviewed by his office, including El Paso Electric, LADWP and SRP's proposals. Once the technical review has been completed, his office forwards the project technical documents to CFE's Subdirector for Planning with a recommendation. He also mentions that he has sent in several recommendations and that for budgetary constraints faced by CFE, many of these initiatives have been put on hold.

Observation

We note that Campos is very clear about CFE's interest and need for additional transmission projects with the US. The uncertainties therefore do not stem from technical issues, albeit significant, but rather from issues central to CFE's expansion requirements, and whether the increase in energy demand can be met more cost-effectively with new generation plants or via increased reliability and interconnections with the US grid.

MEMORANDUM

October 31, 1998

To: Sam Schweitzer, G/ENV/EET

**Cc: Dan Vincent, Bechtel
Edward Hoyt, EIC**

From: John Paul Moscarella

Re: Trip report for October 20-27, 1998 Mission

This memorandum summarizes the contacts and meetings made by John Paul Moscarella, Econergy International Corporation (EIC), and Edward Hoyt, EIC/Mexico, during the USAID mission to Mexico, October 20-27, 1998. Paul Klimas G/ENV/EET and Jorge Landa, USAID/Mexico were also present in some of the meetings. The section labeled "observations" is intended to present suggested next steps; and the "recommendations" at the end of the report point toward action items.

Wednesday, 21 October 1998

Name and Organization
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Summary

FIDE is the highly regarded energy efficiency arm of CFE and LFC, with a budget derived mainly from a 1 mil/kWH (\$0.001) charge to ratepayers. We had a discussion regarding the proposed reforms to the Mexican energy market and how this may impact different divisions of CFE and LFC. In particular, electric tariffs to residential customers are highly above cost, being subsidized partially by industrial and commercial tariffs and complemented by the federal government when needed. In light of this, FIDE offered to discuss with both CFE and LFC an initiative to look at future competitive energy services, where retail energy services, i.e. bulk power sales, and energy conservation and efficiency services would be offered to their customers. We mentioned the several meetings we had with both these parties and FIDE offered to take this concept to LFC's attention first.

Observations

The concept of competition for customers is new to Mexico; however, FIDE has done an excellent job throughout the years as a public agency sponsoring energy conservation projects. It is inevitable for restructuring to impact this area of Mexico's energy sector, and USAID can have a tremendous impact in this field by working through the existing utilities. The next step is to set up a meeting with LFC.

Name and Organization**Contact Information**

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Grupo Beta San Miguel (BSM)

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Summary

Grupo BSM owns five sugar mills throughout Mexico; namely, in Jalisco, Colima, San Luis Potosi, Veracruz and one right next to the border with Belize in Quintana Roo. Their annual turnover is roughly 2 billion pesos or US\$200 million and they are facing serious competition from fructose as a sugar substitute in the domestic market; it now accounts for nearly 30% of the market.

The main issues for them to deal with for a cogeneration project are regulatory issues, because CFE is not willing to pay them a firm price for their power as it is seasonal. Cane season is approximately 180 days and CFE will only pay them a variable cost of roughly 1.7 cents per kWh. This presents a very significant commercial disincentive, and while BSM may be interested in generating more renewable energy based on the bagasse, it is simply uneconomical to do so for that price. There are a few options for them to consider in light of the proposed reforms to the energy sector in Mexico, which could be bundling their loads and creating a separate arm's length energy supply company to one or more mills or perhaps exporting power to Belize from their largest mill.

Observation

We agreed with Rocio Nieves to gather technical information on the mills energy consumption and also review some of the market barriers for the Grupo BSM to engage in more proactive energy development. In particular, we discussed their largest mill's potential to export power to Belize, where energy prices are high or on the order of 10 cents per kWh.

Thursday, 22 October 1998

Name and Organization**Contact Information**

Fis. Alejandro Cuevas
Secretaría de Energía (SE)

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Summary

During the October trip, we met with Mr. Cuevas at the conference on renewable energy in Saltillo, where he is filling in for his boss, Pérez-Jacomé.

In the interim since the last mission in August, there has been some follow up with Dionisio Pérez- Jacomé's office. In a conversation in late September with Edward Hoyt, Pérez-Jacomé

indicated that the Secretaría had concerns about involving private entities under contract to USAID in policy-related work for SE; the perception is that since USAID has worked with U.S. utilities and developers in the past, it may give those companies an unfair advantage in the Mexican energy marketplace. There seems to be a difference of opinion between CFE and SE regarding the collaboration with USAID on this issue, for CFE appears to favor a strategy with AID support. Hoyt noted to Pérez-Jacomé that CFE bids are internationally recognized as fair and transparent and that there is no discussion of AID's work relative to the proposed CFE bids for generation or transmission capacity, and suggested to Pérez-Jacomé that these concerns could be allayed in a conversation with USAID.

Another difference appears in the SE delegation to Washington, headed by Ing. Jose Luis Aburto, a top adviser to SE, and his reluctance to have AID involvement in the US-Mexico crossborder working group sessions with DOE, although the different parties have agreed that AID could play a very useful role in the environmental aspects of the proposed transmission interconnections.

Observation

The SE apparently is trying to launch a substantial reform package in Mexico and to a certain extent, their agenda is not consistent with the CFE's. It is a delicate political issue as well, because of the Mexican congressional agenda to avoid privatization of the CFE. Under this large umbrella, crossborder power trade falls into the issue of whether to push for more open access to the wholesale power markets and how to do so. It would be a sound strategy for AID to intervene in this process, when it has become apparent when the end result of these changes are clear. More consultations with the CFE should elucidate these issues.

Friday, 23 October 1998

Name and Organization

Ing. Jorge Huacúz
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Contact Information

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Summary

We also meet with Jorge Huacúz at the Saltillo conference to discuss a solar flat plate collector initiative that AID has been considering for Mexico. Paul Klimas of G/ENV/EET is in attendance and the discussion centered around two different projects being proposed for Mexico City (D.F.) by UNAM's PUE and the IIE effort. Essentially, the PUE carried out a study and is proposing a solar flat plate collector program for the D.F. to be a technology-push on low income housing and general residential through a rebate or grant program in conjunction with the World Bank and the Global Environmental Facility (GEF). The argument is simply that these incremental costs (the cost to install a solar flat plate is roughly \$600-1,000) would not be absorbed by the users as the alternative energy costs (Liquid Propane Gas, LPG) are subsidized by the government, and the boilers are already installed. This is universally acknowledged as a market barrier, but should be changing as natural gas distribution companies install new networks and start charging residential customers market prices for the fuel.

The IIE, instead, carried out a study for CONAE, which has not been released, where it proposes to work with construction companies, through the national construction chamber, and Mexican manufacturers (there are some 30 different manufacturers in Mexico, based in D.F., Guadalajara, and Monterrey) of solar flat plates to work on a new building code standard in another (secondary) city. The IIE initiative seems to have a more market based approach, a technical standard which could push solar flat plates into a new generation of technology in Mexico, but the focus would not be on the D.F.

Observation

We agreed to review both proposals once more information was made available to us and then revisit with both PUE and IIE. Paul Klimas also would do some checking internally at AID to see other similar projects and report back to the counterparts.

Monday, 26 October 1998

Name and Organization

Contact Information

Francisco Cerón
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U.S. Embassy

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Summary

We met with Francisco Cerón to discuss sanitary landfills in Mexico and the proposed efforts by the DDF and others to develop and implement landfill gas recovery and energy generation projects. We discussed the World Bank loan to Mexico for this purpose, and the the SEMARNAP's list of 47 landfill projects, of which 25 had been qualified as sanitary landfills (as opposed to municipal waste dumps). Several of the 25 have been identified as promising sites, including Atizapan municipality and others in the Estado de México. He identified Mr. Gustavo Rosiles as the point of contact for these projects.

Observation

We will follow up with Rosiles to determine what the status of the landfill gas initiatives in Mexico and also continue to work on the DDF on this issue.

Name and Organization

Contact Information

Dr. Ricardo Samaniego
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Summary

We had a candid and open discussion with Samaniego and we were joined by Mr. Alvarado, who is new to CFE. We reviewed the proposed work to be carried out in collaboration with AID regarding crossborder interconnection and restructuring issues. Samaniego replied that the

Mexican federal government budget was currently being negotiated, and this was very contentious due to the four budget cuts in 1998 due to lower economic growth estimates and depressed oil prices, and this impacts the CFE's budget and planning.

He also suggested that both tariff reforms and further restructuring to the private power rules in Mexico will be undertaken shortly by the Federal Government.

With regards to the envisioned effort with USAID, he would prefer to wait until the market reforms panorama is clear. In this regard, he was very interested in different electric sector models, but he said that until he had received a clear mandate from CFE's Board to continue his work, he would be unable to go ahead with a collaboration with USAID.

Observation

While it seems that the timing for an AID intervention is auspicious due to the impact that this could have on Mexico's energy sector, it also is clear that the political sensitivities are very high. We interpret this as a sign that there are different camps within the government regarding these structural reforms and it is therefore speculation where these efforts will lead.

Name and Organization

Dr. Raul Fuentes
Subdirector Técnico
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Summary

Dr. Fuentes is the main architect of the CFE's proposed market restructuring model, which he labels as "evolutionary" rather than the "revolutionary" model being proposed by SE. We discuss the AID program and the willingness to work on some of these difficult issues. It turns out that according to CFE, the restructuring initiative is out of their hands and these decisions are being made by Minister and others at SE. They are working with consultants on the UK model adapted for Mexico, which CFE is not viewing favorably. We discuss the ample expertise on the USAID contracting team and he is very open to this support, but suggests that even if this could provide a nice counterpoint to the SE's effort, politically, it would be too sensitive. His "hands are tied."

We then spent some time discussing the hybrid bid model for the upcoming bids being issued by CFE, and we think that there's a very interesting opportunity to propose transmission interconnection as a viable and cost-effective substitute to new combined cycle gas turbine plants.

Observation

As noted in earlier discussions, it seems that there are divisions between the Ministry and CFE and unfortunately, while the AID intervention would be welcomed by CFE, we are caught in a sensitive political issue.

Name and Organization

Dr. Eduardo Flores-Magón
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Summary

Dr. Arriola was unable to meet with us because he was called away to a budget meeting at the finance ministry. Flores Magon has been privy to the discussions on the Bilateral Energy Working Group and has discussed the AID proposal with José Luis Aburto, Advisor to the Minister and head of Mexico's energy team. Aburto has not given CFE a definitive answer on this issue, and Flores Magon offered to get back in touch with him.

However, he did note that due to the restructuring uncertainty, the budget negotiations and timing of these issues, that he thought that CFE would be unable to move in the near term.

Observation

Again, we note a great deal of interest by CFE in working on crossborder and other restructuring issues, but they have been receiving signals from their Ministry to hold off for now.

Conclusions and Recommendations

There are a few initiatives under the AID task order that are shaping into good projects, namely, (a) the LFC project to assist them to formally "contract" for their energy purchases from CFE, and (b) the solar flat plate initiative with the UNAM and another with the IIE. Other activities, such as landfill gas and industrial energy markets support are still in the preliminary stages.

Regarding the crossborder transmission support and the restructuring efforts, it seems that waiting a few months for the political picture to clear is the preferred scenario for the Mexico counterparts.