

MEMORANDUM

To: John R. Armstrong, General Manager

From: Bruce Appelbaum, Manager Data and Analysis

Re: End of Tour Report

Date: July 20, 1988

As per the requirements of our contract with USAID, this memorandum constitutes my end of tour report.

Achievements

I arrived in Pakistan in mid-February 1986 for a 4-1/2 month TDY stay. This was followed by a two year resident position as Manager, Data and Analysis. Midway through the TDY, it was decided that the work to be performed under data base functional area was to be accelerated. My long-term position, which was originally supposed to begin in January 1987, was moved forward and I arrived back in Pakistan to start the position on July 28, 1986.

Although my work area was originally intended to be Data Base Development and Management, during the two years of my long term position I have worked on most of the eight functional areas as defined by the detailed work plan. Major accomplishments by functional area are shown below:

Institutional Development Support, Administrative Support:

- o Responsible for all local and overseas procurement activities dealing with project technical commodities, including instruments (energy survey instrumentation, demonstration project commodities), computers (hardware, software and peripherals), and major office equipment (photocopiers). Also responsible for coordination of procurement activities with home office.
- o Responsible for organizing transfer of title and custody of equipment to GOP agencies.
- o Organized computer training for ENERCON staff, presented by local staff members.
- o Provided back-up to John Armstrong with regard to FAR, AIDAR, and local mission requirements.

- o Developed a detailed format and style for all computer-related documentation.

Energy Conservation Planning:

- o Assisted in preparation of Detailed Work Plan
- o Prepared first draft of National Energy Conservation Plan.
- o Responsible for all quantitative aspects of ENERCON's contribution to the 7th Five Year Plan for the energy sector. Supervised short-term expatriate and local consultant work on sectoral energy conservation planning. Integrated data from sectoral work into final 7th Plan energy conservation document. Prepared numerous revised versions of plan in accordance with Energy Wing requirements.
- o Prepared multi-year plan for data base development and management.
- o Worked on building energy code and electric motor standards.

Data Base Development and Management:

- o Supervised short term expatriate work on data base needs assessment and data review.
- o Designed architecture for energy conservation data bases for industry, power, transport, and buildings.
- o Managed short term expatriate and local subcontractor work in the development and programming of each of the sectoral data bases, including the data input modules.
- o Supervised local staff in data entry procedures. Hired and trained local support staff responsible for data base management and data entry.
- o Managed subcontractors in the conduct of preliminary energy surveys in the buildings sector (43 buildings in Karachi and Lahore). Analyzed data and prepared report with summary statistics.
- o Developed national weather data base for use in building design.
- o Made contacts with numerous agencies in attempts to obtain data for the data bases.

Surveys, Technical Support, Applied Research:

- o Responsible for development of initial follow-up and implementation plans for industrial units having had energy surveys.
- o Conducted demonstration project of roof insulation materials installed on ENERCON Building roof.
- o Developed work plans and began implementation of building sector energy conservation demonstration projects.
- o Developed research plan for universities in support of ENERCON building energy conservation research programs. Provided initial training in use of software to university staff.
- o Conducted, with Richard Smith, detailed energy survey of Aga Khan Hospital in Karachi.
- o Supervised detailed energy survey for Secretariat Complex in Islamabad. Worked with CDA to achieve savings identified, through boiler tune-ups and other technical assistance. Supervised development of implementation plan for P Block.

Training and Curriculum Development:

- o Conducted first Energy Demand Management Training Course in Karachi with Mark Oven.

Outreach and Information:

- o Trained local staff in use of available software and hardware for graphics and desktop publishing.
- o Prepared numerous articles for ENERCON newsletter and press releases.
- o Developed format for Building Energy Facts series of fact sheets and prepared first three of the series.

Monitoring and Evaluation

- o Worked with Dan Violette on analytical methodologies for energy conservation program evaluations in general, and for the boiler/furnace tune-up program in particular.

Problems

One major problem encountered during my stay in Pakistan was the lack of GOP counterpart staff. This has been both personally and professionally frustrating.

For most of my tour, GOP did not have a counterpart in the data base area. In the beginning of 1988, Dr. Saqib was appointed to be the data base counterpart, on a part-time basis. Unfortunately, his background is in agriculture and his exposure to data base development, management, and utilization is very limited. In addition, because of his involvement in the agriculture sector programs and in general administration duties, we had little interaction on data base related activities.

As mentioned previously, the data base area became a high priority item during the second quarter of 1986, and my long term position was moved up from first quarter 1987 to third quarter 1986. At this time, there were no full-time ENERCON counterparts, and Dr. Sabir had just joined. Data base design and development, an area which required little interaction with the GOP, was able to proceed at a good pace, and this part of the work was completed earlier than anticipated. Because of the lack of GOP staff to support the data base area, however, the required contacts and meetings with public and private sector organizations required for data collection were not able to proceed, or were severely hampered. It became obvious that the kinds of data required for the data base were not readily available, and that ENERCON would need to conduct its own surveys to obtain the data.

Whether ENERCON will conduct these surveys on other than a small scale after my departure remains to be seen. One of the main objectives of the data base activity was to be able to have sufficiently detailed data in order to prepare the energy conservation sections of the 7th Five Year Plan. The time frame for developing the plan was moved forward, however, to January 1987, and the plan was developed without the benefit of this data. If ENERCON is to make use of the data base according to its original objective, data collection activities and surveys must commence in the near future in order to be able to develop trends for the 8th Five Year Plan.

On the departure of Bob Anderson, I took additional responsibility for the buildings sector programs that he had started. My counterpart was Tariq Qureshy, who was hired primarily for transportation sector work. His knowledge of buildings and building systems limited his ability to contribute to the program, although the program has achieved a number of important objectives and a number of activities were completed.

I was also responsible for initiating work in the transportation sector programs, also with Tariq Qureshy as counterpart. I feel

that he has the potential to do a good job in his area of knowledge when the transportation programs can be fully supported through a long-term technical assistance advisor.

Prior to the arrival of the new ENERCON professional staff, the Hagler, Bailly detailed work plan also served as the work plan for both ENERCON and Hagler, Bailly. Individual quarterly work plans prepared by ENERCON counterpart staff were almost identical to those of the Hagler, Bailly staff. Indeed, the first National Energy Conservation Plan, which was prepared by Hagler, Bailly without input from the ENERCON professional staff, simply mirrored Hagler, Bailly's detailed work plan. The document itself was never released.

In effect, ENERCON had no work plan beyond that of the technical assistance team in spite of the fact that there were major areas where the TAT could not work because of USAID restrictions (e.g. public sector industry). Rather than use their own resources to work in those important areas, the ENERCON professional staff continued to limit themselves to participating in the same activities as the TAT. While it is understandable that because of their inexperience in the area would make the ENERCON professionals reluctant to delve into new areas on their own, the best way for them to gain the experience is to take the first steps and rely on the TAT for assistance when necessary.

While the energy conservation program has gained the interest of private sector entities and institutions, the Government of Pakistan itself has apparently given it little priority. This is apparent from the long lead time to recruit and appoint a new Managing Director after the departure of Mr. Mir, and in the similar problems in recruiting other professional staff. It is also apparent in the GOP's refusal to allow overseas training of a number of ENERCON professional staff.

After having completed the preliminary work leading to the GOP's acceptance of the USAID grant and the program during the first half of 1985, I was more than a little surprised to discover that there was no ENERCON organization or staff when I arrived at the beginning of the program in February 1986. In fact it wasn't until mid-1986 that the first full-time ENERCON staff member arrived, to be counterpart to four resident advisors and their staff.

Even now, the TAT substantially outnumbers the ENERCON professional staff. Indeed, the ENERCON support staff and naib gasims greatly outnumber the professional staff. If the understaffed nature of ENERCON at the present time persists throughout the life of the program, this will present a major problem at the departure of the TAT when the ENERCON staff are called upon to take over the activities of the TAT.

Key Recommendations

1. The issue of continuing the data base work needs to be discussed and resolved by ENERCON. The main issues to be addressed are (a) the need for the planning data base in preparation for the 8th Five Year Plan and (b) whether all that is required in the data base area for the future are the technical program monitoring and evaluation data bases.
2. If it is decided to continue the planning data base activities, one approach may be to de-emphasize data base development and management as a separate functional area and make it more of an integral part of the energy conservation programs in the economic sectors (e.g. industry, power, transport, buildings, etc.). The proposed ENERCON data base professional would then provide more in the way of support services to the other professionals.
3. To date, the industrial sector has been given the highest priority in allocation of ENERCON TAP resources, and the programs implemented there have had a good impact. ENERCON is considered to be a credible organization and the technical and training programs and outreach materials geared towards industrial energy consumers have been well-received. The ENERCON TAP must start to focus on the other sectors with the same types of programs and services. The start of the transport, buildings and agriculture sector programs is a good sign, but ENERCON's resources are very limited. Staffing of ENERCON beyond the currently approved positions is critical to achieving the 7th Plan goals for these sectors. More professional staff at a more junior level (e.g. assistant chiefs) are required.
4. ENERCON needs to establish their own agenda and work plan for their professional staff. This work plan should overlap but not entirely duplicate the work plan of the TAT, and should actually set the pace for the TAT's activities in a true technical assistance role. ENERCON should take more of a participatory and lead role in the program activities.
5. USAID should push for more GOP interest, support, and cooperation in the ENERCON organization and program.