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519-0279

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UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
Washington, D. C. 20523

EL SALVADOR

PROJECT PAPER

PUBLIC SERVICE RESTORATION

AID/LAC/P-090

Loan Number: 519-K-031  
Project Number: 519-C279

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT  
**PROJECT DATA SHEET**  
 1. TRANSACTION CODE:  A = Add,  C = Change,  D = Delete  
 Amendment Number: \_\_\_\_\_  
 DOCUMENT CODE: 3

2. COUNTRY/ENTITY: EL SALVADOR  
 3. PROJECT NUMBER: 519-0279

4. BUREAU/OFFICE: LAC [05]  
 5. PROJECT TITLE (maximum 40 characters): Public Service Restoration

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM DD YY | 1 | 1 | 1 | 5 | 8 | 3 |  
 7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4):  
 A. Initial FY 8 | 2 | B. Quarter  C. Final FY 8 | 2 |

8. COSTS (\$000 OR EQUIVALENT \$1 = 02.50)

| A. FUNDING SOURCE      | FIRST FY 82   |        |               | LIFE OF PROJECT |        |               |
|------------------------|---------------|--------|---------------|-----------------|--------|---------------|
|                        | B. FX         | C. L/C | D. Total      | E. FX           | F. L/C | G. Total      |
| AID Appropriated Total | 10,000        |        | 10,000        | 10,000          | -      | 10,000        |
| (Grant)                | ( - )         | ( - )  | ( - )         | ( - )           | ( - )  | ( - )         |
| (Loan)ESF              | ( 10,000 )    | ( - )  | ( 10,000 )    | ( 10,000 )      | ( - )  | ( 10,000 )    |
| Other U.S. 1.          |               |        |               |                 |        |               |
| Other U.S. 2.          |               |        |               |                 |        |               |
| Host Country           | -             | -      | -             |                 |        |               |
| Other Donor(s)         |               |        |               |                 |        |               |
| <b>TOTALS</b>          | <b>10,000</b> |        | <b>10,000</b> | <b>10,000</b>   |        | <b>10,000</b> |

9. SCHEDULE OF AID FUNDING (\$000)

| A. APPROPRIATION | B. PRIMARY PURPOSE CODE | C. PRIMARY TECH. CODE |         | D. OBLIGATIONS TO DATE |         | E. AMOUNT APPROVED THIS ACTION |               | F. LIFE OF PROJECT |               |
|------------------|-------------------------|-----------------------|---------|------------------------|---------|--------------------------------|---------------|--------------------|---------------|
|                  |                         | 1. Grant              | 2. Loan | 1. Grant               | 2. Loan | 1. Grant                       | 2. Loan       | 1. Grant           | 2. Loan       |
|                  |                         |                       |         |                        |         |                                |               |                    |               |
| (1) ESF          | 930                     | -                     | 980     | -                      | -       | -                              | 10,000        | -                  | 10,000        |
| (2)              |                         |                       |         |                        |         |                                |               |                    |               |
| (3)              |                         |                       |         |                        |         |                                |               |                    |               |
| (4)              |                         |                       |         |                        |         |                                |               |                    |               |
| <b>TOTALS</b>    |                         |                       |         |                        |         |                                | <b>10,000</b> |                    | <b>10,000</b> |

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each): \_\_\_\_\_  
 11. SECONDARY PURPOSE CODE: \_\_\_\_\_

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each):  
 A. Code: \_\_\_\_\_  
 B. Amount: \_\_\_\_\_

13. PROJECT PURPOSE (maximum 480 characters):  
 The project purpose is to assist the GOES to maintain and restore public services affected by the violent conflict in El Salvador.

14. SCHEDULED EVALUATIONS: Interim MM YY MM YY Final MM YY | 1 | 1 | 8 | 3 |  
 15. SOURCE/ORIGIN OF GOODS AND SERVICES:  000  941  Local  Other (Specify) \_\_\_\_\_

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a \_\_\_\_\_ page PP Amendment)

17. APPROVED BY: Signature: Peter W. Askin  
 Title: Mission Director  
 Date Signed: MM DD YY | 1 | 0 | 1 | 6 | 8 | 1 |  
 18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION: MM DD YY | 1 | 0 | 2 | 1 | 8 | 1 |

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
WASHINGTON D.C. 20523

10/21/68

PROJECT AUTHORIZATION

Name of Country: El Salvador  
Name of Project: Public Service Restoration  
Number of Project: 519-0279  
Number of Loan: 519-K-031

1. Pursuant to Section 531 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Public Service Restoration project for El Salvador involving planned obligations of not to exceed Ten Million United States Dollars (\$10,000,000) in loan funds ("Loan") over a two (2) year period from the date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project.

2. The project ("Project") consists of restoring vital public services interrupted as a result of the violent conflict in El Salvador, by the repair or replacement of damaged infrastructure or by providing other alternatives to such services. Subproject activities to be carried out under the Project shall include restoration of electrical power and damaged bridge facilities and other activities approved by the Assistant Administrator, Bureau for Latin America and the Caribbean or his designee.

3. The Project Agreement, which may be negotiated and executed by the officer to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.

a. Interest Rate and Terms of Repayment

The Government of El Salvador ("GOES") shall repay the Loan to A.I.D. in U.S. Dollars within forty (40) years from the date of first disbursement of the Loan, including a grace period of not to exceed ten (10) years. The GOES shall pay to A.I.D. in U.S. Dollars interest from the date of first disbursement of the Loan at the rate of (i) two per cent (2%) per annum during the first ten (10) years, and (ii) three per cent (3%) per annum thereafter, on the outstanding disbursed balance of the Loan and on any due and unpaid interest accrued thereon.

b. Source and Origin of Goods and Services

Goods and services, except for ocean shipping, financed by A.I.D. under the Loan shall have their source and origin in the United States or in countries included in the Central American Common Market and A.I.D. Geographic Code 941, except as A.I.D. may otherwise agree in writing. Ocean shipping financed

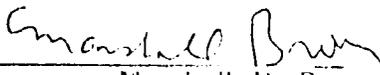
by A.I.D. under the Loan shall be financed only on flag vessels of the United States or countries included in the Central American Common Market and in A.I.D. Geographic Code 941, except as A.I.D. may otherwise agree in writing.

c. Condition Precedent to Obligation of Funds

Prior to the obligation of funds under the Project Agreement for any subproject activity, the GOES shall, except as A.I.D. may otherwise agree in writing, furnish, in form and substance satisfactory to A.I.D. engineering, financial and other plans necessary to carry out such activity and to provide a reasonably firm estimate of its cost.

d. Covenant

The GOES shall covenant (i) that, unless A.I.D. otherwise agrees in writing: any commodities financed under the Loan and transferred to other than governmental institutions will be sold for not less than their fair market value in El Salvador, and that all proceeds from such sales will be utilized solely for purposes of the Project; and (ii) that none of the goods or services financed under the Loan shall be used for military purposes.

  
\_\_\_\_\_  
Marshall D. Brown  
Acting Assistant Administrator  
Bureau for Latin America  
and the Caribbean

Nov. 9 1961  
Date

Clearances:

LAC/CEN:JClary: 11/3/61 date 11/3/61  
LAC/DR:ILevy: 11/3/61 date 11/3/61  
State/ARA/ECP:JPenfold: 11/3/61 date 11/3/61

GC/LAC:BVet:ckg:11/3/81:x23272  


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1. SUMMARY AND RECOMMENDATIONS

A. Recommendations

USAID/El Salvador recommends authorization of an Economic Support Fund loan of \$10,000,000 for the Public Service Restoration Project in El Salvador. The dollar loan will be repaid in 40 years including a ten year grace period. The interest will be 2% during the grace period and 3% thereafter. Upon authorization, \$5.2 million of the loan should be allotted for immediate obligation. The remaining \$4.8 million will be allotted and obligated as needed later in FY 82.

B. Borrower

The Borrower will be the Government of El Salvador (GOES). The Ministry of Planning will act as the coordinating agency, working with the Lempa River Executive Hydroelectric Commission (CEL) and other public works agencies.

C. Project Summary

The purpose of the project is to assist the Government of El Salvador to maintain and restore public services affected by the violent conflict in the country. In recent months the guerillas in El Salvador have put greater emphasis on economic warfare against the Government of El Salvador (GOES). Repeated attacks on electrical distribution towers and substations have left whole areas of the country without power for weeks. Even areas of the capital have been without power for days at a time. Factories have been idled, food has spoiled, water systems that rely on electrical pumps have been shut down contributing to health hazards, and hospitals have been unable to function resulting in a number of deaths. Dozens of bridges have been partially or totally destroyed by sabotage, thus isolating areas of the country and disrupting the internal flow of goods and services.

The project provides financing for imported equipment and materials needed to repair public facilities, such as bridges and electrical towers and substations. Generators will also be purchased in order to provide electricity during power outages to key installations, such as hospitals, water pumping systems and coffee processing facilities. To allow the Government of El Salvador to respond quickly to future interruptions of essential public services as they occur throughout the year, A.I.D. will hold some of the funds in reserve rather than earmark all funds for immediate use.

D. Conditions and Covenants

The loan agreement will include the following covenants:

- That the GOES agrees that any commodities financed by A.I.D. and transferred to other than governmental institutions will be sold for not less than their market value in El Salvador, and that, unless A.I.D. otherwise agrees in writing, all proceeds from such sales will be utilized solely for the purposes of the Project.
- That the GOES agrees that goods or services financed by A.I.D. under the Project shall not be used for military purposes.

E. Waivers

For all goods and services identified in this Project Paper, emergency procurement procedures will be used by SER/CM. For future procurements of goods and services (i.e. financed from the Emergency Reserve Fund), a determination will be made on a case by case basis at the time the need is identified and the specifications are prepared whether routine or emergency procedures are used.

11. BACKGROUND

A. Economic Situation

After a prolonged period of economic growth and monetary stability, the economy of El Salvador declined sharply in 1979, entering a period of increasing negative growth due to political and social instability. The projection for 1981 is for a continuing economic deterioration, the degree of which will depend on the ability of the GOES to stabilize the political situation, lower the level of violence now being experienced and maintain a minimum level of economic activity.

Projections for any level of GDP indicate a significant balance of payments deficit. Unless this gap is narrowed by an inflow of external resources in the form of foreign currency and other capital transfers, there is likely to be a restriction in the supply of income producing imports. Because the Salvadoran economy is heavily dependent on imported raw materials and intermediate goods, any reduction is likely to cause another decline in the real GDP, lowered industrial production levels and increased unemployment, as well as decreased agricultural production. The result will be increased social dislocation and vulnerability to political instability.

During the past several years, El Salvador's international reserve position has deteriorated considerably. For example, in August 1979 net international reserves stood at \$229 million; by the end of

1979, they had dropped to \$126 million; and by the end of 1980, they had dropped to a negative \$70 million. The current projection for the end of 1981 is a minus \$128 million. There are a number of reasons for this deterioration, some of which are a result of the political environment and level of violence and some of which are entirely external to El Salvador, such as reduced coffee and increased oil prices. All of these factors continue to prevail and the foreign exchange situation in 1981 has continued to worsen despite significant external inputs.

In early June 1981, the Department of State/A.I.D. projection showed a foreign exchange gap of between \$140.2 and \$146.2 million for 1981, assuming a 5% drop in GDP. It was hoped at the time that approximately \$40 to \$60 million of this gap could be covered through IMF compensatory and program financing, while additional funding from A.I.D. in the amount of \$63.5 million would partially close the rest of the gap. Even so, those same projections showed an unfinanced gap of some \$15.5 million to \$41.5 million.

In July 1981, the IMF transferred \$38 million in CFF (Compensatory Funding Facility) funds to the BCR and this temporarily alleviated the country's foreign exchange crunch. However, the drag effect of the traumatized economy and the overall political situation quickly made itself felt once again as can be seen in the foreign exchange flows and balance of payments projections in Tables 1 and 2; foreign exchange balances end up in the red again by the end of the year.

Balance of payments projections made by the BCR in September show international reserves at the end of 1981 as a negative \$128.5 million. At this point \$59 million of the deficit remains unfinanced in the current year. The projected reserve level for 1982 drops even lower, to a negative \$236 million with a projected unfinanced gap of \$108 million.

In summary, the country continues to face serious balance-of-payments difficulties. Imports cannot be reduced without further adversely affecting production and living standards, and exports are highly dependent upon externally set prices and the government's ability to control violence in both the rural and urban areas. Coffee, cotton and sugar exports may be affected by continuing violence and labor problems as well as by possible problems associated with the land reform program. Coffee rust will contribute to further decline in foreign exchange earnings in 1981 and following years. Although the GOES continues to tighten controls to prevent further capital flight, it will not be able to significantly reverse the determination of foreign banks to reduce their exposure in El Salvador. Thus, the outlook remains grim. El Salvador's foreign exchange situation will continue to worsen unless the authorities are able to regain the confidence of the private sector by assuring that it will have a continuing and important role to play in the country's economy; secure substantial concessionary external assistance; and restore order and reduce violence.

B. The Public Service System Damage

1. Power Supply System

Electrical generation facilities in El Salvador are concentrated in the western and central regions. Although CEL is known throughout Central America for its efficiency and the excellence of its network, more than one year of terrorist attacks against the electrical system have taken their toll. In the face of hard currency shortages, CEL has been unable to import replacement parts to repair the electrical power network which includes more than 1500 electrical towers and power substations. Some 153 towers have been damaged or destroyed in the last eighteen months, many of them repeatedly.

As a result, (1) in late August, the area east of the Rio Lempa was without power for up to two weeks, and intermittently without power for a lot longer; (2) at the same time, San Salvador was without power in many sections of the city for a number of days, and on intermittent or reduced power in others; and (3) because most of generation facilities were isolated from the rest of the grid, petroleum and diesel fueled generators had to be called into service, consuming hundreds of thousands of dollars in extra petroleum in the last few weeks. Overall electrical usage, which had climbed at an annual rate of 11-12 percent until 1980, has fallen off to pre-1978 levels.

In spite of these costs, most repairs are deemed provisional only, and will have to be reinforced. Some of the economic effects of the outages include the following:

Fishing: brought to a standstill because processing and freezing are unavailable (stocks in cold storage have been lost);

Shipping: an export industry, same as above;

Beef: processing stopped and stocks in cold storage lost;

Bread: contaminated water is reducing supply of healthful bread.

In San Salvador, much of the city was without power for three days. Workers stood idle in factories and power fluctuations took a heavy toll on electrical equipment. The streets were snarled for want of traffic signals and many areas were without water.

Estimates are that about one out of every three businesses in the country was affected by the blackout beginning August 16.

In both urban and rural zones, the interruption of electrical power in El Salvador is invariably linked to an interruption of water supply (90 percent of the country's water is pumped electrically from wells). At a minimum, therefore, it can be assumed that some 50 percent of the country's population which lives in the urban zones was directly affected by the loss of these two basic life-support elements (i.e. power and water). Additionally, it should be noted that most of the total displaced person population (currently estimated at between 150,000 and 200,000) was probably affected since most sought refuge in the country's small rural towns - the areas hardest hit, by this disaster.

The power crisis worsened an already precarious human health situation in which continuing violence and terrorist destruction of other infrastructure (bridges, roads, buildings and equipment) had affected movement and access. Restricted movement and access has added to the growing inability of the national health system to provide either preventive or curative care (31 rural clinics closed in the past 12 months; 400 Ministry of Health positions vacant) to the populace.

At present, the Salvadoran electrical network is in a precarious state. Some 153 towers have been damaged or destroyed in 211 attacks. Several towers have been brought down more than eight times. The system is held together with patchwork and makeshift repairs. Towers are no longer repaired; in most cases they are braced with wood beams and re-erected using guy lines to keep them stable. Since August 1980 repair costs have reached \$8.0 million:

|                             |                    |
|-----------------------------|--------------------|
| Towers & Structures         | \$ 2.9 Million     |
| Fuel for Thermal generators | 5.1 Million        |
| Other Damages               | <u>0.2 Million</u> |
|                             | \$ 8.0 Million     |

Further power shutdowns will have a severe and adverse effect on large segments of the Salvadoran population, particularly those in the poorer, marginal communities, and the displaced people. Specific health threats which result from power outages range from an increase in water-borne diseases as a result of standing water and increased use of contaminated water due to open dipping/haulage or use of polluted/stagnant water, to consumption of food products spoiled by refrigeration loss (or non-availability of vaccines for the same reason) to food shortages because of a shutdown of food and drink processors.

The foreign exchange problem also has sharply reduced the availability of chlorine in country for water purification purposes. With only minimal mobile pumping equipment capacity, possible destruction by fire of hospitals and other facilities without water is drastically heightened.

The greatest direct and immediate life threat in El Salvador, however, resulting from any period of electrical outage is in the country's hospitals. The MOH currently operates 14 hospitals, 12 health centers and 254 health posts (of which 38 in conflictive zones are closed). Sixty-one percent of the total bed capacity of these facilities are in the San Salvador and San Miguel areas. During one 24-hour country-wide power strike in March 1979, a minimum of 10 people died and 22 emergency life-saving operations were delayed. The total cost in monetary loss for spoiled medicine, vaccines, blood and other perishable supplies is unestimated. However, the country conservatively estimates some of the quantifiable losses to be at least \$24.0 million. In all but one of the 14 hospitals, there were no sterilized instruments or clothing, no EEG's, no EKG's, no X-rays, no lab tests, no food service, no incubator heat, no suction machine operation, no injections for lack of sterile syringes, no oxygen for lack of elevator lift capacity. Water was trucked and distributed by bucket and hundreds of scheduled elective and dozens of urgent but not immediately critical operations were postponed. At least 3,000 general cases were turned away. Data on recent temporary stoppages is scanty but the impression is that there has been no improvement in the overall hospital situation. Indeed, as a result of the continued violence, it has grown markedly worse. For example, two and three patients to a bed is not uncommon throughout the country and there has been a general shortage of medicine and medical supplies for some time because of the lack of foreign exchange.

## 2. Bridge System

The Salvadoran bridge system has most of its 260 principal structures located on the two main east-west highways, the Pan-American in the north and the Coastal Highway in the south, and a series of north-south routes running from Metapan to Acajutla, from Citala through San Salvador to La Libertad and Comalapa, and from Perquin through San Miguel to Chirilagua on the south coast. As with the electrical system, the road bridge system, which crosses some rugged territory, is considered one of the best, if not the best system in Central America. Here too, however, the war has taken its toll with 32 primary or secondary bridges damaged or destroyed - 17 since late July, mostly on the main and secondary routes mentioned above, and particularly on the access roads between Citala and San Salvador and Perquin and San Miguel. As with the electrical towers, some of the bridges have been attacked more than once, in many cases resulting in jury rigged structures or simply fords cut across dry or running stream beds, as substitutes. On October 15, 1981, while this project was under review, the largest bridge in El Salvador, the one kilometer long Puente de Oro which crosses the

Lempa River, was destroyed in a large scale guerilla attack. This attack cuts the major east-west Coastal Highway and leaves only the bridge on the Pan American Highway connecting the eastern part of the country to the rest of El Salvador.

It takes little imagination to envision the consequences of this destruction -- loss of access to the rest of the country and to whatever goods and services which were coming into a given area. Moreover, the affected populace is unable to send whatever they are producing out to the rest of El Salvador. This has resulted in food and fuel shortages, loss of access to health care, economic disaster in parts of the countryside, and in some areas, outright desertion of the land by the people.

While the extent of the effects of the bridge attacks is difficult to assess, it can be safely assumed that in many cases the results are similar to those stemming from attacks on the power system (and indeed are the same, since many of the same areas suffering bridge attacks have also had their power systems hit).

Finally, the most ominous aspect of loss of land access is the political consequences. Areas isolated from the rest of the country and the services and goods it provides also become more difficult to defend, and in fact, some areas in the north are not being effectively protected by the GOES. This leaves a political vacuum which will quickly be filled by the left if the bridges are not promptly attended to.

The need for work on the bridges becomes more critical each day because, as with the towers, provisional repairs (where they could be made) will begin to fail. For the rest of them, hastily cut fords last only until the next substantial rain -- and it rains every day.

The Department of Highways (Caminos) has prepared a preliminary budget totalling \$6 million for the repair of the first 31 bridges. Caminos indicates that, without having made any detailed repair plans, it estimates that foreign exchange will be needed for repair equipment, such as cranes, compressors, welding units; materials, such as I-beams and of course, parts for the equipment. No decisions have yet been made regarding how to respond to the destruction of the Puente de Oro, but initial information indicates it would cost about \$16 million to rebuild the bridge.

111. PROJECT DESCRIPTION

A. Project Rationale

As can be seen in the section on the economic situation, conditions, particularly with respect to the balance of payments and foreign exchange reserves have continued to deteriorate with consequent deleterious effects on the economy in general and, of interest to this paper, on the ability of the GOES to maintain or repair vital public services. Previous sections of this paper have detailed the devastating effects of the guerilla raids. The repair, reconstruction or simple maintenance of many parts of the public service infrastructure require tools, fuel, parts, equipment or just plain replacements which can only come from outside the country - in short, items that require foreign exchange for purchase.

An additional factor to consider in conjunction with the two problems described above is that of time. Damage to public service infrastructure, especially to the national electrical system and to a lesser extent, the bridge system of the country, resulted in immediate and occasionally disastrous interruptions in water supply, food processing work, medicine cold storage and loss of access to large areas of the country. The stoppages and loss of access in turn led to increased use of contaminated water, loss of food and food shortages, loss of medicines and vaccines and general disruption of the economy. All of this happened in a very short length of time - literally in a few days. It necessitated an immediate response from the USG in the form of a disaster declaration by the Embassy and the provision of emergency equipment by the Office of Foreign Disaster Assistance (OFDA) on an indefinite loan basis. While the OFDA response was excellent in nature and timing, the mandate of OFDA is such that it can only provide help in response to emergency life threatening situations, and then only on a limited basis since it does have to deal with emergency problems elsewhere in the world.

The proposed Project will provide follow-on foreign exchange support to the OFDA work with the GOES to increase the capability of public service entities to repair or reconstruct basic infrastructure systems which have been damaged or destroyed. The mechanism to be used is designed to deal with situations where the use of regular disaster relief would not be appropriate. The Project will provide foreign exchange resources on an immediate basis for use in the direct purchase or lease by AID/W of materials, tools, equipment and services which have been identified as being needed for emergency purposes. In addition, the Project also establishes a contingency fund to enable the USG to respond rapidly to further problems as they arise in relation to the repair or maintenance of public services in El Salvador.

B. Project Goal and Purpose

The goal of the Project is to prevent further deterioration of social and economic conditions in El Salvador. The Project purpose is to assist the GOES to maintain and restore public services affected by the violent conflict in the country. The Project will respond to damage to the electrical system, bridges and possibly other types of infrastructure which may become targets of sabotage.

C. Project Activities

1. Electrical System Maintenance and Repair

This component is intended to provide the tools, equipment and materials needed by CEL to allow it to make rapid damage assessments and effect immediate repairs throughout El Salvador's electrical system, particularly in the San Salvador area. The type of equipment required reflects the unusual nature of the problems being faced: In the absence of stocks of spare electrical transmission towers, for example, damaged tower units or poles must be removed completely and wooden units substituted. Where possible, the metal structures are righted and repaired after being removed from the site. In general, the work involved is quite different from normal power maintenance operations. In not a few cases, repairs or reconstruction work have to be carried out in rugged, inaccessible areas (even within the San Salvador metropolitan area there are towers situated on the sides of steep volcanos or in deep arroyos). Given this task and its emergency nature, CEL has prepared a list of equipment which it feels will enable it to deal with the problem on a reasonably adequate basis. The list includes replacement equipment for the distribution system as well as trucks, jeeps, crane trucks, heavy duty hoists, pulleys, jacks, compressors, and so forth, for use both in urban and rural areas. A detailed list of the items required is attached to Annex C.

In addition to the above commodities the Project will finance the leasing of two helicopters along with the pilot and maintenance services. The helicopters are needed for the transport of materials, equipment and personnel to and from remote or inaccessible areas, and to improve CEL's capacity to inspect the system and locate damages rapidly. At present, repairs take up to twelve days in remote areas. With the helicopters, the repair time can be cut to a fraction of this amount, and the security of CEL employees who have to travel to and from remote areas will be improved. Employees, having come under increasing attack, are resigning in ever larger numbers, further weakening CEL at a time when experienced technicians are most needed.

The estimated cost of the equipment listed in Annex C is \$2.3 million. The lease for the two helicopters is estimated to cost \$1.5 million for a twelve month period for a total present estimated activity cost of \$3.8 million.

## 2. Emergency Generators

As mentioned earlier in this paper, the USG provided 47 emergency power generators to provide power supply backup to hospitals and water supply systems throughout the country. The GOES has now identified a similar need for generators to protect the coffee harvest. As El Salvador moves into the coffee harvest season in October and November, the majority of coffee processing units (called beneficios) remain exposed to the high probability of power failure since most of them are situated in the eastern part of the country where the absence of duplicative/alternative power lines has resulted in prolonged periods without power following guerilla attacks. The coffee beneficios rely on electrical machinery to shell the coffee beans immediately after harvesting since picked beans which aren't dried (this has to be done without the shell) tend to deteriorate rapidly. If the power were to go during the processing period, shelling would halt, and the beans would rot, with disastrous effects on foreign currency earnings. To forestall such an eventuality, the GOES has requested that 15 250KW emergency generators be purchased under the Project with some going to state managed (INCAFE) beneficios and the rest to privately owned beneficios. Generators destined for the private sector would be sold to the owners of the beneficios, with the proceeds going to pay local costs of the project, such as labor and material costs of bridge work. The emergency generators (including the cost of air transportation) are estimated to cost a total of \$1.4 million.

## 3. Emergency Reserve Fund

The balance of Project funds, \$4.8 million, will be authorized for the purpose of responding to public service emergencies which have not yet occurred or which have occurred but have not yet been analyzed sufficiently to cost out the needed response. Obligation of these funds will occur incrementally as the needs are identified by the Mission and approved by the Assistant Administrator for Latin America and the Caribbean (AA/LAC).

The first draw downs from the Emergency Reserve Fund will probably be for bridge repair.

## D. Project Implementation

### 1. Implementation Arrangements

The Ministry of Planning (MINPLAN) will be responsible for Project coordination and liaison between A.I.D. and GOES agencies, such as CEL and the Ministry of Public Works. MINPLAN is also responsible for the programming of the PL 480 Title I local currency generations that will be used to partially finance the local costs related to the Project. To the extent necessary, the Central Bank (BCR) will make local currency advances to the Project prior to the actual generation of local currency from the PL 480 sales.

## 2. Monitoring and Reporting

Because of Mission staff limitations and security considerations, USAID monitoring of the Project will be kept to the minimum necessary to ensure that the commodities purchased or the services provided with A.I.D. funds are used for the purposes of the Project. The GOES will submit reports at least quarterly on (a) the receipt and disposition of all A.I.D. financed goods or services; (b) the generation and use of local currency from the sale of electrical generators and PL 480 food; and (c) the status of repair and reconstruction efforts. In the case of bridge repair and reconstruction, the basic information will be prepared by the local currency financed A&E firm and bridge coordinator. The USAID engineer and/or other USAID employees or contractors will make periodic field inspections; however, because A.I.D. is financing a response capability and not specific construction subprojects, the degree of USAID monitoring can be minimized.

## 3. Procurement

Because rapid procurement will be essential for most if not all goods financed by the loan, A.I.D. will be the authorized procurement agent. With several GOES agencies involved in the Project, including CEL (which is not at all familiar with A.I.D. procurement regulations), it is considered unlikely that imported goods and services could be procured rapidly and properly using the host country contracting mode. The contract for the lease of helicopter services will be a host-country contract; however, since the nature of the contract will require CEL's active participation in the negotiation, CEL will be assisted in these negotiations by contracting and helicopter specialists provided by A.I.D. Other cases may arise where host-country contracts appear feasible or necessary.

For all goods and services identified in this Project Paper, emergency procurement procedures will be used. For future procurements of goods and services (i.e. financed from the Emergency Reserve Fund), a determination will be made on a case by case basis at the time the need is identified and the specifications are prepared as to whether routine or emergency procedures will be used. As was the case for the items already identified, specifications will be prepared by the GOES with assistance from the Mission. The specifications will then be forwarded to SER/COM for review and revision if necessary. If funds have not yet been obligated for the procurement, the AA/LAC will approve the Mission's request to obligate additional funds. If the Mission has requested that emergency procurement procedures be utilized, the AA/LAC will endorse or disapprove this request. Normally, the PIO/C will be prepared by SER/COM on the basis of cabled data from the Mission and SER/CM will be responsible for the contracting.

4. Waivers

As mentioned above, emergency procurement authority will be used for much of the procurement under the Project. Thus, it is foreseen that most procurement will be done by negotiation and without advertising. Also, compatibility of equipment and replacement parts will at times require that the procurement be proprietary.

#### IV. PROJECT ANALYSIS

##### A. Economic Considerations

The sabotage of the bridge system and the electrical power system is designed to cause the maximum damage possible to the economy. From the Project Background section, it can be seen that this strategy has been effective. Although no attempt has been made to quantify the cost of improved repair response vs. the cost to the economy of not improving the repair response, it should be clear that the latter cost is far higher.

The economic argument for the lease of two helicopters is a compelling example. The extra fuel costs arising from having to run standby thermal generators when the supply of hydroelectrical power has been cut off through sabotage of the transmission lines have amounted to \$5.1 million in the past year. Assuming that repair time can be cut by about 75% by having helicopters to inspect damage and transport men and equipment to remote sites, the cost of the helicopter services (estimated at \$1.2 - \$1.5 million per year) will be more than compensated for by the reduction in fuel costs for the thermal generators. The benefit to the rest of the economy would presumably be even larger.

##### B. Technical Analysis

###### 1. Electrical System

CEL's technical/administrative capacities were analyzed by Engineers Smith and Stokely as part of the OFDA emergency generator exercise. CEL possesses a demonstrated ability to undertake all required classes and levels of maintenance work under present conditions. CEL has a Power Production Division which sees to it that the maintenance is carried out.

If civil works represent a large proportion of the job, the work is transferred to the Construction Division, which carries out the work by force account or by contract.

The current number of CEL repair maintenance personnel is 122. This number is comprised of engineers, supervisors, administrative personnel, skilled and non-skilled personnel. There are nine maintenance crews, five in the San Salvador Metropolitan Area, two in the Eastern Area and two in the Western Area.

CEL has about 305 vehicles, a mixture of trucks, pick ups and jeeps. The need for additional vehicles has been presented and forms part of Annex C. Maintenance of all CEL equipment meets accepted engineering standards and has been assessed by the Mission as being adequate to carry out contemplated repair and reconstruction work.

For more information on CEL's maintenance and repair task, and particularly the proposed use of helicopters, see Annex I. Once the need for helicopters was established, the lease versus purchase option was analyzed. The two options are presented below.

Lease -- Contract with a U.S. firm to provide one utility helicopter and one light observation helicopter. After contract signing the contractor would be operational in El Salvador within thirty days. The contractor would be self supporting in maintenance, the aircrews would be experienced in similar operations, the cost would be offset by the decreased cost of turbine fuel, and should an aircraft be rendered inoperative, a replacement could be made available with a minimum of lost time. Cost is estimated at \$1.2 - \$1.5 million for a 12-month period. The only disadvantage would be no residual capability after completion of the contract. However, once the utility of the helicopter is realized it may be possible for CEL to enter into a cost sharing - and profit sharing - arrangement with the contractor which would eventually result in CEL's capability to operate their own aircraft.

Purchase -- Purchase one utility and one light observation helicopter. Train aircrews and maintenance personnel and establish a logistics system for spare parts. Cost is estimated at \$1.5 - \$2.0 million. Time required to be fully operational is estimated at 4 - 10 months and the operationally ready rate is estimated to be 50 - 75%. The disadvantage would be inexperienced aircrews, the possible loss of an aircraft requiring expensive replacement and the lengthy time requirement for the learning curve in aviation management, operations and maintenance.

The lease option was chosen because of the faster start-up time, the greater assurance of effectiveness and reliability, and the fact that the contractor would assume responsibility for replacing any helicopters that may be destroyed during the period of the contract.

## 2. Bridges

The Directorate of Highways (CAMINOS) under the Ministry of Public Works has shown that under A.I.D. project 519-0256, it has technical as well as administrative capabilities needed to carry out a bridge construction or reconstruction project. The CAMINOS Directorate has a Division that carries out work by both force account and contracting. They have the expertise and the necessary personnel to carry out the design and field work of the bridges. Construction can also be contracted out as the work load demands.

Three CAMINOS Regional Maintenance Offices exist, one each in the east, center and west of the country. Each of the Regional Maintenance Offices is capable of carrying out the required work under this project.

CAMINOS has about 200 units of heavy equipment which are repaired in CAMINOS' well-staffed maintenance shop.

The Ministry of Public Works has the Special Resources Office (SRO) under the Employment Generation Project, No. 519-0256, which will be staffed with additional personnel to provide Project Coordination for bridge work much in the same manner as current A.I.D. financed projects.

The technical analysis of the specific material or equipment needs in the area of bridge repair is not sufficiently advanced at this date to permit obligation of funds for this purpose. The analysis continues and will be submitted to AID/W prior to obligating funds for this purpose from the Emergency Reserve Fund.

|                        |                   |                                    |                     |
|------------------------|-------------------|------------------------------------|---------------------|
| AID HANDBOOK 4, App 3A | TRANS. MEMOR. 4:6 | EFFECTIVE DATE<br>November 2, 1977 | PAGE NO.<br>3A(1)-1 |
|------------------------|-------------------|------------------------------------|---------------------|

3A(1) - COUNTRY CHECKLIST

The criteria listed in Part A are applicable generally to FAA funds, and should be used irrespective of the program's funding source. In Part B a distinction is made between the criteria applicable to Security Supporting Assistance and the criteria applicable to Development Assistance. Selection of the appropriate criteria will depend on the funding source for the program.

A. GENERAL CRITERIA FOR COUNTRY

1. FAA Sec. 481. Has it been determined that the government of recipient country has failed to take adequate steps to prevent narcotics drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully? No.
2. FAA Sec. 620(b). If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement? Yes.
3. FAA Sec. 620(c). If assistance is to a government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted all available legal remedies and (b) debt is not denied or contested by such government? (a) No.  
(b) No.
4. FAA Sec. 620(e)(1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities? No.
5. FAA Sec. 620(f); App. Sec. 108. Is recipient country a Communist country? Will assistance be provided to the Democratic Republic of Vietnam (North Vietnam), South Vietnam, Cambodia, or Laos? No.

A.

- 6. FAA Sec. 620(i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression? No.
  
- 7. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property? No.
  
- 8. FAA Sec. 620(l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, inconvertibility or confiscation, has the AID Administrator within the past year considered denying assistance to such government for this reason? El Salvador has instituted the Investment Guaranty program.
  
- 9. FAA Sec. 620(o); Fishermen's Protective Act, Sec. 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters, N/A
  - a. has any deduction required by Fishermen's Protective Act been made?
  - b. has complete denial of assistance been considered by AID Administrator?
  
- 10. FAA Sec. 620(q); App. Sec. 504. (a) Is the recipient country in default on interest or principal of any AID loan to that country? (b) Is country more than one year in default on interest or principal on U.S. loan made pursuant to program for which funds appropriated under Approp. Act, unless debt was earlier disputed, or appropriate steps taken to cure default? No.
  
- 11. FAA Sec. 620(s). What percentage of country budget is for military expenditures? How much of foreign exchange resources spent on military equipment? How much spent for the purchase of sophisticated weapons systems? (Consideration of these points is to be coordinated with the Bureau for Program and Policy Coordination, Regional Coordinators and Military Assistance Staff (PPC/RC).) Approximately 9% of the 1978 Central Government budget was for defense and public security expenditures. With respect to defense, the percentage drops to 6%. The GOES has not made significant foreign exchange expenditures for defense.

A.

12. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?

No.

13. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the AID Administrator in determining the current AID Operational Year Budget?

To the best of our knowledge, the GOES is not in arrears.

14. FAA Sec. 620A. Has the country granted sanctuary from prosecution to any individual or group which has committed an act of international terrorism?

No.

15. FAA Sec. 659. If (a) military base is located in recipient country, and was constructed or is being maintained or operated with funds furnished by the United States, and (b) U.S. personnel carry out military operations from such base, has the President determined that the government of recipient country has authorized regular access to U.S. correspondents to such base?

N/A

16. FAA Sec. 666. Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. there to carry out an economic development program under FAA?

No.

17. FAA Sec. 669. Has the country delivered or received nuclear reprocessing or enrichment equipment, materials or technology, without specified arrangements on safeguards, etc.?

No.

18. FAA Sec. 670. Has the country delivered or received nuclear reprocessing, equipment, material or technology? Is the country not a "nuclear-weapon state" as defined in Article IX(3) of the Nuclear Non-Proliferation Treaty and on which detonates a nuclear explosive device?

No.

19. FAA Sec. 901. Has the country denied its citizens the right or opportunity to emigrate?

No.

B. FUNDING CRITERIA FOR COUNTRY

1. Economic Support Fund Country Criteria

a. FAA Sec. 502B. Has the Department of State made findings which indicate that the country has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, is program in accordance with policy of this Section?

No.

b. FAA Sec. 531 Is the Assistance to be furnished to a friendly country, organization, or body eligible to receive assistance?

yes

c. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made?

N/A

2. Development Assistance Country Criteria

a. FAA Sec. 102(c), (d). Have criteria been established, and taken into account, to assess commitment and progress of country in effectively involving the poor in development, on such indexes as: (1) small-farm labor intensive agriculture, (2) reduced infant mortality, (3) population distribution, and (5) unemployment.

N/A

|                           |                         |                                     |                     |
|---------------------------|-------------------------|-------------------------------------|---------------------|
| AID HANDBOOK 3, App 5C(2) | TRANS. MEMO NO.<br>1:41 | EFFECTIVE DATE<br>December 16, 1980 | PAGE NO.<br>5C(2)-1 |
|---------------------------|-------------------------|-------------------------------------|---------------------|

5C(2) PROJECT CHECKLIST

Listed below are statutory criteria applicable generally to projects with FAA funds and project criteria applicable to individual funding sources: Development Assistance (with a subcategory for criteria applicable only to loans); and Economic Support Fund.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE?  
HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT

1. Continuing Resolution Unnumbered; FAA Sec. 634A; Sec. 653(b).

(a) Describe how authorizing and appropriations Committees of Senate and House have been or will be notified concerning the project; (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that amount)?

a) Notification was sent 10/15/81  
b) Yes

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

Yes

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

N/A

|                     |                                     |                         |                           |
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|---------------------|-------------------------------------|-------------------------|---------------------------|

- A. 4. FAA Sec. 611(b); Continuing Resolution Sec. 501. If for water or water-related land resource construction, has project met the standards and criteria as set forth in the Principles and Standards for Planning Water and Related Land Resources, dated October 25, 1973?

N/A
- 5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project?

Yes
- 6. FAA Sec. 209. Is project susceptible of execution as part of regional or multilateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.

The project is not susceptible of execution as part of regional or multi-lateral project.

The project will not encourage regional development programs.
- 7. FAA Sec. 601(a). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; and (c) encourage development and use of cooperatives, and credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

The project will not encourage such efforts.
- 8. FAA Sec. 601(b). Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S.

Much of the project financing will be for U.S. exports.

|                           |                         |                                     |                     |
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A.8. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

9. FAA Sec. 612(b), 636(h); Continuing Resolution Sec. 508. Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.

Local costs will be financed by the GOES or possibly to some extent by another A.I.D. project. This project finances foreign exchange costs.

10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

No

11. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

Because of the emergency response nature of the project, negotiated procurement will be used, with as much competition as is practicable.

12. Continuing Resolution Sec. 522. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?

N/A

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Sec. 102(b), 111, 113, 281(a). Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-

N/A

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|----------|-------------------|-----------------|---------------------------|
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8.2.a. repay the loan, at a reasonable rate of interest.

b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

N/A

3. Project Criteria Solely for Economic Support Fund

a. FAA Sec. 531(a). Will this assistance promote economic or political stability? To the extent possible, does it reflect the policy directions of FAA Section 102?

Yes

b. FAA Sec. 531(c). Will assistance under this chapter be used for military, or paramilitary activities?

No

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ANNEX B

3097



MINISTERIO DE PLANIFICACION  
Y COORDINACION DEL DESARROLLO  
ECONOMICO Y SOCIAL

S.E. 308/81

San Salvador, 25 de septiembre de 1981.

ASUNTO: Solicitud de Préstamo a los  
Estados Unidos por US \$15.0 millones  
para la Restauración del Sector Público.

Señor Peter W. Askin  
Director  
USAID/El Salvador  
Presente.

Estimado Señor Askin:

Ante la reciente serie de eventos que han dañado o prácticamente eliminado en partes del territorio nacional los servicios públicos vitales como son los sistemas de electricidad, el suministro de agua potable y los puentes; el Gobierno de El Salvador ha estado trabajando en cooperación con los representantes del Gobierno de los Estados Unidos para restaurar o reparar los servicios dañados a fin de que toda la población pueda seguir adelante en forma normal y productiva.

Como parte de nuestros esfuerzos de cooperación para restaurar estos servicios públicos, por este medio solicito un préstamo por la suma de \$15.0 millones que serán utilizados por el Gobierno para reparar o reponer dichos servicios. Dada la extrema urgencia, siendo que algunos servicios son necesarios para el beneficiado de café cuyo ciclo comienza a finales de octubre, y de otras actividades impostergables, también le solicito que AID nos asista como agente de compras para todo el equipo y suministros a adquirir.

Estos fondos serán utilizados en parte para la reparación y mantenimiento del equipo y suministros del sistema nacional de servicios eléctricos así como para los generadores de emergencia. El resto de los fondos del préstamo serán usados en la compra de material de construcción de puentes, combustible para los generadores de emergencia proporcionando bajo el programa ya mencionado, así como otras actividades de asistencia de emergencia y la creación de un fondo para im-

previstos que cubran necesidades similares a las aquí descritas, el cual será mantenido en reserva por A.I.D. hasta cuando el Gobierno manifieste la necesidad para su utilización.

Con la seguridad y confianza de que nuestra solicitud será considerada y atendida favorablemente, aprovecho la oportunidad para expresarle las muestras de mi consideración y estima.



*Jorge A. Peña Solano*  
JORGE A. PEÑA SOLANO  
Subsecretario  
Encargado del Despacho.

## NECESIDADES DE EQUIPO Y HERRAMIENTAS - CEL

| CANTIDAD | DESCRIPCION   | US\$ VALOR |
|----------|---|------------|
| 3        | Camiones grúa diesel. Grúa tipo PM-300, montaje en la esquina del camión, con extensión de fibra de vidrio, canastilla con su control hidráulico y demás accesorios complementarios, según se detalla en el boletín No. 503R-1 de la Mc. Cabe-Powers Company. Las grúas deberán estar montadas en camiones de transmisión 4 x 4, caja de transferencia de 2 velocidades, motor diesel o gasolina, 8 cilindros, capacidad de carga de 31000 lbs., cama tipo estaca, resortes auxiliares traseros, transmisión 5 velocidades, eje delantero 9000 lbs., eje trasero 22000 lbs., con compartimientos laterales para guardar equipos y herramientas. | 144,000.00 |
|          | Alternativas: Grúas hidráulicas tipo plegable para montar en camión marca HIAB modelo 1165-A ó similar. Estas grúas deberán ser montadas en chasis similar al arriba descrito.  |            |
| 3        | Jeeps Diesel (o gasolina) transmisión 4 x 4.  | 27,912.00  |
| 3        | Pick Ups, diesel o gasolina, 2 toneladas, transmisión 4 x 4.  | 68,652.00  |
| 3        | Camiones de 3 ejes, transmisión 6 x 6, diesel, 8 cilindros, capacidad de carga de 14 toneladas, 7 velocidades.  | 81,222.00  |
| 18       | Tecles tipo TIRFOR de 3.5 Ton. con su cable ("Supertil" modelo S-35 o similar).   | 13,968.00  |
| 18       | Polcas con seguro, 6" x 1" de 2 toneladas de capacidad.   | 9,000.00   |
| 12       | Tecles de 2 Ton. de capacidad.  | 6,720.00   |
| 12       | Micas de uña de 30 Tons. cada una.  | 4,200.00   |
| 8        | Tecles de cadena de 8 Ton. de capacidad con 3.5 mts. de levantamiento de cadena, marca Elephant o similar.  | 14,800.00  |
| 3        | Compresores con capacidad 160 cfm. velocidad 2300 RPM, presión de aire de trabajo 100 PSI, motor de gasolina, 20 HP para utilizarse con martillo de aire (Jack Hammer), 120 pies de manguera neumática. RUSHES-POWER modelo 160-R0-2 o similar.   | 34,500.00  |

| CANTIDAD | DESCRIPCION  | US\$ VALOR |
|----------|--|------------|
| 4        | Martillos de aire neumáticos con silenciador tipo HUSSEID POWER, concrete breaker CP12403 o similar.   | 4,920.00   |
| 30       | Aisladores soporte barras colectoras, 550 KV BIL   | 7,500.00   |
| 6        | Fusibles de potencia 115 KV  | 15,600.00  |
| 60       | Aisladores de soporte de barras colectoras, 250 KV BIL   | 3,600.00   |
| 4        | Plantas de emergencia (motor a gasolina de 5 HP), 3600 RPM., capacidad 4000 watts, 60 Hz, 120/240 V.A.C., 1 fase.  | 4,000.00   |
| 2        | Tractores D4 ó D5 Caterpillar o similar.   | 75,240.00  |
| 2        | Grúa telescópica PPH 25 Ton. de capacidad, con ruedas de hule.   | 330,000.00 |
| 20       | Estructuras livianas para línea aérea de transmisión de 115 KV. de un circuito, de armado rápido.  | 360,000.00 |
| -        | * Sistemas de Protección para 500 torres de transmisión de 115 KV.   |            |
| 2        | Transformadores de 30/40/50 MVA, 115 KV Y/46-23Δ KV con pararrayos de 115 y 46 KV y repuestos  | 300,000.00 |
| 5        | Transformadores de 2500 KVA 46 KV Δ /13.8 KV Y   | 250,000.00 |
| 3        | Interruptores de potencia, de mínimo volumen de aceite, 1200 A, 115 KV, 5000 MVA capacidad interruptiva simétrica. Con transformadores de corriente, 115 KV. 1200: 5A MR | 105,000.00 |
| 3        | Interruptores de potencia, de mínimo volumen de aceite, 1600 A, 46 KV, 5000 MVA capacidad interruptiva simétrica. Con transformadores de corriente, 46 KV, 1600: 5A MR.  | 60,000.00  |
| 3        | Switches tripolares, 115 KV, 1200 amps., operados en grupo.  | 16,200.00  |
| 3        | Switches tripolares, 46 KV, 1200 amps. operados en grupo.  | 14,100.00  |
| 12       | Transformadores de potencial 46 KV/120 volts, 2 bushings.  | 12,000.00  |

| CANTIDAD | DESCRIPCION   | US\$ VALOR                   |
|----------|---|------------------------------|
| 12       | Transformadores de corriente 46 KV. 1600 <sup>5</sup> /Amps. (TAPS: 200, 400, 800 Amps.) para medición. | 19,200.00                    |
| 20       | Radios para comunicación VHF o UHF, 6 canales. 10 con Scrambler, 10 sin Scrambler.                      | 35,000.00                    |
| 3        | Repetidores para VHF o UHF de 60 W, misma frecuencia que los radios, con sus antenas respectivas.       | 40,000.00                    |
| 1        | <i>Transformador 37.5 MVA, 13.8 Δ / 115 KV Y</i>  | 200,000.00                   |
| 2        | Camiones para transporte de agua - 4000 gals. de capacidad cada uno                                     | 54,000.00                    |
| 9        | Pararrayos 96 KV, tipo estación   | 24,300.00                    |
| 9        | Pararrayos 48 KV, tipo estación   | 15,300.00                    |
| 6        | Pararrayos 24 KV, tipo estación   | 7,200.00                     |
| 3        | Transformadores de Potencial con acoplamiento capacitivo 66.4 KV - 115/66.4 V.                          | 13,500.00                    |
|          |   | US\$ <del>2,271,634.00</del> |

\* No hay información

U.S. \$ 2,371,634.00



P U E N T E S    B A R R A D O S

| N O M B R E                                      | L O C A L I D A D    U B I C A C I O N    | C O S T O    E S T I M A D O    D E    C O N S T R U C C I O N |
|--|---|--|
| 1- PUENTE SOBRE EL RIO SAYULAPA                  | ILENASCO-FRESA 5 DE NOVIEMBRE             | 8 350,000.00   |
| 2- SAN PEDRO SOBRE RIO SECO                      | DESVIDO RUTA MILITAR-SAN FRANCISCO ESTERA | 1,350,000.00   |
| 3- PUENTE SOBRE RIO AZAHUIC                      | (CA-3): (CA-4)-CHALATENANGO               | 925,000.00   |
| 4- EL BELTRIO SOBRE RIO GRANDE DE SAN MIGUEL     | (CA-2): USULUTAN-LA UNION                 | 2,300,000.00   |
| 5- PUENTE MROPALA SOBRE RIO GRANDE DE SAN MIGUEL | (CA-2) - EL ESPINO                        | 3,700,000.00   |
| 6- CHAPELTIQUE SOBRE RIO GRANDE DE SAN MIGUEL    | FUNDACION-CHAPELTIQUE                     | 100,000.00   |
| 7- PUENTE SOBRE RIO CHACAHUACA                   | CA-3: (CA-4)-CHALATENANGO                 | 50,000.00  |
| 8- PUENTE SOBRE RIO MOTCHICHO                    | RUTA CA-4: RAMAL CONCEPCION QUEZALTEPEQUE | 115,000.00   |
| 9- PUENTE SOBRE EL RIO GRANAL                    | CA-4: KM. 02+00 TEBUTLA-LA PALMA          | 45,000.00  |
| 10- PUENTE SOBRE EL RIO SANTO TOMAS              | CHAPELTIQUE-SISURI                        | 10,000.00  |
| 11- LOS HANGOS SOBRE QUEBRADA SECA               | CA-2: LA UNION - KM. 173+500              | 55,000.00  |
| 12- CAYEDA PIPIL SOBRE PASO FERROCARRIL          | RUTA CA-4                                 | 100,000.00   |
| 13- CAYEDA EL TALPETATE                          | CA-1: SAN SALVADOR-SAN VICENTE            | 150,000.00   |
| 14- VADO MARIN S/RIO GRANDE DE SAN MIGUEL        | (CA-2)-CARRETERO ANTIGUO A EL ESPINO      | 45,000.00  |
| 15- PUENTE SOBRE QUEBRADA SECA                   | (CA-2): ZAGATE DE LUCA-USULUTAN           | 37,000.00  |
| 16- PUENTE DE HANACA SOBRE RIO LEIPA             | (CA-4)-CITALA                             | 50,000.00  |
| 17- CAYEDA EL BARTOLO                            | SECUNDARIO-RUTA MILITAR                   | 6,000.00   |
| 18- PUENTE LA JOYA SOBRE RIO TAYULASCO           | CHALATENANGO-ALCAYOTE                     | 450,000.00   |

30

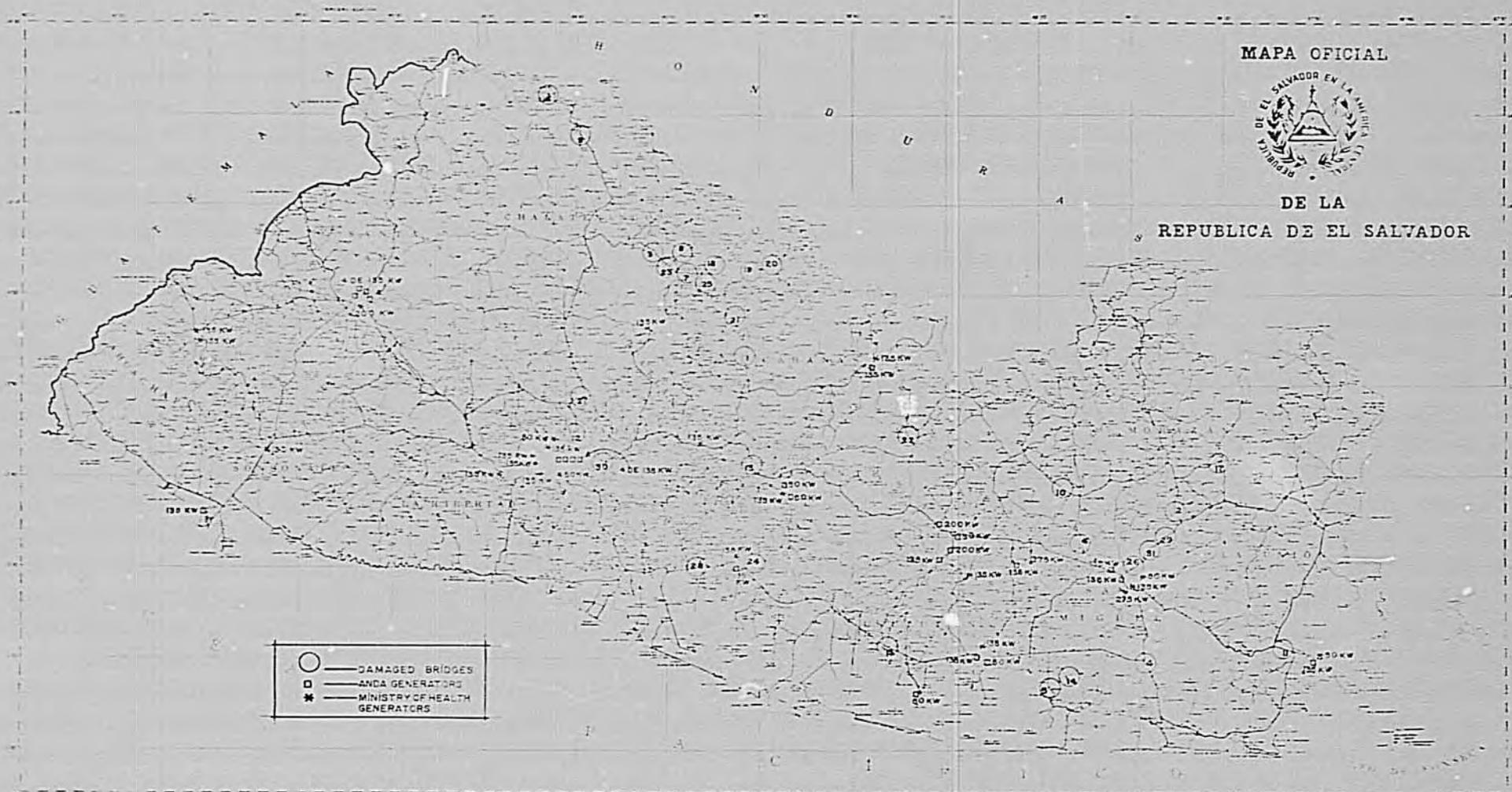
Puentes Barrios

| NOMBRE   | UBICACION                                   | COSTO ESTIMADO  |
|--|---|-----------------|
| 19- PUENTE GUADUPE SOBRE CUERADA PANDA           | CHALATENANGO-ARCATAO                        | 8 110,000.00    |
| 20- PUENTE SOBRE EL RIO SUMPUL                   | CHALATENANGO-ARCATAO                        | 8 550,000.00    |
| 21- PUENTE SOBRE EL RIO BUALEZA                  | SAN MIGUEL DE MERCEDES-POTONICO             | 8 110,000.00    |
| 22- PUENTE SOBRE EL RIO TITIMAPA                 | SAN TELFONSO-SIESUSTEQUE                    | 8 55,000.00     |
| 23- PUENTE SOBRE RIO POTONICO                    | CA-3: (CA-4)-CHALATENANGO                   | 8 15,000.00     |
| 24- PUENTE SOBRE RIO APASTA                      | ZACATEOCCUCA-TEOCCUCA                       | 8 10,000.00     |
| 25- PUENTE SOBRE RIO TANULASCO                   | CHALATENANGO-SAN MIGUEL DE MERCEDES         | 8 55,000.00     |
| 26- URBINA SOBRE RIO GRANDE SAN MIGUEL           | RUTA MILITAR                                | 8 30,000.00     |
| 27- PUENTE SOBRE RIO LAS CAÑAS                   | CA-4: SAN SALVADOR-ATOPA                    | 8 40,000.00     |
| 28- PUENTE SOBRE RIO JALPENZA                    | CA-2: CONALAPA-ZACATEOCCUCA                 | 8 20,000.00     |
| 29- SANTA ANITA SOBRE CUERADA LAS COCHAS         | RUTA MILITAR: SAN MIGUEL-SANTA ROSA DE LIYA | 8 55,000.00     |
| 30- TUNEL PUENTE BOULEVARD DEL EJERCITO NACIONAL | SAN SALVADOR                                | 8 15,000.00     |
| 31- LOS FUENTES SOBRE CUERADA LA TRINIDAD        | RUTA MILITAR-SAN MIGUEL-SANTA ROSA DE LIYA  | 8 30,000.00     |
| TOTAL .....                                      |   | 8 10,875,000.00 |

MAPA OFICIAL



DE LA  
REPUBLICA DE EL SALVADOR



|   |                               |
|---|-------------------------------|
| ○ | DAMAGED BRIDGES               |
| □ | ANSA GENERATORS               |
| * | MINISTRY OF HEALTH GENERATORS |

REPUBLICA DE EL SALVADOR  
MINISTERIO DE OBRAS PUBLICAS  
CENTRO NACIONAL DE INVESTIGACIONES  
Y ESTUDIOS DE INGENIERIA CIVIL

| NO. DE PUNTO | COORDENADAS         | POTENCIA (KW) |
|--------------|---------------------|---------------|
| 1            | 14° 15' N 88° 15' W | 400           |
| 2            | 14° 15' N 88° 15' W | 300           |
| 3            | 14° 15' N 88° 15' W | 200           |
| 4            | 14° 15' N 88° 15' W | 150           |
| 5            | 14° 15' N 88° 15' W | 100           |
| 6            | 14° 15' N 88° 15' W | 50            |
| 7            | 14° 15' N 88° 15' W | 25            |
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| 40           | 14° 15' N 88° 15' W | 25            |

ESCALA: 1:50,000

| NO. DE PUNTO | COORDENADAS         | POTENCIA (KW) |
|--------------|---------------------|---------------|
| 1            | 14° 15' N 88° 15' W | 400           |
| 2            | 14° 15' N 88° 15' W | 300           |
| 3            | 14° 15' N 88° 15' W | 200           |
| 4            | 14° 15' N 88° 15' W | 150           |
| 5            | 14° 15' N 88° 15' W | 100           |
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| 38           | 14° 15' N 88° 15' W | 25            |
| 39           | 14° 15' N 88° 15' W | 25            |
| 40           | 14° 15' N 88° 15' W | 25            |



32

PLANTAS HIDROELECTRICAS

|  |                    |
|--|--------------------|
| Guajoyo/CEL<br>Santa Ana                           | 15,000 KW          |
| 5 de Noviembre/CEL<br>Cabañas                      | 81,420 KW          |
| Cerrón Grande/CEL<br>Chalatenango                  | 135,000 KW         |
| San Lorenzo/CEL<br>San Vicente-Usulután            | 180,000 KW         |
| San Esteban/CAESS<br>San Miguel                    | 310 KW             |
| Milingo/CAESS<br>C/Milingo, San Salvador           | 880 KW             |
| Río Sucio/CAESS<br>San Matías, La Libertad         | 2,320 KW           |
| Chorrerón/CAESS<br>Santa Cruz Analquito, Cuscatlán | 110 KW             |
| Cucumacayan/CECSA<br>Sonsonate                     | 2,268 KW           |
| Bululu/CLES<br>Sonsonate                           | 680 KW             |
| San Luis/CLESA<br>C/San Jacinto, Santa Ana         | 600 KW<br>1,600 KW |
| Cutumay/CLESA<br>Santa Ana                         | 200 KW             |
| Atehuacillas/CLEA<br>Ahuachapán                    | 175 KW             |
| Sonsonate/CLES<br>Sonsonate                        | 150 KW             |
| Acahuapa/CAESS<br>Río Acahuapa, San Vicente        | 120 KW             |
| La Calera/RMCO<br>Sonsonate                        | 352 KW             |

SUB-ESTACIONES PRINCIPALES  
DE CEL

Ahuachapán  
Sonsonate  
Acajutla, Sonsonate  
Santa Ana  
Guajoyo, Santa Ana  
Río Sucio, La Libertad  
Nejapa, San Salvador  
Ayutuxtepeque, San Salvador  
Nuevo Cuscatlán, La Libertad  
Cerrón Grande, Chalatenango  
5 de Noviembre, Cabañas  
San Rafael Cedros, Cuscatlán  
Tecoluca, La Paz  
Usulután, Us.  
El Triunfo, Usulután  
San Miguel

PLANTAS TERMICAS

|                          |        |    |
|--------------------------|--------|----|
| Geothermo Ahuachapán/CEL | 60,000 | KW |
| Acajutla/CEL             | 69,600 | KW |
| Agua Caliente/CAESS      | 7,404  | KW |
| Soyapango                |        |    |

PLANTA DE GAS

|               |        |    |
|---------------|--------|----|
| Soyapango/CE1 | 56,600 | KW |
|---------------|--------|----|

LAC/DR-IEE-82-1

ENVIRONMENTAL THRESHOLD DECISION

Project Location : El Salvador

Project Title and Number : Public Service Restoration  
519-0279

Funding : \$10,000,000 (Loan)

Life of Project : Two years

IEE Prepared by : Peter Orr, LAC/DR/CEN  
Finance Division

Recommended Threshold Decision: Negative Determination

Bureau Threshold Decision : Concurrence with Recommendation

Action : Copy to Peter Askin  
Director, USAID/El Salvador

: Copy to Peter Orr, LAC/DR/CEN

: Copy to IEE file

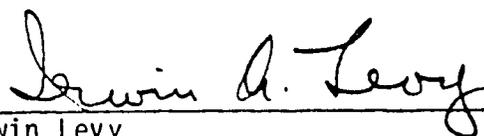
 Date 29 Oct 81

Robert O. Otto  
Chief Environmental Officer  
Bureau for Latin America  
and the Caribbean

INITIAL ENVIRONMENTAL EXAMINATION

Project Location : El Salvador  
Project Title : Public Service Restoration  
Project Number : 519-0279  
FY 1982 CP Reference : None  
Appropriation Category : Economic Support Fund  
Funding : \$10,000,000 (Loan)  
Life of Project : Two years  
IEE Prepared by : LAC/DR, Peter Orr  
Finance Division  
October 23, 1981

Recommended Threshold Decision: Negative Threshold Decision



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Irwin Levy  
Acting Associate Assistant Administrator  
for Development Resources  
Bureau for Latin America  
and the Caribbean

I. Project Description

The purpose of the project is to assist the Government of El Salvador to maintain and restore public services affected by the violent conflict in the country. The project provides financing for imported equipment and materials needed to repair public facilities, such as bridges and electrical towers and substations. Generators will also be purchased in order to provide electricity during power outages to key installations, such as hospitals, water pumping systems and coffee processing facilities.

II. Identification of Potential Impact:

No significant impacts on the human environment are anticipated. The project will not serve to extend coverage of the electrical system, bridge system or any other public infrastructure, but rather will only attempt to repair or replace infrastructure that has been damaged.

III. Threshold Recommendation:

As no significant ecological change is likely to occur as a result of this project, a Negative Threshold finding is recommended.

ACTION  
COPY

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Department of State

INCOMING  
TELEGRAM ANNEX. H

PAGE 01  
ACTION AID-35

SAN SA 08239 301439Z

4616 017143 AID6390

ACTION OFFICE LADR-03  
INFO LACE-03 LADP-03 PPCE-01 PDPR-01 PPPB-03 RELO-01 TELE-01  
MAST-01 /017 A4 830

INFO OCT-02 /037 W

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FM AMEMBASSY SAN SALVADOR  
TO SECSTATE WASHDC IMMEDIATE 6346

UNCLAS SAN SALVADOR 8239

AIDAC

E. O. 12065: N/A  
SUBJ: PUBLIC SERVICES RESTORATION PROJECT NO. 519-0279

REF: KLASSEN/ORR TELCON OCTOBER 27, 1981

1. PER TELCON, THIS CABLE REPRESENTS THE CERTIFICATION PURSUANT TO SECTION 611 (E) OF THE FOREIGN ASSISTANCE ACT OF 1961, (AS AMENDED), REQUIRED FOR THE PUBLIC SERVICES RESTORATION PROJECT, NO. 519-0279;

I, PETER W. ASKIN, THE PRINCIPAL OFFICER OF THE AGENCY FOR INTERNATIONAL DEVELOPMENT IN EL SALVADOR, HAVING TAKEN INTO ACCOUNT AMONG OTHER FACTORS, THE MAINTENANCE AND UTILIZATION OF PROJECTS IN EL SALVADOR PREVIOUSLY FINANCED OR ASSISTED BY THE UNITED STATES, DO HEREBY CERTIFY THAT IN MY JUDGEMENT, EL SALVADOR HAS BOTH THE FINANCIAL CAPABILITY AND HUMAN RESOURCES CAPABILITY TO EFFECTIVELY MAINTAIN AND UTILIZE THE CAPITAL ASSISTANCE PROJECT PROPOSED IN THIS PAPER: PUBLIC SERVICES RESTORATION.  
HINTON

UNCLASSIFIED

## memorandum

DATE: October 30, 1981  
REPLY TO  
ATTN OF: INM, Mr. Rudy G. Hall *R.G.H.*  
SUBJECT: El Salvador - Survey Report  
  
TO: LAC/CEN, Mr. Richard Weber

During the period 25-28 October, 1981, an aviation survey was conducted in San Salvador to determine the requirements of the Commission Ejecutiva Hidroelectrica del Rio Lempa (CEL) and the best method of implementation. My survey report is attached.

Attachment

I. SITUATION:

The electrical distribution system in El Salvador has become a lucrative target for the insurgents. While the major sub-stations and generating plants have not as yet been hit, the primary focus of the insurgents is the transmission grid, primarily, the 115 KV system. This system measures 600 kilometers in length, with 1,800 steel towers and is the primary transmission system for the remaining feeder grids. To date 153 towers have been destroyed in 211 attacks. The most notable periods of the attacks occurred during 13-20 August 1980 when 13 towers were destroyed; 6-17 February 1981, 15 towers destroyed and 19 July-21 August 1981 when 44 towers were destroyed. During the period 22-25 July 1981 one-half of the entire system was inoperative. Once a line has been rendered inoperative as a result of a terrorist attack, the time to repair the damage - in most cases only temporary - ranges from a minimum of 8 hours to 28 days. In this 115 KV system only 10-15% of the towers are accessible by road. Repairmen have to walk to the damaged area and carry the necessary tools and repair parts and equipment. In some cases the actual repair may require only a few hours. However, 2-21 days may be required to transport - by human porters - the materials required. Additionally the work has been hampered by the weather, rough terrain, the presence of insurgents near the towers, land mines placed by the insurgents at or near the destroyed towers, damage to roads and

bridges by the insurgents and isolated areas being separated from the sources of materials and crews by areas heavily influenced by the insurgents.

These attacks have had an extremely adverse effect on the economy and the toll in human tragedy cannot be counted. Industries, particularly fishing, meat processing and shipping are affected since cold storage is not reliable. Hospitals and clinics cannot function effectively, and a severe health hazard is created due to a lack of potable water. (90% of the country's water is electrically pumped from wells).

DISCUSSION:

The Comisión Ejecutiva Hidroeléctrica del Río Lempa (CEL) generating system consists of six power plants. Three are Hydro, one Geothermal, one Gas (diesel fueled) and one Steam (Bunker "C" fuel). The Hydro and Geothermal are adequate, and have sufficient capacity to serve the entire electrical needs of the country. The Gas and Steam plants require fossil fuels and are used only for standby. The transmission system consists of 115 KV and 44 KV lines. Distribution lines are mostly 23 and 13.2 KV. Local private distribution companies provide service, which is purchased from CEL, in most of the urban areas. The lower voltage transmission lines serve loads and provide some support to the 115 KV system. It is through these lower voltage lines that CEL is able, in some cases, to redirect the power around the damaged line and provide some service to its subscribers. (See attachment I for a diagram of the Generating

- 3 -

and Transmission system).

CEL provides generation required to service a total of 353,857 subscribers of which 307,454 are residential, 36,037 commercial, 4,977 industrial, 259 public lands and 5,130 government users.

The CEL organizational chart is included as attachment II.

The responsibility for maintenance and operation of the lines is contained in the office of the Superintendent of Production. Routine maintenance and repair of the lines is accomplished by ten 6-man teams operating out of subordinate bases at San Miguel, Santa Ana and San Salvador. For emergency repairs to the towers these teams are reconstituted into five 2-man teams. Warehouses in these three bases are stocked with available spare parts and equipment.

Once line trouble has been detected a survey team inspects the troubled line, locates the exact point of the problem, inventories equipment requirements and directs one of the bases to repair the damage.

Communication is effected through radio links between San Salvador, the bases and the repair teams. If the damage is located in an area known to be inhabited by the insurgents, CEL requests assistance from the Army to secure the area prior to attempting repairs. The Army support is not always timely due to competing priorities and results in the delay of repairs.

- 4 -

A meeting was held with the President of CEL and his Senior Staff on October 26. During these discussions the President and the Staff explained the temporary measures employed in effecting repairs to the system. Generally, the steel towers are replaced by wooden pole structures. In some cases the poles are used to shore up the steel towers or in cases where the arms have been destroyed but the tower is erect, the poles replace the arms. In some cases, the towers are left lying on the ground and the electricity routed through them. In these cases the ground clearance may be only inches and holes are dug under the wire to obtain one meter clearance, and the area is barricaded to prevent anyone straying into the high voltage lines. Cases of electrocuted cattle and dogs have been reported in these areas. However, it was stressed that these repair measures are only temporary and once the emergency is over a complete rebuilding of the transmission system will be required. It was also pointed out that on this day approximately 90-95% of the subscribers had electricity available to them. A current summary of the cost of damage was presented as follows:

|                             |                            |
|-----------------------------|----------------------------|
| a. Towers and Structures    | Ø 7,225,000                |
| b. Installations            | 599,351                    |
| c. Fuel for Turbines        | 12,675,968                 |
| d. Total to date (Oct 1981) | 20,500,319 (\$8.2 million) |

It was again stressed that the cost for fuel - a foreign exchange drawdown - could be reduced considerably if the lines using the

Hydro and Geothermal plants could be repaired more rapidly. We were unanimous in the opinion that rotary-wing aircraft would more than pay for themselves if they could be made available to the repair crews. The stated requirement is for helicopters with the capacity to lift the repair teams and necessary equipment to the repair site, provide a lift capability for wood poles, which weigh 1400-1800 pounds, provide transportation for medical evacuation, crew changes, damage assessment teams, and payroll runs.

The president explained that while the Military has a limited number of helicopters available, they are not always available to CEL due to the Military priorities. He also explained that if CEL were to purchase their own helicopters, they could be appropriated for military use. The idea of contracting with a U.S. firm to provide the service appealed to the CEL staff, and they asked for a more detailed analysis of a contract arrangement.

The staff also asked for recommendations as to what measures could be employed to protect the Transmission System. This will be left for the Mission and AID/W to address. It was suggested that the State of California has had previous experience with sabotage of their towers and perhaps they could provide some guidance.

LTC Gerald Taylor, USAF component of the MilGroup was contacted. He stated that the El Salvador Military perceive their Utility rotary-wing requirement to be twenty-four aircraft. Currently,

- 6 -

fourteen are in country and are maintaining an operationally ready rate of 70%. The aircraft are not equipped with cargo hooks (necessary for external loads) and the aircrews do not have the training or experience for operating with external loads. Colonel Taylor did not believe that the military would be able to provide any substantial aviation support to CEL. He did state that the Air Force (El Salvador) has two companies of Airborne troops available on a stand-by basis. When asked if these forces could be made available for security of CEL repair teams, he responded by stating that it would require a decision by the Chief of Staff (El Salvador) based on the other military priorities.

There are no commercial utility helicopters available in El Salvador.

CONCLUSIONS:

Given the obstacles currently facing CEL in their role to supply the country's electricity, the only viable alternative is helicopter service. Having explored all possible options, the conclusion has been reached that contracting with an American firm to supply this service is the only viable solution. The military is not capable of supplying the service; there are no local commercial companies capable of supplying the service, and it would not be feasible from the standpoint of the urgency of the requirement to provide only the bare helicopters and attempt to train pilots, mechanics and establish a logistics system to support them.

RECOMMENDATIONS:

1. That appropriate action be taken to authorize SER/CM to act as the authorized agent for CEL to obtain the contract flying services from a U.S. contractor in accordance with the attached specifications (attachment III)

2. That this procurement action be authorized on a negotiated basis due to the urgency of the requirement.

3. That the contract be a host country contract and that CEL be a party to the final negotiations. (SER/CM would issue the invitations to bid, evaluate the responses and select the three finalists. Final selection would then take place in San Salvador between USAID, SER/CM, CEL and the contractor.

Attachment IV is a list of persons contacted during this survey.



Attachment III:

Scope of work:

The contractor shall provide, operate and maintain, in the Republic of El Salvador, for the Comision Ejecutiva Hydroelectrica Del Rio Lempa, rotary-wing aircraft as follows:

I. One helicopter capable of transporting 12 men and 1,000 pounds of equipment a distance of 150 nautical miles with 30 minutes of fuel reserve. The helicopter shall have a capability for external loads and operate with 3,000 pounds of useful load at an altitude of 4,000 feet, out of ground effect, ISA plus 10 degrees, zero airspeed, for thirty minutes. The aircraft shall be equipped as a minimum as follows for VFR flight only:

a. VHF/AM nav-com

b. Wulfsburg Flitephone 40 or equivalent, 4 channels, in the frequency range of 140-172 MHZ.

(2)

(3)

(4)

c. Cargo hook

d. High skid gear

II. One helicopter capable of transporting 4 men and 100 pounds of equipment/baggage a distance of 150 nautical miles with 30 minutes fuel reserve. The helicopter shall have a capability for external loads and operate with 1,000 pounds of useful load at an altitude of 4,000 feet, out of ground effect, ISA plus 10 degrees,

zero airspeed, for 30 minutes: The aircraft shall be equipped, as a minimum as follows for VFR flight only:

- a. VHF/AM nav-com
- b. Wulfsburg Flitephone 40 or equivalent,  
4 channel, in the frequency range of  
140-172 MHZ
  - (1)
  - (2)
  - (3)
  - (4)
- c. Cargo Hook
- d. Litter Kit (2-man)
- e. High Skid Gear

The contractor shall be self-supporting in personnel, spare parts and equipment required to operate aircraft Number 1 a minimum of 75 hours per month or 225 hours per quarter, and aircraft number 2 a minimum of 100 hours per month or 300 hours per quarter. The Pilot(s) shall have a minimum of 2,000 hours logged flight time in Rotary wing aircraft, 1,000 hours in type and 500 hours in external loads involving precision utility electrical power line operations. Fluency in the Spanish language and foreign flight experience shall be required.

Attachment IV: List of persons contacted:

- AID/W.
1. Mr. Wolfgang von Spiegelfeld, SER/CM
  2. Mr. Irwin Levy, LAC/DR
  3. Mr. Richard Weber, LAC/CEN
  4. Mr. John Clary, LAC/CEN
  5. Peter Orr, LAC/DR

USAID/El Salvador:

1. Mr. Peter Askin, Director
2. Mr. Daniel A. Chaij, Deputy Director
3. Mr. Lawrence Klassen, Capital Development
4. Mr. Roberto Gavidia, Chief Engineer

U.S.Embassy:

1. Colonel Dennis M. Duggan, DAO
2. LTC Gerald Taylor, MILGP
3. Major John McKay, DAO

CEL:

1. Antonio Gustavo Reyes, President
2. Francisco Granadino, Executive Director
3. Jose Mayen, Production Superintendent
4. Baltazar Llort, Planning Superintendent.