

## A. Introduction

Project Finance Advisors, LLC (PFA), of Bethesda, MD USA is conducting a multi-disciplinary study (the “Study”) examining the overall feasibility of Empresa Nacional de Energía Eléctrica (ENEE) providing telecommunication services or transmission capacity to telecom/media operators and other customers in Honduras. The study is funded under a cost share arrangement with the U.S. Trade and Development Agency (USTDA). ENEE is responsible for almost all of Honduras’ electric-power activities including planning, generation, transmission, distribution and system administration, with the Energy Commission holding responsibility for regulating the sector.

This section of the report relates to PFA’s assessment of the viability of installing fiber optic infrastructure along ENEE’s Rights of Way (ROW). This report is delivered in preliminary format as part of PFA’s “first milestone” in its contract with ENEE. Other deliverable reports for this milestone include a Market Assessment and Preliminary Pricing Scenario for recommended services as well as a regulatory and legal analysis of how ENEE may be allowed to offer, or restricted from offering, such services.

This volume of Task 2 contains a detailed description of PFA’s route inspection along with accompanying photographs. More photographs may be found on the CD supplied with this report.

As mandated in the TOR, PFA made a general assessment of the 138 kV transmission system during the week of March 1, 2004. This included an inspection of the following substations and transmission lines:

- Suyapa
- Mira Flores
- Santa Fe
- Comayagua
- Siguatepeque
- Villanueva
- La Puerta
- Bella Vista
- Circunvalacion
- Bermejo
- Choloma
- Puerto Cortés
- Santa Marta
- El Progreso
- Inspection of 138 kV route from Tegucigalpa to Comayagua
- Inspection of 138 kV route from Comayagua to Siguatepeque
- Inspection of 138 kV route from Siguatepeque to La Puerta
- Inspection of 138 kV route from La Puerta to Puerto Cortés
- Inspection of 138 kV route from Santa Marta to El Progreso

In general the tower structures are in good condition. However, there is noticeable erosion on the urban towers predominantly due to pollution but none of the towers inspected showed any serious visible structural damage.

Another area of concern is the towers along the Caribbean coast. The towers in Puerto Cortés showed a serious amount of rust and corrosion both from the salt air and pollution. These towers will need to be monitored carefully. PFA has been informed by ENEE that these existing structures need to be maintained for another 25 years. As part of this effort, ENEE is experimenting with a protective paint to minimize the corrosion on the towers. If the test is successful, PFA recommends that the towers are prioritized for treatment with the ones in the Puerto Cortés and along the coast.

### **Tegucigalpa Area Substations**