

I. Executive Summary and Diligence Background

Project Finance Advisors (“PFA”) has been retained under a cost share arrangement with the United States Trade and Development Agency (USTDA) to provide a multi-disciplinary analysis and technical assistance for Empresa Nacional de Energía Eléctrica’s (ENEE) sponsorship and support for a fiber optic communications initiative (the “Study”). This volume of the Study comprises Project Finance Advisors’ economic and financial feasibility of the construction of a fiber optic communications network using access to ENEE’s Rights of Way (ROW) and some its infrastructure.

When initially retained for the Study, PFA believed that Honduran law might have allowed ENEE to participate directly or indirectly in such a venture. Legal diligence by PFA’s legal team¹ indicates that, under current law, ENEE may merely grant access to its ROW in exchange for remuneration. Thus, this financial feasibility assessment focuses on the viability of a project company that uses ENEE’s ROW to construct and operate a fiber optic commercial network in Honduras, as well as the benefits to ENEE from such a venture.

Both within and outside of ENEE, it has been consistently assumed that the ENEE network would be primarily a “bandwidth supplier,” that is, a supplier of dedicated transmission capacity² (henceforth defined as “Bandwidth Services”). Provision of Bandwidth Services is PFA’s operating assumption for pricing services in its economic model. It also underpins PFA’s legal review that it would be far more effective for the project company to provide capacity primarily to licensed communication providers in Honduras than to provide services directly to end-users.

To determine the financial viability of the project company, PFA has developed an economic model (the Model) that incorporates key market, pricing, capital cost and other information from the Study’s Market Assessment (Task 1) and the Technical Assessment (Task 2) completed in May, 2004.

This volume of the Study is generally organized into a discussion of the following items:

- **Revenue assumptions** and specifically demand forecast and pricing assumptions. Market assumptions are discussed in Task 1 of the Study, the Market Assessment.
- **Potential routes for the fiber optic network** given expected demand and the set of specific construction scenarios for use in the Model.
- **Capital Cost and Operating Expense assumptions.** Capital Costs are based on detailed review of expected implementation costs in Task 2. Ongoing costs are explained in detail.
- **Project Costs and Capitalization assumptions.** The method by which PFA has defined Project Costs and the financing plan by which those costs are funded are discussed in detail. **Capitalization assumptions for the project** including the amount of debt and equity proposed as well as the cost of expected loans from multilateral credit institutions

¹ Piper Rudnick LLP of New York and local counsel, Bufete Lopez Castro & Asociados

² In the form of point-to-point links operating at 2, 45 and 155 Megabits per second, or Mbps.

- A discussion of how to fairly value *ENEE's Rights of Way* given specific market conditions in Honduras and how to design a compensation arrangement to recover that value
- *A discussion of rates of return* (including the cost of capital) that could be reasonably expected by shareholders in the venture as well as ENEE's economic benefits
- A discussion of *Open Access pricing principles* and how those might be reasonably applied to the services contemplated for the project company

All of these tasks correspond with PFA's Terms of Reference for Task 4 of the Study.

The economic model uses a discounted cashflow analysis to predict rates of return to the shareholders and other stakeholders in the project. Of course, some aspects of the project are not strictly financial in nature and are more fully discussed in Task 8 of the Study ("Developmental Impact Analysis"). Clearly, implementation of the project will have externalities of great benefit to Honduras and the government's recent efforts to introduce competition into the communications sector as well as its efforts to generally adopt Open Access principles.

This financial analysis draws on work performed elsewhere in this Study. Specifically, it incorporates findings concerning viable project structure as discussed in the "Legal/Regulatory/Structuring Assessment" as well as market penetration and pricing analysis for Bandwidth Services discussed in the Market Assessment. Capital costs for reinforcement of ENEE's towers, installation of fiber and communication equipment and other costs are examined in detail in the Technical Assessment.

Although US GAAP financial schedules have been provided to show the economic results of the Project, they do not constitute audited statements. It is strongly urged that the project company retain a qualified accounting firm to verify treatment of certain assets and liabilities.

PFA's primary conclusions from the analysis are as follows:

- PFA believes that economic returns generated by the project are attractive to shareholders based on construction of the backbone network inclusive of other operating, financial and management costs. Specifically, PFA's the Model indicates that over the first 9 years of the project, equity investors could receive distributions on their investment equal to a 48% Internal Rate of Return (IRR) and payback of capital in slightly over 3 years. This estimate is based on a medium growth in demand forecast discussed in more detail in section III.

The financial analysis includes capital costs for a "backbone" network extending from the borders with Nicaragua and Guatemala in the South to Tegucigalpa, San Pedro Sula, the submarine cable landing at Puerto Cortés and then east to La Ceiba³. In the course of the Market Assessment five additional network build-out options were identified and costed.

³ Puerto Cortés is a landing-point in Honduras for both the Arcos-1 and the Maya-1 submarine cables which is important for users of the network to provide international services.

- Returns are attractive to investors but less so if more than the backbone configuration is built.

Construction of the backbone configuration by itself is the most profitable to undertake. Additional construction of optional extensions for the network (as described herein) actually decreases overall rate of return because of lower marginal revenue per kilometer of network constructed. Optional extensions account for 41% of the total potential deployment plan's geographic coverage.

Of the five optional extensions considered in the Market Assessment only the extensions east of La Ceiba to Bonito Oriental and the extension west to Santa Rosa de Copán have demonstrable commercial promise. The extension to Santa Rosa de Copán may have application for carriers in Guatemala seeking access to either one of the Caribbean submarine landings. That said, overall rate of return falls when multiple build-out options are undertaken simultaneously. The results are the same when each separate build out option, if taken solely in conjunction with the backbone network, is simulated in the Model.

This reinforces the need for sound decision making by the project company if it elects to undertake further construction of the network after the initial backbone is completed.

- Pricing used in the Model is equal to about 50% of current tariffs in place by Hondutel. Even with this reduction in process, returns are attractive and indicate the sustainability of the project.
- ENEE's compensation is based upon a lease payment for granting the project company access to its ROW. The project is an attractive undertaking for ENEE, who is currently proscribed from owning shares in the company⁴. Assuming a nominal \$500,000 contribution to Project Costs, ENEE's IRR is in excess of 150% with a payback period of one and a half years.
- Assuming construction of the backbone network only, total gross revenue for the project equal \$110 million in the medium revenue case. This is after declining revenue as a result of expected price erosion of 3% per year is taken into account.
- PFA's revenue assessment indicates that demand for metropolitan services (i.e., 155 Mbps links in Tegucigalpa and San Pedro Sula) equals the market for national long-haul bandwidth, each accounting for a third of adjusted revenue. Revenue estimated for

⁴ The Legal analysis performed by PFA indicates that ENEE can only lease access to its Rights of Way to the company due to restrictions in its constitutive law (ENEE's powers relate solely and expressly to the study, development and operation of the electrical infrastructure of Honduras, ownership of electric infrastructure, and the representation of the state in connection with State-owned and partially State-owned electrification companies). In addition access to ENEE's ROW must not be on an exclusive basis (Under Article 36 of the Telecom Law all telecommunications operators possess the right to request ROW to exploit their mandates).

international services or transit through Honduras account for the remaining third, but account for substantially more of the profit margin.

- The returns to the Project and its shareholders are highly dependent on the ability of the affiliate to borrow money under favorable amounts and terms. Conditions for debt financing assumed in PFA's analysis indicate adequate debt service coverage. PFA assumes that the project would borrow at least 65% of its cash costs for start-up.
- Total project Costs are expected to approximate \$20.4 million over the first eighteen months with the capital cost component equal to \$15.6 million. Expected equity capital is \$6 million which PFA believes is achievable with a target group of shareholders.
- ENEE's Rights of Way along the backbone configuration are valued at \$20.6 million on an "avoided cost savings" methodology. Valuation of Rights of Way for optional extensions are valued at \$14.6 million for a total valuation of \$35.2 million. On a comparable basis with Hondutel's proposed fiber optic network, PFA estimates the value of ROW at \$13.7 million. This in turns justifies an annual lease payment to ENEE of \$1.2 million adjusted for long-term inflation.
- If ENEE were able to convert its interest into shares of the project company, the value of its lease payments as an expected share of distributable income to shareholder equals 19% over the forecast horizon. ROW valuation equal to \$13 million represents a 40% contribution as percent of total Project Costs. However such a large percentage of share ownership would diminish returns to shareholders and probably be unobtainable.
- PFA has reviewed the concept of Open Access in telecom regulatory regimes and has provided a cost based tariff for comparison with market based pricing used in the PFA analysis. A similar concept to Total Long Run Incremental Cost (TLRIC) was used in the financial model. Use of the TLRIC methodology yields lower revenue and thus PFA believes that Comisión Nacional de Telecomunicaciones ("CONATEL") should use a market based index to establish pricing caps⁵. A cost based pricing methodology yields results that are only 55% of the pricing levels PFA has used in the financial model. More importantly, using these costs in the Model substantially reduces shareholder returns to the point where investment may be unattractive.

⁵ PFA has discussed pricing concerns with CONATEL. Because Honduras is embracing Open Access principles, it is important that pricing benchmarks used in PFA's model are cost justified.