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Philippines Rural Electrification Regulatory Framework Project

Final Report

March 2004

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1 Executive Summary

This executive summary brings together work undertaken on the Philippines Rural Electrification Regulatory Framework project by Castalia in association with Allens Arthur Robinson and ACCRA Law over the past 6 months.

The objectives of the Government of the Philippines (GoP) with respect to rural electrification are:

- Improve financial performance of Electric Cooperatives (ECs) in order to enable them to reduce system losses and respond to growing consumer demands
- Reduce the costs of supplying electricity to existing missionary areas, reduce the subsidy burden and increase supply in line with growing demand [1]
- Enable provision of services to areas which have been waived by ECs as unviable.

As part of this project, we made recommendations on the adjustments to the rural electrification regulatory framework that would facilitate the achievement of these objectives. In this respect, we reviewed the background of rural electrification in the Philippines, identified key barriers and issues, as well as reform options, consulted with the Department of Energy (DOE), Energy Regulatory Commission (ERC), National Electric Authority (NEA) and other GoP stakeholders on the proposed reforms, and prepared draft documents to implement agreed reforms. These documents are included in the Sections 9 to 15 of this report.

This executive summary is organized in five sections:

- Improving EC performance: In this section we summarize the main factors driving EC poor performance, and the required changes to the regulatory framework to remove these factors
- Investment Management Contracts (IMC): IMCs have been proposed as one option for improving EC performance. In this section we explain the scope of IMCs, and the key contractual and regulatory issues that need to be solved before IMCs are implemented
- Private Sector Participation (PSP) in the National Power Corporation's (NPC) Small Power Utilities Group (SPUG): in this section we explain the rationale for PSP in SPUG, and the strategic and regulatory challenges that will arise when implementing this initiative
- Qualified Third Parties (QTP) in unviable areas: an area is considered unviable when immediate extension of the distribution line is not feasible. In this section we

[1] Missionary electrification refers to "the provision of basic electricity service in Unviable Areas with the ultimate aim of bringing the operations in these areas to viability levels". An 'Unviable Area' is defined as "a geographical area within the Franchise Area of a Distribution Utility where immediate extension of distribution line is not feasible".

explain how QTPs will be allowed to electrify these areas and the regulatory implications that these will bring

- Output-Based Aid (OBA): feasibility of rural electrification depends on ability to provide subsidies where the true cost of supply is too high. OBA involves delegating generation or supply responsibility to a private firm under a contract that connects disbursement of subsidies to the services or outputs delivered. In this section we explain how OBA applies to PSP in SPUG and waived areas.

1.1 Improving EC performance

ECs can't get investment capital

The biggest problem in the sector is that a combination of regulatory and policy decisions means that ECs will find it difficult to get finance for investment.

They used to borrow from NEA but can't anymore.

Since their inception, ECs have been predominantly financed by NEA. However Executive Order 138 removed NEA's ability to access new capital to lend. NEA's own balance sheet is weak, meaning it is unlikely to be a significant lender to the sector in the future[2]

Regulation will stop them borrowing from other sources ...

Plans are afoot to allow ECs to borrow from other sources. In particular, a number of the stronger ECs have formed the Rural Electrification Finance Corporation (REFC), which with help from outside investors proposes to lend to creditworthy ECs. The Development Bank of the Philippines (DBP) will be on-lending a World Bank loan to the sector. NEA is likely to agree to collateral sharing, so ECs can offer security for new loans.

REFC proposes to require borrowers to earn a margin above cash costs sufficient to cover 1.5 times interest obligations and 1.2 times total debt service obligations.

ECs are now going through rate-unbundling. Rates are set by ERC to cover cash needs. This means that following unbundling, most ECs will tend to have debt-service cover ratios below one. An EC may make a new rate application to allow it to borrow, but the current regulatory approach would at best allow the EC rates sufficient to meet interest and debt service payments, but no margin. This would not meet lenders' criteria.

and the 5% reinvestment allowance is not

ECs are allowed to recover a margin of 5% of their cash needs for reinvestment. However, our analysis suggests that this probably not enough to compensate for depreciation, let alone to provide for new investment. The ERC monitors how the reinvestment allowance is

[2] NEA hopes that when PSALM takes over servicing ECs loans it will be able to lend again. However, our analysis of NEA's balance sheet makes us doubt the significance of future lending from NEA

enough.

spent, suggesting that it may not be considered to be free cash for the purposes of calculating debt service cover ratios.

Improving access to capital is the most important issue

The Government's goal is to expand rural electrification, and lower its costs. Without access to capital, ECs cannot expand service, and cannot make cost-saving investments. Regulatory reform to allow ECs access to capital from lenders, equity investors and IMCs should be the top priority.

The system does little to promote efficiency

Our analysis shows wide variations in costs between ECs. These variations cannot be explained by the expected indicators such as customer density and size of franchise.[3] While it is possible that there are objective but unobserved reasons for the differences in cost, the data suggests that cost and revenue variations are largely random. This implies that they are most likely explained by the quality of the EC management.

In a well designed regulatory and governance system, all firms would be pushed toward efficient operating cost levels, through incentives and benchmarking. That does not seem to occur in the Philippines EC sector.

The current regulatory process involves detailed scrutiny of costs, but is ineffective in promoting efficiency. In fact in some cases, regulatory pressure on rates can reduce efficiency by preventing ECs from spending enough on maintenance and renewals.

Need to reform EC regulatory regime

ECs have a range of options that they could consider to improve their performance. Some of these options include: converting into joint stock companies, merging with other ECs, entering into joint ventures with private firms, and enter into IMCs. In this study we focused primarily on the IMCs, including both contract design and recommendations on how the regulatory regime should be reformed to enable IMCs. We also cover regulatory changes needed to support those ECs that are unable or unwilling to enter into IMCs. Our proposal is to allow ECs to self-select into two regulatory modes.

- Many ECs will want to continue being regulated under the familiar cash needs approach. Those ECs should be to stay with the current approach, but the definition of cash needs would be immediately adjusted to allow ECs to satisfy debt service coverage ratios and to provide for a realistic re-investment allowance (this is the so-called Modified Cash Needs Approach). Over time, ERC would move calculation of cash needs from a historic test year basis to a forward looking approach which will

[3] Section 4.1.3

allow ECs to finance system upgrades

- The second option is for ECs to opt into the Performance-Based Regulation regime, which includes two methodologies: simple price cap, and investor-owned utilities (IOU) model

ERC is open to consider reforms

ERC indicated willingness to consider these approaches once the current round of rate unbundling decisions is finalized. To maintain momentum, Castalia prepared a draft joint letter from the heads of main Government agencies to ERC outlining the preferred policy approach, and delivered a training program to ERC to explain the scope and rationale of the proposed reforms.

1.2 Investment Management Contracts (IMC)

IMCs will let ECs access private capital and management

IMCs are proposed to allow under-performing ECs to bring in capital and management expertise from private companies. They will be especially suitable for ECs which, due to poor management performance and underinvestment, cannot borrow from banks, but which have the potential to achieve financial viability.

... persuasion will be better in the long run

To achieve successful, sustainable deals with good demonstration value, it will be necessary to work with ECs and their boards to persuade them to enter IMCs. This will require:

- A communication program to let ECs know the advantage of IMCs, and what would be required to enter them
- Consideration of the incentives on Board and current management to enter IMCs, and their future role or pay-off if an IMC deal is concluded
- A Model IMC contract which allows flexibility for ECs to tailor the arrangements to their own circumstances, while also indicating the limits to the modifications which NEA and DOE would consider acceptable

Splitting commercial from stewardship and community responsibilities

The first step in designing sustainable, voluntary IMCs will be to decide how the current management and governance roles should be allocated between the private operator and the Board. Clearly, all commercial and operational responsibility should be assigned to the operator. However, we argue that the Board could usefully play a continuing role in stewardship of the assets, protecting consumers' interests, and promoting community development.

Key contract design issues include:

In the enclosed IMC contract, we develop two remuneration schemes, with the option of adopting a hybrid of the two. ECs will be allowed to choose the approach best suited to their situation and preferences.

investor remuneration

- **Model 1 – Sharing of Surplus** – Under this model the operator and the EC share in the free cash flow generated as a result of the improvements introduced by the operator
- **Model 2 – Lease** under this model the operator pays the EC a fixed 'lease' payment, and keeps the profits of business

The EC can choose between adopting either model alone, or a combination of the two.

employee severance terms

IMC contractors are likely to lay-off workers and change at least some of the management team. The contract should specify severance packages, and any restrictions on the operator's ability to reduce employment. This will be crucial to achieving labor and management acceptance of the proposed arrangements. It will also protect workers against unscrupulous bidders.

tariff regulation.

IMC contracts are predicated on the operator running the EC efficiently, and so generating a surplus. The operator's return comes from this surplus. The problem is that under the current cash needs approach to regulation, any surplus generated may be taken away by a tariff review. This means that IMCs are unlikely to be viable under the current regulatory approach. We recommend that ECs contemplating IMCs or similar arrangements be allowed to opt-in to an RPI-X price cap system, which will allow surpluses generated through efficiency gains to be kept, at least for a reasonable period.

Broader restructuring options need to be considered

IMCs are just one of a number of institutional reform options open to ECs which want to improve. Other options include:

- Raising more equity from members
- Conversion into stock co-operatives or corporations
- Joint ventures with private operators
- Amalgamations, in addition to or instead of any of the above options.

Government should encourage ECs to consider all of these options and choose the approach best suited to their circumstances. Work involved in doing this is outlined in the Implementation Action Plan in Section 0.

1.3 PSP in SPUG Areas

Missionary P6 billion cash requirement is not sustainable

SPUG is a division of NPC responsible for generating electricity for sale to ECs serving areas that, because of their remoteness, are unable to avail themselves of a grid connection.

SPUG costs are high. Lack of access to finance prevents it from reducing costs, or from meeting growing demands in the areas it serves. SPUG needs around P4.5 billion (US$ 116 million) subsidy for continued operation and investment in areas it serves now. Because of concerns about efficiency, ERC has been unwilling to grant SPUG the full amount of Universal Charge it has requested. This has placed further burden on NPC, (SPUGs parent entity) to meet SPUGs deficits.

PSP is the way forward

The solution is to open SPUG areas to competitive private provision. ECs should be encouraged to invite commercial bids for Power Supply Agreements (PSA) to replace SPUG supply. Competition for the opportunity will ensure that least cost operator is chosen

Castalia has prepared a DOE Circular which sets policy to promote private sector participation. This Circular has already been officially issued.

The International Finance Corporation (IFC) has approached the Government with a proposal to act as a Transaction Advisor.

… with PSA offered in waves

PSAs will be offered for private participation in waves, starting with at least 13 areas already identified by SPUG as suitable candidates. If an EC in the selected area does not avail itself of the opportunity to develop and bid a new commercial PSA, existing SPUG PSAs will be assigned to private operators through a competitive tender. SPUG's physical assets will be offered to the winning bidder, sold as surplus separately, or redeployed within SPUG.

Subsidy will still be required in some areas

In many areas, private participation will not be viable without a subsidy. SPUG will petition ERC with a proposal to set a Socially Acceptable Generation Tariff. Castalia has prepared a policy paper on how such tariff can be set.

If the full cost of generation exceeds that tariff, the private provider will receive a subsidy to cover the difference. This subsidy will be structured using Output Based Aid principles, and funds from the Universal Charge (UC). This subsidy might decline over a period of time, depending on the expected development of the former SPUG area, and may be structured as a payment per kWh supplied, or on the terms that SPUG, in consultation with DOE, determines. On this basis, all areas will be

viable for private participation

... but the overriding principle is full cost recovery

Castalia discussed this approach with ERC, who expressed support. The over-riding principle is that generators must be able to cover their full cost, either through the tariff, or a combination of tariff and subsidy. At ERC's request, Castalia has prepared ERC Policy Guidelines for the regulation of private participation in SPUG supply areas

1.4 QTPs

New missionary areas to be supplied by private firms

DOE is compiling a list of barangays which the franchise holder will not be able to supply over the next 3 years. Such barangays will be designated as "waived areas". In these areas, private suppliers known as QTPs will be invited to provide power.

We prepared a draft DOE Circular setting policy on QTPs (See Section 10). This Circular describes how private providers become QTPs, and how waived areas are presented to QTPs for their bid.

QTPs to enter ESCs with DUs, and DUs to delegate authority to DOE

QTPs will enter into an Energy Service Contract (ESC) with the EC or Distribution Utility (DU) holding the franchise. The EC or DU will sign a deed delegating authority to DOE to act as the agent. DOE will publicize waived areas, approve QTPs, run competitive tenders to match QTPs to waived areas, and oversee ESCs.

QTPs would compete based on lowest tariffs or subsidy

In cases where there is more than one QTP interested in supplying a waived area, DOE will hold a competitive tender to award the ESC. The award would be made on the basis of the lowest tariff. In some of these areas however, the full cost recovery rate that a QTP would need to charge might be socially unacceptable. To provide access to electricity to these barangays, it will be necessary to subsidize QTPs. QTPs will bid a subsidy requirement if their true cost is greater than a predefined Socially Acceptable Final Tariff (SAFT). The subsidy will be paid per connection and from the ME-UC.

For those waived areas where there is no competition, the ERC would define a Best New Entrant (BNE) tariff based on a model efficient mini-grid operator. The ERC would automatically approve any ESC with a final rate lower than the BNE. Only in those cases in which a final rate both had not been established competitively, and was higher than the BNE, would there be a need to apply for rate approval based on the costs and merits of the particular case.

ERC is engaged in regulatory implications

Castalia has worked with ERC to ensure they agree with this approach. At the request of ERC, Castalia has drafted ERC Policy Guidelines See Section 12. The policy guidelines emphasize the simplicity of the regulatory regime when applied to QTPs. Many QTPs will be small, and will not have the resources or the sophistication to deal with complex regulatory provisions. ERC proposes to support the qualification criteria developed by the DOE, and will recognize tariffs set through a competitive process implemented by the DOE

1.5 OBA

Subsidies to support electrification targets

Subsidies should be introduced if Government's electrification targets cannot be achieved at full cost recovery tariffs. Although there seems to be evidence that consumers are able and willing to pay more than the current below cost recovery tariffs, the government is unwilling to set tariffs at these high levels.

Tariffs should be socially acceptable

Government wants to set tariffs at socially acceptable levels. There is no obvious formula method to set a Socially Acceptable Tariff (SAT). We believe that a process through which these tariffs are set will play a critical role in ensuring their legitimacy. We propose a process that combines some degree of objectivity as well as consultation. The process will start by having DOE estimate SATs based on a principle of regional equity or some measure of affordability. Following consultation with interested parties, DOE will make a petition to ERC, who would in turn hold hearings before reaching a final decision.

Subsidies to be paid on outputs – connections and kWh supplied

In waived areas where the SAT is above O&M costs, we propose linking the disbursement of subsidies to connections installed. We proposed a method for calculating the subsidy amount per connection. In those areas where the SAT is below O&M costs, we recommend a transition to a SAT that at least covers O&M, and during this transition a two component subsidy: one linked to connections, and a second linked to kWh supplied.

In the case of IPPs we propose applying a subsidy payment per kWh of electricity supplied to the DU or EC.

In both cases, the subsidy would be petitioned and administered by SPUG.

1.6 The Way Forward

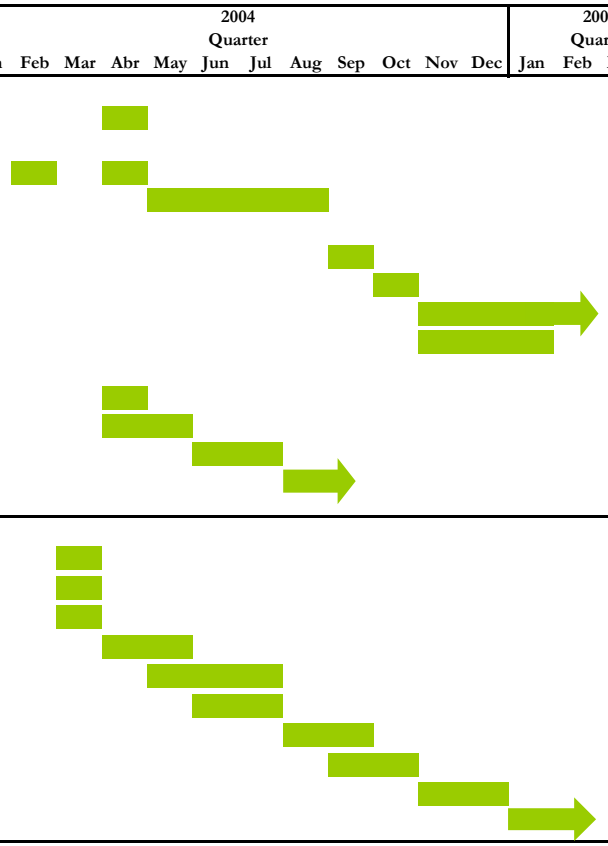
In the following two pages we include a proposed Implementation Action Plan to continue the reform of the rural electrification regulatory framework. Although this Action Plan was not a requirement of the Terms of Reference for this study, we believe it is important to provide the Government of the Philippines (GoP) with a clear reform map.

In addition, we have prepared the table below which highlights in red the additional actions that need to be taken to achieve intended results.

	ECs	**SPUG**	**QTPs**
Policy	Obtain active NEA Support	DOE Circular	DOE Circular
Regulation	Government letter to ERC Continue to engage ERC	ERC Policy Guidelines Prepare SPUG petition for Socially Acceptable Tariff and subsidy	ERC Policy Guidelines Prepare SPUG petition for Socially Acceptable Tariff and subsidy
Implementation	Model Investment Management Contract Government consultation paper Appoint IMC Transaction Advisor	Appoint SPUG PSA Transaction Advisor	Model Energy Services Contract Appoint QTP Transaction Advisor

Implementation Action Plan

	Responsible Entity	2004 Quarter: Jan Feb Mar Abr May Jun Jul Aug Sep Oct Nov Dec	2005 Quarter: Jan Feb Mar Abr
1 Improving Performance of Electricity Cooperatives			
1.1 DOE issues recommendations to ERC on EC regulation	DOE		
1.2 ERC formally issues revised EC regulatory guidelines			
1.2.1. Training to ERC staff on proposed reforms	Castalia		
1.2.2 Draft guidelines prepared	ERC / Consultant		
1.2.3 Training ECs	DOE / NEA / Philreca / Consultant		
1.2.4 Publication of draft and hearings	ERC		
1.2.5 Finalize guidelines	ERC / Consultants		
1.3 Rollout of revised guidelines	ERC		
1.3.1 Mentoring / on-site assistance to ERC	Consultant		
1.4 Initiate program to support non-IMC candidate ECs	DOE		
1.4.1 Write terms of reference for EC performance improvement advisor	DOE		
1.4.2 Obtain funding for advisors	DOE		
1.4.3 Retain advisors	DOE		
1.4.4 Rollout performance improvement program	DOE / Advisor		
2 Implemenmtation Investment Management Contracts			
2.1 Issue joint circular on IMCs	DOE / NEA		
2.1 Designate "champpion" to lead transactions from DOE's side	DOE		
2.3 Retain IMC Transaction Advisor (TA)	DOE		
2.4 Select ECs for first round of transactions	DOE / NEA / TA		
2.5 Consult with private investors / operators	DOE / TA		
2.5 Consult with candidate ECs and select short list	DOE / TA		
2.6 Finalize desgin of transaction terms and documents	DOE / TA / EC s		
2.7 Bidding process for first transaction	DOE / TA / EC s		
2.8 Closing and commisioning of first transaction	DOE / TA / EC s		
2.9 Design and execute subsequent transactions	DOE / TA / EC s		



	Responsible Entity	2004 Quarter: Jan Feb Mar Abr May Jun Jul Aug Sep Oct Nov Dec	2005 Quarter: Jan Feb Mar Abr
3 Private Sector Participation in SPUG Areas			
3.1 Issue circular on SPUG	DOE		
3.2 Issue tariff and subsidy guidelines for PSA	ERC		
3.2.1. Training to ERC staff on proposed reforms	Castalia		
3.2.2 Draft guidelines prepared	ERC / Consultant		
3.2.3 Publication of draft and hearings	ERC		
3.2.4 Finalize guidelines	ERC / Consultants		
3.2.5 Rollout of revised guidelines	ERC / Consultants		
3.3 Retain Transaction Advisor (TA)	DOE		
3.4 Prepare, design and execute transactions	DOE / TA		
2.4.1 Identify first round of candidate PSAs	DOE / TA		
2.4.2 Promote PSP concept with concerned ECs	DOE / TA		
2.4.3 Consult with private investor / operators	DOE / TA		
2.4.4. Shortlist PSAs for first round	DOE / TA		
2.4.5 Finalize design of transaction terms and documents	DOE / TA		
2.4.6 Bidding process for first transaction	DOE / TA		
2.4.7 Closing and commisioning of first transaction	DOE / TA		
2.4.8 Design and execute subsequent transactions	DOE / TA		
4 Facilitate QTPs Service in Waived Areas			
4.1 First list of waived areas	DOE		
4.2 Issue tariff and subsidy guidelines for QTPs	ERC		
4.2.1 Training to ERC staff on proposed reforms	Castalia		
4.2.2 Draft guidelines prepared	ERC / Consultant		
4.2.3 Publication of draft and hearings	ERC		
4.2.4 Finalize guidelines	ERC / Consultants		
3.2.5 Rollout of revised guidelines	ERC / Consultants		
4.3 Retain Transaction Advisor (TA)	DOE		
4.3 Prepare, design and execute transactions	DOE / TA		
5 Output-Based Aid			
5.1 Issue guidelines for setting Socially Accpetable Tariffs	ERC		
5.1.1 Training to ERC staff on proposed reforms	Castalia		
5.1.2 Draft guidelines prepared	ERC / Consultant		
5.1.3 Publication of draft and hearings	ERC		
5.1.4 Finalize guidelines	ERC / Consultants		
5.1.5 Rollout of revised guidelines	ERC / Consultants		
5.2 ESC and PSA complemented to include OBA mechanisms	DOE / Consultants		

2 Introduction

This report brings together work undertaken by Castalia in association with Allens Arthur Robinson and ACCRA Law. In previous reports under this project, we discussed policies needed to achieve the Government's objectives with respect to rural electrification. These objectives are:

- Improving financial performance of Electric Cooperatives (ECs) in order to enable them to reduce system losses and respond to growing consumer demands
- Reducing the costs of supplying electricity to existing missionary areas, reducing the subsidy burden and increasing supply in line with growing demand
- Enabling provision of services to areas which have been waived by ECs as unviable.

This report includes draft Government and ERC documents, which – if promulgated – would enable the Government to achieve its objectives

We have organized the report in twenty sections. Sections 3 to 8 provide background information and cover the pillars of the proposed policy reforms:

- Improving performance of ECs
- Enabling Investment Management Contracts (IMC)
- Private Sector Participation (PSP) in the Small Power Utilities Group (SPUG)
- Facilitating Qualified Third Parties (QTP) provide services in waived areas, and
- Applying Output-Based Aid (OBA) concepts to PSP in SPUG and unviable areas [4]

Sections 9 to 15 include drafts of documents that will enable Government to adopt the proposed policy reforms, these include:

- DOE Circulars and Letters to the Energy Regulatory Commission (ERC)
- Model Energy Service Contract (ESC) and IMC, and
- ERC Policy Guidelines

[4] The term Investment Management Contract refers to the proposed contract between a private operator-investor and an Electricity Cooperative (EC) to bring in capital and management expertise. The term Cooperative Strengthening Contract was also suggested to refer to such contract. In this report we only use the term IMC.

Section 16 includes the World Bank peer review comments on our Draft Final Report, and with our response to each of the points raised.

The IMC and the Model ESC have been developed with the assistance of and were drafted by Allens Arthur Robinson and ACCRA Law. Draft ERC Policy Guidelines and the draft Letter to ERC were developed with the assistance of ACCRA Law.

3 Background to Philippines Energy Sector

Prior to the passage of the Electric Power Industry Reform Act (EPIRA) in July 2001 the bulk of the country's power generation was shared between the National Power Corporation (NPC), a 100% Government owned stock corporations, and various privately owned independent power producers (IPPs). Transmission and sub-transmission was the responsibility of NPC. Hence NPC was a large vertically integrated organization which wholesaled electricity to distributors and to large industrial customers directly connected to the transmission grid. NPC met its electricity requirements using its own generation and through purchasing electricity from IPPs under take or pay contracts.

Distribution and supply of electricity is handled by a total of 139 distributors, each having an exclusive distribution franchise covering a specific area of the country. Distributors comprise 20 investor owned utilities (IOUs) including the Manila Electric Company (MERALCO), and 119 member-owned electricity co-operatives (ECs) that manage distribution in areas not franchised to IOUs. MERALCO is by far the largest of the private distribution utilities, and accounts for approximately 79% of NPC's electricity sales in Luzon, and 62% of nationwide electricity sales. While distributors purchased most of their electricity requirements from NPC there was no impediment to them owning their own generation or to purchasing electricity directly from IPPs.

Regulation of electricity prices was the responsibility of the Energy Regulatory Board (ERB), which operated under the auspices of the Department of Energy (DOE). The ERB used a rate of return methodology for regulating the tariffs of NPC and IOUs and a cash needs evaluation for setting the tariffs of ECs. Tariffs were set on the basis of a historic test year and remained current (subject to a limited range of adjustments for Government mandated wage increases, fuel cost and foreign exchange rate variations) until a distributor petitioned for, and was granted a rate increase by the ERB.

ECs are generally non-stock co-operatives owned by their customers on the basis of a one-off 5 peso membership fee, collected at the time of connection. They operate under the overall supervision of the National Electrification Administration (NEA), which regulates the governance of each co-operative, provides loans for capital development, grant and subsidy support and also specialist technical and management expertise. NEA is also responsible for the granting of franchises to ECs, and has the power to take over the management of poorly performing co-operatives.

3.1 Electric Power Industry Reform Act (EPIRA)

NPC's finances deteriorated following the 1997 Asian economic crisis due primarily to (i) a reduction in the rate of increase in demand for electricity resulting in it being required to purchase more electricity than it needed from IPPs under power purchase contracts with "take or pay" provisions, and (ii) significant increases in fuel costs and in payments to IPPs due to the depreciation of the peso. To address this deteriorating situation the Philippines Congress approved EPIRA (Republic Act No 9136) on 8 June 2001.

EPIRA mandates a restructuring of the industry. This restructuring is designed to increase the industry's economic efficiency by disaggregating the industry into its component sectors.

The generation and supply sectors, which are not natural monopolies, are to be exposed to competition and an electricity wholesale market is to be established to facilitate competition in the generation sector. The monopoly sectors of the industry, namely transmission and distribution, will be subject to the control of a newly established regulator, the Electricity Regulatory Commission, which is independent of DOE and other industry participants. The approach is consistent with the industry restructuring that is taking place in an increasing number of countries throughout the world.

EPIRA provides for the privatization of the assets of NPC and for the transition to a more competitive industry structure. It defines the separate responsibilities of the various Government agencies and private entities that will make up the restructured industry. In particular, it reduces the role of NPC to the operator of the Small Power Utilities Group (SPUG), which will be responsible for missionary electrification, and creates two new Government-owned corporations, namely the Power Sector Assets and Liabilities Management Corporation (PSALM) and the National Transmission Corporation (TRANSCO). PSALM will take possession of all existing NPC generation assets, liabilities, IPP contracts, real estate, and other disposable assets and will manage the orderly sale, disposition, and privatization of the generating assets, IPP contracts, and other property. The transmission and sub-transmission assets of NPC and other assets relating to transmission, will be transferred to TRANSCO, which will be wholly owned by PSALM. It is anticipated that the new transmission franchise will be assigned to a private sector concessionaire, which will operate and manage the grid under a concession contract to TRANSCO.

EPIRA requires the establishment of a wholesale electricity market. Subsequent to establishment of this market and the privatization of 70% of NPC's generation in Luzon and Visayas, EPIRA requires the industry to progressively develop a competitive retail market, starting with customer loads above 1 MW and progressively introducing customers with smaller loads until the competitive market embraces customers at the household level. Distribution will thus become a regulated common carrier business and distribution utilities will collect wheeling charges from retailers for the use of their facilities. Prior to the advent of full retail competition, the distributors will continue to act as the electricity supplier (or retailer) to their non-contestable connected customers. The retail rates charged by distribution utilities to their captive market will be regulated on the principle of full recovery of prudent and reasonable economic costs incurred. Distribution utilities are also required to comply with the technical requirements of the Distribution Code including technical requirements on the quality of supply provided. Furthermore distribution utilities will, over time, assume responsibility for the sub-transmission systems used to connect their networks to the transmission grid.

Electricity tariffs are being unbundled. This will disaggregate the tariff charged to end users into separate charges for generation, transmission, distribution and supply. Prior to the advent of retail competition distribution utilities will charge end users the regulated price for distribution and supply, while the approved transmission and generation charges will be added to customer accounts as a pass through.

3.2 Current Progress

Restructuring of the industry is proceeding, albeit more slowly than envisaged by EPIRA. PSALM and TRANSCO have been established and the legal transfer of assets from NPC to PSALM is in progress. Expressions of interest have been called for a private sector transmission grid concessionaire. While, as yet, no NPC generation assets have been sold, the various generation stations have been organized into profit centers that will be separately offered for sale. A simplified demonstration electricity market is in place. PSALM is currently modeling market prices and expects these prices to form the basis of transition supply contracts with distributors. These contracts will be offered for sale with the generation assets. Utilities are in the process of filing rate unbundling applications and some unbundled rates have been approved by ERC.

3.3 Background to Rural Electrification

Primary responsibility for rural electrification rests with the distribution utilities, principally ECs with franchises covering rural areas. As a condition of their franchises, distribution utilities are required to extend their grid to connect un-electrified barangays and provide service throughout their entire franchise area. NPC has, through SPUG, operated small diesel and bunker oil fuelled generators to supply electricity to ECs serving island networks not connected to the three main grids.

ECs operate under the overall supervision of NEA, which is a Government corporation mandated to assist ECs achieve total electrification on an area coverage basis. It administers the provision of loans and Government subsidies to electricity co-operatives, and provides technical and management support. It also has the power to take over the management of non-performing co-operatives.

The Government embarked on an accelerated rural electrification program in the late 1960s. The early years of the program witnessed the rapid expansion of electricity distribution services. Prior to 1980, connections grew at more than 30% per year. This rapid expansion during the early years was only possible because of the availability of low-cost financing for the sector. However, facing political pressure, ECs soon found themselves pursuing expansion projects at times without regard for cost or quality of service. When funding sources started to dry up, expansion could only continue at the expense of major maintenance or line rehabilitation, contributing to the deterioration of services even in the core areas.

The program achieved one hundred percent energization of municipalities in 1990. As of June 2003, some 4,750 out of 42,000 barangays (11.3%) remain un-served. The Government remains determined to achieve its goal of 100% barangay electrification by 2006 and updated progress towards the electrification of all barangays in the country is reported on the NEA and DOE web sites.

Expansion of rural electrification, either through the extension of existing distribution networks or the implementation of alternative off grid solutions is impeded by the difficult financial situation of many ECs. The franchises of many co-operatives are small and in some cases not viable, making good financial performance difficult. While NEA has the

power to rationalize existing franchises, there is not the political will to do so. NEA's difficulties in this regard are reflected by EPIRA, which provides that the power to grant franchises will revert to Congress in 2006. Many co-operatives also suffer from ineffective management and from premature asset deterioration due to poor purchasing and maintenance practices.

NPC, through SPUG, is responsible for providing electricity to ECs serving franchise areas, such as remote islands, without a connection to one of the three main transmission grids. To supply such networks it operates a number of small power stations, generally using diesel generating sets. However the price at which SPUG sells electricity is regulated to a level that in many cases does not cover even the variable cost of supply. Hence generation to supply isolated distribution systems incurs significant losses.

3.4 Sector Objectives

The Government of Philippines has three key objectives with respect to rural electrification:

- The first is to achieve 100 percent barangay electrification by 2006. The definition of what constitutes an electrified barangay has recently been changed from a minimum number of connected households, to a concept based on availability of access. Under the new definition, a barangay is electrified if facilities exist to accommodate customers' requests for connections, even if there are no connections yet made. As electrification reaches increasingly more isolated and poorer communities, the new definition may be a fairer measure of the supply effort in areas where customers may not yet be able to afford the costs of connection, meter purchase and household wiring. However, even under this new definition, the Government's target remains ambitious, requiring 7 to 8 barangays to be electrified every working day.

- The second is to achieve 100% household electrification by 2017.

- The third is to minimize the costs of electricity to customers. This objective is pursued through:

    - The unbundling of the electricity sector, and the introduction of competition into generation and retail;

    - Privatization of NPC's generation assets to achieve greater efficiencies;

    - Regulation of remaining monopoly services (such as distribution and transmission) to ensure lowest possible tariffs; and

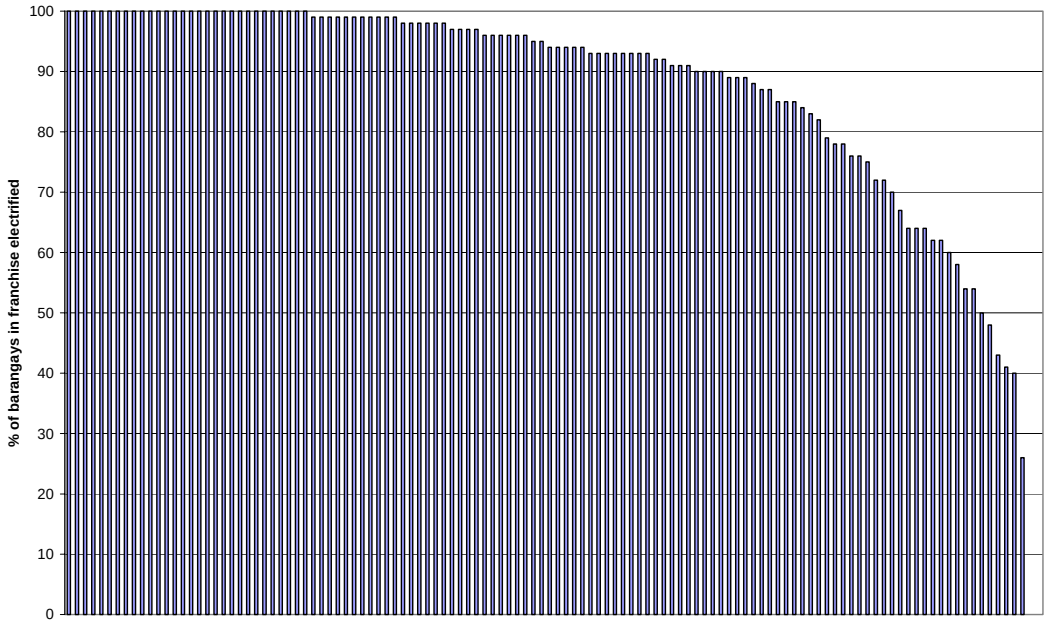
    - Condonation of electric co-operatives' loans to NEA in order to reduce their debt service costs, and correspondingly, their tariffs.

    - Overall, the Government has raised expectations that retail tariffs will decline from their current levels.

Figure 1 shows progress towards the achievement of the first objective at January 2003 within ECs franchise areas. Twenty nine out of 119 franchise areas have already achieved the 100 percent target. For the remainder, the proportion of electrified barangays ranges down to 26 percent, although only 10 franchise areas have less than 60 percent barangay electrification.

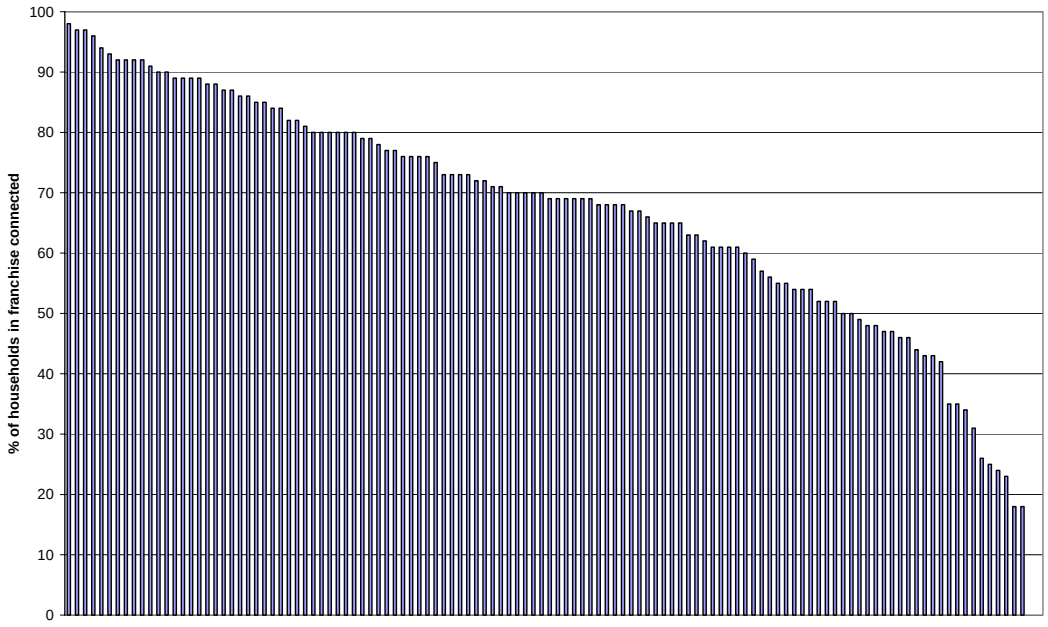
As one would expect, the proportion of connected households is generally lower. While 100 percent barangay electrification would be a significant milestone, even then Philippines will still have some way to go before achieving 100 percent household electrification. We understand that the 100 percent household electrification target is set for 2017. Figure 1 shows household coverage by area.

Figure 1: Electrification of Barangays by Franchise



Each bar represents one EC

Figure 2: Household Electrification by Franchise



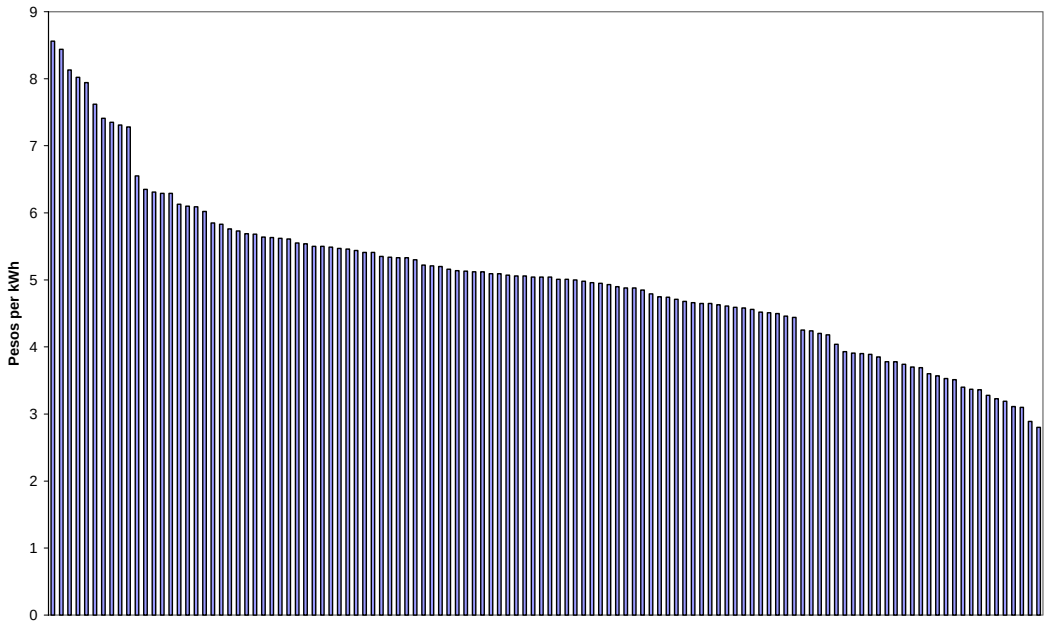
Each bar represents one EC

There seems to be only a loose correlation between barangay electrification and household electrification within a franchise area. For example, VRESCO co-operative had 92 percent of barangays within its franchise area electrified in 2002, but only reached 49 percent of households. As a result, there is likely to be a trade-off between targeting households and targeting barangays. Subsidies targeted at households would tend to produce different outcomes to subsidies targeted at barangays. For example, it may be possible to achieve greater household coverage by concentrating the existing subsidy efforts on extending service to households within already electrified barangays. The same issues will arise in relation to performance targets under IMCs, where barangay-based performance criteria would produce different behaviors from produced by household-based criteria.

There is also a trade-off between the policy of minimizing tariffs, and setting tariffs at levels that would provide ECs with sufficient resources and incentives to extend coverage. Figure 3 shows average ECs tariffs for 2002. Seventy six out of 119 ECs had bundled rates below PhP 5.27 – the average rate for MERALCO for this period. It is unlikely that any of the ECs would have been able to do better than MERALCO in terms of economies of scale, levels of energy consumption per customer, or the relatively high proportion of industrial and commercial users found in Manila.

To some extent, lower EC rates may be explained by the fact that ECs are non-profit organizations. However, co-operatives still have to fund their investment programs, so being non-profit making would not by itself account for much lower rates. Hence, EC rates, while not aiming for a profit, still need to cover their weighted average cost of capital to enable service extension.

Figure 3: Average EC Rates in 2002



Each bar represents one EC

It would be plausible to suggest that ECs would typically be higher cost than MERALCO, both because they have less attractive franchise areas, and because they do not face the same commercial performance incentives. Consequently, consistently and significantly lower regulated tariffs for co-operatives imply that the policy is likely to be favoring low cost to ECs' current customers at the expense of growth in coverage.

4 Improving Performance of ECs

4.1 Overview of Performance Issues

Although progress has been made in ECs towards achieving electrification targets in EC franchise areas, the sustainability of this achievement is questionable. Almost half of the ECs are not able to cover their operating expenses and debt service. Furthermore, most ECs barely break even, and almost a fifth is in deficit. Based on our analysis we believe that four factors can explain poor performance of ECs:

- Lack of access to capital
- The current regulatory caps imposed on them
- Poor efficiency, and
- Poor governance.

These factors are discussed below.

4.1.1 Lack of access to capital

While the Philippines ECs are based on the US rural electric co-operative model, they differ from their US counterparts in one significant respect: they are not able to call on their members to make contributions to their capital beyond the initial 5 peso joining fee. This makes ECs have been almost entirely dependent on debt for raising capital.

Until recently, the main supplier of debt has been NEA which, at the end of 2002 had a total of almost 16.8 billion pesos on loan to ECs, of which 1.9 billion pesos was outstanding mature debt. However Executive Order 138 has greatly reduced NEA's ability to lend to ECs, but at the same time section 60 of EPIRA condoned all NEA loans to ECs. The result is that although most EC debts have been removed, ECs will need to access other sources of finance in the future.

Two financing options are particularly important here:

- Some more successful ECs are pooling resources to develop the Rural Electrification Finance Corporation (REFC). This will access external capital and lend to credit-worthy ECs [5]
- The Development Bank of the Philippines (DBP) currently lends to ECs. It is expected to increase its lending to the sector, acting at least in part as an on-lending agency for a World Bank loan to the Government of the Philippines.

[5] The REFC requires that clients are contributing members.

ECs may also seek to borrow from other sources, including ordinary commercial banks.

ECs may also choose to seek capital by entering Investment Management Contracts (IMCs) with private investor-operators. These are discussed in more detail in Section 5. Finally, ECs have the option to convert to stock co-operatives or to stock corporations. Either approach would allow them to raise additional equity finance. However, an EC which converted to a stock corporation would lose the benefits of NEA loan condonation.

Various legal changes are required to allow ECs to borrow commercially. The sharing of NEA's collateral and other lender's rights over the ECs is proceeding so that other lenders can obtain adequate security. Regulatory changes will also be required, as outlined below.

4.1.2 The regulatory barriers

The cash needs approach to regulation for ECs will make commercial borrowing difficult for an EC. [6] Lenders will require the EC to earn a margin above cash costs sufficient to cover 1.5 times interest obligations and 1.2 times total debt service obligations.[7] Under a cash needs approach, tariffs have traditionally been set to allow ECs to cover debt-service costs, but not to allow a free cash margin above this. If ECs cannot generate a cash surplus over and above their debt service requirements, they will not be able to borrow commercially. As a result, it is possible that most ECs could be cut off from finance needed for expansion and efficiency gains.

Some ECs (maybe half) have been able to generate cash margins that are likely to be adequate to attract debt finance from the REFC or DBP. The ECs have reached this level of "viability" largely through load growth since the test year on which the recent unbundled distribution wheeling rates were determined.[8] The key is that for these more fortunate ECs, reductions in average cost as a result of load growth have been higher than cost inflation and they have not been unduly penalized through having losses significantly higher than the allowed loss cap.[9]

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[6] The cash-needs approach for setting rates is based on the following formula.

allowed revenue = E + O&M + DS + reinvestment allowance, where
E = cost of all purchased electricity including that subsequently lost
O&M = operating and maintenance costs including payroll
DS = agreed debt service
Reinvestment allowance = 5% of (E + O&M + DS)

the tariff 'base rate' = allowed revenue/kWh sold, where
kWh sold = kWh purchased – allowed losses, and
Allowed losses = the lesser of actual losses and the 14% loss cap.

[7] These are REFC's proposed ratios. Other lenders' requirements will be similar.

[8] There have also been other contributing factors such as efficiency gains, keeping a share of prompt payment discounts from NPC, interest income and non-operating income.

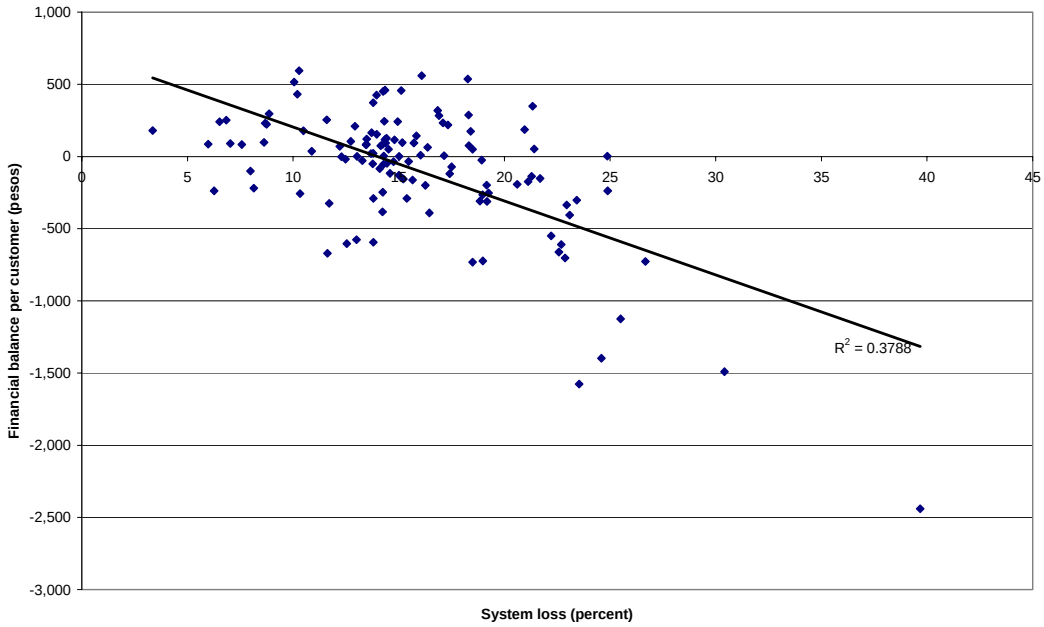
[9] The effect of loss caps significantly below actual losses has been to deprive ECs of the funds with which to strengthen and extend their networks. Loss caps do not appear to have been successful in improving service standards. Some ECs may be recovering higher losses than their actual losses.

Until now, ECs have had some regulatory flexibility to ease capital constraints. ECs have been allowed to recover through tariffs a reinvestment allowance equal to 5% of overall supply costs, and where this has not been enough, have been able to default on NEA debts and accumulate debts to NPC. The NEA buffer is now removed through loan condonation and it will not be possible to have debts to generators in a competitive wholesale market.

Beyond the limitations of the regulatory approach to raising debt, this model is not entirely based on accommodating ECs cash needs. In particular, there is a 14% cap on system loss that ECs are allowed to recover, with most ECs exceeding the regulated maximum cap. In addition, The ERC is aggressive in disallowing inefficient operating expenses. Hence, one possible hypothesis for poor financial performance is that co-operatives are squeezed between the rock of regulation and the hard place of not being able to gain access to finance needed to invest in improving performance.

For this explanation for EC performance to be correct, we would expect a strong negative correlation between an EC's system loss and its financial position. **Error! Reference source not found.**Figure 4 shows that there is indeed a degree of correlation between financial performance and system loss. As expected, financial losses increase with system loss.

Figure 4: Financial Surplus Per Customer and System Loss



ERC, under ADB funded study is analyzing the individual performance of ECs to explore the option of setting losses cap that better reflect the reality of ECs.

4.1.3 Poor efficiency

In principle, co-operatives should have a strong incentive to minimize their costs for the benefit of their member-customers. Given this, we would expect that to a large extent, variability in operating costs would be explained by the quality of each co-operative's franchise. More densely populated areas, and areas with higher load would generally have lower unit costs.

The figures below, however, show that there seems to be little link between scale and density of the co-operative franchise and its costs.

Figure 5: Customers Per Employee and Scale of Co-operative

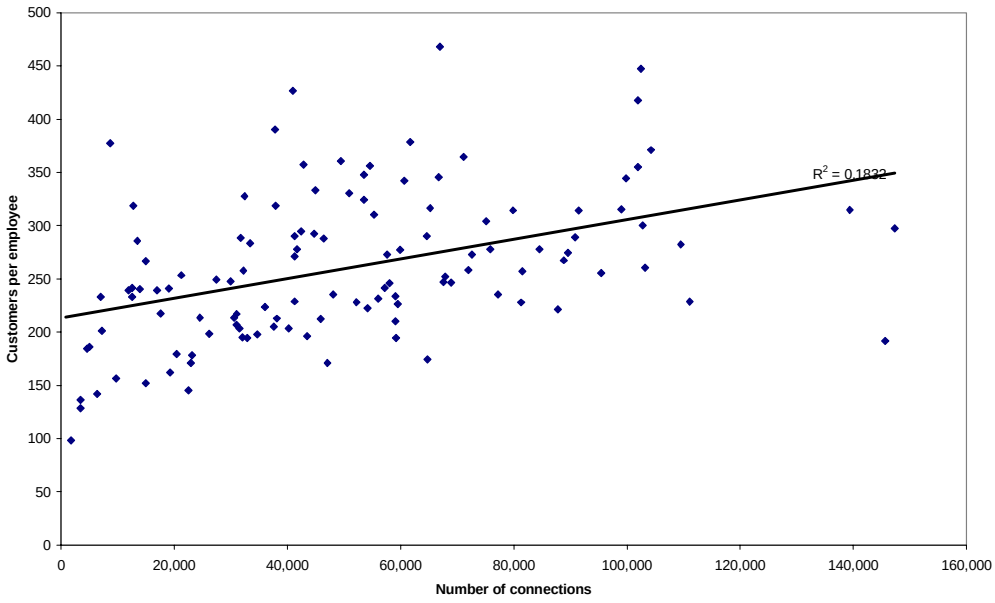
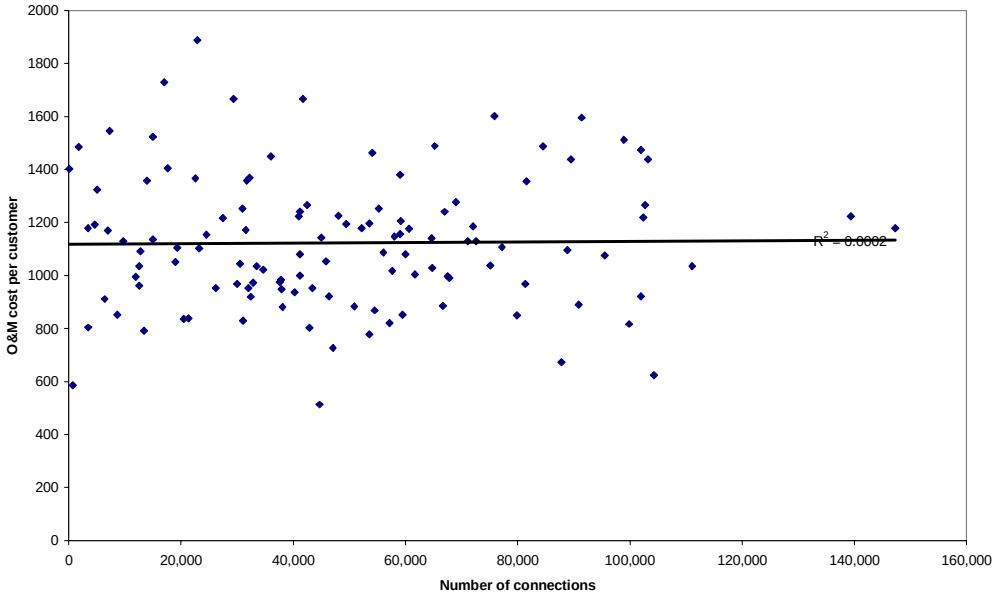


Figure 6: Operating Cost Per Customer and Scale of the Co-operative



Hence the quality of the franchise does not appear to be a determining factor. Variation in EC's performance seems to be mainly attributable to the quality of management. It is interesting to note that ECs also appear to be significantly less efficient than similar sized IOUs. For example, one IOU that is similar in scale and franchise area to an EC is Davao Light and Power, with 212,021 customers and 194 employees. This gives it a ratio of 1,093 customers per employee, compared to the ratio for ECs of between 98 and 468 (for comparison, MERALCO has 658 customers per employee). Below we present some of the governance issues behind the poor performance of EC management.

4.1.4 Poor governance

Governance of ECs is characterized by a conflict between commercial and non-commercial interest. In principle, co-operatives should have the same commercial incentives as private companies – to maximize the wealth of their owners, and to return the highest possible return on investment. The only difference is that co-operatives would deliver their returns in the form of price rebates. However, at the best of times, the EC model struggles to find the right balance between members' long-term interests as owners of the business and short-term interests as users.

The governance and capital structure arrangements for the ECs make this reconciliation particularly difficult:

- ECs are not able to raise capital from their members, and in effect, have no equity. Hence, members do not perceive any ownership stake in the performance of the company.

- Voting is conducted on the one member, one vote basis, rather than in proportion to usage, as is common in many commercial co-operatives. This means that larger industrial and commercial users, who would normally be expected to take closer interest in the performance of the company and provide more informed oversight, have little incentive to do so

- Election to an EC Board is seen as a stepping stone towards a political career. Hence, Board members are more likely to promote co-operative actions with the greatest political, rather than commercial pay-off. The prevalence of political over commercial incentives also explains why co-operatives would tend to maintain relatively high employment levels compared to IOUs.

Overall, EC governance arrangements tend to be slanted towards political, rather than commercial objectives. In effect, ECs behave more like municipal companies than co-operatives.

4.2 Reform Options Considered

ECs have a range of options that they could consider to improve their performance. Some of these options include:

- convert into joint stock companies to seek a greater capital subscription from their shareholders or widen the shareholder base

- merge with other ECs to benefit from synergies and economies of scale

- can enter into joint ventures and other arrangements with private firms

- seek a reform of regulatory regime, or

- enter into IMCs to improve performance and obtain capital.

As part of the scope of this study we cover the last two options. The first three options are valid options that should be seriously considered, and which we have included as part of our proposed Implementation Action Plan in Section 0.

In this section we consider the regulatory reform options. IMCs are explained in greater detail in Section 5.

The key objectives for reforming the regulatory regime of ECs include:

- promote access to capital

- improve efficiency, and

- reduce regulatory costs

Some of the regulatory options that we considered to achieve these objectives are:

- modified cash-needs approach
- IOU model
- regulatory threshold, and
- US co-operative model

These are described below.

4.2.1 A modified cash needs – TIER or DSCR – model

By the 'Cash Needs' we refer to the approach currently used by the ERC to regulate ECs. Under the 'Modified Cash Needs' approach we propose that the ERC continue to apply the same methodology, subject to the following three changes

- discontinue investment supervision
- depreciation allowance instead of 5% reinvestment allowance
- tailor cap on system losses, and
- forward rather than backward revenue requirements

The primary objective of the changes is to allow the EC to finance new investment through retained cash, and the maintenance of acceptable debt service coverage ratios.

These changes are explained below:

4.2.1.1 Investment supervision discontinued

The use of the current 5% re-investment allowance is closely controlled by the ERC, to the extent that lenders can have no confidence that the funds would be able to be used to honor debt service obligations in situations were revenue drops or operating costs increase sharply. It is recommended that this supervision of the reinvestment process is discontinued and replaced by the forward looking rate making process described below.

4.2.1.2 Depreciation allowance instead of 5% reinvestment.

In setting rates, the ERC should allow the EC to recover the depreciation calculated in line with the specified asset value and depreciation rate guidelines.

Once the ERC introduces a depreciation allowance, it should discontinue the 5% re-investment allowance to avoid double counting.

4.2.1.3 System losses

Currently, ECs are only allowed to recover in tariffs the electricity cost of combined technical (electrical) and non-technical (theft and poor collections) losses up to a cap of 14% of sales. EPIRA requires that the ERC moves to make more specific allowances for the operating conditions of each EC.

ERC, with the support of the Asian Development Bank (ADB), is working with consultants to assess the current level of losses of individual ECs, and to use this information to set more tailored cap losses.

4.2.1.4 Forward looking revenue requirement to be filed

The current regulatory method uses an historic test year to set the allowed revenue and hence tariffs. This should be replaced with a forward looking approach. ECs should be required to file financial projections for at least 3 years ahead, as well as their historic accounts. The financial projections should be presented in the same format as the historic accounts. Changes in costs between the historic accounts and the projections should be clearly identified and justified.

4.2.2 The IOU model

Another approach to generating the required cash margins would be to regulate ECs using the same system being developed for IOUs in the Philippines. We understand that the IOU method follows conventional international price cap best practice. To avoid an unnecessary and unpopular jump in tariffs for ECs, the Regulatory Rate Base (RRB) could initially be set at or close to zero.[10]

As in the modified cash needs model above, we suggest using a realistic assessment of the replacement cost of EC assets as a basis for a depreciation allowance – as is presumably being done for IOUs – and allowing the RRB to increase in line with investment less this new depreciation allowance. The RRB would thus only increase in line with upgrading and growth in the network value; it would not progressively incorporate the initial actual economic value.

Again, as above, we expect that ECs will need to come back to the ERC with network capital development plans together with funding proposals so that the Commission can sculpt viable price paths in each case. Based on regulatory practice elsewhere, we would expect the price paths to be set for about five years and then reviewed.

The IOU model will only work here – and indeed for actual investor owned utilities – if the allowed rate of return is equal to the actual weighted average cost of capital (the WACC) of the firm. In the EC case, a realistic WACC will provide the required debt service cover. Since the cost of debt to ECs is likely to be around 12%, their WACC and hence required rate of return will be higher than 12%.

[10] The initial Regulatory Rate Base would include any existing loans but, with condonation, we have assumed in this discussion that these are small.

This approach treats each EC individually and so is more costly for the regulator and ECs than the threshold option, but not appreciably more than the current cash needs approach.

4.2.3 A regulatory threshold

A variant on the "constant nominal tariff" suggested as a regulatory contract for ECs entering IMCs, would be for the ERC to announce that all EC tariffs will only attract a regulatory review if they breach a universal threshold based on the last round of unbundled distribution wheeling rates. The threshold would be that each EC's allowed rates would be indexed to inflation less some required productivity gain.[11] No consumer petitions for rate reductions would be entertained.

If the required productivity gain is less than the inflation rate, this approach would create more scope for IMCs and a better prospect for other ECs to develop operating margins for debt service coverage. This method would work where the EC is already in a reasonable financial position. ECs which entered this regime with large losses as a result of failure to meet distribution loss caps would need to apply for a tariff increase.

EC boards are by all accounts very focused on keeping rates down and under considerable pressure to upgrade networks and service standards. Thus, as growth has produced operating surpluses for some, the money has gone into the network. It seems unlikely that Boards will use this threshold model to increase tariffs. The debt service margins – if unused in any particular year to compensate for a cost over-run or revenue drop – are more likely to be re-invested. In the long run, when the backlog of needed network upgrades is exhausted, the cash from unused debt service margins could be used as effective equity contributions in re-investments or returned as lump sum rebates to consumers (the US Rural Electricity Co-operative practice).

4.2.4 The US co-operative model

Only about 14 co-operatives out of 900 are directly price controlled by the local Public Utilities Commission in the US. This raises the possibility of deregulating ECs in the Philippines as well. We know that Philippine EC Boards are very reluctant to raise prices – so strong is the political pressure for low tariffs – so regulation may be better directed at enforcing reliability and service quality standards. The modified cash needs method suggested above – incorporation of debt service coverage margins in the tariff – is the method used by US co-operatives to set rates, with or without regulation. In this model the ERC would not control tariffs.

Requirements for ECs to disclose technical performance and publication by the ERC of relative performance measures may provide useful pressure on EC Boards and management to cut operation and maintenance (O&M) costs and losses and improve reliability. In this mode, the ERC would be assisting consumers in intensifying pressure for better performance.

As a fall back, consideration could be given to poor consistently performers ultimately being required by ERC (or as a result of consumer petition) to enter IMCs.

[11] The IMC regulatory suggestion is obviously that the required productivity gain is equal to the inflation rate.

4.3 Preferred Option for Regulating ECs

Preferred regulatory reform options were selected based on our objective analysis of each option and consultation with the ERC and GoP. We considered how each of the regulatory options responded to each of the proposed regulatory reform objectives. We then organized consultation sessions with ERC, DOE, NEA and individual ECs.

ERC pointed out that ECs differ widely in their circumstances and capabilities. This means a 'one size fits all' regulatory approach is not suitable. Many ECs will want to remain with the current cash needs approach, which they understand. Other ECs will seek new regulatory compacts, which are more supportive of private equity investment and management. For this reason, we recommend a 'multi-speed' regulatory framework, as follows:

- **Modified Cash Needs** – Most EC will remain within the default 'Cash Needs' regime. However, this Cash Needs regime should be modified to allow these ECs to access the commercial finance they need for investment. The proposed modifications are described in Section **Error! Reference source not found.**. The aim of these modifications is primarily to allow ECs to achieve sufficient retained earnings to meet the debt service coverage ratios which commercial lenders will require. In this sense the objective is similar to the TIER approach used in the USA. However the mechanics are different, since they have been designed for the Philippines situation

- **Performance Based Rate-making** – ECs will be allowed to 'opt-in' to a Performance Based Rate-making (PBR) methodology. It is expected that ECs which plan to involve private equity or performance-based private management will opt for PBR. Two PBR options are proposed:

    - **PBR 1 – Simple Price Cap** – Under this approach, the EC's current tariffs would be indexed to inflation minus a productivity factor (RPI – X). The EC would be required to keep its tariffs at or below that level for a fixed period. This is a simple PBR system which can be easily and quickly adopted by ECs which want to move quickly to IMCs or other forms of incentive-based management and investment. This option is outlined in Section **Error! Reference source not found.**.

    - **PBR 2 – IOU Model** – Under this approach, ECs would be regulated in the same manner as Investor Owned Utilities (IOUs). This approach will be suitable for ECs which want to move to a PBR system but which believe their current unbundled tariff would not provide a suitable starting point for such a regime, and for ECs which are considering becoming more like IOUs, for example through joint ventures or conversion to joint stock companies. This option is outlined in Section **Error! Reference source not found.**.

4.4 Next Steps and Supporting Documentation

In order to move ahead with further developing and implementing the proposed regulatory reforms, we recommend that the following steps are taken:

1. DOE would formally issue the Letter to ERC with recommendations on EC regulation. A draft of this letter in included in Section 15.

2. Considering the recommendations of the DOE letter, and the findings of the study, and based on its own experience and judgment, ERC would make a decision on formally adopting the proposed EC regulatory policy direction. ECs should be further consulted before a final decision is made.

3. The ERC would develop and formally issue regulatory procedures that specify the rules and process that ECs should follow when making rate petitions under the new regime. The ERC would benefit from the assistance of external consultants in this task...

4. ERC will conduct a program to train ECs on the application of the new regulatory procedures.

These actions are included in the sector-wide reform Action Plan in Section 0.

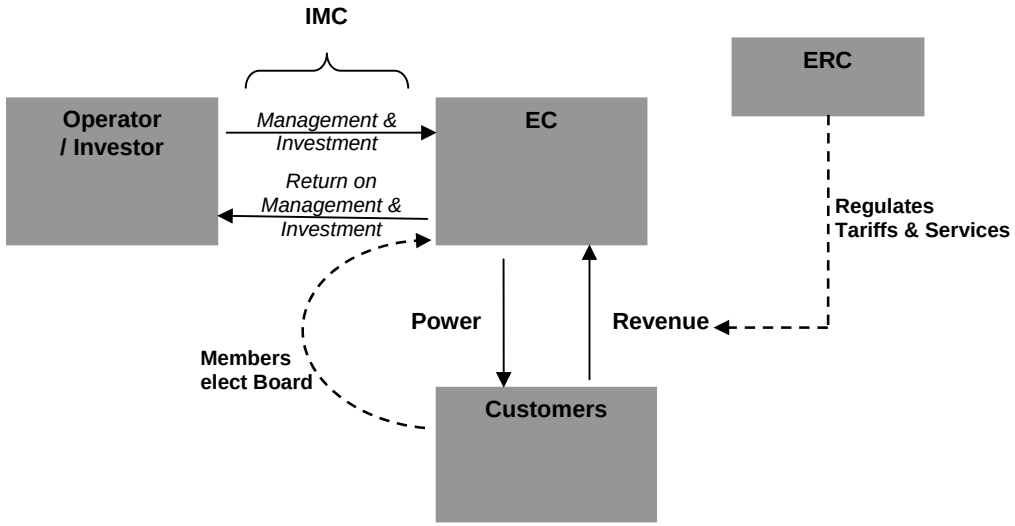
5 Enabling Investment Management Contracts

5.1 Overview of IMCs

As described in Section 6 above, one option that ECs can adopt for improving performance is to enter into IMCs. IMCs – a kind of concession contract – are being proposed as a way for ECs to access a combination of private sector capital and management. IMCs are most likely to be attractive to ECs which, as a result of poor financial performance or management are not able to access finance from lenders, but which have the potential to become financially viable and earn a return on new investment if managed better. An IMC contract allows an investor to safeguard their investment by controlling the EC in which they have invested, at least for a period. Overall, IMCs will allow improved governance by de-politicizing the commercial operations of the distribution utilities.

The basic structure of an IMC is illustrated in Figure 7. The EC remains as the Distribution Utility, responsible for providing service to customers. It is regulated by the ERC. However, the EC enters an IMC with an Operator-Investor. Under this contract, the Operator-Investor is given management control of the EC, and agrees to invest risk capital to improve the EC's assets and operations. In return the IMC receives remuneration from the EC. The remuneration should be commensurate with the inputs provided, the risks assumed, and the success of the contractor in improving the EC's performance.

Figure 7: Investment Management Contract - Basic Structure



We understand that at least two ECs have signed management contracts with private companies. We have not seen these contracts, but understand that they involve primarily

management rather than risk-capital inputs from the private sector. Thus they may not be true 'IMC' contracts, but within DOE and NEA they are being referred to as the 'IMC 1' program.

DOE is now pressing ahead with what it refers to as the 'IMC 2' program. Under this program Operator-Investors will be competitively selected, and will be required to invest risk capital. DOE and NEA have developed a list of ECs considered to be candidates for IMCs. Castalia has developed a model IMC contract for ECs to use in the future which is attached in Section 14. A transaction advisor will soon be engaged, with a mandate to complete the first transactions. These are intended to demonstrate the concept. It is expected that other ECs will adopt IMCs contracts, as the concept becomes more familiar.

5.2 Implementation of IMCs

In order to move ahead with the implementation of IMC transactions, there are number of questions that need to be answered. Some of the most pressing include:

- Should NEA and DOE push or facilitate the adoption of IMCs by ECs?
- What role would EC Boards play when the IMC is implemented?
- How would the Operator-Investor be remunerated?
- What termination arrangement will be used?
- What is the best option for dealing with employee termination arrangements?
- How would ECs entering into IMCs be regulated?

These questions and possible answers are discussed below.

5.2.1 Degree of compulsion

The first issue which needs to be addressed is the degree of compulsion that the Government wishes to use with respect to candidate ECs. Since all candidate ECs are in arrears to NEA, NEA in theory can exercise a broad range of control rights over the ECs. NEA could also adopt an option where it would facilitate the voluntary adoption of IMC by ECs. Overall, we believe that the choice is between two options:

- **A direct contract with NEA** – This would require NEA to assume ownership of the EC by putting it into receivership.
- **A voluntary contract with the EC** – Such a contract can not be achieved through any form of temporary control by NEA over the co-operative.

We favor the voluntary option, where the Government facilitates and encourages the deal, rather than enforces it. However, this option has a number of consequences, which need to be clearly understood and weighed up:

- A voluntary arrangement is likely to take more time to implement, and will require sustained commitment of resources to stay on track for implementation

- EC Boards may vary IMC terms according to their own preferences. The Government will need to decide how much variation is acceptable, and where it will need to step in to preserve its policy objectives

If the Government accepts the voluntary approach, then it is critically important to devise and implement an action plan for facilitating IMCs which is consistent with the Government's policy objectives. We believe the action plan will need to consist of the following elements:

- **Promotion and persuasion** - Our contacts with ECs and with PHILRECA indicate that co-operatives have not really thought about IMCs very much, and are yet to understand what they would achieve, and what the Boards and managers would need to give up. We wish to emphasize the importance of educating co-operatives about the IMCs, the issues they will need to consider and the processes they will need to go through. We would recommend the following components to this program:

    - **Consultation paper** - The Government should issue a consultation paper explaining various options available to ECs, how an IMC option would work, and the key decisions that an EC Board would need to make in negotiating such a contract. This paper should be accompanied by a clear statement of the Government's own policy and preferences with regard to IMCs, and should be circulated widely in the sector. We believe it should be possible to circulate the consultation paper early next year

    - **Model contract and bidding process** - The model contract (included in Section 14) needs to be circulated to ECs for consultation and discussion along with the consultation paper. The Government also needs to communicate to the ECs its view on the limits to variations from the model contract, and what steps will be taken to stop ECs from entering contracts that are outside the acceptable bounds

    - **Seminar for candidate EC Boards** - Shortly after circulating the consultation paper, NEA and DOE need to organize a seminar for members of the Boards and General Managers of the candidate ECs to begin the process of achieving their buy-in

- **Transaction advisor** - We understand the Government will shortly proceed with the appointment of the transaction advisor for the first wave of IMCs. Since the advisor will be working for the Government, rather than the ECs themselves, it would essentially need to perform the role of a broker, bringing ECs and investors to a deal. The advisor will need to work closely with the EC Boards to advise them on the form of the contract most suited to their needs, and to facilitate their understanding and buy-in. The Government will need to provide the transaction advisor with clear guidelines on the acceptable variations from the model contract

- **Incentives** - The Government will need to decide if it is appropriate to offer incentives to ECs entering the first wave of IMCs. "Carrots" may consist of the following:

    - Advantageous restructuring of non-condoned NEA loans and any NPC arrears (the benefits of such restructuring may be shared between co-operative members and the winner of the IMC)

    - Preferential access to barangay electrification subsidies from the NEA funding pool

    - Government support in achieving a regulatory outcome from the ERC that would support the IMC

  "Sticks" may include:

    - Tightening of conditions under the loan condonation program for candidate ECs that are refusing to enter into an IMC, or which are negotiating an IMC that is not advantageous to its members.

We recommend that NEA and DOE be tasked with producing a joint draft circular by early 2004 setting out the policies and procedures for Government facilitation of the IMCs. A draft of this Circular is included in Section 13.

We also believe that to facilitate IMCs, it will be important for the Government to assist the ECs in working through a broad range of options available to them. In a voluntary setting, it would be irresponsible for EC Boards to commit to the IMC option without understanding and evaluating what else they can do. Various options have been well described in the draft strategy prepared by Preferred Energy. These include:

- Encouraging ECs to graduate to Investment Grade status, where all their financing will be obtained commercially

- Encouraging ECs to raise more equity from their members, in addition to the 5 peso joining fee. We understand this has been done by some ECs

- Encouraging corporatization of ECs

- Joint ventures with private operators.

It will be important for the Government to communicate the analysis in the Preferred Energy report to the ECs. We would recommend that the report be turned into a consultation paper that can be discussed with EC Boards.

5.2.2 Role of the EC Board

Ideally, the purpose of an IMC is to de-politicize EC governance, and to introduce management driven by more commercial incentives. This objective requires minimizing the role of the EC Board. The Board would not only need to be removed from day-to-day

policy-setting (at present, EC Boards meet twice a month or even more frequently), but would need to step back from involvement in investment planning or from setting other high level policies. The key strategic decisions relating to assets, personnel, billing and metering systems, and so on should be made by the IMC operator.

In reality, however, EC Boards are unlikely to restrict themselves solely to monitoring and enforcing the IMC. When candidate ECs consider the terms of the contract that would be acceptable to them, one of the key factors influencing their decision is likely to be their perception of whether the contract leaves them an adequate and appropriate residual role. To some extent, investor interests provide a natural limit to how much of a role the EC Boards can demand, since if they go too far, there would be no deal. However, under some circumstances – such as if they are offered fixed remuneration for management services – investors may agree to a significant role for the Board. In essence, investors and EC Boards may strike mutually acceptable deals at the expense of consumers.

Hence, it would be appropriate for the Government to take a view on what should be the residual role of EC Boards following the implementation of an IMC. In considering this issue, we believe it may be helpful to consider separately the community and commercial responsibilities of the current EC Boards. Some of these distinctions are highlighted in NEA Bulletin 35, which emphasizes members' dual roles as co-owners of the co-operative and consumers of its services. As owners' representatives, Board members have to think as commercial directors, with prime responsibility for high quality commercial operation of the business. As consumers' representatives, Board members represent broader community concerns, and may often make decisions which are not commercially justified.

This confusion of perspectives is one of the weaknesses of the cooperative model. Hence, one of the benefits of the IMC is the opportunity to separate the commercial and community perspectives and decisions.

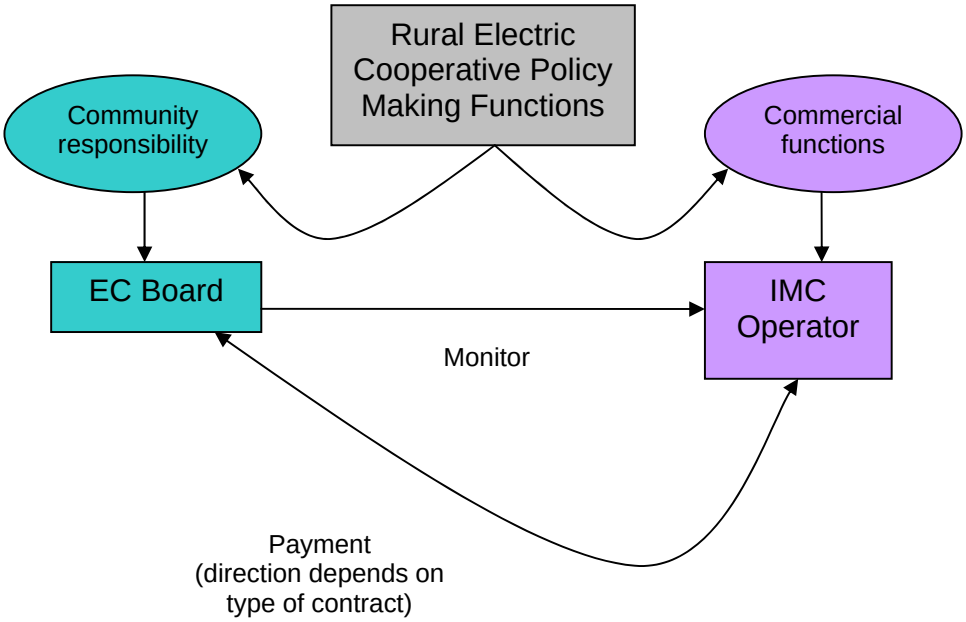
Below, we break out some of the key community and commercial responsibilities. The table also highlights the areas where community and commercial responsibilities may be more difficult to separate out.

Table 1: Board Community and Commercial Responsibilities

Community Responsibilities:	Commercial Responsibilities:
Monitor performance of EC commercial operations from consumers' perspective to ensure good service	Operate local distribution assets: maintenance, procurement of equipment, quality assurance
Approve investment plan	Approve investment plan
Support non-commercial activities, such as electrification of unviable barangays	Manage the business: hiring and firing, billing, debt collection, customer services
Support community projects, such as scholarships, sports teams, health	Negotiate power supply agreements
Set rates	Set rates
Ensure financial stability	Finance operations and required investments

The essence of our recommendation is that under a typical IMC contract, EC Boards should retain their community responsibilities, while the IMC operator should assume the commercial policy-making functions currently performed by EC Board members. This is illustrated in the Figure below.

Figure 8: Separating community and commercial responsibilities



In order for such a separation to make sense, EC Boards which are party to IMCs need to be adequately resourced to carry out their community responsibilities. In other words, they need to remain in control of at least some of the residual surpluses left after investor remuneration. For example, it is unlikely that EC Boards would be able to monitor IMC operators' performance without some staff support. Hence, Boards will need access to funds to employ and house that staff.

As we pointed out above, in some cases community and commercial concerns overlap. For example, it is not obvious whether EC Boards would be entirely willing to step back from having a role in approving the EC's investment program. Investment policy affects both community and commercial interests. Since ECs will resume control over the assets at the end of the contract, it may well be appropriate for them to participate in decision-making.

The EC role will also depend on the financial structure of the contract. For example, the Cameron McKenna proposal suggests that the IMC operator be able to borrow and invest on the balance sheet of the cooperative. Again, it is unlikely that a prudent EC Board would agree to unfettered control by a third party over its balance sheet. An EC Board is likely to wish to be involved in any investment or financial transactions which would significantly affect its balance sheet. And again, such involvement is not going to be possible without access to competent and adequately resourced staff.

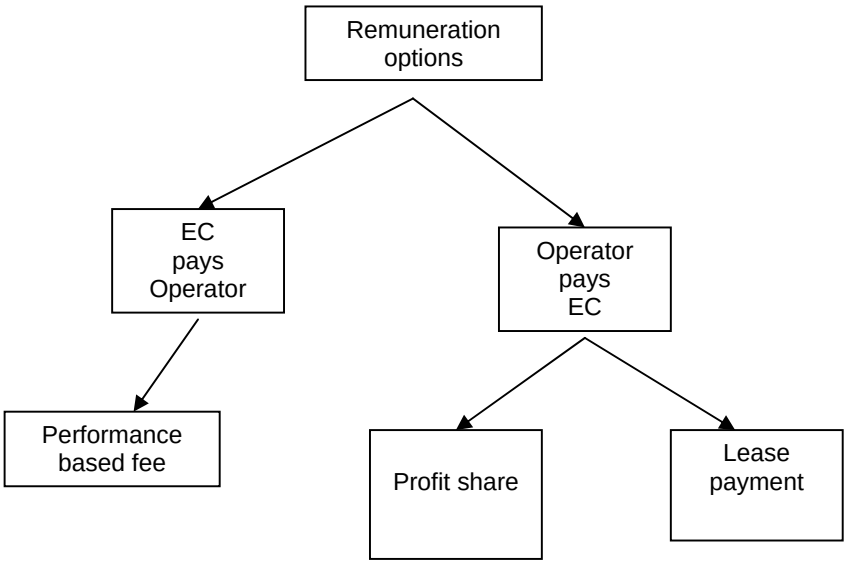
In our experience, arrangements such as IMCs, almost inevitably lead to higher management and monitoring costs, and are frequently criticized for this reason. The additional expenses, however, are justified where they lead to improved incentives and performance. Hence, one of the tests of the quality of an IMC is whether it generates sufficient surplus to equip the arrangement with adequate monitoring and governance.

An additional difficulty is posed by the fact that elections for Board members will be held several times during the term of an IMC. The arrangements need to be robust enough to cope with changes in Board membership following elections. The recommendations outlined in this section, including providing the Board with a clearly defined role, and the resources necessary to perform that role, will tend to help. However, there are clearly risks involved in the Board being changed, including the risk that members could be elected on a platform opposing the IMC, after it was signed. This highlights the desirability of getting buy-in from as many stakeholders as possible at the outset, including labor representatives, and crucially, the plurality of the members of the co-operative, voting at a general assembly.

5.2.3 Investor remuneration

IMCs have the dual purpose of providing ECs with access to capital they could not otherwise obtain, and improving performance incentives. Hence, the financial structure of any IMC must provide strong incentives both for efficient investment and better management by the IMC operator. As illustrated in, there are a number of choices to be made.

Figure 9: Options for Investor Remuneration



While there are many possible variations on each theme, the core options for investor remuneration are set out in the above chart. The first choice is who pays whom. The first option here involves payment by the EC to the operator for management services. The level of payment would typically be performance based. We understand that a number of proposals of this kind have been considered by the ECs, but in at least one case prevented by NEA. These kinds of management contracts may be useful in situations where ECs face no difficulty accessing finance, but wish to improve the quality and the incentives of their management team.

In the second option, the operator pays the EC. This option involves the IMC operator taking the commercial risk of the business, with the EC being in effect remunerated by the

operator for the use of its assets. This approach is more suited to achieving the dual objectives of accessing capital and improving incentives.

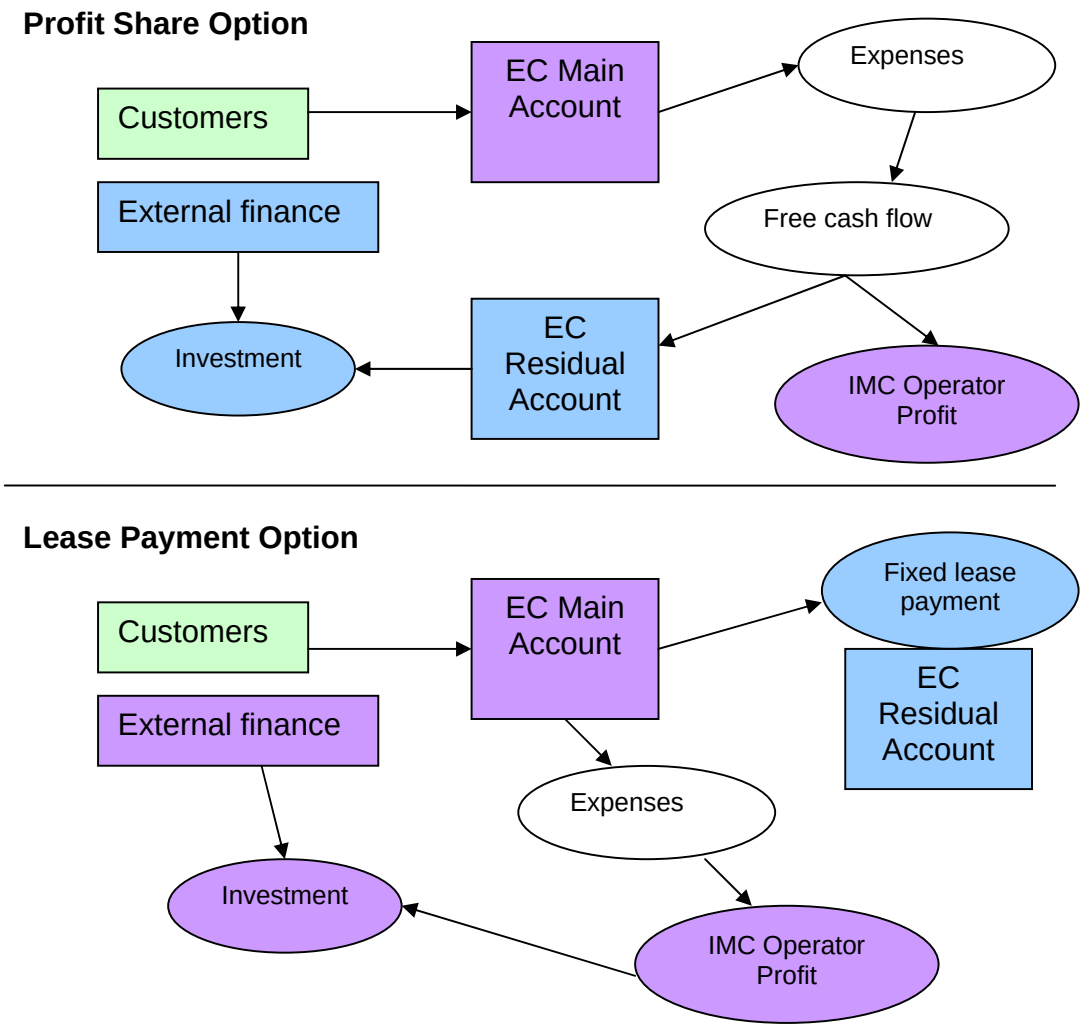
Given the objectives of the IMCs, and the kinds of cooperatives that have been selected as initial candidates, we believe the Government should support the option of the operator paying the EC. Under this option, the further choice is between how risks are shared between the operator and the EC. Here, we think there are again two key choices:

- **Profit share** – this option, proposed in the Cameron McKenna Report – involves a form of profit sharing between the EC and the operator. Bidders for the IMC would bid for the share of the free cash surplus that will be generated through their activities. The winning bidder would be the one which offered the highest share of the free cash surplus to the EC. An important feature of this proposal is that during the life of the contract, new investment will be undertaken on the EC balance sheet, to be financed through a mix of borrowing and the EC's share of free cash flow. Cameron McKenna proposed that this investment be controlled by the IMC operator. However, this does not appear essential to the model, as it can also accommodate EC Board approval of the investment program.

- **Fixed lease payment** - by the operator to the EC. In this model, the operator estimates in advance the profit it can generate, and the share it can give to the EC. It then offers the EC this amount as a guaranteed, fixed annual lease payment.

These two choices are further illustrated in the next chart.

Figure 10: Alternative financial structures



The key advantage of the profit share option is that it reduces the risk for investors, and hence could make IMCs more attractive. An operator would not need to pay anything to the EC if it did not generate free cash flow. Against this:

- It is open to gaming by the operator. For example, an operator may aim to make profits from the contract through transfer payments rather than by generating free cash flow. Transfers may include payments for billing, maintenance or other services to an operator's subsidiary. Through such transfer payments, an operator can shift free cash flow outside the purview of the contract. Operators who think they can do this will be motivated to win the contract by bidding a high proportion of free cash flow to the EC. Since they do not expect to generate surpluses within the contract, a high proportion of nothing is still nothing. It may be possible to guard against this through tight regulation of the operator's procurement processes. However, such

controls are unlikely to reign in "creative" operators, and may undermine the very purpose of the IMCs by imposing costly red tape on private investors

- Generally, an operator which promises a high profit share but, but achieves a low level of profit, will win over an operator able to achieve a much larger profit, but who promises a smaller percentage of it to the EC, even though the EC might actually benefit more in absolute terms under the latter operator

- Because the operator gets only a percentage of the gains it achieves on behalf of the EC, its incentives to invest and manage efficiently may be less than perfect.

The main advantages of the lease payment options are that it reduces the possibility of gaming of the bidding process. It will select the operator which is most certain of delivering the highest absolute level of return to the EC. Also, because the operator gets 100 percent of any additional profits or losses, its incentives to perform efficiently are high. On the other hand:

- The experience from other countries suggests that bids often vary widely on the first few private infrastructure tenders in a set. It takes bidders/operators a few projects to refine estimates and forecasts. There may be significant overbidding/underbidding on a lease payment amount which may lead to renegotiation or cancellations (in the event of over-bidding) or a poor deal for the EC (in the event of under-bidding)

- EC Boards and customers may not like IMC Operators having all the upside beyond their lease payment. This may result in IMC Operators facing political pressure if they make large profits. There are advantages in aligning the EC and the operator's interest, such as that when one does well, they both do well

- To make lease payments really effective, there would have to be strong provision requiring them to be paid even when the lease payment exceeds the free cash-flow from the EC – in other words, the operator would have to pay the lease out of its own funds in such cases. If effect, such a requirement would considerably increase the risk faced by operators, compared to a situation in which they only had to pay the EC if the EC was generating sufficient surplus to allow them to do so.

5.2.4 Enforcement and Termination arrangements

Another key question is what happens in the event of non-performance by an IMC operator or at the end of the contract. Monitoring an IMC operator's performance would be meaningless if the monitoring body had no ability to enforce the contract, or to terminate it in case of extreme non-performance. Such powers convey significant responsibility on the monitoring body, and create risks for the private investors. If the EC Board is the party to the contract, it will need both the capability to undertake the monitoring, and the right incentives with respect to enforcement. The Board would need to have the incentive to use its powers judiciously, but firmly. There are a number of ways in which this can be achieved:

- The Board could "own" the contract. This includes both the sense that the Board's reputation is invested in making the contract work, and thorough knowledge of its

details. This will be difficult to achieve if the IMC is imposed on an unwilling Board. It may also be difficult to achieve if NEA is too heavy-handed in overseeing the Board's monitoring and enforcement of the contract. In that case, the Board may feel that it can "delegate" all the difficult choices to NEA, while NEA will equally want the Board to be responsible for any controversial actions

- The Board could have the capability to monitor the contract. In some of our discussions, we came across the view that monitoring may involve the Board meeting once or twice a year to receive formal reports from the IMC operator. We believe this is insufficient. Since the IMC operator does not own the business, there may be some aspects of the operation where it will have the incentive to cut corners or to under-service. Such incentives can be controlled through well specified and detailed performance criteria, relating in particular to service quality. The more detailed the criteria, the more effort will be required to audit compliance. For example, Boards may need to conduct regular customer surveys

- The Board could have a variety of enforcement mechanisms, short of terminating the contract. These may include financial penalties of various kinds. The Board will require sufficient resources to avail itself of necessary legal assistance to use these mechanisms.

A number of issues will also need to be addressed towards the end of the IMC term. As would be typical under such an arrangement, assets would be likely transferred back to EC control in specified condition. However, simply specifying these terms in the contract would not be enough:

- Towards the end of the contract term, the EC will need the capability to closely monitor the actual state of the assets, since the IMC operator will have an incentive to run them down prior to transfer

- The EC Board will need the capability to assume control over assets and the operation of the business upon termination of the contract. This may require the Board to procure management staff and key systems prior to assuming control. For example, the IMC operator may be using its own off-site billing system, which would not be available to the co-operative at the end of the contract. The Board will need to have the resources and contractual authority to deal with such issues

- If the decision is made to renew the IMC, the Board will need to have the capability to run a new tender.

Given the above requirements, it seems implausible to us to suggest that an EC Board could be sidelined during the implementation of the contract, but then stand ready to re-assume control of the cooperative at the end of the term.

5.2.5 Employee separation arrangements

One of the likely benefits of the IMCs is that private operators will be able to reduce the work force by using staff more efficiently. Everyone we talked to expects lay-offs following

the implementation of the contracts. It is also generally expected that the winning bidder will negotiate its own separation benefits.

The main argument for leaving this negotiation in the hands of the operator is that it will have the best incentives to strike a least cost deal. This is a powerful reason. However, we believe there are two equally important reasons for negotiating separation benefits prior to the bidding of the contract:

- Employees, particularly in unionized cooperatives, have the ability to prevent an IMC contract from being implemented. This has already happened in the case of a buy-in proposal. The risk that employee resistance may scupper a deal after all the costs of putting a bid together have been incurred will be priced into any offer investors may be willing to make. It may also deter some investors from participating in the contract tender. One way to manage this risk is to address potential employee resistance at an early stage, by involving the union or other employee representatives in the preparation of the contract. This will inevitably mean engaging them early on the shape of possible separation arrangements

- The success of IMC negotiations will depend critically on the cooperation of candidate ECs' management teams. Managers, probably even more than other staff, are likely to feel threatened by the prospect of an IMC. Even if they do little else, IMC operators are likely to bring their own management teams. Hence, to overcome potential resistance, it would be desirable to give EC managers early assurance of their separation benefits

- It appears that pension entitlements and other aspects of employment are imprecisely defined. If these issues are not clarified by the EC, an IMC operator may be able to treat staff unscrupulously.

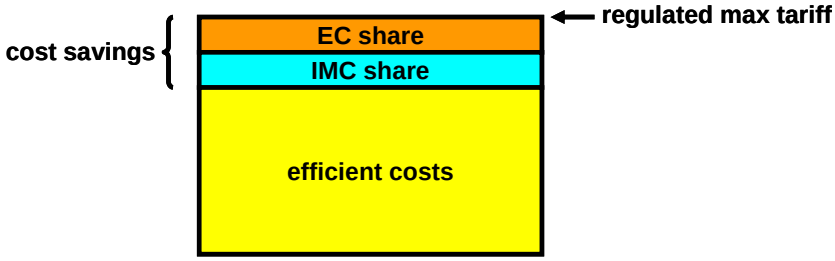
As we mentioned before, ECs will need to be resourced to undertake their residual functions following the implementation of the IMC. It may be appropriate to establish staff positions for those tasks while the contract is being prepared. These positions may then be offered to at least some members of the management team, thus further reducing any resistance.

5.2.6 Regulation

The basic idea of the IMC itself is shown in Figure 10. Given a regulated tariff with which the EC could not previously earn an operating surplus, the IMC Investor-Operator invests and reduces costs by enough to generate a cash surplus. Part the investor keeps, part is returned to the EC. In the simplest structure, the Investor-Operator promises a fixed "lease fee" to the EC for the use of its assets.[12]

[12] The EC will have to monitor service standards and in some contract structures will have to guard against practices such as the IMC holder self sourcing materials at inflated prices. Other contract structures are clearly possible, such as the IMC taking a fixed share of the operating profit.

Figure 11: IMCs share cost savings between the Investor-Operator and EC



Source: Castalia

Any Operator-Investor under an IMC will want to be sure that the EC will have the funds to provide the remuneration under the contract. Under the current cash needs approach the Operator-Investor cannot be sure of this. It is possible that in a future rate review, the ERC could rule that the investor remuneration is not an allowable cost. The effect of this would be that the consumers would get all the benefits of the investments made and efficiency gains, and the Operator-Investor would not get what was due to it. Given this risk, potential Operator-Investor will be reluctant to enter IMCs. The ERC may wish to develop an approach which gives Operator-Investors and ECs the regulatory certainty they need to conclude IMCs, while also protecting consumers against the risks of poor IMCs.

The simplest response to ECs entering IMCs would be for the ERC to agree not to reduce rates for the term of the IMC. This is simple but relatively demanding. It requires that the IMC can reduce costs and improve collections sufficiently to fund the necessary investments while the tariff remains constant in nominal terms. The process will be aided by continuing demand growth but the tariff will no longer have any inflationary pass-through for wages or materials.

A better approach is likely to adopting a PBR rate setting approach such as that described in Section **Error! Reference source not found.** of this report.

5.3 Model IMC Contract

The Model IMC Contract addressing the issues discussed in this chapter is presented in Section 14. Our model contract allows ECs to choose the combination of the two options for the financial structure discussed above best suited to their situation and preferences. The contract provides for a quarterly lease payment by the operator to the EC alongside an annual surplus sharing provision. The higher the lease payment, the greater the surplus share that would be demanded by the private operator. At one extreme, lease payment could be zero, which would collapse the model contract entirely to the surplus share option. At the other extreme, the private operator would claim the entire surplus, which would collapse the contract to the lease payment option.

Regardless of the combination chosen for the remuneration of investors, the model contract requires the private operator to provide an initial capital injection to get the EC to the position of being bankable. Once the EC is bankable, all investment will be funded by

borrowing on the EC balance sheet. The initial investment may be a bid factor in the selection of the private operator, or it may be estimated prior to the contract being bid. The higher the required initial investment amount, the greater the surplus share that is likely to be required by the operator, or the lower the lease that the operator would be willing to pay.

The initial investment will be treated as a subordinated loan interest-free from the operator to the EC – subordinated in the sense that repayment of that loan will be the last call on the EC's funds. The operator will have an incentive to repay this loan as quickly as possible. This will become possible once the EC becomes bankable, and the subordinated loan can be replaced with commercial debt. In fact, one of the objectives of the IMC is to induce the operator to be as smart and efficient as possible in getting the EC to the bankable stage. If the operator can find ways of doing this without spending the pre-agreed initial investment amounts, so much the better. Hence, the model contract provides for the initial investment amount to be deposited into an escrow account. The operator must have these funds on call, but is not required to spend them if it can achieve the agree performance criteria at less cost.

The key performance criteria for bankability are becoming current on all obligations and satisfying lenders' debt service coverage ratios. Under the model contract, the operator can not access its share of the operating surplus or repay any subordinated debt to itself if these performance criteria are not met.

The model contract also contains a number of provisions designed to manage the risk of a private operator "looting" the co-operative. One of the risks is that the contractor would generate just enough cash to pay itself, but would not be able to make any of the promised payments to the EC. To protect against this, any distribution of surplus must be shared between the contractor and the EC proportionately. For example, consider a contract where the operator claims 20 percent of the surplus, and promises 80 percent to the EC. Imagine that the business generates 100 pesos of surplus on the accruals basis, but that only 50 pesos can be distributed if the EC is to remain bankable. The risk would be that the operator would pay itself its full entitlement of 20 pesos, but would pay the EC only 30 out of the 80 pesos it is entitled to. The proportionality requirement in the model contract says that out of 50 pesos of distributable surplus, the operator is only entitled to pay 10 pesos to itself.

The sharing of the surplus also creates an incentive for the contractor to loot the EC through self dealing: eliminating free cash flow by borrowing from itself (or associated entities) at inflated interest rates, or by supplying itself with goods and services at inflated prices. To guard against this, it is necessary to put in place strong restrictions on self dealing. The problem is that such restrictions would also create barriers to attracting investment and achieving efficiencies expected from the IMCs.

This is because some self-dealing may be essential to the success of the IMC. Since all transactions take place on the EC's balance sheet, the only way that a contractor can inject capital is by borrowing from itself. In addition, contractors will want to achieve economies of scale and scope by contracting services from its associated operations. For example, an investor owned utility would be interested in a contiguous EC because it can use common maintenance etc crews. The contractor may also want to bring in billing and other systems

from associated entities. So by putting in place controls to prevent "bad" self dealing, we may also eliminate opportunities for "good" self dealing.

The incentive for inappropriate self-dealing increases with the proportion of surplus to be paid to the EC. The model contract contains two options for restrictions on self-dealing. A less rigorous option may be adopted if the private operator keeps most of the surplus, but makes regular and significant lease payments. A more rigorous option would be appropriate if the lease payment is small, and the operator keeps a relatively small share of the surplus.

As further control for the risk of the private operator "looting' the EC is the provision in the model contract for the operator to at least maintain net tangible assets. The operator can not make any cash payment to itself if the net tangible assets in the year of such distribution decline compared to the previous year. The EC Board also has control over accounting policies and an auditor with a special mandate to report to the Board on whether they are being followed appropriately in sensitive areas.

For example, the operator may buy assets with service contacts attached, where the service contract is actually in part a finance lease. In this case, the assets will go on the books, but the 'loan' hidden in the service contract will not appear. This will lead to an overstatement of net assets. Similarly, contingent liabilities may not be adequately captured by the accounts. For example, the EC (being creditworthy in the future) may guarantees loans taken out by the operator itself in its other businesses. This will not appear on the balance sheet, but is a real reduction in the value of the company. These issues are addressed in the accounting principles set out in the schedule the contract.

Finally, the model contract provides for the re-investment of the funds received by the EC. In order to ensure that such re-investments do not allow the operator to run down net tangible assets, they will be treated as subordinated loans from the EC Board to the EC.

5.4 Next Steps and Supporting Documentation

The model IMC in Section 14 contains all our contract design recommendations discussed above. In order to move forward with the preparation of the first round IMC transactions, we anticipate that the following actions will need to be taken.

1. DOE / NEA issue a joint circular on IMCs. A draft of this Circular is included in Section 13.

2. ERC completes the new regulatory procedures for ECs, along the lines recommended in Section 5.2.6 of this report.

3. DOE retains an IMC Transaction Advisor.

4. DOE and NEA issue a consultation paper explaining options available to ECs.

5. DOE and NEA together with the Transaction Advisor selects candidate ECs for the first round of transactions.

6. DOE with support from the Transaction Advisor consults with candidate ECs on the terms of the transaction, and possible incentives to enter an IMC.

7. DOE and transaction advisor guide the final design of transaction supporting documents, and assist during the implementation process...

These actions are included in the sector-wide reform Action Plan in Section 0.

6 Private Sector Participation in SPUG Areas

6.1 Overview

SPUG is a division of NPC responsible for generating electricity for sale to ECs serving areas that, because of their remoteness, are unable to avail themselves of a grid connection. It currently supplies 86 isolated grids in 31 different provinces. It has a total installed capacity of 245 MW, but an available capacity of only 173 MW. The total peak demand across all 86 grids is 112 MW and its annual electricity sales for 2003 are estimated to be 480 GWh. Its 2003 operating budget was 2.966 billion pesos on which 744 million pesos (25%) was from the ME-UC. The ERC has also approved a 600 million peso allocation from the ME-UC to fund 44 capital expenditure projects.

Most of SPUG's generating plant consisted of oil fired reciprocating engines. This type of generation is available in a range of sizes from around 2 kW to 20 MW. This type of generation is relatively expensive given the cost of the fuel oil and the fact that one liter of oil will only produce about 4 kWh of electricity.

6.1.1 Financial deficit

The current approach to Missionary Electrification has become a financial burden to SPUG and to the general electricity customers who must finance it through the Universal Charge. This has led the Government to seek ways to reform SPUG and reduce the financial burden of Missionary Electrification.

Table 2: SPUG Financials

	Millions of Pesos			*US$ millions*	
	2003	2004	% change	2003	2004
SPUG Energy Sales, MWH	478,716	556,050	16%		
Revenues	***2,223***	***2,051***	***-8%***	***40***	***37***
Operating Expenses					
Fuel	2,106	2,869	36%	38	52
Lube	105	131	25%	2	2
Purchased Power		912		0	17
Personnel Services	473	431	-9%	9	8
Maintenance and other operating expenses	282	843	199%	5	15
New Areas		31		0	1
Total Operating Expenditures	***2,967***	***5,218***	***76%***	***54***	***95***
Operating Profit / Loss	**-744**	**-3,167**	**326%**	**-14**	**-58**
Grid Projects	600	960	60%	11	17
Off-grid Proj (New Areas)	0	575		0	10
Total Generation Projects	600	1,535	156%	11	28
Transmission Lines & SS	0	569		0	10
Operations (Spares, etc.)	0	428		0	8
Total Capital Expenditure	***600***	***2,532***	***322%***	***11***	***46***
Cash deficit after Capital Expenditure	**-1,343**	**-5,699**	**324%**	**-24**	**-104**
Bridge Finance interest		228		0	4
Total Cash Deficit	**-1,343**	**-5,927**	**341%**	**-24**	**-108**
Phil. Energy Sales, GWH	52,093	49,457	-5%		
UC-ME, P/kWh	0.0373	0.1198	221%		
Source: SPUG Missionary Electrification Petition for 2004					
Exchange rate P:US$ 55					

SPUG's most recent full year accounts are for the year ending December 2002. In that year, SPUG made an operating loss of P3 billion (US$54 million at the current exchange of 55 pesos to the dollar). More relevant for the current analysis is SPUG's cash deficit, since this is the sum which needs to be recovered from the ME-UC. Estimates of the cash deficit for 2003 and 2004 are shown in 0.

The left column shows the figures which the ERC approved for the 2003 ME-UC. SPUG expects the actuals to be close to these figures.[13] These figures show an operating loss of P744 million (US$14 million) on a cash basis, and capital expenditure of P600 million (US$11 million) for a total cash deficit of P1.3 billion (US$24 million). This deficit has to be covered by the ME-UC.

This relatively low level of deficit was achieved only by halting all capital expenditure projects in new areas, and also cutting back on purchase of spare parts. It also does not include power purchase costs which SPUG is incurring under PSAs not yet approved by ERC.

[13] The main differences are likely to be that SPUG incurred power purchase costs during the year (these were not approved by ERC), and that SPUG may not spend its full capital expenditure budget

SPUG has now petitioned ERC for the ME-UC for 2004. The petition shows that while energy sold is projected to increase by 16%, revenue is projected to fall by 8% and total operating expenditures are projected to rise by 76%[14]. This leads to a forecast 2004 cash operating deficit of P3.2 billion (US$58 million). Together with projected capital expenditure of P2.5 billion (US$46 million), this creates a total forecast cash deficit of P5.9 billion (US$108 million). It is proposed that this deficit be financed from the ME-UC. To do so would require the ME-UC charge to rise from 3.7 centavos/kWh to 12 centavos/kWh.

Clearly this situation is not a sustainable or effective strategy for Missionary Electrification. In the sections to follow we outline options for dealing with this problem.

6.2 Options

There are three ways in which the cash deficit of SPUG can be reduced:

- **Increase in Rates** – Charging EC and consumers more for the power they purchase in Missionary areas

- **Private Sector Participation** – Involving private companies in Missionary Electrification, to increase efficiency, and to provide capital for additional investment in existing SPUG areas, allowing the cost of new investments to be spread over the life of the assets instead of being recovered through the ME-UC in the first year[15]

- **Reducing Service Aspirations** – Cutting back on plans to expand and improved service, and/or reducing service levels on existing systems.

There are no other realistic ways to reduce the cash drain of the Missionary Electrification program. For example, transferring some loss-making SPUG operations from SPUG to NPC (as has been suggested) only shifts the loss from one place to another, without reducing it.

We recommend pursuing a mix of the three approaches:

- Rates should be increased to full cost levels in areas which can afford it. In the Draft DOE Circular (see Section Draft DOE SPUG Circular9) this is referred to as 'Graduation'. SPUG estimates that a determined Graduation strategy could reduce the cash needed for Missionary Electrification in 2004 by 44%, or P2.5 billion

[14] 45% if the Purchased Power Costs are excluded, on the basis that they are not an increase in expenditure, but just a request to ERC to approve expenditure already being incurred. We understand that the reason that the Power Purchase costs for 2003 were not approved is that ERC has not yet been able to review the Power Supply Agreements.

[15] The private sector may also provide capital for investment in new areas. However, to the extent that this is financed by a per-connection subsidy, the capital cost of the system will still need to be recovered from the ME-UC when the grid id built, rather than being spread over the life of the system.

- Private firms should be brought in rapidly to supply power in existing SPUG areas. New Missionary Areas should be served by Qualified Third Parties (QTPs) operating under Mini-grid contracts wherever possible. The reduction in cash needs as a result of private sector efficiencies and financing remains to be estimated. It is likely to be significant, but clearly will not reduce the ME-UC needs to zero

- DOE should assess the required level of ME-UC, given a determined graduation and PSP strategy. If the cash need still seems excessive, DOE should review the rate at which new missionary areas are electrified, and the level of subsidy proposed, to reduce the ME-UC to more acceptable levels. This is a policy decision which requires a trade-off between the Government's objectives of promoting Missionary Electrification and the objective of reducing electricity prices to consumers as a whole. Since it is a policy decision, we recommend that DOE, rather than ERC or SPUG, would be the appropriate institution to make the decision.

In discussion with SPUG officials we further developed these approaches and explored a number of options for moving forward with the PSP policy direction set in EPIRA. Below we highlight the key options explored and summarize the approach recommended, as well as our rationale.

- **PSP in SPUG assets or Power Supply Agreements (PSA)**? – The PSAs are the key to PSP in SPUG, since these give the right and obligation to supply power. The assets will often be of limited value, since IPPs may replace them with more efficient plant. Therefore, it was decided in discussion with SPUG that the strategy should focus on private participation in the PSAs

- **Sale of PSAs by SPUG, or tender for new PSAs by ECs –** Since the EC will be buying the power, the better option is for the EC to contract with the new provider. This will allow the EC to choose their supplier, and to develop a PSA appropriate to their needs. Only if the EC will not hold a tender to select a new supplier should SPUG assign its PSA to an Independent Power Producer (IPP) unilaterally

- **Speed of PSP** – We looked at a range of options on timing, from attempting to sell all PSAs immediately, through to a more gradual strategy. The feedback from SPUG and senior officials at DOE clearly signaled a desire to move quickly. On the other hand, given the recommendation that ECs hold the tender for an IPP rather than SPUG doing so unilaterally, there are limits to how fast it will be possible to move. We have recommended speeding up the process by hiring Transaction and Restructuring Advisors to assist. SPUG wishes to move as quickly as possible to bring in private participation, starting with the largest PSAs which are on the islands of Mindoro and Palawan. However, it does not seem feasible to introduce private participation in all PSAs all at once – or rather, doing so would result in delays, since no PSAs could be transferred until they were all ready to be transferred

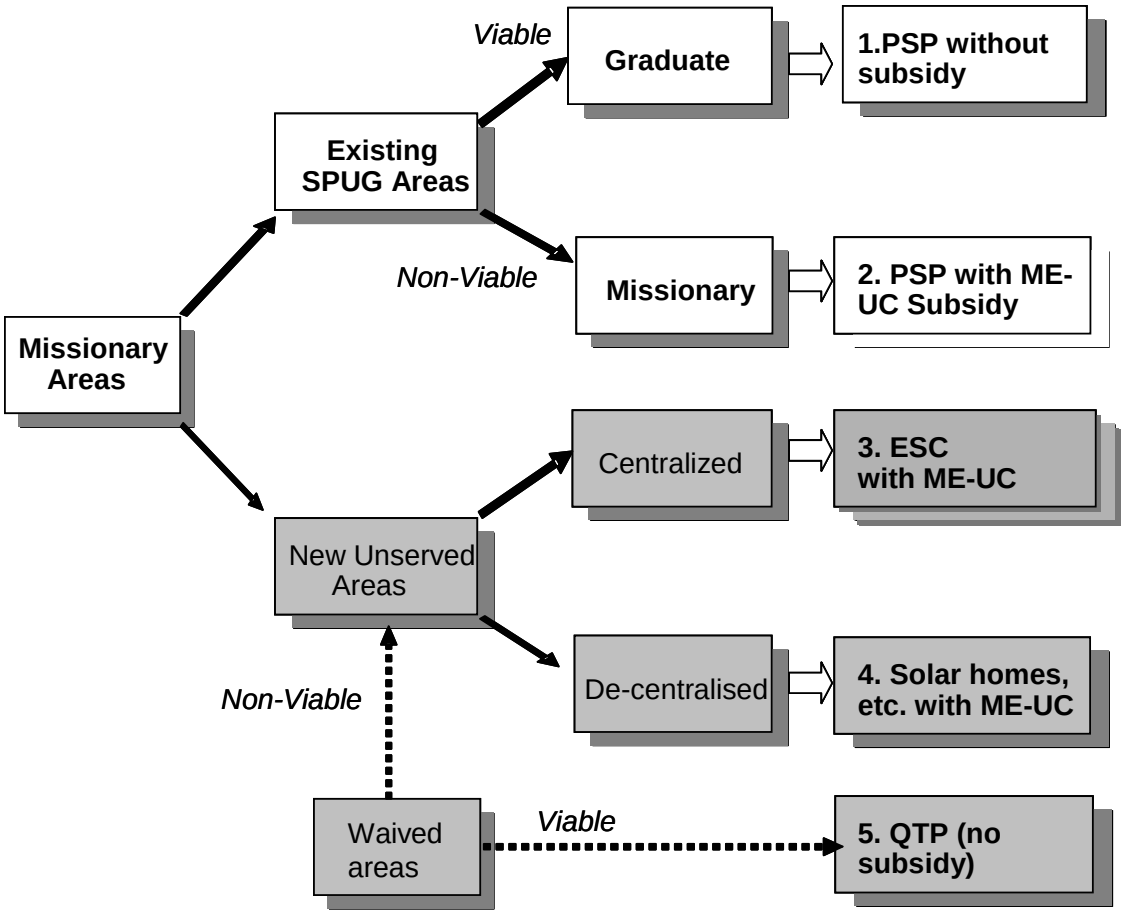
- **Subsidy options** – together with SPUG officials we analyzed a range of subsidy options. One in particular which SUG had developed involved attaching a fixed subsidy level which would last for a set number of years to each PSA. On balance, it was felt that the subsidy should be set in a way which ensures the IPP that it will be

paid its true cost as specified in the PSA, while ensuring that the rate paid by the EC is socially acceptable. The proposed Generation Rate Reduction Subsidy was developed to ensure this.

6.2.1 Overview of the proposed PSP strategy

As illustrated in 0, Missionary Electrification can be divided into those areas yet to be served (shown in grey) and those areas already served with power from SPUG.

Figure 12: Categories of Missionary Electrification



In new Missionary Areas, the recommendation is that all new electrification should be carried out by private QTPs. SPUG should not electrify any new area; unless and until it is shown that the private sector is not willing to do so. Policy recommendations for new areas are addressed in Section 7. In terms of the financial burden discussed in Section 6.1.1**Error! Reference source not found.**, this implies that the P575 million requested for generation investments in new areas should not be thought of as going to SPUG, but should be used as a fund to subsidize QTPs under competitively-tendered Mini-grid contracts

In existing areas, the strategy differs according to whether an area can be 'Graduated' or not.

Those areas which are able to pay the full cost of power will be graduated. That is, they will be declared to be no longer missionary and therefore no longer eligible for a subsidy. The criterion for graduation is that the True Cost Generation Rate (TCGR) resulting from a competitive to award the PSA to a private operator is equal or less than the Socially Acceptable Generation Rate, as defined per Section 8.7 of the this report.

Other areas will remain eligible for the Missionary Electrification subsidy, but this will be payable whether power is supplied by SPUG or an IPP.

In all existing SPUG areas, ECs will be encouraged to enter Power Purchase Agreements with IPPs, and terminate their current PSAs with SPUG. It is expected that IPPs will be able to supply power at lower total cost than SPUG. If an EC does not contract voluntarily with an IPP, SPUG will assign the existing PSA to an IPP through a tender. SPUG may also apply for a rate increase allowing it to charge the EC its actual full costs of generation, including a return on capital. This should provide an additional incentive for ECs to select their own, cheaper, power suppliers.

In Graduated areas, the EC will pay the full cost of power purchased from the IPP. In the remaining Missionary Areas, the ME-UC will be used to pay a Generation Rate Reduction Subsidy. In essence, this subsidy will pay part of the generation rate on behalf of the EC. In this way, the IPP will be paid its true costs, while the EC will pay a lower rate. The Generation Rate Reduction Subsidy will be set at a level just sufficient to reduce the cost of power to the EC to a socially acceptable level. DOE and/or ERC will need to develop criteria for determining the socially acceptable generation rate in any area. The planned subsidy will need to be included in the ME-UC petition SPUG submits to ERC.

The Generation Rate received by the IPP will be regulated by the ERC. We recommend that where the generation rate has been established through a well-managed and transparent bidding process, the ERC accept the rate which emerged from the bidding process as the true cost, and not regulate further. For those cases in which the rate in a PSA is not established through a robust competitive procedure, we recommend that the ERC develop 'Best New Entrant' (BNE) rates, based on a model efficient generator (the BNE rate would vary with peak load, load factor and reliability standards). The ERC would automatically approve any PSA with a generation rate lower than the BNE. Only in those cases in which a generation rate had not been established competitively, and was higher than the BNE, would there be a need to apply for rate approval based on the costs and merits of the particular case.

Once an EC is receiving power from an IPP, SPUG assets in the area will be surplus, and should be disposed of. We recommend that SPUG set a floor price for the asset, based on its sound value or value in alternative uses to SPUG. The tender for the PSA should then specify that the winning bidder will be able to purchase the assets at that price. This will allow bidders which wish to use SPUG assets in their own operations the certainty they need in submitting their tender. If the winning bidder chooses not to purchase the assets at this price, the assets should be auctioned to the highest bidder.

In the case of SPUG's sub-transmission assets, it may be that legally the only other owners may be the EC served by the assets, or Transco. The sub-transmission assets are loss

making, since currently the transmission part of the tariff does not cover O&M costs on the assets. We recommend that SPUG offer to sell the sub-transmission assets at a price based on their revenue potential (there is a precedent for this in s.8 of EPIRA which deals with Transco selling sub-transmission assets to ECs). This should allow SPUG to transfer the assets at close to zero cost. If no one will take the assets even at a near zero price, a fallback option may be for SPUG to continue to own the assets, but to contract with a Distribution Utility in the area to operate and maintain them.

The proposed strategy relies on ECs holding tenders to select IPPs to supply them. ECs will need help to do this. For this reason we recommend that DOE engage a transaction advisor on behalf of the ECs. The transaction advisor would assist with the first few tenders, and then train a Project Management Office (PMO) to assist ECs with later transactions.

There will also be a great deal of work involved in managing the restructuring of SPUG which will result from the proposed PSP process. Assets will need to be valued and sold. PSAs will need to be terminated as ECs contract with IPPs, or assigned in cases where the EC does not itself select an IPP. Labor issues will need to be dealt with. To ensure that the restructuring is carried out quickly and efficiently, we recommend that DOE engage a Restructuring Manager with a mandate to manage the restructuring process. The contract for the Restructuring Manager should be drawn in such a way as to motivate rapid divestment of PSAs and surplus assets. The Transaction Advisor and the Restructuring Manager could be combined within a single contract.

6.3 Next Steps and Supporting Documents

Significant progress has already been made by the official issuance by DOE of the SPUG Circular drafted by Castalia. To continue progress in bringing PSP to SPUG, we recommend the following actions:

1. DOE engages a transaction advisor that will work with ECs on procuring PSAs with IPPs,

2. ERC issues rules and procedures for tariff and ME-UC setting in the PSAs with IPPs. Section 12 includes Guidelines which can assist ERC in this matter.

3. DOE retains a Transaction Advisor to manage the SPUG restructuring process.

4. Some of the initial actions that the Transaction Advisor will need to undertake include:

    a. Promote the PSP concept with ECs in the first wave of PSAs already identified by SPUG

    b. Identify PSA risks, and design mitigation measures, in particular the ME-UC payment risk

    c. Develop contracts and bidding documents

d. Market first wave of PSAs to private investors

e. Assist ECs during bidding and negotiations.

7 Facilitate QTP Service in Waived Areas

7.1 Background

The GoP set in EPIRA and the IRRs a policy direction of involving private companies in missionary electrification in un-served barangays. Under the presently planned procedures, the ECs will indicate to DOE those barangays within their franchise areas that they will be unable to electrify within the next three years. Such barangays will be designated as "waived areas". There will probably be about 1,200 barangays in waived areas, maybe half suitable for centralized generation and small distribution networks (mini-grids), the rest for micro or solar home systems.[16]

DOE will carry out investment studies in waived areas and subsequently invite interested private companies to submit proposals to provide electricity services in specific waived areas. The invitations will be issued as "packages", each package consisting of a number of contiguous barangays for which DOE has already undertaken investment studies. Currently such studies have been conducted in Palawan (37 contiguous barangays) and Davao del Sur (40 barangays) and additional studies are underway. These pilot packages will be promoted by a transaction advisor that will be engaged shortly.

Proposals will be required to be accompanied by evidence of the applicant's ability to comply with certain criteria prescribed by DOE as necessary preconditions for authorization to undertake electrification projects [IRR 14 s.4]. The definitive criteria have not yet been selected, but will include technical competence, financial resources, and experience with similar projects. Companies meeting these criteria will be classified as "Qualified Third Parties" (QTPs).

In addition to DOE approval as QTPs, interested parties will also need to be issued with Certificates of Compliance by the ERC [IRR 14 s.5 (b) and s.6 (a)]. A Certificate of Compliance is required not only for the operating company but also for the specific facilities to be utilized in the provision of the electricity services. DOE plans to expedite the process by endorsing the applications for Certificates of Compliance by companies already approved as QTPs.

7.2 Key policy questions

Progress with mini-grids appears to depend on the resolution of four policy questions:

- What are the contractual arrangements of QTPs?
- How will QTPs be matched with waived areas?

[16] "Micro" solutions may involve one generator connected to several households, at household voltage throughout the system. Where homes are dispersed, there may be no distribution network but individual arrangements instead such as solar home systems.

- How will the tariff and subsidy be determined?
- How will the subsidy be paid?

These questions are addressed in the sections below. A comprehensive description of our proposed approach to dealing with these policy questions is included in the draft DOE Circular on QTPs in Section 10.

7.2.1 Contractual arrangements for QTPs

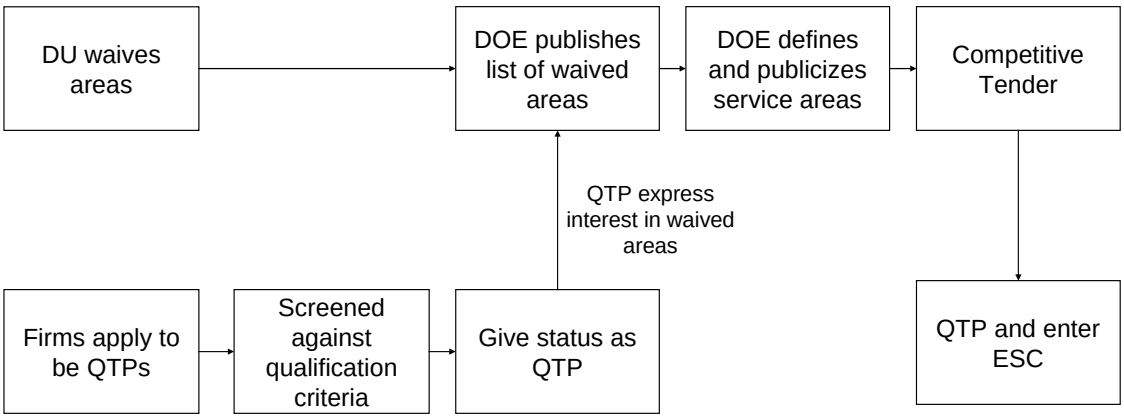
IRR 14 s.5 (a) requires each QTP to have a contract with the EC in whose franchise area it is operating. We recommend to follow this policy direction and to have QTPs enter into an Energy Service Contract (ESC) with the EC or Distribution Utility (DU) holding the franchise. We have prepared a Model ESC (See Section 11).

DUs will contractually provide DOE with the authority to act as their agent in waived areas. This authority will be set in a deed that the DU will sign when waiving an area. This deed will grant DOE the authority to select a QTP and to oversee the ESC under which QTPs will provide services to waived areas.

7.2.2 Process for matching QTPs to waived areas

Figure 13 illustrates our recommended process by which QTPs could be qualified and selected to serve waived areas. The process is designed to catalyze competition among QTPs to be awarded an ESC for a waived area.

Figure 13: Process for Matching QTPs with Waived Areas



DOE will start by publishing a list of all waived areas. QTPs status will be granted by DOE to any organization which wishes to serve a waived, and which complies with a set of technical, financial, and good standing criteria defined by DOE. Our recommendations on the criteria that DOE could adopt to grant QTP status are included in the Draft DOE Circular on QTPs – Section 11.

The steps for awarding an ESC to a QTP could include:

- Expression of interest by QTP - Any QTP may offer to supply any waived area by expressing interest to DOE.

- Definition of service areas - If a QTP expresses interest in serving a waived area, DOE would define a service area including that area.

- Publication of service areas – DOE would publicize the Service Area on its website and in national and local newspapers, and indicate that other QTPs may express interest in serving the area

- Preparation of an ESC – DOE would prepare an ESC for the area, based on the DOE Model ESC in Appendix 11

- Competitive tender to serve area – DOE would hold a competitive tender in which QTPs will be invited to bid to serve the area in accordance with the terms of the Energy Services Contract

- Award of Contract – the winning bidder would be awarded the ESC. After obtaining a Certificate of Compliance from ERC, the contracted QTP will then start to provide service.

7.2.3 Tariff and subsidy issues

Under EPIRA IRR 14 s.6 (b), ERC is responsible for establishing the *rules* for setting the rates charged by QTPs. ERC is also ultimately responsible for responding to SPUG's petitions regarding the ME-UC.

For a QTP to invest there must be some assurance that revenues – whether from the allowed tariff or a subsidy – must cover the costs of efficiently providing electricity supplies and allow a reasonable return on the capital invested to provide the services.

If there is only one QTP interested in a particular area, then DOE can negotiate the required coverage and hours of service in return for understandings on the tariff and subsidy payments, but such negotiations will be hard to conclude if the understanding is subject to subsequent ratification by the ERC; ERC will become the effective negotiator.

A requirement for a final endorsement by ERC is even more problematic when QTPs compete for an area since an intervention by ERC in the arrangement with the "winning" QTP calls the original competition into question.

Whatever method is chosen, investors, project proponents and Government agencies need to know the procedures and rules of the game. Selection methods suggested so far do not provide this clarity.

- One approach includes a least subsidy competition first, then an application to ERC by the winner for a tariff. This presupposes that the ERC will accept the winning subsidy level and will allow a tariff which makes it economic for the winner to invest.

- Another method involves a least tariff competition, with the winner negotiating a subsidy with DOE in order to lower the tariff if the winning tariff is deemed socially unacceptable. Again, it would be hard to have this negotiation if the subsidy result is subject to ERC. It is also likely to be difficult to negotiate a per-connection subsidy which objectively and unambiguously results in a specified tariff reduction. This means the process of regulation may lose some of the benefits of the competition.

- In general there is a 'chicken-and-egg' problem, with the tariff level depending on the subsidy, the subsidy depending on the tariff, and both depending on ERC approval.

We believe there is a way to break the 'chicken and egg' problem, by relying on competition to establish tariffs and subsidies and choose the QTP when there is more than one QTP interested in an area. Competition would establish the minimum tariff required in areas not needing a subsidy, and the minimum level of subsidy needed elsewhere.

For those waived areas where there is no competition, the ERC could define a Best New Entrant Tariff (BNE). Similar to the BNE for SPUG, BNE for waived areas would be based on a model efficient mini-grid operator. The ERC would automatically approve any ESC with a final rate lower than the BNE. Only in those cases in which a final rate both had not been established competitively, and was higher than the BNE, would there be a need to apply for rate approval based on the costs and merits of the particular case.

7.2.4 Subsidy design and payment

We have assumed that the intention of the missionary electrification program in new areas is generally that consumers will pay the full cost of supply. There are many consumers buying from small privately owned power systems (POPS) at present without subsidy or regulation. Moreover, new mini-grid and micro-grid supply is often cheaper than existing light and energy sources.

In some areas, however the full cost recovery rate that a QTP would need to charge might be socially unacceptable. To provide access to electricity to these barangays, it will be necessary to subsidize QTPs.

The amount of subsidy will be determined from the competitive tender to select the QTP, as described in section 7.2.3. QTPs will bid a subsidy requirement if their true cost is greater than a predefined Socially Acceptable Final Tariff (SAFT). The subsidy will be paid from the ME-UC, as such, SPUG will intermediate the petition to ERC. Section 8.7 explains our recommended approach to setting SAFTs.

Subsidies should be paid largely on the basis of outputs, e.g. connections made. The subsidy will need to be paid in a way that maximizes the incentive for the QTP to achieve the required barangay coverage, for example by providing high subsidy allocations to the first 10 houses connected in each barangay. Section 8 outlines our recommended approach to output based subsidies.

7.3 Next Steps and Supporting Documents

To move forward with the accreditation of QTPs and execution of ESCs in waived areas, we recommend the following actions:

1. DOE issues the first list of waived areas.
2. DOE formally issues Circular on QTPs. Section 10 includes a draft of this Circular.
3. DOE retains a Transactions Advisor that will lead the initial wave of QTPs,
4. ERC develops rules and procedures for tariff and ME-UC setting in waived areas.
5. ERC officially issues regulatory guidelines for waived areas.

8 Application of Output Based Aid

In previous sections we introduced the idea that subsidies will continue to be required in some areas where the true cost of supply is too high. In this section we elaborate on this idea, and in particular:

- the rationale for providing subsidies
- subsidy design
- socially acceptable tariffs, and
- linking subsides to outputs (Output-Based Aid)

Before we discuss these issues, we introduce the concept of output-based-aid as defined by the Global Partnership on Output-Based Aid (GPOBA), and present an overview on how rural electrification subsidies are currently provided in the Philippines.

8.1 The Concept of Output-Based Aid

Multilateral agencies developed the concept of output-based aid as an alternative approach to aid and public spending that would deliver improvement in services, particularly the poorest. The concept originated from reviewing the relative success of performance-based contracting within public sector, and of private sector participation in infrastructure. These contracting modalities were seen as delivering lower costs, improved quality of service, and better innovation and responsiveness.

The term OBA refers to a situation in which a third-party provider is delivering services under a contract designed to provide incentives for efficient, well-targeted service delivery, by linking a significant part of the compensation to delivery of specified outputs or results. External funds complement revenues from rates paid by user fees, or serve as proxies for user fees for services that are largely public in nature.

The concept of OBA is more relevant in the context of infrastructure services in which public sector inefficiencies make PSP an attractive alternative, and in which higher costs of supply and lower ability to pay implies that subsidies would be required. As such, this concept is very relevant in the context of rural electrification in the Philippines, where the combination of SPUGs inefficiencies, high cost of supply to rural and isolated areas, and less able to pay users make PSP and subsidization a critical reform ingredient.

OBA has been successfully used in developing countries such as Chile, Guinea, Haiti, Romania, and Peru. The experience of these countries suggests that some of the key issues that OBA design should take into account are:

- clear definition of intended and measurable outputs and the beneficiaries

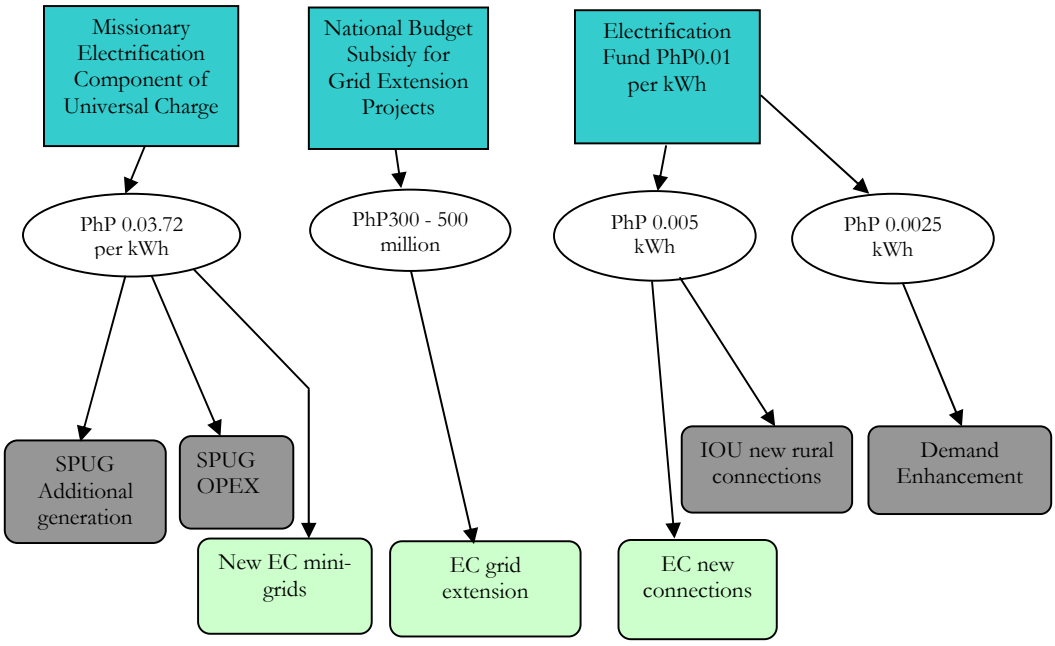
- clear assessment of baseline
- selecting the form, level, and structure of the subsidy payment, and
- designing an effective subsidy administration

We acknowledge the importance of these design considerations and have addressed them repeatedly in this section of the report.

8.2 Existing Subsidies for Rural Electrification

Figure 14 below sets out the structure of subsidies available for rural electrification in the Philippines. There are three separate pipelines, with different governance arrangements and subsidy allocation principles applied to each.

Figure 14 : Structure of Subsidies



In general, subsidies are only available for capital expenditure on the extension of existing network and the construction of mini-grids to electrify barangays that currently do not have access to electricity. SPUG – which provides generation in missionary areas – also receive a subsidy for operating expenses. In addition, some elements of subsidy are available to promote additional connections to the existing network.

Government budget allocations for rural electrification are administered by NEA. Over the calendar years 2001/2 the government provided a total of 1,071 million pesos to NEA for rural electrification subsidies, of which 844 million pesos were disbursed. However it is expected that these government allocations will reduce to about 300 million pesos per year in 2003 and 2004. NEA policy is to use these funds to support grid extensions and the electrification of un-electrified communities and to require ECs to use loan finance together with the 5% re-investment allowance to fund the upgrade and rehabilitation of existing networks.

The electrification fund is sourced from the P0.01/kWh tax on generators that was introduced in 1994 under RA 7638 to support local communities that host large generation projects. Half this tax is allocated to electrification projects. The fund is administered by DOE and is allocated to ECs for specific projects that meet the funding criteria. The subsidy available from the electrification fund depends on electricity generation and, based on current generation levels, is estimated to be around 220 million pesos per year.

Subsidy funding to support rural electrification is also provided from a range of other public and private sources. ECs are based on the American model, and NRECA is a continuing source of technical and financial support. Apart from the technical assistance to REFC, NRECA recently shipped 20,000 consumer electricity meters to the Philippines for use by ECs. Another example is the "Adopt a Barangay" program administered by DOE whereby business and community organizations are encouraged to finance the electrification of individual barangays. Under this program, the Foundation for Rural Electrification Development (FREED) sponsored by a group of corporate CEOs has initiated the electrification of 10 pilot barangays. The amount of the subsidy to the rural electrification sector from such miscellaneous sources is unknown.

A new source of subsidy that is only available for missionary electrification is the Missionary Electrification component of the Universal Charge (ME-UC) provided for in Section 34 of EPIRA. Currently the portion of the universal charge allocated to missionary electrification is 0.0373 pesos per kWh, giving a total missionary electrification subsidy of 1.34 billion pesos, all of which is allocated to SPUG. However, while SPUG is the sole petitioner for the ME-UC, DOE is responsible for preparing the Missionary Electrification Development Plan. DOE is proposing that, in future years, allocations from the universal charge will, in addition to subsidizing SPUG operations, be used to subsidize qualified third parties (QTPs) operating mini grids in unviable areas in accordance with the provisions of Section 59 of EPIRA.

In addition, there are cross subsidies between grid connected customers. These subsides include (i) subsidies between grids whereby customers connected to the Luzon and Visayas grids subsidize customers connected to the Mindanao grid, (ii) subsidies between different customer classes whereby commercial and industrial customers subsidize residential customers and (iii) subsidies within the Luzon grid whereby Meralco customers subsidize customers on the Luzon grid supplied by other Luzon utilities. Except for lifeline subsidies designed to protect marginalized residential customers, these subsidies are being phased out, in accordance with Section 74 of EPIRA and are not discussed further in this report.

8.3 Subsidy Efficiency

The overall subsidy disbursement to rural electrification in 2002 amounted to approximately 1 billion pesos (approximately $19 million). We understand that most of this subsidy was applied to distribution investment (The ME-UC was not introduced till 2003, and in 2002 SPUG relied on a cross-subsidy from the rest of Napocor). These subsidies were applied to the electrification of about 1,500 barangays. During 2002, a barangay was considered to be electrified if it had a minimum of 20 connections. While we do not have more precise information, we can assume that the subsidy program achieved about 30,000 new connections during the year. On this basis, the subsidy cost approximately $633 dollars per connection, or about $12,000 per barangay.

While we recognize that these numbers are far from precise, they provide a useful ball-park comparison. In general, they do not appear to be out of line with subsidy patterns in other countries. For example, in Guatemala, rural distribution companies receive a grant of $650 per connected household if a household is more than 200 meters from an existing distribution line. (Guatemala's per capita income is $1,600, about half of the Philippines level) In Chile, subsidies for rural electrification have ranged from $1,000 to $1,500, with subsidies increasing as electricity is provided to more difficult to reach areas. Chile has per capita income of $10,000, and hence higher labor costs than the Philippines.

On this basis, it would appear that at a technical level, projects selected for subsidies are being delivered relatively efficiently. Given limitations on access to capital, subsidies in the Philippines need to cover the full capital cost of achieving a connection. In the other countries mentioned, subsidies cover the difference between what an investor is willing to put in (i.e. the cost of a typical connection, which can be recovered from regulated tariffs) and the actual connection cost in a high cost area. Moreover, since the Philippines subsidy is not available for additional households connected in an already electrified barangay, the initial cost of getting a barangay electrified needs to be spread over all future connections.

However, technical efficiency in this narrow sense is only a limited guide to the quality of the subsidy program. Subsidy arrangements need to be further assessed against the following criteria:

- Do they select projects which have the greatest social pay-off?
- Do they crowd out private spending? If the same level of electrification could have been achieved without the public subsidy, public resources could have been better allocated elsewhere?
- Does the subsidy design distort the technology choice for the provision of the required service?
- Does the subsidy design promote efficient on-going maintenance of the investments undertaken with the support of the subsidy?

These issues are discussed next.

8.3.1 Efficient Project Selection

The current process for allocating subsidies to barangay electrification projects appears to be highly political. It is unlikely that projects are selected in order of greatest welfare impact. For example, the Philippines approach can be contrasted with the process adopted in Chile, where rural electrification subsidies are allocated through a highly structured process where local communities and distribution companies have to submit social cost benefit analysis for their projects, quantifying health, education and income generation impacts of electrification. Projects are then assessed against three criteria:

- Level of subsidy sought
- Local community contribution and the level of distribution company's investment
- Social welfare impacts.

Funding is allocated to projects that seek the lowest level of subsidy for the highest social welfare impact and local contribution.

The Chilean process is carefully set up to de-politicize decision-making, with significant discretion granted to professional civil servants to assess projects, and to review submissions.

While the Chilean approach is more likely to ensure that limited subsidy resources are allocated to projects with the highest social and economic pay-off, it demands considerable investment of resources at both the local and central government levels. The institutional arrangements need to be robust to adhere to technocratic allocation rules, and to withstand political pressure. This approach also requires a high level of sophistication at the local government level to put together well researched submissions that would stand up to comparative scrutiny.

Moreover, careful sequencing of projects against limited resources is most valuable at the beginning of an electrification program. Given that the barangay electrification program will be completed within 3 years, it is not obvious that a theoretically more efficient sequencing of electrification projects would achieve significant welfare gains in the Philippines.

8.3.2 Efficient Use of Public Resources

Subsidy is a tool to induce the supply of desired services, which would not have been provided by the market without any intervention. If a subsidy is used in situations where the same level of service would have been provided by the market, then the subsidy scheme is inefficient.

It appears that until recently, the subsidy regime has been largely used to compensate ECs for their inability to access investment capital. In effect, a large proportion of the total subsidy expense was a form of government injection of equity into the co-operatives. There appears to be no way to assess what proportion of barangays would have been electrified in the absence of the subsidies if ECs had adequate access to capital.

Looking forward, the process for allocating the ME-UC appears to be designed to avoid crowding out. As we understand it, this subsidy (as discussed in section 10) will only be

accessed if there is no EC or private sector interest in providing unsubsidized services, and will be provided on the basis of competition for least subsidy. Subsidies under the other two streams – from the budget resources and from the Host Communities Fund – will continue to be allocated on current methodology. Consequently, it is likely that these subsidy sources will continue, at least to some extent, serving as substitutes for private investment in the sector.

8.3.3 Technology Choice

There are three broad options for electrification: through extension of the existing grid, through mini grids and through photovoltaic and other isolated facilities. It appears that at present, there is a significant attempt to coordinate all the subsidy streams through the DOE planning processes to ensure that the most efficient technology is chosen. The coordination is done at a detailed planning level, where DOE works closely with SPUG, NEA and the co-operatives to model projects for the un-electrified barangays. This appears to be a relatively high cost, engineering driven approach to achieving efficient technology choice. Moreover, it only works in an environment where public funding is allocated to projects which could have otherwise been funded by commercial investment.

If all public funds for rural electrification were to be allocated through some form of competition for least subsidy, the central planning approach would no longer work, and in any case, would no longer be needed.

However, with the introduction of the Missionary Electrification charge, there is a risk that technology choice will be driven by the choice of the funding stream. ECs will waive franchise in areas that they can not serve without a subsidy, but QTPs will only be able to serve those areas through missionary mini grids, even if it would be more efficient to subside an extension of the existing grid.

8.3.4 On-Going Maintenance

The existing subsidy allocation regime does not ensure effective on-going maintenance. Co-operatives are generally not able to undertake sufficient re-investment due to the 5 percent cap on the reinvestment amount that can be included in the tariff. As we mentioned, the government is in effect providing equity funding for co-operatives, but without any undertakings or ability to maintain the value of that equity.

8.4 Subsidy Design

This section sets out a framework for thinking about subsidies, which can be applied both to missionary electrification and to grid extension by ECs. In particular, we highlight our concern that the same level of resource devoted to subsidy could achieve greater level of electrification if more efforts were made to make consumers pay what they are willing and able to pay. Alternatively, subsidy costs can be reduced without detriment to the electrification program.

8.4.1 Rationale for subsidy

In general, the most significant and the most efficient source of funding for electrification is consumer payment for the services they receive. As we discussed elsewhere, the objective of regulation is to ensure that consumers are not forced to pay more than the full cost (including normal return on investment) of an efficient operator. The purpose of the subsidy policy is to step in when such full cost of an efficient operator is, in some sense, too high.

What is too high? From the electrification policy point of view, the key question is whether electrification would occur at the target level at full cost recovery. Some form of subsidy is justified if electrification would fall below the target without an intervention. If electrification would occur at the target level even without a subsidy, payment of subsidy becomes a form of income redistribution through the purchase of electricity. The Government may still wish to provide subsidies for a mix of social or political reasons, but these reasons should not be confused with the electrification policy.

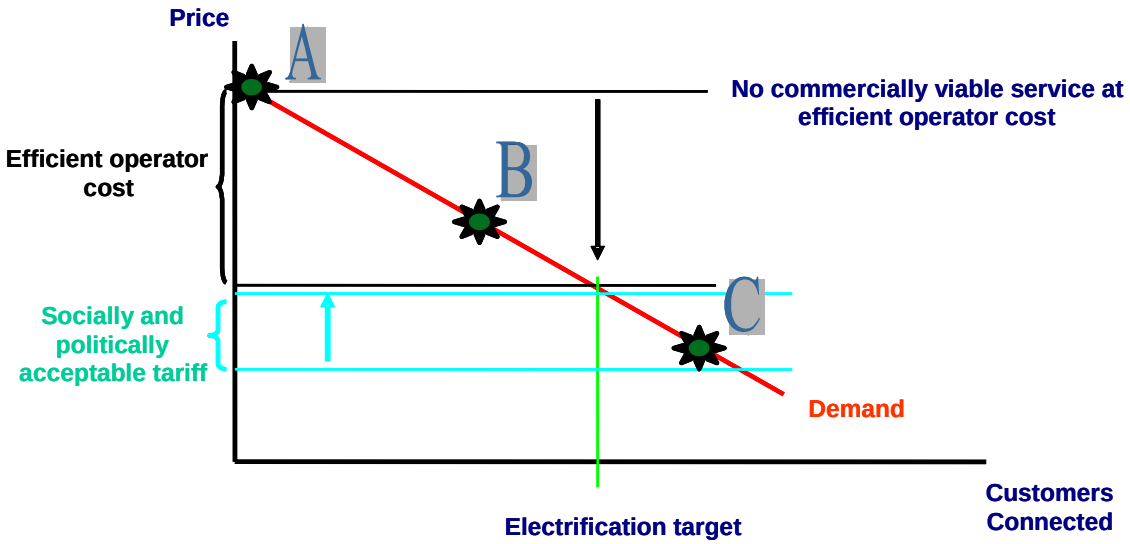
The chart below illustrates this logic:

- Point A shows an extreme situation, where the full cost recovery tariff is so high, that no commercially viable service is possible at such tariff. For example, the cost of supplying electricity to a remote barangay may be so high, that no household would be able to afford a connection

- Point B shows a situation where some commercial service would be viable at full cost recovery tariffs, but the level of demand would fall below the Government's electrification targets

- Point C illustrates a situation where the Government's electrification target would be reached at full cost recovery tariff, but such tariff exceeds some socially or politically acceptable level. For example, in some areas, low tariffs may be regarded as a tool to promote pacification and to combat insurgency.

Figure 15: Subsidy design framework



As a general rule, providing subsidy in situations described by point C is likely to be inefficient. As a form of income redistribution, subsidies that encourage greater consumption of electricity are likely to be regressive: since more electricity is consumed by the better off households with more appliances, the benefits of the subsidy will be disproportionately captured by the higher income group.

Overall, the policy needs to aim at convergence between actual operator costs and politically acceptable tariffs, so that subsidy is only required in rare situations where a full cost recovery tariff would lead to less than the Government's target level of electrification. Operator costs can be reduced by encouraging greater efficiency through private sector participation and competition. The Government also needs to promote political acceptance of full cost recovery tariffs. Government agencies need to work with ERC to ensure that the cost recovery principles embodied in EPIRA are fully implemented.

There are three explanations for high levels of subsidy expenditure at present:

- EC tariffs are too low to allow most ECs access to outside capital. Hence, ECs require Government grants to expand their services
- There is limited tolerance for allowing higher tariffs to be charged in high cost areas. There is a presumption that these are low income areas. This may be true in many cases, but equally, tourist operators in places like Palawan are able to benefit from such subsidy
- Lack of access to outside capital also means that investment costs can not be spread over time. Hence, in case of service expansion, subsidies have to cover full capital costs. This adds further burden on the Government budget or ME-UC.

Overall, fiscal costs and ME-UC are driven by the intense pressure to minimize tariffs. This causes two types of inefficiency:

- Those who are already lucky enough to have a connection benefit from the subsidy even if they are willing and able to pay more

- Those who do not have a connection remain without electricity even when they are willing and able to pay the full cost of provision.

8.5 What is an "Affordable" Tariff?

The pressure to minimize tariffs is caused by the perception that full cost recovery tariffs are not affordable, and that lower tariffs would encourage demand and help the Government achieve its electrification targets. In reality, low tariffs are delaying electrification by starving the industry of the necessary capital. However, in order to be comfortable with a rise in tariffs (and the corresponding reduction in subsidies), the Government needs to be assured that tariffs will remain "affordable". Hence, we believe that the subsidy policy can not be rationalized until the Government decides what the "affordable" tariff is, or at least decides on a process for determining an "affordable" tariff for each area.

In principle, the only objective measure of affordability is whether the Government's electrification targets would be achieved at full cost recovery tariffs. There seems to be evidence that consumers are able and willing to pay more than the current tariffs:

- Consumers pay 20 to 25 pesos per kWh for "informal" connections

- Cooperative tariffs are generally lower than those allowed to investor owned utilities, yet IOUs serve many poor and rural communities

- There is a wide dispersion in ECs' tariffs. Bundled tariffs range from 3 to almost 9 pesos per kWh. There seems to be little logic in providing subsidies to cooperatives charging 3 pesos, if rural and poor households are paying much more than that elsewhere

This suggests that tariffs can increase in many instances without undermining the Government's electrification targets. In fact, by increasing the flow of resources to the sector, this would promote the achievement of the Government's targets.

However, in reality the government unwilling to set tariffs at these high levels. Government would want to set tariffs at a level that is socially acceptable, and hence politically viable.

In Section 8.7 we describe our proposed approach for setting socially acceptable tariffs.

8.6 Missionary Electrification

Outside the budget, the key issue is how to achieve the most efficient use of the ME-UC. As we have discussed elsewhere, the true cost of supplying missionary areas can be minimized by competitive bidding for the provision of QTP services, and for power supply

agreements to replace existing SPUG contracts. Reduction in the cost of supply may, in fact, allow many areas to be graduated from the Missionary status.

In fact, we would expect that if tariffs were allowed to increase to true cost of supply, very few areas would qualify as missionary areas – where missionary is defined as unviable. An unviable area is one where, at full cost recovery tariffs, there would not be sufficient demand to meet the Government's electrification targets. As our discussion above indicates, customers are in fact willing to pay quite high tariffs. Most remote areas would be electrified if investors believe they could recover their true costs. What is preventing electrification is not lack of demand, but lack of trust in the ability to recover costs, as well as institutional barriers to entry.

However, in practice, there is low political tolerance for allowing tariffs in some areas – where cost of supply is high – to be significantly higher than elsewhere in the country. In effect, the Government implicitly defines viability by reference to some socially and politically acceptable tariff. In other words, an area is not viable if the full cost recovery tariff exceeds the socially acceptable tariff.

8.7 Socially Acceptable Tariff

Castalia proposals for private sector participation in missionary electrification involve the setting of the Socially Acceptable Tariff (SAT): a Socially Acceptable Generation Tariff (SAGT) for the existing SPUG areas and a Socially Acceptable Final Tariff (SAFT) for QTPs. In both cases, the tariff plays the critical role of determining the subsidy entitlement. Private providers will receive a subsidy which fully covers the difference between their true costs and the SAT.

Unfortunately, there is no practical "scientifically objective" way to set the Socially Acceptable Tariff. Objective analysis of appropriate tariffs requires careful estimation of the development externality from the consumption of energy in every area. A development externality is the social benefit over and above the private benefit enjoyed by the user, and may include industry development, health and education improvement and other benefits of energy consumption. A model for the calculation of optimal tariffs was developed in the report to DOE called "Rationalization of Subsidy Policy for Rural Electrification" written by Epictetus Patalinghug, Ruperto Alonzo and Nimfa Mendoza. These recommendations were never implemented because they were too complex.

8.7.1 Policy Considerations

What are the Government's objectives with respect to the SAT? We would suggest the following considerations:

- The level needs to recognize the high cost of supply to missionary areas, and needs to establish expectation that customers in high cost areas should pay more

- The level needs to ensure that the proposed reforms are politically acceptable. Key improvement in rural electrification will be achieved by bringing private sector participation into SPUG PSAs and into serving waived areas. It would not make sense

to threaten these improvements by setting the SAT at a high level which would generate opposition to these reforms

- The SAT needs to be set at a level which prevents the ME-UC from becoming unacceptably high

- The SAT needs to preserve the degree of equity with regards to the price of power, i.e. recognize that people assess the reasonableness of what they pay by reference to what their neighbors are paying. Hence, the tariff needs to be set by reference to the tariffs paid in the surrounding areas.

There is no obvious method to set a tariff that meets these criteria. These are for the most part subjective criteria that involve making a judgment rather than applying a formula. As such, we believe that a process through which these tariffs are introduced will play a critical role in ensuring their legitimacy. The process should ensure participation and as much as possible consensus building with interested parties. Such consultative process will make an ERC final decision more defensible.

8.7.2 The Process

We consulted ERC on the design of a process for setting SATs. ERCs concern in designing this process is that it leads to reaching a defensible decision. As such, the process should involve, to the extent possible, an objective analysis of affordability, and extensive consultation with key stakeholders.

The proposed process is as follows:

1. DOE / NPC-SPUIG will make an initial estimate of a SAT. This estimate could be based on the principle of regional equity, affordability surveys, or any other objective method. [17]

[17] Setting SAT based on regional equity. DOE could adopt "rules of thumb" for the setting SAT which reflect these policy considerations.

Socially Acceptable Generation Tariff (SAGT): The SAGT could be set as a multiple of the generation tariff prevailing in the surrounding grid area. There is no obvious way to determine that multiple. We propose, as a starting position, the following formula: SAGT = Surrounding Grid Tariff * 1.8

This multiple is an approximate measure of the diseconomy of scale and distance which affects generation in missionary areas, but should still keep the tariff in the 8 to 10 peso per kWh range. On this basis, final tariffs charged to customers in SPUG areas will not, typically, exceed 15 pesos per kWh.

Socially Acceptable Final Tariff (SAFT): SAFT could be set through the following formula: SAFT = Unbundled Distribution Tariff for the neighboring EC * 1.3 + Surrounding Grid Tariff * 1.8

We believe this formula would approximate the additional cost of providing services in missionary areas, while keeping the final tariff to no more than 15 pesos per kWh.

We propose that the "rules of thumb" set out below be adjusted to keep the ME-UC to no more than 5 to 6 centavos per kWh. Current decisions by ERC indicate that this level is socially acceptable. On this basis, the

2. DOE / NPC-SPUG will hold consultations with users in the concerned area, QTP, IPP or concerned distribution utility.

3. DOE makes SAT petition to ERC

4. ERC holds hearing with concerned parties. ERC could also hold consultation.

5. ERC will make a decision

6. Affected parties would have the right to appeal decision

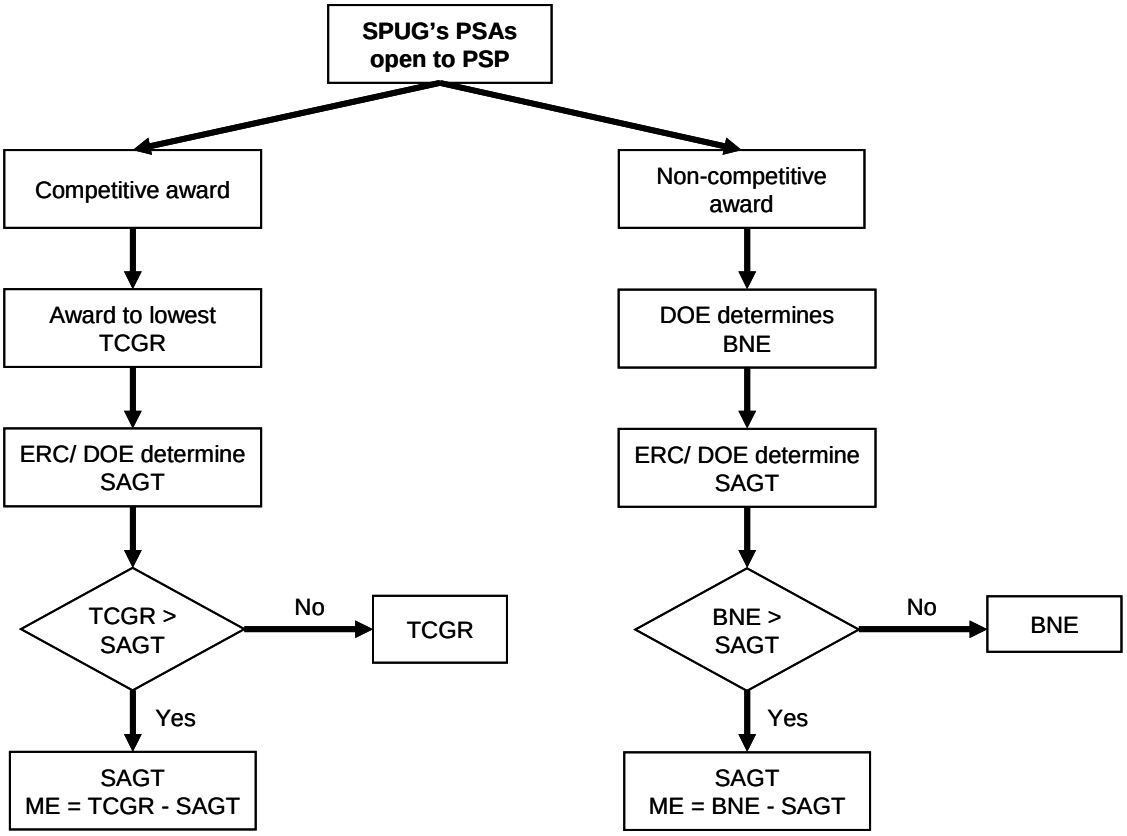
The benefit of this process is that involves extensive consultation. The risk is that it could drag the decision for a long period. To avoid delaying a decision, we recommend the ERC sets deadlines for each step.

8.8 Setting Tariffs and Subsidies

Once the SAT is set, the subsidy would be the difference between the true cost and SAT. The true cost would be set through a competitive process. Figure 16 and Figure 17 illustrate how final tariffs and subsidies would be determined for SPUG's PSAs and QTPs.

Socially Acceptable Tariff would need to be adjusted to ensure that the subsidy amounts resulting from this level of ME-UC are sufficient to cover the difference between the SAT and the true costs of supply.

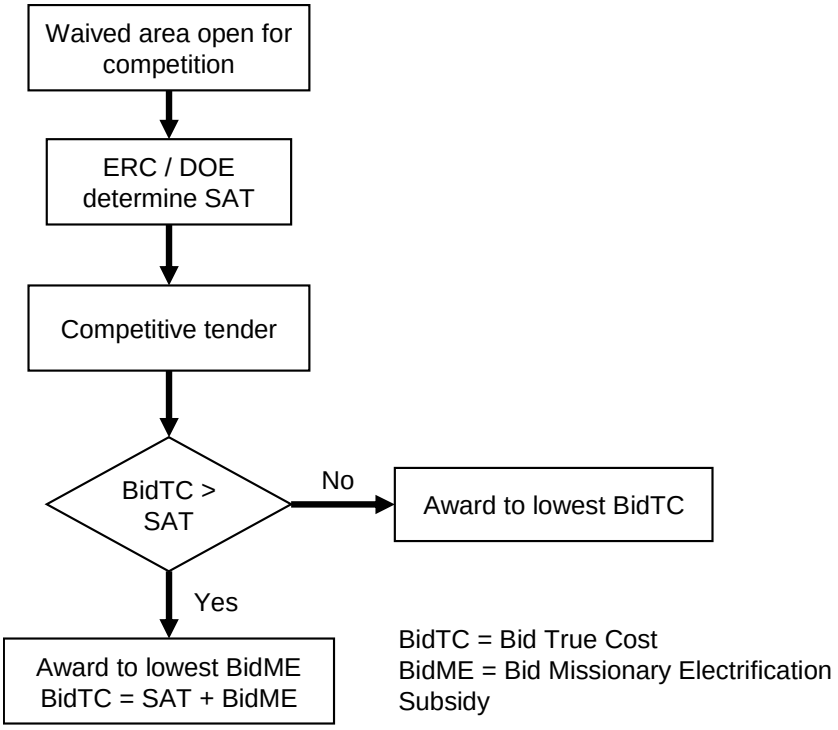
Figure 16: Process for setting generation tariffs and subsidies on SPUG's PSAs



If the PSA is awarded on a competitive basis, the generation tariff would be set through the competitive tender. The True Cost Generation Rate (TCGR) is the lowest generation price quoted by competing bidders. If the SAGT is higher than TCGR, the final tariff would be set at the TCGR, and no subsidy would be required. If the SAGT is less than the TCGR the subsidy entitlement would simply be the difference between the TGCR and SAGT.

If the PSA is not awarded on a competitive basis, the BNE set by DOE would be the benchmark. If the BNE is greater than TCGR, the final tariff would be equal to the SAGT and the subsidy entitlement would be the difference between BNE and TCGR.

Figure 17: Tariffs and subsidy setting process for QTPs



Waived areas would be open for competition. ERC, based on the process described in Section 8.7, would set a SAT for that area. Bidders would be asked to bid the True Cost (BidTC) if their true cost is higher than SAT, or their subsidy requirement if their true cost is higher than SAT.

We have emphasized in our advice to ERC, that ERC's role with respect to the setting of the ME-UC to SPUG will change dramatically under the proposed system. At present, ERC scrutinizes SPUG's petition very closely, as it does not believe that SPUG is efficient, and has doubts about its subsidy needs. Hence, ERC makes significant judgments about the level of subsidy it will approve.

By contrast, under the proposed system, the subsidy decision will become largely automatic:

- The true cost of supply will be given by the outcome of competitive bidding process, and will not be subject to further regulatory review, as long as ERC is satisfied that the process is indeed competitive.

- The SAT will be determined by the Government based on a process for political validation.

The subsidy requirement is the difference between these two tariffs, and will be derived automatically.

8.9 Subsidy Payment and Administration

We are proposing that subsidies to QTPs and IPP are paid on the basis of output. Our specific recommendations on the mechanisms for disbursing and administering these subsidies are outlined below.

8.9.1 Output-based aid to QTPs

In Section 8.8 we explained how tariffs and subsidies would be set for waived areas supplied by QTPs. The competitive tender would set the subsidy entitlement of the QTP. As such, the subsidy is filling the gap between the true cost of supply and the SAT. There are two possible outcomes: one in which SAT is sufficient to cover recurrent O&M costs, and the subsidy entitlement would only cover part or all of the capital investment costs; and a second outcome one in which the SAT is not enough to cover recurrent costs and the subsidy would need to cover capital investment and O&M costs. Our proposed approach for linking outputs to subsidies under these two scenarios is described below:

Subsidies for capital only expenses

The expected outcome of involving a QTP in waived area is to provide electricity to users within that area. There are several direct and indirect ways of measuring if a QTP is delivering this outcome. One obvious direct measure is to recurrently monitor the kWh supplied to individual users, and to link the subsidy disbursement to the achievement of predefined supply targets. Although a direct measure of the desired outcome, this measure is costly and cumbersome to implement.

Alternatively, one could indirectly measure the outcome on the basis of the number of connections installed. A connection installed would give users access to electricity. The downside of this metric is that it doesn't necessarily imply that electricity will be provided. We however believe that the QTP has strong incentives to supply electricity to a new connection in order to increase billings and revenues. As such, we propose to link disbursement of subsidies to connections installed. Several questions arise on how to implement this proposal:

a. How would the amount of subsidy per connection be determined?

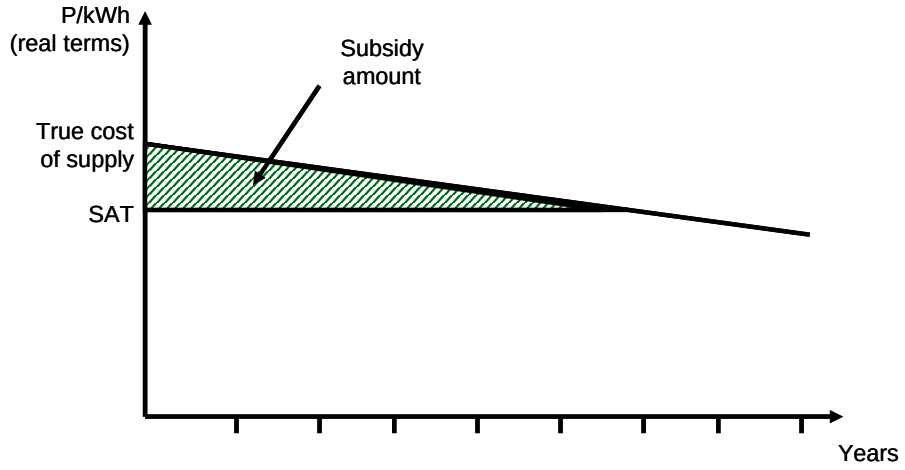
b. Who would administer and disburse the subsidy funds?

c. How would the number of installed connections be verified?

We answer these questions below.

Subsidy amount per connection: Based on the process described in Section 8.8 we would know the initial amount of subsidy entitlement per kWh. As the mini-grid system is developed, and capital expenses are amortized, we would expect the true cost of supply to gradually drop in real terms, and to eventually reach the SAT level. As Figure 18 depicts, the total subsidy amount is represented by the area between the true generation and the socially acceptable tariff curves.

Figure 18: True cost of supply and SAT trend



We proposed to bring this subsidy amount to a present value and to use this amount as the basis for calculating a per connection subsidy. At the outset of the tender to award a waived area, DOE would set the population and number of connections that the QTP would be expected to serve. The subsidy per connection would simply be the present value of the subsidy divided by the connections target defined by DOE. This per connection amount would be indexed to inflation or a price index that reflects increases in capital expenses.

Administration and disbursement of subsidy funds: According to EPIRA, SPUG is responsible for petitioning ERC for the ME-UC. SPUG would petition subsidy funds to cover the expected per connection disbursement for a given period, say 3 years. ERC would approve this petition if the subsidy amount has been set through a competitive tender. The funds will come from the ME-UC, and will be initially disbursed to SPUG, who will in turn make disbursements to the QTP.

Invoicing and payments: QTPs would be allowed to submit bi-annual or quarterly invoices to SPUG. These invoices will indicate the number of connections installed and the subsidy due to the QTP. There are various options that SPUG could adopt to verify that the invoiced connections were indeed installed. First, SPUG could make the payment and latter conduct a field survey; SPUG could verify before making the payment; SPUG could ask QTPs to submit an invoice with a certification from an independent auditor.

Subsidy Payment Risk: There are two key risks associated with the subsidy payment to QTPs and IPPs. First, the risk of political interference in controlling the disbursements, and second, the risk that there are not enough funds to pay the subsidy. There are various options to remove or mitigate these risks.

The risk of political interference arises by having SPUG involved in administering the subsidy funds. One option for removing this risk is to establish a trust managed by a third party (e.g. private financial institution). This trust will have a set of operating rules that will dictate when and how much subsidy should be disbursed. Another option would be for SPUG and NPPs to contractually agree the terms of the subsidy payment. To make this subsidy contract credible to a private investor it could be backed with guarantee from DOE.

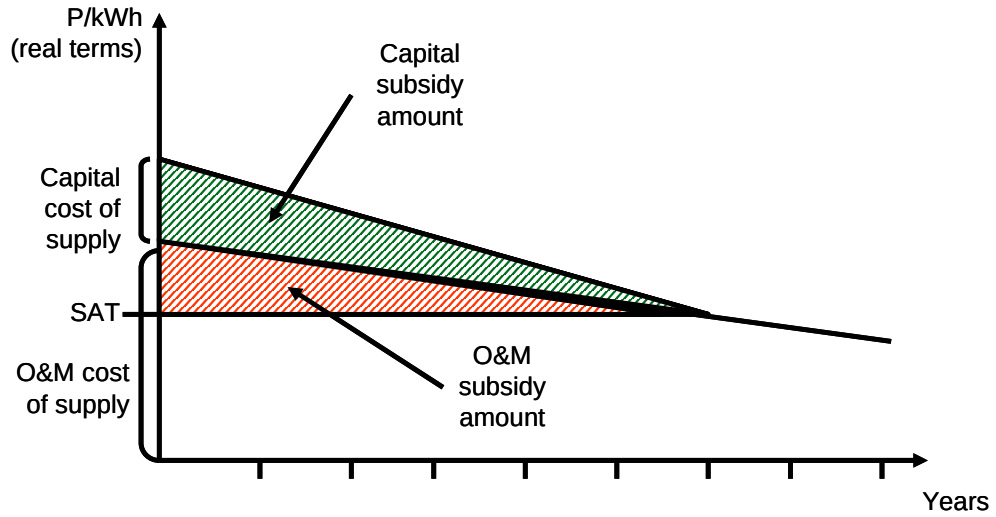
The risk of having insufficient funds to pay the subsidy could arise from insufficient funds collected from the ME-UC, or a mismatch between the timing of ME-UC fund injections and subsidy payment obligations. One option that could remove or mitigate this risk is for DOE to provide a guarantee that will it will have DOE fill the gap in case the funds are insufficient to cover all subsidy obligations.

Subsidies for capital and O&M expenses:

Subsidizing O&M expenses is an undesirable outcome. DOE should try to set SAT at a level that would cover at least O&M expenses. In cases where this is not possible for political reasons, we recommend that SATs are gradually increased over time to bring them to at least an O&M cost recovery level.

During the transition to an O&M recovery SAT, we recommend linking the subsidies to outcomes. The subsidy can be divided into two amounts. One linked to capital expenses and connections installed, and a second linked to kWh of electricity supplied. In order to determine these two amounts we would need to separate the true cost into capital and O&M costs. QTPs would be asked to separate these two cost components in their bids.

Figure 19: True cost of supply and SAT trend



The subsidy to be paid per connection would be calculated by dividing the present value of all capital expenditures by the number of target connections set by DOE. The amount to be

paid per kWh could be calculated as the difference between the levelized O&M costs and the levelized SAT.

8.9.2 Output-based aid to IPPs

Subsidies to IPPs would be determined as the difference between the TCGR and SAT, whenever SAT is less than the TCGR. The expected outcome of IPP is to supply reliable electricity to DUs and ECs. As such, it makes sense to link subsidy payments to kWh of electricity supplied to DUs or ECs.

The subsidy will be paid out of the ME-UC, whose funds are administered by SPUG. There are two options for disbursing the subsidy to the IPP. In either option, the IPP will invoice the DU for an amount calculated on the basis the kWh supplied during that period, and the TCGR. The first option would have SPUG first verifying with the DU that the kWh invoiced was supplied, and if correct, then disbursing the IPP the subsidy amount corresponding to the electricity supplied. The second option, is to have SPUG disburse the subsidy to the IPP upon submission of the invoice to the DU, and later verifying that the invoiced electricity was in fact delivered.

8.10 Next Steps and Supporting Documents

To move forward with the design and implementation of an output-based subsidy mechanism for QTPs and IPP, we recommend the following actions:

1. ERC issues guidelines for setting Socially Acceptable Tariffs

2. ERC issues guidelines for setting tariffs and subsidies for IPPs and QTPs. A draft of these guidelines is included in Section 12.

3. Draft ESC and PSA contracts will be complemented to specify OBA provisions per recommendations made in this section.

9 Draft DOE SPUG Circular

Republic of the Philippines
DEPARTMENT OF ENERGY

DEPARTMENT CIRCULAR NO. DC 2004-01-001

PRESCRIBING THE RULES AND PROCEDURES FOR PRIVATE SECTOR PARTICIPATION IN EXISTING NPC-SPUG AREAS PURSUANT TO RULE 13 OF THE IMPLEMENTING RULES AND REGULATIONS OF THE ELECTRIC POWER INDUSTRY REFORM ACT OF 2001 (EPIRA-IRR)

WHEREAS, it is the declared policy of the State to ensure and accelerate the total electrification of the country;

WHEREAS, under Section 1 of Rule 13 of the EPIRA IRR, the Department of Energy (DOE) is tasked to issue specific guidelines on how to encourage the inflow of private capital and the manner whereby other parties including distribution utilities and qualified third parties can participate in the missionary electrification;

WHEREAS, under Section 3 of the EPIRA IRR, the Small Power Utilities Group of the National Power Corporation (NPC-SPUG), is mandated to periodically assess the requirements and prospects of bringing power generation and associated power delivery systems to commercial viability on an area-by-area basis including a program to encourage private sector participation;

WHEREAS, missionary electrification functions of NPC-SPUG are funded from the revenues from sales in missionary areas and from the Universal Charge, the participation of private sector shall reduce the burden on the missionary electrification component on the Universal Charge (UC-ME);

WHEREAS, the participation of private sector in missionary areas shall reduce the burden on the UC-ME;

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NOW, THEREFORE, FOR AND IN CONSIDERATION OF THE FOREGOING PREMISES, the DOE hereby issues the following guidelines and procedures to guide and encourage the private sector to participate in existing NPC-SPUG areas:

Section 1. Definition of Terms.

Unless the context otherwise indicates, the terms used in this Circular shall have the following meanings:

(a) "***Act***" refers to Republic Act No. 9136, otherwise known as the "Electric Power Industry Reform Act of 2001;"

(b) "***Best New Entrant Tariff***" refers to the tariff which would need to be charged by an efficient entrant to cover its costs and earn a reasonable return on capital;

(c) "***Commercially Viable***" refers to an area or service where the resultant True Cost Generation Rate is equal to or less than the Socially Acceptable Generation Rate;

(d) "***Conclusion Program***" refers to the program prescribing the period/duration that the UC-ME will be made available to the New Private Provider (or "NPP") from the effectivity date of the take over of an NPC-SPUG area;

(e) "***Floor Price***" refers to the price at which NPC-SPUG specifies it is willing to sell an asset to an NPP selected to serve an NPC-SPUG area. The Floor Price may be set at a fair value, as appraised by an independent appraiser, or to the book value of the asset;

(f) "***Graduate***" refers to any area where provision of Missionary Electrification Subsidy is remove/stopped, by reason that the area or service is deemed Commercially Viable;

(g) "***IRR***" refers to the implementing rules and regulations of Republic Act No. 9136, otherwise known as the "Electric Power Industry Reform Act of 2001;"

(h) "***Missionary Electrification***" refers to the provision of basic electricity service in Unviable Areas with the ultimate aim of bringing the operations in these areas to viability levels;

(i) "***Missionary Electrification Subsidy***" refers to the subsidy approved by ERC to be paid to an NPP to allow it to recover its True Cost Generation Rate while charging the Distribution Utility the Socially Acceptable Generation Rate. The Missionary Electrification Subsidy shall be funded from the UC-ME based on the petition filed by NPC-SPUG;

(j) "***New Missionary Areas***" refers to an area declared Unviable by the Distribution Utility for any reason and offered to private sector for supply of electricity;

(k) "***New Private Provider***" or "***NPP***" refers to an entity deemed technically and financially capable to serve/take over existing NPC-SPUG areas, resulting from the competitive bidding exercise;

(l) "***NPC-SPUG***" refers to the functional unit of NPC created to pursue the Missionary Electrification function;

(m) "***NPC-SPUG Area***" refers to a geographic area currently supplied with electricity generated by NPC-SPUG;

(n) "***Power Supply Agreement***" or "***PSA***" refers to an Agreement between a power producer and a Distribution Utility for supply of power;

(o) "***Socially Acceptable Generation Rate***" refers to the rate, which ERC has determined would be desirable, on social acceptability grounds, for a Distribution Utility to pay for power to supply a current or former NPC-SPUG area. The Socially Acceptable Generation Rate combined with the Missionary Electrification Subsidy should equal the True Cost Generation Rate;

(p) "***Transaction Advisor***" refers to a professional/expert engaged by DOE to assist in developing the most appropriate privatization program for existing NPC-SPUG areas;

(q) "***True Cost Generation Rate***" refers to the full efficient costs of generating power in an area. For the purpose of this Circular, True Cost Generation Rates shall be determined on the same basis provided for under Section 43(f) of the Act for setting or determining transmission wheeling rates and retail rates for the captive market of a Distribution Utility to allow sufficient recovery of just and reasonable costs and a reasonable return on rate base (RORB) to enable the entity to operate viably; and

(r) "***Unviable Area***" refers to a geographical area within the Franchise Area of a Distribution Utility where immediate extension of distribution line is not feasible;

Other words and phrases have the same meanings as in EPIRA and its IRRs.

Section 2. Declaration of Policies for Missionary Electrification.

(a) This Circular shall only apply to all areas being served by NPC-SPUG.

(b) All existing NPC-SPUG areas are hereby declared open for private sector participation. For the purpose of this Circular, private sector participation shall mean "the take over of the supply of electricity to any existing NPC-SPUG areas, either through outright purchase or lease of existing NPC-SPUG assets, and/or installation of new power generating facilities including associated power delivery systems."

(c) NPC-SPUG shall endeavor to privatize its power generation facilities and associated power delivery systems.

(d) When NPC-SPUG ceases to serve an area, it may sell its assets in the area or redeploy to serve another area. The sale of assets

of NPC-SPUG shall follow the government's standard accounting procedures.

(e) Distribution utilities currently sourcing power supply from NPC-SPUG, wholly or partly, are encouraged to seek NPPs. The NPPs shall be selected based on competitive bidding with the view to minimize power purchase cost of the Distribution Utility.

(f) In cases where a Distribution Utility does not select an NPP, NPC-SPUG will assign its existing Power Supply Agreement (PSA) to a competitively selected NPP, if this would lead to a reduction in the total cost of power supply.

(g) DOE shall promote policies that will strengthen governance structure such as protection of investors' rights and consumer education in NPC-SPUG areas that were taken over by NPPs.

(h) The DOE shall prescribe the Conclusion Program in existing NPC-SPUG areas taken over by NPPs to optimize the utilization of the UC-ME.

Section 3. Procedures for Selection of New Power Providers.

(a) A competitive process shall be used to select one or more NPPs to supply power to each NPC-SPUG area.

(b) The competitive process shall be designed to ensure that prospective NPPs intending to participate in NPC-SPUG privatization program possess suitable level of financial and technical capacity. The process design shall give due consideration to achieving the lowest long-term cost of power and services, environmental compatibility with the local area, and the most advantageous implementation schedule.

(c) Distribution Utilities operating in existing NPC-SPUG areas shall have the following options in managing the competitive process for the selection of their respective NPPs:

(i) Request DOE to secure a Transaction Advisor or engage the services of a Transaction Advisor, at it own cost, to assist in selecting the appropriate NPP;

(ii) Allow NPC-SPUG to assign its existing PSA to an NPP through a competitive process; or

(iii) Manage the competitive selection process by itself.

(d) To ensure an orderly and well managed process, Distribution Utilities operating in NPC-SPUG areas shall be grouped into 'waves,' based on the suitability of the area for supply by an NPP:

(i) The first wave shall include areas deemed most attractive for NPPs, or which are causing the greatest losses to NPC-SPUG;

(ii) DOE shall notify the Distribution Utilities in a wave that they are to choose one of the three options to select their NPP/s. After being so notified by DOE, a Distribution Utility must within two (2) months, notifies DOE and NPC-SPUG, which option it, has selected. If the Distribution Utility does not notify DOE or NPC-SPUG within the prescribed time period, it shall be deemed to have selected option under Section 3(c)(ii).

(iii) Any Distribution Utility, which wishes to be included in the first 'wave' may notify DOE, and shall be so included.

(iv) Distribution Utilities, which selected option under Section 3(c)(iii), shall be monitored by DOE to ensure that their progress toward selection of an NPP is comparable to that of the Distribution Utilities, which opted to use option under Section 3 (c)(i) or option under Section 3(c)(ii). If a Distribution Utility falls significantly behind schedule compared to Distribution Utilities under the other two options, DOE may offer that Distribution Utility the option to adopt Section 3(c)(i), or may assign it to option under Section 3(c)(ii) (i.e., NPC-SPUG shall select the NPP and

assign its PSA, thus removing the Distribution Utility's control of the process).

(e) Once an NPP has been selected, NPC-SPUG shall accordingly assign, amend or terminate its PSA with the concerned Distribution Utility in such a way as to provide a smooth and efficient transition to the NPP.

(f) Towards this end, NPC-SPUG shall, within one (1) month from effectivity of this Circular, prepare and submit to DOE its proposed groupings or waves, consistent with subparagraph (d) of this section.

Section 4. Disposal of Surplus NPC-SPUG Assets.

(a) NPC-SPUG shall dispose of its surplus assets once an NPP is in place and NPC-SPUG phases out supply and services to the area.

(b) Disposal of Generation-related assets.

All generation assets and other NPC-SPUG assets, which were used to serve an area, with the exception of subtransmission assets, will be disposed of through the following process:

(i) NPC-SPUG shall offer the winning NPP the right to buy the assets at a Floor Price. The option to purchase, together with the Floor Price, shall be provided in the PSA bidding documents.

(ii) The Floor Price shall be set by an independent appraiser, based on the value of the asset to NPC-SPUG in other uses or its sound value, or may be set at the book value of the asset.

(iii) In the event that the winning NPP does not exercise its option to purchase the assets at the set floor price, NPC-SPUG may redeploy the asset to serve another NPC-SPUG area, or otherwise shall, within two (2) months, auction the assets through an open, ascending bidding process.

The winning NPP shall have the right to participate in this auction.

(c) Disposal of Subtransmission Assets.

NPC-SPUG shall dispose of its subtransmission assets according to the following process:

(i) NPC-SPUG shall first offer the subtransmission assets to the relevant Distribution Utility they serve, using the same procedure as that set out for sale of National Transmission Company (TRANSCO) subtransmission assets to Distribution Utilities prescribed in Section 8 of EPIRA, Rule 6 of EPIRA IRR and guidelines issued by the Energy Regulatory Commission (ERC) on 17 October 2003 on the sale and transfer of the TRANSCO subtransmission assets and franchising of qualified consortia. This includes determining the disposal value of the assets on the basis of its revenue potential.

(ii) If the Distribution Utility does not agree to buy the subtransmission assets, NPC-SPUG shall offer the sale to any consortium of Distribution Utilities or to TRANSCO at the same price.

(iii) If no buyer for the assets can be found, NPC-SPUG shall endeavor to enter into an operations and maintenance (O&M) contract with the relevant Distribution Utility operating in the area, under which the Distribution Utility takes over responsibility for operating and maintaining the subtransmission assets.

(iv) In the event that NPC-SPUG continues to own the subtransmission assets, NPC-SPUG shall review and optimize its operating costs, and apply to ERC for a rate increase to cover the full cost of operating and maintaining subtransmission services.

Section 5. Additional Functions of NPC-SPUG.

In addition to its existing functions, NPC-SPUG shall perform the following:

(a) Petition ERC on the proposed regulatory regime aimed at encouraging private sector participation in existing NPC-SPUG areas:

(i) NPC-SPUG will petition ERC to implement a regulatory regime with the following key characteristics:

(1) NPPs supplying taken-over NPC-SPUG areas may charge the True Cost Generation Rates;

(2) True Cost Generation Rates shall be established based on competitive bidding to supply at least cost, or in cases where there was not effective competitive bidding, through application of Best New Entrant tariff benchmarking;

(3) In cases where DOE considers the True Cost Generation Rate too high to be socially acceptable, NPC-SPUG shall petition ERC to set a Socially Acceptable Generation Rate, and for a Missionary Electrification Subsidy to be paid from the UC-ME. The Missionary Electrification Subsidy will be calculated as the difference between the True Cost Generation Rate and the Socially Acceptable Generation Rate;

(4) The Socially Acceptable Rate may rise over time in line with development of an area, and as a result the Missionary Electrification Subsidy for an area may be set to decline over period;

(5) When the Socially Acceptable Tariff is equal to or higher than the True Cost Generation Tariff, an area shall be considered Commercially Viable, and NPC-

SPUG shall no longer petition ERC for Missionary Electrification Subsidy for such areas, which will be referred to as having Graduated;

(6) ERC will be petitioned to determine the Missionary Electrification Subsidy to be provided to the NPP serving the area, and the Socially Acceptable Generation Rate consistent with that subsidy;

(7) If a Missionary Electrification Subsidy is provided to the NPP serving an area, the NPP shall be required by regulation and/or the terms of the PSA to reduce its charges to the Distribution Utility commensurate with the subsidy received. The principle is that the tariff revenue and the subsidy should, taken together, be equivalent to the True Cost Generation Rate; and

(8) At all times, the NPP serving a taken over NPC SPUG area has the right to charge its True Cost Generation Rate if it does not receive a subsidy which covers the difference between the True Cost Generation Rate and the Socially Acceptable Generation Rate.

(b) Assist Distribution Utilities operating in existing NPC-SPUG areas to enter PSAs with NPPs.

(c) Ensuring that New Missionary Areas are served effectively and efficiently by Qualified Third Parties (QTPs) wherever possible, and by NPC-SPUG directly in the event that no QTPs are willing to serve the area.

(d) Ensure payment of the subsidies to entities qualified to avail subsidies from the UC-ME, as determined by the ERC.

Section 6. Non-Retroactivity.

This Circular does not apply to PSAs where tariff rates have been approved by the ERC before the date of effectiveness of the Circular.

Section 7. Repealing Clause.

All pertinent issuances, circulars and memoranda inconsistent with this Circular are hereby amended or repealed accordingly.

Section 8. Saving Clause.

(a) If for any reason, any provision of this Circular is declared unconstitutional or invalid, the other parts or provisions hereof which are not affected thereby shall continue to be in full force and effect.

(b) The implementation of this Circular shall not exempt the parties from applicable laws, rules and regulations.

Section 9. Effectivity.

This Circular shall take effect upon its complete publication in a newspaper of general circulation.

VICENTE S. PÉREZ, JR.
Secretary

Fort Bonifacio, Taguig, Metro Manila, Philippines, 26 January 2004.

10 Draft DOE QTP Circular

DEPARTMENT OF ENERGY

Draft CIRCULAR NO. _____

POLICIES FOR PARTICIPATION OF QUALIFIED THIRD PARTIES IN SUPPLY OF ELECTRICITY TO UNSERVED AREAS AS MANDATED IN THE ELECTRIC POWER INDUSTRY REFORM ACT OF 2001 (EPIRA)

WHEREAS, it is the policy of the State to ensure and accelerate the total electrification of the country through the enhancement of the inflow of private capital, and its participation in the attendant risks

WHEREAS, the DOE is tasked to issue specific guidelines on how to encourage the inflow of private capital and the manner in which other parties can participate in the projects set forth in the Missionary Electrification Development Plan (MEDP) and in electrification of unelectrified areas in general

WHEREAS, EPIRA IRR 14 provides that Pursuant to Section 59 of the Act, the provision of electric service in remote and Unviable Areas that a Distribution Utility is unable to service for any reason shall be opened to other qualified third parties and that any Distribution Utility that fails to provide electricity to an Unviable Area shall be required by the ERC to enter into a contract with a qualified third party to provide electric service in such an Unviable Area

WHEREAS, EPIRA IRR 14(4) provides that the DOE shall set criteria for determining qualified third parties that may participate in providing electricity to remote and Unviable Areas, and states that these criteria may include financial, technical, environmental, and other indices of performance, and that the criteria shall give preference to parties that would utilize least-cost new Renewable Energy Resources in providing electricity

NOW, THEREFORE, FOR AND IN CONSIDERATION OF THE FOREGOING PREMISES, the DOE hereby issues the following guidelines on how Qualified Third Parties can participate in providing electricity service to currently unserved areas

1. Declaration of Policies for Qualified Third Parties to Electrify Waived Areas

1.1 In accordance with EPIRA IRR 14(1), those parts of any franchise area which the franchise holder cannot supply within the next three years are open for supply by Qualified Third Parties (QTPs).

1.2 DOE will each year publish a list of such areas, as required by EPIRA IRR 14(3). Such areas will be known as 'Waived Areas'

1.3 Organizations which meet the Qualification Criteria promulgated in this Circular can become QTPs

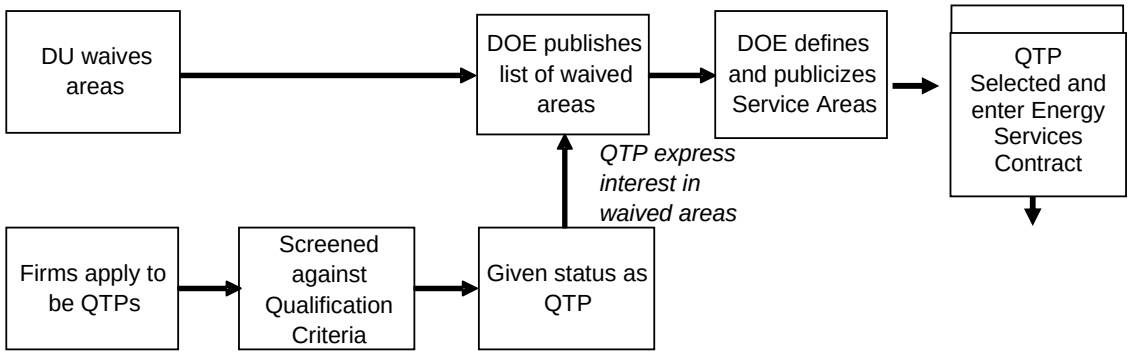
1.4 QTPs will enter Energy Services Contracts with DUs to serve specified waived areas. The Energy Services Contracts will set coverage and service standards

1.5 The tariffs charged by QTPS will be regulated by ERC. Subsidies may be provided to QTPs from the Missionary Electrification Component of the Universal Charge (ME-UC) to ensure that QTPs will be able to recover the true cost of service, while limiting the tariffs charged to socially acceptable levels.

2. Implementation Scheme for Qualified Third Parties to provide services in Waived Areas

2.1 **Overview** - Figure 20 illustrates out the process by which QTPs will be qualified and selected to serve waived areas. The following sections describe each of the steps in the process.

Figure 20 : Process for Matching QTPs with Waived Areas



2.2 **Identification of opportunities** - DOE will publish a list of all waived areas on its website

2.3 **Qualification as QTP** – Any organization which wishes to serve a waived area may apply to DOE to be accredited as a QTP:

2.3.1 The application must provide information demonstrating that the organization meets the Qualification Criteria set out in 0.

2.3.2 If an organization demonstrates to DOE's satisfaction that it meets these criteria, it will be accredited by DOE as a Qualified Third Party

2.3.3 Accreditation as a QTP will give an organization the right to apply to serve a Waived Area

2.3.4 DOE may impose limitations of its accreditation of an organization as a QTP, including limitations as to the size of an area a QTP is allowed to apply to serve (where size will be measured by number of potential customers and/or probable peak demand)

2.4 **Process for awarding an Energy Services Contract** – The key steps in awarding an Energy Services Contract to a QTP to serve any waived area are:

2.4.1 Expression of interest by QTP - Any QTP may offer to supply any waived area by expressing interest to DOE. DOE will provide the QTP with whatever information it has on the area, and generally assist the QTP in deciding whether to make a formal proposal to serve the area

2.4.2 Definition of Service Areas - If a QTP expresses interest in serving a waived area, DOE will define a Service Area including that area. The Service Area will be the area in which the QTP expressed interest, unless DOE consider that an alternative geographic package is more likely to promote rapid and extensive extension of energy services. In making this determination, DOE will take into account factors such as economies of scale, the desirability of not excessively fragmenting service areas and the likely interest of other QTPs in the opportunity. DOE will discuss the service area definition with the QTP which expressed interest and such other parties as it considers may have an interest in the matter.

2.4.3 Publication of Service Areas – DOE will publicize the Service Area on its website and in national and local newspapers, and indicate that other QTPs may express interest in serving the area

2.4.4 Preparation of an Energy Services Contract – DOE will prepare an Energy Services Contract for the area, based on the DOE Model Energy Service Contract, and specifying the Service Area, Coverage Targets and Service Standards

2.4.5 Competitive Tender to Serve Area – DOE will hold a competitive tender in which QTPs will be invited to bid to serve the area in accordance with the terms of the Energy Services Contract

2.4.6 Award of Contract – the winning bidder will be awarded the Energy Services Contract. After obtaining a Certificate of Compliance from ERC, the contracted QTP will then start to provide service.

3. Tariff, Subsidies, Bid Evaluation Criteria

3.1 For each Service Area, DOE will determine an indicative 'Socially Acceptable Tariff'

3.2 Bidders will be asked to indicate in their bid their cost of service, and will be required to indicate:

a) in cases where their cost of service is below the indicative Socially Acceptable Tariff, the tariff they would require to serve the Area

b) in cases where their cost of service is above the indicative Socially Acceptable Tariff, the minimum subsidy they would need to receive in order to be able to serve the area at the indicative Socially Acceptable Tariff

3.3 The winning bidder will be the bidder, having submitted a compliant offer, who offers to serve the area at the lowest tariff, or if all bidders indicate that their cost of service is above the indicative Socially Acceptable Tariff, the bidder requiring the least subsidy to serve the area at the indicative Socially Acceptable Tariff

3.4 The Energy Services Contract may specify that the tariff charged is not to exceed that bid

4. Regulation

4.1 SPUG will assist the winning bidder to file a rate application with ERC.

4.2 In cases where the bid was awarded to a QTP with a cost of service above the indicative Socially Acceptable Tariff, the rate application will petition for:

4.2.1 A tariff equal to the indicative Socially Acceptable Tariff

4.2.2 A Missionary Electrification Subsidy sufficient to allow the QTP to recover it cost of service while charging the Socially Acceptable Tariff

4.3 Where SPUG petitions for a Missionary Electrification Subsidy for a QTP, the subsidy sought may be structured as a payment per connection made, or per kWh supplied, or on such other basis as SPUG, in consultation with DOE, determines

4.4 In cases where the bid was awarded to a QTP with a cost of service below the indicative Socially Acceptable Tariff, the rate application will petition for a rate equal to the tariff bid

5. Obligations of franchise-holder

5.1 As required by EPIRA IRR 7(6)b and 14(1), DUs which cannot serve part of their franchise are to enter contracts with QTPs to serve those areas

5.2 DUs may sign Energy Service Contracts with QTPs to serve waived areas, on terms approved by ERC. Such Energy Service Contracts are to be based on the DOE Model Energy Service Contract

5.3 If a DU has not signed an Energy Services Contract with a QTP for a Service Area, it shall sign an Energy Service Contract prepared by DOE, with a QTP selected by DOE following the process outlined in Section 2 above

6. Repealing Clause

6.1 All pertinent issuances, circulars and memoranda inconsistent with this Circular are hereby amended or repealed accordingly.

7. Saving Clause

7.1 If for any reason, any provision of this instrument/circular is declared unconstitutional or invalid, the other parts or provisions hereof which are not affected thereby shall continue to be in full force and effect.

7.2 The implementation of this Circular shall not exempt the parties from existing Government rules and regulations, and applicable Government agency circulars or issuances.

8. Effectivity

8.1 This Circular shall take effect immediately.

-Qualification Criteria

1. General

1.1 To be accredited as a QTP, an organization must demonstrate that it is financially and technically capable, and of good standing in the business community.

1.2 The criteria organizations must meet are set out below

1.3 Any organization which meets these criteria may be accredited as a QTP. Such organizations may include, without limitation, private firms, Local Government Units, Cooperatives, Distribution Utilities, Generators, or subsidiaries of Distribution Utilities or Generators.

2. Accreditation by size

2.1 Service Areas to be served by QTPs will differ in size. In view of this, organizations seeking accreditation are to indicate the maximum size of system for which they wish to be accredited. The size of system is to be specified in terms of:

a. Megawatts of generation capacity

b. Number of customers served

2.2 Information submitted shall demonstrate capacity at the maximum size for which accreditation is sought (specified size)

2.3 DOE may accredit an organization as a QTP able to serve areas of up to a specified generation capacity or specified number of customers

3. Technical criteria

3.1 To be accredited as a QTP, an organization must demonstrate that it has the technical skills and capacity to operate electricity distribution and generation systems of the specified size.

3.2 Evidence of technical capacity to serve which will be acceptable will include:

3.2.1 Proof that the organization is currently operating an electricity distribution service with at least [60%] of the specified number of customers; and/or

3.2.2 Proof that the organization is currently operating an electricity generation facility with at least [60%] of the specified capacity; and/or

3.2.3 Proof that the management team proposed have, between them, been responsible for operation of an electricity system with at least [60%] of the specified number of connections, and at least [60%] of the specified generation capacity

3.3 Organizations which cannot meet the criteria outlined above may nevertheless be accredited if they can demonstrate technical capacity to operate a system of the specified size. Factors which DOE would consider would include:

a. The qualifications and experience of the management team

b. Contracts or arrangements with other parties allowing the organization to access the required expertise

c. Experience of the organization in related areas, such as other utility or infrastructure businesses

4. Financial criteria

4.1 To be accredited as a QTP, an organization must demonstrate that it has the capacity to finance an electricity system of the specified size.

4.2 Evidence of financial capacity which will be acceptable will include:

4.2.1 Proof that the organization has net assets equal to at least [30%] of the estimated capital required to construct the system

4.2.2 Letter of Credit or of Intent to Invest from another organization with net assets equal to [100%] of the estimated capital required to construct the system, provided that DOE is satisfied that the organization which signed the letter indeed has the intent to invest or provide credit

4.2.3 Organizations which cannot meet the criteria outlined above may nevertheless be accredited if they can demonstrate to DOE the capacity to finance a system of the proposed size. Factors which DOE would consider would include:

a. History of operating profitability a generation, distribution or other utility business of comparable size

b. History of developing infrastructure projects of similar size

c. A letter of testimonial from a reputable bank attesting that the Applicant and/or members of the consortium are banking with them, that they are in good financial standing and that they have adequate resources

d. Other clear indications of ability to access the required finance

5. Good Standing

5.1 To be accredited as a QTP, an organization must demonstrate that it is in good standing with the business community in which it operates. Factors which could lead DOE to determine that an organization is not in good standing could include:

5.1.1 The involvement in the proposed management team or in a management position in the organization of anyone who:

a. Is an undischarged bankrupt

b. Has been convicted for any crime involving fraud or dishonesty committed in the last ten years

c. Has been successfully sued for fraud, breach of director's duties or any similar action in the last ten years

5.1.2 Being currently suspended or blacklisted by NPC, or by any other Government agency, whether in its capacity as an individual or partnership or corporation or as a member of a joint venture or consortium.

5.1.3 To have negative slippage of more than fifteen (15) percent in any of its on-going contracts with the Government or NPC, or record of unsatisfactory past performance particularly non compliance with contract terms, plans and specifications, defective workmanship, abandonment of work and similar deficiencies

6. Special Consideration for Regional Organizations

6.1 Organizations which can demonstrate existing commitment and business success in a particular region may, on submission of suitable evidence, be accredited as a QTP for that region, in cases where DOE considers that regional knowledge will offset what would otherwise be deficiencies in the applicant's capacity

7. Special Consideration for Renewable Technologies

7.1 In light of the Governments' commitment to development of renewable energy, and the relative lack of renewable energy projects to date in the Philippines, organizations with credible commitment to and/or expertise in renewal energy development may be accredited as QTPs, notwithstanding a lack of previous experience

8. Additional criteria in tender for Energy Services Contract

8.1 DOE may impose additional technical and financial criteria and conditions which bidders for any particular Energy Services Contract will be required to meet. Such criteria or conditions may include, without limitation:

8.1.1 Payment for Bidding Documents

8.1.2 Posting of Bid Bonds or other Performance Bonds

8.1.3 Minimum equity requirements

8.1.4 Submission of Technical Proposal with methodology and workplan

8.1.5 Adequate qualifications and experience of proposed management team

11 Model Energy Services Contract

ENERGY SERVICES CONTRACT

KNOW ALL MEN BY THESE PRESENTS:

This Contract is executed this ___ day of _____ at _____ by and between:

> **(DISTRIBUTION UTILITY)**, an electric cooperative duly organized and existing under and by virtue of _____, with principal offices located at _____, represented herein by its duly authorized _____, Mr. _____ (hereinafter referred to as the "DU");
>
> and
>
> **(SERVICE PROVIDER)**, a corporation duly organized and existing under and by virtue of the laws of the Republic of the Philippines, with principal offices located at _____, represented herein by its duly authorized _____, Mr. _____ (hereinafter referred to as the "QTP").

WHEREAS, the Government of the Republic of the Philippines (the "GOP") is implementing the "O Ilaw" or "Gift of Light" program, pursuant to which it is targeted that one hundred percent (100%) of all barangays in the Philippines will be electrified by the year 2006, through both extensions to the existing grid and the development of new stand-alone off-grid (missionary) systems, involving both Government and private sector participation;

WHEREAS, in order to achieve one hundred percent (100%) electrification of all barangays in the Philippines by the year 2006, the GOP, through its Department of Energy (the "DOE"), is encouraging private sector participation in rural electrification through, among others, contracts with private sector service providers who meet the qualification criteria set by the DOE for qualified third parties;

WHEREAS, the DU has a franchise to distribute electricity in the Cities of _____ and in the Municipalities of _____ (the "Franchise Area"), a map of which is attached hereto and made an integral part hereof as Schedule 1;

WHEREAS, under Section 59 of Republic Act No. 9136, otherwise known as the "Electric Power Industry Reform Act" (the "EPIRA"), the provision of electric service in remote and unviable villages that a franchised utility is unable to service for any reason shall be opened to other qualified third parties;

WHEREAS, the DOE, in consultation with the National Electrification Administration (the "NEA") and the DU, has declared that a certain portion (the "Service Area") of the Franchise Area, more particularly described and delineated in the map attached hereto and made an integral part hereof as Schedule 1-A, is too remote and unviable to be serviced by the DU and, thus, such Service Area should be open for service by qualified third parties;

WHEREAS, the QTP has met all the qualifications set by the DOE for qualified third parties authorized to service remote and unviable areas within the jurisdiction of a franchised distribution utility and wishes to provide electric service to the Service Area;

WHEREAS, the QTP has been authorized by the Energy Regulatory Commission (the "ERC") in accordance with the EPIRA to provide electric service to the Service Area;

WHEREAS, the DU (having been required to do so by the ERC) is willing to contract with the QTP for the latter to provide electric service to the Service Area, and the QTP is willing to contract with the DU for the provision of such electric service to the Service Area, under the terms and conditions provided herein.

NOW, THEREFORE, for and in consideration of the foregoing premises, it is hereby agreed as follows:

1. Definitions and Interpretation

1.1. Definitions

(a) "Assignee" – means a person or entity to whom the QTP may assign this Contract pursuant to Article 12 hereof.

(b) "Commercial Operation Date" – means the earlier of _____ and the date (as certified by the DU by notice in writing to the QTP) on which the QTP first distributes and sells electricity within the Service Area under this Contract.

(c) “DENR” – means the Department of Environment and Natural Resources.

(d) “DOE” – means the Department of Energy.

(e) “DOLE” – means the Department of Labor and Employment.

(f) "Distribution Code" – refers to the term used in Rule 4(y) of the IRRs.

(g) “Distribution Utility” – refers to the term used in Rule 4(cc) of the IRRs.

(h) "DU Event of Default" – has the meaning given to it in Article 15 hereof.

(i) "End-user" – refers to the term used in Rule 4(hh) of the IRRs.

(j) “EPIRA” – means Republic Act No. 9136, otherwise known as the “Electric Power Industry Reform Act”.

(k) “ERC” – means the Energy Regulatory Commission.

(l) “Exclusivity Period” – means the period commencing on the date of the execution of this Contract and expiring on _____ .

(m) “Franchise Area” – means the Cities of _____ and the Municipalities of _____, more particularly described and delineated in Schedule 1 hereof.

(n) "Generation Facility" – refers to the term used in Rule 4(oo) of the IRRs.

(o) “IRRs” – means the Implementing Rules and Regulations of the EPIRA.

(p) "Market Value" – means, in respect of an asset (including a contract or real rights) or equipment, the economic value of that asset or equipment as reflected in the price that a willing but not anxious purchaser would pay to obtain the use of that asset or equipment and excludes any special value to the QTP. Where the asset is a contract, the Market Value of that contract must take into account the value of the rights and the burden of the obligations under that contract.

(q) “NEA” – means the National Electrification Administration.

(r) "QTP Event of Default" – has the meaning given to it in Article 15 hereof.

(s) “Service Area” – means that portion of the Franchise Area more particularly described and delineated in Schedule “1-A” hereof.

(t) “Term” – means the term of this Contract as referred to in Article 4 hereof.

(u) "Threshold Amount" – for a calendar year means [ ] multiplied by $[CPI_t/CPI_{t-1}]$ – 1 where CPI is the All Items Consumer Price Index published by the National Statistics Office of the Philippines; CPI_t is the CPI for the quarter ending on 30 September of that calendar year; CPI_{t-1} is the CPI for the quarter ending on 30 September of the immediately preceding calendar year.

(v) "Unviable Area" – refers to the term used in Rule 4(ssss) of the IRRs.

1.2. Interpretation. – In this Contract, unless the context otherwise requires:

(a) the singular includes the plural, and vice-versa;

(b) any gender includes the others and "person" includes a corporation or other legal entity;

(c) reference to a law is to the same as amended, modified, or replaced from time to time and to any law, ordinance, rule, order, decree, writ, judgment, injunction or regulation made thereunder;

(d) reference to an "Article" or a "Schedule" is to an article of, or a schedule to, this Contract;

(e) any reference to a Governmental ministry, department, authority or agency shall be construed as being to any Governmental ministry, department, authority or agency which succeeds to the functions thereof;

(f) reference to a party is to a party to this Contract, its successors and permitted assigns;

(g) reference to "above" or "below" is to the first occurrence above or below the reference;

(h) where a word or expression is defined (including in this Article), cognate words and expression shall be construed accordingly;

(i) "including" shall not be construed as being by way of limitation and "otherwise" shall not be construed as limited by words with which it is associated;

(j) the word "reasonable" appearing before "approval", "satisfaction" or any similar word shall mean that the approval, expression of satisfaction or other decision to be made as to the particular matter or thing concerned shall not be unreasonably withheld or delayed. Conversely, if the word "reasonable" does not so appear, the approval, expression of satisfaction or other decision to be made may be given or made solely at the unfettered discretion of the party concerned.

2. Contract for Electric Service

On the terms and subject to the conditions set forth herein, the DU hereby contracts with the QTP for the latter to provide electric service to the Service Area. In this connection, the DU hereby authorizes the QTP to act as its agent in the exercise of the DU's right of eminent domain. The QTP hereby agrees to provide electric service to the Service Area and to act as the DU's agent in the exercise of the DU's right of eminent domain.

For the purposes of this Contract, the terms "provide electric service" or "provision of electric service" shall mean the generation and transmission of electricity for the purposes of its distribution and sale within the Service Area and the distribution and sale of such electricity within the Service Area.

3. Performance Standards

The QTP agrees that, in providing electric service to the Service Area, it will meet the power quality standards, and the service quality and reliability standards, set out in the schedule attached hereto and made an integral part hereof as Schedule 4, failing which the QTP must, within 30 days of that failure, pay to, or at the direction of, the DU a penalty of the amount (if any) specified opposite the relevant standard in Schedule 4.

4. Term

The term of this Contract (the "Term") shall commence on the date of the execution of this Contract and expire on ____(date)_____ **[*Note: this date should be no later than the date on which the DU's franchise is to expire*]**; provided, however, that the Term shall be automatically earlier terminated:

(a) upon the QTP surrendering this Contract under Article 13 hereof;

(b) upon the QTP or the DU terminating this Contract under Article 14 hereof;

(c) upon the DU terminating this Contract under Article 15 hereof by reason of the occurrence of a QTP Event of Default; or

(d) upon the QTP terminating this Contract under Article 15 hereof by reason of the occurrence of a DU Event of Default.

5. Tariff

The tariff the QTP may charge for providing electric service to the Service Area must not exceed:

a. the maximum tariff for providing such electric service (if any) which is determined by the ERC; or

b. if no such tariff is determined by the ERC, the maximum tariff set out in, or determined in accordance with, Schedule 2.

6. Obligation of the DU

Subject to the provisions of its franchise and its constitutive documents, the DU shall, upon request of the QTP, cooperate in all reasonable ways (but at the expense of the QTP) to facilitate the QTP's carrying out its functions, responsibilities, and obligations under this Contract.

7. Obligations of the QTP

The QTP hereby agrees that, in providing electric service to the Service Area, it will:

(a) meet the coverage targets and timetable set out in the schedule attached hereto and made an integral part hereof as Schedule 3;

(b) comply, at all times, with the requirements of any authorization granted by the ERC in accordance with the EPIRA to provide electric service to the Service Area;

(c) comply, at all times, with Parts 1 and 2 of the Philippine Electricity Code, and with all the applicable provisions of the Distribution Code;

(d) comply, at all times, with all the applicable occupational, health, and safety standards set by the Bureau of Working Conditions of the Philippine DOLE;

(e) comply, at all times, with all the applicable environmental requirements and standards set by the Philippine DENR; and

(f) comply, at all times, with all requirements of the pertinent Philippine local Government unit, including those for the issuance of the relevant permits, authorizations, approvals, and licenses and the payment of the relevant local taxes.

The QTP further agrees that it will:

(g) compile and retain, for a period of up to ____ years from their creation, accurate and up to date records relating to the operations of the QTP in the provision of electric service to the Service Area, including, but not limited to, records pertaining to the installation, operation, and maintenance of all the assets (including real rights, if any) and equipment utilized by the QTP in the provision of electric service to the Service Area and copies of all contracts that relate to the provision of electric service to the Service Area (such copies to be retained until the rights and obligations under them have either terminated or expired);

(h) obtain and maintain insurance, from a reputable insurance company, to cover the loss, destruction, and deterioration of the assets and equipment utilized by the QTP in the provision of electric service to the Service Area, as well as insurance to cover liabilities to third parties arising from the provision of such electric service to the Service Area, in such amounts as are reasonable and customary throughout the industry in the Philippines;

(i) submit the reports specified in the schedule attached hereto and made an integral part hereof as Schedule 5, strictly in accordance with the timetable set forth in such Schedule 5;

(j) comply, at all times, with the qualifications set by the DOE for qualified third parties authorized to service remote and Unviable Areas;

(k) not distribute and sell any electricity outside the Service Area, but within the Franchise Area, otherwise than with the consent of the DU;

(l) within a reasonable period of time after a request by the DU, provide the DU or its representatives with such information and such access to the operations conducted by the QTP as the DU may reasonably require to monitor the performance by the QTP of its obligations under this Contract; and

(m) use reasonable endeavors to include in each contract that relates to the provision of electric service to the Service Area, including, but not limited to, contracts for the construction, operation and maintenance of the assets and equipment utilized by the QTP in the provision of electric service to the Service Area and contracts for the distribution and sale of

electricity within the Service Area, provisions that allow the QTP to assign those contracts to the DU without the consent or approval of any other person (other than the DU) and without the need for the DU to fulfill any qualifications (whether as to creditworthiness, technical expertise or otherwise).

8. Representations and Warranties of the DU

The DU hereby represents and warrants as follows:

(a) it is an electric cooperative duly organized, validly existing and in good standing under the laws of the Republic of the Philippines, more particularly under _____;

(b) it has full power and authority to execute and deliver this Contract and to consummate the transactions contemplated hereby;

(c) the execution and delivery of this Contract by the DU, and the consummation by the DU of the transactions contemplated hereby, have been duly authorized by all necessary action of the DU, including its Board of Directors and members, and no further action or proceeding on the part of the DU is necessary to authorize the execution and delivery by the DU of this Contract or the consummation by the DU of the transactions contemplated hereby;

(d) this Contract has been duly executed and delivered by the DU and documents the legal, valid, and binding obligations of the DU, enforceable against the DU in accordance with its terms;

(e) neither the execution and delivery of this Contract, nor the consummation of the transactions contemplated hereby, will:

  (i) conflict with or violate any provision of the franchise of the DU over the Franchise Area, which the Service Area forms a portion of;

  (ii) conflict with any provision of the constitutive documents of the DU;

  (iii) conflict with or violate any law, rule, regulation, ordinance, order, writ, injunction, judgment, or decree applicable to the DU or by which any of the DU's properties or assets or equipment are bound or affected; or

  (iv) conflict with or result in any breach or constitute a default (or an event which with notice or lapse of time or both will become a default) under, or give to others any rights of termination,

cancellation, or acceleration of, or result in the creation of any lien, charge, or encumbrance on any of its properties or assets or equipment pursuant to any of the terms, conditions or provisions of, any note, bond, mortgage, indenture, permit, license, franchise, lease, contract, agreement, or other instrument or obligation to which the DU is a party or by which the DU or any of its properties or assets or equipment is bound or affected;

(f) no notice, declaration, report, or other filing or registration with, and no waiver, consent, approval, or other authorization of, any Governmental or regulatory authority or instrumentality is required to be submitted, made, or obtained by the DU in connection with the execution, delivery, or performance of this Contract by the DU and the consummation of the transactions contemplated hereby.

The QTP acknowledges and agrees that other than for the representations and warranties set out above:

(a) the DU has made and makes no representations or warranties whatsoever (whether express or implied) in connection with this Contract or the transactions contemplated by it; and

(b) the QTP has not, in entering into this Contract or agreeing to any of its terms, relied on any statements, representations, warranties or information made or given to it by or on behalf of the DU.

9. Representations and Warranties of the QTP

The QTP hereby represents and warrants as follows:

(a) it is a corporation duly organized, validly existing, and in good standing under the laws of the Republic of the Philippines;

(b) it has full corporate power and authority to carry on its business as required under the terms of this Contract and is duly qualified to carry on such business;

(c) the outstanding capital stock of the QTP is at least 60% owned by citizens of the Philippines or by corporations that are themselves at least 60% owned by citizens of the Philippines as required by Section 11 of Article XII of the 1987 Constitution of the Republic of the Philippines;

(d) it has full power and authority to execute and deliver this Contract and to consummate the transactions contemplated hereby;

(e) the execution and delivery of this Contract by the QTP, and the consummation by the QTP of the transactions contemplated hereby, have been duly authorized by all necessary action of the QTP, including its Board of Directors and stockholders, and no further action or proceeding on the part of the QTP is necessary to authorize the execution and delivery by the QTP of this Contract or the consummation by the QTP of the transactions contemplated hereby;

(f) this Contract has been duly executed and delivered by the QTP and documents the legal, valid, and binding obligations of the QTP, enforceable against the QTP in accordance with its terms;

(g) neither the execution and delivery of this Contract, nor the consummation of the transactions contemplated hereby, will:

(i) conflict with or violate any provision of the Articles of Incorporation and/or By-laws of the QTP;

(ii) conflict with or violate any law, rule, regulation, ordinance, order, writ, injunction, judgment, or decree applicable to the QTP or by which any of the QTP's properties or assets or equipment are bound or affected; or

(iii) conflict with or result in any breach or constitute a default (or an event which with notice or lapse of time or both will become a default) under, or give to others any rights of termination, cancellation, or acceleration of, or result in the creation of any lien, charge, or encumbrance on any of its properties or assets or equipment pursuant to any of the terms, conditions or provisions of, any note, bond, mortgage, indenture, permit, license, franchise, lease, contract, agreement, or other instrument or obligation to which the QTP is a party or by which the QTP or any of its properties or assets or equipment is bound or affected;

(h) no notice, declaration, report, or other filing or registration with, and no waiver, consent, approval, or other authorization of, any Governmental or regulatory authority or instrumentality is required to be submitted, made, or obtained by the QTP in connection with the execution, delivery, or performance of this Contract by the QTP and the consummation of the transactions contemplated hereby.

10. Distribution and sale of electricity

The QTP has the right to distribute and sell electricity within the Service Area and such right shall be exclusive throughout the Exclusivity Period as against the DU and all other third parties; provided, however, that:

(a) such right to exclusively distribute and sell electricity within the Service Area shall not extend to any area within, or any portion of, the Service Area, which is serviced:

(i) as at the date of the execution of this Contract, by an existing Generation Facility; or

(ii) at any time during the Exclusivity Period, by a Generation Facility operated by an End-user and solely used to generate electricity for that End-user's own consumption or internal use; and

(b) the aforementioned right to exclusively distribute and sell electricity within the Service Area shall be forthwith lost with respect to any barangay within the Service Area for which the coverage target set forth in the schedule attached hereto and made an integral part hereof as Schedule 3 is not met by the QTP in accordance with the timetable set out in that schedule.

11. Sub-Contract

The QTP shall have the right to sub-contract the performance of its functions and obligations under this Contract, other than the provision of electric service, to any other person or entity, provided that the QTP shall not be relieved of its primary obligation and liability under this Contract to perform such subcontracted functions and obligations.

12. Assignment

The QTP may assign all (but not some only) of its rights, benefits and obligations under this Contract (whether accrued, contingent, present or future) to an Assignee, provided that:

(a) the Assignee meets all the qualifications set by the DOE for qualified third parties authorized to service remote and Unviable Areas;

(b) the Assignee has been authorized by the ERC in accordance with the EPIRA to provide electric service to the Service Area; and

(c) the Assignee gives representations and warranties in favor of the DU that are the same as those contained in Article 9 hereof except in so far as they are necessarily modified to refer to the execution and delivery of the deed of assignment, and such representations and warranties shall thereupon be deemed to constitute Article 9 of this Contract.

The QTP must not dispose of all, or a substantial part, of the assets (including contracts and real rights) and equipment that it utilizes in the provision of electric service to the Service Area except to an Assignee to whom it has contemporaneously assigned all of its rights, benefits and obligations under this Contract in accordance with the preceding paragraph.

For the purposes of arranging or re-arranging financing for its requirements to provide electric service to the Service Area, the QTP may assign or transfer, by way of security, to lenders or other persons providing such financing, all or any part of its rights and benefits under this Contract; provided that, in the event such security is enforced, those rights and benefits may only be sold or transferred to a person or entity who:

(a) takes an assignment of all (but not some only) of the QTP's rights, benefits and obligations under this Contract (whether accrued, contingent, present or future); and

(b) satisfies the requirements which an Assignee is required to fulfill under the first paragraph of this Article.

The DU may not assign any of its rights, benefits or obligations under this Contract to any other person or entity, except that it is entitled to (and must) assign all (and not some only) of its rights, benefits and obligations under this Contract (whether accrued, contingent, present or future) to any person or entity who obtains a franchise to distribute electricity in an area which includes the Service Area.

13. Surrender

After the expiry of the period ending three (3) years following the Commercial Operation Date (but not before), and provided that the QTP is not then in breach of any provision of this Contract, the QTP shall have the right to surrender this Contract to the DU by giving the DU at least one hundred and twenty (120) days prior written notice (or such shorter period of notice as the DU agrees) of the QTP's intention to surrender this Contract. Such surrender shall take effect on the expiry of the period specified in the written notice or agreed by the DU (as the case may be) provided that the QTP is not in breach of any provision of this Contract as at that date.

Not later than ninety (90) days prior to the expiry of the period specified in the written notice or agreed by the DU (as the case may be), the DU may, by notice in writing given to the QTP, require the QTP to transfer to the DU or its nominee all of the QTP's assets (including contracts and real rights, if any) and equipment utilized by the QTP in the provision of electric service to the Service Area on an "as-is where-is" basis for no payment. In such a case:

(a) the QTP must (to the extent legally possible) sell, transfer and assign all of such assets and equipment on an "as-is where-is" basis to the DU or its nominee with effect on the date this Contract is surrendered;

(b) the DU or its nominee must accept that sale, transfer and assignment; and

(c) the QTP must deliver to the DU or its nominee all its records relating to the operations of the QTP in the provision of electric service to the Service Area, including, but not limited to, records pertaining to the installation, operation, and maintenance of all the assets (including real rights, if any) and equipment utilized by the QTP in the provision of electric service to the Service Area and copies of all contracts that relate to the provision of electric service to the Service Area, such delivery to take effect on the date this Contract is surrendered.

If the DU:

(a) does not give the notice referred to in the immediately preceding paragraph in accordance with that paragraph; or

(b) does give the notice referred to in the immediately preceding paragraph in accordance with that paragraph but the DU or its nominee does not

accept the sale, transfer and assignment of the relevant assets and equipment,

the QTP may (to the extent it is not otherwise precluded by law from doing so) sell, transfer and assign its aforementioned assets and equipment to any third party.

14. Force majeure

No failure or omission to carry out or observe any of the terms, provisions or conditions of this Contract (other than an obligation to pay money as required under this Contract) shall give rise to any claim by any party against the other party or be deemed to be a breach of this Contract if the same shall be caused by or arise out of an Event of Force Majeure, as defined below.

The following events shall constitute an "Event of Force Majeure": (a) any war, declared or not, or hostilities or belligerence, blockade, revolution, insurrection, riot, public disorder, expropriation, requisition, confiscation, nationalization or prolonged obstruction of the exercise of rights of easements, eminent domain, right of way, and similar rights and/or powers, rationing or allocation, whether imposed by law, decree or regulation by, or by compliance of industry at the insistence of, any Governmental authority of or within the Republic of the Philippines, or (b) fire, unusual flood, drought, earthquake, volcanic eruption, storm, lightning, tide (other than normal tide), tidal wave, unusually severe weather conditions, perils of the sea, accidents of navigation or breakdown or injury of vessels, accidents to harbors, docks, canals or other assistance to or adjuncts of shipping or navigation, epidemic, quarantine, strikes or combination of workmen, lockouts or other labor disturbances, or any other event, matter or thing wherever occurring, which shall not be within the reasonable control of the party affected thereby.

The party invoking an Event of Force Majeure shall (i) notify the other party in writing as soon as reasonably possible of the nature of the Event of Force Majeure and the extent to which the Event of Force Majeure suspends the affected party's obligations under this Contract; (ii) take all reasonable steps to overcome the effects of the Event of Force Majeure; and (iii) resume performance of its suspended obligations as soon as the effects of the Event of Force Majeure cease to exist.

The parties will consult with each other and take all reasonable steps to minimize the losses of either party resulting from an Event of Force Majeure.

If any obligations of a party under this Contract are suspended under this Article for more than ninety (90) days, and provided the other party is not then in breach of any provision of this Contract, that other party shall have the right to terminate this Contract by giving the first-mentioned party at least one hundred and twenty (120) days prior written notice (or such shorter period of notice as the first-mentioned party agrees) and this Contract shall terminate on the expiry of the period specified in the written notice or agreed by the first-mentioned party (as the case may be) provided that the other party is not in breach of any provision of this Contract as at that date.

If the DU gives the QTP a termination notice under this Article 14 the DU may, by notice in writing given to the QTP not later than ninety (90) days prior to the expiry of the period specified in that notice or agreed by the QTP (as the case may be), require the QTP to transfer to the DU or its nominee all of the QTP's assets (including contracts and real rights, if any) and equipment utilized by the QTP in the provision of electric service to the Service Area on an "as-is where-is" basis at their Market Value. If the QTP gives the DU a termination notice under this Article 14 the QTP may, by notice in writing given to the DU not later than ninety (90) days prior to the expiry of the period specified in that notice or agreed by the DU (as the case may be), require the DU to acquire all of the QTP's assets (including contracts and real rights, if any) and equipment utilized by the QTP in the provision of electric service to the Service Area on an "as-is where-is" basis at their Market Value. In either such case:

(a) the QTP must (to the extent legally possible) sell, transfer and assign all of such assets and equipment on an "as-is where-is" basis to the DU (or its nominee, as applicable) with effect on the date this Contract is terminated under this Article 14;

(b) the DU (or its nominee, as applicable) must accept that sale, transfer and assignment and the DU must contemporaneously pay to the QTP the Market Value of the relevant assets and equipment, being the Market Value that:

(i) is agreed by the DU and the QTP; or

(ii) failing such agreement within twenty (20) days after the giving of the notice by the DU or the QTP (as the case may be), is determined by an appraisal company chosen by the ERC at the

request of either the DU or the QTP (such determination being final and binding on the parties); and

(c) the QTP must deliver to the DU (or its nominee, as applicable) all its records relating to the operations of the QTP in the provision of electric service to the Service Area, including, but not limited to, records pertaining to the installation, operation, and maintenance of all the assets (including real rights, if any) and equipment utilized by the QTP in the provision of electric service to the Service Area and copies of all contracts that relate to the provision of electric service to the Service Area, such delivery to take effect on the date this Contract is terminated under this Article 14.

If the DU gives the QTP a termination notice under this Article 14 but the DU:

(a) does not give the notice referred to in the immediately preceding paragraph in accordance with that paragraph ; or

(b) does give the notice referred to in the immediately preceding paragraph in accordance with that paragraph but the DU or its nominee does not accept the sale, transfer and assignment of the relevant assets and equipment or the DU does not pay to the QTP their Market Value as agreed or determined in accordance with that paragraph,

the QTP may (to the extent it is not otherwise precluded by law from doing so) sell, transfer and assign its aforementioned assets and equipment to any third party.

15. Termination

Each of the following events shall constitute a “DU Event of Default” under this Contract:

(a) the DU makes an assignment for the benefit of creditors, petitions or applies to any tribunal for a receiver of, or a trustee for, itself or of any substantial part of its property, commences any judicial or other legal proceedings by reason of its financial difficulties under any reorganization, arrangement, readjustment of debt, dissolution, or liquidation law or statute of any jurisdiction, whether now or thereafter in effect; or there is commenced against the DU any such proceeding which remains undismissed for a period of thirty (30) days, or the DU by any act indicates its consent to, approval of, or acquiescence in, any such proceeding or

the appointment of any receiver of, or trustee for, itself or any substantial part of its property, or suffers any such receivership or trusteeship to continue undischarged for a period of thirty (30) days; or there is any reorganization, arrangement, readjustment of debt, dissolution, or liquidation with respect to the DU which does not involve a judicial proceeding;

(b) the franchise issued to the DU over the Franchise Area is withdrawn, cancelled, terminated, or suspended (whether in whole or in part) for a period of at least thirty (30) days, for any cause or reason whatsoever otherwise than as a result of an act or omission of the QTP, and is not reinstated within sixty (60) days of such withdrawal, cancellation, termination or suspension;

(c) the DU assigns, or purports to assign, any of its rights, benefits or obligations under this Contract in breach of Article 12 hereof or fails to assign any of its rights, benefits or obligations under this Contract as required by Article 12 hereof;

(d) the DU breaches or violates any representation or warranty given by it under Article 8 hereof and such breach or violation continues for a period of not less than thirty (30) days after written notice from the QTP to the DU of such breach or violation;

(e) the DU distributes and sells electricity within the Service Area, or authorizes another person or entity to do so, during the Exclusivity Period in such a way as infringes the QTP's right to exclusively distribute and sell electricity within the Service Area under Article 10 hereof and such infringement continues for a period of not less than thirty (30) days after written notice from the QTP to the DU of that infringement.

If a DU Event of Default shall have occurred and be continuing, the QTP may give written notice of the early termination of this Contract to the DU and this Contract shall terminate immediately on the date of the receipt of such notice by the DU or on such later date as is specified in that notice.

Each of the following events shall constitute a “QTP Event of Default” under this Contract:

(a) the QTP makes an assignment for the benefit of creditors, petitions or applies to any tribunal for a receiver of, or a trustee for, itself or of any substantial part of its property, commences any judicial or other legal proceedings by reason of its financial difficulties under any reorganization, arrangement, readjustment of debt, dissolution, or liquidation law or statute of any jurisdiction, whether now or hereafter in effect; or there is commenced against the QTP any such proceeding which remains undismissed for a period of thirty (30) days, or the QTP by any act indicates its consent to, approval of, or acquiescence in, any such proceeding or the appointment of any receiver of, or trustee for, itself or any substantial part of its property, or suffers any such receivership or trusteeship to continue undischarged for a period of thirty (30) days; or there is any reorganization, arrangement, readjustment of debt, dissolution, or liquidation with respect to the QTP which does not involve a judicial proceeding;

(b) the franchise issued to the DU over the Franchise Area is withdrawn, cancelled, terminated, or suspended (whether in whole or in part) for a period of at least thirty (30) days as a result of an act or omission of the QTP, and is not reinstated within sixty (60) days of such withdrawal, cancellation, termination or suspension;

(c) the QTP assigns, or purports to assign, any of its rights, benefits or obligations under this Contract in breach of Article 12 hereof;

(d) the QTP disposes of all, or a substantial part, of the assets and equipment that it utilizes in the provision of electric service to the Service Area in breach of Article 12 hereof;

(e) any authorization issued to the QTP by the ERC in accordance with the EPIRA to provide electric service to the Service Area is withdrawn, cancelled, terminated, or suspended (whether in whole or in part) for a period of at least thirty (30) days and is not reinstated within sixty (60) days of such withdrawal, cancellation, termination or suspension

(f) the QTP fails to commence distributing and selling electricity within the Service Area under this Contract with effect from the Commercial Operation Date and that failure continues for a period of not less than sixty (60) days after written notice from the DU to the QTP requiring the QTP to commence such distribution and sale;

(g) the total amount of the penalties paid and payable by the QTP under Article 3 hereof in respect of failures during any calendar year to meet the

service quality and reliability standards referred to therein exceeds the Threshold Amount for that calendar year and the DU gives written notice to the QTP of its intention to terminate this Contract under this paragraph (g), such written notice being given within ninety (90) days after the reports under paragraph (b) of Schedule 5 which pertain to that calendar year have been provided to the DU by the QTP;

(h) the tariff charged by the QTP for providing electric service to the Service Area exceeds that which it is permitted to charge under Article 5 hereof;

(i) the QTP fails to pay to, or at the direction of, the DU any amount that becomes due and payable under Article 3 hereof and such failure continues for a period of not less than thirty (30) days after written notice from the DU to the QTP requiring the payment of that amount;

(j) the QTP breaches or violates any representation or warranty given by it under Article 9 hereof and such breach or violation continues for a period of not less than thirty (30) days after written notice from the DU to the QTP of such breach or violation;

(k) the QTP fails to perform its obligations under paragraphs (c), (d), (e), (f), (g), (h), (i), (j), (k) or (l) of Article 7 hereof and such failure continues for:

(i) a period of not less than thirty (30) days after written notice from the DU to the QTP of such failure; or

(ii) for so long as the QTP is diligently attempting to rectify that failure, such longer period (not exceeding ninety (90) days after that written notice) during which the QTP is diligently attempting to rectify that failure.

If a QTP Event of Default shall have occurred and be continuing, the DU may give written notice of the early termination of this Contract to the QTP and this Contract shall terminate immediately on the date of the receipt of such notice by the QTP or on such later date as is specified in that notice.

16. Early termination of Contract

If the QTP terminates this Contract under Article 15 the QTP may, by notice in writing given to the DU not later than sixty (60) days after the termination of this Contract, require the DU to acquire all of the QTP's assets (including contracts and real

rights, if any) and equipment utilized by the QTP in the provision of electric service to the Service Area on an "as-is where-is" basis at their Market Value. In such a case:

(a) the QTP must (to the extent legally possible) sell, transfer and assign all of such assets and equipment on an "as-is where-is" basis to the DU on a day specified by the QTP to the DU, being a day that is not less than twenty (20) days, and not more than thirty (30) days, after:

(i) their Market Value is agreed by the DU and the QTP; or

(ii) failing such agreement within twenty (20) days after the giving of the notice by the QTP, their Market Value is determined by an appraisal company chosen by the ERC at the request of either the QTP or the DU (such determination being final and binding on the parties);

(b) the DU must accept that sale, transfer and assignment and contemporaneously pay to the QTP the Market Value of the relevant assets and equipment as so agreed or determined under paragraph (a); and

(c) the QTP must deliver to the DU all its records relating to the operations of the QTP in the provision of electric service to the Service Area, including, but not limited to, records pertaining to the installation, operation, and maintenance of all the assets (including real rights, if any) and equipment utilized by the QTP in the provision of electric service to the Service Area and copies of all contracts that relate to the provision of electric service to the Service Area, such delivery to take effect at the same time as the sale, transfer and assignment of the assets and equipment referred to in paragraph (a).

If the DU terminates this Contract under Article 15, the DU may, by notice in writing given to the QTP not later than sixty (60) days after the termination of this Contract, require the QTP to transfer to the DU or its nominee all of the QTP's assets (including contracts and real rights, if any) and equipment utilized by the QTP in the provision of electric service to the Service Area on an "as-is where-is" basis at their Market Value. In such a case:

(a) the QTP must (to the extent legally possible) sell, transfer and assign all of such assets and equipment on an "as-is where-is" basis to the DU or its nominee on a day specified by the DU to the QTP, being a day that is not less than twenty (20) days, and not more than thirty (30) days, after:

(i) their Market Value is agreed by the DU and the QTP; or

(ii) failing such agreement within twenty (20) days after the giving of the notice by the DU, their Market Value is determined by an appraisal company chosen by the ERC at the request of either the DU or the QTP (such determination being final and binding on the parties);

(b) the DU or its nominee must accept that sale, transfer and assignment and the DU must contemporaneously pay to the QTP the Market Value of the relevant assets and equipment as so agreed or determined under paragraph (a); and

(c) the QTP must deliver to the DU or its nominee all its records relating to the operations of the QTP in the provision of electric service to the Service Area, including, but not limited to, records pertaining to the installation, operation, and maintenance of all the assets (including real rights, if any) and equipment utilized by the QTP in the provision of electric service to the Service Area and copies of all contracts that relate to the provision of electric service to the Service Area, such delivery to take effect at the same time as the sale, transfer and assignment of the assets and equipment referred to in paragraph (a).

If the DU:

(a) does not give the notice referred to in the immediately preceding paragraph in accordance with that paragraph ; or

(b) does give the notice referred to in the immediately preceding paragraph in accordance with that paragraph but the DU or its nominee does not accept the sale, transfer and assignment of the relevant assets and equipment or the DU does not pay to the QTP their Market Value as agreed or determined in accordance with that paragraph,

the QTP may (to the extent it is not otherwise precluded by law from doing so) sell, transfer and assign its aforementioned assets and equipment to any third party.

This Article 16 is without prejudice to the liability of either party for damages as a result of a breach of this Contract by that party.

Neither the DU nor the QTP may terminate this Contract except in accordance with Articles 13, 14 or 15 hereof.

17. Disposition of Assets Upon Expiration of Term

Not later than ninety (90) days prior to the date the Term expires by effluxion of time, the DU may, by notice in writing given to the QTP, require the QTP to transfer to the DU or its nominee all of the QTP's assets (including contracts and real rights, if any) and equipment utilized by the QTP in the provision of electric service to the Service Area on an "as-is where-is" basis at their Market Value. In such a case:

(a) the QTP must (to the extent legally possible) sell, transfer and assign all of such assets and equipment on an "as-is where-is" basis to the DU or its nominee with effect on the date the Term expires by effluxion of time;

(b) the DU or its nominee must accept that sale, transfer and assignment and the DU must contemporaneously pay to the QTP the Market Value of the relevant assets and equipment, being the Market Value that:

(i) is agreed by the DU and the QTP; or

(ii) failing such agreement within twenty (20) days after the giving of the notice by the DU, is determined by an appraisal company chosen by the ERC at the request of either the DU or the QTP (such determination being final and binding on the parties); and

(c) the QTP must deliver to the DU or its nominee all its records relating to the operations of the QTP in the provision of electric service to the Service Area, including, but not limited to, records pertaining to the installation, operation, and maintenance of all the assets (including real rights, if any) and equipment utilized by the QTP in the provision of electric service to the Service Area and copies of all contracts that relate to the provision of electric service to the Service Area, such delivery to take effect on the date the Term expires by effluxion of time.

If the DU:

(a) does not give the notice referred to in the paragraph above in accordance with that paragraph ; or

(b) does give the notice referred to in the paragraph above in accordance with that paragraph but the DU or its nominee does not accept the sale, transfer and assignment of the relevant assets and equipment or the DU does not pay to the QTP their Market Value as agreed or determined in accordance with that paragraph,

the QTP may (to the extent it is not otherwise precluded by law from doing so) sell, transfer and assign its aforementioned assets and equipment to any third party.

18. Indemnity

The QTP shall indemnify and hold harmless the DU against all losses, costs and expenses suffered or incurred by the DU as a result of the franchise issued to the DU over the Franchise Area being withdrawn, cancelled, terminated or suspended (whether in whole or in part) as a result of an act or omission of the QTP.

19. Dispute resolution mechanism

In the event that there is any dispute, controversy, claim or difference between the parties arising out of or relating to this Contract, or the breach hereof, or in the interpretation of any of the provisions hereof, the duly authorized representatives of the parties shall endeavor to meet together in an effort to resolve such dispute by discussion between themselves.

Any dispute, controversy, claim or difference that is not resolved as provided for in the immediately preceding paragraph within ___ days from written notice by one party to the other to meet to resolve such dispute, controversy, claim or difference shall be finally settled by arbitration in accordance with the (state arbitration rules), and such arbitration shall be conducted in (state place of arbitration) by a panel of three (3) arbitrators appointed in accordance with (state arbitration rules). The decision of the arbiters shall be final and binding on the parties. The parties hereby exclude and waive any right of application or appeal to any court in connection with any question of law arising in the course of arbitration or with respect to any award made. Costs of arbitration shall be borne equally by the parties.

20. Miscellaneous provisions

20.1 Amendments. – Any amendment of or to any provision of this Contract shall be in writing and signed by the parties hereto in order to be effective, and the QTP agrees and acknowledges that no such amendment shall be effective unless it has also been approved in writing by the DOE and the ERC.

20.2 Notices. – Any notice or other communications required or permitted hereunder or otherwise in connection herewith shall be in writing and shall be delivered personally (including by courier), or sent by certified or registered mail, postage

prepaid. Any such notice shall be deemed given when so delivered personally, or if mailed, upon receipt, as follows:

If to DU:

_____

_____

_____

If to QTP:

_____

_____

_____

or at such other address as the party to whom notice is to be given has furnished in writing to the other party. A notice of change of address shall not be deemed to have been given until received by the addressee.

20.3 Entire Agreement. – This Contract (including all of its Schedules) constitutes the entire agreement between the parties and supersedes all other prior agreements and undertakings, both written and oral, between the parties. Each of the parties undertakes to execute such documents and perform such acts as may reasonably be necessary to give effect to this Contract.

20.4 Headings. – The descriptive headings of the several Articles and Sections of this Contract are inserted for convenience only and do not constitute a part of this Contract.

20.5 Expenses. – Each party hereto shall bear its own expense in connection with the preparation, negotiation, and execution of this Contract and any related document.

20.6 Third Party Beneficiaries. – Except as otherwise expressly provided herein, this Contract is not intended to confer upon any person other than the parties hereto any rights or remedies hereunder.

20.7 Severability. – The invalidity or unenforceability of any portion or provision of this Contract shall not affect the validity or enforceability of any other portion or

provision. Any invalid or unenforceable portion or provision shall be deemed severed from this Contract.

20.8 Enurement. – This Contract shall be binding upon and enure to the benefit of the successors and assigns of the parties.

20.9 Confidentiality. – Except as otherwise required by law the parties will keep the terms of this Contract and its contents confidential.

20.10 Cumulative rights. – The rights of the parties under this Contract are cumulative. They may be exercised as often as the parties consider appropriate and are in addition to their respective rights under the laws of the Republic of the Philippines.

20.11 Waiver. – Failure of either party at any time to require performance by the other party of any provision of this Contract shall not affect the right of such party to require the performance by the other party of that provision, and any waiver by any party of any breach of any provision of this Contract shall not be construed as a waiver of any continuing or succeeding breach of such provision, a waiver of such provision or a waiver of any right under this Contract.

20.12 Survival. – The indemnity under Article 18 hereof is a continuing, separate and independent obligation and survives the termination or discharge of this Contract. The rights and obligations of the parties under Articles 3, 13, 14, 16, and 17 hereof survive the termination or discharge of this Contract.

20.13 Governing Law. – This Contract shall be governed by and construed in accordance with the laws of the Republic of the Philippines.

21. Acknowledgements by QTP

The QTP agrees and acknowledges that:

(a) the rights and obligations of the DU under this Contract may be exercised or performed by the ERC or the DOE on behalf of the DU;

(b) the QTP must treat such exercise or performance by the ERC or the DOE as if such exercise or performance had been done by the DU; and

(c) the only recourse that the QTP has in respect of such exercise or performance by the ERC or the DOE is against the DU and not against the ERC or the DOE.

The DU further agrees and acknowledges that the QTP is not liable to pay to the DU any fee, royalty or other payment as consideration for the DU entering into this Contract or for authorizing the QTP to provide electric service to the Service Area.

Schedule 1 – Franchise Area

Include map and written description of franchise area

Schedule 1-A – Service Area

Schedule 2 - Limits on charges

[Not to be used in the event that there was no competition for an area, and has no minimum tariff bid, and also no subsidy. In these cases the QTP may charge what it wants, subject to whatever regulatory regime the ERC has imposed.]

[Note:

The Tariff charged by the QTP is not to exceed the Tariff bid by the QTP in its proposal, for period of [5] years from the effective date of the contract. [Note the bid tariff may include indexation provisions for fuels costs, exchange rates and or local inflation].

The QTP may offer Optional Tariffs, as well as the tariff which it bid. An Optional Tariff is one the customer may choose instead of the standard tariff. Optional Tariffs will not be controlled by this contract, except by the requirement that the customer must, during the first [5] years from the effective date of the contract, have the right to opt for the tariff which the QTP bid

After [5] years the QTP may apply to ERC for a rate review, or come under whatever form of regulation or exemption from regulation the ERC has promulgated to apply to QTPs.]

Schedule 3 – Coverage targets

QTP is to have at least the following number of connections in each barangay in the Service Area, by the end of the calendar year shown

Household electrification target

Barangay	**2004**	**2005**	**2006**	**2007**
Barangay 1	10	15	20	25

For the purposes of this Schedule, a "connection" means a new connection made to the QTP's distribution system within the Service Area but does not include:

a. the reconnection to the QTP's distribution system of a previously connected customer; or
b. the connection to the QTP's distribution system of a new customer at buildings/households which are already connected to the QTP's distribution system.

Schedule 4 – Performance Standards

Power Quality Standards

Power Quality Standard	Measure of Performance	Performance Standard	Penalty
Electricity supply voltage	Measured voltage at customer connection point.	Voltage at all times to remain above 90% and below 110% of nominal voltage level.	
Voltage unbalance	Measured voltage at connection point of three phase customer.	The maximum deviation from the average of the three phase voltages divided by the average of the three phase voltages shall not exceed 2.5%.	
Fundamental system frequency	Measured system frequency under normal steady state operation.	Above 59.7 Hertz and below 60.3 Hertz	

Service Quality and Reliability Standards

Service quality and reliability standard	Measure of Performance	Performance Standard	Penalty
Average minutes off-supply each year	System average interruption duration index (SAIDI), which measures total time the average customer is off supply during periods of system generation during the year period	[X] minutes *Note –actual standard will depend on hours of generation.*	
Restoration of service after a fault	Number of hours for 100% restoration	[24] hours *This would not apply after storm or other abnormal situation caused widespread customer outage. Check that force majeure provisions would then apply.*	

Power quality complaints	(a) Visit within x number of days after receipt of a complaint or substantive answer within y number of days; and (b) Correction of power quality problems within z number of days	[2] days [5] days [20] days	
Informing customers on schedule of power interruptions	Announcements x number of days prior to scheduled interruptions	[2] days	
Billing and Payment queries and complaints	(a) Answers to queries within x number of day; and (b) Correction of errors in billing statements within y number of hours (or days)	[2] days [5] days	
Meter complaints	(a) Visit within x number of working days after receipt of complaint or substantive answer within y number of days; and (b) Correction of meter problems within z number of days	[2] days [10] days [20] days	
Reconnection of service	Reconnect within x hours after payment of all dues, provided payment is made before a specified cut-off time.	[48] hours	

[*Note: These penalties to be indexed to CPI*]

Schedule 5 - Reporting requirements

By [date] each year:

(a) the QTP shall provide a report to the DU, copied to the ERC and the DOE, reporting its actual performance for the immediately preceding year:

  (i) against the coverage targets in Schedule 3; and

  (ii) against the performance standards in Schedule 4; and

(b) the QTP shall provide its annual financial statements to the ERC and the DOE.

12 ERC Guidelines

GUIDELINES FOR THE SETTING OF
ELECTRIC RATES AND SUBSIDIES
FOR MISSIONARY ELECTRIFICATION AREAS
PREVIOUSLY SUPPLIED BY SPUG
AND MISSIONARY ELECTRIFICATION AREAS
BEING SERVICED BY QUALIFIED THIRD PARTIES

Pursuant to Section 43(f) of Republic Act No. 9136, otherwise known as the "Electric Power Industry Reform Act" (the "EPIRA") and the EPIRA's Implementing Rules and Regulations (the "IRRs"), and taking into consideration Department of Energy Circular Nos. (SPUG Circular) and (QTP Circular), the Energy Regulatory Commission (the "ERC") hereby adopts and promulgates these guidelines for setting electric rates and subsidies for:

a. Missionary Electrification areas where electric service was formerly provided by SPUG (the "Former SPUG Areas"), and

b. Missionary Electrification areas where electric service is being provided by the qualified third parties ("QTPs") referred to in Section 59 of the EPIRA and Rule 14 of the IRRs (the "QTP Areas")

1. Definitions:

(a) "Best New Entrant Tariff' – means the tariff which would need to be charged by an efficient entrant to cover its costs and earn a reasonable return on capital.

(b) "COC" – means the Certificate of Compliance referred to in Section 1, Rule 5, and Section 5(b), of Rule 14 of the IRRs.

(c) "Department of Energy" or "DOE" refers to the term defined in Rule 4(w) of the IRRs.

(d) "Distribution Utility – refers to the term defined in Section 3 (q) of the EPIRA and Rule 4 (cc) of the IRR's.

(e) "Energy Regulatory Commission" or "ERC" – refers to the term defined in Rule 4(kk) of the IRRs.

(f) "EPIRA" – refers to Republic Act No. 9136, otherwise known as the "Electric Power Industry Reform Act."

(g) "Former SPUG Areas" – refers to those Missionary Electrification areas where electric service was formerly being provided by SPUG.

(h) "IPP" – refers to the term defined in Rule 4(tt) of the IRRs.

(i) "IRRs" – refers to the Implementing Rules and Regulations of the EPIRA.

(j) "Missionary Electrification" – refers to the term defined in Rule 4(ddd) of the IRRs.

(k) "Missionary Electrification Subsidy" – refers to the subsidy approved by the ERC to be paid to an IPP or a QTP, as the case may be, to allow it to recover its true costs while charging a Socially Acceptable Generation Rate, in the case of an IPP, or a Socially Acceptable Final Rate, in the case of a QTP. The Missionary Electrification Subsidy is to be petitioned by SPUG, and funded from the Universal Charge.

(l) "QTPs" – means the qualified third parties referred to in Section 59 of the EPIRA and Rule 14 of the IRR's.

(m) "QTP Areas" – refers to those Missionary Electrification areas where electric service is being provided by QTPs referred to in Section 59 of the EPIRA and Rule 14 of the IRRs.

(n) "Socially Acceptable Final Rate" – refers to the rate which the ERC has determined to be desirable, on social acceptability grounds, for a customer to pay a QTP for power supplied to such customer. The Socially Acceptable Final Rate combined with the Missionary Electrification Subsidy should equal the True Cost Final Rate.

(o) "Socially Acceptable Generation Rate" – refers to the rate which the ERC has determined to be desirable, on social acceptability grounds, for a Distribution Utility to pay for power to supply a SPUG Area or Former SPUG Area. The Socially Acceptable Generation Rate combined with the Missionary Electrification Subsidy should equal the True Cost Generation Rate.

(p) "SPUG" refers to the term defined in Rule 4(bbbb) of the IRRs.

(q) "SPUG Area" – refers to an area currently supplied with electricity generated by SPUG.

(r) "True Cost Final Rate" – means the full efficient costs of generating and distributing electricity. The True Cost Final Rate must be sufficient to allow the recovery of just and reasonable costs and a reasonable return on rate base to enable the QTP to operate viably, as provided by Section 43(f) of the EPIRA.

(s) "True Cost Generation Rate" – means the full efficient costs of providing generation. The True Cost Generation Rate must be sufficient to allow the recovery of just and reasonable costs and a reasonable return on rate base to enable the entity to operate viably, as provided by Section 43(f) of the EPIRA.

(t) "Universal Charge" – refers to the term defined in Rule 4(rrrr) of the IRRs.

(u) "Unviable Area" – refers to the term defined in Rule 4(ssss) of the IRRs.

2. These guidelines shall be applicable to:

a. IPPs that serve Former SPUG Areas; and

b. QTPs that have been awarded an Energy Services Contract requiring a Missionary Electrification Subsidy, and which are authorized by the DOE to serve QTP Areas and are subject to regulation by the ERC pursuant to DOE Circular No. (QTP Circular).

PROVISIONS RELATING SOLELY TO IPPs

3. In each of the Former SPUG Areas, the IPPs referred to in Section 2 hereof shall be allowed to recover True Cost Generation Rates.

For purposes of these guidelines, the True Cost Generation Rate for a particular Former SPUG Area shall be:

a. the lowest generation rate for such Former SPUG Area submitted by an IPP, as certified by the DOE following a competitive bidding process supervised by the DOE; or

b. should there be no competitive bidding process, or there is a failure of a competitive bidding process as certified by the DOE, the True Cost Generation Rate for such Former SPUG Area shall be the Best New Entrant Tariff benchmark to be developed by the ERC in accordance with Annex 1 hereof, or any other lower tariff which an IPP is willing to charge for such Former SPUG Area pursuant to a sworn undertaking to that effect.

Such True Cost Generation Rate must be sufficient to allow the recovery of just and reasonable costs and a reasonable return on rate base to enable the IPP concerned to operate viably as provided in Section 43(f) of the EPIRA.

4. In cases where the DOE determines that the True Cost Generation Rate proposed to be charged by a particular IPP is too high to be socially acceptable, SPUG will petition the ERC to:

(a) set a Socially Acceptable Generation Rate, and

(b) allow the IPP concerned a Missionary Electrification Subsidy to be paid from the Universal Charge. The Missionary Electrification Subsidy will be calculated as the difference between the relevant True Cost Generation Rate and the Socially Acceptable Generation Rate.

5. The Socially Acceptable Generation Rate for a particular Former SPUG Area may rise over time in line with the expected development of such Former SPUG Area being serviced by a particular IPP and, as a result, the Missionary Electrification Subsidy for such Former SPUG Area may be set to decline over a period of time.

6. When the Socially Acceptable Generation Rate for a particular Former SPUG Area is equal to or higher than the True Cost Generation Rate for such Former SPUG Area , that Former SPUG Area will no longer be considered as an Unviable Area requiring a Missionary Electrification Subsidy from the Universal Charge, and, as such, no further petition for Missionary Electrification Subsidy may be filed for such Former SPUG Area .

7. The ERC, in setting a Socially Acceptable Generation Rate for a particular Former SPUG Area, shall ensure that the Socially Acceptable Generation Rate for such Former SPUG Area, in addition to the pertinent Missionary Electrification Subsidy, will always be equal to the True Cost Generation Rate of the relevant IPP .

8. IPPs shall, when collecting tariffs from the relevant distribution utilities, subtract the Missionary Electrification Subsidy from its True Cost Generation Rate so that the tariff it collects from such distribution utilities will be equivalent to the Socially Acceptable Generation Rate.

9. Pursuant to Section 43(f) of the EPIRA, if an IPP does not receive any Missionary Electrification Subsidy, it shall be allowed to recover its True Cost Generation Rate in order to enable it to operate viably.

PROVISIONS RELATING SOLELY TO QTPs

10. In each of the QTP Areas, the QTPs referred to in Section 2 hereof shall be allowed to recover True Cost Final Rates.

For purposes of these guidelines, the True Cost Final Rate for a particular QTP Area shall be the rate specified in the Energy Services Contract awarded to the relevant QTP following a competitive bidding process supervised by the DOE pursuant to DOE Circular No. (QTP Circular) and regulated by the ERC.

Such True Cost Final Rate must be sufficient to allow the recovery of just and reasonable costs and a reasonable return on rate base to enable the QTP concerned to operate viably as provided in Section 43(f) of the EPIRA.

11. In cases where the DOE determines that the True Cost Final Rate proposed to be charged by a particular QTP is too high to be socially acceptable, SPUG will petition the ERC to:

(a) set a Socially Acceptable Final Rate, and

(b) allow the QTP concerned a Missionary Electrification Subsidy to be paid from the Universal Charge. The Missionary Electrification Subsidy will be

set at a level to allow the QTP to recover its full costs while charging the Socially Acceptable Final Rate.

The Missionary Electrification Subsidy paid to a QTP may be set as a payment per kWh supplied, or a payment per connection made, or on such other basis as the ERC decides.

12. The Socially Acceptable Final Rate for a particular QTP Area may rise over time in line with the development of such QTP Area being serviced by a particular QTP.

13. When the Socially Acceptable Final Rate for a particular QTP Area is equal to or higher than the True Cost Final Rate for such QTP Area, that QTP Area will no longer be considered as an Unviable Area requiring a Missionary Electrification Subsidy from the Universal Charge, and, as such, no further petition for Missionary Electrification Subsidy may be filed for such QTP Area .

14. The ERC, in setting a Socially Acceptable Final Rate, shall ensure that the Socially Acceptable Final Rate, in addition to the pertinent Missionary Electrification Subsidy, will put the QTP in the same position as if it had recovered its True Cost Final Rate.

15. Pursuant to Section 43(f) of the EPIRA, if a QTP does not receive any Missionary Electrification Subsidy, it shall be allowed to recover its True Cost Final Rate in order to enable it to operate viably.

16. The tariffs charged by QTPs that generate and distribute less than 0.5MW of electricity shall not be regulated by the ERC.

17. QTPs that fail to comply with the service standards set forth in their Energy Services Contract shall be subject to the penalties provided for therein and the ERC may require the QTP concerned to pay any or all of such penalties directly to the customers of the relevant QTP.

PROVISION APPLICABLE TO BOTH IPPs AND QTPs

18. In the event the ERC approves in advance, upon petition filed by the SPUG for approval of a Missionary Electrification Subsidy for a particular Former SPUG Area or QTP Area, as the case may be, a Socially Acceptable Generation Rate or a Socially Acceptable Final Rate, as the case may be, to be applicable for several years (the "Applicable Period") the ERC shall also approve the inclusion of the appropriate Missionary Electrification Subsidy into the Universal Charge for the Applicable Period.

Annex 1 - Best New Entrant Tariffs – An indicative approach

In rural electrification projects, cost drivers can be divided into two major categories – generation and distribution. In generation the overwhelming majority of the generating sets will be relatively small diesel-fueled units. In the rural Philippines environment and on the assumption that fuel costs are similar in all barangays, variations in the cost of electricity produced by these units are determined primarily by two parameters, the rated power output and the number of daily operating hours. The rated output of these units will vary from about 5 to 500 kW. If the units are divided into about four groups within this range, the production costs of any likely candidate for mini-grid operation can be estimated with acceptable accuracy. The chart below is a simplified example of the approach suggested. For comparison the total kilowatt hour cost is given for a unit larger than is likely to be found on a mini-grid. It has been assumed that the 5 MW unit operates for 24 hours per day, while the mini-grid units would operate for six hours per day. It is further assumed that all units (including the 5 MW) will operate at an average annual load factor of 70 percent. The values given in this example are indicative only and are not to be interpreted as an actual calculation of generating costs in the Philippines.

Table 3: Generation Costs

Generator Size	**5 kW**	**200 kW**	**500 kW**	**5 MW**
Capital Cost - Generator (Pesos)	**0.6M**	**1.4M**	**2.1M**	
Capital Cost – Power House (Pesos)	**0.5M**	**2.1M**	**3.0M**	
Annual Generation (kWh)	**75,000**	**300,000**	**750,000**	
Annual Costs (Pesos)				
Depreciation (over the 5 year plant life)	0.22M	0.70M	1.02M	
Return on Rate Base (at 25%)	0.28M	0.88M	1.28M	
Fuel	0.34M	1.26M	3.00M	
Operations and Maintenance	0.10M	0.22M	0.30M	
Total Annual Costs (Pesos)	**0.94M**	**3.06M**	**5.60M**	
Kilowatt Hour Cost (Pesos)	**12.5**	**10.2**	**7.5**	**5.5**

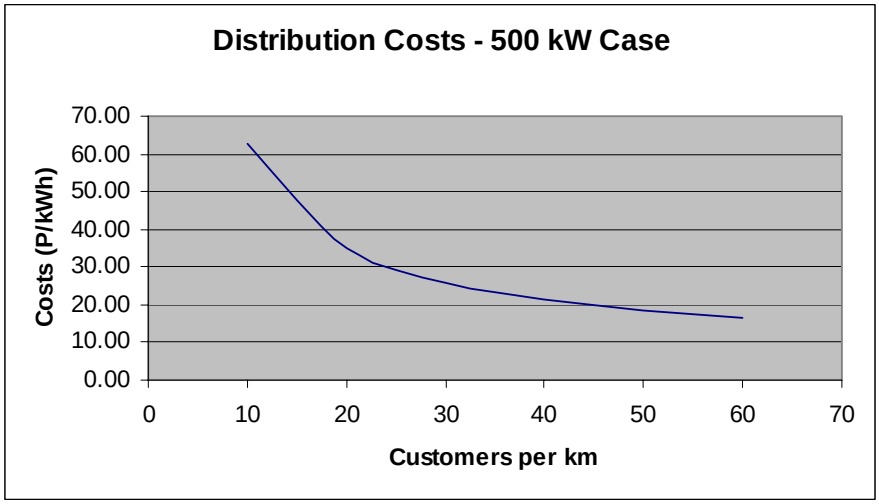
Note on assumptions:
plants are depreciated over their physical lives, estimated to be about 5 years at these operating levels
the cost of capital has been set at 25% as indicated necessary by prospective investors

On the basis of carefully calculated tables like these it would be possible for ERC to estimate the probable unit generating costs for most generating units likely to be installed on mini-grids.

It is possible that generation sources other than diesels may be proposed for use on some mini-grids. In such cases the alternative will almost certainly be powered by a renewable source - hydro, wind or solar. Alternative generation is likely to be proposed only where the unit generating costs are lower than that of diesels. Evaluating the project on the basis of the generation costs being the same as for diesels would provide an incentive to exploit renewable energy sources and thereby contribute to environmental protection.

A similar procedure can be developed to estimate the supply costs of distribution systems. The capital invested in infrastructure is the most important cost driver in distribution. The cost per kilowatt hour supplied to the consumer therefore decreases with consumer density as measured by the number of consumers connected to each kilometer of distribution line, assuming that consumption levels are identical for each consumer. Figure 21 below illustrates the relationship between distribution costs and consumer density. In this instance also the monetary values are indicative only and are not intended to represent actual distribution costs anywhere in the Philippines. However the shape of the curve is typical of the supply cost/customer density relationship.

Figure 21: Best New Entrant Distribution Costs



Source: Castalia

Note: Below certain levels of customer density unit costs clearly become very high in network solutions. At these densities, micro-grid or individualized solutions will be cheaper.

The data needed to develop generation and distribution costs for specific waived areas can be acquired during the investment studies performed in those areas prior to inviting submission of proposals from private interests to electrify the areas. From the combined generation and distribution costs ERC could then develop a realistic estimate of the most favorable price proposal that can be realistically expected, that is the tariff requirements likely to be specified by the Best New Entrant. These tariff levels can be included in the invitation for proposals as a guide to all interested parties and assist in ensuring the transparency of the selection process.

13 DOE/NEA Circular on IMCs

NEA Bulletin XX

INVESTMENT MANAGEMENT/COOPERATIVE STRENGTHENING CONTRACTS

Introduction

Boards have the obligation to explore all practical ways to strengthen the performance of their cooperatives, reduce system losses and improve the reliability of customer services. In most cases, cutting costs and upgrading services requires additional financial resources. NEA can no longer provide the level of resources it provided in the past. ECs must now look to private financial markets for their borrowing needs. Yet, many ECs are caught in a vicious cycle: they can not borrow on a commercial basis until their cash flows improve, but they can not improve their cash flows through system loss reduction until they access finance.

ECs have a number of options for addressing this shortage of capital. They may seek a rate review, and work with the ERC to achieve a tariff that gives them sufficient cash flow to sustain borrowing needed for the investment program. NEA is concerned that many Boards are reluctant to seek more appropriate tariff levels for fear of losing their popularity. ECs may also convert to a stock cooperative, and seek a greater capital subscription from their shareholders, or widen the shareholder base. They may seek amalgamations with other ECs.

Entering into an Investment Management/Cooperative Strengthening Contract is an option that may be appropriate for some ECs. In this Bulletin, NEA would like to draw Boards' attention to this option. The enclosure to the Bulletin contains a Model Investment Management/Cooperative Strengthening Contract, which has been prepared at the request of NEA and DOE. NEA wishes to hear cooperatives' views on the appropriateness of this contract to their situation.

What is an Investment Management/Cooperative Strengthening Contract?

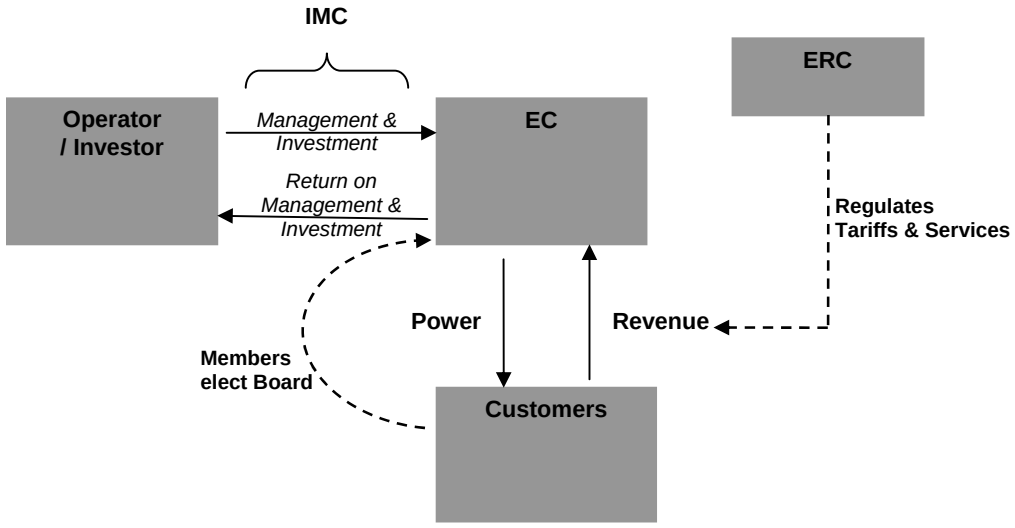
Investment Management/Cooperative Strengthening Contracts (IMCs) are a way for ECs to access a combination of private sector capital and management. The basic structure of an IMC is illustrated below. The EC remains as the Distribution Utility, responsible for providing service to customers. It is regulated by the ERC, and is governed by its existing Board. However, the EC enters an Investment Management/Cooperative Strengthening Contract with an Operator-Investor. Under this contract, the Board delegates many of its powers to the Operator-Investor, giving it management control of the EC. The Operator-Investor agrees to invest risk capital to improve the EC's assets and operations and in return it receives a share of the surplus generated as a result.

The key feature of the IMC is that a private Operator-Investor is remunerated solely for performance. It only makes a profit if it is able to help the EC achieve a surplus. To do this, an Operator-Investor must provide both commercial expertise and additional capital.

A further important feature of the IMC is that it may enable customer tariffs to remain unchanged, or to keep increases to a minimum. The surplus needed to remunerate the Operator-Investor is expected to come mainly from reduction in system losses.

Operator-Investors are expected to be firms with both capital and management expertise to contribute to the cooperative. These may include existing investor owned Distribution Utilities, generators with an interest and ability to expand into distribution, or engineering and management services firms in joint venture with a financier. Preliminary discussions indicate that an opportunity to assist cooperatives on the basis of an Investment Management/Cooperative Strengthening Contract is likely to be keenly sought.

Figure 22: Investment Management/Cooperative Strengthening Contract - Basic Structure



Who would most benefit from an IMC?

IMC would be most suitable to cooperatives that have a viable franchise, but which are not current on their payments, and can not graduate to commercial borrowing without an injection of outside capital. The Operator-Investor will provide equity capital necessary to cut costs and increase sales to the level where the EC can return to positive cash flow. Once that happens, the EC will be able to access commercial finance for its investment program.

The Operator-Investor will also be expected to bring commercial expertise and equipment needed to improve billing and metering systems.

Role of the Board under an IMC

Many Boards may be concerned that bringing in a private Operator-Investor will undermine the cooperative, and that delegating substantial powers to such a contractor will cut across the Board's responsibility to its members. NEA believes that, properly executed, an IMC may allow EC Boards to improve their performance as guardians of community interests.

At present, EC Boards must discharge both community and commercial responsibilities. This distinction was highlighted in NEA Bulletin 35, which emphasizes members' dual roles as co-owners of the co-operative and consumers of its services. As owners' representatives, Board members have to think as commercial directors, with prime responsibility for high quality commercial operation of the business. As consumers' representatives, Board members represent broader community concerns, and may make decisions which are not commercially justified.

Under an IMC, the Board would delegate the commercial responsibility to the Investor-Operator, and would focus on its responsibilities as consumers' representative. The key community responsibility would be to hold the Operator-Investor to account for delivering on the promises it made. The table below explains the distinction between the commercial and community responsibilities, and highlights the areas where these responsibilities may overlap.

Table 4: Board Community and Commercial Responsibilities

Community Responsibilities:	Commercial Responsibilities:
Monitor performance of EC commercial operations from consumers' perspective to ensure good service	Operate local distribution assets: maintenance, procurement of equipment, quality assurance
Approve investment plan	Approve investment plan
Support non-commercial activities, such as electrification of unviable barangays	Manage the business: hiring and firing, billing, debt collection, customer services
Support community projects, such as scholarships, sports teams, health	Negotiate power supply agreements
Set rates	Set rates
Ensure financial stability	Finance operations and required investments

In order for such a separation to work, EC Boards which are party to IMCs need to be adequately resourced to carry out their community responsibilities. For example, while the Operator-Investor would manage EC employees involved in the provision of customer services, Boards would need independent staff support to be able to monitor the Operators-Investor's performance.

In some cases community and commercial concerns overlap. For example, investment policy affects both community and commercial interests. In their role as consumers' representatives, Boards will have a role in approving the EC's investment program.

The suggested respective responsibilities of the Board and the Operator-Investor are set out in the enclosed Model Investment Management/Cooperative Strengthening Contract. NEA wishes to receive comments on the best allocation of responsibilities from the interested parties.

Responsibility to employees

Boards may be concerned about the welfare of employees under an IMC. From the commercial point of view, one of the likely benefits of IMCs is that private Operator-Investors may be able to reduce the work force by using staff more efficiently.

NEA firmly believes that ECs must deploy their staff efficiently. If cost savings can be achieved by reducing staff without detriment to safety and quality of service, than such lay-offs are necessary. The Board's responsibility to employees in such circumstances rests in the provision of a fair and reasonable separation package. In addition, pension entitlements and other aspects of employment must be clarified by the EC prior to an IMC, to avoid any risk of staff being treated unscrupulously.

Experience shows that employee resistance may be a barrier to the implementation of the IMC. Moreover, the perceived risk that employees may scupper a deal after all the costs of putting a bid together have been incurred will be priced into any offer investors may be willing to make. It may also deter some investors from participating in the contract tender. One way to manage this risk is to address potential employee resistance at an early stage, by involving the union or other employee representatives in the preparation of the contract. This will inevitably mean engaging them early on the shape of possible separation arrangements.

Boards contemplating IMCs will need to address these issues.

The way forward

DOE will shortly be appointing a Transaction Advisor for the implementation of IMCs. The services of this advisor will be made available to the ECs. The Advisor will have the mandate to assist in tailoring the Model Investment Management/Cooperative Strengthening Contract to the needs of the participating ECs, and in generating competition among potential Operator-Investors for the opportunity to participate in such contracts. Competitive tenders will ensure the best outcome for the ECs.

NEA and DOE propose to hold a consultative meeting with interested cooperatives on XXXX in XXX. NEA would particularly encourage attendance of ECs which may wish to avail of the services of the Transaction Advisor.

14 Model IMC Contract

INVESTMENT MANAGEMENT/COOPERATIVE STRENGTHENING CONTRACT

KNOW ALL MEN BY THESE PRESENTS:

This Contract is executed this ___ day of _____ at _____ by and between:

> **(DISTRIBUTION UTILITY)**, an electric cooperative duly organized and existing under and by virtue of _____ with principal offices located at _____, represented herein by its duly authorized _____, Mr. _____ (hereinafter referred to as the "EC");
>
> and
>
> **(CONTRACTOR)**, a corporation duly organized and existing under and by virtue of the laws of the Republic of the Philippines, with principal offices located at _____, represented herein by its duly authorized _____, Mr. _____ (hereinafter referred to as the "Contractor");

WITNESSETH: That-

WHEREAS, under Section 2 of Republic Act No. 9136, otherwise known as the "Electric Power Industry Reform Act" (the "EPIRA"), it is the declared policy of the Republic of the Philippines to, among other things: (i) ensure and accelerate the total electrification of the country, (ii) ensure the quality, reliability, security and affordability of the supply of electric power, and (iii) enhance the inflow of private capital and broaden the ownership base of the power generation, transmission and distribution sectors;

WHEREAS, reforms in the operations of distribution utilities which result in greater efficiency and lower costs are a necessary part in the implementation of this policy;

WHEREAS, the EC has a franchise to distribute electricity in the Cities of _____ and in the Municipalities of _____ (the “Franchise Area”), a map of which is attached hereto and made an integral part hereof as Schedule 1;

WHEREAS, the EC needs to access additional capital, and better management policies and practices, to improve the efficiency, and to ensure the quality, reliability, security, and affordability, of the supply of electric power to the Franchise Area;

WHEREAS, the Contractor has represented that it has, among other things, the financial capacity and the managerial and technical capability to invest in and manage the operations of the EC in order to improve the efficiency, and to ensure the quality, reliability, security, and affordability, of the supply of electric power to the Franchise Area;

WHEREAS, the EC is willing to contract with the Contractor, and the Contractor is willing to contract with the EC, for the Contractor to invest in and manage the operations of the EC in order to improve the efficiency, and to ensure the quality, reliability, security, and affordability, of the supply of electric power to the Franchise Area, under the terms and conditions provided herein;

WHEREAS the Contractor has agreed (among other things) to pay to, or at the direction of, the EC a quarterly payment (see Article 11A hereof);

WHEREAS, subject to the satisfaction of certain conditions, the Contractor and the EC will be entitled to receive a fixed proportion of the annual distributable cash surplus generated by the operations of the EC (see Article 13 hereof);

WHEREAS the EC is required to reinvest a part of its distribution in the business and the Contractor may be required to fund any cash shortages of the business up to a certain amount, in each case by way of subordinated loans (see Article 14 hereof).

NOW, THEREFORE, for and in consideration of the foregoing premises, it is hereby agreed as follows:

1. Definitions and Interpretation

1.1. Definitions

a. "Accounting Principles" – refers to the accounting principles set out in the schedule attached hereto and made an integral part hereof as Schedule 5.

b. "Affiliate" – refers to the term used in Rule 4(c) of the IRRs.

c. “Assets and Equipment” – means all the assets (including tangible and intangible assets, intellectual property rights, contracts and real rights, if any) and equipment which are utilized in, or for the purposes of, the Business from time to time.

d. "Business" – means the generation and transmission of electricity for the purposes of its distribution and sale within the Franchise Area and the distribution and sale of such electricity within the Franchise Area.

e. "Change in Control" – refers to the occurrence of an event as a consequence of which the Contractor ceases to be a direct or indirect subsidiary of an entity of which it was such a subsidiary prior to the occurrence of that event.

f. "Contractor Escrow Account" - means an account that is established, maintained and administered under the escrow agreement set out in the schedule attached hereto and made an integral part hereof as Schedule 8.

g. "Contractor Event of Default" - has the meaning given to it in Article 24 hereof.

h. “DENR” – means the Department of Environment and Natural Resources.

i. "Distributable Cash Balance" – for a day, has the meaning given to it in Article 13 hereof.

j. "Distributable Surplus" – for a Financial Year, means the amount of that name which is calculated in accordance with the Accounting Principles.

k. "Distribution Code" - refers to the term used in Rule 4(y) of the IRRs.

l. “DOE” – means the Department of Energy.

m. “DOLE” – means the Department of Labor and Employment.

n. "EC Event of Default" - has the meaning given to it in Article 24 hereof.

o. "EC Main Account" – means the bank account that is established and maintained under Article 12 hereof and is referred to in that Article as the "EC Main Account".

p. "EC Residual Account" – means an account with a bank or other financial institution that is established and maintained by the EC and which the EC notifies to the Contractor is the "EC Residual Account" for the purposes of this Contract.

q. “EPIRA” – means Republic Act No. 9136, otherwise known as the “Electric Power Industry Reform Act”.

r. “ERC” – means the Energy Regulatory Commission.

s. “Final Works Plan” – means the works and expenditure program agreed under Article 23 hereof or determined under Article 26 hereof.

t. "Financial Year" – means the year ending on [31 December].

u. “Franchise Area” – means the Cities of _____ and the Municipalities of _____, more particularly described and delineated in Schedule 1 hereof.

v. "Independent Auditor" – means a person who:

1. is registered as a certified public accountant under the Revised Accountancy Law (Presidential Decree No. 692) and possesses the independence as defined in Part II of Section 14 of the Code of Professional Ethics for Certified Public Accountants as promulgated by the Board of Accountancy and approved by the Professional Regulation Commission; and

2. is agreed by the EC and the Contractor or, failing such agreement, is nominated by the NEA.

w. "Independent Expert" – means a person appointed to determine disagreements or matters that may be referred to an Independent Expert in accordance with Article 26 hereof.

x. "Initial Investment Amount" – means the amount denoted as the Initial Investment Amount in the Transition Plan, as such amount is reduced (if at all) in accordance with the terms of the Transition Plan.

y. "Initial Payment" – has the meaning given to it in Article 5 hereof.

z. “IRRs” – means the Implementing Rules and Regulations of the EPIRA.

aa. "Market Value" – means, in respect of any Assets and Equipment, the economic value of such Assets and Equipment as reflected in the price that a willing but not anxious purchaser would pay to obtain the use of them. Where the relevant Assets and Equipment are contracts, the Market Value of those contracts must take into account the value of the rights and the burden of the obligations under the contracts.

bb. “NEA” – means the National Electrification Administration.

cc. “Performance Standards”- refers to the performance standards set out in the schedule attached hereto and made an integral part hereof as Schedule 2.

dd. "Quarter" – means a period of three months from 1 January to 31 March (both dates inclusive), 1 April to 30 June (both dates inclusive), 1 July to 30 September (both dates inclusive) or 1 October to 31 December (both dates inclusive).

ee. "Quarterly Payment" – has the meaning given to it in Article 11A hereof.

ff. "Special Representative" – means a person designated as such by the EC for the purposes of Article 7 hereof.

gg. “Term” – means the term of this Contract as referred to in Article 2 hereof.

hh. "Threshold Amount" – for a calendar year, means the amount calculated as:

$$[\#] \text{ pesos } x \left[\left(CPI_{t} / CPI_{t-1}\right) - 1\right]$$

where CPI means the All Items Consumer Price Index published by the National Statistics Office of the Philippines; CPI_{t} means the CPI for the Quarter ending on 30 September in that calendar year; and CPI_{t-1} means the CPI for the Quarter ending on 30 September in the immediately preceding calendar year.

ii. “Transition Plan” – refers to the plan as set out in the schedule attached hereto and made an integral part hereof as Schedule 3.

jj. "T-Bill Rate" – means, in respect of any day, the rate per annum at which Philippine Treasury Bills with a term of ninety-one (91) days or, if no such

bill is issued, the shortest term, were issued by the Government of the Philippines on the Monday immediately preceding such day or, if there were no Philippine Treasury Bills issued on such Monday, on the day on which Philippine Treasury Bills were issued immediately preceding such Monday, provided that, if no Philippine Treasury Bills were issued during the thirty (30) days immediately preceding such Monday, then "T-Bill Rate" shall mean such alternative rate of interest as may be agreed upon between the parties or, in the absence of an agreement, as may be determined by an Independent Expert (for which purpose either party may refer that matter to such Independent Expert).

1.2. Interpretation. – In this Contract, unless the context otherwise requires:

a. the singular includes the plural, and vice-versa;

b. any gender includes the others and “person” includes a corporation or other legal entity;

c. reference to a law is to the same as amended, modified, or replaced from time to time and to any law, ordinance, rule, order, decree, writ, judgment, injunction or regulation made thereunder;

d. reference to an “Article” or a “Schedule” is to an article of, or a schedule to, this Contract;

e. any reference to a Governmental ministry, department, authority or agency shall be construed as being to any Governmental ministry, department, authority or agency which succeeds to the functions thereof;

f. reference to a party is to a party to this Contract, its successors and permitted assigns;

g. reference to “above” or “below” is to the first occurrence above or below the reference;

h. where a word or expression is defined (including in this Article), cognate words and expression shall be construed accordingly;

i. “including” shall not be construed as being by way of limitation and “otherwise” shall not be construed as limited by words with which it is associated;

j. the word “reasonable” appearing before “approval”, “satisfaction” or any similar word shall mean that the approval, expression of satisfaction or other decision to be made as to the particular matter or thing concerned

shall not be unreasonably withheld or delayed. Conversely, if the word "reasonable" does not so appear, the approval, expression of satisfaction or other decision to be made may be given or made solely at the unfettered discretion of the party concerned.

2. Term

The term of this Contract (the "Term") shall commence on the date of the execution of this Contract and expire on ____(date)_____ ***[Note: This date should be no later than the date on which the EC's franchise is to expire]***; provided, however, that the Term shall be automatically earlier terminated:

a. upon the EC or the Contractor terminating this Contract under Article 22 hereof;

b. upon the EC terminating this Contract under Article 24 hereof by reason of the occurrence of an Contractor Event of Default; or

c. upon the Contractor terminating this Contract under Article 24 hereof by reason of the occurrence of an EC Event of Default.

The Term may be renewed or extended by agreement between the parties.

3. Management, Administration and Operation of the Business

On the terms and subject to the conditions set forth herein, the EC hereby authorizes the Contractor, and the Contractor hereby agrees, to manage, administer and operate the Business for and on behalf of the EC during the Term. For these purposes, and on the terms and subject to the conditions set forth herein, the EC irrevocably delegates to the Contractor exclusive authority (both as against the EC and all other third parties) to do, and the Contractor hereby agrees that it shall do, the following for and on behalf of the EC during the Term:

a. operate, maintain, repair, replace, augment, modify, dispose of and otherwise manage the Assets and Equipment;

b. acquire such assets (including tangible and intangible assets, intellectual property rights, contracts and real rights) and equipment or services as the Contractor considers are necessary or desirable for the proper conduct of the Business;

c. read, inspect and test the meters used to record electricity consumption;

d. calculate, prepare and render bills to customers of the Business;

e. connect new customers of the Business, and reconnect existing customers of the Business, to the EC's distribution system;

f. disconnect customers of the Business from the EC's distribution system;

g. charge customers of the Business for goods or services provided to them and collect payments due from customers of the Business;

h. exercise and enforce, for and on behalf of the EC, all of the rights conferred on the EC under any contracts relating to the Business and to which the EC (or the Contractor acting on behalf of the EC) is a party;

i. borrow funds and grant security over the Assets and Equipment;

j. enter into contracts relating to the Business;

k. direct persons who are employed by the EC in the Business in the performance of their functions and duties as such employees; and

l. do all other things that are reasonably necessary or incidental to the management, administration and operation of the Business.

For the avoidance of doubt, the Contractor may exercise the rights conferred on it under this Article through directing persons who are employed by the EC in the Business in the performance of their functions and duties as such employees.

The Contractor acknowledges that, except for the rights expressly conferred on it under this Contract, nothing in this Contract confers on the Contractor any ownership, title or other interest in the Business or in any of the Assets and Equipment.

The Contractor further acknowledges that all assets (including tangible and intangible assets, intellectual property rights, contracts and real rights) and equipment that are paid for out of the EC Main Account are the property of the EC and that the Contractor has no ownership, title or other interest in any such assets or equipment.

4. Performance Standards

The Contractor agrees that it shall manage, administer and operate the Business during the Term in such a way as to result in the Performance Standards being met. If a Performance Standard is not met, the Contractor must, within 30 days of that Performance Standard not being met, pay into the EC Residual Account a penalty of the amount specified opposite that Performance Standard in Schedule 2.

5. Initial Payment and Initial Investment Amount

The Contractor shall pay to, or at the direction of, the EC an amount of [#] pesos on the date of the execution of this Contract (the "Initial Payment"), such payment to be made:

a. in immediately available and irrevocable funds; and

b. without deduction or set off.

On the date of the execution of this Contract, the Contractor shall pay into the Contractor Escrow Account an amount equal to [x]% of the Initial Investment Amount ***[Note: this will approximate the expenditure required for the first year of the Transition Plan]***, such payment to be made:

a. in immediately available irrevocable funds; and

b. without deduction or set off.

6. Borrowing

In pursuance of its rights and obligations under this Contract, the Contractor shall have the right, for and on behalf of the EC, and by these presents is hereby authorized by the EC on its behalf, to:

a. borrow funds for the purposes of funding costs, expenses and liabilities of a kind that are permitted to be paid out of the EC Main Account under Article 12 hereof; and

b. grant security over such Assets and Equipment as is required to support such borrowing(s),

provided, however, that:

c. such funds can only be borrowed from, and such security can only be granted to, a bank or other financial institution that has been approved by the EC in writing for the purposes of this Article 6;

d. to the extent that the borrowing of such funds will result in the [aggregate liabilities of the EC] [total amount of the funds borrowed pursuant to this Article 6 and outstanding] as at the date of that borrowing exceeding [#] pesos, such funds can only be borrowed with the EC's prior written approval (which approval must be given if the borrowing is in the best interests of the Business); and

e. such funds must forthwith be deposited in their entirety into the EC Main Account.

If a disagreement arises between the parties as to whether a borrowing is in the best interests of the Business for the purposes of paragraph (d) above, then either party may refer that disagreement to an Independent Expert.

7. Employment

In pursuance of its rights and obligations under this Contract, the Contractor shall have the right, and by these presents is hereby authorized by the EC on its behalf, to exercise the power of the EC:

a. to employ persons in the Business and to terminate the employment of persons who are employed by the EC in the Business;

b. to set pay conditions for persons who are employed by the EC in the Business and to negotiate with such employees or the unions to which such employees belong; and

c. to direct persons who are employed by the EC in the Business in the performance of their functions and duties as such employees.

In addition, the Contractor must comply with the requirements set out in the schedule attached hereto and made an integral part hereof as Schedule 7.

The Contractor acknowledges that the EC may employ not more than [two] persons as Special Representatives and that such persons will not be treated for the purposes of this Contract as being employed by the EC in the Business. The Contractor further acknowledges that the EC may authorize the Special Representatives, for and on the EC's behalf, to:

a. monitor, and report to the EC's board on, the performance of this Contract by the Contractor; and

b. exercise any rights and perform any obligations that are conferred or imposed on the EC under this Contract, in which case the Contractor agrees to accept such exercise and performance as if it were the exercise and performance by the EC.

8. Contracts

In pursuance of its rights and obligations under this Contract, the Contractor shall have the right, for and on behalf of the EC, and by these presents is hereby authorized by the EC on its behalf, to enter into:

a. contracts with customers of the Business; and

b. contracts relating to the Business, such as power supply contracts, and contracts for the purchase of goods and services;

provided, however, that:

c. such contracts must either be entered into in the name of the EC or by the Contractor as disclosed agent for the EC;

d. the Contractor must not enter into any material contract relating to the Business without the EC's prior written approval (which approval must be given if the contract is in the best interests of the Business); and

e. where Article 9 hereof applies to such contracts, the requirements of that Article with respect to those contracts have been complied with.

For the purposes of paragraph (d) above, a “material contract” shall mean a contract the liability of the EC under which may exceed _____pesos.

If a disagreement arises between the parties as to whether a contract is in the best interests of the Business for the purposes of paragraph (d) above, then either party may refer that disagreement to an Independent Expert.

In pursuance of its rights and obligations under this Contract, the Contractor shall have the right, for and on behalf of the EC, and by these presents is hereby authorized by the EC on its behalf, to exercise and enforce all of the rights conferred on the EC under any contracts relating to the Business and to which the EC (or the Contractor acting on behalf of the EC) is a party, but such exercise or enforcement must be in accordance with the requirements of those contracts and any applicable laws or regulatory requirements.

For the avoidance of doubt, the Contractor may exercise the rights conferred on it under this Article through directing persons who are employed by the EC in the Business in the performance of their functions and duties as such employees.

9. Contracts between the Contractor and its Affiliates

Option 1

Except with the prior written consent of the EC (which consent must be given if such is in the best interests of the Business):

a. the Contractor must not procure the EC (whether acting directly or through the Contractor as its agent) to enter into any contract relating to the Business with an Affiliate of the Contractor; and

b. the Contractor must not, in the exercise of the rights and powers conferred on it under this Contract, enter into any contract with the EC relating to the Business.

If a disagreement arises between the parties as to whether the giving of the consent referred to above is in the best interests of the Business, then either party may refer that disagreement to an Independent Expert.

Option 2

Except with the prior written consent of the EC (which consent must be given if such is in the best interests of the Business):

a. the Contractor must not procure the EC (whether acting directly or through the Contractor as its agent) to enter into any contract relating to the Business with an Affiliate of the Contractor unless:

   1. such contract is at a price, and on terms and conditions, that are no less favorable to the Business than would have been the case had that contract been entered into, in similar circumstances, with a party who was not an Affiliate of the Contractor; and

   2. except to the extent that entry into such contract is expressly required by this Contract or that such contract arises by virtue of the operation of this Contract, the requirements of Article 8 hereof have been complied with in respect of such contract; and

b. the Contractor must not, in the exercise of the rights and powers conferred on it under this Contract, enter into any contract with the EC relating to the Business.

If a disagreement arises between the parties as to whether the giving of the consent referred to above is in the best interests of the Business, then either party may refer that disagreement to an Independent Expert.

10. Prohibited Conduct

The Contractor shall not do any of the following without the EC's prior written consent:

a. acquire any assets (including tangible and intangible assets, intellectual property rights, contracts and real rights) for use in, or for the purposes of, the Business other than for and on behalf of the EC;

b. use any or all of the Assets and Equipment for purposes other than for, or relating to, the generation and transmission of electricity for the purposes

of its distribution and sale within the Franchise Area and the distribution and sale of such electricity within the Franchise Area;

c. dispose of any of the Assets and Equipment except to the extent that they are surplus to the requirements of the Business and their Market Value is less than [#] pesos;

d. make any material change to the nature of the Business;

e. except as permitted under Articles 6 or 14 hereof, borrow funds or grant security to support such borrowing(s), for or on behalf of the EC, or otherwise pledge the credit of the EC;

f. grant security over any Assets and Equipment except for liens arising in the ordinary course of the Business;

g. except as permitted under Article 8 hereof, enter into a contract for or on behalf of the EC;

h. provide any financial accommodation for or on behalf of the EC to any person, except in the ordinary course of the Business;

i. commence, defend or otherwise take part in (or continue to defend or otherwise take part in) any litigation, arbitration or similar proceedings in connection with the Business where the total costs (including damages and legal costs and expenses) for which the EC may be liable (whether directly or indirectly) exceed [#] pesos; or

j. settle or compromise any litigation, arbitration or similar proceedings in connection with the Business where the total costs (including damages and legal costs and expenses) for which the EC would be liable as a consequence of that settlement or compromise (whether directly or indirectly) exceeds [#] pesos.

11. Tariffs

Except as otherwise approved by the ERC, the Contractor (acting for and on behalf of the EC) may only charge tariffs that do not exceed the applicable maximum tariffs (if any) which are calculated in accordance with the schedule attached hereto and made an integral part hereof as Schedule 4.

Subject to any requirements contained in the Transition Plan, the Contractor may from time to time apply (for and on behalf of the EC) to the ERC for a review or adjustment to the maximum tariffs determined in accordance with Schedule 4 or as subsequently approved by the ERC.

11A. Quarterly Payment *[optional]*

The Contractor shall pay to, or at the direction of, the EC an amount of [#] pesos on the first working day of each Quarter that commences during the Term (the "Quarterly Payment"), such payment to be made:

a. in immediately available and irrevocable funds; and

b. without deduction or set off.

On the first working day of each Quarter that commences during the Term, the Contractor shall pay into the Contractor Escrow Account an amount equal to the amount of the Quarterly Payment that is payable on the first working day of the immediately succeeding Quarter, such payment to be made:

a. in immediately available and irrevocable funds; and

b. without deduction or set off.

12. Treatment of revenue and expenses

Accounts

The EC shall establish and maintain a [cheque/interest bearing] account with [specify bank], or such other bank as is approved by the Contractor, the only authorized signatories to which are persons nominated from time to time by the Contractor (whether as sole or joint signatories) (the "EC Main Account"). The following provisions apply in respect of the EC Main Account and all deposits and withdrawals from it:

a. The Contractor is solely responsible and liable to the EC for all withdrawals from the EC Main Account (including unauthorized or fraudulent withdrawals, whether by its authorized signatories or otherwise).

b. The EC Main Account and any balance in it is the property of the EC and the Contractor has no ownership, title or interest therein but only the right to make withdrawals from that account, and to apply such withdrawals, in accordance with this Article 12 and Articles 13 and 14 hereof.

c. Any overdraft on the EC Main Account is the liability of the EC.

d. Immediately on the expiry or earlier termination of the Term the Contractor shall cease to be authorized to make withdrawals from the EC Main Account or to have any other rights as a signatory or otherwise in respect of that account, and the EC may replace the signatories

nominated by the Contractor with such other signatories as the EC considers appropriate.

The Contractor must not open any accounts in relation to the Business except with the EC's prior written approval.

Revenue

The EC and the Contractor must ensure that all payments made to or for the account of the Business and that are paid during the Term (whether or not they are referable to the Term) are promptly paid into the EC Main Account. Such payments shall include:

a. all payments by customers of the Business for goods or services;

b. all rebates or other credits for goods and services acquired for the purposes of the Business;

c. all borrowings made in accordance with Article 6 hereof;

d. all proceeds from the disposal of any of the Assets and Equipment;

e. the proceeds of all subordinated loans that are made under Article 14 hereof; and

f. any other revenue earned by the Business from any other source,

but do not include:

g. distributions of the Distributable Cash Balance for a period XX that are made under Article 13 hereof or the proceeds of the repayment of any subordinated loans that are made under Article 14 hereof;

h. penalties paid by the Contractor under Article 4 hereof;

i. the Initial Amount which is paid under Article 5 hereof;

j. any amount which is paid under Article 11A hereof;

k. the proceeds of any claim under an insurance policy that is required to be obtained and maintained under paragraph (g) of Article 16 hereof;

l. damages or other amounts paid by one party to the other party as a result of a breach of this Contract by the first-mentioned party; or

m. payments made under the indemnities referred to in Article 25 hereof.

Expenses

Except as set out in Article 13 hereof, the Contractor may only make a withdrawal from the EC Main Account (up to the limit of any overdraft available on that account) to pay costs, expenses and liabilities that are incurred in the operation of the Business

during the Term (whether or not they are referable to the Term) which may include, but are not limited to:

a. the salaries, wages and other benefits of employees of the EC who are engaged in the Business;

b. the costs of acquiring such assets (including tangible and intangible assets, intellectual property rights, contracts and real rights) and equipment or services as the Contractor considers necessary or desirable for the proper conduct of the Business;

c. the insurance premiums, commissions and other expenses necessary for obtaining and maintaining in force the insurance policies required to be obtained and maintained under paragraph (g) of Article 16 hereof;

d. taxes, levies, imposts, fees, rates, charges or duties imposed by any Governmental authority, including income tax payable by the EC on the taxable income of the Business;

e. rent for premises or equipment;

f. the cost of utility services such as power, gas, water and communications;

g. interest and principal on any borrowings made in accordance with Article 6 hereof;

h. interest and principal on any overdraft on the EC Main Account;

i. the repayment in whole or in part of any subordinated loans that are made under Article 14 hereof; and

j. costs, expenses and liabilities that are incurred under any contracts entered into in accordance with Article 8 hereof or under any contracts relating to the Business that are binding on the EC and that are on foot as at the date of the execution of this Contract.

In addition, the Contractor must pay out of the EC Main Account:

a. the salaries, wages and other benefits of the Special Representatives; and

b. the remuneration and other emoluments, and expenses, of the directors of the EC.

Notwithstanding the foregoing, the following costs, expenses and liabilities must not be paid from the EC Main Account:

a. any payment to or on account of the Contractor for managing, administering or operating the Business or otherwise performing its obligations under this Contract;

b. income tax payable by the Contractor;

c. fines, penalties, default interest or the like resulting from the wanton, reckless or negligent acts or omissions of the Contractor or a failure of the Contractor to pay an amount that is due by the time it is due;

d. penalties payable by the Contractor under Article 4 hereof;

e. costs, expenses and liabilities (including any losses and any damages payable to the other party) incurred as a result of a breach of this Contract by the Contractor or the EC;

f. payments under the indemnities referred to in Article 25 hereof;

g. the Initial Amount or the Initial Investment Amount which is payable under Article 5 hereof;

h. any amount which is payable under Article 11A hereof;

i. any costs incurred under Article 26 hereof; or

j. the insurance premiums, commissions and other expenses for obtaining and maintaining in force the insurance policy required to be obtained and maintained under paragraph (q) of Article 16 hereof.

13. Annual Accounts and Distributions

Annual Accounts

The Contractor shall, within forty five (45) working days after the end of each Financial Year:

a. prepare and provide to the Independent Auditor:

1. a draft balance sheet of the Business as at the end of that Financial Year and a draft profit and loss statement for the Business for that Financial Year;

2. a calculation of the net tangible assets of the Business as at the end of that Financial Year;

3. a calculation of the debt service coverage ratio of the Business as at the end of that Financial Year; and

4. a calculation of the Distributable Surplus for that Financial Year,

each of which has been prepared in accordance with the Accounting Principles; and

b. instruct the Independent Auditor:

1. to audit the draft balance sheet, the draft profit and loss statement and the calculations of the net tangible assets, the debt service coverage ratio and the Distributable Surplus, provided to the Independent Auditor;

2. to make such amendments to them as the Independent Auditor considers appropriate to ensure that they are prepared in accordance with the Accounting Principles; and

3. to provide a report containing the audited balance sheet, the audited profit and loss statement, the calculation of the net tangible assets of the Business, and the calculation of the debt service coverage ratio of the Business, as at the end of the relevant Financial Year and the calculation of the Distributable Surplus for the relevant Financial Year (in each case as amended, if at all, by the Independent Auditor) to the parties within forty five (45) days of the provision of the draft balance sheet and the draft profit and loss statement to the Independent Auditor.

The parties must cooperate with, and provide such assistance, information and records to, the Independent Auditor as the Independent Auditor requests to enable it to undertake the work referred to above.

Distributions

If the Contractor determines to make a cash distribution to the EC and the Contractor for a Financial Year then, on the opening of business on the [fifth] working day after the provision to the EC and the Contractor of the report of the Independent Auditor for that Financial Year in accordance with the paragraph above, and provided that such [fifth] working day occurs during the Term (but not otherwise), the Contractor must:

a. pay to or at the direction of the EC, and out of the EC Main Account, [x]% of the Distributable Cash Balance for that day, and

b. pay to itself out of the EC Main Account an amount not exceeding [y]% of the Distributable Cash Balance for that day.

[Note: x% + y% must equal 100%.]

For these purposes, the Distributable Cash Balance for a day is the greater of zero and the lesser of:

a. an amount equal to the Distributable Surplus for the Financial Year that immediately precedes that day, as contained in the report of the Independent Auditor for that Financial Year; and

b. the amount (if any) standing to the credit of the EC Main Account as at the opening of business on that day, together with the amount of the undrawn part of any overdraft available on the EC Main Account as at that time, less all outstanding payments due that are of a kind that may be paid out of the EC Main Account under Article 12 hereof.

Notwithstanding the foregoing, the Contractor must not make the payments referred to in the paragraph above if:

a. the debt service coverage ratio of the Business as contained in the report of the Independent Auditor for the relevant Financial Year is less than [#]; or

b. the value of the net tangible assets of the Business as contained in the report of the Independent Auditor for the relevant Financial Year is less than:

1. where the relevant Financial Year is the first Financial Year that ends during the Term – [#] ***[insert initial net asset value]***; or

2. where the relevant Financial Year is a Financial Year other than the first Financial Year that ends during the Term – the value of the net tangible assets of the Business as contained in the report of the Independent Auditor for the immediately preceding Financial Year.

14. Subordinated Loans

The EC must immediately pay:

a. [90]% of each amount that is paid to it under this Article; and

b. [[#] pesos] [[z]]% of each Quarterly Payment that is paid to, or at the direction of, the EC under Article 11A hereof,

into the EC Main Account, by way of a subordinated loan, and for this purpose hereby irrevocably directs the Contractor to pay that sum into the EC Main Account, with the balance being paid into the EC Residual Account or as otherwise directed by the EC.

The Contractor may from time to time pay moneys into the EC Main Account by way of a subordinated loan.

The Contractor must at all times ensure that all payments due that are of a kind that may or must be paid out of the EC Main Account under Article 12 hereof are paid

when due (or, if due as at the date of the execution of this Contract, are, except as otherwise provided for the Transition Plan, paid forthwith). For this purpose the Contractor must ensure that the amount standing to the credit of the EC Main Account (when taken together with the amount of the undrawn part of any overdraft available on the EC Main Account) is sufficient to meet such payments and, to the extent that it is not, the Contractor must forthwith pay the amount of that deficiency, by way of a subordinated loan, into the EC Main Account to enable the Contractor to meet its obligations in this regard. For these purposes such payment may, to the extent such funds are available and represent the whole or part of the amount deposited in the Contractor Escrow Account under Article 5 hereof, be made for the Contractor through the payment of funds from the Contractor Escrow Account into the EC Main Account. Notwithstanding the foregoing, nothing in this paragraph shall be taken as requiring the Contractor to pay into the EC Main Account (whether directly or in accordance with the terms of the preceding sentence) an amount that in aggregate exceeds the Initial Investment Amount.

The subordinated loans referred to in this Article do not bear interest and are repayable and due only when determined by the Contractor. Such loans may only be repaid out of the EC Main Account.

15. Mutual Cooperation

Both parties shall mutually cooperate with each other in order to achieve the objectives of this Contract and the performance by each of the parties hereto of their respective obligations hereunder.

The EC must, if requested by the Contractor, exercise such rights and powers as it has (whether under statute, contract or otherwise) to assist the Contractor in respect of any matter necessary to enable the Contractor to manage, administer and operate the Business in accordance with this Contract where:

a. the Contractor does not have the necessary rights and powers either under this Contract or otherwise; and

b. if the Contractor did have the necessary rights and powers, the exercise of them by the Contractor would not be precluded by this Contract and would not be in breach of this Contract.

Such matters may, for example, include the exercise of the EC's power of eminent domain, the exercise of rights that permit a representative of the EC to access land or premises and the application (in the name of the EC) for any authorizations, permits, licenses, approvals or exemptions required for the operation of the Business.

16. Obligations of the Contractor

The Contractor hereby agrees that during the Term:

a. it will manage, administer and operate the Business at all times:

   1. in accordance with good industry practice;

   2. in compliance with all applicable laws and regulatory requirements (including the terms and conditions of the EU's franchise, the Philippine Electricity Code, the Distribution Code, any tariff regulations of the ERC and any compliance program approved by the ERC in relation to the Business under Rule 7.4(d)(ii) of the IRRs);

   3. in compliance with all the applicable occupational, health, and safety standards set by the Bureau of Working Conditions of the Philippine DOLE;

   4. in compliance with all the applicable environmental requirements and standards set by the Philippine DENR;

   5. in compliance with all requirements of the pertinent Philippine local Government unit; and

   6. in compliance with all authorizations, permits, licenses, approvals and exemptions required for the operation of the Business,

   whether or not such are binding on the Contractor or only on the EC;

b. it will manage, administer and operate the Business at all times in a manner and to the extent necessary to comply with the requirements specified in any insurance policy required to be obtained and maintained under paragraph (g) below;

c. it will properly maintain all records relating to the Business and the operations of the Contractor under this Contract including, but not limited to, records pertaining to the acquisition, installation, operation, maintenance, repair, replacement, modification, augmentation, disposal and management of the Assets and Equipment, the employees of the EC who are engaged in the Business, and suppliers and customers of the Business, and copies of all contracts that relate to the Business;

d. it will, promptly after a request by the EC, provide the EC or its representatives with such information, and such access to the records, relating to the Business as the EC requires;

e. it will, promptly after a request by the EC, allow the EC or its representatives to inspect all or any of the Assets and Equipment;

f. it will promptly notify the EC of any material damage to any or all of the Assets and Equipment of any notifications relating to the Business which it receives from any regulators (including the ERC), Government agencies or insurers, of the occurrence of any event for which a claim may be made under an insurance policy referred to in paragraph (g) below, and of any litigation, arbitration or other similar proceedings commenced by or against or otherwise involving the Contractor or the EC and arising in relation to the Business;

g. it will, where such insurance is available, obtain and maintain in force, on behalf of and in the name of the EC, insurance from a reputable insurance company approved by the EC to cover the loss, destruction, and deterioration of the Assets and Equipment and liabilities to third parties arising from the operation of the Business, in such amounts and on such terms as are required by the EC (provided that the EC's requirements as to amount and terms and conditions must be reasonable in the circumstances of the Business). In this connection, the Contractor shall provide the EC with annual certificates of currency in relation to such required insurance policies and shall promptly notify the EC of any change of circumstances affecting such insurance policies (including their cancellation, non-renewal, variation or unenforceability). The Contractor must not take out any insurance on behalf or in the name of the EC other than as is required under this paragraph;

h. it will take all steps necessary or desirable to claim, and to collect or recover, money that is or (with the taking of such steps) would be likely to become due under or in respect of any insurance policy referred to in paragraph (g) above and (except as otherwise agreed by the EC) will forthwith apply all of those proceeds to make good the loss or discharge the liability covered by the insurance policy;

i. it will comply with the Transition Plan ***[Note: depending on the circumstances it may be necessary to excuse or temporarily shelter the Contractor from liabilities arising out of the pre-execution state of the Business.]***;

j. it will, in managing, administering and operating the Business, comply at all times with such competitive procurement rules as the NEA requires the EC to observe;

k. it will, to the extent practicable having regard to its legal capacity to do so, safeguard and protect the title and interest of the EC in the Assets and Equipment and not do (or permit to be done) anything which might jeopardize that title and interest;

l. it will, for and on behalf of the EC, perform all of the obligations imposed on the EC under any contracts relating to the Business and to which the EC (or the Contractor acting on behalf of the EC) is a party, such performance to be in accordance with the requirements of those contracts and any applicable laws or regulatory requirements;

m. it will submit reports to the EC on its compliance with the Transition Plan (when applicable), the Performance Standards and the Final Works Plan (when applicable), and on other matters specified in the schedule attached hereto and made an integral part hereof as Schedule 6, in each case in accordance with the reporting criteria as set forth in such Schedule and strictly in accordance with the timetable set forth in such Schedule;

n. It will keep or cause to be kept in accordance with generally accepted accounting standards and practices in the Philippines applied on a consistent basis, comprehensive accounting records for the Business (including all invoices);

o. it will comply with the requirements set out in the schedule attached hereto and made an integral part hereof as Schedule 9; and

p. it will obtain and maintain in force in its own name, professional indemnity insurance from a reputable insurance company for not less than [#] pesos. In this connection, the Contractor shall provide the EC with annual certificates of currency in relation to such insurance policy and shall promptly notify the EC of any change of circumstances affecting it (including its cancellation, non-renewal, variation or unenforceability).

[Note: it will need to be determined whether the EC's constituent documents impose any obligations on it which need to be complied with by the Contractor or otherwise accommodated in this Contract.]

If a disagreement arises between the parties as to whether the EC's requirements, under paragraph (g) above, as to the amount and terms and conditions of any insurance are reasonable in the circumstances of the Business, then either party may refer that disagreement to an Independent Expert.

17. Representations and Warranties of the EC

The EC hereby represents and warrants as follows:

a. it is an electric cooperative duly organized, validly existing and in good standing under the laws of the Republic of the Philippines, more particularly under _____;

b. it has full power and authority to execute and deliver this Contract and to consummate the transactions contemplated hereby;

c. the execution and delivery of this Contract by the EC, and the consummation by the EC of the transactions contemplated hereby, have been duly authorized by all necessary action of the EC, including its Board of Directors and members, and no further action or proceeding on the part of the EC is necessary to authorize the execution and delivery by the EC of this Contract or the consummation by the EC of the transactions contemplated hereby;

d. this Contract has been duly executed and delivered by the EC and documents the legal, valid, and binding obligations of the EC, enforceable against the EC in accordance with its terms;

e. neither the execution and delivery of this Contract, nor the consummation of the transactions contemplated hereby, will:

    1. conflict with or violate any provision of the franchise of the EC over the Franchise Area;

    2. conflict with any provision of the constitutive documents of the EC;

    3. conflict with or violate any law, rule, regulation, ordinance, order, writ, injunction, judgment, or decree applicable to the EC or by which any of the EC's properties or assets or equipment are bound or affected; or

    4. conflict with or result in any breach or constitute a default (or an event which with notice or lapse of time or both will become a default) under, or give to others any rights of termination, cancellation, or acceleration of, or result in the creation of any lien, charge, or encumbrance on any of its properties or assets or equipment pursuant to any of the terms, conditions or provisions of, any note, bond, mortgage, indenture, permit, license, franchise, lease, contract, agreement, or other instrument or obligation to which the EC is a party or by which the EC or any of its properties or assets or equipment is bound or affected;

f. no notice, declaration, report, or other filing or registration with, and no waiver, consent, approval, or other authorization of, any Governmental or regulatory authority or instrumentality is required to be submitted, made or obtained by the EC in connection with the execution, delivery, or performance of this Contract by the EC and the consummation of the transactions contemplated hereby.

18. Representations and Warranties of the Contractor

The Contractor hereby represents and warrants as follows:

a. it is a corporation duly organized, validly existing, and in good standing under the laws of the Republic of the Philippines;

b. it has full corporate power and authority to carry on its business as required under the terms of this Contract and is duly qualified to carry on such business;

c. the outstanding capital stock of the Contractor is at least 60% owned by citizens of the Philippines or by corporations that are themselves at least 60% owned by citizens of the Philippines as required by Section 11 of Article XII of the 1987 Constitution of the Republic of the Philippines;

d. it has full power and authority to execute and deliver this Contract and to consummate the transactions contemplated hereby;

e. the execution and delivery of this Contract by the Contractor, and the consummation by the Contractor of the transactions contemplated hereby, have been duly authorized by all necessary action of the Contractor, including its Board of Directors and stockholders, and no further action or proceeding on the part of the Contractor is necessary to authorize the execution and delivery by the Contractor of this Contract or the consummation by the Contractor of the transactions contemplated hereby;

f. this Contract has been duly executed and delivered by the Contractor and documents the legal, valid, and binding obligations of the Contractor, enforceable against the Contractor in accordance with its terms;

g. neither the execution and delivery of this Contract, nor the consummation of the transactions contemplated hereby, will:

    1. conflict with or violate any provision of the Articles of Incorporation and/or By-laws of the Contractor;

2. conflict with or violate any law, rule, regulation, ordinance, order, writ, injunction, judgment, or decree applicable to the Contractor or by which any of the Contractor's properties or assets or equipment are bound or affected; or

3. conflict with or result in any breach or constitute a default (or an event which with notice or lapse of time or both will become a default) under, or give to others any rights of termination, cancellation, or acceleration of, or result in the creation of any lien, charge, or encumbrance on any of its properties or assets or equipment pursuant to any of the terms, conditions or provisions of, any note, bond, mortgage, indenture, permit, license, franchise, lease, contract, agreement, or other instrument or obligation to which the Contractor is a party or by which any of its properties or assets or equipment is bound or affected;

h. no notice, declaration, report, or other filing or registration with, and no waiver, consent, approval, or other authorization of, any Governmental or regulatory authority or instrumentality is required to be submitted, made, or obtained by the Contractor in connection with the execution, delivery, or performance of this Contract by the Contractor and the consummation of the transactions contemplated hereby.

19. Exclusion of representations and warranties

The Contractor accepts the Business, including the Assets and Equipment in existence as of the date of the execution of this Contract, in its condition (including with any faults and defects), and subject to any restrictions or limitations as to suitability, fitness for purpose, compliance with law or otherwise, as at the date of the execution of this Contract and the EC gives no representation or warranty as to such matters.

The Contractor acknowledges and agrees that other than for the representations and warranties set out in Article 17 hereof:

a. the EC has made and makes no representations or warranties whatsoever (whether express or implied) in connection with the Business or the Assets and Equipment or otherwise in relation to this Contract; and

b. the Contractor has not, in entering into this Contract or agreeing to any of its terms, relied on any statements, representations, warranties or information made or given to it by or on behalf of the EC.

20. Sub-Contract

The Contractor must not sub-contract the management, administration or operation of the Business to any other person or entity.

21. Assignment

The EC may not assign any of its rights, benefits or obligations under this Contract to any other person or entity, except that it is entitled to (and must) assign all (but not some only) of its rights, benefits and obligations under this Contract (whether accrued, contingent, present or future) to any person or entity who obtains a franchise to distribute electricity in the whole, or substantially the whole, of the Franchise Area.

For the purposes of securing borrowings under Article 6 hereof but not otherwise, the EC may (and must if so required by the Contractor and such borrowings are in accordance with Article 6 hereof) assign or transfer, by way of security to the relevant lenders, all or any part of its rights and benefits under this Contract.

The Contractor may not assign any of its rights, benefits or obligations under this Contract to any other person or entity, or charge, encumber or otherwise grant any security over any of its rights or benefits under this Contract, without the prior written consent of the EC.

22. Force majeure

No failure or omission to carry out or observe any of the terms, provisions or conditions of this Contract (other than an obligation to pay money as required under this Contract) shall give rise to any claim by any party against the other party or be deemed to be a breach of this Contract if the same shall be caused by or arise out of an Event of Force Majeure, as defined below.

The following events shall constitute an “Event of Force Majeure”: (a) any war, declared or not, or hostilities or belligerence, blockade, revolution, insurrection, riot, public disorder, expropriation, requisition, confiscation, nationalization or prolonged obstruction of the exercise of rights of easements, eminent domain, right of way, and similar rights and/or powers, rationing or allocation, whether imposed by law, decree or regulation by, or by compliance of industry at the insistence of, any Governmental authority of or within the Republic of the Philippines, or (b) fire, unusual flood, drought, earthquake, volcanic eruption, storm, lightning, tide (other than normal tide), tidal wave, unusually severe weather conditions, perils of the sea, accidents of navigation or breakdown or injury of vessels, accidents to harbors, docks, canals or other assistance

to or adjuncts of shipping or navigation, epidemic, quarantine, strikes or combination of workmen, lockouts or other labor disturbances, or any other event, matter or thing wherever occurring, which shall not be within the reasonable control of the party affected thereby.

The party invoking an Event of Force Majeure shall (i) notify the other party in writing as soon as reasonably possible of the nature of the Event of Force Majeure and the extent to which the Event of Force Majeure suspends the affected party's obligations under this Contract; (ii) take all reasonable steps to overcome the effects of the Event of Force Majeure; and (iii) resume performance of its obligations as soon as the effects of the Event of Force Majeure cease to exist.

The parties will consult with each other and take all reasonable steps to minimize the losses of either party resulting from an Event of Force Majeure.

If any obligations of a party under this Contract are suspended under this Article for more than ninety (90) days, and provided the other party is not then in breach of any provision of this Contract, that other party shall have the right to terminate this Contract by giving the first-mentioned party at least one hundred and twenty (120) days prior written notice (or such shorter period of notice as the first-mentioned party agrees) and this Contract shall terminate on the expiry of the period specified in the written notice or agreed by the first-mentioned party (as the case may be) provided that the other party is not in breach of any provision of this Contract as at that date.

23. Final Works Plan

Not later than the date that is [five (5)] years before the expiry of the Term, the Contractor must submit to the EC a works and expenditure program for the balance of the Term that takes into account the following matters:

a. the condition of the Assets and Equipment; and

b. the expenditure which needs to be incurred in connection with the Business for the purposes of enabling it to be managed, administered and operated in accordance with this Contract for the balance of the Term.

If the Contractor has not provided a works and expenditure program as required under this Article 23 or, within thirty (30) days of receiving the works and expenditure program, the EC and the Contractor have not agreed as to the proposed works and expenditure the subject of the works and expenditure program, then either party may refer the matter to an Independent Expert.

The Contractor must implement the works and expenditure program as agreed under this Article 23 or determined under Article 26 hereof (the "Final Works Plan").

24. Termination

Each of the following events shall constitute an "EC Event of Default" under this Contract:

a. the EC makes an assignment for the benefit of creditors, petitions or applies to any tribunal for a receiver of, or a trustee for, itself or of any substantial part of its property, commences any judicial or other legal proceedings by reason of its financial difficulties under any reorganization, arrangement, readjustment of debt, dissolution, or liquidation law or statute of any jurisdiction, whether now or thereafter in effect; or there is commenced against the EC any such proceeding which remains undismissed for a period of thirty (30) days, or the EC by any act indicates its consent to, approval of, or acquiescence in, any such proceeding or the appointment of any receiver of, or trustee for, itself or any substantial part of its property, or suffers any such receivership or trusteeship to continue undischarged for a period of thirty (30) days; or there is any reorganization, arrangement, readjustment of debt, dissolution, or liquidation with respect to the EC which does not involve a judicial proceeding;

b. the franchise issued to the EC over the Franchise Area is withdrawn, cancelled, terminated, or suspended (whether in whole or in part) for a period of at least thirty (30) days, for any cause or reason whatsoever otherwise than as a result of an act or omission of the Contractor, and is not reinstated within sixty (60) days of such withdrawal, cancellation, termination or suspension;

c. the EC assigns, or purports to assign, any of its rights, benefits or obligations under this Contract in breach of Article 21 hereof or fails to assign or transfer any of its rights, benefits or obligations under this Contract as required by Article 21 hereof;

d. the EC breaches or violates any representation or warranty given by it under Article 17 hereof and such breach or violation continues for a period of not less than thirty (30) days after written notice from the Contractor to the EC of such breach or violation;

e. the EC does any act which infringes the irrevocable delegation of exclusive authority to the Contractor under Article 3 hereof and does not make good the consequences of that infringement within thirty (30) days after written notice from the Contractor to the EC of such infringement;

f. the EC breaches or violates Articles 12, 13 or 14 hereof and such breach or violation continues for a period of not less than thirty (30) days after written notice from the Contractor to the EC of such breach or violation.

If an EC Event of Default shall have occurred and be continuing, the Contractor may give written notice of the early termination of this Contract to the EC and this Contract shall terminate immediately on the date of the receipt of such notice by the EC or on such later date as is specified in that notice.

Each of the following events shall constitute an "Contractor Event of Default" under this Contract:

a. the Contractor makes an assignment for the benefit of creditors, petitions or applies to any tribunal for a receiver of, or a trustee for, itself or of any substantial part of its property, commences any judicial or other legal proceedings by reason of its financial difficulties under any reorganization, arrangement, readjustment of debt, dissolution, or liquidation law or statute of any jurisdiction, whether now or hereafter in effect; or there is commenced against the Contractor any such proceeding which remains undismissed for a period of thirty (30) days, or the Contractor by any act indicates its consent to, approval of, or acquiescence in, any such proceeding or the appointment of any receiver of, or trustee for, itself or any substantial part of its property, or suffers any such receivership or trusteeship to continue undischarged for a period of thirty (30) days; or there is any reorganization, arrangement, readjustment of debt, dissolution, or liquidation with respect to the Contractor which does not involve a judicial proceeding;

b. the franchise issued to the EC over the Franchise Area is withdrawn, cancelled, terminated, or suspended (whether in whole or in part) for a period of at least thirty (30) days as a result of an act or omission of the Contractor, and is not reinstated within sixty (60) days of such withdrawal, cancellation, termination or suspension;

c. the Contractor assigns, or purports to assign, any of its rights, benefits or obligations under this Contract, or charges, encumbers or otherwise grants any security over any of its rights or benefits under this Contract, in either case in breach of Article 21 hereof;

d. the total amount of the penalties paid and payable by the Contractor under Article 4 hereof in respect of failures during any calendar year to meet the Performance Standards exceeds the Threshold Amount for that calendar year and the EC gives written notice to the Contractor of its

intention to terminate this Contract under this paragraph (d), such written notice being given within ninety (90) days after the reports under Schedule 6 on the achievement or otherwise of the Performance Standards which pertain to that calendar year have been provided to the EC by the Contractor;

e. the Contractor fails to pay into the EC Residual Account any amount that becomes due and payable under Article 4 hereof and such failure continues for a period of not less than thirty (30) days after written notice from the EC to the Contractor requiring the payment of that amount;

f. the Contractor breaches or violates any representation or warranty given by it under Article 18 hereof and such breach or violation continues for a period of not less than thirty (30) days after written notice from the EC to the Contractor of such breach or violation;

g. the Contractor breaches or violates any of Articles 6, 7, 8, 9, 10, 11, 12, 13, 14 or 20 hereof and such breach or violation continues for a period of not less than thirty (30) days after written notice from the EC to the Contractor of such breach or violation;

h. the Contractor does not, within a period of thirty (30) days after written notice from the EC to the Contractor requiring the Contractor to pay that amount, pay an amount which is due and payable under Articles 5 or 11A hereof in accordance with that Article;

i. the amount standing to the credit of the EC Main Account (when taken together with the amount of the undrawn part of any overdraft available on the EC Main Account) is not sufficient to meet all payments due that are of a kind that may or must be paid out of the EC Main Account under Article 12 hereof and the Contractor does not, within a period of thirty (30) days after written notice from the EC to the Contractor requiring the Contractor to pay that deficiency, pay or have paid that amount (it being acknowledged and agreed by the parties that such is a Contractor Event of Default notwithstanding that the Contractor may already have paid into the EC Main Account, directly or through the release of funds from the Contractor Escrow Account, an amount that equals or exceeds the Initial Investment Amount);

j. the Contractor fails to perform any of its obligations under Articles 16 or 23 hereof and such failure continues for:

    1. a period of not less than thirty (30) days after written notice from the EC to the Contractor of such failure; or

2. for so long as the Contractor is diligently attempting to rectify that failure, such longer period (not exceeding ninety (90) days after that written notice) during which the Contractor is diligently attempting to rectify that failure;

k. there is a Change in Control of the Contractor except where, immediately following that Change in Control, the Contractor is capable of performing the obligations imposed on it under this Contract to the same standard as it was capable of performing them immediately prior to that Change in Control.

If an Contractor Event of Default shall have occurred and be continuing, the EC may give written notice of the early termination of this Contract to the Contractor and this Contract shall terminate immediately on the date of the receipt of such notice by the Contractor or on such later date as is specified in that notice.

This Article 24 is without prejudice to the liability of either party for damages as a result of a breach of this Contract by that party.

25. Liability of Contractor

Except:

a. as otherwise provided in this Contract; or

b. to the extent such claims, costs, expenses, losses, or liabilities are sustained or incurred as a result of a breach of this Contract by, or as a result of any wanton, reckless or negligent act or omission of, the Contractor,

the Contractor is not liable for any claims, costs, expenses, losses or liabilities sustained or incurred by the EC.

The Contractor shall indemnify and hold harmless the EC against all claims, costs, expenses, losses or liabilities sustained or incurred by the EC to the extent they are so sustained or incurred as a result of a breach of this Contract by, or as a result of any wanton, reckless or negligent act or omission of, the Contractor.

The Contractor shall indemnify and hold harmless the EC against all losses, costs and expenses suffered or incurred by the EC as a result of the franchise issued to the EC over the Franchise Area being withdrawn, cancelled, terminated or suspended (whether in whole or in part) as a result of an act or omission of the Contractor.

26. Dispute Resolution Mechanism

In the event that there is any disagreement, dispute, controversy, claim or difference ("Disagreement") between the parties arising out of or relating to this Contract, or the breach hereof, or in the interpretation of any of the provisions hereof, the duly authorized representatives of the parties shall endeavor to meet together in an effort to resolve such Disagreement by discussion between themselves.

Any Disagreement that is not resolved as provided for in the immediately preceding paragraph within ___ days from written notice by one party to the other to meet to resolve such Disagreement shall be dealt with in accordance with the following paragraphs.

If:

a. the Disagreement is a disagreement which this Contract provides may be referred by either party to an Independent Expert; or

b. this Contract provides that a matter may be referred by either party to an Independent Expert,

either party may give a written notice to the other party requiring that the Disagreement or matter be referred to an Independent Expert, whereupon the parties must endeavor to agree on and appoint the Independent Expert within ten (10) working days of the giving of that notice, failing which either party may request the Secretary of the DOE to appoint a suitably qualified person to act as the Independent Expert. The Independent Expert so appointed must:

a. be qualified by that person's education, training and experience to pass a reasoned judgment upon the relevant matters; and

b. not have any relationship or association with either party that might jeopardize that person's impartiality.

A decision of the Independent Expert under this Article 26 will be final and binding on the parties. Each of the parties must:

a. make available to the Independent Expert all information and materials requested by the Independent Expert for the purposes of determining the Disagreement or matter;

b. bear its own costs incurred in the preparation and presentation of any submissions or evidence to the Independent Expert; and

c. bear the costs of the Independent Expert equally.

If the Disagreement is not a disagreement which this Contract provides may be referred by either party to an Independent Expert, that Disagreement shall be

finally settled by arbitration in accordance with the (state arbitration rules), and such arbitration shall be conducted in (state place of arbitration) by a panel of three (3) arbitrators appointed in accordance with (state arbitration rules). The decision of the arbiters shall be final and binding on the parties. The parties hereby exclude and waive any right of application or appeal to any court in connection with any question of law arising in the course of arbitration or with respect to any award made. Costs of arbitration shall be borne equally by the parties.

27. Expiry or Early Termination of Term

Neither the EC nor the Contractor may terminate this Contract except in accordance with Articles 22 or 24 hereof.

On the expiry of the Term or its earlier termination, the Contractor must:

a. relinquish the management, administration and operation of the Business (including its possession or control of all of the Assets and Equipment) to the EC;

b. deliver up to the EC all records relating to the Business; and

c. cease to use, and thereafter not disclose, any confidential information relating to the Business (whether such confidential information was in existence prior to the date of the execution of this Contract or came into existence during the Term).

[Note: the Escrow Agreement in Schedule 8 will deal with the disbursement of the held Quarterly Payment.]

28. Interest on Overdue Amounts

Interest accrues on each unpaid amount which is due and payable by a party under this Contract:

a. on a daily basis up to the date of actual payment from (and including) the due date; and

b. at 2% per annum plus the T-Bill Rate in respect of the due date.

29. Miscellaneous Provisions

29.1 Amendments. – Any amendment of or to any provision of this Contract shall be in writing and signed by the parties hereto in order to be effective.

29.2 Notices. – Any notice or other communications required or permitted hereunder or otherwise in connection herewith shall be in writing and shall be delivered personally (including by courier), or sent by certified or registered mail, postage prepaid. Any such notice shall be deemed given when so delivered personally, or if mailed, upon receipt, as follows:

If to EC:

_____

_____

_____

If to Contractor:

_____

_____

_____

or at such other address as the party to whom notice is to be given has furnished in writing to the other party. A notice of change of address shall not be deemed to have been given until received by the addressee.

29.3 Entire Agreement. – This Contract (including all of its Schedules) constitutes the entire agreement between the parties and supersedes all other prior agreements and undertakings, both written and oral, between the parties. Each of the parties undertakes to execute such documents and perform such acts as may reasonably be necessary to give effect to this Contract.

29.4 Headings. – The descriptive headings of the several Articles and Sections of this Contract are inserted for convenience only and do not constitute a part of this Contract.

29.5 Expenses. – Each party hereto shall bear its own expense in connection with the preparation, negotiation, and execution of this Contract and any related document.

29.6 Third Party Beneficiaries. – Except as otherwise expressly provided herein, this Contract is not intended to confer upon any person other than the parties hereto any rights or remedies hereunder.

29.7 Severability. – The invalidity or unenforceability of any portion or provision of this Contract shall not affect the validity or enforceability of any other portion or provision. Any invalid or unenforceable portion or provision shall be deemed severed from this Contract.

29.8 Enurement. – This Contract shall be binding upon and enure to the benefit of the successors and assigns of the parties.

29.9 Confidentiality. – Except as otherwise required by law, the parties will keep the terms of this Contract and its contents confidential.

29.10 Cumulative Rights. – The rights of the parties under this Contract are cumulative. They may be exercised as often as the parties consider appropriate and are in addition to their respective rights under the laws of the Republic of the Philippines.

29.11 Waiver. – Failure of either party at any time to require performance by the other party of any provision of this Contract shall not affect the right of such party to require the performance by the other party of that provision, and any waiver by any party of any breach of any provision of this Contract shall not be construed as a waiver of any continuing or succeeding breach of such provision, a waiver of such provision or a waiver of any right under this Contract.

29.12 Survival. – The indemnities under Article 25 hereof are continuing, separate and independent obligations and survive the termination or discharge of this Contract. The rights and obligations of the parties under Article 27 hereof survive the termination or discharge of this Contract.

29.13 Governing Law. – This Contract shall be governed by and construed in accordance with the laws of the Republic of the Philippines.

Schedule 1 – Franchise Area

Schedule 2 – Performance Standards

[Note: Each performance standard must include a penalty amount that is indexed to CPI.]

The schedule will require compliance with the Distribution Code promulgated under RA 9136, subject to milestones set out in the Transition Plan (Schedule 3).

Additional performance standards may be specified.

Performance standard	Performance required	Contractual Penalties
Power quality	59.7 – 60.3 Hz steady state voltage at the connection point of any user +/- 10% of nominal voltage under normal operating conditions	
Supply reliability	The number of sustained power interruptions that the average customer experiences is less than [x] per year (SAIFI) The total time when supply is not available to an average customer is no more than [x] minutes per year (SAIDI) The total number of momentary interruptions that an average customer experiences is no more than [x] per year (MAIFI)	
Time to process supply applications		
Time to make a service connection		
Time to restore service after a fault on the		

secondary network		
Notice for planned power interruptions	At least [x] days	
Meter problems	Visit within [x] days on average	
Response to emergency calls	Within [x] hours on average	
Resolution of payment queries and complaints	Within [x] days	
Notice of disconnection for non-payment	At least [x] days	
Reconnection of supply after all outstanding payments settled	Within [x] days	

Schedule 3 – Transition Plan

[Note: It is anticipated that the Transition Plan will apply for the first three years of the Term and may:

- ***incorporate any compliance program approved by the ERC in relation to the Business under IRR, r.7.4(d)(ii);***
- ***specify certain procedures to be undertaken for responding to customer complaints, and certain quality standards to be complied with;***
- ***specify the six(6)-monthly milestones for quality and reliability criteria;***
- ***specify key staff of the Contractor or its Affiliates who are to be utilized in the management, administration and operation of the Business;***
- ***generally preclude an application for any tariff increase during some or all of the term of the Transition Plan (but provide for some exceptional circumstances in which such an application can be made);***
- ***specify an Initial Investment Amount (i.e. the total amount the Contractor must use to fund the Business) which may be reduced if the funded activities can be efficiently undertaken with less expenditure; and***
- ***include a capital expenditure plan for the term of the Transition Plan.***

It will be necessary to ensure that there is no overlap with any Performance Standards.]

Schedule 4 – Tariffs

[Note: The relevant tariff methodology is still to be provided. It must be consistent with that set out in the regulatory framework.]

Schedule 5 – Accounting Principles

The Accounting Principles will adopt Philippines GAAP, but some items require comment in the context of this Contract:

- ***The Distributable Surplus for the a Financial Year is the amount by which the revenues earned in that year exceed expenses for that year, where the expenses include interest and depreciation on the assets employed in the Business. The Distributable Surplus for the Financial Year is determined for the applicable Financial Year alone, and does not include any Distributable Surplus from prior years being carried over for any reason. Should expenses exceed revenues for a Financial Year, the source of funds for this deficit needs to be stated.***

- ***Revenues earned for the year do not include invoices with low likelihood of collection, as determined by an Independent Auditor, or invoices that remain unpaid for more than [3] months.***

- ***Expenses incurred for the year include all contingent liabilities incurred during the years (such as pension expenses).***

- ***The Distributable Cash Balance represents that portion of the Distributable Surplus for which cash is available such that the EC will remain current on all its payments following the distribution.***

- ***The tangible assets of the Business at any date are the total amount of the depreciated tangible assets at that date. The tangible assets are those assets that can be held or seen and that are capable of being appraised at an actual or approximate value. This Schedule will itemize land, buildings, fixed structures and inventory. For the purposes of this Contract, existing assets will not be re-valued.***[18]

- ***For the purposes of this contract, net tangible assets are defined as tangible assets less total liabilities at that date.***

- ***The assets that comprise net tangible assets must satisfy the "used and useful" requirement, as determined by an independent auditor.***

[18] In other words, the obligation at least to maintain the net tangible assets of the EC can not be fulfilled through increasing value of land holdings.

- ***The EC and the Contractor will agree on the opening inventory of tangible assets, and the opening valuation of those assets. An independent assessor may be employed by both parties to ensure that the assets have not deteriorated to such an extent that they would not remain fully effective for remaining lives which are in line with the remaining lives assumed for accounting for their depreciation in the accounting statements.***

- ***The EC and the Contractor will agree on depreciation rates to be applied to different classes of assets.***

- ***Net tangible assets will be assessed by and independent assessor on at least a three yearly basis to assure the EC that they are being maintained and protected by the Contractor to the extent necessary to remain fully effective for the remaining lives assumed for accounting for their depreciation in the accounting statements. The independent assessor will review all long-term service contracts to determine the full range of liabilities.***

- ***The debt service coverage ratio of the Business will be calculated as the revenues less expenses, including interest but excluding depreciation, as a ratio to the amounts required to service debt during the Financial Year, including both principal repayment and interest.***

Schedule 6 – Reporting Criteria

[Note: The reports must include reporting against the Performance Standards on at least a calendar year basis. The reporting criteria could also, for example, require the disclosure of contracts entered into under Article 9; the provision of periodic management accounts relating to the Business and of audited annual financial statements relating to the Business; details of any supply interruptions or voltage excursions and the customers affected; details of any personal injury or property damage suffered by any person (including employees and customers) as a result of the operation of the Business; total quantity of electricity delivered and invoiced each month (broken into customer categories); and periodic summary of payments into and withdrawals from the EC Main Account etc.]

Schedule 7 – Employment-related obligations

[Note: This Schedule is to contain employment-related obligations of the Contractor such as:

- ***restrictions on the maximum number of EC employees whose employment may be terminated;***
- ***the termination procedures to be followed by the Contractor;***
- ***the severance provisions with which the Contractor must comply;***
- ***the pension plan provisions with which the Contractor must comply.]***

Schedule 8 – Escrow Agreement

Contractor Escrow Account

[This agreement will need to deal with the release of all or part of the Initial Investment Amount and any escrowed Quarterly Payment, and the refund of such amounts on Contract expiry or termination before their payment to (or for the account of) the EC or the EC Main Account.]

Schedule 9 – Miscellaneous requirements

[Note: This Schedule is to contain any miscellaneous requirements such as the requirement to provide public lighting and any other specified community/customer services or obligations.]

15 DOE Letter to ERC on EC Regulation

28 November 2003

ENERGY REGULATORY COMMISSION
16th Floor, Pacific Center Building
San Miguel Avenue, Ortigas Center
Pasig City

Attention	:	Mr. Manuel R. Sanchez Chairman
From	:	Mr. Vincent S. Perez Secretary – Department of Energy
		Mr. _____ Secretary – Department of Finance
		Ms. Emilia T. Boncodin Secretary – Department of Budget & Management
		Mr. Romulo L Neri Director General – National Economic and Development Authority
Re	:	Regulatory Framework for Electric Cooperatives

Gentlemen:

With the full support and concurrence of the Department of Finance, the Department of Budget and Management, and the National Economic and Development Authority, the Department of Energy submits the attached Position Paper on a proposed regulatory framework for electric cooperatives ("ECs") for the consideration of the Energy Regulatory Commission (the "ERC").

The Position Paper highlights the need for the adoption of a regulatory framework that will enable ECs to have access to capital other than from borrowings from the National Electrification Administration ("NEA"), which has, pursuant to Executive Order No. 138 issued in August 1999, lost the ability to tap new sources of funds to lend to ECs. Moreover, the proposed regulatory framework described in the Position Paper will

encourage more private sector investment in, and participation in the management of, ECs, which is consistent with a declared State policy.

We trust that the ERC will favorably consider and adopt the suggestions contained in the attached Position Paper.

Very truly yours,

DEPARTMENT OF ENERGY

By:

VINCENT S. PEREZ
Secretary

DEPARTMENT OF FINANCE

By:

_____
Secretary

DEPARTMENT OF BUDGET & MANAGEMENT

By:

EMILIA T. BONCODIN
Secretary

NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY

By:

ROMULO L NERI
Director General

DOE POSITION PAPER ON REGULATION OF ELECTRIC COOPERATIVES

It is the declared policy of the State to, among others ensure and accelerate the total electrification of the country; ensure the quality, reliability, security and affordability of the supply of electric power; enhance the inflow of private capital and broaden the ownership base of the power generation, transmission and distribution sectors; and ensure fair and non-discriminatory treatment of public and private sector entities in the process of restructuring the electric power industry.

The National Electrification Administration ("NEA") has, pursuant to Executive Order No. 138 issued in August 1999, lost the ability to tap new sources of funds to lend to electric cooperatives ("ECs") resulting in ECs no longer being able to rely on the NEA for its financing and investment requirements. ECs now have to increasingly rely on commercial financing sources. Moreover, it is Government's policy to encourage private investment and management in ECs through Investment Management/Cooperative Strengthening Contracts. Furthermore, the Republic Act No. 9136, otherwise known as the "Electric Power Industry Reform Act" (the "EPIRA") envisions ECs changing their corporate form to stock cooperatives and stock corporations, which could be achieved through mergers, joint venture, or otherwise. There is a need for the ERC to consider and adopt new, alternative, or additional regulatory methodologies applicable to ECs to address these developments and issues.

The Department of Energy (the "DOE"), pursuant to its mandate under Section 37(d) of EPIRA to "ensure the reliability, quality, and security of supply of electric power", calls on the Energy Regulatory Commission (the "ERC") to adopt new, alternative, or additional regulatory methodologies, as authorized by Section 43 of the EPIRA, that will enable ECs to have access to capital other than from borrowings from the NEA. The regulatory regime over ECs needs to be revised and/or made more flexible to allow ECs easier access to commercial capital and to encourage more private sector investment in, and participation in the operation and management of, ECs. The current regulatory regime, which involves the setting and approval by the ERC of rates chargeable by ECs at such levels as will only allow ECs to cover their cash needs (the "Cash Needs Approach") is a barrier to ECs accessing private capital since, it aims to allow ECs to charge rates that would only be sufficient to meet interest and debt service payments, and thus may limit ECs' ability to make a margin to the point that they are not able to raise the finance they need to expand and improve efficiency. The Cash Needs Approach also does little to encourage efficiency and treats the ECs differently from distribution utilities which are stock corporations.

Since ECs differ widely in their circumstances and capabilities, a "one size fits all" approach is not suitable. It is, therefore, proposed that the ERC adopt a "multi-speed regulatory regime", which will allow the range of regulatory methodologies described below.

It is anticipated that many ECs will want to continue to be regulated under the Cash Needs Approach, which they already understand and are familiar with. However, it is expected that there will be ECs which will seek to be regulated under a new regulatory

regime which will be more supportive of private sector equity investment in, and management of, ECs.

The new, alternative, or additional regulatory methodologies that we request the ERC to consider are as follows:

A. Modified Cash Needs Approach

More flexibility in use of reinvestment funds allow commercial borrowing

The currently applied Cash Needs Approach may be modified to allow ECs to access financing from commercial financing sources by allowing ECs to achieve sufficient retained earnings to meet debt service coverage ratios, which commercial lenders will require. Under this proposed regulatory methodology, the ERC would relinquish detailed control over the present 5% reinvestment allowance of ECs so that this cash flow can be utilized to provide security for lenders in respect of debt service. The current close control by the ERC of the use of the 5% reinvestment allowance causes prospective lenders to ECs to have no confidence that funds would be able to be used by ECs to honor their debt service obligations in situations where the revenues of the ECs drop or the operating costs of the ECs increase sharply.

In lieu of such 5% reinvestment allowance, it is proposed that the ERC allow ECs to recover depreciation calculated in line with specified asset values and depreciation rate guidelines. This is explained further below.

Depreciation allowances instead of the 5% reinvestment allowance

The relinquishment by the ERC of control over reinvestment would ideally be combined with a better definition of the reinvestment needs of each EC. ECs could be required to provide, on an annual basis, standardized reports of their financial and service performance.

The ERC should consider specifying guidelines and formats for this report and should include specifications as to:

1. how the fixed assets of ECs are to be valued; and

2. the allowable depreciation rates for each class of the aforementioned assets.

Such specifications could be derived from the approach used for investor owned utilities ("IOUs"). ECs could then be allowed to recover depreciation in their rates, rather than the somewhat arbitrary 5% reinvestment allowance currently used.

Change in loss target methodology

Under the current Cash Needs Approach, ECs are only allowed to recover in their tariffs the electricity cost of combined technical (electrical) and non-technical (theft and poor collections) losses up to a maximum of 14% of sales. The EPIRA requires the ERC to make specific allowances for operating conditions of each EC pursuant to Section 36 of the

EPIRA and Rules 10 and 15 of the EPIRA's Implementing Rules and Regulations. In the interim, this can be achieved by:

1. for ECs with losses below 14% of its sales – allowing revenue to cover losses of 14% of sales so that the ECs concerned can retain the savings achieved by keeping losses to less than 14% of sales); and

2. for ECs with losses above 14% (say X%) of sales – allowing revenue to cover those losses of (X-2%) of sales.

The aforementioned guidelines may be modified following more detailed work on systems losses in the future.

Adopt a forward looking approach, to allow ECs to raise the finance required to boost efficiency and improve service

Rather than utilizing an historic test year to set the allowed revenue and, hence, tariffs, as the ERC is doing under the current Cash Needs Approach, a more forward looking approach could be beneficial. Under a forward-looking approach, ECs would file financial projections for at least three (3) years ahead, in addition to their historic accounts. The forecasts would be presented in the same format as the historic accounts, with changes in costs between historic accounts and the projections clearly identified and justified. In addition to operating costs and revenues, the financial projections should include the ECs':

1. capital development program;

2. financing plan; and

3. projected debt service ratios.

Shifting to a forward looking approach will help ECs overcome the current 'chicken-and-egg' predicament in financing new investment, which is that banks will not lend to ECs until a tariff sufficient to cover debt service is approved, while the ERC cannot (under the historic cost approach) approve such a tariff until after the bank has lent the money.

Explicitly considering the need for ECs to achieve acceptable financing ratios

ECs will be increasingly reliant on commercial lending in the future. Commercial lenders will require that ECs have acceptable Debt Service Coverage and Times Interest Earned Ratios. IF ECs do not have such ratios, they will not be able to borrow and, hence, will not be able to improve service and efficiency.

In light of this, it would be desirable if the ERC would accept the need to meet such financing ratios as a factor to be taken into account in setting rates. This would entail being willing to allow ECs to set a tariff above pure cost recovery level, where this is necessary to maintain reasonable commercial financing ratios.

Putting it together to promote efficiency and investment

If the ERC were to adopt an approach similar to that outlined in this letter, depreciation allowances will provide the basic funding required for reinvestment from the tariff revenues. The finance plan will allow for irregularities in the actual reinvestment process and for needed growth in the asset base. Taking into account the need to maintain financing ratios would ensure that the allowed cash revenue from tariffs would be set at a level that would allow for the higher of the debt amortization rate or the depreciation rate (The debt amortization rate will be higher where loan life is shorter than the economic life of an asset, and this needs to be allowed for.)

In applying this methodology, the ERC would review the financial projections submitted by an EC and ensure that the costs contained therein are reasonable. The ERC could benchmark such financial projections and costs against those of other ECs. The ERC should then set a tariff rate that will allow ECs to recover their expected costs. If, for any reason, a tariff which allows the projected costs to be recovered does not provide adequate debt service coverage ratios that would allow the investment program of ECs to be financed, the ERC may set a tariff which would allow the required debt service coverage ratios to be achieved.

B. Performance Based Rate-making Approach

ECs which aim to take more advantage of private finance and profit-driven incentives for efficiency will seek regulatory regimes which support these reforms. In particular, they may wish to be regulated in a manner similar to the Performance Based Rate-making approach recently developed for Transco, and the similar approach being developed by ERC for IOUs.

There are two (2) types of Performance Based Rate-making ("PBR") Approaches proposed:

1. the PBR – Simple Cap Approach – This would be suitable for application to ECs which can live with their current rates and need to move quickly to a regulatory regime which provides certainty and allows private sector investors and/or managers to earn returns based on performance. The current unbundled wheeling rates for distribution utilities determined by the ERC would be indexed and adjusted in the future in the manner that has been established for TRANSCO, i.e., they would be allowed to increase in line with the increase in the Philippine inflation rate, less the same required productivity "X" allowance as applied to TRANSCO revenue. The provisions for adjustment in the event of an exchange rate shock could also be applied.

2. the PBR-IOU Model Approach – This would be suitable for ECs which want to move to a PBR regulatory methodology, but which believe that their current unbundled tariff/wheeling rates would not provide a suitable starting point. It would also be most suitable for ECs which are considering becoming more like IOUs (e.g., through joint ventures or conversions to stock companies). Under this model, ECs would be allowed to opt-in to a regulatory regime which would be the same in all substantive features as the PBR

regime developed by ERC for IOUs, following a process and timetable to be specified by the ERC.

The key issue to be addressed when an EC moves to the PBR-IOU Model Approach is the regulatory rate base which is to be used for calculating the return on capital. Since ECs do not currently earn a return on rate base, simply allowing a return on the asset value of an EC could lead to a significant rate increase, which would not be desirable nor warranted. It is, therefore, proposed that existing assets of the relevant EC be valued at the value of the debt the EC holds, for purposes of calculating allowed returns. This would continue the current system under the Cash Needs Approach whereby the members of the EC do not earn a return on their current equity investment in the EC, but rather take the benefit through tariffs which are lower than they would otherwise be.

New investments made after an EC's admission to the PBR – IOU Model Approach would be included at full value, and allowed to earn a return equal to the returns earned by IOUs.

EC Choice of Regulatory Option

We would recommend that the ERC consider allowing ECs to have the choice of opting out of the Modified Cash Needs Approach and choosing to be subjected to either of the aforementioned PBR Approaches. However, once such a choice is made, it should be irreversible. Thus, once an EC selects to be regulated under a PBR Approach (from a Modified Cash Needs Approach), it cannot go back to being regulated under the Modified Cash Needs Approach.

Also, if an EC chooses to be regulated under a PBR Approach, we would recommend that it should be able to, at the outset, select either of the two (2) aforementioned PBR Approaches. If it chooses the PBR-Simple Price Cap Approach, the ERC could allow it to later switch to the PBR-IOU Model Approach. However, if it chooses the PBR-IOU Model Approach, we would suggest that it not be allowed to later shift to the PBR-Simple Price Cap Approach.

Conclusion

The DOE proposes that the ERC adopt the above-described new, alternative, or additional regulatory methodologies to be applied to ECs.

16 World Bank Peer Review Comments and Consultant's Response

16.1 Comments from First Reviewer

16.1.1 Subsidy for rural electricity service

1. The consultants recommend a general principle for subsidy - that its value should be the difference between the true cost of supplying a unit and what is determined to be a 'socially acceptable tariff'. This is okay as far as it goes, but the client would be well served by further elaboration of the design of the subsidy mechanism, for example

   a) How does one calculate a 'socially acceptable tariff'? The consultants do not justify their recommendation that it should be calculated as a multiple of the tariffs charged on the 'surrounding grid'. This issue deserves deeper consideration, which should begin by identifying the policy objectives that a 'socially acceptable tariff' is meant to achieve. If the objective is to preserve some degree of regional equity with regard to the price of power, then the consultants' recommended approach may be appropriate. If the objective is to ensure a basic minimum level of service for the poorest households, then one needs to determine willingness to pay amongst these households (and determine how to target the subsidy to the beneficiaries effectively). If the objective is for consumers ultimately to pay the full cost of supply but to protect them from the shock of large tariff increases, then a 'socially acceptable tariff' may be defined as a gradual multi-year path to the true cost of supply level.

   Response: Our report suggests that Socially Acceptable Tariffs (SAT) should de set to follow four policy objectives:

   - Recognize high cost of supply to missionary areas, and the need to establish expectation that customers in high cost areas should pay more
   - Ensure that the proposed reforms are politically acceptable.
   - Prevents the ME-UC from becoming unacceptably high
   - Preserve regional equity

   There is no obvious method to set a tariff that meets these criteria. These are for the most part subjective criteria that involve making a judgment rather than applying a formula. As such, we believe that a process through which these tariffs are introduced will play a critical role in ensuring their legitimacy. Based on this assumption, we consulted with ERC to design a process that makes an ERC final decision on SAT objective and defensible. We amended our report to thoroughly explain this process (Section Socially Acceptable Tariff8.7)

b) What form should the subsidy take? There are a range of options (one-off grants; recurrent grants; concessional financing). The choice will be determined by the policy objectives of the subsidy and by considerations of its administration (e.g. how to efficiently target the subsidy, ensure it is sustainable, how to minimize its cost).

Response: To respond to this comment we must make a distinction between the subsidy for new areas where Qualified Third Party Providers (QTPs) will deliver services, and the subsidy for existing SPUG areas.

New Areas

In new areas we are suggesting that the Missionary Electrification Subsidy will effectively buy-down the investment component of the True Cost Tariff. We are suggesting that to align the interests of the QTP with the interests of consumers, the subsidy should be paid on the basis of outputs. As such, we propose that the subsidy is paid to QTPs as an amount per connection installed.

The Socially Acceptable Tariff will be determined based on the method proposed in (Section 8.7). The Missionary Electrification Subsidy will be difference between the cost of service of the QTP and the Socially Acceptable tariff. The method for defining the cost of service of the QTP is defined in Section 3 of the proposed DOE Circular on QTPs. SPUG will assist QTPs to make a rate and subsidy submission to ERC.

The source of subsidy would be the Missionary Electrification component of the Universal Charge (ME-UC). These funds are administered by SPUG, who will disburse the funds directly to QTPs. We are proposing that the subsidy is disbursed upon submission by the QTPs of a quarterly invoice stating the number of connections installed, and the corresponding payable subsidy. SPUG will then contract a third party audit to confirm that these connections were in fact installed.

SPUG Areas

In SPUG areas, the Missionary Electrification Subsidy will buy-down a reduction in the generation rate charged to Distribution Utilities where DOE considers that the True Cost Generation Rate is above a Socially Acceptable Generation Rate. We are proposing that this subsidy is also paid on the basis of a measurable output. A possible output of generation plants is number of kWh of electricity supplied to DUs. As such, the Missionary Electrification Subsidy could be paid to NPPs on a kWh basis.

The Socially Acceptable Generation Rate will be determined by ERC based on the method suggested in (Section 8.7). The Missionary Electrification Subsidy will be the difference between the True Cost Generation Rate (as per Section 5 of the DOE Circular on SPUG. SPUG will assist NPPs in making subsidy and rate submission to ERC.

The subsidy will be paid out of the ME-UC, whose funds are administered by SPUG. There are two options for disbursing the subsidy to NPP. In either option, the NPP

will invoice the DU for an amount calculated on the basis the kWh supplied during that period, and the True Cost Generation Rate. The first option would have SPUG first verifying with the DU that the kWh invoiced was in fact supplied, and if correct, then disbursing the IPP the subsidy amount corresponding to the electricity supplied. The second option, is to have SPUG disbursing the subsidy to the NPP upon submission of the invoice to the DU, and later verifying that the invoiced electricity was in fact delivered.

To address this comment we made added Section 8 to our final report.

2. Institutional roles relating to the administration of subsidies are not clear

   a) As drafted the policy requires SPUG to make subsidy petitions to the ERC on behalf of rural electricity suppliers in unviable rural areas. The rationale for this is not clear, especially as (i) SPUG is divesting itself of its current functions (ii) private investors in rural supply will not want a government agency to be applying for subsidies on their behalf.

      Response: The suggestion that SPUG continues to play a role in making subsidy petitions to the ERC is based on the limitations by the Rules and Regulations to implement EPIRA. More specifically Rule 13 Section 3 (e) specifies that "*SPUG shall file a petition to the ERC with respect to the Missionary Electrification portion of the Universal Charge as prescribed in Rule 18 on Universal Charge*". Because we anticipate that changing these regulations is not viable at present, we made this recommendation to fit within that existing legal framework.

   b) It is not clear which institution will be responsible for determining the 'socially acceptable tariff'. The suggestion is that it would be ERC, but regulators would normally be reluctant to assume such a politically charged task, especially in the absence of guidance on the methodology to use.

      Response: We reviewed various options for assigning the responsibility for setting Socially Acceptable Tariffs.

      On the one hand, we considered that DOE could play this role because it is the agency that could best represent the social equity interests of Government. In fact, one of the key policy principles behind the SAT is that it should serve as a mechanism that leads to achieving the government's service expansion targets. DOE, however, doesn't have the legal power to set tariffs, and doesn't have the ability to make an independent judgment

      Another option would be for ERC to set SAT. ERC has the legal power and independence to set electricity tariffs, but it lacks the social angle associated with setting SAT. There are other parties that would also have an interest in SATs - end-users in new areas, DUs in existing SPUG areas, NPPs, and QTPs.

We are suggesting a middle ground solution that would create the space for all interested parties to play a role in setting SAT. Below we describe the proposed process:

i. DOE / NPC-SPUIG will make an initial estimate of a SAT. This estimate could be based on the principle of regional equity, affordability surveys, or any other objective method.

ii. DOE / NPC-SPUG will hold consultations with users in the concerned area, QTP, IPP or concerned distribution utility.

iii. DOE makes SAT petition to ERC

iv. ERC holds hearing with concerned parties. ERC could also hold consultation.

v. ERC will make a decision

vi. Affected parties would have the right to appeal decision

We have made adjustment to Section 8.7 of the final report to reflect our response.

3. How will investors be assured that the subsidy will actually be paid? The current provision that if the subsidy is not received then investors will be free to charge the true cost of supply is scant protection given the likely political and payment risks in such an event. Investors are likely to require a guarantee of future subsidy revenue.

Response: There are two risks associated with the subsidy payment. First, the risk of political interference in controlling the disbursements, and second, the risk that there are not enough funds to pay the subsidy. There are various options to remove or mitigate these risks.

The risk of political interference arises by having SPUG involved in administering the subsidy funds. One option for removing this risk is to establish a trust managed by a third party (e.g. private financial institution). This trust will have a set of operating rules that will dictate when and how much subsidy should be disbursed. Another option would be for SPUG and IPPs to contractually agree the terms of the subsidy payment. To make this subsidy contract credible to a private investor it could be backed with guarantee from DOE.

The risk of having insufficient funds to pay the subsidy could arise from insufficient funds collected from the ME-UC, or a mismatch between the timing of ME-UC fund injections and subsidy payment obligations. One option that could remove or mitigate this risk is for DOE to provide a guarantee that will it will have DOE fill the gap in case the funds are insufficient to cover all subsidy obligations.

16.1.2 Divestiture of SPUG assets

4. The policy for the divestiture of SPUG generation assets is premised on the belief that the competitive sale of 'Power Sale Agreements' will result in lower generation prices (or a lower subsidy requirement). The reality is more likely to be that generation prices (or the value of subsidy) will appear higher than it was under public ownership because the private buyers will not benefit from previously hidden cross subsidy from within NPC and because the cost of private capital will fully reflect the cost of business and political risks. This may be off-set by savings from more efficient operations, but on balance one may expect prices (or the value of direct subsidy) to increase. The real benefit of privatizing SPUG generation assets is rather that (i) the value of subsidies will be transparent and certain (ii) the new owner will have stronger incentives for efficient operation (iii) distributors will face clearer price signals

   Response: We have gathered information and opinions from private companies and industry practitioners that lead us to believe that the price of electricity supply under privately owned and managed contracts will be lower than the current true cost of SPUG's supply. Based on the SPUG Missionary Electricity Petition for 2004, we calculated that SPUG's total cost of supply is around P 14/kWh, of which P 9.4/kWh are operating and maintenance costs. SPUG's average rate is P 3.6 kWh 2004. DOE has received offers from private companies to replace SPUG's supply at rates between 5 and 6 P/kWh.

   Two of the key reasons that explain why SPUG's operating and maintenance costs are so high are: first, SPUG is running old and poorly maintained plants that increase unit operating and maintenance costs, and which run on diesel; second, there are inefficiencies in areas related to SPUG's procurement that also drive the cost up.

   The price of supplying electricity (or required subsidy) under a NPP managed plants would possibly be higher than the price currently charged by SPUG. This increase, however, would be result of introducing a transparent pricing and subsidy policy, along with reducing the true cost of service.

5. Divestiture of SPUG sub-transmission assets: the policy proposal risks leaving a rump SPUG as owner of a series of small and dispersed sub-transmission assets. If possible, better to either bundle them for sale with the generation assets or transfer them to the relevant EC.

   Response: There is a risk that SPUG ends up with sub-transmission assets that EC, Transco or any consortium of DU doesn't want to acquire them. However, the policy that we are suggesting tries to mitigate this risk.

   The policy suggests that assets should be disposed using the procedure prescribed in EPIRA, IRRs and ERC guidelines. This procedure establishes that the assets should be disposed to DUs at a value based on the revenue potential of such assets.

That is, in the case of sub-transmission assets, which have no charge associated with the services they provide, the revenue potential, and therefore the value, is close to zero. This implies that DUs will not need to pay for acquiring these assets. As such, the disposal should not be a problem, unless the asset has liabilities tied to it.

16.1.3 Rural Supply by Qualified Third Parties (QTPs)

6. The policy appears to preclude the franchise utility from receiving subsidy to serve an unviable area. The existence of economies of scale suggests there will be situations where the franchise utility may well be able to provide service at a lower cost than third parties (especially if this is one of the better managed ECs). If the franchise utility can serve an 'unviable area' requiring the least subsidy, then why should it be precluded? NB if the utility were to be eligible for subsidy (i) the procedure for classifying area as unviable would have to change, as the utility shouldn't have an incentive to declare all areas unviable (ii) it would have to ring fence the costs of the 'unviable' business.

   Response: DUs will review along with DOE and NEA which area of their franchise is unviable and should therefore be waived and open to QTPs. As prescribed by IRR Rule 14, this review will take place every September, and will include all the remote and unviable areas that cannot be served by a DU within the following three years. If the tariff that the QTP bids is above the Socially Acceptable Tariff, the area will be subject to receive a Missionary Electrification Subsidy. The logic behind offering the subsidy in this case is that it the area was first declared missionary and therefore eligible to receive missionary subsidies. As such, and based on the provisions of EPIRA and the IRRs, the DU would not be allowed to receive a missionary subsidy if the area is not declared unviable (i.e. Missionary) first.

   One option to address the point raised in the comment, and to deal with this legal barrier, would be to give DUs (either the incumbent or neighboring DUs) the option to compete with a QTP to provide services in a waived area. If the DU wishes to exercise this option, and the area is considered to be eligible to receive a Missionary Subsidy, the party that requires the lowest subsidy will be granted the right to provide services in the waived area (and to receive the Missionary Electrification Subsidy). A third party like SPUG could facilitate the process to ensure transparency and objectivity. This process will use the competitive pressure of the bidding process to drive the subsidy requirement down. One risk with this option is that QTPs loose interest in bidding if they know ex-ante that they will be competing against the incumbent DU.

   As part of the Barangay Electrification Program, DUs are eligible to receive a grid extension subsidy. As the barangay electrification program is completed over the next few years, we proposed that the subsidy should switch to household electrification. In already energized areas, households are most likely to be deterred from connection by the affordability of connection costs, such as construction of the service drop and meter purchase. In this case, it would be appropriate to support the electrification program

with a household connection subsidy. Such a subsidy can be paid out as a bounty to the utility for connecting new households.

As the subsidy regime evolves, we believe it will become increasingly desirable to unify the various subsidy programs to ensure their consistency and coherence. The medium term target (to coincide with the completion of the barangay electrification program) should be the unification of the subsidy regime into a single model, based on principles of competition for subsidy and on ensuring that access to subsidy was based on the achievement of the Government's electrification targets, rather than on type of electrification (grid or off-grid) or the recipient of the subsidy.

7. The regulatory position of QTPs should be better defined. It appears as though the intention is for the Energy Service Contract to mirror the EC's license obligations so that the QTP is obliged to perform to the same standard. However in some instances a direct relationship with the ERC appears to be envisaged. For example (i) schedule 2 to the draft contract suggests that after 5 years the QTP may apply to the ERC for a tariff review - in this instance what regulatory instrument is there to specify the procedure for tariff petition, ruling, and enforcement (ii) if the ERC is investigating a consumer complaint, does it address this to the QTP or the distribution utility?

   Response: QTPs will act as a mini-utility for unviable areas. As such QTPs will be subject to ERCs rules on tariff setting and all applicable service standard specifications on the Distribution Code (DC). In practice, this implies that QTPs will be subject to the same regulatory provisions of any other utility. However, because QTPs have a much smaller scale, the ERC and DC rules and provisions are less applicable because these were designed for larger scale utilities. To address this regulatory gap, we proposed a specific method that ERC could further develop and adopt for setting tariffs and service standards for QTPs. This method is explained in Section 8.8

   In addition we are suggesting that QTPs could apply for a rate review or be subject to the regulatory provisions set by ERC. This rate review is consistent with the reviews proposed for other non-QTP providers.

   If a customer has a complaint, he/she should first approach the QTP. If the complaint is not resolved, the DU could intervene and ERC could be used as a last resort.

8. The policy and draft contract are geared towards medium sized private QTPs. Will the same arrangements apply for small scale community electricity supply schemes (very small schemes e.g. 30-40 households / 10 kW can often be viable). Complete deregulation should be considered given the costs of contracting and regulatory compliance relative to the total costs of such schemes.

   Response There is a threshold of 0.5MW below which QTPs will not be regulated. See #16 in ERC Guidelines.

9. A QTP investor will not be satisfied with the proposed payment upon termination of the ESC following a distribution utility event of default. They will expect the value of the

termination payment to be greater than the market value of the assets, because the termination payment is should be a disincentive to intentional default by the utility

Response: During our study we did consider this issue in the context of various options for the termination of the ESC. However, our reasons for settling on the payment of (only) market value were as follows:

- The QTP has the option of requiring the DU to purchase its assets, i.e. while the DU may deliberately breach the ESC it cannot be assured of taking the QTP's assets because the QTP may well choose to continue operating the business (and not terminate the ESC), or to sell its business to a third party (e.g. as where the mini-grid can be dismantled and moved to another area or the third party can obtain authorization from the ERC to take over the QTP's operations)

- The QTP can still sue the DU for damages for breach of contract (whether or not it terminates the ESC) (art. 16, second last paragraph), and so can "top up" the market value it receives should it choose to terminate the ESC and compel the DU to buy its business at its market value

- The use of market value, while not providing a positive disincentive to the DU to breach the ESC, should at least have a neutral effect, i.e. the distribution utility will not be able to acquire the QTP's business at an undervalue.

- Most of the DU events of defaults are ones that the DU would not deliberately engineer (i.e. insolvency-related events or franchise cancellation, termination or suspension), that would only arise in unusual circumstances (i.e. assignment-related defaults), or that relate to basic warranties of a factual nature that need to be established at ESC signing (see art. 15(a)-(d)). The only one that poses a practical risk from this perspective is where the DU deliberately infringes the QTP's right to provide exclusive service for an initial period (art. 15(e); see also art. 10). However, even this kind of breach is unlikely to occur because the reason for the ESC being awarded in the first place is that the DU cannot viably serve the area which is served by the QTP and because a third party cannot serve that area without the ERC's authorization.

- The "quid pro quo" of any requirement for the DU to pay above market value on DU default would be that, in the event of the QTP breaching the ESC and not remedying that breach within the requisite cure period, the DU should be given the option of requiring the QTP to transfer its assets to the DU at less than market value (this would then be a disincentive for the QTP to breach the ESC) – however, this will be of even more concern to QTPs (and their financiers) because the list of potential QTP events of default is much greater than the list of potential DU events of default and because such a provision would give the DU the incentive to rigorously scrutinize the QTP's operations to identify potential defaults and not to allow any "lee way" for their rectification.

16.1.4 Investment Management Contracts

10. The policy and contract envisage a situation where an Operator-Investor is able to turn around an EC so it is able to finance its investments and generate a surplus. This may be a solution for ECs that are on the margin of profitability, but what about solutions for the ECs with worse financial prospects? Is it possible to have an arrangement where an Operator is paid to reduce losses (even if is not reasonable to expect a surplus)?

    Response: Indeed, the IMC is not expected to work from the outset for all ECs. ECs could be segmented into three groups. First, a group of relatively well operating ECs which are making a profit and would not see a substantial value added from entering into IMCs. Second, a group of ECs which are close to being profitable, and to whom an IMC would be a viable option for improving managerial and financial performance. This is the segment that was defined as the target for the IMCs and hence for the scope of our study. Third, a group of poorly performing ECs which are in a chronic state of financial distress.

    This last group of ECs could benefit from alternative reforms such as merging with neighboring ECs to increase the scale of their operations and possibly reduce unit costs; consider other PSP options like de-mutualization; converting into joint stock companies; or seeking greater capital subscriptions from their shareholder base. We believe that all these are credible options that should be seriously explored as part of a subsequent EC performance improvement study. As such, we are suggesting that this study is considered as part of the implementation action plan in Section 0.

11. The IMC approach is rather innovative and investors may therefore be reluctant to put much capital at risk until the business model is proven. Is the expectation that the initial IMCs will have relatively small investment obligations?

    Response: As part of this study we conducted an initial assessment of the interest of private sector in pursuing IMC transactions. More specifically we had one-on-one meetings with Aboitiz Power, CEPALCO and PEPOA. The response that we got was that private sector was very interested in the IMC concept. In fact, there are already companies that are pursuing IMC deals in the power sector. This demonstrates a strong market appetite.

    In addition, because the investment required is relatively small (e.g. around US$5 mill) we anticipate that most of the investment will be made with equity injections rather than debt. As such, the structure of the transactions and its risk profile will not always have to pass the close scrutiny of commercial lenders.

12. The most interesting content of the draft IMC is delegated to annexes to the contract which have not yet been drafted, in particular (i) Schedule 5 (which is called 'accounting principles', but will it seems specify the formula for calculating the Operator-Investors remuneration and therefore its incentives to improve operational efficiency and make new investment), and; (ii) Schedule 3 'Transition Plan' which will specify investment

obligations of the Operator-Investor. It would be useful to elaborate further the principles for each of these schedules.

Response: We added to Schedule % of the model IMC more information on regulatory principles.

16.1.5 Governance of Electricity Co-operatives

13. The inception report identifies poor governance of Electricity Cooperatives as a root cause of their poor operational and financial performance. However the draft final report does not include discussion of actions to improve EC governance such as re-defining functions and appointments of EC boards; allowing ECs to convert to stock cooperatives and seek new equity infusion; allowing (or requiring) EC mergers;

Response: Governance is a key determinant of poor EC performance. Some of the most important weaknesses include:

- boards members and managers are not motivated to seek innovative solutions
- Managers are not interested to engage in conflict with trade unions as a result of staff reductions resulting from cost reduction initiatives
- The process for appointing board members doesn't provide for proper rotation

Addressing these issues is critical to improving performance of ECs, but these were not part of the scope of our study. We have included these actions as part of the Implementation Action Plan in Section 0.

16.2 Comments from Second Reviewer

16.2.1 Overall approach

The overall approach of the new regulatory framework appears to be very sensible. In particular, the study acknowledges the constraints of the current structure, and offers a realistic approach to improve the current conditions through a gradual introduction of private sector participation and competition, accompanied by a regulatory reform, placing the current players (particularly the coops) under a more rigid regime. This approach seems to be adequate, more dramatic reform of the current market structure would probably not be realistic.

The challenge, however, will be in its implementation, which will require a long-term commitment of the Government and willingness to resist to the political pressures of those RE players that might lose from the current situation (less efficient coops etc.). For example, experience in some other countries with a strong coop structure (one country I know is Bolivia) shows how difficult this reform can be and the great resistance and ability of the coops to circumvent the reform attempts.

16.2.2 Structure/presentation

I liked the practical approach taken in this study, combining the conceptual vision, with drafting concrete policy, regulatory and legal documents so that the framework does not remain a theoretical, conceptual study, but is ready to be put in practice.

I have found in particular the first (inception) and the second (options) reports to be particularly interesting, with a very good description of issues and analysis of possible solutions. The final report presents the selected solutions, which are then transformed into draft policy documents and reflected in the model contracts. Although I would not want the consultants to repeat the analysis carried out in the earlier report, in some cases, it would be helpful to provide explanations why a certain option was chosen and what other alternatives were considered (for example bidding on basis of a tariff instead of subsidy required etc.).

Response: We have significantly restructured our final report to include an explanation of the issues faced, options considered, and rationale for our recommendations.

16.2.3 Some specific questions about the framework

Electricity Cooperatives. The new framework will open new opportunities for more efficient and pro-active cooperatives (access to market credit, possibilities for expansion), but it will be particularly challenging for the less efficient coops. In other words, there will be winners and losers. What will be the strategy for the weaker coops that might face an actual deterioration of their financial situation, with possible negative implications for the continuity of the service? While IMC appears to be an interesting instrument, it will probably be applicable only for a minority of coops? those that are willing to reform and at the same time are interesting for the private sector. Less efficient and politically managed cooperatives are not likely to be in that category.

Response: See answer to question 10 above

Investment Management Contracts. In this respect, is there an indication of an interest of the private sector in this instrument? While I find it very appealing, I was wondering what are the perceptions of the risks by the private sector to enter into contracts with coops (where political interference has been acknowledged as a problem) in a relatively weak (untested) regulatory environment.

Response: See answer to question 11 above.

Subsidies. The final design of the subsidy framework is not completely clear to me. A more thorough description of the overall framework in the final report would be very useful. These are some of the questions that come to my mind.

- Will coops be eligible for subsidies to expand their network, where expansion is economically unviable on its own or is the subsidy targeted only for the new areas (SPUGs, and QTPs)?
- The earlier reports talk about output-based subsidies, is this concept still valid, and is there an indication of how the outputs will be determined
- The final report seems to indicate that the contracts will be awarded on the basis of the lowest tariff, with a pre-determined "social" subsidy.
- If Government will continue to subsidize O&M, how will the sustainability be ensured?
- Will there be enough funds for ongoing subsidization and needed expansion?
- The document indicates that it is expected that this subsidy should decline as the grid grows? would this be determined ex ante or negotiated on basis of the actual expansion.
- Would the operators have mandatory expansion targets?

Response: We have answer most of this question in a new section the report called Output-based aid. See Section 8.

16.2.4 Implementation

It seems to me that an implementation of this framework will be quite challenging and will require a long-term political commitment of the Government, and willingness to face political pressures. The continued dialogue with the Government will be needed. I suppose that the new Bank APL project should take care of this.

At the same time, a successful implementation of this framework will require an enormous capacity-building effort for all stakeholders? Government agencies, particularly the regulator, coops, private sector providers, local authorities etc. Has any capacity-building plan been prepared? also I assume this part will be covered by the Bank project.

Response: Capacity building is a key element of implementing this framework. Various capacity building activities have been added to the Implementation Action Plan in Section 0. In addition, as part of this study we trained ERC on the rationale and scope of the proposed reforms. The transaction advisors for the IMCs, and PSP on SPUG will also be responsible for training ECs, and other relevant parties on the key elements of designing, executing and managing a PSP transaction.

I was also wondering to what extent the broader stakeholders have been consulted on this framework, mainly the coops and the potential private sector, and what have been the preliminary reactions.

Response: This framework has been developed in close collaboration with SPUG, DOE and ERC. Representatives of ECs and private sector were present during the workshops were the main decision were taken. We would expect that ECs and private sector will have a more active role as the design of the transactions is further refined, and as these are executed.