



Funding Capex in the Electricity Transmission & Distribution Sector



- A Caribbean Dilemma





Presentation Highlights

- Main Focus
- Introduction
- Significance of Capex
- Assessment of Capex
- Models for Funding Capex
- Concluding Remarks



Paper Focus

- This paper focuses on the important issues pervading the funding of capital expenditure (Capex) in the electricity T&D sector.
- It seeks to encourage discussions on the appropriate strategies regulators ought to consider in capex determination.
- It challenges Caribbean Regulators to think outside the box by highlighting possible models that can be considered in financing capex.



Introduction

- Investment in capex is the only way electricity service providers can continue to enhance service performance and delivery.
- The region as a whole has been plagued with a history of slow capex in renewals and expansion, which has been constrained by limited financial resources, and the pervasiveness of many companies being owned and controlled by the State.



Significance of Capex

- The capex expansion projects must be on the minds of each regulator since the region is already approaching full capacity in electricity generation and distribution.

Significance of Capex

Country	Installed Capacity (MW)	Electricity Production (GWh)	Growth in Real GDP (%) 2002	Growth in Real GDP (%) 2004
Antigua & Barbuda	27	99	2.1	1.0
Bahamas	401	1660	-	-
Barbados	210	860	(0.5)	3.0
Belize	43	147	-	-
Dominica	14	81*	(4.7)	1.0
Grenada	32	153	(0.5)	4.5
Guyana	308	914	(0.5)	2.4
Haiti	244	470	-	-
Jamaica	816	2934	-	-
St. Kitts & Nevis	20	100*	2.1	2.4
St. Lucia	66	287*	0.4	2.0
St. Vincent & the Grenadines	16	85*	1.1	2.8
Suriname	389	1483	2.8	5.3
Trinidad & Tobago	1417	5643	7.9	6.5
TOTAL	4003	14916		



Assessment of Capex

- When making rate determinations, it is critical that Capex be properly assessed prior to its allowance.
- The following principle tests must be used:
 - Test of Prudence - backward looking
 - Test of Efficiency – forward looking



Assessment Principles

- **Prudent** implies using good judgement in making investment decisions using the best information at the time and with the intent of safeguarding one's own interest or the interest of others.
- **Efficient** means undertaking of investments to achieve a specific purpose effectively without wasting time, effort and expense.



Assessment Principles

- Regulators must be convinced that proposed capex plans of the electricity (T&D) service providers are:
 - ✓ consistent with its business strategies;
 - ✓ that estimates are reasonable, rigorously developed and data-driven using the best information at the time;
 - ✓ that adequate capacity and mechanisms are in place to undertake projects, including efficient procurement mechanisms;



Assessment Principles

- ✓ that project benefits are clearly know and well articulated so that monitoring of such deliverables would be encouraged by beneficiaries themselves; and
- ✓ that proposed capex levels are appropriate to deliver service standards particularly those defined by the Quality of Service and Environmental Standards set by the regulators.



RIC's Experience

- Both tests of prudence and efficiency were used in considering T&TEC over TT\$3 billion (US\$521Mn.) capex programme.
- Additionally, a consultant was procured to provide an independent assessment of T&TEC's proposed capex.
- This tends to add credence to the regulators capex determination.



RIC's Experience

- When assessing capex, items were disallowed on the following bases:
 - 'Ring-fencing' of all government driven economic policy projects
 - Excision of all street-lighting and rural electrification projects
 - Excision of all projects lacking proper planning and justification



RIC's Experience

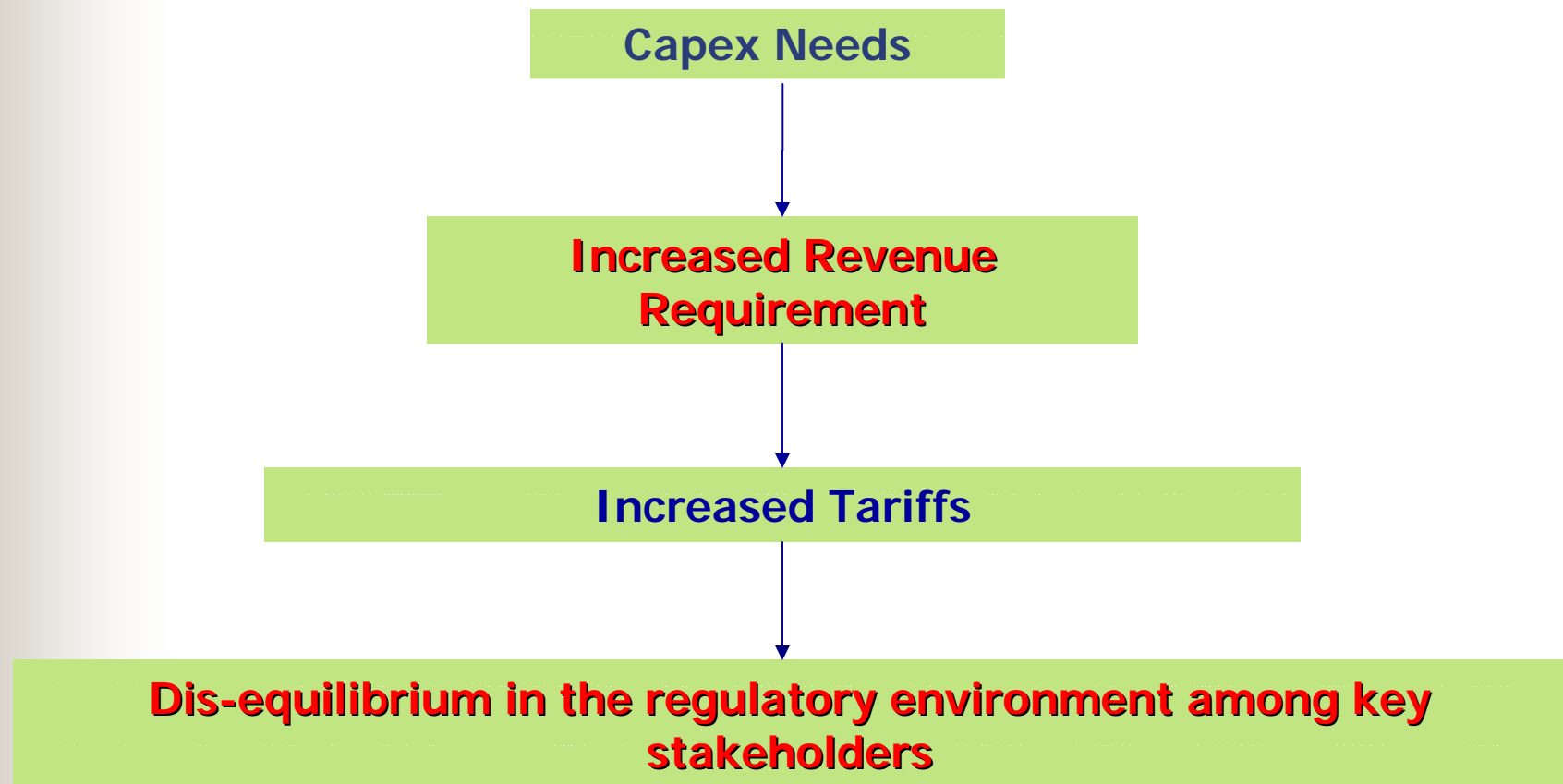
- The result was a Disallowance of over TT\$2 billion (US\$331 Mn.) from T&TEC's proposed capex.
- This amount will have not impact on customers bills.



RIC's Experience

- At least for this first electricity price control period, the RIC will monitor annually any divergences and encourage consumers to become vigilant in the delivery of projects.
- This is not an attempt at micromanagement but rather to provide an early warning mechanism for underperformance.

Funding Capex





Funding Capex

- A new paradigm shift is needed as regulators rethink the issue of funding capex in our region.
- We need to find creative ways of allowing our respective service providers the necessary funding for capex programmes, without reliance to government spending.



Funding Capex

- Private Sector Participation (PPP) in the funding of capex needs to be vigorously encouraged.
- The objective of PPP include:
 - Improving the quality & cost control of public services;
 - Accelerating the construction of infrastructure to maintain growth and employment;
 - Improving the fiscal equilibrium;
 - Transferring of expertise in the management of technological innovations; and
 - Simulation of capital markets and private industries in the infrastructure sector on a national scale.



What Do Investors Expect

- Key factors influencing Private Sector Participation in Investment in T&D are:
 - Overall Country Status;
 - Regulatory Environment;
 - Laws and Legal System;
 - Condition of the Target Company;
 - The Tendering Process;

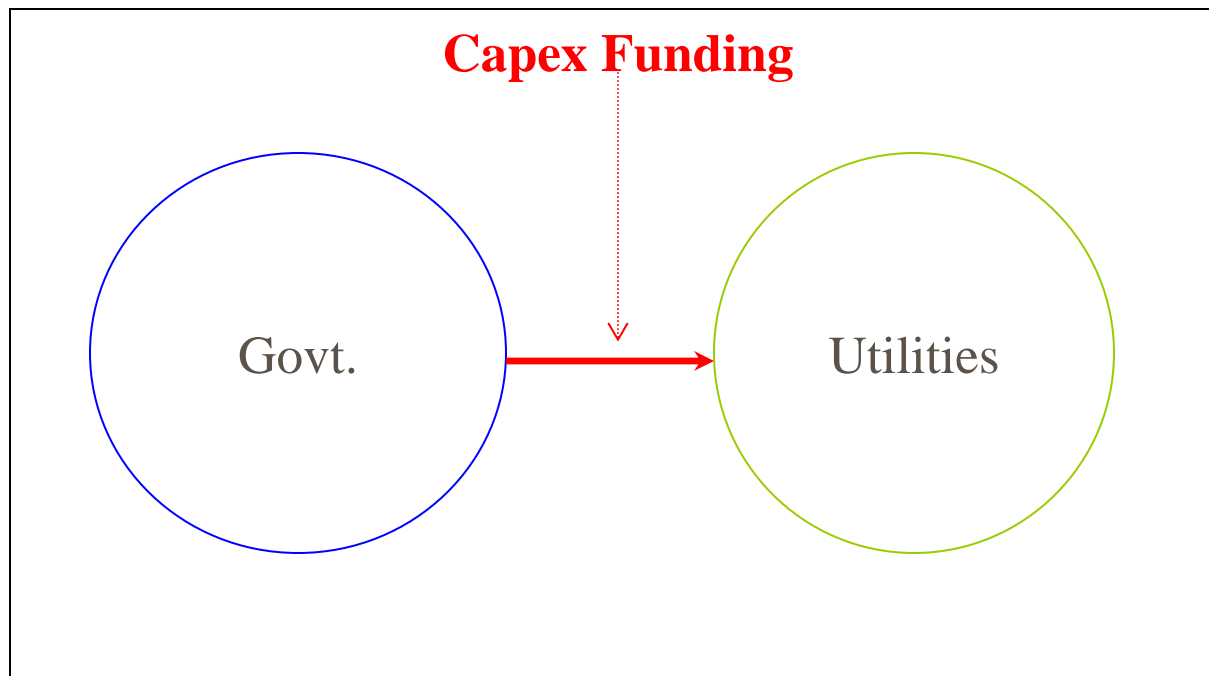


What Do Investors Expect

- Resource Availability
- Likely Financial Performance; and
- Features of the Investing Company

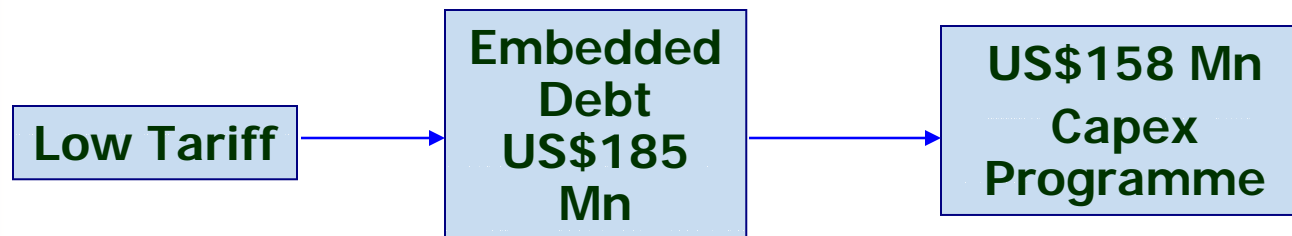
Which Model to Choose

- The Inherited Model

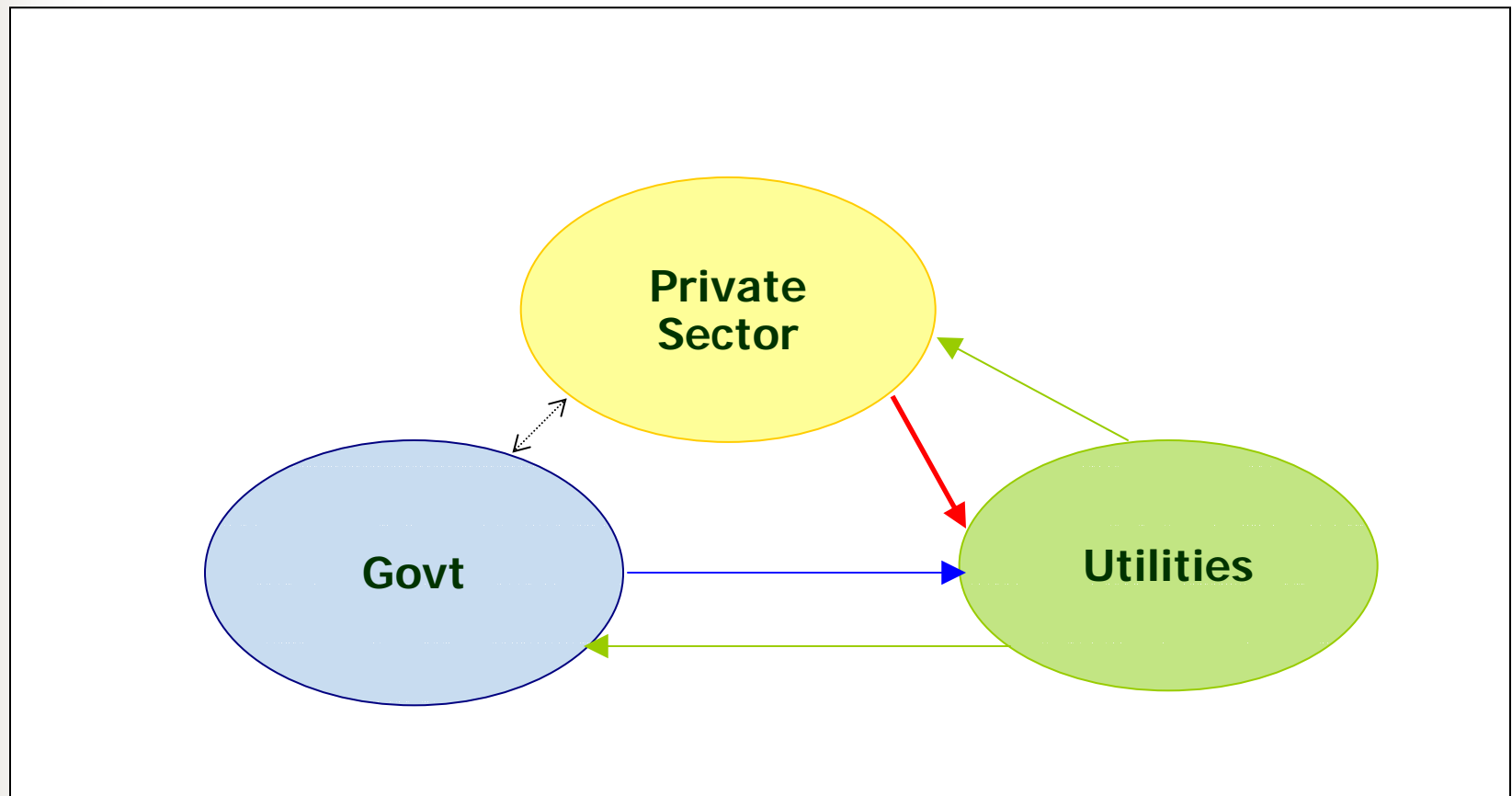


The Inherited Model

- Evidence of Model Failure
- T&TEC had no rate review in 13 yrs



Private Sector Participation Model





Private Sector Participation Model

- Some of the Structural Forms that facilitate private partnership in the provision of public/utility services include the following traditional models:
- Design, Build, Finance, Operate (DBFO);
 - BOT (Build own Operate & Transfer);
and
 - ROT (Rehabilitate Operate & Transfer).
- Design, Build and Operate (DOB);



Models for Funding Capex

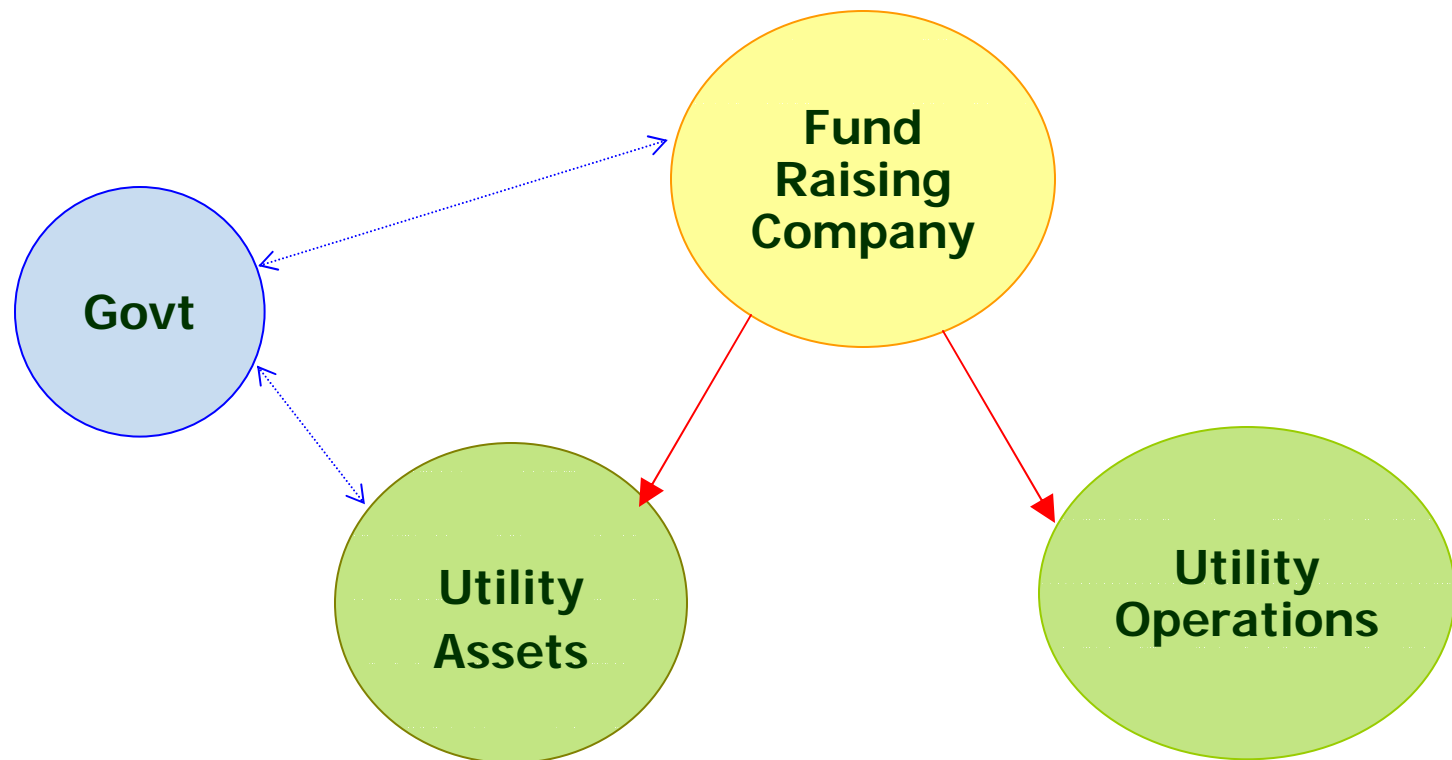
- Management and Affermage type Contracts;
- Service Contracts.
- The Key to choosing the best private sector capex funding option/model is to ensure:
 - A clear transfer of project risk to the private sector;
 - A well prepared terms of reference; and
 - A tight public control to ensure that social goals are met.



New Challenge

- Regulators can consider a bold initiative in capex funding.
- Essentially, the aim is to eliminate the resource to govt. funding especially for capex.
- As well, it should benefit consumers, in the form of lower prices.

Restructuring Model





New Challenge

- Separation of electricity T&D assets from operations and forming 2 companies.
- The Fund Raising Company can finance future capex needs by raising high quality bonds.
- Usually these bonds are raised at lower costs since as a result of the lower risks associated with this type of arrangement.



New Challenge

- This will result in a reduction in the utility's cost of borrowing thereby reduce the tariff impact on rate payers.
- This approach can preserve the national patrimony, so that regional governments are spared the typical criticism of “selling out to foreign interests”.



New Challenge

- Aspects of the operation business can be outsourced on a competitive basis and this also ensures reduced lower cost of borrowing.
- Its important that output/service targets are well articulated during the tendering process and remuneration are tied to such performance targets.
- Ensure Regulatory Certainty & Consistency, as this will give bond investors confidence and this reduced risk will cause a reduction in prices.



Success Story - DW Welsh Water Company

- Glas Cymru acquired Welsh Water in May 2001 through a bond issue of £1.9 billion
- Glas Cymru is effectively the holding company of Welsh Water
- There are no shareholders, no capital shares, therefore no dividend are paid
- A common board of directors oversee both holding and utility companies



Success Story

- The company exists only to provide value water & sewerage services to customers.
- Two interdependent strategies to achieve this sole mission:
 - Offering high quality credit to bond investors to secure financing
 - “Value chain” through working with distinct enterprises to deliver high quality services



Achievements of New Model

- Ranked #1 water company in England & Wales
- Delivery of £1.2 billion capex programme, with key regulatory targets achieved on time & within budget
- Reinvestment of £41 million capex efficiency saving to accelerate work in key areas of service improvements
- Voluntary rebates on consumers bills worth £23 million – through lower cost of capital efficiency savings
- Financial reserves increased to £400 million (15% of RAB)



Concluding Remarks

- Caribbean regulators and policy makers need to fully examine such Restructuring Models
- For possible modification and adoption to meet our individual circumstances
- For the elimination of reliance to public purse for funding capex in the electricity T&D sectors.



Concluding Remarks

- It is hoped that the efficiencies to be gained from these Restructuring Model arrangements would ultimately redound to the benefit of customers throughout our region, especially in the form of lower prices.

Thank You



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