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12TH ANNUAL BARBADOS FAIR TRADING COMMISSION LECTURE

*Regulating Utilities in Small Island Developing States –
Lessons for the Caribbean*

by

Dr. William Warren Smith
President
Caribbean Development Bank
at the
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Rockley, Christ Church
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12th Annual Barbados Fair Trading Commission Lecture

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INTRODUCTION

It is an honour and privilege to have been invited to present this 12th Fair Trading Commission Lecture.

The preceding 11 Lectures delivered at this forum have added significant value to the development discourse in Barbados. Let me acknowledge the Commission's role in the successful staging of this event over the years.

Tonight, I wish to speak to you on the topic, "*Regulating Utilities in Small Island Developing States – Lessons for the Caribbean.*"

Ladies and gentlemen, it is not my intention to treat you to an expert discourse on the regulation of economic sectors.

I am, first and foremost, a development banker. And I will be staying very close to my comfort zone on this subject matter.

The core business of my employer, the Caribbean Development Bank (CDB), is development. These days, my CDB colleagues and I are preoccupied with determining how the Bank can contribute meaningfully to "ending poverty in all its forms everywhere"¹ in the Caribbean by the year 2030.

In addition to poverty, other challenges which need attention are the attainment of an inclusive and equitable quality education; access to affordable water and sanitation; and access to affordable, reliable and sustainable energy for all of our people.

I have just identified four of the 17 sustainable development goals (SDGs) recently adopted by United Nations' member countries. The SDGs are part of the new global agenda to end poverty, protect the planet, and ensure prosperity **for all** over the next 15 years.

For us to realise our aspiration to end poverty in our region by 2030, Caribbean countries will need to make the shift from current *incremental* rates of growth of 1-1.5% to *transformational* rates of growth of at least 5-7% per annum!

To sustain growth rates at such high levels, our region must also achieve an equally *transformational* overhaul of its business environment!

I hardly need to repeat to this audience that a stable macro-economic framework, balanced fiscal accounts, a competitive exchange rate, and sustainable debt dynamics are indispensable but insufficient conditions for dynamic economic growth.

¹ Goal 1 of the United Nations' Sustainable Development Goals

There will be several other business-friendly reforms that will be required; and these are succinctly captured in the World Bank's "Doing Business" Report and the World Economic Forum's "Global Competitiveness Report."

An important reform relates to the creation of efficiently-run, world-class utilities, providing reliable and competitively-priced electricity, telecommunications and water services.

Improving the business environment also calls for effective regulation. A cursory perusal of the literature readily confirms, that, on the matter of regulation of industry, there is very little unanimity.

My own philosophical position on the subject would perhaps be close to that of noted financial journalist and author of "The Wisdom of Crowds," James Surowiecki, who believes that:

"If we want our regulators to do better, we have to embrace a simple idea: regulation isn't an obstacle to thriving free markets; it's a vital part of them."²

My presentation this evening, therefore, is built on the premise that regulation and effective regulatory frameworks are essential building blocks for the transformational growth performance we envisage for the Caribbean over the next 15 years.

My focus will be on utility regulation in three sectors – electricity, water, and telecommunications/ICTs. The preponderance of my presentation will relate to the electricity sector given my own background and CDB's experience.

I will begin my presentation by examining the rationale for regulating utilities.

This will be followed by a discussion of what constitutes effective regulation and some of the challenges which small island states like those in the Caribbean will experience in measuring up to these standards.

The section on key elements of effective regulation provides the backdrop for a review of the evolution of utilities regulation in the Caribbean and the different approaches which have been adopted in individual countries and among groups of countries.

I then turn my attention to an examination of the evolution of the economic sectors and the utilities which operate in those spaces. The intention here is to determine the role of regulation in assisting these utilities to adapt to technological and other changes emerging in their environment.

I will close with some reflections on lessons learnt from the experiences with utility regulation in small island developing states.

² Surowiecki, James: The New Yorker, The Financial Page, June 14 and 21, 2010 Issue

WHY REGULATE UTILITIES?

Before I proceed, I think it is important to answer the basic question “*why economic regulation in the first place?*”

As you are aware, utilities exhibit public good characteristics, and qualify as natural monopolies because larger scale operation yield better returns and cost efficiencies for the consumer. In these circumstances of ‘market failure’, where markets may not operate effectively or efficiently to maximize the interests of consumers, there is need for economic regulation. Economic regulation can help to ensure that the prices paid by consumers are reasonable and reflect the efficient costs of providing on-going and reliable services.

In other words, economic regulation corrects for market failure and allows for the regulated industries to mimic competition. In this context the job of the regulatory agency is to balance the interest of consumers, who seek the lowest price and best quality of service; the interests of investors who seek to have a predictable environment, a fair return on investment and a level playing field; and the interests of the government, which promotes policies that ensure sustainable development.

I do share the evolving view that, in the context of the rapid changes in the regulated industries (especially in the electricity and telecommunication/ICTs), there needs to be a shift in emphasis towards ‘enabling’ rather than simply ‘correcting’ market failure as the critical role of the economic regulator’. I will return to this perspective later.

EFFECTIVE REGULATION

Let us now examine this concept of “effective regulation.”

The established paradigm for effective economic regulation reflects governance arrangements that are sufficiently robust to provide protection for private investors as well as consumers. These arrangements should also be securely located in economic, political, constitutional and legal frameworks of individual countries.

The “independent regulator model” is now accepted globally as the “best practice” model of governance for effective regulation. Empirical evidence shows that when this governance model is adopted in both law and practice, it leads to better performance of the utilities sector³.

In a Caribbean context, the rationale for economic regulation is evident; however, the independence of the regulatory agency, particularly from the standpoint of the effectiveness of the role, is worthy of special attention.

There are 10 key principles of the independent regulator model which are considered to be best practice. These principles are: independence; accountability; transparency and public participation; predictability; clarity of roles; completeness and clarity in rules; proportionality; requisite powers; appropriate institutional characteristics; and integrity.

The World Bank, in its 2006 “Handbook for Evaluating Infrastructure Regulatory Systems”, identifies the key characteristic of the independent regulator model as its decision-making independence.

³ Brown, A. et al: Handbook for Evaluating Infrastructure Regulatory System, 2006.

The Handbook elaborates that ‘institutional building blocks for decision-making independence are organisational independence, financial independence, and management independence’⁴.

In the Caribbean, we have several examples of regulatory agencies that are financially independent. These include the Regulated Industries Commission in Trinidad and Tobago; the Public Utilities Commission in Belize; the Office of Utilities Regulation in Jamaica; the Utilities Regulation and Competition Authority in the Bahamas; and the Eastern Caribbean Telecommunications Authority.

Is the concept of the ideal independent regulator model, in its pure form, a practical one for small states like those of the Caribbean with small population size and limited resources and capacity?

It has been argued that the very nature of a small state with strong social community networks poses a constraint to preserving the essential attributes of independence.

Additionally, effective regulation requires the availability of an adequate pool of competent technicians, capable of complex analyses for the industries being regulated, skills which might be relatively scarce in a small state.

The skills required in an independent regulatory body include the capacity, for example, to competently perform key functions of tariff-setting, license issuance, performance monitoring and effective market oversight.

Usually these skills reside with the utilities themselves and in small states, are not readily available to the regulator. The cost of acquiring these skills is also often considered high by governments.

However, with the industry setting the pace and calling the shots, a credible regulator must be as skilled as if not more so than the “regulate”. This prerequisite provides some degree of protection from the concept of regulator ‘capture’ by the regulated industry because of a lack of capacity and expertise on the part of the regulator. This phenomenon ultimately manifests itself in a reversal of roles.

EVOLUTION OF UTILITIES REGULATION

Dedicated regulatory agencies have only emerged in the Region since the mid-1990s. Previously, the functions for utilities were discharged by government ministries. Today, several CARICOM countries have multi-sector and single sector regulatory bodies.

Barbados holds the distinction of having the first independent regulatory agency in the CARICOM with the establishment of the Public Utilities Board in 1955⁵.

A recent study by the Asian Development Bank⁶ concluded that the long history of independent regulation of the electricity sector in Barbados is a key reason for the evolution of the Barbados Light and Power as an example of a well-run electric utility in the Caribbean.

Barbados was also the first British colony in the Eastern Caribbean to introduce electricity.

Belize established its Public Utilities Commission in 1999.

⁴ Ibid

⁵ Carter, H. 2012: The Role of Government in the Development of the Electricity Service in Barbados, 1911-1980, pages 8-10

⁶ Asian Development Bank, 2014: The Effectiveness of Electricity and water Regulation in SIDs: Case Study – Barbados

The evolution of the electricity sector in Belize is particularly interesting. CDB commenced operations in the electricity sector in that country in the early 1980s, with the Belize Electricity Board. That was just the beginning of a long relationship that still continues to this day.

I recall several interventions that were done, in those early days, in close collaboration with the World Bank. Some key reforms were rolled out as consumers demanded improved service reliability, lower prices, and an expansion of coverage to rural areas.

This desire for efficiency improvements required that both financial and human capital inputs be provided to the industry on an urgent basis.

At the time, many Caribbean countries, including Belize, had limited access to commercial financing; and, given its own fiscal constraints, Governments were not in a position to undertake the required investments for sector transformation.

The reform agenda, therefore, sought to achieve the desired efficiencies through liberalisation, corporatisation, privatisation and the introduction of some level of competition and regulation of the sector.

The Belize Electricity Board was corporatised and became the Belize Electricity Limited in 1992. Utility operations were “unbundled”, with generation increasingly being undertaken by independent power producers. Under a “take-or-pay” contract with a private entity, Belize Electric Company Limited, hydro was used to produce electricity. Later, and with financing from a consortium of senior lenders, including CDB, the sugar industry used bagasse to produce electricity, some of which was sold to the grid. Also, Belize Electricity Limited imported electricity under a cross-border arrangement with the government-owned utility in Mexico. The Belize Electricity Limited then, had effectively become a transmission and distribution company, systematically reducing the need for substantial investments in generating plant.

The Government of Belize recognized very early that, in an increasingly complex operating environment, effective regulation of the sector was critical. The development partners provided the support necessary for the establishment of the regulatory framework, including the Public Utilities Commission.

In the Eastern Caribbean, the establishment of a sub-regional regulator is also worthy of note. The issues of small size, limited resources, and capacity constraints underpinned the attractiveness of this approach. The original proposal for the Eastern Caribbean Energy Regulatory Authority as a sub-regional regulator has subsequently been revamped with the creation of the Eastern Caribbean Energy Regulators’ Agency, with lean-structured national regulators established in each participating country. In this way, it is proposed that much of the research, technical, analytical work to advise on tariff setting, and industry performance would be provided at the sub-regional level, while the enforcement actions would be carried out by the national regulators.

EVOLUTION OF THE ELECTRICITY SECTOR

I now turn my attention to the evolution of the economic sectors and the utilities which operate in those spaces. The objective here is to identify some of the opportunities and challenges which these sectors face and the role which the regulatory entities will have to play in facilitating their transformation and growth.

We begin our examination with the electricity sector.

Electricity is regarded as “the lifeblood of modern society”, providing lighting, cooling, heating

and motive power for personal use and production. Further, electricity is necessary to support the services of other utilities. In fact, the promised benefits of ICTs to, *inter alia*, increase productivity, increase access and equity in education, reduce poverty, and boost economic growth are unlikely to be achieved without reliable and sustainable electricity supply.

Similarly, the expansion of water production and distribution facilities to address water scarcity and support population growth and expansion in agriculture production will require an adequate, reliable and sustainable electricity supply.

We are satisfied that growth prospects in our region can be improved if energy costs are lowered and there is less of the historical volatility in the pricing of electricity to consumers. But, as indicated in a recently published IMF Working Paper entitled “Caribbean Energy: Macro-Related Challenges”, this is not a panacea for solving Caribbean growth problems⁷. The macro-economic and doing business reforms referred to earlier are integral components of the quest for transformational growth.

Given the volatility of fossil fuel prices and the negative impact on growth, there is a powerful incentive for increasing reliance on indigenous energy sources. Because of the heavy dependence on imported fossil fuels, which obtains in most Caribbean countries, today, a dramatic shift would have to take place towards the abundant renewable sources if there is to be an appreciable impact on the structure of the electricity sector. However, the options for diversification to renewables in different Caribbean countries are varied and include solar, wind, hydro-power, and geothermal energy.

Like the recent revolution in the telecommunications/ICT sector, the electricity sector is changing dramatically as a result of advances in technologies, and the global trend towards a low-carbon society. In particular, developments around renewable energy have disrupted traditional electricity generation and distribution models, with some consumers becoming ‘prosumers’⁸, that is, they invest in generation capacity and produce electricity which they also consume.

The advent of climate finance with the real prospect of access to highly concessional funding for clean energy projects enhances the possibility for an appreciable shift, in the medium term, away from fossil fuels.

Renewable energy (RE) represents the most promising option for addressing the energy security challenge we face in the Caribbean and underpins the vulnerability which characterises our countries.

It holds out the potential for increased empowerment, providing consumers, for the first time, with some control over their power supply. It offers options which lend themselves to innovation, to high levels of flexibility and modularity, allowing for micro, small and large scale deployment, and giving rise to decentralised and distributed models of generation. It also provides ideal solutions for many of the energy supply needs of rural and poor communities through off-grid, stand-alone systems or micro-grid electricity.

For example, through the Basic Needs Trust Fund Programme (BNTF), CDB has provided solar PV systems with battery storage for hinterland schools in Guyana. The reliable and more affordable electricity supply has allowed male and female high school students to use computers to prepare their SBAs for CXC exams. This is just one illustration of RE solutions being used to reduce the inequity in the quality of education delivered, with downstream impacts on economic activity in communities.

⁷ McIntyre, A. et al: Caribbean Energy: Macro-Related Challenges, IMF Working Paper 16/53, International Monetary Fund, March 2016

⁸ Mogg, J. 2015: International Confederation of Energy Regulators ,

Also, under the BNTF programme, improved access to water supply in villages through the installation of solar-powered water pumps has made a difference to the quality of life of thousands of beneficiaries. Benefits range from improved health care to the expansion of agriculture and other productive enterprises.

The investments necessary to enable the Caribbean to harness and utilise renewable sources of energy optimally will be provided largely by the private sector; but an enabling regulatory framework must also be in place to stimulate private sector interest. The regulatory framework must, at the same time, be able to protect consumers from the abuse of market power, and guard consumers and operators against political opportunism.

Where are we today with respect to the shift to renewables?

The Caribbean Region is still lagging far behind. At present, electricity generation capacity derived from renewable energy in CARICOM countries is less than 10%, compared with regional targets of 20% by 2017 and 28% by 2022.

Why is this so?

The major barrier to rapid expansion of RE generation in the Caribbean remains that of the monopoly control over generation by the incumbent integrated electric utility, in several cases. Across the region, the potential for electricity generation from a range of RE sources cannot be realised because of the lack of network access.

Only a few Caribbean countries have made major progress in terms of the level of RE investment in the electricity sector. This has been achieved through the pursuit of varying degrees of legislative and regulatory reforms. Barbados, Belize, and Jamaica are examples where such progress has been made.

An estimated 60% of Belize's electricity supply is generated from renewable energy sources, the largest proportion for any CARICOM country. Since 1999, and despite many challenges, Belize has had an independent regulatory framework which has overseen the reforms and supported the emergence of independent power producers of renewable energy.

In Jamaica, the Office of Utilities Regulation supports the promotion of renewable energy, in line with government policy, and introduced a renewable energy quota system. More than 80 MW of RE generating capacity has been added to the grid in the form of solar, wind and hydro power; and a Request for Proposals for another 37 MW was recently closed. The competitive bidding process has become a standard for predictability, encouraging good participation by private sector investors. This is an example of global best practice being employed in the context of a small island state.

In Barbados, increased RE investment has been linked to government policy for promoting this form of energy and the addition of the Renewable Energy Rider to existing regulations. The FTC provided implementation oversight for this Rider. Approximately 9 MW of distributed RE generation was connected to the grid over a period of three years, an approximate five-fold increase compared to 1.6 MW in 2013. Another 10 MW of solar PV capacity is being installed by Emera Caribbean in St. Lucy. The Electric Light and Power Act 2013 (ELPA) enacted in May, 2015 seeks also to promote the generation of electricity from renewable energy sources towards the achievement of the national RE targets.

EVOLUTION OF THE WATER SECTOR

The Caribbean has evolved as a region with high levels of water scarcity, further exacerbated by the impacts of climate change. Right here in Barbados, which has been classified as a water scarce country, we are currently experiencing the adverse effects of water shortages. Just last month, ten participating States in the Caribbean Disaster Emergency Management Agency system were placed under immediate drought watch or warning up to March 2016.

Can we address the water scarcity situation and reverse these trends in the context of a sector that is almost entirely government-owned?

It is my view that for the water sector to evolve and transform itself in accordance with changing climate conditions and the economic and social imperatives of their countries, there will have to be regulatory reforms mirroring those which are occurring in the electricity sector. These reforms should include the establishment of appropriate policy and regulatory frameworks to encourage private investment in new water harvesting and production technologies, including desalination, while changing consumption behaviours and attitudes.

The feasibility of utilising “grey water” for agriculture should also be examined.

At present, this type of framework is generally absent in Caribbean countries, where there is also significant under-investment. Governments must act urgently to address issues of governance, management and viability so that an adequate, high quality, reliable and affordable supply of water is available to support transformational economic growth and sustainable development.

This could entail, in many cases, consumers being asked to pay the higher economic price for water.

EVOLUTION OF THE TELECOMMUNICATIONS /INFORMATION AND COMMUNICATIONS TECHNOLOGY SECTOR

In the post-independence era, Cable and Wireless controlled telecommunications in several Caribbean countries.

The telecommunications sector, including information and communications technology, has been characterised by rapid and continuous advances in technology.

According to the International Telecommunications Union, this expansion has been facilitated, in part, by the regulatory trinity of separate independent regulators, competition, and privatisation. By following, adopting or reinventing these approaches, countries globally have revitalised ICT markets; have transformed themselves into digital economies; and have opened up new opportunities for economic growth, development, and poverty reduction.

Similar efforts must be made to encourage improvements in overall performance, including in the quality of service, through appropriate regulation in the Caribbean. Such improvements are critical for fostering innovation, and positioning the region to exploit all opportunities for driving economic expansion.

Further, the International Telecommunications Union identified a shift in the focus of regulation “towards creating an enabling environment for investment, fostering market growth and ensuring effective digital inclusion for all.”⁹

⁹ International Telecommunications Union, 2014

In 2014, the Caribbean Telecommunications Union and the regional telecommunications regulators, in considering market consolidation trends, highlighted as critical, the maintenance of access, affordability of service, open markets, harmonised policies and regulations, and regional collaboration.

Where feasible, CDB supports regional solutions to fill the regulation gap in small states whilst avoiding the duplication and under-utilisation of costly expertise. Other development agencies are also more likely to support a regional agency which can demonstrate efficiencies resulting from this collaboration.

A sub-regional regulator, the Eastern Caribbean Telecommunications Authority, currently provides support to national telecommunications regulators in the OECS countries.

LESSONS LEARNT

In the remaining minutes, let me quickly summarise some of the key lessons that have emerged from the Caribbean's experience with regulatory reforms of utilities.

First, developments in the electricity, water, and telecommunication/ICT sector hold significant potential for unlocking new and substantial investments; facilitating innovation in the wider economy and contributing to increased and sustained economic growth. For these potentials to be realised, an enabling framework supported by appropriate policy, legislation and regulations, must be in place to encourage investment and take advantage of the developments in the respective sectors.

The experience in the Caribbean shows that regulatory approaches adopted in larger countries may not work in the context of SIDS owing to a number of constraints. Such approaches, if adapted to the realities of these countries, could yield the desired results.

Recognising the rapid developments in the sectors in question, regulators will need to increase their role as advisors to governments, sharing their deeper appreciation of the developments in the regulated industries/sectors.

Finally, to achieve energy security, we need to change the way in which electric utilities have traditionally been structured so that the generation function can be unbundled. This can facilitate greater investments by private power providers, in indigenous renewable sources of energy. The regulatory function must be designed in order to facilitate this transformation.

CONCLUDING REMARKS

One important takeaway from this evening would be that, for a small region, the Caribbean has made reasonable progress in introducing regulatory frameworks which have opened the door for new innovative investments in electricity, telecommunications/ ICTs, and, to a lesser extent, water.

We are pleased with even the modest progress that has been made in aligning our regulatory reforms in the utility sectors to the needs of the industries. This is a good portent for our aspirational objective of achieving the SDGs by 2030.

We fully acknowledge that more needs to be done to galvanise change and development in the utility sectors as well as in the broader economy.

It was Mark Twain who reminded us that “the secret to getting ahead is getting started.”
Ladies and Gentlemen, we have made that start. We now need to redouble our efforts so that we can get even further ahead.

Thank you.