

# International Conference on Concessions in the Power Sector

## Learning from Practitioners

### Conference summary, findings, and conclusions<sup>1</sup>

#### Background

The conference originates from the urgent need to find suitable regulatory and business models to address the woeful situation of many electricity distribution companies in developing countries, unable to provide universal, reliable, and affordable service to their present and potential customers. The conference examined whether concessions could be employed to address this problem, and how to implement them in practice.

This document describes who organized and participated in the conference, briefly presents its objectives and program, and sums up its findings and conclusions. Several annexes and website links to the conference readings and presentations provide ample information for those interested in going deeper into the topic.

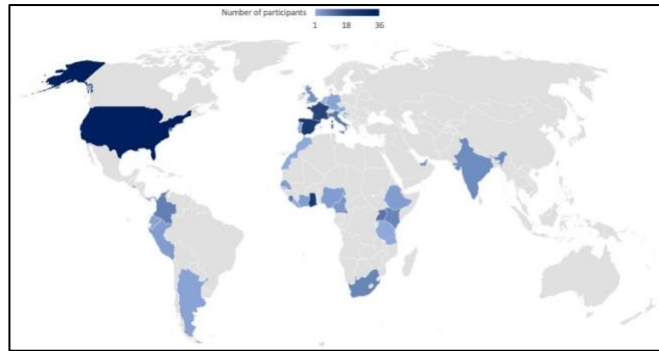
#### Conference organization

The International Conference on Concession in the Power Sector (February 28<sup>th</sup>, March 1<sup>st</sup> and March 2<sup>nd</sup>, 2022) was championed and virtually hosted by the Government of Ghana, and jointly organized by the MIT Energy Initiative, The World Bank, and the African School of Regulation (ASR) in collaboration with the Rockefeller Foundation, the Global Commission to End Energy Poverty, and the Florence School of Regulation. It was the first public activity of the ASR. As far as we know, this was the first instance of a high-level platform dedicated to debating the role of distribution concessions in stepping up universal energy access efforts in developing countries.

This by-invitation event gathered more than 200 attendees and 45 world-class experts from around 30 countries. Participants, representing power companies, private investment, ministries, regulatory agencies, development finance institutions, and universities were selected for their experience and impact in distribution business models and concessions in Latin America, Africa, and South Asia.

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<sup>1</sup> This summary has been prepared by Ignacio Pérez-Arriaga, Grégoire Jacquot, and Santos Díaz Pastor, members of the conference organizing team. Although all effort have been made to represent the opinion expressed by participants, the only responsibility for the content of this summary is that of its authors. All three are members of the MIT/Comillas Universal Energy Access Lab, see <https://universalaccess.mit.edu>



*Origin of the conference participants*

## Objectives and program

The participants in the conference discussed the key lessons learnt from 60 years of distribution concessions, started forging an international consensus on policy options, and set the stage for a new discussion platform on energy infrastructure policy and finance in emerging economies.

The conference was structured around a 3-day schedule. After a keynote opening speech by H.E. Ghana’s Minister of Energy Matthew Opoku Prempeh, the first day of the conference was dedicated to a general introduction to distribution concessions and round tables on emblematic country experiences.<sup>2</sup> Building on this introduction, the second day of the conference offered participants a chance to discuss the regulation, finance, and governance of concessions as well as key success and failure factors derived from past experiences. Lastly, the third and last day concluded the event with a presentation and discussion of the key lessons learnt and the main pending challenges. Finally, a group of experts discussed the convenience and outlined the objectives of a possible future network of experienced practitioners on concessions. The conference formally ended with concluding remarks from the World Bank, the African School of Regulation, and the University of Cape Town. The detailed conference program is shown in Annex 1. The general brochure of the conference is shown in Annex 2.

## Highlights

Conference participants debated on the suitability of concessions to fix the problems that plague electricity distribution in many emerging economies. They addressed the following questions:

- Is there enough evidence supporting the idea that concessions can improve the performance of the distribution segment?
- Can concessions contribute to stepping up energy access, and if yes, in which contexts?
- What are the key success factors and pitfalls in the design and implementation of concessions? What are the main lessons learnt from past experiences?

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<sup>2</sup> The corresponding presentations and readings can be freely downloaded from [this website](#).

- Should practitioners use concessions to improve the financial viability of distribution utilities in emerging economies? Under what conditions would concessions help achieve financial viability?
- How to best integrate the three electrification modes in concession programs?

The text that follows sums up the findings and common positions concerning these fundamental questions that emerged during the presentations and debates of the conference.

Experiences and expert opinions show that concessions can suit all modes of provision of electricity at distribution level. First, the highlights about separate concessions for each electrification mode are presented.

- Regarding grid-based concessions, a strong collaboration between the government, the regulator, and the distribution operator is critical. It was highlighted the importance of a comprehensive electrification plan with clear targets, cost-reflective remunerations, legal security based on comprehensive contracts and trustworthy institutions to enforce them. An acceptable reliability and quality of service is a must. Past experiences have shown that misleading information about the quality of the DISCOs, inadequate remunerations below costs and an arbitrary regulation have led to failures. Electricity access is unlikely to be adequately addressed by concessionaires unless adequately accounted for in the concession contracts themselves. A major issue that remains is the identification of the functions to transfer to the concessions or to retain under public ownership, without endangering the success of the concession.
- Most attempts with mini-grid concessions have had a limited scope, and no mini-grid concession has addressed universal energy access at national scale. While experiences remain limited, the lack of sound regulation protecting mini-grids from the arrival of the grid, the lack of national plans resulting in scattered projects and sometimes the incompatibility with the grid, and the dispersion of donors often lead to the failure of mini-grid concessions. The key open issue regarding mini-grid concessions is the definition of the best suited business model, which ideally would include in a utility-like concession the strong short-term incentives of the traditional “results-based financing, RBF” approach, the efficiency in cost revelation of competitive tenders, and the sustainability of regulated cost-reflective remuneration.
- Concessions for individual solar systems in remote rural communities have encountered some success in Latin America and North Africa. Some features in the design of the business model have been found to be context-dependent, such as the choice between rent-to-own versus energy-as-a-service as the method of payment and ownership of the solar infrastructure, and the definition of a mandatory minimum level of energy access depending on the population affordability and the prevalent productive activities. Success factors include the regulation of the operator as a utility under cost-of-service remuneration, the adoption of the pay-as-you-go method of payment and customer interaction, with a regulated social end-consumer tariff plus a permanent regulated subsidy to the solar operator, and a strong community engagement. The subsidy should be preferably funded via tariff cross-subsidization to reduce the risk of political interference and cost to the public sector. Sound regulation

of the arrangements for the eventual arrival of mini-grids and the national grid are of essence here.

Second, these are the highlights on technology-neutral territorial concessions, such as (i) new or modified concessions that can employ any combination of electrification modes in large territories that are already partly electrified, for instance at provincial or even national level, (ii) new concessions in non-electrified territories, and (iii) sub-franchises carved out in the territory of incumbent discos encompassing an appropriate mix of residential, commercial and industrial customers and also using multiple electrification modes and reinforcement of the existing infrastructure. Past experiences have shown the importance of sound national plans, strong government support, cost-reflective remuneration of operators, and suitable cross-subsidization schemes (cases i and ii), as well as flexible regulation (case iii). Typical failure factors include the absence of connections, reliability and quality of service targets (cases i and ii) as well as the risks associated with the faster-than-expected improvement and expansion of grid supply (case iii). A major issue for technology-neutral territorial concessions remains the integration of all three electrification modes under a single business model. When addressing a national electrification strategy, planners, regulators, and governmental decisionmakers must adopt an integrated techno-economic plan, complemented with an allocation of responsibilities for each segment of the distribution chain, a business plan for each activity supported by sound regulation, and a financial plan to ensure the viability of the program for each operator and the government.

Concessions under some sort of public/private partnership can be an attractive alternative to present traditional business models. Concessions are most likely to improve the situation of the power sector when planned at national scale. The starting point should be a least-cost techno-economic integrated national plan including all electrification modes. This plan should include clear targets relying on a financially viable plan (based on a regulated cost-of-service remuneration of the distribution operator, with transparent rules and firm legal guarantees), decided in cooperation with the government, the regulator, and the operator, and with the support of development partners. While the remuneration of the distribution operator must be strictly cost reflective, the tariffs to the end customers may not be – because of affordability or other reasons – with the income deficit of the operator being compensated by tariff cross-subsidization by better off customers or other sources of subsidies.

### **Reflections on how to promote the adoption of concessions**

The conference participants mostly discussed how to design and implement concessions. However, a major problem beyond the definition and deployment of this instrument is that concessions have long remained outside the political radar and are now rarely considered by policymakers in their power sector reform programs.

Conference participants highlighted that concessions are not discussed in proper and conducive settings. Presently, policymakers think of implementing concessions when in one of these two adverse situations:

- *During crises*, policy-makers bring forward the idea of a concession in order to restructure an ailing distribution sector. In this case, the political, financial and social pressure put on the public sector and the concessionaire may affect the design and the future viability of the concession;

- *As part of DFI<sup>3</sup>-backed projects, policy-makers bring forward the idea of a concession in order to structure an electrification project, whether on, off-grid or a combination. In this case, the amount of funding and the financial tools offered by DFIs limit the scope and ambition of the concession.*

In practice, this opportunistic approach goes against the international consensus on national long-term planning. In both cases, policy makers not only opt for more complex and limited concessions, but also launch concessions independently from national plans for power sector reforms and energy access. While the international community has reached a consensus on the importance of long-term planning, concessions have frequently been implemented independently from or even in conflict with national plans – with suboptimal if not counter-productive results. Planners and policymakers do not move as fast on the business model side as they do on the technical planning side.

*Participants have highlighted the need take a step back from the workings of concessions and think about their relevance and usefulness: why do we need concessions in the first place?*

An unbiased and structured discussion with a broad international perspective on the applicability of distribution concessions would help to harness their full potential and achieve the goals set in national reform plans and electricity access programs. The evaluation of the value and relevance of concessions in comparison with other possible business models would require the adoption of some form of standard indicators, or standard guidelines.

Two lines of action seem to be in order to revive the idea of concessions and to explore their different forms, after the positive experience of this conference. First, find ways to turn this one-off conference into an ongoing discussion on the workings of concessions and the key factors and suitable contexts for concessions to be successful. In other words: when do concessions make sense, and how to develop concessions tailored to local contexts? Second, identify performance indicators that policy-makers could use to assess the potential of different distribution business models – e.g., nationalization, privatization, among which concessions – and ultimately make an informed decision.

[How to turn the current discussions about concessions and business models into a structured, unbiased and ongoing discussion that can be inserted into existing routine processes?](#)

Planning exercises already happen on a routine basis. One possible option could be to follow a similar path on business models by periodically reviewing the adequacy of the current business model to national objectives and investigating possible improvements through alternative business models.

For example, policy makers could add a review of possible business models and concessions to the DFI-funded reviews of the power sector or design of national electrification plans. This would operationalize the technical recommendations offered in the reviews/plans.

[How to evaluate the value of a business model – such as a concession?](#)

In practice, policy makers will need transparent and standard guidelines to evaluate and compare the potential of business models – such as a concession. A second issue raised at the conference was how to evaluate the value of a given business model. Or, in more practical terms, what indicators should be used to evaluate and compare business models, and how to

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<sup>3</sup> Development Financial Institutions.

weigh these indicators. Should planners focus on the financial cost of the concession to the State? And how about the concessions' timely ability to achieve a defined (i) reliability and quality of electric service and/or (ii) energy access rate?

In order to be accepted by the international community, these indicators should balance the need of States and financial institutions. This raises the additional question about who should be involved in defining and standardizing indicators aimed to evaluate and rank the potential of business models.

### **Next steps**

The conference provided a unique platform for a structured high-level discussion on the lessons and pending challenges derived from 40 years of experience in concessions across the world.

Moving forward, the organizing team has gathered feedback from participants and identified three next steps as follow-ups from the conference.

#### **In-person international conference on concessions**

Hold an international in-person conference on concessions in H2 2022/H1 2023 with two objectives: (i) create an in-person group of experienced practitioners and (ii) further discuss the potential, design and implementation of concessions to restructure the distribution sector in developing countries. This conference will open the floor to private investors and the concessionaires themselves.

#### **Formal discussion platform on concessions**

Launch topical working groups, i.e., working groups on the potential, design, and implementation of concessions. Seek collaboration across countries and stakeholders involved and/or interested in moving into concessions.

#### **Processes and guidelines to evaluate business models in distribution**

Design standard evaluation processes for business models. Investigate the potential of a standardized process to characterize possible business models – such as concessions – and evaluate their potentials in target countries.