
Understanding Power Purchase Agreements

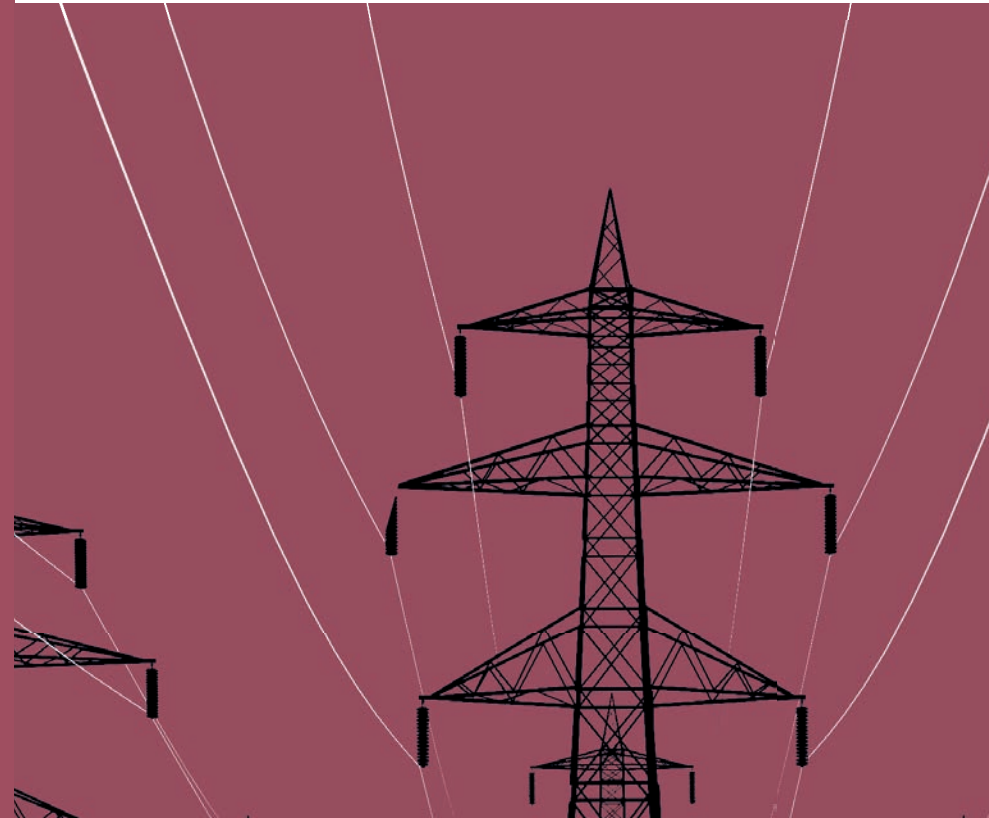
Funded by



Developed by



Institutional Partners



Understanding Power Purchase Agreements – Version 1.3

Published Under the Creative Commons
Attribution-Noncommercial-Share Alike 4.0
International License (CC BY NC SA)

PDF and EPUB Editions Available Here:
<http://go.usa.gov/FBzH>

Please contact Mohamed Badissy (CLDP) at mbadissy@doc.gov
with any questions regarding this publication

Understanding Power Purchase Agreements






UNITED STATES DEPARTMENT OF COMMERCE
The Secretary of Commerce
Washington, D.C. 20230

In June 2013, President Obama launched Power Africa with the intention to double access to power in sub-Saharan Africa, where more than two-thirds of the population lives without electricity. Power Africa set out to catalyze investment in Africa's power sector by working with the private sector, partner governments, and international organizations to remove obstacles to developing power projects. As part of this effort, Power Africa's partners concluded that reducing misconceptions about power purchase agreements (PPAs) could shorten the multi-year negotiations associated with these agreements.

Power Africa set out to accelerate the PPA negotiation process through an improved understanding of the best practices used in structuring these complex agreements. The U.S. Department of Commerce, through our Office of General Counsel's Commercial Law Development Program, and the African Development Bank, through its African Legal Support Facility, led the effort, with funding from the U.S. Agency for International Development.

Over the course of just nine months, we were able to gather critical insights from African and international stakeholders and bring together leading experts to translate those insights into a plain-language handbook. "Understanding Power Purchase Agreements" established a common understanding of what is required for a functional and financeable PPA. Its publication is a significant step toward achieving President Obama's goal of increasing investment in power projects in Africa.

Power Africa and its partners expect that this handbook, by enabling better and more predictable PPAs, will help us realize our collective goal of bringing electricity to millions of Africans over the next few years. I am particularly proud of the Department of Commerce's leading role in this impressive international and inter-agency effort. Our successful collaboration is a powerful example of how the shared commercial interests of the United States and Africa can be a force for economic development that improves lives across the African continent.


Penny Pritzker
U.S. Secretary of Commerce

C O N T E N T S

FOREWORD

INTRODUCTION

THE PPA IN CONTEXT

Power Generation Markets	14
The Power Purchase Agreement (PPA)	24
Financing of Power Projects	35
Environmental & Social Requirements	43
Summary of Key Points	46

FINANCIAL PROVISIONS

Introduction	49
Tariff Structures	50
Procurement of Electricity	63
Invoicing and Payments	70
Credit Support for Offtaker Obligations	73
Credit Support for the Project Company's Obligations	79
Tax Exemptions	84
Summary of Key Points	85

RISK ALLOCATION AND MITIGATION

Introduction	88
Development and Construction Phase Risks	89
Operational Phase Risks	100
Other Risks	113
Force Majeure	123
Insurance	127
Summary of Key Points	129

OTHER PPA PROVISIONS

Introduction	132
Resolving Disputes	133
Local Content	139
Confidentiality	140
Boilerplate Provisions	141
Summary of Key Points	143

DEFAULT AND TERMINATION

Introduction	145
Buyer Default	146
Seller Default	148
Post-Termination Obligations	150
Non-default Events	156
Lender Rights	157
Summary of Key Points	163

APPENDIX

Glossary	166
Acronyms	178
Other Resources	182

Foreword

Electricity drives the engine of opportunity in the modern world. It allows our children to study by light. It powers the innovation in our factories. From telecommunications to transportation, power is essential to virtually every aspect of our increasingly dynamic and interconnected world. As a result, investment in power infrastructure must be a part of any strategy for economic development. This is true for both broad economic growth initiatives in emerging countries and targeted rural growth initiatives in developed countries.

The transformational nature of power projects does, however, come with risks. Given that power projects are most essential where there is a power shortage in the market, these projects often represent a pioneering level of investment and financial complexity in these markets. As a result, it has become common place to adopt a durable agreement that cements the predictability and durability that is needed for any long term business venture. This agreement is called the Power Purchase Agreement (**PPA**) and has helped to drive the growth and development of independent power projects around the world.

This handbook is intended to provide an overview of PPAs and the obligations, risks and remedies that are found within them. Our group of authors, all whom contributed their time on a pro-bono basis, includes contributors from governments, development banks, private banks and leading international law firms. Our hope is that by providing perspectives from all sides of the PPA negotiation process, we can present the reader with a balanced understanding of the challenges involved in PPAs and an insight into the practical reality of overcoming these challenges when negotiating these complex agreements. More than anything, we want to communicate to the reader that the key to a successful PPA is to abandon the assumption of an adversarial process and to adopt instead a strategy of cooperation and coordination. It is only through this balanced approach that the risks can be mitigated and the rewards realised for all parties involved.

FOREWORD

The handbook was produced using the Book Sprint (<http://www.booksprints.net/>) method, which allows for the drafting, editing and publishing of a complete product in just five days. Our journey began with a spirited discourse and quickly progressed to a furious pace of writing with occasional interruptions for the introduction of brilliant ideas and critical insights. There was a surprising amount of consensus on some topics and an unexpected level of debate on others. The outcome is a product that reflects this teamwork rather than the personal opinions of the authors or the institutions that they represent.

We would like to thank our Book Sprint facilitators Faith Bosworth and Laia Ros Gasch for their patient guidance and unwavering leadership. We would also like to thank the offsite Book Sprint team, including Henrik van Leeuwen (illustrator), Raewyn Whyte (proofreader) and Juan Carlos Gutiérrez Barquero and Julien Taquet (Technical Support). We are especially thankful for the strategic planners that helped conceive this program: René Post (Book Sprints), Toyin Ojo (African Legal Support Facility) and Mohammed Loraoui (Commercial Law Development Program). We would also like to recognise the funding and support of the United States Agency for International Development and the African Legal Support Facility.

This handbook is intended to reflect the vibrant nature of the Book Sprint process and serve not simply as a reference but also as a jumping-off point for further discussion and scholarship. The handbook is issued under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License (CC BY NC SA) which allows anyone to copy, excerpt, rework, translate and re-use the text for any non-commercial purpose without seeking permission from the authors, so long as the resulting work is also issued under a Creative Commons License. The handbook is available in electronic form and printed form (English and French). It can be used as an online interactive resource. Many of the contributing authors are also committed to working within their institutions to adapt this handbook for use as the basis for training courses and technical assistance initiatives.

Also available as part of the eCourse
[2020 Renewable Energy Law eConference](#)

First appeared as part of the conference materials for the
15th Annual Renewable Energy Law session
"PPA/Hedge Off-Take Panel"