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Renewable Energy Toolkits: Solar Electricity Production

Power & Renewable Energy Toolkits

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In this section, you'll find links to toolkits for evaluating and setting up public-private partnerships for renewable energy.

Toolkits for Power and Renewable Energy

Climate Toolkits: Renewables

This toolkit is part of the World Bank Group's Climate Toolkits for Infrastructure PPPs. It complements the ClimateToolkits by providing step-by-step instructions on how to apply its provisions to renewable energy specific PPPs.

World Bank's Renewable Energy Toolkit (REToolkit)

REToolkit provides a broad set of tools to assist World Bank staff and country counterparts to improve the design and implementation of renewable energy (RE) projects, incorporate best practices and lessons learned from RE projects supported by the World Bank Group and other institutions, and is operationally oriented to address practical implementation needs at each stage in the RE project cycle. The toolkit aims to help identify and design feasible RE projects, determine appropriate promotional policies, identify sustainable business models, finance mechanisms and regulatory frameworks - and utilize the best available project tools, including technical standards and generic terms of reference.

The Caribbean Renewable Energy Development Programme (CREDP) Toolkit

Typically, a developer seeking RET project financing approaches a lender with a package that includes a fairly common slate of fundamental transaction documents. They may range from complex plans for a facility using a novel technology to simple (but important) term sheets for the deal or a loan.

G20 Toolkit for Renewable Energy Deployment: Country Options for sustainable growth based on Remap

IRENA June 2016. In October 2015, under the Turkish presidency, the G20 adopted the "Toolkit of Voluntary Options for Renewable Energy Deployment". IRENA has been requested to co-ordinate toolkit activities, in co-operation with other international organizations. One of five focus areas of the toolkit is the development of roadmaps for renewable energy deployment in the G20. IRENA's renewable energy roadmap (REmap) programme assesses the potential of renewable energy technology and their costs and benefits in enabling the world to double its share of renewables by the year 2030. The second edition of the global REmap was issued in March 2016. It includes renewables roadmaps for G20 member countries. This background paper summarizes the results for the G20, identifies action areas for G20 policy makers and proposes the next steps of a "REmap G20 process".

Street Lighting Toolkit

This toolkit and the two accompanying business cases have been developed to assist local authorities to assess the impact of investing in energy efficiency measures within their street lighting system. It covers

measures such as LED lighting, control systems and the use of dimming and trimming. It is designed as an initial feasibility assessment. The Toolkit has been developed with technical expertise provided by Ove Arup & Partners and in consultation with the SCOTS street lighting team.

Off-Grid Solar Policy Toolkit

This Off-Grid Solar (OGS) policy toolkit is designed to assist governments in creating an enabling environment for OGS and pay-as-you- go (PAYG) sector growth by establishing policy reforms determined through a structured process of inter-ministerial policy dialogue. It identifies 12 key policy issues and considers the advantages and disadvantages of different policy approaches to each issue. The toolkit then outlines a step-by- step process that governments can use to facilitate policy dialogue, providing guidance and tools at each step.

Emergency Power Procurement Toolkit

This toolkit provides in-depth discussion of potential issues and solutions, suggested methodology for procuring emergency power, a schedule for financing and procurement, as well as forms of bidding documents and sample power purchase agreement (PPA) for an emergency power plant.

PPIAF Toolkit - Building Regional Power Pools

The purpose of the toolkit is to facilitate knowledge transfer among World Bank Group staff and clients on how to design and prepare projects that support the development of cross-border power transmission infrastructure within the framework of regional power pooling mechanisms.

Developing Best Practices for Promoting Private Sector Investment in Power

This five-volume set presents the findings of an ADB regional technical assistance study which developed sector-specific best practices for promoting private sector participation in key infrastructure sectors in ADB's developing member countries. The best practices cover the role of government, institutional reform, strategic planning, legal and regulatory frameworks, unbundling and competition, contractual arrangements, sources of financing, and the allocation of risk. This volume examines the optimum approaches for achieving benefits for consumers of electricity through power sector restructuring, unbundling, the introduction of competition, and privatization.

Some examples of toolkits by countries below:

Canada

Renewable Energy Toolkit for Economic Development

Government of Alberta, May 2010 - To assist communities and especially community leaders in assessing possible projects, Alberta Treasury Board and Enterprise has developed the Renewable Energy Toolkit for Economic Development. The toolkit is a policy neutral document, designed to facilitate a better understanding of the basics of renewable energy, as well as assist communities in beginning the due diligence process, and provide basic guidance for screening various projects.

India

Renewable Energy Local Area Development Toolkit

Climate Parliament India network, 2017 - The Renewable Energy Local Area Development toolkit has been developed to help the legislators organize a renewable energy plan in their respective constituencies. The

toolkit highlights the importance of clean and renewable energy technologies at the local level, and provides comprehensive information and details on implementing renewable energy projects.

EESL Toolkit for Street Light Energy Efficiency

The toolkit is based on analysis of the practical situation in Indian municipalities, and experience gained through the implementation of its ongoing street lighting projects. The toolkit encompasses: an actionable methodology, financing mechanism, procurement specifications, best practices, and terms of references and standard templates for key contracts (e.g., Tripariate Memorandum of Understanding (MoU), Template of an Implementation Agreement as well as a Template of a Bank Guarantee and a Template for a RfP).

United Kingdom

Community and Renewable Energy Scheme (CARES) Project Development Toolkit

Local Energy Scotland 2013 - This Toolkit has been developed specifically to help community groups and rural businesses of all kinds take forward the development of renewable energy projects. It is designed to be accessible to people with different levels of understanding of the technology, project development, financial and legal issues.

United Kingdom, Wales: Local Energy Toolkit

Online resource prepared by the Welsh Government's Renewable Energy Support Service. The Local Energy Toolkit has been developed to help community groups take forward the development of renewable energy projects. It is designed to be accessible to people with different levels of understanding of the technology, project development, financial and legal issues. It provides guidance to community groups to develop their project from an initial concept through to construction and operation.

For more resources on policies, laws, and regulations, sample and standardized contracts, as well as other links and resources, visit our page on Renewable Energy.

See Toolkits for Public-Private Partnerships or Select WBG PPP Toolkits for a full overview of PPP Toolkits.

Related Content

- Climate-Smart PPPs
- Climate-Smart PPP Legal and Regulatory Framework
- Preparing, Procuring and Implementing Climate-Smart PPPs
- ?Sector-Specific Content on Climate-Smart

- **Renewable Energy**
- **Biomass**
- **Hydropower**
- **Carbon Capture and Storage**
- **Geothermal Energy**
- **Wind Power Energy**
- **Solar Power Energy**
- **Climate-Smart PPPs: Further Reading and Resources**

Additional Resources

- Guidelines & Tools
- Benchmarking
- Checklists for Key Legal/ Drafting Issues in PPPs and sample clauses
- Sample PPP Clauses
- TORs for Advisors
- Welcome to ChatPPP!

Partner Resources



Renewable Energy Project Resource Centre (REPRC)

hosted by Energypedia

Wiki-based library of energy project resources. Includes sample terms of references, procurement documents, economic analyses and case studies (success factors and lessons learned).

Subsections

Climate Toolkit, Renewables, aerial-view-large-sustainable-electrical-power-plant-with-many-rows-solar-photovolta

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Climate Toolkits: Renewables

Wind turbines

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World Bank's Renewable Energy Toolkit (REToolkit)

wind tower

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The Caribbean Renewable Energy Development Programme (CREDP) Toolkit

G20 Toolkit for Renewable Energy Deployment: Country Options for sustainable growth based on Remap

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G20 Toolkit for Renewable Energy Deployment: Country Options for sustainable growth based on Remap

Street Lighting Toolkit - How to assess the impact of an energy efficiency investment in the street lighting asset, ima

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Street Lighting Toolkit - How to assess the impact of an energy efficiency investment in the street lighting asset

Renewable Energy Toolkit for Economic Development

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Renewable Energy Toolkit for Economic Development

Renewable Energy Local Area Development Toolkit, wind turbines

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Renewable Energy Local Area Development Toolkit

Community and Renewable Energy Scheme (CARES) Project Development Toolkit

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EESL Toolkit for Street Light Energy Efficiency

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