

# Biomass

Full Description

## **Policies, Laws and Regulations: Biomass**

[IEA/IRENA Global Renewable Energy Policies and Measures Database](#) - The International Renewable Energy Agency (IRENA) maintains a joint database with the International Energy Agency (IEA) for policies and measures pertaining to renewable energy from around the world. The database is searchable by country and sector.

## **Sample Project Documents and Contracts: Biomass**

### **Brazil**

Government Clean Energy Program: Standard [Biomass Power Purchase Agreement](#)

### **Ethiopia**

**Reference:** Draft Sample PPA of May, 2015 relating to a small bagasse power generation facility between Ethiopian Electric Power (EEP) as off-taker and power generation company (“Seller”). Seller will develop, build, own and operate a bagasse electric power generating facility, as a small power producer. EEP to purchase from the Seller the offered capacity and the electrical energy produced at the Facility in accordance with the terms and conditions set forth in the Agreement. 20 year contract. Pricing based on feed-in tariff.

### **France**

**Reference:** Contracts related to biomass projects (*Contrats Biomasse*) - Standard contracts (approved by the Ministry of Energy Transformation and Solidarity - *Ministère de Transition écologique et solidaire*) published by EDF together with relevant législation.

Additional information on renewable energy projects (Énergies renouvelables et de recuperation) in France is available on the website of the [Ministère de Transition écologique et solidaire](#)

### **Honduras**

**Reference:** [Contratos de Energia Producida con Biomasa](#) - Various Biomass PPAs published by Empresa Nacional de Energía Eléctrica (ENEE).

### **India**

**Reference:** [Draft Power Purchase Agreement](#) between ESCOM and another party which plans to develop, design, engineer, procure, finance, construct, procure, finance, construct, own, operate and maintain a biomass-based Electric Power Generating station (.doc in English).

### **Malaysia**

**Reference:** Standardized power purchase agreements for a renewable energy installation utilizing biomass as its renewable resource. Based on feed-in tariff system.

- **PPA (small)** - Renewable energy power purchase agreement for a renewable energy installation having a net export capacity of up to and including 10 MW. [PDF]
- **PPA (medium-sized)** - Renewable energy power purchase agreement for a renewable energy installation having a net export capacity of above 10 MW and up to and including 30 MW. [PDF]

## Pakistan

**Reference:** [Biomass-Bagasse Cogeneration Electricity Purchase Agreement](#) - Standard PPA relating to a bagasse/biomass power generation facility (final draft of October 2013) between the National Transmission and Despatch Company (“Purchaser”) and an independent power producer (IPP) (“Seller”). IPP will design, engineer, construct, insure, commission, operate and maintain a biomass/bagasse power generation facility. Seller wishes to sell and Purchaser wishes to purchase the net electrical energy produced by this facility, on and pursuant to the terms and conditions of the PPA.

**Reference:** [Biomass-Bagasse Cogeneration Implementation Agreement](#) - Standard Implementation Agreement (revised draft of December 2013) between Government of Pakistan and Seller relating to a Bagasse/Biomass power generation complex.

## Sri Lanka

**Reference:** [Standardized PPA for biomass](#) (Information copy) – Standardized agreement for the purchase of electrical energy between the Ceylon Electricity Board and power producer relating to Dendro Power Project.

## United States

**Reference:** [New Hampshire – Biomass PPA](#) - 20 year amended and restated PPA of May 18, 2011 with respect to a biomass-fueled electrical generation facility to be located in Berlin, New Hampshire.

**Reference: Colorado - Forest Biomass Gasification Project:** Small scale forest biomass electricity demonstration project using gasification technology. Request for Proposals (RfP) -The purpose of this RFP is to give a private company (“Company”) the opportunity to test a small-scale demonstration project from which public utility can learn about the feasibility of a specific generation technology, namely a generating facility using forest biomass that includes a system of gasification to gas clean-up to electric generation. The public utility does not want to own or operate this demonstration project itself, but is proposing to purchase the full electrical output of the project pursuant to a power purchase agreement (“PPA”). The **PPA** will have a term of ten (10) years. It includes provisions that will require that the technology vendor selected will provide the Company access to all information regarding the project’s operations and performance, including, but not limited to data concerning the facility and component availability, performance, quality and cost of fuel supply and fuel delivery, fuel processing, repair and maintenance of equipment, air and water emissions, and any byproducts or wastes arising from the facility.

**Reference:** Power Purchase and Sale Agreement between Southern California Edison Company (SCE) and Imperial Valley Biopower, LLC (.pdf in English)

## Vietnam

**Reference:** [Circular - Project Development, Avoided Cost Tariff and Standardized PPA for Biomass Power Projects of 9 December 2015](#). Standardized document developed by the Ministry of Industry and Trade of Vietnam and Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) through their MOIT/GIZ Energy Support Program. [PDF]

## Further Reading and Resources

### India

**Reference:** [Indian National Policy on Biofuels](#)(.pdf in English)

### United States

**Reference:** [The Law of Biomass - A Guide to Business and Legal Issues](#), Stoel Rives LLC, May 2010 (.pdf in English)

### 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](#)

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[Biomass](#)

[Hydropower](#)

[Carbon Capture and Storage](#)

[Geothermal Energy](#)

[Wind Power Energy](#)

[Climate-Smart PPPs: Further Reading and Resources](#)

### Additional Resources

[Sub-national and Municipal PPPs](#)

[Public-Private Partnerships for Transport](#)

[Energy and Power PPPs](#)