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# Wind Power Energy

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Wind can drive wind turbines to produce electrical power, windmills to produce mechanical power, or wind pumps to pump water, or for drainage.

Below are laws and regulations in various jurisdictions as well as sample agreements and additional resources related to wind power projects.

## Policies, Laws and Regulations: Wind Power Projects

### Global:

**Reference:** [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.

### National:

#### France

**Reference:** [Specific regulation information on applicable tariffs and administrative procedures for onshore wind power projects](#) (PDF in French).

**Reference:** Wind power at sea: This is a second [call for tenders for a wind power project](#). It includes a notice of tender and specifications and an application form (PDF in French):

## Montenegro

**Reference:** [Decree for Wind Power Plant - English \(Uredbu O Vjetroelektranama\)](#)

## Turkey

**Reference:** [Generation Licenses for 8 wind power plants in Turkey](#) owned by renewable energy company Polat Enerji (documentation all in Turkish)

## Project Document and Contracts: Wind Power

### Australia

Sample Generation License (Wind Farm, 2019) – example of a renewable generator license granted in a power sector where there is both retail and whole competition. Note the requirement for the license holder to prepare separate accounts in respect of its transmission, distribution and retails businesses (if it also operates such businesses).

### Canada

**Reference:** [Montérégie Wind Farm](#) - The wind farm was commissioned in December 2012, has a capacity of 100 MW and includes 44 wind turbines erected in five Montérégie municipalities. The renewable energy generated by the wind farm is sold to Hydro-Québec Distribution under a twenty-year contract.

Power purchase agreement of 27 June 2008 between Kruger Energy Montérégie S.E.C and Hydro-Québec Distribution regarding the wind park project Montérégie. (*Contrat d'achat d'électricité intervenu le 27 juin 2008 entre Kruger Énergie Montérégie S.E.C, société en commandite, et Hydro-Québec Distribution définit les obligations des parties relativement aux livraisons d'électricité du Projet éolien Montérégie*).

### Chile

**Reference:** Bidding documents related to a concession for the development of wind projects ([Bases the licitación para la concesión de terrenos fiscales para desarrollo de proyectos eólicos](#)), September 2012 (Spanish) Contains terms of the concession.

### Denmark

**Reference:** Vesterhav Syd Offshore Wind Farm (North Sea) [Concession agreement](#) regarding the obligation to construct and connect to the grid an offshore electric power generating plant with internal collection grid. The Concessionaire shall construct and connect to the grid an electric power generating plant with internal collection grid of 170 MW in accordance with the terms of the license for the construction of an electric power generating plant.

### France

**Reference:** [Cahier des charges de l'appel d'offres portant sur des installations éoliennes de production d'électricité en mer en France métropolitaine](#) (Specifications of the tender comprising plant power generation from biomass) | Second call for tenders for a wind power project located at sea - notice of tender and specifications (in French). États membres - Marché de travaux - Avis de marché - Procédure ouverte |Annexe 1, page 3 - Caractéristiques du projet

Contracts related to wind power projects ([Contrats éolien](#)) published by EDF

More information on French wind power projects ([land based](#) and [offshore](#)) is available on the site of the Ministère de Transition écologique et solidaire

## India

**Reference:** Standard PPA between Power Distribution Company of Andhra Pradesh Limited (DISCOM) and a Wind Power Producer whereby the latter proposes to set up a non-conventional energy project with a proposal of [ ] MW for Auxiliary Consumption and [ ] MW for export to grid for sale to DISCOM - [Standard PPA between Power Distribution Company of Andhra Pradesh Limited \(DISCOM\) and a Wind Power Producer](#) (PDF in English).

**Reference:** [Draft PPA between ESCOM and "the Company"](#) for a Wind Energy based Electric Power Generating Station | ESCOM, a company formed and incorporated in India under the Companies Act, 1956 (the “Electricity Supply Company”) and the “Company” whereby the Company plans to develop, design, engineer, procure, finance, construct, own, operate and maintain a Wind Energy based Electric Power Generating Station with a gross capacity of [ ] MW and net capacity of [ ] MW at Village, District, Karnataka State and desires to sell electricity to ESCOM.

## Namibia

**Reference:** [Power Purchase Agreement \(PPA\) - Standard short-form power purchase agreement developed for medium scale power project in Namibia.](#)

**Reference:** [Model PPA for small scale IPPs](#) - Standardized agreement for small scale IPP for supply of electrical energy between Electricity Control Board, Namibia and private company of December 2006.

These documents are part of a suite of documents published by the [Namibian Electricity Control Board](#).

## Pakistan

**Reference:** [Policy for Development of Renewable Energy for Power Generation - Employing Small Hydro, Wind, and Solar Technologies](#), Government of Pakistan 2006

**Reference:** [Standard implementation agreements and energy purchase agreements](#) related to wind power projects published by the Alternative Energy Development Board of the Government of Pakistan 2015.

## Sri Lanka

**Reference:** [Draft Power Purchase Agreement \(PPA\) produced by Sri Lanka's Ceylon Electricity Board \(2012\)](#) (PDF) Draft power purchase agreement developed by Ceylon Electricity Board for wind power plants. Charging is based on actual energy produced - unless cannot be delivered to purchaser due to a purchaser risk, in which case the charge is based on deemed energy output.

## Tanzania

**Reference:** [Model Power Purchase Agreement related to a Wind Power Plant](#) published by the Ministry of Energy and Minerals to be used as guidance for the procurement of energy from a wind turbine generating plant larger than 10 MW.

## United States

**Reference:** [Power Purchase Agreement \(PPA\) for Wind Project, U.S. Department of Energy website](#). This is a sample agreement developed by the U.S. Department of Energy for a wind power plant.

**Reference:** [Delware Offshore Wind Park](#) – 25 year Power Purchase Agreement between Delmarva Power & Light Company, a Delaware corporation (“Buyer”) and [wind park developer] Bluewater Wind Delaware LLC, a Delaware limited liability company (“Seller”) as of June 23, 2008. for approximately 200-600 MW of energy from offshore wind project.

**Reference:** [The Attorney's Discussion of Power Purchase Agreements \(Appendix A\)](#) includes a discussion of the key terms of a Renewable Power Purchase Agreement as well as a sample Power Purchase Agreement (PPA)

**Reference:** Northern States Power Company

- [Request for Proposals: Northern States Power Company 2016 Wind Solicitation, Wind Resources](#) - Request for Proposals by Northern States Power Company ("NSP" or the "Company"), an operating company subsidiary of Xcel Energy Inc. It is a component of its 2016- 2030 Upper Midwest Resource Plan (“Resource Plan”). This RFP is seeking proposals for wind generation projects (up to 1,500 MW) through Power Purchase Agreements or Build-Own-Transfer agreements. Includes NSP’s Model PPA (Appendix B, Attachment A – not included).
- [Model Wind Energy Purchase Agreement](#) between Northern States Power Company and Seller of February 2013

## Uruguay

Link to Uruguay’s wind power framework containing institutional framework (main players); regulatory framework; and information large and small scale projects (including calls for tenders)

**Reference:** [Tender documents for 2010 wind power projects including a model PPA](#) (in Spanish).

**Reference:** [Tender document A and tender document B](#) for 2011 wind power projects (in Spanish).

**Reference:** Sample [Terms of Reference for a Technical Due Diligence Wind Power Project](#), involving the long term financing for the development, construction and operation of a 65 MW wind farm.

## Vietnam

**Reference:** 1. [Standardized Power Purchase Agreement for Electricity Sale and Purchase for Grid-Connected Wind Power Projects](#) issued together with

**Reference:** 2. [Circular - Regulations on Implementation of Wind Power Projects Development and Standardized PPA \(2012\)](#) published by the Minister of the Ministry of Industry and Trade as part of its Energy Support Program with GIZ.

## Further Reading and Resources

**Reference:** [Community Wind Handbook](#) developed on behalf of the Rural Minnesota Energy Board, 2007. [The Attorney's Discussion of Power Purchase Agreements \(Appendix A\)](#) includes a discussion of the key terms of a Renewable Power Purchase Agreement as well as a sample Power Purchase Agreement (PPA).(PPA between Badger Windpower LLC (Seller) and Wisconsin Electric Power Company (Buyer), from 2000, whereby the Buyer undertakes to procure from the Seller the construction of 25.5 MW of new electric capacity generated from renewable energy sources).

The [Community Wind Toolbox](#) offers practical information for farmers and rural landowners looking to develop commercial-scale wind projects, including a chapter on key elements of Power Purchase Agreements and Interconnection Agreements. The core content of this Toolbox comes from the Community Wind Handbook developed by Windustry on behalf of the Rural Minnesota Energy Board and published in 2006 by a partnership of the Agriculture Utilization Research Institute, the Southwest Initiative Foundation, The Minnesota Project, Clean Energy Resource Teams, and the Minnesota Corn Research and Promotion Council.

**Reference:** [United States Department of Energy: Energy Efficiency and Renewable Energy - Wind Exchange](#) - Many useful resources on wind energy, including Small Windbook.

**Reference:** [Wind Energy Easement and Lease Agreements](#) published by Windustry 2005

The outline raises issues related to various provisions that can be found in wind energy easement and lease agreements.

**Reference:** [Negotiating wind Energy Property Agreements](#), Farmers' Legal Action Group, Inc

These materials provide a general overview of land- and wind-related property agreements and summarize some important issues to consider when negotiating them.

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

#### Additional Resources

- [Sub-national and Municipal PPPs](#)
- [Public-Private Partnerships for Transport](#)
- [Power and Renewable Energy PPPs](#)
- [Solar Power Energy](#)

- [Hydropower](#)
- [Biomass](#)
- [Geothermal Energy](#)

#### 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).

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