



CHAPTER

1

Introduction

To view the full Guide, visit <https://www.epa.gov/greenpower/guide-purchasing-green-power>



This Guide to Purchasing Green Power is intended for organizations that are considering the merits of green power procurement options, as well as those that have decided to purchase green power and want help doing so. The guide was written for a broad audience, including businesses, government agencies, universities and other organizations that want to diversify their energy supply and reduce the environmental impact of their electricity use. Although it is intended primarily for non-residential electricity consumers, residential consumers may also find many of the best practices, processes and guidance on purchasing green power applicable to their purchasing decisions, including more specific information in Appendix C.

First published in 2004, and previously revised in 2010, this new version of the Guide to Purchasing Green Power provides an overview of green power markets and describes the necessary steps to procure green power. This revision represents a major update to the guide and includes new market information and terminology, updated statistics, new case studies, information on evolving purchasing methods, an updated additional resources section, and new resources for federal agencies and the private sector to use when planning self-generation renewable projects or purchasing green power.

This chapter summarizes the guide to help readers find the information they need.

Chapter 2 defines green power, clarifies the role of renewable energy certificates (RECs), explains the importance of independent certification and verification of green power, and describes the role of REC tracking systems.

Chapter 3 summarizes the benefits and costs of purchasing green power.

Chapter 4 describes options for purchasing green power products: utility and retail provider options (including green tariffs), direct purchase options (both physical and financial power purchase agreements), community choice aggregation and unbundled RECs; and on-site or off-site self-generation of renewable electricity.

Chapter 5 outlines the preparations necessary for buying green power: setting goals, identifying the key decision-makers, gathering energy data, and choosing specific green power options based on availability and feasibility.

Chapter 6 discusses the process of contracting for renewable electricity: developing screening criteria, collecting product information, drawing up a procurement plan and evaluating the purchase.

Chapter 7 describes the steps for owning and operating self-generation: screening the technologies best suited to the purchaser's site, obtaining technical and financial resources and assistance, creating a project plan, anticipating possible barriers, and installing and operating the on-site generation system.

Chapter 8 explores ways to maximize the benefits of buying green power, particularly through greenhouse gas accounting and reporting, promotion to stakeholders both inside and outside the organization, and making accurate claims about the environmental benefits associated with a green power purchase.

Chapter 9 summarizes the key concepts and learning insights of Chapters 2 through 8.

Chapter 10 offers a list of resources for more information about all aspects of green power. Because electricity from renewable resources may be generated in a variety of ways, many institutions are working to facilitate the development of green power markets. Several of these organizations' programs—the U.S. Department of Energy's Federal Energy Management Program, the U.S. Environmental Protection Agency's Green Power Partnership, the Green Power Market Development Group of the World Resources Institute, the Center for Resource Solutions, and the National Renewable Energy Laboratory—collaborated together to write this purchasing guide.

The guide also includes a glossary of terms commonly used in the green power field.

Finally, **Appendix A**, Green Power Considerations for Federal Agencies discusses considerations specific to federal agencies that buy green power, particularly the procurement regulations that cover federal acquisition of green power.

Appendix B, Commercial Solar Financing Options provides a snapshot of the current commercial solar financing arena and an overview of existing financing mechanisms. **Appendix C**, provides green power purchasing guidance for residential consumers