

Contents at a Glance

Introduction	1
Part I: Here Comes the Sun: Shedding Some Light on PV Systems.....	7
Chapter 1: The Photovoltaic Revolution	9
Chapter 2: Checking Out Common Components and Systems	21
Chapter 3: Powering through Electricity Basics.....	35
Chapter 4: Warming Up to the Solar Resource	57
Chapter 5: Properly Selecting a Site for a PV System.....	79
Part II: Digging into Complete System Details	99
Chapter 6: PV Modules: From Sand to Electricity	101
Chapter 7: The Basics of Batteries	121
Chapter 8: Keeping Current and Voltage in Check: Charge Controllers.....	139
Chapter 9: Inverters: AC (From) DC	149
Chapter 10: Staying Secure: Wiring and Safety Components	163
Part III: Sizing a PV System	177
Chapter 11: Sizing a Grid-Direct System	179
Chapter 12: Sizing a Battery-Based System	203
Chapter 13: Sizing Conductors, Conduit, and Safety Components	229
Part IV: Installing a PV System	247
Chapter 14: The Permitting Process	249
Chapter 15: Staying Safe Anytime You Work on a PV System.....	261
Chapter 16: Assembling the Mechanical Parts	279
Chapter 17: Integrating the Electrical Elements	301
Chapter 18: Commissioning, Inspecting, and Maintaining a PV System.....	319
Part V: The Part of Tens	341
Chapter 19: Ten Ways to Avoid Common Code Mistakes	343
Chapter 20: Ten Ways to Maximize Energy Production for Your Clients.....	349
Index	355