Subject Index

ABS Energy Research 28
Academy of Management 40
Accelerated shift 7
Accenture Resources 137
Accountability 3
Accounting function 168
Accounting, four services in utilities 181
ACI Corp. (WGL Holdings) 141
Action plans 89
Adequate supplies 8
Adversarial contract negotiations 190
AES Corporation of Arlington, Virginia (AES) 78, 98
Affected with a public interest 10, 22
Agrarian character 8
American Institute of Certified Public Accountants (AICPA) 177, 181
Alabama 239
Alaska 248, 249, 282
Alaska Systems Coordinating Council 142
Alberta 78
Algeria 249
All Electric 10
All gas systems 120
America 6, 22, 196
America’s failed experience with Prohibition 44
American business 68, 201
American Electric Power Co. 41
American Gas Association (AGA) 248
American Middle West 198, 288
American Public Power Association (APPA) 174, 184, 194
American Water Works Association (AWWA) 137, 167, 169, 176, 181, 284–5, 287, 289
American West 256
Amortization model 20
Analysis 96, 101
Ancillary services 223, 268
Annual reports 177, 178
AquaStructure 81
Aqueducts 25
Aquifers 247
Arbitrators 190
Arc-light system 23
Arctic gas 248
Arizona 80, 84, 85, 288
Arizona Public Service 85
Arkansas 239
Arlington, Virginia 98
Artesian 186
Artesian Resources 80, 186
Artesian Resources Corporation 80, 185
Artesian Water 186, 187
Artesian Water Company 81
Arthur Anderson 40
Artificial intelligence (AI) 152
Artificial monopolies 14
Artificial shortages 42
Asia 35, 248, 275
Atlantic 282
Atlantic City casino industry 200
Atlantic City resort 200
Attracting, retaining and developing employees 193
August 2003 blackout 279
Australia xii, 16, 35
Australian utility privatization 232
Authoritative administrative regulatory system 3
Automated systems 265
Average load 112, 126
Aviation use 64
Avista Corp 154
Back loading 130
Bahamas 282
Balance sheet and income statements 178
Baltimore, Maryland 11
Subject Index

Banishing Bureaucracy 93
Bankruptcy 182
Bargaining unit 185
Basic Cooperative Services 207
Basin Electric Power Cooperative (BEPC) 206, 207
Basis for determining the allowable rate of return 117
Basis for rule ethics 46
Bates Technical College xvi
Business Ecology (BE) process 147
Behaviors and attitudes expressed by legislatures 21
Benchmarking 95
Benchmarking study 154
Bethlehem, Pennsylvania 11, 252
Biggest mega trend 182, 194
Bills of Rights 47
Bioterrorism preparedness 286, 289
Bismarck, North Dakota 207
Blackout 1, 219
Block rate 119
Board members 199, 215
Boeing Company 64, 106
Boise, Idaho 154
Bonneville Power Administration (BPA) 26, 33, 34, 37, 57, 61, 82, 94, 106, 136, 204, 222, 276
Bonus opportunities 190
Boston 11, 249, 252, 254
Boulder Canyon Project Act of 1928 209–10
BPA 82, 276
Brackish 260
Brain Drain 184
Brazil xii, 16
Britain 5, 6
British 6, 253
and Irish Catholics 5
BNFL Group 273
citizens 5
justice 203
rule 4
British Columbia 78
British Columbia Gas 106
British Columbia Hydro 106
British Columbia Provisional Emergency Program 106
British Thermal Unit (BTU) 241, 272
British utility management firm 191
Brownout and blackouts/electricity sector 3
Brush system 23
BTInet 207
Bureau of Reclamation (BOR) 258
Bureau's water projects 258
Burnertip prices 246
Bus transportation 11
Business lobbies 15
Buyers of power 222
Cable television system 14
Cable television xi
California 33, 34, 40, 61, 80, 83, 197, 221, 222, 233, 244, 257, 258, 269, 271, 287, 288
and Enron 68
Central Valley 261
deregulation 68, 197
electric power industry 41
electricity crisis 21, 32, 41, 197
energy reorganization process 104
experience 75
generating plants 42
legislators 42
project 258
Public Utility Commission 42
regulators 41
reorganization process xv, 166
State water Project 258
Water Board 136
Calpine Corporation 185, 186, 282
Canada 35
Canada blackout 21
Canada xii, 16, 78, 197, 202, 219, 225, 227, 228, 271, 282, 287, 289
Canadian Hydro Developers, Inc (Canadian Hydro) 78–9
Canadian
imports 282
gas fields 282, 289
natural gas 248
pipeline deliveries (Vital 2004) 248
Province of Ontario 219
task force 219
Canal construction 4
Capacity of all transmission lines 220
Subject Index

Capital acquisition 163
as a key resource 165
of a holding company 201
Capital-intensive industries 25, 199
Capital-recovery fee 170
Carbon dioxide 284
Caring Ethics 48
Cartels and trusts 58
Munn v. Illinois 10, 23
Cash awards 193
Casino industry 200
Catalyst of fundamental changes 146
Catalytica Energy Systems, Inc (CES) 80
CenterPoint Energy Arkla 221, 238, 239
CenterPoint Energy Entex 239
CenterPoint Energy Minnegasco 239, 245
Central and Eastern U.S. 227
Central Hudson Gas & Electric Corporation 98
Central marketing issue 130
Centralized services 176
CES Company Profile 80
CH Energy Group 98
Charges for interstate transportation 244
Chelan County Public Utility District 158
Chelan County PUD in Wenatchee, Washington 185
Chelan County, Washington 77
Chester County 81
Chicago, Illinois 10, 26, 57, 154
Chief challenges 71
Chief Information Officer (CIO) 154
Chile xii
Christian virtues 49
Church-dominated Utah legislature 257
Cinergy 156
Citizens' committees xi
City of New York 252
City of Perth Amboy 191
City of Shelton, Washington xvii, 213
City gate prices 246
City-owned utility 176
Civic Center Building 214
Civic water systems 8
Civil and political rights 47
Civil War (US) 8, 9, 22, 55, 203, 268
Civil War in Great Britain 5
Classic multi-organizational agreement 214
Classify rights 47
Clean Air Act Amendments 284
Clean Water Act (CWA) 65, 70, 259, 283
Clean Water Act of 1972 268
Clean Water State Revolving Fund 66, 259
Closing 159
Click! 159
Click! Network 159
Coal 22, 223, 225, 274
bed methane 282
gas plants 11
natural gas and petroleum 235
fired electric power generating plants 224, 274
fired steam turbine 223–4, 235
Coastal areas of the Middle Atlantic seaboard states 248
Coastal vessels 4
Collections model 20
Collective bargaining 189, 195
Collector of customs 9
Colonial and revolutionary North America 209, 252
Colonial institutions 5
Colonial system 4
Colorado 83, 257
Colorado River 204, 210
Columbia River dams 276
Columbia River project 276
Combined transportation, storage, and other services 243
Combine-Cycle Gas Turbine (CCGT) generators 224, 241
Commercial 135
and industrial customers 131
and Industrial Gas Services 239
justice 4
market 242
Commission orders by the Federal Energy Regulatory Commission 243
Commission's jurisdiction 57
Communications 11
Subject Index

Communications revolution 7
Community responsiveness 185
Community utilities 212
Commonwealth Edison 192
Compagnie Générales des Eaux 263
Company policy 36
Comparison of actual costs and operating statistics 179
Compensation 283
Compensation program 185
Compensatory justice 48
Competition 234
Competition at all levels of the industry 130
Competitive analysis 139
Complex governance system 203
Compliance with the RTO 230
Components of information technology 161
Comprehensive Environmental Response 283
Computer climate model 277
Computer-based information systems 145, 146
Computers 146
and complex telecommunications systems 145
and telecommunications technologies 160
Concept of strategic management xiii
Condemnation of riparian water rights 257
Connectiv Solutions 200
Congestion overloads 219
Congress of the United States 33, 41, 42, 55, 57, 64, 68, 69, 212, 233, 242, 243, 251, 259, 276, 279, 280
Connecticut 219, 284
Consistency in reporting 180
Consolidated Electric & Gas Company 153
Consolidation 207
Constantinople 263
Constitution of the United States 209
Construction costs 224
and the Hoover Dam 210
of reservoirs 25
Consumer Cooperatives (Co-ops) 197, 206
Consumer protection rules 123
Consumer-owned utilities (COUs) 123
Consumers Public Power District 202
Contingency factor 115
Contract negotiations 189
power projects 166
prices 133
provisions 189
Control air and water pollution 283
Control Area Operators (CAOs) 228
Control process 90
systems 148, 161
of utility holding company excesses 220
Controlling the management function 100
the implementation of plans 136
Convert raw data 148
Co-op customer density 198
Co-op Model 206
Cooperative water organizations 257
Cooperatives (Co-ops) 25, 197, 198, 222
Coordinating systems 151
Corporate governance 196
Corporate policy 36
Corporation Finance Division 56
Corporations 199
Cost data and related operating statistics 179
Cost of building nuclear generating facilities 275
Cost shifts 116
Cost-containment 184
Costs attributable to operations 111
Court decisions 209
Cove Point Terminal 249
Crisis management 105, 107
Crisis planning 107
Critical set of challenges 177
Critical skills 84
Croton River 254
Crown Colonies 5
appointed governors 6
Court decisions 21
and the rights of municipality 209
Subject Index

Customer Application Maintenance System (CAMS) 159–60
Customer Information Database (CID) 160
Customer Information System (CIS) system 156–7, 161
Customer Owned Utilities (COUs) 123
Customer Relationship Management (CRM) 137–8, 157, 161
Customer service 185
Clean Water Act (CWA) 65
established rules 268
regulatory focus 66
rules 25 9
Cyberterrorism 267

Dakota Coal Co. 207
Dakota Gasification Co. 207
Damage to the grid and related equipment 219
Data warehousing 155, 156
Debt 165
Decision Support Systems (DSS) 152
Declining water tables 261
Delaware 80, 81, 186
Demand costs 112
for energy 139
for natural gas 237, 250
rates 120
for better governance 196
Demand-side management (DSM) 136
Demarketing 127, 129, 142
Democratic Party platform, election of 1932 102
Denver, Colorado 254
Department of Energy (DOE) 33, 62, 232, 274, 277, 282
Department of Homeland Security (DHS) 286
Department of the Interior (DOI) 258
Depleted fields 247
Depletion 287
Depression, the Great 57
Derailed industry 277
Deregulation 39, 103, 123, 126, 129, 182, 197, 221, 232, 234, 236, 243, 251
and reorganization 143
and restructuring 163

movement 68
of the utility industry 70
or restructuring 75
Desirability of natural gas 240
Determining costs 110
Determining specific combination of prices 109
Developing a comprehensive customer database 157
an organization profile 77
strategies xiii
the marketing plan 136
Development of transportation 4
of water systems 252
Diesel electric locomotive 225
Diesel fuel 225
Different types of organizations 268
Digital utility concept 155
Directing implementation of the plan 136
the operations of an organization 99
Directors 185
Disposal sites 14
Disruptions of critical public services 106
Distinguishing moral standards 44
Distribution 231
companies 238
or processing 13
systems 135
utilities 125, 134
Distributive justice 48
District of Columbia 66, 190, 222, 244, 245, 260, 284
Diversity 126
Dominion Resources, Inc. 134
Donor–recipient management model 212
Dover, England 11
Downstream activities 238, 250
Drilling 25
Duke Energy 106
Dynamic nature of the CIS 157
EAI Corp 282
Early Utilities
First system in New York City 252
carrier ditch companies 247
utility integration 199
water systems 252
Eastern U.S. 231
East Central Area Reliability Coordination Agreement 142
East Coast of the U.S. 6, 282
East Indian (the US Census Bureau population category) 124
East Indians 124
Eastern Daylight Time 219
Eastern Interconnected System 227, 235
Eastern Interconnections 228
Eastern United States 219
Eclectic mix of private and public utilities 182
E-commerce 150, 161
Economic conditions 75
organizations 12
reality 102
upheaval 204
and social, and cultural rights 47
Edison 192
Company 23
Electric Institute 232
Electric Light Company 23
General Electric 23
Lamp Company 23
Education policies 19
Effective cost control 179
E-government 148, 149, 161
Egypt 11, 209
El Paso Electric Co. (EPE) 142, 226, 227, 242
El Paso, Texas 241
Elasticity 131, 143
Elba Island Terminal 249
Elective bargaining process 189
Electric power 223
for lighting purposes 11
industry 222, 230, 234, 238
infrastructure 272
systems 235
Electric Reliability Council of Texas 142
Electrical energy 11
ElectriCities 138
Electricity 12, 23, 32
and natural gas energy sectors xi
and natural gas industries 199
blackouts 219
generation segment 241
industry 29, 278
Electronic commerce 148
customer relationship management 157
Electronic Customer Relationship Management (e-CRM) 157
E-Mainstream 284
Emergency Preparedness 106
Emissions 83, 227
Encompasses acts of deception 43
Encyclopedic review of the industry 145
End-use prices 246
Energy Act 201
Energy Atlantic 138
and Maine & New Brunswick Electric Power Co 153
Energy Information Administration (EIA) 88, 137, 221, 226, 289, 229, 230, 233–4, 236, 239, 246–7, 275, 28–3, 289
Energy crisis 233
market 132
policies 19
problems 197
shortage 42
Energy Policy Commission 278
England 35
Enron 39, 40, 47, 68, 104, 138, 233, 250
collapse 41
chief financial officer 40
stockholders 40
Enterprise application integration 151
Environmental analysis 139
concern 128
groups 274
policies 19
pressures 83
regulations 273
stewardship 185

Environmental Protection
Administration (EPA) 65–7, 142, 143, 212–13, 259–60, 263, 266, 284, 286, 289
authority 142
classifies water systems 254, 268
electronic report 66
establishes standards 142
mandates environmental standards 263
and state partnerships 66, 259

Equity investor-owned utilities 165
Estimate construction costs of new technology 275
Ethical dilemmas 49
Ethical standards 39, 43
Ethics
definition of 43
and good governance 41
and responsibility 1
a branch of philosophy 43
Ethos 51, 52, 53
European Union (EU) 16, 35
Europe xi, 4, 5, 6, 8, 9, 25, 35, 130, 143, 197, 206, 253, 272
Everett, Washington 249
Evergreen State College xi
Evolution of government involvement 204
Exelon Corporation 192
Exempt Wholesale Generator (EWG) 60, 67
Expert Systems (ES) 152
Extensive consolidation of business 9
External analysis 74, 97
and internal constraints 101
data 178
environment 82
factors 90, 139
forces 109, 194
policy 19
surveys 74
Extortion 105
Extranets 150, 151
Extraordinary events 139
Extraordinary items include any unexpected gains or losses 172
Fair rate of return 116, 142, 171, 220, 231, 234
Far West 63
Federal and local government power 15
Federal Clean Air Act of 1970 283
Federal control 205
Federal Courts 10
Federal Emergency Management Agency (FEMA) 106
Federal Energy Bill of 2003 203
Federal Energy Regulatory Agency (FERA) 233
Federal Environmental Protection Administration 65
Federal government 14, 22, 26, 103, 209, 215, 259
and the water industry 258
regulations 69
set artificially low regulated prices 251
development of power projects 209
participation 204
preference clause system 205
Federal grants 129
irrigation involvement 258
laws 211
legislation 127, 143, 259
operators 276
ownership 209
policy toward utilities 22
Federal Power Act of 1935 57, 69, 243
Federal Power Act of 1992 (FPA) 60, 61, 64
Federal Power Commission (FPC) 26, 56, 57, 62, 69, 70, 102, 205, 243
Federal power supply systems 57
Federal regulation
of the energy industry 243
of utilities 69
Federal regulatory system 56, 69
Federal Reserve Bank 25
Federal state and local governments 19
Federal Trade Commission 102
<table>
<thead>
<tr>
<th>Subject Index</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Water Pollution Control Act of 1972</td>
<td>65, 70, 259</td>
</tr>
<tr>
<td>Federal Water Power Act</td>
<td>57, 69</td>
</tr>
<tr>
<td>Federally imposed pollution controls</td>
<td>237</td>
</tr>
<tr>
<td>Federally mandated preference status</td>
<td>276</td>
</tr>
<tr>
<td>Federally owned utilities</td>
<td>222</td>
</tr>
<tr>
<td>Fees and commissions</td>
<td>59</td>
</tr>
<tr>
<td>FERC Order 436</td>
<td>27, 64, 243, 251</td>
</tr>
<tr>
<td>FERC Order 500</td>
<td>27</td>
</tr>
<tr>
<td>FERC Order 636</td>
<td>28, 64</td>
</tr>
<tr>
<td>Fiber-optic communication systems</td>
<td>121</td>
</tr>
<tr>
<td>Final load factor</td>
<td>126</td>
</tr>
<tr>
<td>Finance function</td>
<td>181</td>
</tr>
<tr>
<td>Financial and statistical data flow</td>
<td>168</td>
</tr>
<tr>
<td>Financial management</td>
<td>167, 181</td>
</tr>
<tr>
<td>First World War</td>
<td>9</td>
</tr>
<tr>
<td>Five chief components of all information systems</td>
<td>161</td>
</tr>
<tr>
<td>Five human resources vice-presidents</td>
<td>194</td>
</tr>
<tr>
<td>Five important external constraints</td>
<td>107</td>
</tr>
<tr>
<td>Fixture rates</td>
<td>119</td>
</tr>
<tr>
<td>Flat charge rates</td>
<td>118</td>
</tr>
<tr>
<td>Flat charges</td>
<td>119</td>
</tr>
<tr>
<td>Flat or average-rate pricing</td>
<td>129</td>
</tr>
<tr>
<td>Flat rate</td>
<td>119, 127</td>
</tr>
<tr>
<td>Florida</td>
<td>184, 282, 287, 288</td>
</tr>
<tr>
<td>Florida legislatures</td>
<td>262</td>
</tr>
<tr>
<td>FOA</td>
<td>243</td>
</tr>
<tr>
<td>Folsom, New Jersey</td>
<td>200</td>
</tr>
<tr>
<td>Forbes magazine</td>
<td>273</td>
</tr>
<tr>
<td>Forecasting demand</td>
<td>139</td>
</tr>
<tr>
<td>Form 10-K annual financial report</td>
<td>76, 89</td>
</tr>
<tr>
<td>Forward-looking statements</td>
<td>74</td>
</tr>
<tr>
<td>Fossil fuels</td>
<td>225</td>
</tr>
<tr>
<td>Fragmented structure</td>
<td>35</td>
</tr>
<tr>
<td>France</td>
<td>16, 253</td>
</tr>
<tr>
<td>Franchise to construct and operate</td>
<td>14, 24</td>
</tr>
<tr>
<td>Fresh water</td>
<td>260</td>
</tr>
<tr>
<td>Ft. Lewis, Washington</td>
<td>133</td>
</tr>
<tr>
<td>Fuel cells</td>
<td>226</td>
</tr>
<tr>
<td>Fuel price shocks and shortages</td>
<td>220, 234</td>
</tr>
<tr>
<td>Fuel used for generating electricity</td>
<td>111</td>
</tr>
<tr>
<td>Fundamental concepts</td>
<td>xiv</td>
</tr>
<tr>
<td>Fundamental economic principle</td>
<td>13, 17</td>
</tr>
<tr>
<td>Fundamental management paradigm</td>
<td>shift xii</td>
</tr>
<tr>
<td>Fundamental purpose of the MIS</td>
<td>152</td>
</tr>
<tr>
<td>Fundamentals of rate setting</td>
<td>109</td>
</tr>
<tr>
<td>Futures market</td>
<td>128</td>
</tr>
<tr>
<td>Gallup</td>
<td>41</td>
</tr>
<tr>
<td>Gallup Poll, USA Today</td>
<td>40</td>
</tr>
<tr>
<td>Gap analysis</td>
<td>84</td>
</tr>
<tr>
<td>Gas (natural)</td>
<td>289</td>
</tr>
<tr>
<td>and wind turbines</td>
<td>14</td>
</tr>
<tr>
<td>distributors</td>
<td>237</td>
</tr>
<tr>
<td>group units</td>
<td>239</td>
</tr>
<tr>
<td>lights and electric power</td>
<td>203</td>
</tr>
<tr>
<td>prices</td>
<td>250</td>
</tr>
<tr>
<td>producers</td>
<td>63</td>
</tr>
<tr>
<td>shortage during the winter of 2000–01</td>
<td>247</td>
</tr>
<tr>
<td>storage</td>
<td>247–8</td>
</tr>
<tr>
<td>supply</td>
<td>200</td>
</tr>
<tr>
<td>turbine</td>
<td>64, 224</td>
</tr>
<tr>
<td>Gas-turbine generators</td>
<td>273</td>
</tr>
<tr>
<td>General Electric</td>
<td>94, 273</td>
</tr>
<tr>
<td>General fund</td>
<td>13</td>
</tr>
<tr>
<td>General Motors</td>
<td>94</td>
</tr>
<tr>
<td>Generating plant operators</td>
<td>42</td>
</tr>
<tr>
<td>Generation III</td>
<td>275</td>
</tr>
<tr>
<td>Generation, transmission, and distribution</td>
<td>32</td>
</tr>
<tr>
<td>Geothermal</td>
<td>235</td>
</tr>
<tr>
<td>Germany</td>
<td>16, 92, 107, 153</td>
</tr>
<tr>
<td>Greenhouse Gas Intensity (GGI)</td>
<td>283</td>
</tr>
<tr>
<td>Global payroll</td>
<td>16</td>
</tr>
<tr>
<td>Global Power Group</td>
<td>165</td>
</tr>
<tr>
<td>Global water</td>
<td>262</td>
</tr>
<tr>
<td>Goal of the control process</td>
<td>87</td>
</tr>
<tr>
<td>Goal setting and reward systems</td>
<td>140</td>
</tr>
<tr>
<td>Goals for a public participation program</td>
<td>137</td>
</tr>
<tr>
<td>Goals of the Tacoma Utility Business Systems Improvement Project</td>
<td>153</td>
</tr>
<tr>
<td>Governance</td>
<td>196, 198</td>
</tr>
<tr>
<td>Governance challenges</td>
<td>xv</td>
</tr>
<tr>
<td>Governance models</td>
<td>212</td>
</tr>
<tr>
<td>Governance of public utilities</td>
<td>34, 197, 214</td>
</tr>
</tbody>
</table>
paradigm shift 211
policies and actions reform 197
Government
accounting system 176
agencies 177
financial managers in the annual report 177
organizations 177
participation 209
Policy xi, 25, 37
regulation 6, 29, 62
regulation of the natural gas industry 70
Government involvement 215
Governmental Accounting Standards Board (GASB) 168
GASB System 168, 176–7, 181
Government-owned organizations 176
Grain elevators 12
Grand Coulee Dam 276
Granger Laws 10, 24, 55, 69
Granite Peak Energy, Inc 207
Grays Harbor County 81
Great Britain 5, 15, 94, 208,
Great Depression xi, 15, 21, 7, 59, 196, 201, 243, 269
Great Plains 261
Greece 209
Green power market 133
Greenhouse gas intensity 283
Grid 61, 226
Grid West 277
Groundwater 261, 287–8
Gulf Coast 237, 250, 282
Gulf of Mexico 237
Hawaii 282, 287
Health problems 129
Heating oil delivery xi
Hidden extreme wholesale prices 121
High Plains of the U.S. 287
High prices 129
High-pressure 128
Hispanic ancestry 124
Historical information 139
Holding companies 59, 201
Home rule charters 203
Home Service Plus® 245
Hoover Dam 204
Households 135
Houston, Texas 221, 238
Hudson River 98
Hudson's Bay Colony, Canada 5
Human Resources
activities 187, 195
department 184–5, 192
function 191
managers 183, 184, 194
needs 192
operations 192
staff 192
management (HRM) 182–3, 191
role in public utilities 140
Heating, Ventilation, and Air Conditioning (HVAC) 141
Hydroelectric dams 14
Hydroelectric generation capacity 276
Hydroelectric generators 225
Hydropower plant locations 273
IBM mainframe-based system 159
Idaho 154, 155
Idaho Bureau of Disaster Services 106
Idaho Power Co. 153, 155
Illinois 7, 40 203, 239, 247, 274
Illinois State legislature 10
Imbalance 83
Immigrants 6
Impact fees 170
Implementing planned activities 86
Imports in 2002 249
Inadequate supply 8
Income and deductions 172
Independent Energy Producers 42
Independent power producers 226
Independent Regional Transmission Operator (IRTO) 230
Independent System Operator (ISO) 61
India 209, 252
Indian sub-continent 11, 124
Indiana 7, 247
Individual councils 228
Individual firms 201
Individual states 67
Industrial (or business) Ecology (IE) 147
Industrial customers 135, 240
Industrial park 213
Industrial policies 19
Industry analysts 221
Industry and policymakers 289
Industry consolidation 199
Inexpensive gas turbine generator 273
Information Management (IM) 145–6, 160
Information System Master File 159
Information Systems Technology (IST) 147
Information technology (IT) xv, 145, 146, 149, 160
Information technology management (ITM) 145, 160
Infrastructure 4
Infrastructure Security (see PMPRIS) 106
Initial government policy 24
Institute for Energy, Law and Enterprise 289
Integrated energy companies 234
Integrated resource planning (IRP) xiv, 88–90
Integrated utility information management 149
Integrated utility providers 127
Intent of the bargaining process 189, 195
Interconnected network of transmission lines 226, 235
Interconnected utilities 227
Interest charges 172
Internal analysis 97
Internal combustion engine 225
Internal data 178
Internal environment 82
Internal IT issues 154
Internal policy 19
International Personnel and Labor Relations Association (IPLRA) 193
Internal Revenue Code 186
Internal Revenue Service 168
International water holding companies 263
Internet 150, 151, 157
Internet-based communications technology 270
Inter-organizational application 150
Interpreting theory and data 96
Interstate commerce 58
Interstate Commerce Act 24
Interstate Commerce Commission (ICC) 24, 196, 203
Interstate Commerce Commission Act 96
Interterties 226, 235
Intranet technology 151
Investor-owned utilities (IOUs) 13, 35, 39, 123, 140, 166, 169, 185, 197–8, 210, 211, 215, 222, 231, 269, 276
and publicly owned utilities 191
gas utilities 245
operations 176
plants 185
public utility 227
’Invisible hand’ 9
Involvement of employees 193
Iowa 239
Iron 22
Irrigation canals 256
Irrigation districts 257
Irrigators organize 257
Issue franchises and permits 202
Information Technology (IT) 145, 146, 147
applications 152
consulting firms 157
experiences 155
in utilities 146
investment 153
program planning and design experiences 153
requirements 159
resources 160
spending plans 154
system in the utility 146, 160
systems 153
Information Technology Management (ITM) 145
Italy 16
Japan 95, 192, 282
Juarez, Mexico 227
Jurisdiction-based activity (JBA) 214
governance model 213
model 212, 215, 216
Just and reasonable test 26
Justice Ethics 48
Kansas 79, 239
Kansas City Gas and Electric 79
Kantian rule-based rights theories 47
KBC Advanced Technologies, Inc 192
Kentucky 239
Key finance challenges 181
Kissimmee Utility Authority (KUA) 184
Kissimmee, Florida 184
Kitsap County 81
Knavery 50
Knowledge manager xvi

Labor relations 189
Labor Relations of the American Society for Public Administration 193
Labor relations process 195
Labour Party 15
Lacey, Washington 255
Laissez-faire economic approach 4
Lake Charles Terminal 249
Land development fees 170
Large investor-owned utilities 141
Large municipal operation 197
Large utilities and industrial customers 276
Latin America 35
Laws of particular concern 283
Local Distribution Company (LDC) 238, 243, 245, 250
Leadership from Within 185
Leadership skills 99
Lean Management Information System (LMIS) 159
Least understood concepts in utility management xiv
Legacy systems 159
Legal actions and constraints 103
Legal and economic constraints of public utilities 96
Legal challenges to Order 451 244
Legal right of government to acquire 33
Legally sanctioned price discrimination 13
Lehman Brothers Investment Bank 165
Liability Act of 1980 283
Lighting systems 25
Limited Liability Corporation 81
Liquefied Natural Gas (LNG) 65, 248–9, 282, 289
port and storage facilities 248
regasification terminals 249
LJM Corp. (Enron) 40
Lean Management Information System (LMIS) 159
Load factor 115
Load-duration curve 139
Local distribution companies (LDCs) 238
Loop flow 219
Lord Baltimore’s Maryland Colony 5
Lord Chief Justice of England 203
Los Angeles, California 254
Loss of critical knowledge 184
Louisiana 239, 247, 249
Lower utility costs 131

Maine & Maritimes Corporation (MAM) 138, 153
Maine 103
Maine Public Service Company (MPSC) 41, 104, 153–4
Maine Public Utility Commission (MPUC) 103
Maintaining product quality and reliability 142, 143
Maintenance, operations, and record keeping 42
Management 71, 74, 91, 106, 107, 189
by objectives (MBO) 95
costs 111
discussion and analysis (MD&A) 177
in public utility organizations 92
information systems (MIS) 151
of public service 211
policy 20
problems 146
responses 140
Managers 109
moral behavior 52
in municipal water utilities 265
use of MIS-produced data 152
Managing for results 136
Managing implementation of the program 136
Managing utilities 93
Management Discussion and Analysis (MD&A) in annual reports 177
Management Information System (MIS) 151, 157
Mandated restructuring 103
Manufacturers of electrical equipment 11
Manufacturers and natural gas 23
Marina Energy 200
Market 132
Market participants 231
Market-based economies 109
Market-driven managerial leadership 3
Marketing 128, 132, 143, 223
activities 135
and branding 137
expenditures 130
in the utility industry 130, 138
funds 127
management 136
managers 136
objectives 142
plan 136
problems 146
programs 141
Maryland 141, 190, 249
Maryland Colony 5
Mason County, Washington 81
Mason County Public Utility District No. 3 xvi, 80, 81, 158
Massachusetts 6, 219, 249, 284
Massachusetts Bay Company 5
Massachusetts operations center 267
McCord Air Force Base 133
MegaNOPR 28
Mega-Notice of Proposed Rulemaking (MegaNOPR) 28
Megatrends 284
Melting glaciers 287
Merchandising 7
Merchant power generating firm
Cinergy 156
Mesopotamia 11, 209, 252
Metered water sales 178
Mexico 226, 227, 228, 248, 282
Mexico’s Comisión Federal de Electricidad (CFE) 227
Michigan 7, 219, 247
Microsoft® Excel™ 139
Mid-America Interconnected Networks 142
Mid-Atlantic Area Council 142
Mid-Continent Area Power Pool 142
Middlesex Water 191
Midstream activities 238, 250
Midwestern states 10, 24, 61
Millennium Account Services 200
Million British Thermal Units (MBTUs) 241
Minimum requirements for the system of accounts 169
Minnesota 7, 83, 239, 245, 246
Misconduct 43
Mission of the organization 20
Mission statement 76, 77
Mississippi 7, 239, 287
Missouri 239
Modern information system 157
Modern integrated information 161
Monitoring 220
Monopolies 17
Monopolies and trusts 14
Monopolistic conditions 55
Monopolistic tightly regulated utilities 220
Montana 258
Morality 43, 45, 48, 52
Mormon community water projects 257
Mormon systems 257
Mormons 256
Municipal and investor-owned utilities xi
governments 202, 215
industrial development xi
owners 8, 272
systems 8, 204, 254, 263
utility 158, 176, 222
water and sewer utilities 204
water and wastewater systems 262
Municipal-employee labor unions 191
Municipalities 202, 203, 215
Municipally controlled system 253
Municipally owned and operated utilities 94, 176, 186, 229
Munn and Scott 10
Munn v. Illinois, 1877 10, 23, 203
Mutual societies 208
<table>
<thead>
<tr>
<th>Subject Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual society form of utility governance 206</td>
</tr>
<tr>
<td>Mutual water companies 257</td>
</tr>
<tr>
<td>Nation's railroads 22</td>
</tr>
<tr>
<td>National Association of Regulatory Utility Commissioners (NARUC) 35, 168, 169, 170, 172, 176, 179, 181</td>
</tr>
<tr>
<td>National Commission on Energy Policy (NCEP) 277, 280</td>
</tr>
<tr>
<td>National Council on Government Accounting 176</td>
</tr>
<tr>
<td>National Grange of the Patrons of Husbandry 24</td>
</tr>
<tr>
<td>National grid 220</td>
</tr>
<tr>
<td>National health standards for drinking water 259</td>
</tr>
<tr>
<td>National Infrastructure Protection Center 106</td>
</tr>
<tr>
<td>National interest electric transmission corridors 33</td>
</tr>
<tr>
<td>National postal system 7</td>
</tr>
<tr>
<td>National Regulatory Research Institute (NRRI) 35–6, 61, 123</td>
</tr>
<tr>
<td>Native American tribes 213, 256, 258</td>
</tr>
<tr>
<td>Natural gas 11, 12, 14, 32, 222, 225, 240, 242, 251, 272</td>
</tr>
<tr>
<td>Natural Gas Act of 1938 (NGA) 26, 27, 30, 57, 62, 63, 70, 242–3</td>
</tr>
</tbody>
</table>
Subject Index

New Zealand xii, 16, 3, 35, 94, Newark, NJ 185
New-contract negotiations 189
Nice, France 263
Nigeria 249
Nineteenth century 7, 8, 254
No pay, no service model 20
Noncompliance of a single rule 283
Nongovernmental organizations 283
Non-hydroelectric renewables 225
Non-OPEC countries 249
Non-optional necessities 124
Non-peak period supply 131
Nonprofit trusts function 205
Non-regulated power generator 166
Non-regulated power marketing 221
Non-regulated power marketing and trading field 234
Non-utilities 30
North America 4, 5, 11, 130, 142, 143, 197, 198, 209, 227, 235, 249, 272, 273, 275, 276, 287
North American Electric Reliability Council (NAERC) 142, 143, 235
North American Electric Reliability Council regions 228
North American electricity systems 272, 275
North American grids 227
merchant traders 6
natural gas reserves 248
power system (Connor 2002) 271
production fields 237, 250
wholesale market 230
North Carolina 138
North Dakota 206, 207
Northeast United States 63, 197, 231, 279, 282
Northeast blackout 21, 228, 271
Northeast Power Coordinating Council 142
Northern California 258
Northern Illinois energy market 192
Northern Maine 103
Northern Maine and New Brunswick, Canada 153
Northern states 9
Northwest 231
Northwest Territory 7
Northwest’s electric power grid 106
Norway xii
Not in my backyard (NIMBY) 14
Nuclear generation 274, 288
Nuclear plants 225–6, 273
Nuclear power issue 271
Nuclear Steam Supply System 275
October of 1929 15, 21
Office of the President of the United States 39
Offshore gas 63
Off-System Operations 200
Ogallala Aquifer 287
Ohio 7, 219
Ohio grid operator 219
Ohio State University 123
Oil Pollution Act of 1990 283
Oklahoma 202, 237, 239, 250
Oligopolistic environment 7
Olympia, Washington 81, 255
Oman 249
Onshore new gas 63
Ontario, Canada 78, 219
OPEC cartel 233
Open Access Same-time Information System (OASIS) 230
Open-access, public fiber-optic telecommunication system 158
Operating costs 112, 224
Operational excellence 185
Opponents of restructuring in the industry 232
Option to specify purchase blocks of energy 122
Orange County, California xi
Order 2000 31, 230, 236
Order 436 27, 244
Order 451 244
Order 500 244
Order 636 28, 243–4, 251
Order 637 28
Order 888 31, 61, 229, 230, 235
Order 889 31, 61, 235
Ordinance of 1787 6
Oregon 155, 222, 276, 284
Oregon state law 222
Organization’s objectives 76
Organizational cooperation 211
Organizational policy 20

David E. McNabb - 9781845426811
Downloaded from Elgar Online at 01/17/2019 12:24:33PM via free access
Organize data 148
Outer Continental Shelf Lands Act (OCSLA) 27
Outsourcing 198, 269
Overall consolidation 271
Overhead expenses 111–12
Overloads 220
Overpricing 55
Overseas imports 248
Oversight control 228
Overview of the role of public policy xiii
Pacific Northwest 157, 177, 198, 202
Pacific Northwest’s Columbia River Basin 276
Pacific Northwest Partnership for Regional Infrastructure Security (PNPRIS) 106
Paradigm shift 3
Paris, France 263
Particularity of electricity 220
Asia 130, 143
Passage of the Fuel Use Act 63
Patrons of Husbandry (Grangers) 10
Payment/financial aid model 20
Peak load 112, 126
Peak-load conditions 158
PECO Energy, Inc 191, 192
Pennsylvania 5, 6, 9, 219, 247, Pentagon 262
People’s Energy, Chicago, Illinois 154
PERCO Energy of Philadelphia 192
Performance standards 190
Periodic outbreaks of illnesses 254, 268
Permits for transmission line construction in the corridors 33
Personnel functions 191
Persuasive control techniques 191
Petroleum-based energy shocks 142
Philadelphia 192, 252, 254
*Phillips Petroleum v. Wisconsin* 347
U.S. 672 27
Phoenix, Arizona 84
Photovoltaic systems 226
Physical environment model 21
Pierce County 81
Pinnacle West Capital Corporation (Pinnacle West) 84–5
 Pipelines 25, 123
Pivotal Virtues 49
PJM (Pennsylvania, New Jersey, Maryland) 61
Planning activity 136 and control purposes 179 in public utilities 89
*Platts global energy* 2004 27
Policies and practices 193
Policy of restructuring utilities 33
Policy shifts 95
Policymakers 34
Policymakers and utility managers 277
Political rights 47
Population of the United States 8
Port of New York 9
Port of Seattle 106
Port of Shelton 213
Portfolio manager 278
Portland, Oregon 276
Porto, Portugal (1882) 263
Potable water 259
Potential customers 131
Power crisis 166
Power markets 96, 226
*Power Markets Week* 138
Power Plant and Industrial Fuel Use Act (PPIFU) 30
Power Plant and Industrial Fuel Use Act 37
Power production 209
Power shortages 129, 276
Predicted load (demand) 133
Preparedness strategies 106
President’s Global Climate Change Initiative 283
Price breaks 122
Price discrimination 13
Price of natural gas 273
Price of producing utility products 128
Price run-ups 42
Pricing decisions 117
Principal process of a customer relationship program 157
Private companies were granted licenses 11
Private contractor 191, 197
Private Corporation 252
Private generators in California 42
Private ownership 24, 210
Private Sector 161
Private Securities Litigation Reform Act of 1995 74
Private system operators 253
Private transmission and distribution facilities 33
Private utilities 3, 8, 199, 215, 169
Privately developed infrastructure 4
Privately financed railroads and utility services 24
Privately owned grain elevators 204
Privatization 39
Privatization and deregulation movements xii, 3, 182
Privatization model 35
Privatization of complete systems 35
Privatized utility model 208
Process of setting prices in distribution public utilities 110, 125
Processed data 148
Product planning 136
Product tampering 105
Production problems 146
Production, transmission, and distribution 3, 32
Professional/technical unity 185
Profile of a public utility district 81
Program evaluation 3
Programs function at four organization levels 185
Progressive Era 14, 17, 19, 24, 37, 196, 204, 215
Proper data storage 148
Protection One Europe 79
Prototype recommendations 278
Providing equality of opportunity 193
Provisions in the Ordinance of 1787 10
Public agencies in the 1930s 202
Public and investor-owned organizations 165
Public and private municipal water systems 256
Public/Private Partnerships (PPPs) 3, 265
Public authority 92, 208
Public Health and Bioterrorism Preparedness and Response Act 266
Public Health Security 286, 289
Public interest companies 206
Public management 41, 92, 107
Public opinion 93
Public ownership 15, 24, 203, 298–9
Public Policy 1, 19, 36, 93
Public rail 11
Public Safety policies 19
Public sector 272
Public service 3, 203
Public transportation xi
Public utilities 12
Public Utilities Division 56
Public Utilities Fortnightly 155, 183
Public Utility Commission (PUC) 55, 67, 75, 103, 118, 125, 231–2, 244
approval 42
regulators 42
established rate of return utilities 67
Public Utility District No. 1 (PUD) 77, 213
Public Utility Districts (PUDs) 197, 229, 276
Public utility finance officers 163
Public Utility Holding Company Act of 1935 (PUCHA) 26, 36, 37, 56, 69, 201, 205, 211, 230, 238
Public Utilities in American Capitalism 145
Public utility industry xiii, 9, 145, 182, 288
Public utility management 94
Public utility management and governance 211
Public utility managers 121, 126, 180
Public utility price schedules 120
Public Utility Regulatory Policies Act of 1978 37, 69, 229, 235
Public versus investor-owned public utilities 44
Public warehouses 12
Publicly owned utilities 158, 168, 189, 210, 269
Publicly owned utility finance managers 177
Puerto Rico 263, 282
Puget Sound Energy 106
<table>
<thead>
<tr>
<th>Subject Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pumped storage 225</td>
</tr>
<tr>
<td>Pumping 25</td>
</tr>
<tr>
<td>Purchased costs of gas 244</td>
</tr>
<tr>
<td>PURPA regulations 166</td>
</tr>
<tr>
<td>Purpose of information technology 146</td>
</tr>
<tr>
<td>Purpose of the retained earnings accounts 175</td>
</tr>
<tr>
<td>Purpose of the vulnerability assessment 286</td>
</tr>
<tr>
<td>Purposes of the BASB 168</td>
</tr>
<tr>
<td>Qatar 249</td>
</tr>
<tr>
<td>Quakers 5</td>
</tr>
<tr>
<td>Qualifying facility (QF) 60, 67</td>
</tr>
<tr>
<td>Quality problems 146</td>
</tr>
<tr>
<td>Quasi-governmental institutions 208</td>
</tr>
<tr>
<td>Qwest 106</td>
</tr>
<tr>
<td>R.W. Beck Company 1998 survey 265</td>
</tr>
<tr>
<td>Radical change 220</td>
</tr>
<tr>
<td>Railroads 22–3</td>
</tr>
<tr>
<td>Rate of return (ROR) 245</td>
</tr>
<tr>
<td>Rate-base changes 271</td>
</tr>
<tr>
<td>Ratemaking process 188</td>
</tr>
<tr>
<td>Rates and prices 111</td>
</tr>
<tr>
<td>Rates established for publicly owned utilities 116</td>
</tr>
<tr>
<td>Rationale for regulation of business activities 54</td>
</tr>
<tr>
<td>Rationale for utility regulation xiv</td>
</tr>
<tr>
<td>Real-time metering 121, 134</td>
</tr>
<tr>
<td>Reasonable operating expenses 116</td>
</tr>
<tr>
<td>Rebates or discounts 122</td>
</tr>
<tr>
<td>Reclamation Act of 1902 258</td>
</tr>
<tr>
<td>Reclamation Act of 1906 209</td>
</tr>
<tr>
<td>Record-keeping 168</td>
</tr>
<tr>
<td>Records Center Manager xvi</td>
</tr>
<tr>
<td>Reduce power plant emissions 83</td>
</tr>
<tr>
<td>Reform of the traditional merit system 187</td>
</tr>
<tr>
<td>Regional Transmission Organization (RTO) 31, 61, 230, 236, 276</td>
</tr>
<tr>
<td>Regional transmission territories 61</td>
</tr>
<tr>
<td>Regulated investor-owned utilities 220</td>
</tr>
<tr>
<td>Regulated market 133</td>
</tr>
<tr>
<td>Regulated utilities 13, 17</td>
</tr>
<tr>
<td>Regulation 6 at the state level 102</td>
</tr>
<tr>
<td>of the gas industry 243 policy 75</td>
</tr>
<tr>
<td>Regulators and boards of consumer-owned utilities 279</td>
</tr>
<tr>
<td>Regulatory action taken 21 and corporate governance xv changes 196</td>
</tr>
<tr>
<td>Commission 280</td>
</tr>
<tr>
<td>Orders 888 and 889 31</td>
</tr>
<tr>
<td>Reinventing Government 93</td>
</tr>
<tr>
<td>Reliability Council 228, 235</td>
</tr>
<tr>
<td>Reliant Resources 239</td>
</tr>
<tr>
<td>Renewable energy portfolio 83</td>
</tr>
<tr>
<td>Renewable resources 225</td>
</tr>
<tr>
<td>Reorganization 97, 182</td>
</tr>
<tr>
<td>Reorganization and restructuring 97</td>
</tr>
<tr>
<td>Repeal of the PUHCA 201</td>
</tr>
<tr>
<td>Republic of Mexico 227</td>
</tr>
<tr>
<td>Reservoirs 14, 247</td>
</tr>
<tr>
<td>Residential customers 131, 143, 241, 251</td>
</tr>
<tr>
<td>Residential market 242</td>
</tr>
<tr>
<td>Residential retail competition 232</td>
</tr>
<tr>
<td>Resource Conservation and recovery Act 283</td>
</tr>
<tr>
<td>Resources Group 200</td>
</tr>
<tr>
<td>Response Act of 2002 286, 289</td>
</tr>
<tr>
<td>Restructuring 28–9, 34, 98, 125, 197, 234, 237, 246</td>
</tr>
<tr>
<td>Restructuring Office 98</td>
</tr>
<tr>
<td>Resultant heavy price 288</td>
</tr>
<tr>
<td>Retail competition 222, 245 distribution of electricity 278</td>
</tr>
<tr>
<td>level 130, 143</td>
</tr>
<tr>
<td>marketing 132, 135, 278</td>
</tr>
<tr>
<td>operations 221</td>
</tr>
<tr>
<td>organizations 136</td>
</tr>
<tr>
<td>sales 135</td>
</tr>
<tr>
<td>unbundling 237</td>
</tr>
<tr>
<td>Retained earnings accounts 170</td>
</tr>
<tr>
<td>Retained revenues 165</td>
</tr>
<tr>
<td>Retirement benefits 185, 195</td>
</tr>
<tr>
<td>Retirement plans 185, 195</td>
</tr>
<tr>
<td>Retrenchment for deregulation and competition 138</td>
</tr>
<tr>
<td>Retributive justice 48</td>
</tr>
<tr>
<td>Revenue requirements 109</td>
</tr>
<tr>
<td>Reversal of restructuring 289</td>
</tr>
<tr>
<td>Revised SMD proposal 230</td>
</tr>
</tbody>
</table>
Subject Index

Revolution in transportation 7
Rhode Island 11
Richmond, Virginia 134
Riga, Latvia xii, xvi
Rights Ethics 47
Right of a city-owned utility to operate 209
Right to purchase gas 247
Rio Grande Power Station 241, 242
Rising costs of natural gas 271
Riverboat 4
Rochester Natural Gas Light Company 11
Rochester, New York 11
Rocky Mountain 227
Rocky Mountain region 227, 282
Rolling blackouts 131, 271
Rolling brownouts 1
Roman Empire 11, 209
Routine maintenance 284
Royal charter in 1681 5
Rural Electrification Act in 1936 26
Rush Electric Company 23
San Diego, etc. v. Jasper (74 Fed. 79, 83) 117
San Francisco, California 254
San Francisco Chronicle 40
San Jose, California 185
Sanitation 11
Santa Cruz River 288
Santee-Cooper Project 202
SAP, (ERP software company) 153
Savannah, Georgia 249
Scale and scope of the public utilities industry xiii
Scandal 182
Schedules of prices 125
Scotland 208
Seattle, Washington 14, 197
Second generation rights 47
Second set of primary balance sheet accounts 171
Second water system 252
Secretary of the Interior 209
Securities and Exchange Act of 1934 37, 56, 69, 196
Securities and Exchange Commission (SEC) 56, 59, 69, 102, 16–9, 201, 212
Sherman Antitrust Act of 1890 196
September 11, 2001 104, 217, 262, 286
Service Order Entry System (SOES) 159, 160
SH EnerTrade 200
Shallow Gulf Coast fields 237
Shelton, Washington xvii, 213–4
interorganization agreement 214
Shifting to natural gas 284
Shocks 221
Shortages 63
Short-term growth 241
Shrinking workforce 184
Simple information management system (IMS) 145
Singapore 192
Site clean-up requirements 83
Site limitations 14
Skill in analysis 96
Smyth v. Ames (169 US 486) 118
Social capital 12
Social environmental constraints 104
Social pricing consideration 122
Socialist economies 94
Society and the power generation sector 279
Solid waste disposal 14
South America 197
South Carolina 202
South Jersey Energy Company (SJE) 200
South Jersey Gas 200
South Jersey Industries, Inc. (SJI) 200
South Jersey Resources Group 200
Southeast Arizona 288
Southeastern U.S. 231, 276
Southeastern Electric Reliability Council 142
Southeastern Pennsylvania 192
Southern California 96, 258
Southern California Metropolitan Water District 257
Southern New Mexico 227
Southwest 256, 261
Southwest Power Pool 142
Soviet block of nations 94
Spanish acwqyas 257
Mergers 234
Species extinction 83
Specific services 11
Spike in the price of natural gas 274
Spoils system 9
Spokane, Washington 154, 276
Spot market 130, 133
Spot price 241
Sri Lanka 124
St. Lawrence River 7
St. Lawrence River Project 202
Standard & Poor's 240–41
Standard gas turbines 224
Standard Market Design (SMD) 36, 61, 62, 230, 231
Standard operating procedures 180
State and federal fish and wildlife agencies 213
State Department of Ecology 255
State Department of Licensing 41
State governments 202, 215
State laws 127
State legislatures 24
State or local regulators 115
State Patrol's Training Academy (Washington) 213
State public utility commissions 116, 120, 125, 126, 170
State PUC regulators 42
State regulations 67, 83, 220, 231, 244
State Water Pollution Control Revolving Fund 66, 259
State-approved Urban Development Area 213
Statement of earnings invested in the business 175
Statements of governmental accounting standards No. 34 (AICPA) 177
States of nature 139
Step rate pricing 119
Stock market crash of 1929 101, 196
Stockholders 257
Stockholm School of Economics xi Storage facilities 12
Storing of natural gas 25, 247
Stranded costs 231
Strategic approach to management xiii, 76, 89
Gaps 139
Management xiii, 76, 89
Marketing plan 136
Objectives and policy formulation 73
Planning 3, 73, 82
Street traction 25
Suffolk County 284
Sunk costs 115, 229, 231
Supervisors 185
Supervisory Control and Data Acquisition (SCADA) system 158, 279
Supply chain 249
Supranet 150
Supreme Court cases 10
Sweden xii, 16, 94
SWOT Analysis 73, 74
System failure 182
System inputs 111
System of accounts 170
System of governance 223
Systematic assessment of the operation 87
Tacoma, Washington 133, 153, 158, 186, 187, 197
Public Utilities 133
Employees' Retirement System 187
Power 159, 187
Rail 187
Utilities 153, 187
Water 187
Take-or-pay contracts 27
Tampa Bay Water 75, 262
Technological advances 226
Technologies and fuels 223, 235
Tehachapi Mountains 258
Tele-communications 23
Telecommunications xi
Telephones 23
Telus Corp. 106
Texas Commission on Environmental Quality 227
Texas 202, 220, 221, 227, 237, 239, 242, 247, 250, 257, 258
Terrorists' attacks 286
Tennessee River Authority (TVA) 26,34, 37, 57, 61, 94, 136, 204, 209, 222, 276
Tennessee Valley Authority (TVA) 26
Texas 202, 220, 221, 227, 237, 239, 242, 247, 250, 257, 258
grid 227
Interconnected System 227–8, 235
based energy trading company 138
based, third-party company 41
The Bonneville Power Administration
Act of 1937 210
The Federal Energy Regulatory
Commission (FERC) 238
Thomson-Houston Electric Company
23
Three major transmission grids or
interties 235
Tight sands 282
Time series analysis 139
Title IV 266
Tobago 249
Toll roads 4
Topeka, Kansas 79
Total cost of the operating system 111
Total load (demand) 139
Total Maximum Daily Loads
(TMBLs) 65, 259
Total Quality Management (TQM) 95
Touchstone Energy 207
Trading and Exchange Division 56
Traditional responsibilities of state
utility commissions 123
Traditional public utility industries 23,
107
Transaction processing systems (TPS)
152
Transactional process 192
Transfer stations 14
Transfers between the utility and other
funds of the municipality 176
Transformers 226, 235
Transition costs 229
Transition years 22
Transmission 32, 143, 226, 235
and distribution services 32
grid 220, 235
lines 25, 271
operators 125
owners 229
system 35, 61, 220
Transportation costs 246
Transportation industry 251
Treatment services 30
Trends facing the water and wastewater
industry 289
Trinidad 249
TUI Consulting 153
Turn-pikes and waterways 6
Two-way goal setting 140
Typical or average demand level 139
Unbundling 31, 98, 115, 129, 135, 229,
230
Unconventional sources 282
Under-investment 272
Underground storage facilities 247
Uneconomic over-expansion and
resource misallocation 210
Unethical behavior 182
Unicom 192
Uniform systems of accounts 169
Union contracts 188, 195
Union management relations 195
United Kingdom 3, 192, 208
United States Senate 40
United States (US) xiii, 3, 7, 9, 10, 11,
14, 61, 68, 70, 75, 80, 84, 92, 107,
142, 143, 191–2, 194, 197, 198,
202–204, 208, 214, 219, 221, 223,
225, 235, 239, 241, 243, 247–9,
252–3, 256, 261, 268, 273, 274,
276, 282, 287, 289
Army Corps of Engineers 258
Civil War 257
Congressional investigators 40
Dept. of Energy 2005 281
Electrical power industry xii
Electricity 225
Environmental Protection Agency
(EPA) 66, 254
Fish and Wildlife Service 83
generating capacity 223
greenhouse gas intensity (GGI) 283
imports of LNG 282
investor-owned utilities 226
mercury emissions 284
nuclear construction industry 273
Unregulated affiliates 141
Unregulated market 133, 134
Unregulated retail energy market 138
Unregulated transmitting utilities 33
Upstream activities 238, 250
U.S. Navy 106
auxiliary airport 213
Utility Business Architecture (UBA) 147
Utility Communications Architecture (UCA) 147
Urban areas 198
Urbanization 29
US Department of Energy (DOE) 232
Utah 257, 258
Utilitarian ethics 46
Utilities 288
as economic organizations 13
income 13
wholesale and retail markets 132
Utility industry 31, 102, 141, 142, 196
accounting decisions 164, 181
business 127, 142, 154
business architecture (UBA) 147
commissions 244
communication architecture (UCA) 147
costs 131
deregulation 68
forecasting 96
governance functions and models 215
holding companies 58, 135
industry restructuring actions 33
infrastructure 25
managers 77, 95, 104, 105, 112–3, 118, 125–6, 167, 188, 265, 283,
marketing 140
networks 32
planning 97
policy in the United States 30
products 136
rate base 118
rate schedules 122
reform movement 15, 17
regulation 55, 68, 69, 70, 123
restructuring and privatization 205
workers 181, 188
Utility's chief resources 90
Utility's service load 131, 143
Utilization of the system 115
Valuation of the assets of the utility 116
Value of the utility 106
Veolia Environment 263
Verizon 106
Vermont 219
Vertical integration 234
Vertically integrated utility (VIU) 115, 125, 164, 166, 180, 236
Vices 49
Virginia 141, 190
Virginia Company 5
Virtue Ethics 49
Visual pollution 83
Vivendi 263
Vulnerability assessment 286
Vulnerability of the nation's utility networks 106
Wall Street Crash of 1929 57
Washington Gas 190
Washington Gas Light Company 141
Washington State 40–41, 197
Department of Corrections 213
Washington Utilities and Transportation Commission xvi
Washington, D.C. 74, 86, 141
Waste disposal 11
Wastewater Industries 262
Wastewater xi
Water 11, 252
and sanitation 23
and sanitation utility network systems 35
and wastewater sectors xi
and wastewater systems 252
and wastewater utility managers 262
districts 258
policies 19
pollution 83, 283
standards 66, 260
treatment plants 25
utilities 260, 284
utility industry 29
utility response 266
Water Power Act of 1920 205
Weather risk 141
Welfare policies 19
Wenatchee, Washington 185
West and Northwestern Sections of the country 225
West Coast 276
West Coast of California 282
West Texas 227
<table>
<thead>
<tr>
<th>Term</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Westar Energy of Topeka</td>
<td>79</td>
</tr>
<tr>
<td>Western and Texas interconnects</td>
<td>227</td>
</tr>
<tr>
<td>Western Area Energy Administration</td>
<td>88</td>
</tr>
<tr>
<td>Western Canada</td>
<td>227</td>
</tr>
<tr>
<td>Western economic system</td>
<td>47</td>
</tr>
<tr>
<td>Western Energy Services 2003</td>
<td>88</td>
</tr>
<tr>
<td>Western Hemisphere</td>
<td>252</td>
</tr>
<tr>
<td>Western Interconnected Grid</td>
<td>227, 235</td>
</tr>
<tr>
<td>Western United States</td>
<td>16, 39, 206, 255, 257, 258, 287–8</td>
</tr>
<tr>
<td>Western Systems Coordinating Council</td>
<td>142</td>
</tr>
<tr>
<td>Western Union</td>
<td>23</td>
</tr>
<tr>
<td>Westinghouse Electric</td>
<td>273</td>
</tr>
<tr>
<td>WGEServices</td>
<td>141</td>
</tr>
<tr>
<td>WGL Holdings, Inc.</td>
<td>74, 86, 141, 190</td>
</tr>
<tr>
<td>Wheeler-Rayburn Act</td>
<td>102</td>
</tr>
<tr>
<td>Wholesale energy merchant</td>
<td>240, 250</td>
</tr>
<tr>
<td>Wholesale level</td>
<td>132–3, 143</td>
</tr>
<tr>
<td>Wholesale power market platform</td>
<td>230</td>
</tr>
<tr>
<td>Wholesale price of energy or water increases</td>
<td>131</td>
</tr>
<tr>
<td>Wholesale price run-up</td>
<td>42</td>
</tr>
<tr>
<td>William Penn's Free Society of Traders</td>
<td>5</td>
</tr>
<tr>
<td>Williams Gas Pipeline</td>
<td>106</td>
</tr>
<tr>
<td>Wipro Technologies</td>
<td>156–7</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>7, 239</td>
</tr>
<tr>
<td>World Bank</td>
<td>16</td>
</tr>
<tr>
<td>World Trade Center</td>
<td>262</td>
</tr>
<tr>
<td>World War I</td>
<td>204</td>
</tr>
<tr>
<td>World War II</td>
<td>26</td>
</tr>
<tr>
<td>Wyoming</td>
<td>66, 207</td>
</tr>
<tr>
<td>XCEL Energy</td>
<td>83</td>
</tr>
<tr>
<td>Zone rates</td>
<td>120</td>
</tr>
</tbody>
</table>