CLEAN POWER POLITICS

The United States has been experiencing an energy transition for over four decades, and now as a result of various economic and political events discussed in this book, a clean energy future is moving closer to reality. In *Clean Power Politics*, Joseph Tomain describes how clean energy policies have been developed and, more importantly, what's necessary for a successful transition to a clean energy future, including technological innovation, new business models, and regulatory reforms. The energy system of the future will minimize the environmental costs of traditional energy production and consumption, and emphasize expanded use of natural resources and energy efficiency. Because many new energy technologies can be produced and consumed at smaller scales, they will shift decision-making power away from traditional utilities and empower consumers to make energy choices about consumption and price. In this way, a clean energy future embodies a democratization of energy.

Joseph P. Tomain has been teaching and writing in the field of energy law since 1977. He has published numerous articles, essays, casebooks, treatises, and monographs on energy law and has delivered papers at conferences throughout the US and Europe. Tomain is actively involved with energy organizations, including the Center for Progressive Reform and the PUC Collaborative.

Clean Power Politics

THE DEMOCRATIZATION OF ENERGY

JOSEPH P. TOMAIN

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Jessi and John
Susie and Joe

Contents

Abbreviations

AR5	United Nation's Intergovernmental Panel on Climate Change Fifth Assessment Report entitled *Climate Change 2014: Impacts, Adaptation and Vulnerability*
ARPA-E	Advanced Research Projects Agency-Energy
ARRA	American Recovery and Reinvestment Act of 2009
BAU	Business as usual
BSER	Best system of emissions reduction
CAA	Clean Air Act, 42 U.S.C. §7401 et seq.
CAP	Climate Action Plan
CCPI	Clean Coal Power Initiative
CCS	Carbon capture and storage
CEIP	Clean energy incentive program
CES	Clean energy standards
CMI	Critical Materials Institute
COS	Cost of service
CPP	Clean Power Plan
DARPA	Defense Advanced Research Projects Agency
DER	Distributed energy resources
DG	Distributed generation
DOE	US Department of Energy
DSM	Demand-side management
DSP	Distributed Service Provider
EES	Energy efficiency standards
EFC	Energy Future Coalition
EFRC	Energy Frontier Research Center
EGUs	Electric generating units
EIA	Energy Information Administration

EISA	Energy Independence and Security Act of 2007 Pub. L. No. 110–140 (2007)
EPA	US Environmental Protection Agency
EPAct 1992	Energy Policy Act of 1992 (EPAct 1992) Pub. L. No.102–486 (1992)
EPAct 2005	Energy Policy Act of 2005 Pub. L. No. 109–58 (2005)
ERCs	Emission rate credits
ERO	Electric reliability organization
ESA	Energy Security Act, Pub. L. No. 96–294 (1980)
EVs	Electric vehicles
FERC	Federal Energy Regulatory Commission
GW	Gigawatt (1 billion watts or 100 megawatts)
ICT	Information and communications technologies
IEA	International Energy Agency
IOUs	Investor-owned utilities
IPCC	International Panel on Climate Change
IRA	Integrated Resource Analysis
IRP	Integrated Resource Plan
ISO	Independent system operator
IT	Information and technology
JCAP	Joint Center for Artificial Photosynthesis
JCESR	Joint Center for Energy Storage Research
LCOE	Levelized cost of electricity or energy
Mbd	Millions of barrels per day
NERC	North American Electric Reliability Council
NGCC	Natural gas combined cycle
NIMBY	Not-in-my-backyard
NRC	Nuclear Regulatory Commission
PCAST	President's Council of Advisors on Science and Technology
PE	Private equity
PPPL	Princeton Plasma Physics Laboratory
PSC	New York Public Service Commission
PUCs	State public utility commissions
PURPA	Public Utilities Regulatory Policy Act, 16 U.S.C. §2601 et seq.
QFs	Qualifying facilities
R&D	Research and development
RE	Renewable electricity
RFS	Renewable fuel standard
RIA	Regulatory impact analysis
RPS	Renewable portfolio standards

RTO	Regional transmission organization
SCC	Social cost of carbon
Tcf	Trillion cubic feet
T&D	Transmission and distribution
VC	Venture capital
VOCs	Volatile organic compounds