THE GOVERNANCE OF LARGE TECHNICAL SYSTEMS

Edited by Olivier Coutard



London and New York

CONTENTS

	List of illustrations	viii
	List of contributors	ix
	About the book	xiii
	Acknowledgements	xv
1	Introduction: the evolving forms of governance of large	
	technical systems	. 1
	OLIVIER COUTARD	
P A	RT 1	
	traditional modes of governance	17
2	Transforming an energy system: the evolution of the	
	manufactured gas industry and the transition to natural	
	gas in the United States (1807-1954)	19
	JOEL A. TARR	
3	Striking bonanza: the establishment of a natural gas	
	regime in the Netherlands	38
	ARNE KAIJSER	
4		
	telecommunications in the first quarter of the twentieth century	58
	PASCAL GRISET	70
	THOOLE ORIGIN	
5	Designing and operating storm water drain systems:	
	empirical findings and conceptual developments	73
	VANCE ANTENIAC CITATAIC	

CONTENTS

PART 2		
Ne	w challenges	91
6	Power plays: the politics of interlinking systems JANE SUMMERTON	93
7	From control to coordination: new governance models for information networks and other large technical systems JANET ABBATE	114
8	The internationalization of large technical systems: dynamics of change and challenges to regulation in electricity and telecommunications FRANCIS McGOWAN	130
9	Splintering networks: the social, spatial and environmental implications of the privatization and liberalization of utilities in Britain SIMON GUY, STEPHEN GRAHAM AND SIMON MARVIN	149
	RT 3	171
Or	On the governability of complex technologies	
10	Theories of technology and the abolition of nuclear weapons DONALD MACKENZIE	173
11	Some theoretical and critical remarks on the air transportation system and other large technical systems ALAIN GRAS	199
PΑ	ART 4	
Conceptualizing governance for interorganizational networks		215
12	Are there such things as small networks?	217

CONTENTS

13	On control and shifting boundaries: modern society in the web of systems and networks	
	REINER GRUNDMANN	
14	High variability discourse in the history and sociology of	
	large technical systems	258
	BERNWARD JOERGES	,
	General index	291
	Index of authors cited	297