

Table of Contents

PART 1 EXECUTIVE SUMMARY	13	PART 3 KEY TRANSMISSION PLAYERS AND THEIR PERFORMANCE (TOP 30 TSOs)	68
PART 2 SECTOR TRENDS, GROWTH AND INVESTMENT ANALYSIS	15		
2.1 Industry structure and key players	16	3.1 Trends in performance of leading TSOs	69
• Industry structure	17	• Overview	70
• Regulatory framework and key institutions	18	• Growth in transmission network Line length	71
• Jurisdictional roles in electricity industry	22	• Financial performance	
• Key industry associations	23	- Revenue	74
• Transmission market structure and key players	25	- Net profits	77
		- Return on equity	79
		- Debt to equity ratio	80
		- Profit margin	81
		- Trends in past capex	82
2.2 Sector size and growth	27	3.2 TSO Profiles	84
• Industry structure	28	• Ameren Corporation	85
• Line length by voltage (kV)	28	• American Electric Power (AEP)	88
• Line length by technology (AC and DC)	30	• American Transmission Company (ATC)	91
• Growth in capital expenditure, 2017–21	31	• Bonneville Power Administration (BPA)	94
		• CentrePoint Energy	97
		• Consolidated Edison (Con Edison)	100
		• Dominion Energy	103
		• Duke Energy	106
		• Entergy Corporation	109
		• Evergy Incorporated	112
		• Exelon Corporation	115
		• FirstEnergy Corporation	118
		• ITC Holdings	121
		• MidAmerican Energy Company	124
		• National Grid USA	127
		• New York Power Authority (NYPA)	130
		• NextEra Energy	133
		• NorthWestern Energy	136
		• NV Energy	139
		• Oklahoma Gas and Electric Company (OG&E)	142
		• Oncor Electric Delivery	145
2.3 Policy and regulatory developments	33		
• Overview of key policy and regulatory announcements	34		
• Climate goals and net zero emissions targets	35		
• Federal-level initiatives for grid expansion	36		
• Key RTO/ISO-level initiatives for transmission	44		
2.4 Network growth and investment outlook	48		
• Key growth drivers	49		
• Future demand and expected generation mix, by 2026	50		
• Expected transmission network expansion	51		
• Transmission line length addition, 2022–26	51		
• Forecasted investment in the transmission network, 2022–26	53		
• Investment plans of leading TSOs	54		
2.5 Focus on offshore wind transmission	55		
• Offshore wind plans and targets	56		
• Policy and regulatory announcements at federal level	59		
• Offshore wind and transmission developments in key states	61		
• Upcoming offshore wind capacity and transmission projects	66		

Table of Contents

• Pacific Gas and Electric Corporation (PG&E)	148	- Route	
• PacifiCorp	151	- Rated voltage (kV)	
• PNM Resources	155	- Technology (AC or DC)	
• PPL Corporation	157	- Type of project (new build, upgrade, expansion, extension)	
• Public Service Electric & Gas (PSE&G)	160	- Line length (miles)	
• Southern California Edison (SCE)	163	- Substation capacity (MVA)	
• Southern Company	166	- Estimated cost	
• Tennessee Valley Authority (TVA)	169	- Current status (announced/ under development/ under contractor selection/ under construction)	
• Xcel Energy	172	- Key contractors	
		- Scheduled completion	
		- Contact details	

Each TSO profile includes:

- Size and growth in the transmission network, 2017–21
- Key operational indicators, 2017–21 Key financial indicators, 2017–21
- Future plans and investment, 2022–26
- Key planned projects
- Recent contracts
- Key contacts

PART 5 APPENDIX 184

5.1 Sources and methodology 185

5.2 List of acronyms 186

PART 4 UPCOMING TRANSMISSION PROJECTS (~160 PROJETS)175

4.1 Analysis of upcoming project pipeline 176

• Overview	177
• Project pipeline analysis	178
- by voltage level	179
- by technology	180
- by type of project	181
- by type of line	182
- by status	183

4.2 Upcoming projects database (Excel format)

The database provides detailed information on high-voltage transmission line and substation projects expected to come up in the US over the next decade. For each project, the following information will be provided:

- Description
- Developer (s)