

1. Record Nr.	UNINA9910971685403321
Titolo	Power's promise : electricity reforms in Eastern Europe and Central Asia // edited by Julian Lampietti
Pubbl/distr/stampa	Washington, D. C., : World Bank, c2004
ISBN	1-280-09822-8 9786610098224 1-4175-2615-7
Edizione	[1st ed.]
Descrizione fisica	vii, 76 pages : illustrations ; ; 26 cm. + + 1 CD-ROM (4 3/4 in.)
Collana	World Bank working paper ; ; no. 40
Altri autori (Persone)	Lampietti Julian A
Disciplina	333.793/2/0947
Soggetti	Electric utilities - Europe, Eastern Electric utilities - Asia, Central
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Intro -- TABLE OF CONTENTS -- Foreword -- Abstract -- Acknowledgments -- Acronyms and Abbreviations -- Executive Summary -- 1. The Promise of Reform -- ECA is Different -- Power Sector Reforms are Urgent -- Proper Sequencing is Critical -- Net Political Benefits Explain Variation in Progress -- Taking Care of Institutions in the Energy Reform Roadmap -- Identifying Outcomes is Difficult -- 2. Getting the Utilities off the Books -- Quantifying the Sector Losses -- Deficits Declined for Different Reasons -- Relationship Between the Electricity Sector Deficit and the Fiscal Deficit -- Reform Savings Did Not Go to Social Spending -- Conclusions -- 3. Creating More Efficient Companies -- Improve Transparency and Accountability -- Revenue per kilowatt hour Rose -- Generation Costs Declined -- System Losses Held Steady -- Collection Rates Varied -- Mixed Results on Operational Efficiency -- Focus on Service Quality -- Regional Companies Take on the Challenge -- Conclusions -- 4. Maintaining Power to the Poor -- Household Energy Use Patterns Differ -- Tariffs Rose -- The Burden Increased -- Consumption is Low -- Gas May Be Filling the Gap -- Enforcement is Necessary -- Searching for Better Transfers -- Conclusions -- 5. Local Versus Global Environmental Benefits -- Did the Reforms Achieve Environmental Benefits? -- There Were Unintended Environmental Costs -- Damage from Dirty Fuel Use

May Be Large -- Conclusions -- Annexes -- Annex A: Overview of the Reform Process in Eight ECA Countries -- Annex B: Proceeds from Privatization of Electric Utility Companies -- Annex C: Tariff Losses, Commercial and Collection Losses, as Share of Total Losses -- Annex D: Fiscal Balance and Electricity Sector Financial Deficit (Million USD and share of GDP -- Annex E: Efficiency Indicators -- Annex F: More on the Methodology for Estimating Health Effects.

Annex G: Base Emission Factors -- Annex H: More on Factors Leading to Low Contribution of Power Sector Toward Health Damages -- Annex I: Changes in Generation Mix in the Past Decade -- Annex J: Proposed Energy Issues to be Addressed and Sample Questions in LSMS/HBS Surveys -- References -- TABLE OF FIGURES -- Figure 1.1: Suggested Sequencing of Power Sector Reforms in ECA -- Figure 2.1: The Electricity Sector's Losses Declined, 1993-2001 -- Figure 2.2: Power Sector Losses are Weakly Correlated with Fiscal Deficits, 1995-2000 -- Figure 2.3: Poor Countries Spend Less on Poor People (1997-2000) -- Figure 2.4: Social Spending on Education, Health and Social Assistance Did Not Increase (as percent of GDP) -- Figure 3.1: Nominal Revenues Increased Marginally, 1991-2001 -- Figure 3.2: System Losses Stayed Stable, 1990-2002 -- Figure 3.3: Collection Rates Differ by Country, 1990-2002 -- Figure 4.1: Residential Electricity Tariff -Index of CPI Adjusted Real Tariffs -- Figure 4.2: Enough for Three Light Bulbs and a Refrigerator -- Figure 4.3: Electricity Tariffs are Higher Than Those for Gas, 1992-2002 -- Figure 4.4: Burden of Arrears is the Same for the Poor and Non-poor, 2000-2002 -- Figure 4.5: Alternative Subsidy Scheme -- Figure 5.1: Fuel Required to Produce 1 Megawatt-hour of Electricity, 1992-98 -- Figure 5.2: Electricity Contributes in Small Measure to Health Damages -- TABLE OF TABLES -- Table 1.1: ECA is Different -- Table 1.2: Timeline of Reforms in the Electricity Sector in ECA -- Table 1.3: Independence of Regulatory Institutions: Paper and Practice -- Table 1.4: Investment Climate Varies Among Reformers -- Table 3.1: Suggested Indicators of Production Efficiency -- Table 3.2: Reported Generation Costs Went Down, 1990-2002 (cents/kilowatt hour) -- Table 3.3: Aggregate Impact of Reform on Collection Rates in Tbilisi.

Table 3.4: Service Quality Improved -- Table 4.1: Urban Network Energy Use in ECA, (percent of households) -- Table 4.2: Urban Non-network Energy Use in ECA (percent of households) -- Table 4.3: Shares of Spending on Electricity Went Up, 1993 -2002 -- Table 4.4: Consumer Surplus Fell -- Table 4.5: Electricity Expenditure as a Share of Total Energy Expenditure, 1993-2002 -- Table 4.6: Simulation of Subsidy Cost-effectiveness for Tbilisi, Georgia -- Table 5.1: Exposure to Indoor Air Pollution is High -- TABLE OF BOXES -- Box 2.1: Untangling the Quasi-fiscal Deficit -- Box 2.2: Calculating the Implicit Subsidies (Sector Losses) -- Box 2.3: Social Spending in Latin America Increased Since the 1990s -- Box 3.1: Private Sector Improving Household Collections in Georgia -- Box 3.2: Opportunistic Behavior by the Private Sector? -- Box 4.1: Simulation of Alternative Subsidy -- Box 5.1: Reform Measures Expected to Result in Environmental Quality Improvements -- Box 5.2: Estimating the Power Sector's Contribution to Air Pollution and Health Damage -- Box 5.3: Methodology for Calculating Damages from Indoor Air Pollution.

---

## Sommario/riassunto

Power's Promise is part of the World Bank Working Paper series. These papers are published to communicate the results of the Bank's ongoing research and to stimulate public discussion.; The socialist social compact in the Europe and Central Asia region resulted in publicly owned, vertically integrated, and highly centralized energy infrastructure that was inefficient yet highly equitable. The collapse of

the Soviet Union brought about a gamut of reforms including major changes in the energy sector. This title analyzes the fiscal, efficiency, social and environmental impact of power sector reforms in the context of its expected benefits in seven countries in the Europe and Central Asia region. It finds that the electricity sector financial deficit declined in all countries, albeit for different reasons. From an efficiency point of view, the data collected on the cost of generation, system loss collections, and operational efficiency are ambiguous, and call for improved transparency and accountability in record-keeping.; Despite continuing problems with losses, collection rates, and staffing, overall revenue per kilowatt-hour has increased in almost all countries. Electricity spending as a share of income increased, especially for the poor, while consumption stayed the same, suggesting a rising burden on lower income households. Further, reforms did slightly improve energy efficiency in power plants though its impact on ambient air quality is difficult to quantify with existing data. The title also outlines evidence of unintended environmental costs with the switch to dirty fuels as a response to rise in electricity tariffs. Also contains a CD-ROM containing three related previously published titles.

---