

## TABLE OF CONTENTS

I.	EXECUTIVE SUMMARY	
	A. Introduction.....	I-1
	B. Electric Least Cost Plan.....	I-1
	C. Natural Gas Least Cost Plan.....	I-14
	D. Public Involvement and Use of Plan.....	I-19
II.	SUMMARY CHARTS AND GRAPHS	
	A. Electric.....	II-2
	B. Gas.....	II-11
III.	INTRODUCTION AND NATURE OF PLAN	
	A. Regulatory Compliance.....	III-1
	B. Overview of Resource Planning Process.....	III-1
	C. Use and Relevance of PSE's Least Cost Plan.....	III-3
	D. Stakeholder Interaction.....	III-3
	E. Disclaimer—Important Notice.....	III-4
IV.	FINANCIAL CONSIDERATIONS	
	A. Overview.....	IV-1
	B. Utility Financial Environment.....	IV-1
	C. Financing.....	IV-4
	D. Credit and Liquidity.....	IV-7
	E. Imputed Debt.....	IV-9
	F. Risk Management.....	IV-15
	G. Financial Consideration of Resource Types.....	IV-16
V.	NATURAL GAS PRICE FORECASTS	
	A. Addressing Gas Price Uncertainty.....	V-1
	B. Gas Price Forecasts Used by PSE.....	V-2
	C. Gas Prices.....	V-5

## TABLE OF CONTENTS

VI.	DEMAND FORECAST	
	A. Overview.....	VI-1
	B. Forecast Methodology.....	VI-2
	C. Key Forecast Assumptions.....	VI-5
	D. Electric Sales and Customer Forecasts.....	VI-9
	E. Gas Sales and Customer Forecasts.....	VI-14
VII.	DEMAND-SIDE RESOURCES	
	A. Existing Energy Efficiency Resources.....	VII-1
	B. Demand-Side Resources – Potential.....	VII-5
	C. Demand-Side Planning and Implementation Issues.....	VII-28
VIII.	ELECTRIC PLANNING ENVIRONMENT	
	A. Regional Transmission.....	VIII-1
	B. Environmental Initiatives.....	VIII-14
	C. Resource Development and the IPP Industry.....	VIII-22
	D. Regional Supply Situation.....	VIII-28
	E. Demand-Resources Implementation Issues.....	VIII-30
	F. Financial Considerations.....	VIII-37
	G. Natural Gas for Power Generation.....	VIII-38
IX.	ELECTRIC RESOURCES	
	A. Existing Generation Supply.....	IX-1
	B. Green Power and Community Program.....	IX-12
	C. Load Resource Balance.....	IX-14
X.	ELECTRIC ANALYSIS AND RESULTS	
	A. Electric Methodology.....	X-1
	B. New Generation Alternatives.....	X-5
	C. Energy Price Forecasts.....	X-12
	D. Uncertainty Analysis.....	X-14
	E. Electric Planning Portfolios.....	X-20
	F. Supply-side Analytical Results and Conclusions.....	X-27

## TABLE OF CONTENTS

G. Demand-side Analytical Results & Conclusions.....	X-45
H. Final Resource Portfolio.....	X-50
XI. ELECTRIC RESOURCE STRATEGY AND ACTION PLAN	
A. Overview.....	XI-1
B. Quantitative Results.....	XI-1
C. Non-Quantified Factors.....	XI-2
D. Key Analytical Findings and Strategy Conclusions.....	XI-3
E. Resource Strategy and Actions.....	XI-5
XII. EXISTING GAS SUPPLY-SIDE PORTFOLIO RESOURCES	
A. Pipeline Capacity Resources.....	XII-1
B. Storage Resources.....	XII-6
C. Peaking Supply and Capacity Resources.....	XII-9
D. Gas Supplies.....	XII-12
E. PSE Gas Resource / Demand Balance.....	XII-16
F. PSE Gas Resource for Power Generation Portfolio.....	XII-17
XIII. NEW GAS SUPPLY-SIDE RESOURCE OPPORTUNITIES	
A. Pipeline Capacity.....	XIII-1
B. Storage Capacity.....	XIII-5
C. Peaking Resources.....	XIII-6
D. Gas Supplies.....	XIII-6
XIV. NATURAL GAS ANALYSIS AND RESULTS	
A. Planning Standard.....	XIV-3
B. Resource Need.....	XIV-3
C. Optimization Analysis Tools.....	XIV-4
D. Scenarios and Cases.....	XIV-5
E. Resource Alternatives.....	XIV-9
F. Results of Natural Gas Analysis.....	XIV-13
G. Conclusions.....	XIV-41

## TABLE OF CONTENTS

XV.	ENERGY PORTFOLIO MANAGEMENT	
	A. PSE's Risk Management Approach.....	XV-1
	B. Portfolio Management.....	XV-1
	C. Integration of Energy Risk Management with Energy Supply.....	XV-4
	D. Long-Term Energy Risk Management .....	XV-5
	E. Risk Control.....	XV-7
XVI.	DELIVERY SYSTEM PLANNING	
	A. Delivery System Mechanics.....	XVI-1
	B. Challenges.....	XVI-4
	C. Planning Process.....	XVI-6
	D. System Plans.....	XVI-23
	E. Distributed Resource Opportunities.....	XVI-28
	F. Non-Wires Solution (NWS).....	XVI-30
XVII.	2005 ACTION PLAN	
	A. Electric Resource Acquisition Strategy.....	XVII-1
	B. Natural Gas Resource Acquisition Activities.....	XVII-3
	C. Existing Electric Resource Activities.....	XVII-3
	D. Analytical and Process Improvements.....	XVII-4
	E. Portfolio Operations and Risk Management.....	XVII-4
	F. Policy, Regulatory, and Legislative Initiatives.....	XVII-5
	G. System Planning.....	XVII-6
XVIII.	REPORT ON APRIL 2003 TWO-YEAR ACTION PLAN.....	XVIII-1

### List of Acronyms and Initialisms

## TABLE OF CONTENTS

### Appendices

- A. Stakeholder Interaction
- B. Demand-Side Resources (Quantec Report)
- C. Electric Models
- D. Wind Integration
- E. RFP Process and Results
- F. 2003 Greenhouse Gas Emissions Inventory
- G. Electric Results
- H. Gas Models
- I. Gas Planning Standard
- J. Additional Gas Analysis Results
- K. Description of the Load Forecasting Models