



**A Study of NYISO
2003 PRL Program Performance**

Neenan Associates

A Study of NYISO 2003 PRL Program Performance

Prepared for

New York Independent System Operator

Prepared by

Bernie Neenan, Donna Pratt, Peter Cappers, James Doane, Jeremy Anderson,
Lydia Scholle-Cotton, Kim Butkins and Richard Boisvert

Neenan Associates
Syracuse, NY

February, 2004



Table of Contents

Executive Summary..... E-1

 Background..... E-1

 NYISO Demand Response Program Overview E-1

 Summary of Demand Response Program Changes E-1

 Satisfaction with Program Changes E-3

 Interest in Participation in Real-Time Energy and Ancillary Services Markets..... E-4

 2003 Demand Response Program Enrollment..... E-5

 Strike Price Nominations for ICAP/SCR..... E-7

 The Benefits of Demand Response..... E-8

 EDRP and ICAP/SCR Evaluation Results..... E-9

 DADRP Evaluation Results..... E-10

 Change in Net Social Welfare E-11

Chapter 1 – Report Overview1-1

 Background.....1-1

 Overview of Program Performance1-3

 Purpose of the report.....1-4

Chapter 2 – Electricity Demand and Prices in New York.....2-1

 A Comparison of Electricity Demand and Prices in New York, 2001, 2002, and 2003..... 2-2

 Characteristics of the Short-Run Electricity Supply Curves..... 2-6

 Price Flexibilities in the DAM..... 2-7

 Price Flexibilities in the RTM 2-9

 Some Conclusions2-9

Appendices.....2-25

Table of Contents

2003 NYISO PRL Evaluation

Appendix 2A.....2-25

Appendix 2B.....2-30

Appendix 2C.....2-38

Appendix 2D.....2-59

Chapter 3 – Methodology for Evaluating the Effects of PRL Programs3-1

 The Market Effects 3-1

 Market Effects of EDRP 3-1

 Market Effects of DADRP..... 3-2

 EDRP Effects on System Reliability 3-3

 Measuring the Reduction in Deadweight Social Losses from DADRP..... 3-5

Appendices.....3-13

Appendix 3A.....3-13

Chapter 4 – Results from the PRL Program Evaluation.....4-1

 Summary of PRL Program Changes.....4-1

 Efforts to Assess the Effects of Program Changes4-2

 The Survey Results4-4

 The Survey Respondents.....4-4

 DADRP Experience4-4

 EDRP Experience.....4-7

 ICAP/SCR Experience4-8

 Program Retention and Migration4-8

 Program Enrollment4-9

 Zonal Distribution of Program Participants4-10

 Strike Price Nominations for ICAP/SCR.....4-12

Table of Contents

2003 NYISO PRL Evaluation

A Brief Summary..... 4-13

The Results of the EDRP Evaluation.....4-14

The Results of the DADRP Evaluation4-16

The Market Effects of DADRP 4-17

The Social Welfare Effects of DADRP 4-18

Chapter 5 –Demand Resource Participation in Ancillary Services Markets.....5-1

Background 5-1

Survey Results 5-2

Conclusions 5-5

Glossary.....G-1

ReferencesR-1