UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc. Docket No. ER03-647-000

New York Independent System Operator, Inc.
Report on Implementation of the ICAP Demand Curve

## Executive Summary

In the short time (the latter part of a Summer Capability Period[1] and the first month of a Winter Capability Period) since the implementation of the ICAP Demand Curve, the NYISO has observed market trends anticipated by the NYISO in the NYISO's Demand Curve Filing. Capacity prices are higher than a year ago, but have steadily declined since the implementation of the ICAP Demand Curve, while the total amount of capacity offered into the Installed Capacity auctions has increased. (The increase in prices from the 2002 Summer Capability Period to the 2003 Summer Capability Period is partially the result of the corrected ICAP/UCAP translation implemented in the Installed Capacity market in November 2002.) Based on these preliminary indications, the NYISO concludes that the ICAP Demand Curve has already begun to stabilize prices in the Installed Capacity market, which will help create incentives for investment in new generation.[2]

## Study of Implementation

The NYISO's Market Services Department ("MSD") conducted a study of the implementation of the ICAP Demand Curve in the NYISO's Installed Capacity market. As part of the study, MSD collected auction results from the 2002 and 2003 Summer Capability Periods, the 2002-2003 Winter Capability Period and the first month of the 2003-2004 Winter Capability Period.

## Installed Capacity Auction Results

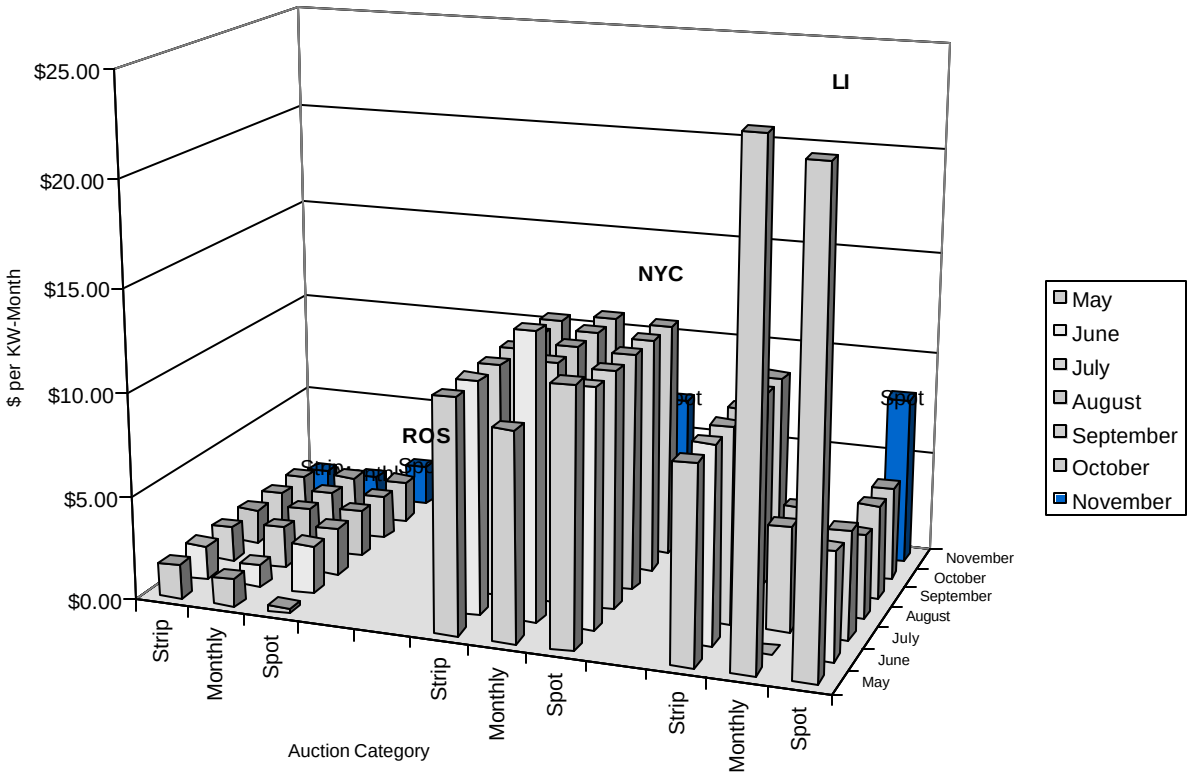
With the exception regarding the Long Island Locality noted below, Market-Clearing Prices in Installed Capacity auctions generally have been stable since the implementation of the ICAP Demand Curve, and the amount of capacity purchased in Installed Capacity auctions has increased. Capacity was purchased in excess of the minimum reliability requirements. Capacity was purchased primarily in the ICAP Spot Market Auction instead of the Capability Period or

[1] Unless otherwise specified, capitalized terms used herein have the meanings specified in the NYISO Market Administration and Control Area Services Tariff (the "Services Tariff").

[2] See *New York Independent System Operator Inc. Report on Withholding Behavior Under the ICAP Demand Curve* (hereinafter "*Withholding Report*") also submitted in this filing for an analysis of potential withholding behavior related to the implementation of the ICAP Demand Curve.

Monthly auctions.[3] In spite of this trend, the ICAP Spot Market Auction Market-Clearing Prices were generally higher than the Capability Period and Monthly Auction Market-Clearing Prices for the 2003 Summer Capability Period. The exception was the Long Island market.[4] See Figures 1, 2 and 3.

**Figure 1**
**2003-2004 Capability Year Prices**




[3] Data from the November auctions reflect the most accurate effects of the ICAP Demand Curve. The Capability Period Auction for the 2003 Summer Capability Period was conducted prior to implementation of the ICAP Demand Curve.

[4] See *Withholding Report* for a discussion of unique offering behavior observed in the Long Island ICAP Spot Market Auction.

**Figure 2**
**2003-2004 Capability Year ICAP MW**

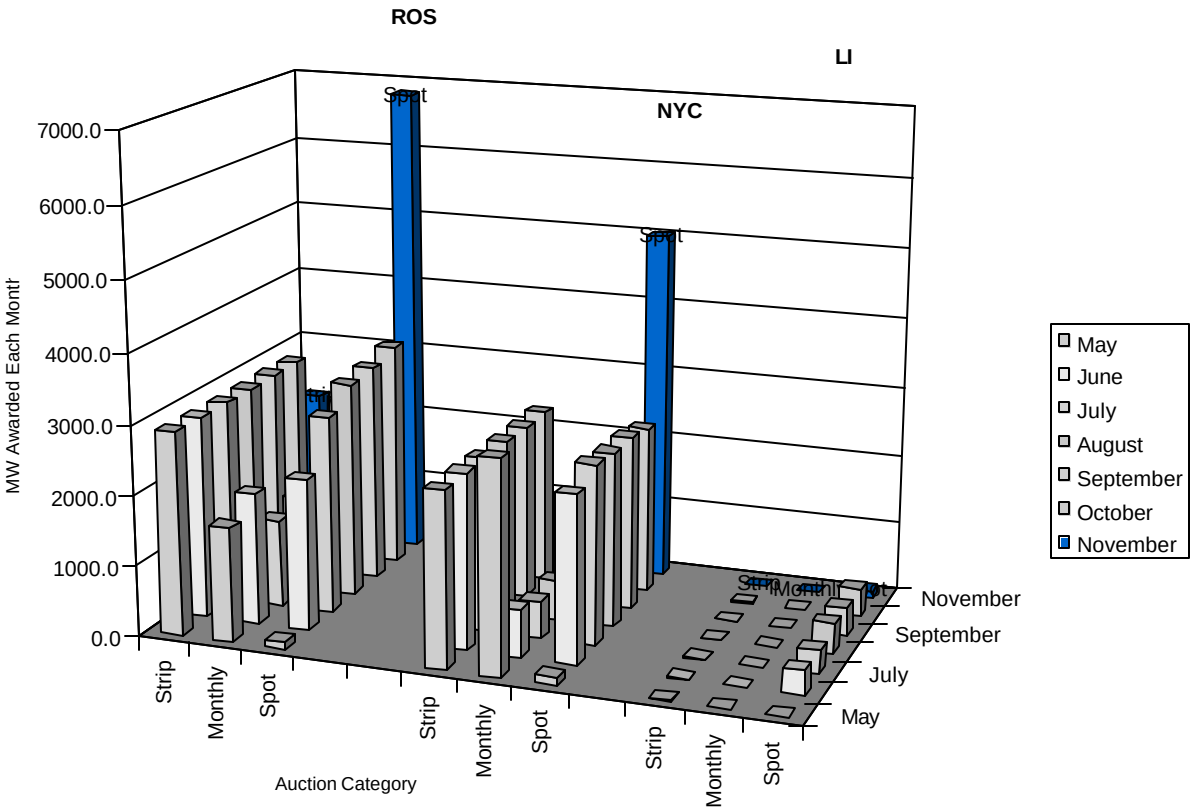


**Figure 3**

## 2003-2004 Capability Year
## Installed Capacity Auction Activity

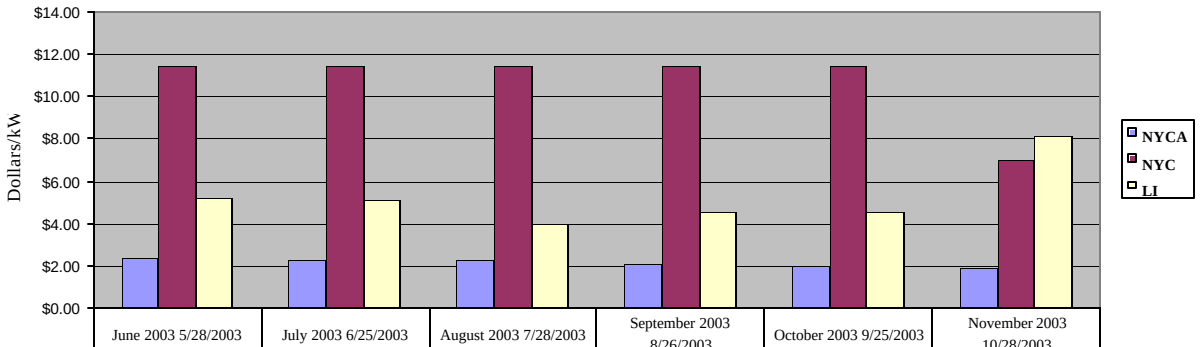
| New York City | Capability Period* (Strip) | | Monthly | | ICAP Spot Market | |
|---|---|---|---|---|---|---|
| ***Month*** | ***MW*** | ***Price*** | ***MW*** | ***Price*** | ***MW*** | ***Price*** |
| May | 2501.7 | $11.22 | 3016.3 | $10.00 | 110.2 | $12.36 |
| June | 2501.7 | $11.22 | 683.0 | $13.78 | 2375.5 | $11.46 |
| July | 2501.7 | $11.22 | 527.9 | $11.57 | 2558.0 | $11.46 |
| August | 2501.7 | $11.22 | 567.9 | $11.56 | 2497.9 | $11.46 |
| September | 2501.7 | $11.22 | 558.1 | $11.56 | 2499.5 | $11.46 |
| October | 2501.7 | $11.22 | 638.8 | $11.55 | 2415.1 | $11.45 |
| November | 475.0 | $6.55 | 579.3 | 6.67 | 5030.1 | $6.98 |
| **Long Island** | **Capability Period (Strip)** | | **Monthly** | | **ICAP Spot Market** | |
| ***Month*** | ***MW*** | ***Price*** | ***MW*** | ***Price*** | ***MW*** | ***Price*** |
| May | 6.6 | $9.41 | 2.2 | $24.00 | 0.2 | $23.00 |
| June | 6.6 | $9.41 | 0 | -------- | 341.9 | $5.17 |
| July | 6.6 | $9.41 | 1 | $5.00 | 344.7 | $5.14 |
| August | 6.6 | $9.41 | 1.1 | $5.00 | 441.8 | $4.03 |
| September | 6.6 | $9.41 | 0 | -------- | 397.8 | $4.55 |
| October | 6.6 | $9.41 | 0 | -------- | 397.8 | $4.55 |
| November | 0 | $4.00 | 0 | -------- | 114.3 | $8.14 |
| **Rest of State** | **Capability Period (Strip)** | | **Monthly** | | **ICAP Spot Market** | |
| ***Month*** | ***MW*** | ***Price*** | ***MW*** | ***Price*** | ***MW*** | ***Price*** |
| May | 2889.2 | $1.67 | 1634.8 | $1.30 | 101.5 | $0.25 |
| June | 2889.2 | $1.67 | 1866.0 | $1.06 | 2148.7 | $2.34 |
| July | 2889.2 | $1.67 | 1249.2 | $2.01 | 2824.2 | $2.28 |
| August | 2889.2 | $1.67 | 1344.1 | $2.04 | 3096.6 | $2.25 |
| September | 2889.2 | $1.67 | 1396.7 | $1.97 | 3134.1 | $2.08 |
| October | 2889.2 | $1.67 | 1408.4 | $1.93 | 3253.2 | $2.01 |
| November | 2163.2 | $1.17 | 2128.8 | $1.15 | 6833.8 | $1.95 |

*Capability Period awards are for a six-month periods:
May through October 2003 NYC = 15010.2 MW; LI = 39.6 MW; ROS = 17335.2 MW
November 2003 – April 2004 NYC = 2850.0 MW; LI = 0 MW; ROS = 12979.2 MW

ICAP Spot Market Auction Results: Since the implementation of the ICAP Demand Curve for the 2003 Summer Capability Period, all ICAP Spot Market Auctions have cleared an amount of capacity in excess of the NYCA minimum reliability requirements. ICAP Spot Market Auction Market-Clearing Prices have steadily declined throughout the 2003 Summer Capability Period and the beginning of the 2003-2004 Winter Capability Period, with the exception regarding the Long Island Locality noted below. See Figures 4 and 5.

## Figure 4

**ICAP Spot Market Auction Results: Prices**

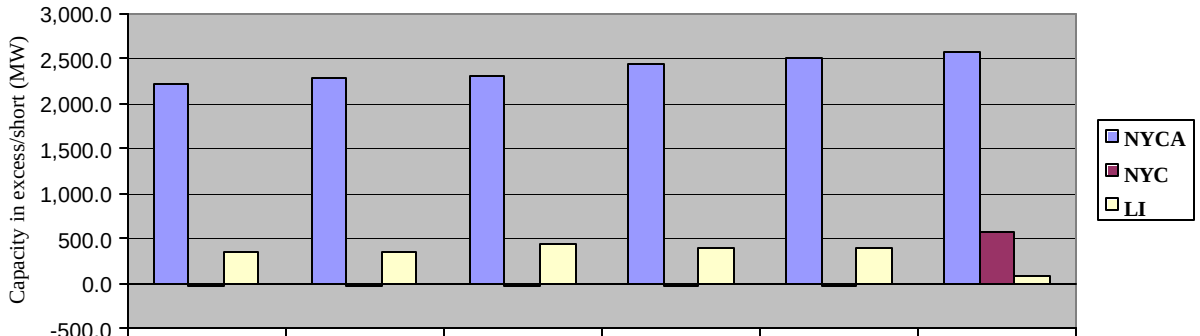



| | June 2003 5/28/2003 | July 2003 6/25/2003 | August 2003 7/28/2003 | September 2003 8/26/2003 | October 2003 9/25/2003 | November 2003 10/28/2003 |
|---|---|---|---|---|---|---|
| NYCA | $2.34 | $2.28 | $2.25 | $2.08 | $2.01 | $1.95 |
| NYC | $11.46 | $11.46 | $11.46 | $11.46 | $11.45 | $6.98 |
| LI | $5.17 | $5.14 | $4.03 | $4.55 | $4.55 | $8.14 |

Monthly Procurement Period/Date of Auction

## Figure 5

**ICAP Spot Market Auction Results: Excess Capacity (MW)**




| | June 2003 5/28/2003 | July 2003 6/25/2003 | August 2003 7/28/2003 | September 2003 8/26/2003 | October 2003 9/25/2003 | November 2003 10/28/2003 |
|---|---|---|---|---|---|---|
| NYCA | 2,219.9 | 2,274.1 | 2,299.3 | 2,448.1 | 2,504.8 | 2,567.7 |
| NYC | -29.4 | -29.4 | -29.4 | -29.4 | -28.1 | 571.8 |
| LI | 341.9 | 344.7 | 441.8 | 396.2 | 396.2 | 83.7 |

Monthly Procurement Period/Date of Auction

The first four ICAP Spot Market Auctions, conducted on May 28, June 25, July 28 and August 26, 2003, cleared 29.4 MW short of the minimum requirement for New York City and in excess of the minimum requirements for Long Island and the NYCA. The NYISO purchased the

deficiency for New York City for less than the ICAP Spot Market Auction Market-Clearing Price during the supplemental purchase period after each of these auctions. The fifth ICAP Spot Market Auction, conducted on September 25, 2003, cleared 28.1 MW short of the minimum requirement for New York City and in excess of the minimum requirements for Long Island and the NYCA. The NYISO purchased the deficiency for New York City for less than the ICAP Spot Market Auction Market-Clearing Price during the supplemental purchase period after this auction. The sixth ICAP Spot Market Auction, conducted on October 28, 2003 cleared in excess of the minimum requirements for New York City, Long Island and the NYCA.

The ICAP Spot Market Auction Market-Clearing Prices declined from $2.34 to $1.95 for the NYCA and from $11.46 to $6.98 for New York City over the first six ICAP Spot Market Auctions.[5] For Long Island, the ICAP Spot Market Auction Market-Clearing Price initially declined from $5.17 to $4.03 in the first three auctions but has since risen to $8.14. The Market Monitoring and Performance Department is currently examining the rules regarding offers and offering patterns on Long Island.[6]

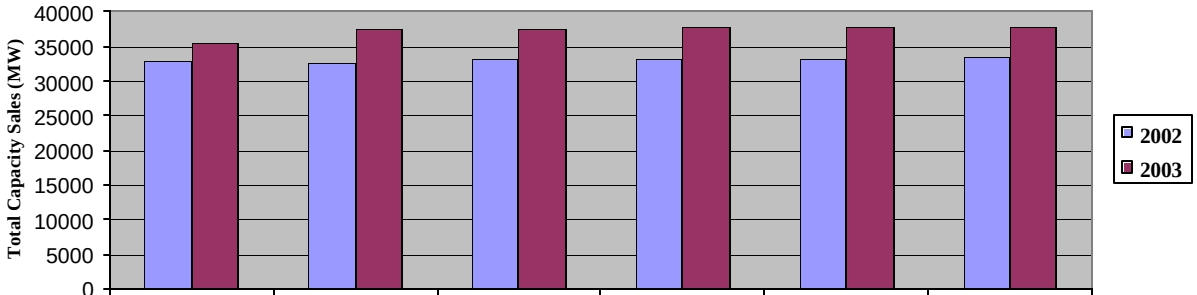
Capacity Purchases: The amount of capacity purchased in Installed Capacity auctions has increased since the implementation of the ICAP Demand Curve. The NYISO also notes that the amount of imports subscribed increased from 1650 MW for the 2002 Summer Capability Period to 2755 MW for the 2003 Summer Capability Period. The data show a further pattern of increased excess capacity beginning in November 2003. The NYISO explains this increase by noting that NYCA resources have a higher capacity rating for the Winter Capability Period.

The average amount of capacity purchased each month in the Installed Capacity auctions increased from 33031 MW for the 2002 Summer Capability Period to 37325 MW for the 2003 Summer Capability Period. The average amount of capacity purchased each month in the Installed Capacity auctions increased from 34293 MW for the 2002-2003 Winter Capability Period to 37873 MW for the first month of the 2003-2004 Winter Capability Period. See Figures 6 and 7 for individual monthly numbers. Approximately 1500 MW of this increase in Summer capacity purchases is due to the implementation of the ICAP Demand Curve. The balance is due to the increase in Unforced Capacity requirements explained below. The increase in winter capacity purchases is due entirely to the ICAP Demand Curve.

[5] This data includes results from the first ICAP Spot Market Auction of the 2003-2004 Winter Capability Period for which NYCA resources have a higher capacity rating.

[6] See *Withholding Report* for a discussion of unique offering behavior observed in the Long Island ICAP Spot Market Auction.

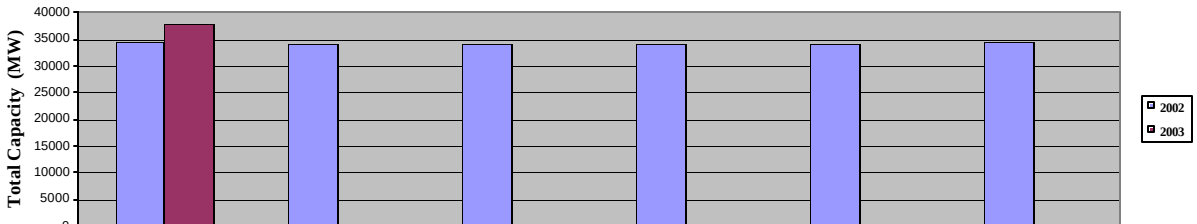
**Figure 6**
**Capacity Purchases (MW)**
**Summer 2002 v. Summer 2003**




| | May | June | July | August | September | October |
|---|---|---|---|---|---|---|
| 2002 | 32772.4 | 32605.9 | 33131.7 | 33077.7 | 33201.7 | 33396.2 |
| 2003 | 35543.4 | 37539.9 | 37587.9 | 37681.5 | 37770 | 37826.4 |

**Month/Year**

**Figure 7**
**Capacity Purchases (MW)**
**November/Winter 2002 v. November/Winter 2003**




| | November | December | January | February | March | April |
|---|---|---|---|---|---|---|
| 2002 | 34347.5 | 34283 | 34245.9 | 34243.3 | 34249 | 34390.2 |
| 2003 | 37873.1 | 0 | 0 | 0 | 0 | 0 |

**Month/Year**

Unforced Capacity Requirements: The minimum LSE Unforced Capacity requirements increased by 2824 MW from the 2002 Summer Capability Period to the 2003 Summer Capability Period. This increase was due primarily to a revised ICAP/UCAP translation methodology implemented by the NYISO in the Installed Capacity markets in November 2002, with the balance due to load growth. The locational Unforced Capacity requirements increased by 735.1 MW in New York City and 237.5 in Long Island. The current 2003 Capability Year requirements are 8356.7 MW in New York City, 4415.3 MW in Long Island and 35303.5 MW for the NYCA.

Results of Study

Auction Behavior: The NYISO generally concluded that, as a result of the ICAP Demand Curve, the amount of capacity purchased in Installed Capacity auctions is increasing while the Market-Clearing Price of capacity is decreasing. The NYISO attributes this trend to the incentives inherent in the ICAP Demand Curve and in the ICAP Spot Market Auction.

Prior to the implementation of the ICAP Demand Curve, Market Participants offered most of their capacity into the Capability Period and Monthly Auctions instead of the monthly deficiency auctions. After the implementation of the ICAP Demand Curve and the ICAP Spot Market Auction, Market Participants have been offering most of their capacity into the ICAP Spot Market Auction, because load serving entities purchase excess capacity in that auction. The NYISO has also observed that, although the ICAP Spot Market Auction has begun to clear above the minimum requirements for New York City, there is less excess capacity available in New York City than in Long Island and Rest of State.

Market Effects: In the NYISO's Demand Curve Filing and the Commission's May 20, 2003 Order, the NYISO and the Commission predicted that the ICAP Demand Curve would result in price stability, an increase in the amount of capacity committed to Bilateral Transactions, and incentives to build new generation. While the NYISO has observed an increase in capacity committed to the NYCA and an improvement in pricing signals, there has been insufficient time and experience with the ICAP Demand curve (only seven months) to gauge other potential effects (for example, increased commitments to Bilateral Transactions and incentives to build new generation). The NYISO continues to predict, however, that the declining prices and increased amount of capacity offered into the auctions noted above will, over time, encourage the results anticipated by both the NYISO and the Commission.

The Commission's May 20, 2003 Order directed the NYISO to monitor the parameters of the ICAP Demand Curve to determine whether they should be adjusted over time. In the short time since the implementation of the ICAP Demand Curve, the NYISO has not observed any market trends that suggest that the current parameters are inappropriate. The NYISO notes, however, that the reference point for the New York City ICAP Demand Curve, when translated into UCAP, was lower than some of the New York City mitigated price caps. As a result, the NYISO was required to purchase supplemental capacity to meet the New York City minimum requirements during the 2003 Summer Capability Period. The reference points on the ICAP Demand Curves increase next year; therefore, this issue will not exist in future Capability Periods. The NYISO will continue to monitor the effectiveness of the current ICAP Demand Curve and will provide evaluations to the Commission in future reports.

The NYISO has consulted with the Independent Market Advisor, Dr. David Patton, and he concurs in the conclusions in this report.

Respectfully submitted,

NEW YORK INDEPENDENT
SYSTEM OPERATOR, INC.