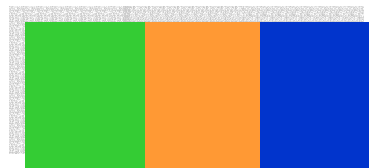


# 30-Minute Operating Reserve Program Strawman Proposal



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Draft - For Discussion Only



# Revenue Potential from OR vs. Energy Market

- Between Feb. and Aug. of 2005, 1 MW of 30-Min OR could have made \$1,500 to \$2,000 depending upon location
- If during these hours that 1 MW of reserves had been converted to energy, payments between \$10,000 and \$30,000 would have been received
- Minimal value in providing reserves at the market-clearing price, but there is substantial earning potential in providing energy when reserves run short

Zone	No. of Hours*	Revenue from 1 MW	
		30-Min	Energy
A	43	\$1,464	\$10,029
B	43	\$1,464	\$10,452
C	43	\$1,464	\$10,367
D	43	\$1,464	\$9,959
E	43	\$1,464	\$10,693
F	52	\$2,179	\$12,330
G	52	\$2,179	\$19,686
H	52	\$2,179	\$23,716
I	52	\$2,179	\$24,007
J	52	\$2,179	\$25,537
K	52	\$2,179	\$29,009

\* Represents the number of hours between 02/01/2005 and 08/31/2005 when there was at least a single 15-minute interval in which the 30-Minute Operating Reserve price was greater than zero, which indicates an opportunity for demand response to make money as a reserve provider.



# Program Options

- **Option 1: Direct Bidding**
  - Allow DR to bid directly into NYISO markets to provide operating reserve
  - Directly conforms with FERC directive
  - Revenue potential small based on historical prices, so participation may be small
    - Providing energy payment when converting reserves to energy should generate increased interest
- **Option 2: NYISO DR Program**
  - Create a sub-class of DR resources that are dispatched with 30-minutes notice to curtail for a specified length of time
  - Indirectly conforms with FERC directive
  - Generates additional value to NYISO as resources can be dispatched with far less notice than previously required
  - Generates additional value to participants by potentially increasing frequency of event declarations and payment opportunities



# ICAP/SCR Program Provisions

	SCR	30 Min SCR
Up-Front Payment	UCAP Credit	UCAP Credit
Performance Payment	Higher of Strike Price (Max of \$500/MWh) or LBMP	Higher of Strike Price (Max of \$500/MWh) or LBMP
Non-Compliance Penalty	ICAP De-rating and potential Deficiency Payment	ICAP De-rating and potential Deficiency Payment
Price-Setting Ability	Scarcity Pricing	Scarcity Pricing
Testing Requirement	1 Hour per Capability Season	1 Hour per Capability Season
Metering	Interval Meter	Interval Meter
Dispatch Method	Forecasted or Actual 30 Minute Operating Reserve Deficiency	Forecasted or Actual 30 Minute Operating Reserve Deficiency
Advisory Notice	Day-Ahead	<b>None</b>
Dispatch Notice	2 Hours	<b>30 Minutes</b>
Min. Event Length	2 Hours	<b>1 Hour</b>
Shutdown Period	N/A	<b>3 Hours</b>