2019 Nonzero Ancillary Price Analysis

Elijah Pivo

Goal: Select days to analyze from Feb 2019 or Aug 2019 representative of relevant ancillary market behavior.

Input Data Format

OASIS_Real_Time_Dispatch_Ancillary_Services

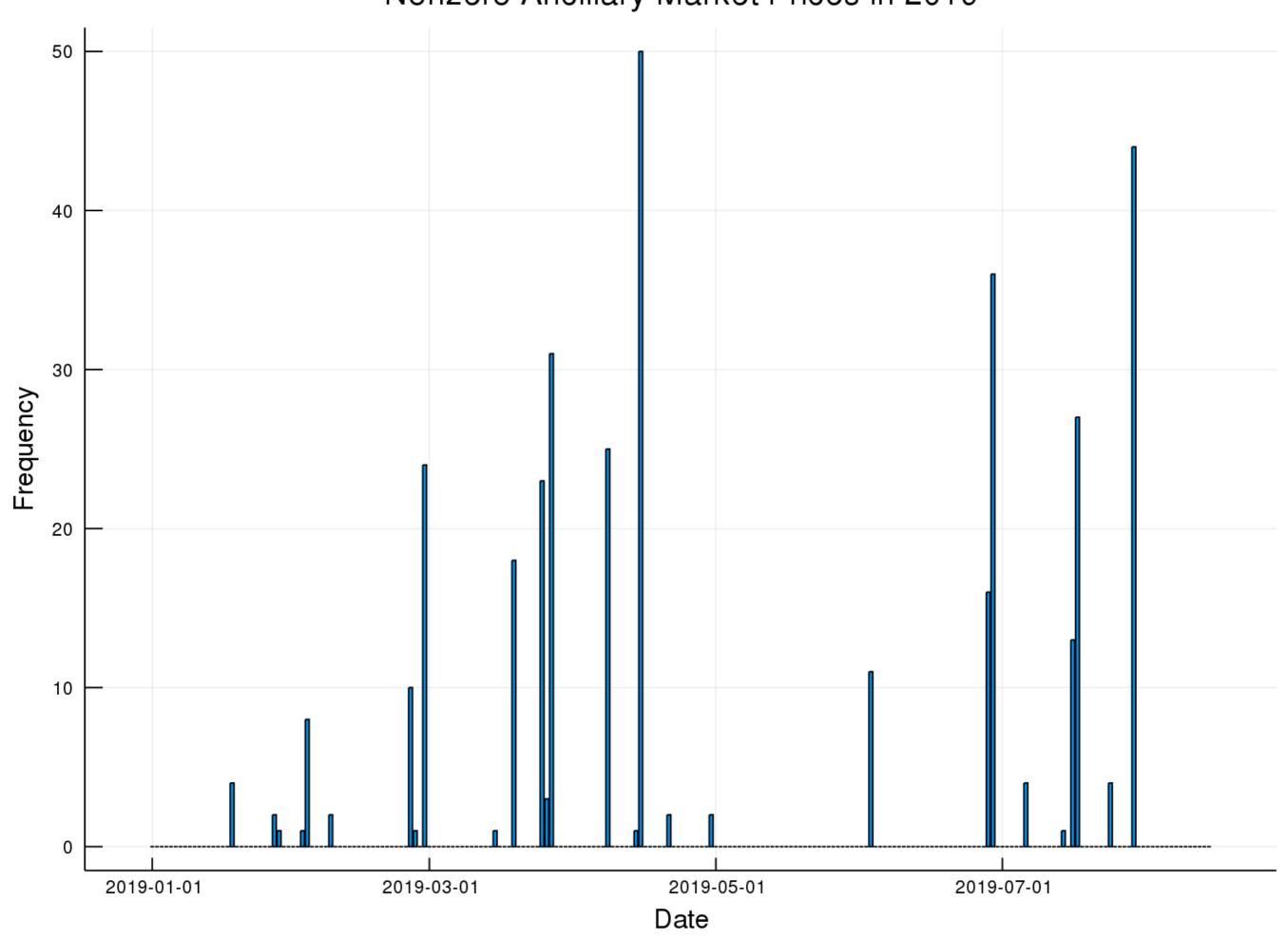
RTD End Time Stamp	Zone Name	Zone PTID	RTD 10 Min Sync	RTD 10 Min Non Sync	RTD 30 Min Non Sync	RTD NYCA Regulation Capacity	RTD NYCA Regulation Movement	RTD AS Price Version
2019/01/01 00:05:00	CAPITL	61757	0	0	0	37.74	0.25	1
2019/01/01 00:05:00	CENTRL	61754	0	0	0	37.74	0.25	1
2019/01/01 00:05:00	DUNWOD	61760	0	0	0	37.74	0.25	1
2019/01/01 00:05:00	GENESE	61753	0	0	0	37.74	0.25	1
2019/01/01 00:05:00	HUD VL	61758	0	0	0	37.74	0.25	1
2019/01/01 00:05:00	LONGIL	61762	0	0	0	37.74	0.25	1
2019/01/01 00:05:00	MHK VL	61756	0	0	0	37.74	0.25	1
2019/01/01 00:05:00	MILLWD	61759	0	0	0	37.74	0.25	1
2019/01/01 00:05:00	N.Y.C.	61761	0	0	0	37.74	0.25	1
2019/01/01 00:05:00	NORTH	61755	0	0	0	37.74	0.25	1
2019/01/01 00:05:00	WEST	61752	0	0	0	37.74	0.25	1
2019/01/01 00:10:00	CAPITL	61757	0	0	0	43.65	0.25	1
2019/01/01 00:10:00	CENTRL	61754	0	0	0	43.65	0.25	1
2019/01/01 00:10:00	DUNWOD	61760	0	0	0	43.65	0.25	1
2019/01/01 00:10:00	GENESE	61753	0	0	0	43.65	0.25	1
2019/01/01 00:10:00	HUD VL	61758	0	0	0	43.65	0.25	1
0040/04/04 00 40 00			_	_	_			

Computed Nonzero Ancillary Prices For Every Day in 2019

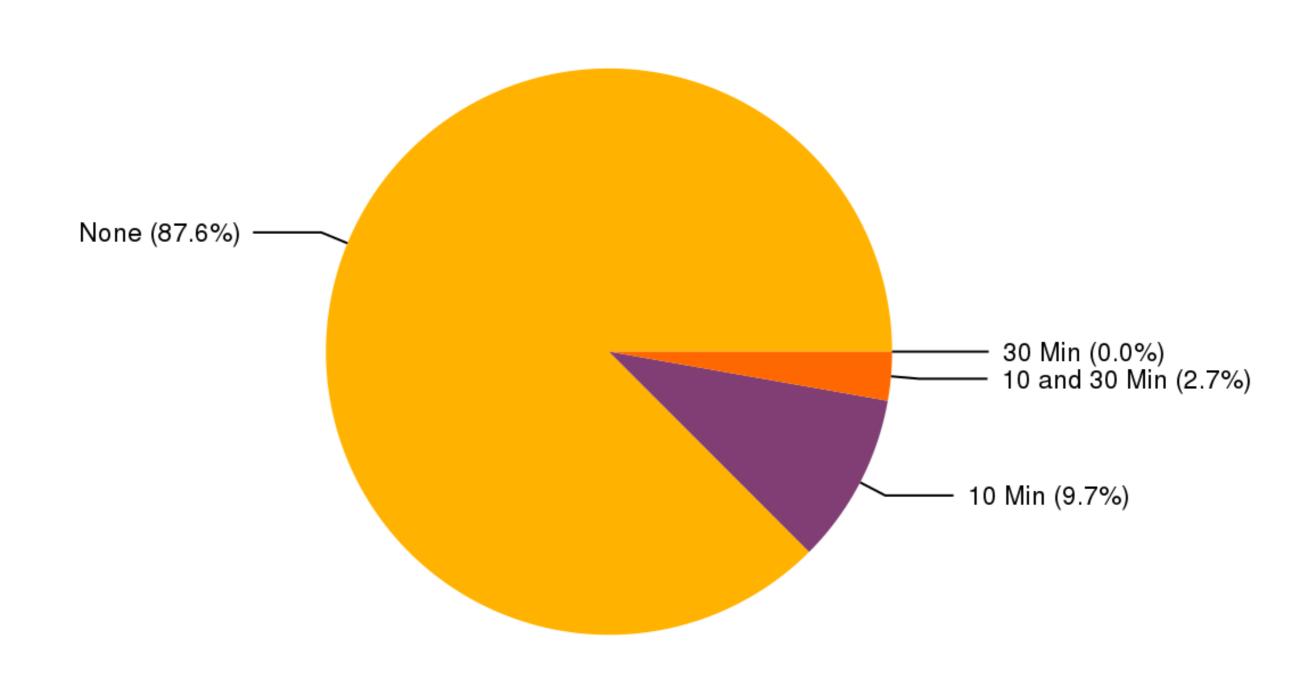
Nonzero_OASIS_Real_Time_Dispa

Date	TenMinFrq	ThirtyMinFrq
2019-01-01	0	0
2019-01-02	0	0
2019-01-03	0	0
2019-01-04	0	0
2019-01-05	0	0
2019-01-06	0	0
2019-01-07	0	0
2019-01-08	0	0
2019-01-09	0	0
2019-01-10	0	0
2019-01-11	0	0
2019-01-12	0	0
2019-01-13	0	0
2019-01-14	0	0
2019-01-15	0	0
2019-01-16	0	0
2019-01-17	0	0
2019-01-18	4	0
2019-01-19	0	0
2019-01-20	0	0
2019-01-21	0	0
2019-01-22	0	0
2019-01-23	0	0
2019-01-24	0	0
2019-01-25	0	0
2019-01-26	0	0
2019-01-27	2	0
2019-01-28	1	О
2010 01 00	_	_

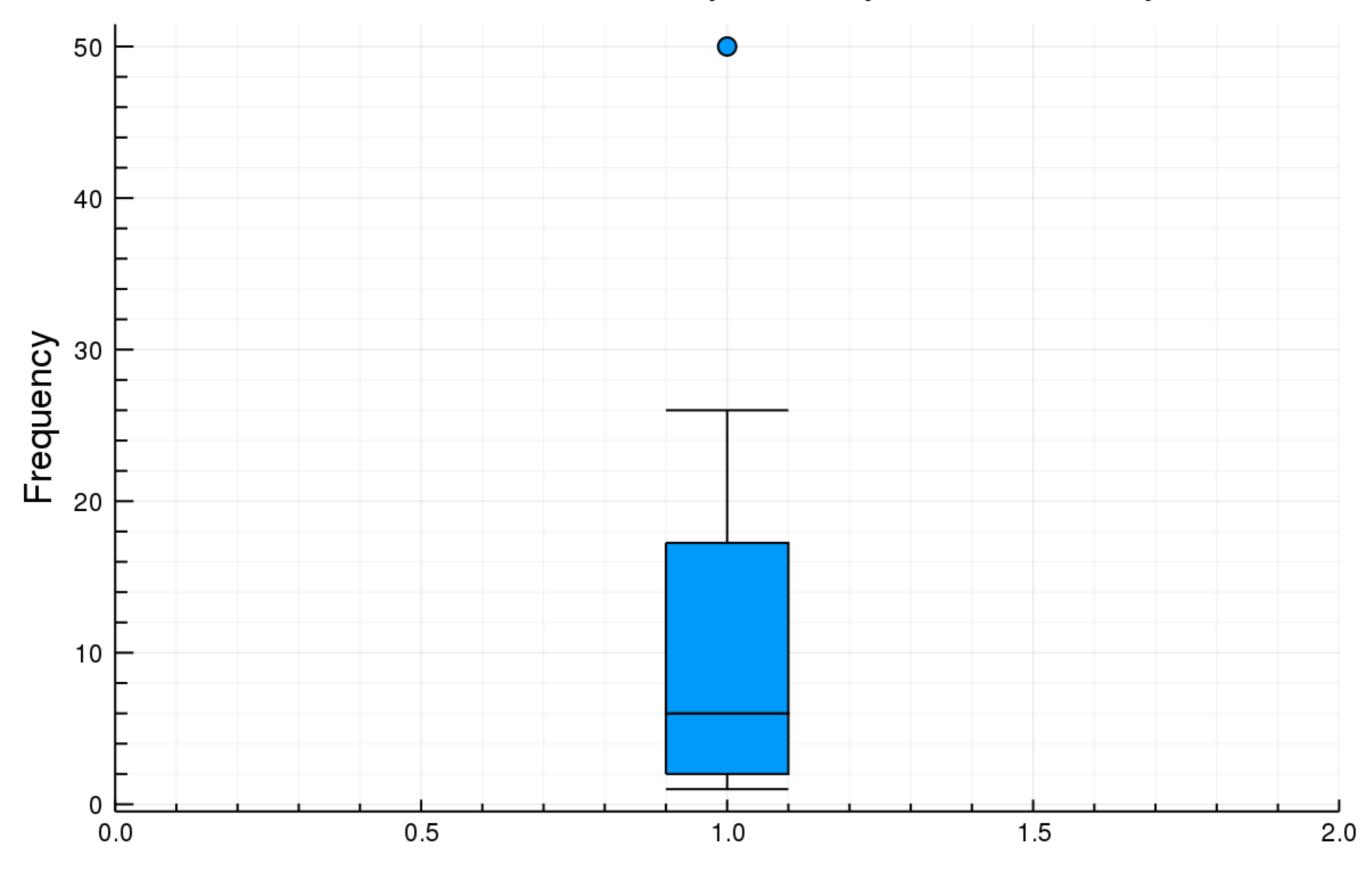
Nonzero Ancillary Market Prices in 2019



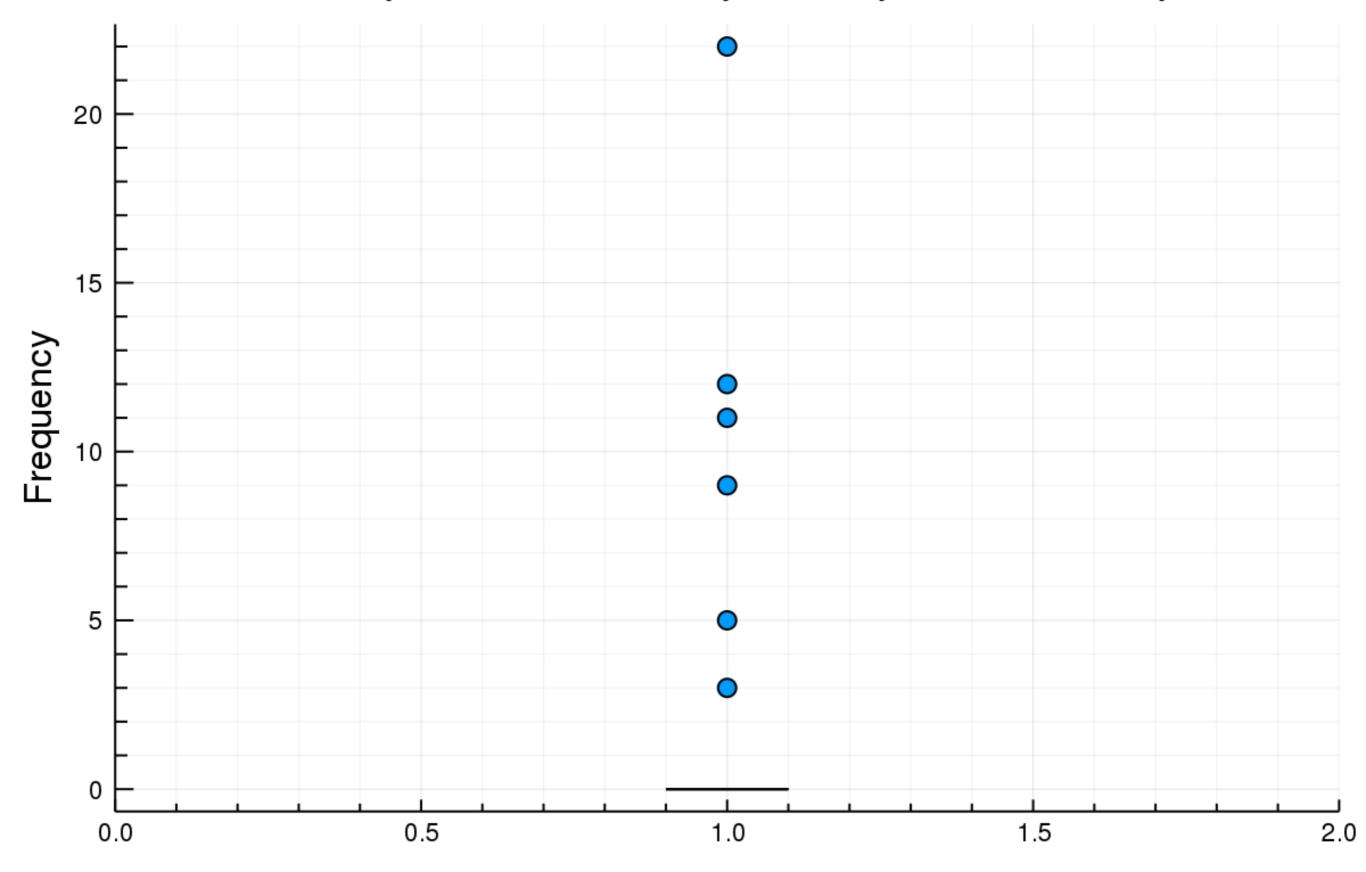
Breakdown of Days with Nonzero Ancillary Prices in 2019

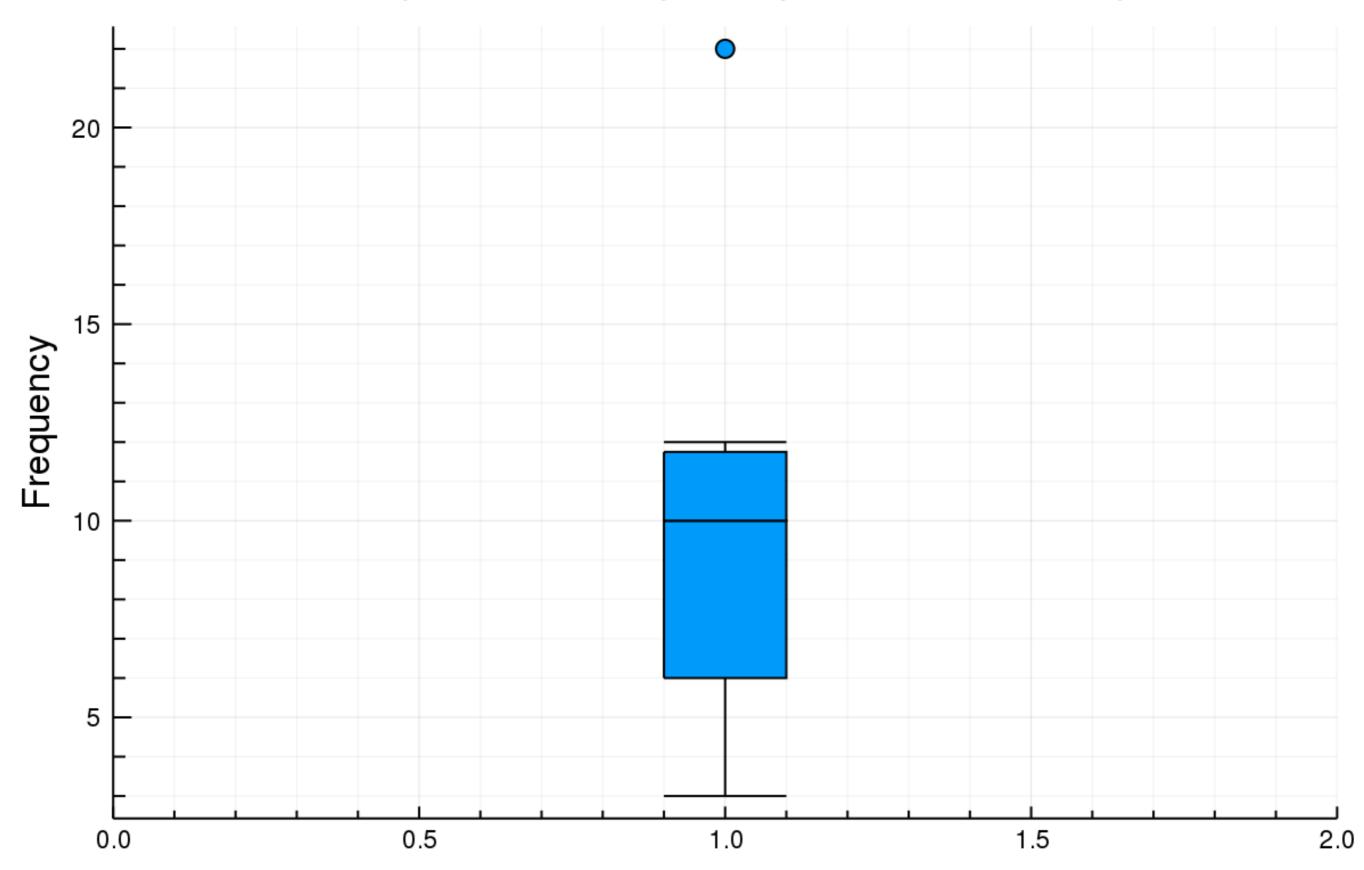


Nonzero Ten Minute Prices for Days with Any Nonzero Ancillary Prices



Nonzero Thirty Minute Prices for Days with Any Nonzero Ancillary Prices





Nonzero Ancillary Market Prices in February 20 15 Frequency 5 0 2019-02-15 2019-01-30 2019-02-07 2019-02-23 Date

February Day Summary

Date	Nonzero 10 Min Prices	10 Min Quartile	Nonzero 30 Min Prices	30 Min Quartile
Feb 1st, 2019	1	1st	0	
Feb 26th, 2019	1	1st	0	
Feb 8th, 2019	2	1st	0	
Feb 2nd, 2019	8	3rd	0	
Feb 25th, 2019	10	3rd	0	
Feb 28th, 2019	18	4th	3	1st

Nonzero Ancillary Market Prices in August

