

2019 Preliminary Weather-Normalized MW Update for 2020 ICAP Forecast

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Load Forecasting Task Force

November 26, 2019



Agenda

1. 2019 Preliminary Weather-Normalized Peak Load Update
2. Additional Forecast Information – Locality Data Update
3. 2019 Economic Data

2019 Preliminary Weather-Normalized Peak Load Update

| 2019 Load Reconciliation | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
|--|--------------------------|--------------|-------------|-----------------|----------------|---------------------------------|---------------|-------------------------|---------------------|-----------------|---------------------|
| | NYISO DSS Actual MW Data | | | | | Transmission District Load Data | | | | | |
| | Actual Load | BPS Losses | Muni Gen | Load + Losses | Percent Losses | Actual Load Less Losses | Actual Losses | Actual Load With Losses | Weather Adjustments | Demand Response | Tos' W/N MW With DR |
| 7/20/2019, Hour Beginning 4 PM | | | | | | | | | | | |
| V3 - 11/21/19 | | | | | | | | | | | |
| Consolidated Edison | | | | | | | | | | | |
| Con-Ed LSE Load | | | | | | 11,438.8 | 165.5 | 11,604.3 | 1,334.4 | 45.5 | 12,984.2 |
| Transmission District Load Served | | | | | | 11,438.8 | 165.5 | 11,604.3 | 1,334.4 | 45.5 | 12,984.2 |
| Deduction for BTM:NG | | | | | | 0.0 | 0.0 | 0.0 | | | |
| Transmission District Total Load | 11,438.8 | 165.5 | | 11,604.3 | 1.4% | 11,438.8 | 165.5 | 11,604.3 | | | |
| Central Hudson | | | | | | | | | | | |
| Central Hudson LSE Load | | | | | | 1,093.0 | 32.1 | 1,125.1 | 1.0 | 0.0 | 1,126.1 |
| Transmission District Load Served | | | | | | 1,093.0 | 32.1 | 1,125.1 | 1.0 | 0.0 | 1,126.1 |
| Deduction for BTM:NG | | | | | | 0.0 | 0.0 | 0.0 | | | |
| Transmission District Total Load | 1,093.0 | 32.1 | | 1,125.1 | 2.9% | 1,093.0 | 32.1 | 1,125.1 | | | |
| Long Island Power Authority | | | | | | | | | | | |
| LIPA LSE Load | | | | | | 5,077.9 | 68.9 | 5,146.8 | -162.0 | 22.0 | 5,006.8 |
| NYPA Load & Greenport Load | | | | | | 70.9 | 1.0 | 71.9 | -2.3 | 0.0 | 69.6 |
| Freeport & Rockville Centre Load | | | 6.0 | | | 102.5 | 1.4 | 103.9 | -3.3 | 0.0 | 100.6 |
| Transmission District Load Served | | | | | | 5,251.3 | 71.3 | 5,322.6 | -167.6 | 22.0 | 5,177.0 |
| Deduction for BTM:NG | | | | | | 0.0 | 0.0 | 0.0 | | | |
| Transmission District Total Load | 5,251.5 | 71.3 | 6.0 | 5,328.8 | 1.3% | 5,251.3 | 71.3 | 5,322.6 | | | |
| National Grid | | | | | | | | | | | |
| National Grid LSE | | | | | | 5,818.7 | 368.2 | 6,186.9 | 331.3 | 0.0 | 6,518.2 |
| NYPA Load | | | | | | 36.6 | 2.3 | 38.9 | 2.1 | 0.0 | 41.0 |
| NYMPA Load | | | | | | 264.7 | 16.8 | 281.5 | 15.1 | 0.0 | 296.6 |
| Jamestown Load | | | 53.1 | | | 67.9 | 4.3 | 72.2 | 3.9 | 0.0 | 76.1 |
| Green Island Load | | | | | | 6.2 | 0.4 | 6.6 | 0.4 | 0.0 | 7.0 |
| Transmission District Load Served | | | | | | 6,194.1 | 392.0 | 6,586.1 | 352.8 | 0.0 | 6,938.9 |
| Deduction for BTM:NG | | | | | | 0.0 | 0.0 | 0.0 | | | |
| Transmission District Total Load | 6,141.0 | 392.0 | 53.10 | 6,586.1 | 6.0% | 6,194.1 | 392.0 | 6,586.1 | | | |
| Totals | 29,630.8 | 746.8 | 59.1 | 30,436.7 | 2.5% | 29,688.3 | 746.8 | 30,435.1 | 1,776.5 | 95.8 | 32,307.4 |

| 2019 Load Reconciliation | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
|--|--------------------------|--------------|-------------|-----------------|----------------|---------------------------------|---------------|-------------------------|---------------------|-----------------|---------------------|
| | NYISO DSS Actual MW Data | | | | | Transmission District Load Data | | | | | |
| | Actual Load | BPS Losses | Muni Gen | Load + Losses | Percent Losses | Actual Load Less Losses | Actual Losses | Actual Load With Losses | Weather Adjustments | Demand Response | Tos' W/N MW With DR |
| 7/20/2019, Hour Beginning 4 PM | | | | | | | | | | | |
| V3 - 11/21/19 | | | | | | | | | | | |
| New York Power Authority | | | | | | | | | | | |
| NYPA LSE Load | | | | | | 302.1 | 3.2 | 305.3 | 5.1 | 0.0 | 310.4 |
| NYMPA Load | | | | | | 55.2 | 0.6 | 55.8 | 0.9 | 0.0 | 56.7 |
| Transmission District Load Served | | | | | | 357.3 | 3.8 | 361.1 | 6.0 | 0.0 | 367.1 |
| Deduction for BTM:NG | | | | | | 0.0 | 0.0 | 0.0 | | | |
| Transmission District Total Load | 357.3 | 3.8 | 361.1 | 1.1% | | 357.3 | 3.8 | 361.1 | | | |
| New York State Electric & Gas | | | | | | | | | | | |
| NYSEG LSE Load | | | | | | 2,809.4 | 57.4 | 2,866.8 | 128.7 | 28.2 | 3,023.7 |
| NYPA Load | | | | | | 44.8 | 0.9 | 45.7 | 2.1 | 0.0 | 47.8 |
| NYMPA Load | | | | | | 61.5 | 1.3 | 62.8 | 2.8 | 0.0 | 65.6 |
| Transmission District Load Served | | | | | | 2,915.7 | 59.6 | 2,975.3 | 133.6 | 28.2 | 3,137.1 |
| Deduction for BTM:NG | | | | | | 0.0 | 0.0 | 0.0 | | | |
| Transmission District Total Load | 2,915.7 | 59.6 | 2,975.3 | 2.0% | | 2,915.7 | 59.6 | 2,975.3 | | | |
| Orange & Rockland Utilities | | | | | | | | | | | |
| O&R LSE Load | | | | | | 1,000.6 | 8.4 | 1,009.0 | 41.0 | 0.0 | 1,050.0 |
| Transmission District Load Served | | | | | | 1,000.6 | 8.4 | 1,009.0 | 41.0 | 0.0 | 1,050.0 |
| Deduction for BTM:NG | | | | | | 0.0 | 0.0 | 0.0 | | | |
| Transmission District Total Load | 996.0 | 8.4 | 1,004.4 | 0.8% | | 1,000.6 | 8.4 | 1,009.0 | | | |
| Rochester Gas & Electric | | | | | | | | | | | |
| RG&E LSE Load | | | | | | 1,426.6 | 14.0 | 1,440.6 | 74.7 | 0.1 | 1,515.4 |
| NYMPA Load | | | | | | 10.9 | 0.1 | 11.0 | 0.6 | 0.0 | 11.6 |
| Transmission District Load Served | | | | | | 1,437.5 | 14.1 | 1,451.6 | 75.3 | 0.1 | 1,527.0 |
| Deduction for BTM:NG | | | | | | 0.0 | 0.0 | 0.0 | | | |
| Transmission District Total Load | 1,437.5 | 14.1 | 1,451.6 | 1.0% | | 1,437.5 | 14.1 | 1,451.6 | | | |
| Totals | 29,630.8 | 746.8 | 59.1 | 30,436.7 | 2.5% | 29,688.3 | 746.8 | 30,435.1 | 1,776.5 | 95.8 | 32,307.4 |

| 2019 Load Reconciliation | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
|--|--------------------------------|------------------------|---------------|------------------|------------------------------|----------------------------|-------------------------|---------------------|------------------------------|---------------------|
| | 7/20/2019, Hour Beginning 4 PM | Reallocation of Losses | | | | Proportional | Adj. W/N | 2019 | 2019 | 2019 Adj Load |
| | | TOs' W/N MW With DR | W/N Losses | Station Power | Adj. W/N Load Less Losses | Percent Loss Allocation | Allocation of Losses | Load Less Losses | Adjusted Actual Load (MW) | BTM:NG (1 + WNF) |
| Consolidated Edison | | | | | | | | | | |
| Con-Ed LSE Load | 12,984.2 | 185.2 | | 12,799.0 | 40.63% | 321.0 | 12,799.0 | 13,120.0 | | |
| Transmission District Load Served | 12,984.2 | 185.2 | | 12,799.0 | 40.63% | 321.0 | 12,799.0 | 13,120.0 | 1.0251 | 12,984.2 |
| Deduction for BTM:NG | | | | | | | | | | |
| Transmission District Total Load | | | | | | | | | | |
| Central Hudson | | | | | | | | | | |
| Central Hudson LSE Load | 1,126.1 | 32.1 | | 1,094.0 | 3.47% | 27.4 | 1,094.0 | 1,121.4 | | |
| Transmission District Load Served | 1,126.1 | 32.1 | | 1,094.0 | 3.47% | 27.4 | 1,094.0 | 1,121.4 | 1.0251 | 1,126.1 |
| Deduction for BTM:NG | | | | | | | | | | |
| Transmission District Total Load | | | | | | | | | | |
| Long Island Power Authority | | | | | | | | | | |
| LIPA LSE Load | 5,006.8 | 67.0 | | 4,939.8 | 15.68% | 123.80 | 4,939.80 | 5,063.6 | | |
| NYPA Load & Greenport Load | 69.6 | 0.9 | | 68.7 | 0.22% | 1.70 | 68.70 | 70.4 | | |
| Freeport & Rockville Centre Load | 100.6 | 1.4 | | 99.2 | 0.31% | 2.40 | 99.20 | 101.6 | | |
| Transmission District Load Served | 5,177.0 | 69.3 | | 5,107.7 | 16.21% | 127.9 | 5,107.7 | 5,235.6 | 1.0251 | 5,177.0 |
| Deduction for BTM:NG | | | | | | | | | | |
| Transmission District Total Load | | | | | | | | | | |
| National Grid | | | | | | | | | | |
| National Grid LSE | 6,518.2 | 388.0 | 13.5 | 6,116.7 | 19.42% | 153.4 | 6,116.7 | 6,270.1 | | |
| NYPA Load | 41.0 | 2.4 | | 38.6 | 0.12% | 0.9 | 38.6 | 39.5 | | |
| NYMPA Load | 296.6 | 17.7 | | 278.9 | 0.89% | 7.0 | 278.9 | 285.9 | | |
| Jamestown Load | 76.1 | 4.5 | | 71.6 | 0.23% | 1.8 | 71.6 | 73.4 | | |
| Green Island Load | 7.0 | 0.4 | | 6.6 | 0.02% | 0.2 | 6.6 | 6.8 | | |
| Transmission District Load Served | 6,938.9 | 413.0 | 13.5 | 6,512.4 | 20.67% | 163.3 | 6,512.4 | 6,675.7 | 1.0251 | 6,925.4 |
| Deduction for BTM:NG | | | | | | | | | | |
| Transmission District Total Load | | | | | | | | | | |
| Totals | 32,307.4 | 789.80 | 13.5 | 31,504.10 | 100.00% | 789.80 | 31,504.10 | 32,293.9 | 1.0251 | 32,293.9 |

| 2019 Load Reconciliation | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
|--|---|------------------------|---------------|------------------|------------------------------|----------------------------|-------------------------|---------------------|------------------------------|---------------------|
| | 7/20/2019, Hour Beginning 4 PM V3 - 11/21/19 | Reallocation of Losses | | | | Proportional | Adj. W/N | 2019 | 2019 | 2019 Adj Load |
| | | TOs' W/N MW With DR | W/N Losses | Station Power | Adj. W/N Load Less Losses | Percent Loss Allocation | Allocation of Losses | Load Less Losses | Adjusted Actual Load (MW) | BTM:NG (1 + WNF) |
| New York Power Authority | | | | | | | | | | |
| NYPA LSE Load | 310.4 | 3.3 | | 307.1 | 0.97% | 7.7 | 307.1 | 314.8 | | |
| NYMPA Load | 56.7 | 0.6 | | 56.1 | 0.18% | 1.4 | 56.1 | 57.5 | | |
| Transmission District Load Served | 367.1 | 3.9 | | 363.2 | 1.15% | 9.1 | 363.2 | 372.3 | 1.0251 | 367.1 |
| Deduction for BTM:NG | | | | | | | | | | |
| Transmission District Total Load | | | | | | | | | | |
| New York State Electric & Gas | | | | | | | | | | |
| NYSEGLSE Load | 3,023.7 | 60.5 | | 2,963.2 | 9.41% | 74.3 | 2,963.2 | 3,037.5 | | |
| NYPA Load | 47.8 | 1.0 | | 46.8 | 0.15% | 1.2 | 46.8 | 48.0 | | |
| NYMPA Load | 65.6 | 1.3 | | 64.3 | 0.20% | 1.6 | 64.3 | 65.9 | | |
| Transmission District Load Served | 3,137.1 | 62.8 | | 3,074.3 | 9.76% | 77.1 | 3,074.3 | 3,151.4 | 1.0251 | 3,137.1 |
| Deduction for BTM:NG | | | | | | | | | | |
| Transmission District Total Load | | | | | | | | | | |
| Orange & Rockland Utilities | | | | | | | | | | |
| O&R LSE Load | 1,050.0 | 8.7 | | 1,041.3 | 3.31% | 26.1 | 1,041.3 | 1,067.4 | | |
| Transmission District Load Served | 1,050.0 | 8.7 | | 1,041.3 | 3.31% | 26.1 | 1,041.3 | 1,067.4 | 1.0251 | 1,050.0 |
| Deduction for BTM:NG | | | | | | | | | | |
| Transmission District Total Load | | | | | | | | | | |
| Rochester Gas & Electric | | | | | | | | | | |
| RG&E LSE Load | 1,515.4 | 14.7 | | 1,500.7 | 4.76% | 37.6 | 1,500.7 | 1,538.3 | | |
| NYMPA Load | 11.6 | 0.1 | | 11.5 | 0.04% | 0.3 | 11.5 | 11.8 | | |
| Transmission District Load Served | 1,527.0 | 14.8 | | 1,512.2 | 4.80% | 37.9 | 1,512.2 | 1,550.1 | 1.0251 | 1,527.0 |
| Deduction for BTM:NG | | | | | | | | | | |
| Transmission District Total Load | | | | | | | | | | |
| Totals | 32,307.4 | 789.80 | 13.5 | 31,504.10 | 100.00% | 789.80 | 31,504.10 | 32,293.9 | 1.0251 | 32,293.9 |

Additional Forecast Information – Locality Data Update

G-to-J Locality Peaks

G-to-J Peaks

| Year | G-to-J Date | G-to-J Hr Beg | NCP MW | NYCA Date | NYCA Hr Beg | CP MW | Delta | Ratio |
|------|-------------|---------------|--------|-----------|-------------|--------|-------|--------|
| 2010 | 7/6/2010 | 17 | 16,186 | 7/6/2010 | 17 | 16,186 | - | 1.0000 |
| 2011 | 7/22/2011 | 16 | 16,546 | 7/22/2011 | 16 | 16,546 | - | 1.0000 |
| 2012 | 7/18/2012 | 13 | 15,783 | 7/17/2012 | 14 | 15,769 | 14 | 1.0009 |
| 2013 | 7/19/2013 | 17 | 16,373 | 7/19/2013 | 17 | 16,373 | - | 1.0000 |
| 2014 | 9/2/2014 | 17 | 14,551 | 9/2/2014 | 16 | 14,520 | 32 | 1.0022 |
| 2015 | 7/20/2015 | 16 | 14,730 | 7/29/2015 | 16 | 14,455 | 275 | 1.0190 |
| 2016 | 8/11/2016 | 16 | 15,068 | 8/11/2016 | 16 | 15,068 | - | 1.0000 |
| 2017 | 7/20/2017 | 16 | 14,704 | 7/19/2017 | 17 | 14,158 | 546 | 1.0385 |
| 2018 | 8/29/2018 | 16 | 15,192 | 8/29/2018 | 16 | 15,192 | - | 1.0000 |
| 2019 | 7/17/2019 | 17 | 14,572 | 7/20/2019 | 16 | 14,114 | 458 | 1.0325 |

DSS Load Data

G-to-J Locality NCP/CP Ratio Calculation

G-to-J Locality Peak Statistics - 2010 to 2019

| Period | Average NCP | Average CP | Delta | Ratio |
|-----------|-------------|------------|-------|---------------|
| 3 Yr Avg | 14,823 | 14,488 | 335 | 1.0231 |
| 5 Yr Avg | 14,853 | 14,597 | 256 | 1.0175 |
| 10 Yr Avg | 15,371 | 15,238 | 132 | 1.0087 |

Calculation: $15,371 / 15,238 = 1.0087$

Zone J Locality Peaks

Zone J Peaks

| Year | Zone J Date | Zone J Hr Beg | NCP MW | NYCA Date | NYCA Hr Beg | CP MW | Delta | Ratio |
|------|-------------|---------------|--------|-----------|-------------|--------|-------|--------|
| 2010 | 7/6/2010 | 17 | 11,600 | 7/6/2010 | 17 | 11,600 | - | 1.0000 |
| 2011 | 7/22/2011 | 12 | 11,876 | 7/22/2011 | 16 | 11,826 | 50 | 1.0042 |
| 2012 | 7/18/2012 | 15 | 11,438 | 7/17/2012 | 14 | 11,405 | 33 | 1.0028 |
| 2013 | 7/19/2013 | 17 | 11,736 | 7/19/2013 | 17 | 11,736 | - | 1.0000 |
| 2014 | 9/2/2014 | 17 | 10,572 | 9/2/2014 | 16 | 10,567 | 5 | 1.0005 |
| 2015 | 7/20/2015 | 16 | 10,675 | 7/29/2015 | 16 | 10,455 | 220 | 1.0210 |
| 2016 | 8/11/2016 | 16 | 11,006 | 8/11/2016 | 16 | 11,006 | - | 1.0000 |
| 2017 | 7/20/2017 | 17 | 10,722 | 7/19/2017 | 17 | 10,249 | 473 | 1.0461 |
| 2018 | 8/29/2018 | 16 | 11,037 | 8/29/2018 | 16 | 11,037 | - | 1.0000 |
| 2019 | 7/17/2019 | 17 | 10,756 | 7/20/2019 | 16 | 9,980 | 776 | 1.0778 |

DSS Load Data

Zone J Locality NCP/CP Ratio Calculation

Zone J Locality Peak Statistics - 2010 to 2019

| Period | Average NCP | Average CP | Delta | Ratio |
|-----------|-------------|------------|-------|---------------|
| 3 Yr Avg | 10,838 | 10,422 | 416 | 1.0399 |
| 5 Yr Avg | 10,839 | 10,545 | 294 | 1.0279 |
| 10 Yr Avg | 11,142 | 10,986 | 156 | 1.0142 |

Calculation: $11,142 / 10,986 = 1.0142$

Zone K Locality Peaks

Zone K Peaks

| Year | Zone K Date | Zone K Hr Beg | NCP MW | NYCA Date | NYCA Hr Beg | CP MW | Delta | Ratio |
|------|-------------|---------------|--------|-----------|-------------|-------|-------|--------|
| 2010 | 7/6/2010 | 16 | 5,822 | 7/6/2010 | 17 | 5,755 | 66 | 1.0115 |
| 2011 | 7/22/2011 | 15 | 5,914 | 7/22/2011 | 16 | 5,896 | 18 | 1.0030 |
| 2012 | 6/21/2012 | 16 | 5,510 | 7/17/2012 | 14 | 5,079 | 431 | 1.0848 |
| 2013 | 7/18/2013 | 16 | 5,764 | 7/19/2013 | 17 | 5,589 | 175 | 1.0314 |
| 2014 | 9/2/2014 | 16 | 5,054 | 9/2/2014 | 16 | 5,054 | - | 1.0000 |
| 2015 | 7/20/2015 | 16 | 5,247 | 7/29/2015 | 16 | 5,136 | 111 | 1.0216 |
| 2016 | 8/12/2016 | 16 | 5,411 | 8/11/2016 | 16 | 5,190 | 221 | 1.0426 |
| 2017 | 7/20/2017 | 16 | 5,137 | 7/19/2017 | 17 | 4,989 | 148 | 1.0297 |
| 2018 | 8/29/2018 | 16 | 5,412 | 8/29/2018 | 16 | 5,412 | - | 1.0000 |
| 2019 | 7/21/2019 | 17 | 5,452 | 7/20/2019 | 16 | 5,323 | 129 | 1.0242 |

DSS Load Data

Zone K Locality NCP/CP Ratio Calculation

Zone K Locality Peak Statistics - 2010 to 2019

| Period | Average NCP | Average CP | Delta | Ratio |
|-----------|-------------|------------|-------|---------------|
| 3 Yr Avg | 5,334 | 5,241 | 92 | 1.0176 |
| 5 Yr Avg | 5,332 | 5,210 | 122 | 1.0234 |
| 10 Yr Avg | 5,472 | 5,342 | 130 | 1.0243 |

Calculation: $5,472 / 5,342 = 1.0243$

Daily Locality Data – July 17 to July 21

| Date | NYCA | | G-to-J | | Zone J | | Zone K | |
|-----------|-------|----------|--------|----------|--------|----------|--------|---------|
| | CTHI | Peak MW | CTHI | Peak MW | CTHI | Peak MW | CTHI | Peak MW |
| 7/17/2019 | 80.62 | 29,384.6 | 83.96 | 14,601.5 | 84.21 | 10,756.0 | 83.06 | 5,056.9 |
| 7/18/2019 | 78.93 | 26,922.6 | 79.50 | 12,168.5 | 80.10 | 9,190.6 | 81.12 | 4,233.0 |
| 7/19/2019 | 81.86 | 29,349.5 | 83.35 | 14,083.3 | 83.36 | 10,056.8 | 80.76 | 4,625.3 |
| 7/20/2019 | 84.96 | 30,427.7 | 86.61 | 14,113.5 | 86.82 | 9,980.0 | 86.74 | 5,322.8 |
| 7/21/2019 | 85.23 | 30,347.7 | 88.43 | 14,576.6 | 88.60 | 10,337.2 | 89.06 | 5,451.9 |

DSS Load Data

Locality Peak-Producing CTHI Statistics

Peak - Producing CTHI - Locality Peaks

| Locality: | G-to-J | Zone J | Zone K |
|-------------------|--------|--------|--------|
| 20 Yr Avg PP CTHI | 86.49 | 86.82 | 85.32 |
| St Dev PP CTHI | 2.41 | 2.44 | 2.68 |
| Design Percentile | 65% | 67% | 50% |
| Design CTHI | 87.45 | 87.88 | 85.32 |

Coincident Peak

| LIPA | NYCA |
|-------|-------|
| 84.74 | 83.79 |
| 2.91 | 2.52 |
| 50% | 57% |
| 84.74 | 84.23 |

2019 Economic Data

Summary of Economic Data (1 of 2)

| Variable & TD | Unit | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Con-Ed_Employment | 1,000 | 4,208 | 4,306 | 4,395 | 4,513 | 4,657 | 4,773 | 4,856 | 4,933 | 5,010 | 5,058 | 5,061 | 5,065 |
| Con-Ed_GDP | \$ Millions | 711,853 | 733,529 | 760,094 | 764,458 | 783,337 | 797,297 | 813,347 | 830,207 | 849,704 | 863,982 | 873,879 | 890,739 |
| Con-Ed_Households | 1,000 | 3,491 | 3,539 | 3,576 | 3,612 | 3,644 | 3,673 | 3,684 | 3,689 | 3,702 | 3,719 | 3,736 | 3,751 |
| Con-Ed_Income-Real | \$ Millions | 535,781 | 558,709 | 571,703 | 583,761 | 608,492 | 629,738 | 651,617 | 685,522 | 701,756 | 700,953 | 704,055 | 713,744 |
| Con-Ed_Population | 1,000 | 9,180 | 9,268 | 9,336 | 9,384 | 9,421 | 9,446 | 9,433 | 9,386 | 9,360 | 9,362 | 9,371 | 9,383 |
| Cen-Hud_Employment | 1,000 | 190 | 190 | 190 | 191 | 192 | 194 | 195 | 197 | 199 | 201 | 202 | 202 |
| Cen-Hud_GDP | \$ Millions | 22,364 | 22,345 | 22,635 | 22,606 | 22,626 | 22,684 | 22,776 | 23,232 | 23,951 | 24,392 | 24,653 | 25,249 |
| Cen-Hud_Households | 1,000 | 200 | 200 | 200 | 201 | 201 | 202 | 202 | 203 | 204 | 204 | 205 | 205 |
| Cen-Hud_Income-Real | \$ Millions | 22,448 | 22,824 | 22,966 | 22,995 | 23,696 | 24,341 | 24,896 | 25,606 | 25,744 | 25,876 | 26,042 | 26,341 |
| Cen-Hud_Population | 1,000 | 530 | 529 | 526 | 524 | 523 | 520 | 519 | 520 | 519 | 518 | 517 | 516 |
| LIPA_Employment | 1,000 | 1,238 | 1,254 | 1,273 | 1,289 | 1,302 | 1,320 | 1,338 | 1,346 | 1,351 | 1,359 | 1,361 | 1,363 |
| LIPA_GDP | \$ Millions | 164,725 | 166,482 | 169,085 | 169,704 | 173,761 | 175,130 | 175,179 | 176,184 | 177,990 | 180,153 | 182,509 | 186,285 |
| LIPA_Households | 1,000 | 954 | 959 | 962 | 966 | 969 | 972 | 973 | 975 | 979 | 984 | 988 | 991 |
| LIPA_Income-Real | \$ Millions | 173,552 | 179,524 | 182,646 | 181,681 | 188,676 | 194,100 | 198,389 | 202,955 | 203,352 | 203,696 | 203,186 | 204,141 |
| LIPA_Population | 1,000 | 2,841 | 2,846 | 2,848 | 2,851 | 2,850 | 2,846 | 2,842 | 2,840 | 2,839 | 2,838 | 2,837 | 2,836 |
| N-Grid_Employment | 1,000 | 1,781 | 1,798 | 1,810 | 1,819 | 1,825 | 1,839 | 1,855 | 1,866 | 1,879 | 1,889 | 1,888 | 1,890 |
| N-Grid_GDP | \$ Millions | 222,297 | 223,662 | 225,144 | 225,590 | 230,584 | 232,480 | 233,737 | 236,642 | 242,135 | 245,396 | 247,224 | 252,104 |
| N-Grid_Households | 1,000 | 1,627 | 1,635 | 1,641 | 1,648 | 1,652 | 1,655 | 1,659 | 1,663 | 1,667 | 1,672 | 1,676 | 1,680 |
| N-Grid_Income-Real | \$ Millions | 163,505 | 165,381 | 166,389 | 167,070 | 171,675 | 175,125 | 177,058 | 181,079 | 181,642 | 181,701 | 181,995 | 183,394 |
| N-Grid_Population | 1,000 | 4,012 | 4,011 | 4,009 | 4,005 | 3,995 | 3,979 | 3,968 | 3,964 | 3,957 | 3,946 | 3,937 | 3,929 |

Data is from Moody's Analytics, August 2019.



Summary of Economic Data (2 of 2)

| Variable & TD | Unit | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|-------------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| NYPA_Employment | 1,000 | 32 | 33 | 33 | 34 | 33 | 33 | 34 | 35 | 35 | 35 | 35 | 35 |
| NYPA_GDP | \$ Millions | 4,117 | 3,812 | 3,697 | 3,729 | 3,694 | 3,720 | 3,797 | 3,880 | 3,995 | 4,031 | 4,045 | 4,092 |
| NYPA_Households | 1,000 | 32 | 32 | 32 | 32 | 32 | 32 | 33 | 33 | 33 | 33 | 33 | 33 |
| NYPA_Income-Real | \$ Millions | 3,015 | 2,986 | 3,022 | 3,030 | 3,128 | 3,194 | 3,204 | 3,279 | 3,275 | 3,280 | 3,294 | 3,316 |
| NYPA_Population | 1,000 | 82 | 82 | 82 | 82 | 81 | 81 | 81 | 81 | 81 | 80 | 80 | 80 |
| NYSEG_Employment | 1,000 | 411 | 417 | 419 | 420 | 417 | 417 | 420 | 422 | 426 | 428 | 428 | 428 |
| NYSEG_GDP | \$ Millions | 48,939 | 48,853 | 49,052 | 48,870 | 48,744 | 48,539 | 48,616 | 49,250 | 50,445 | 51,110 | 51,463 | 52,389 |
| NYSEG_Households | 1,000 | 418 | 419 | 420 | 420 | 420 | 419 | 419 | 419 | 420 | 420 | 421 | 421 |
| NYSEG_Income-Real | \$ Millions | 40,036 | 40,829 | 41,087 | 40,637 | 41,624 | 42,076 | 42,425 | 43,379 | 43,507 | 43,671 | 43,751 | 44,079 |
| NYSEG_Population | 1,000 | 1,058 | 1,056 | 1,054 | 1,050 | 1,043 | 1,036 | 1,030 | 1,026 | 1,023 | 1,019 | 1,015 | 1,012 |
| OR_Employment | 1,000 | 254 | 257 | 258 | 263 | 268 | 273 | 278 | 285 | 291 | 294 | 296 | 297 |
| OR_GDP | \$ Millions | 32,468 | 32,015 | 32,086 | 32,391 | 33,147 | 33,782 | 34,292 | 35,466 | 36,738 | 37,410 | 38,034 | 38,948 |
| OR_Households | 1,000 | 227 | 228 | 228 | 229 | 231 | 232 | 233 | 235 | 237 | 239 | 241 | 243 |
| OR_Income-Real | \$ Millions | 31,901 | 32,602 | 32,844 | 32,948 | 34,080 | 34,801 | 35,323 | 36,312 | 36,863 | 37,571 | 37,743 | 38,146 |
| OR_Population | 1,000 | 688 | 690 | 692 | 695 | 698 | 700 | 703 | 706 | 708 | 709 | 712 | 716 |
| RGE_Employment | 1,000 | 491 | 497 | 500 | 502 | 505 | 509 | 513 | 516 | 519 | 521 | 521 | 522 |
| RGE_GDP | \$ Millions | 62,001 | 61,991 | 62,376 | 62,220 | 63,188 | 64,280 | 64,572 | 64,941 | 66,673 | 67,726 | 68,518 | 70,153 |
| RGE_Households | 1,000 | 422 | 424 | 426 | 428 | 429 | 430 | 431 | 432 | 433 | 435 | 436 | 437 |
| RGE_Income-Real | \$ Millions | 43,715 | 44,799 | 45,051 | 44,450 | 45,794 | 46,895 | 47,209 | 48,153 | 48,079 | 48,032 | 48,096 | 48,503 |
| RGE_Population | 1,000 | 1,055 | 1,055 | 1,055 | 1,054 | 1,051 | 1,047 | 1,044 | 1,043 | 1,042 | 1,040 | 1,038 | 1,037 |
| Employment_NYCA | 1,000 | 8,605 | 8,752 | 8,879 | 9,031 | 9,200 | 9,359 | 9,490 | 9,600 | 9,710 | 9,786 | 9,791 | 9,804 |
| GDP_NYCA | \$ Millions | 1,268,764 | 1,292,688 | 1,324,169 | 1,329,569 | 1,359,081 | 1,377,912 | 1,396,315 | 1,419,803 | 1,451,629 | 1,474,201 | 1,490,325 | 1,519,960 |
| Households_NYCA | 1,000 | 7,369 | 7,435 | 7,484 | 7,537 | 7,578 | 7,614 | 7,633 | 7,648 | 7,676 | 7,705 | 7,735 | 7,762 |
| Income_NYCA | \$ Millions | 1,013,952 | 1,047,654 | 1,065,708 | 1,076,573 | 1,117,166 | 1,150,270 | 1,180,122 | 1,226,284 | 1,244,217 | 1,244,781 | 1,248,162 | 1,261,662 |
| Population_NYCA | 1,000 | 19,446 | 19,536 | 19,602 | 19,644 | 19,661 | 19,656 | 19,621 | 19,567 | 19,528 | 19,512 | 19,507 | 19,508 |

Data is from Moody's Analytics, August 2019.



Questions?

Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system

