

EEI and AGA

ESG/Sustainability Template



June 2020



Electric Company ESG/Sustainability Quantitative Information

Parent Company: AVANGRID, INC.
Operating Company(s): AVANGRID RENEWABLES, CENTRAL MAINE POWER, NEW YORK STATE ELECTRIC & GAS, ROCHESTER GAS & ELECTRIC, UNITED ILLUMINATING
Business Type(s):
State(s) of Operation:
State(s) with RPS Programs:
Regulatory Environment:
Report Date:

| Ref. No. | Refer to the 'EEI Definitions' tab for more information on each metric | Baseline 2015 | 2017 | 2018 | Current Year 2019 | Future Year | Comments, Links, Additional Information, and Notes |
|------------------|--|------------------|------------------|------------------|----------------------|-------------|--|
| Portfolio | | | | | | | |
| 1 | Owned Nameplate Generation Capacity at end of year (MW) | 6,456 | 7,472 | 7,586 | 8,360 | | |
| 1.1 | Coal | | | | | | |
| 1.2 | Natural Gas | 645 | 848 | 848 | 840 | | |
| 1.3 | Nuclear | | | | | | |
| 1.4 | Petroleum | | | | | | |
| 1.5 | Total Renewable Energy Resources | 5,811 | 6,624 | 6,738 | 7,520 | | |
| 1.5.1 | Biomass/Biogas | | | | | | |
| 1.5.2 | Geothermal | | | | | | |
| 1.5.3 | Hydroelectric | 118 | 118 | 118 | 118 | | |
| 1.5.4 | Solar | 50 | 106 | 141 | 130 | | |
| 1.5.5 | Wind | 5,643 | 6,387 | 6,466 | 7,259 | | |
| 1.5.6 | Other Renewables | | 13 | 13 | 13 | | |
| 2 | Owned Net Generation for the data year (MWh) | 17,417,000 | 18,104,000 | 20,057,000 | 20,960,000 | | |
| 2.1 | Coal | | | | | | |
| 2.2 | Natural Gas | 2,790,000 | 2,366,000 | 2,722,000 | 3,481,000 | | |
| 2.3 | Nuclear | | | | | | |
| 2.4 | Petroleum | | | | | | |
| 2.5 | Total Renewable Energy Resources | 14,627,000 | 15,738,000 | 17,335,000 | 17,479,000 | | |
| 2.5.1 | Biomass/Biogas | | | | | | |
| 2.5.2 | Geothermal | | | | | | |
| 2.5.3 | Hydroelectric | 366,000 | 385,000 | 268,000 | 179,000 | | |
| 2.5.4 | Solar | 126,000 | 164,000 | 262,000 | 272,000 | | |
| 2.5.5 | Wind | 14,135,000 | 15,103,000 | 16,724,000 | 16,952,000 | | |
| 2.5.6 | Other Renewables | | 86,000 | 81,000 | 76,000 | | |
| 3 | Investing in the Future: Capital Expenditures, Energy Efficiency (EE), and Smart Meters | | | | | | |
| 3.1 | Total Annual Capital Expenditures (nominal dollars) | \$ 1,168,000,000 | \$ 2,262,000,000 | \$ 1,726,000,000 | \$ 2,981,000,000 | | |
| 3.2 | Incremental Annual Electricity Savings from EE Measures (MWh) | 204,254 | 167,723 | 167,282 | 192,861 | | |
| 3.3 | Incremental Annual Investment in Electric EE Programs (nominal dollars) | \$ 66,553,179 | \$ 56,880,876 | \$ 39,601,802 | \$ 50,400,000 | | |
| 3.4 | Percent of Total Electric Customers with Smart Meters (at end of year) | 35 | 34 | 33 | 32 | | |
| 4 | Retail Electric Customer Count (at end of year) | 2,208,195 | 2,231,576 | 2,243,570 | 2,261,180 | | |
| 4.1 | Commercial | | | | | | |
| 4.2 | Industrial | | | | | | |
| 4.3 | Residential | | | | | | |
| 5 | GHG Emissions: Carbon Dioxide (CO2) and Carbon Dioxide Equivalent (CO2e) | | | | | | TARGETS: Reduce the intensity of CO2 emissions from our electric generation by 25% by the end of the year 2020 compared to a year 2015 baseline, and to be carbon neutral by the end of the year 2035. |
| 5.1 | Owned Generation | | | | | | |
| 5.1.1 | Carbon Dioxide (CO2) | | | | | | |



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Report Date:

| Ref. No. | Refer to the 'EEI Definitions' tab for more information on each metric | Baseline | | | Current Year | Future Year | Comments, Links, Additional Information, and Notes | |
|------------|--|-----------|---------|-----------|--------------|-------------|--|--|
| | | 2015 | 2017 | 2018 | 2019 | | | |
| 5.1.1.1 | Total Owned Generation CO2 Emissions (MT) | 1,117,597 | 965,359 | 1,065,492 | 1,541,422 | | Total direct CO2 emissions reported to EPA's GHG Reporting Program (40 CFR, part 98, Subpart C – General Stationary Fuel Combustion and Subpart D – Electricity Production) | |
| 5.1.1.2 | Total Owned Generation CO2 Emissions Intensity (MT/Net MWh) | 0.064 | 0.053 | 0.053 | 0.074 | | | |
| 5.1.2 | Carbon Dioxide Equivalent (CO2e) | | | | | | Total direct CO2e emissions (CO2, CH4, and N2O) reported to EPA's GHG Reporting Program (40 CFR, part 98, Subpart C – General Stationary Fuel Combustion and Subpart D – Electricity Production) | |
| 5.1.2.1 | Total Owned Generation CO2e Emissions (MT) | 1,118,734 | 966,345 | 1,066,575 | 1,542,983 | | | |
| 5.1.2.2 | Total Owned Generation CO2e Emissions Intensity (MT/Net MWh) | 0.064 | 0.053 | 0.053 | 0.074 | | | |
| 5.4 | Non-Generation CO2e Emissions | | | | | | Only RG&E is reporting under EPA's GHG Reporting Program (NYSEG, UI, CMP discontinued reporting as they are not considered large emitters) Includes emissions from CNG, NYSEG, RG&E and SCG. BGC and MNG are below the threshold | |
| 5.4.1 | Fugitive CO2e emissions of sulfur hexafluoride (MT) | 4,626 | 1,354 | 3,858 | 57,060 | | | |
| 5.4.2 | Fugitive CO2e emissions from natural gas distribution (MT) | 257,465 | 232,371 | 222,481 | 229,041 | | | |
| 6 | Nitrogen Oxide (NOx), Sulfur Dioxide (SO2), Mercury (Hg) | | | | | | | |
| 6.1 | Generation basis for calculation | Total | | | | | | |
| 6.2 | Nitrogen Oxide (NOx) | | | | | | | |
| 6.2.1 | Total NOx Emissions (MT) | 146 | 129 | 159 | 183 | | | |
| 6.2.2 | Total NOx Emissions Intensity (MT/Net MWh) | 0.00001 | 0.00001 | 0.00001 | 0.00001 | | | |
| 6.3 | Sulfur Dioxide (SO2) | | | | | | | |
| 6.3.1 | Total SO2 Emissions (MT) | 5 | 5 | 6 | 7 | | | |
| 6.3.2 | Total SO2 Emissions Intensity (MT/Net MWh) | 0.00000 | 0.00000 | 0.00000 | 0.00000 | | | |
| 6.4 | Mercury (Hg) | | | | | | | |
| 6.4.1 | Total Hg Emissions (kg) | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| 6.4.2 | Total Hg Emissions Intensity (kg/Net MWh) | 0.00000 | 0.00000 | 0.00000 | 0.00000 | | | |



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| Ref. No. | Refer to the 'EEI Definitions' tab for more information on each metric | Baseline 2015 | 2017 | 2018 | Current Year 2019 | Future Year | Comments, Links, Additional Information, and Notes |
|---|--|------------------|-------|-------|----------------------|-------------|--|
| Resources | | | | | | | |
| 7 | Human Resources | | | | | | |
| 7.1 | Total Number of Employees | 6,809 | 6,570 | 6,449 | 6,597 | | |
| 7.2 | Total Number on Board of Directors/Trustees | 12 | 14 | 14 | 14 | | |
| 7.3 | Total Women on Board of Directors/Trustees | 1 | 2 | 2 | 4 | | |
| 7.4 | Total Minorities on Board of Directors/Trustees | 0 | 0 | 0 | 0 | | |
| 7.5 | Employee Safety Metrics | | | | | | |
| 7.5.1 | Recordable Incident Rate | 2.41 | 3.42 | 2.92 | 3.57 | | |
| 7.5.2 | Lost-time Case Rate | 0.75 | 0.64 | 0.58 | 0.52 | | |
| 7.5.3 | Days Away, Restricted, and Transfer (DART) Rate | n/a | 2.08 | 1.89 | 1.98 | | |
| 7.5.4 | Work-related Fatalities | 0.00 | 0.00 | 0.00 | 1.00 | | |
| 8 | Fresh Water Resources | | | | | | |
| 8.1 | Water Withdrawals - Consumptive (Billions of Liters/Net MWh) | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 8.2 | Water Withdrawals - Non-Consumptive (Billions of Liters/Net MWh) | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 9 | Waste Products | | | | | | |
| 9.1 | Amount of Hazardous Waste Manifested for Disposal | n/a | 274 | 895 | 676 | | |
| 9.2 | Percent of Coal Combustion Products Beneficially Used | 0% | 0% | 0% | 0% | | |
| Additional Metrics (Optional) | | | | | | | |
| <i>Insert additional rows in this section as necessary.</i> | | | | | | | |



Gas Company ESG/Sustainability Quantitative Information

| Ref. No. | Refer to the "Definitions" column for more information on each metric. | Baseline 2015 | 2017 | 2018 | Current Year 2019 | Future Year | Definitions |
|---|--|------------------|-------------|-------------|----------------------|-----------------------------|--|
| Natural Gas Distribution | | | | | | | |
| 1 | METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS | | | | | | All methane leak sources per 98.232 (j) (1-6) are included for Distribution. Combustion sources are excluded. CO₂ is excluded. |
| 1.1 | Number of Gas Distribution Customers | 984,167 | 998,236 | 1,005,387 | 1,016,737 | | |
| 1.2 | Distribution Mains in Service | - | - | - | - | | These metrics should include all local distribution companies (LDCs) held by the Parent Company that are above the LDC Facility reporting threshold for EPA's 40 C.F.R. 98, Subpart W reporting rule. |
| 1.2.1 | Plastic (miles) | 6,294 | 6,640 | 6,771 | 6,928 | | |
| 1.2.2 | Cathodically Protected Steel - Bare & Coated (miles) | 6,268 | 6,338 | 6,335 | 6,279 | | |
| 1.2.3 | Unprotected Steel - Bare & Coated (miles) | 573 | 334 | 280 | 269 | | |
| 1.2.4 | Cast Iron / Wrought Iron - without upgrades (miles) | 1,069 | 946 | 914 | 897 | | |
| 1.3 | Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (# years to complete) | | | | | CT ~17 years NY ~3 years | These metrics should provide the number of years remaining to take out of service, replace or upgrade cathodically unprotected steel mains, and cast iron/wrought iron mains, consistent with applicable state utility commission authorizations. |
| 1.3.1 | Unprotected Steel (Bare & Coated) (# years to complete) | | | | | | Optional: # yrs by pipe type. |
| 1.3.2 | Cast Iron / Wrought Iron (# years to complete) | | | | | | Optional: # yrs by pipe type. |
| 2 | Distribution CO ₂ e Fugitive Emissions | | | | | | Fugitive methane emissions (not CO ₂ combustion emissions) stated as CO ₂ e, as reported to EPA under 40 CFR 98, Subpart W, sections 98.236(a)(3)(iv)(D), 98.236(f)(1)(v), and 98.236(f)(2)(v)(8) - i.e., this is Subpart W methane emissions as input in row 2.2 below and converted to CO ₂ e here. This metric should include fugitive methane emissions above the reporting threshold for all natural gas local distribution companies (LDCs) held by the Parent Company that are above the LDC Facility reporting threshold for EPA's 40 C.F.R. 98, Subpart W reporting rule. Calculated value based on mt CH ₄ input in the 2.7 (below). |
| 2.1 | CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations (metric tons) | 256,349 | 231,200 | 221,325 | 227,900 | | |
| 2.2 | CH ₄ Fugitive Methane Emissions from Gas Distribution Operations (metric tons) | 10,254 | 9,248 | 8,853 | 9,116 | | INPUT VALUE (total mt CH ₄) as explained in definition above. Subpart W input is CH ₄ (mt). |
| 2.2.1 | CH ₄ Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year) | 534 | 482 | 461 | 475 | | |
| 2.3 | Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year) | 227,809,818 | 212,261,647 | 240,497,526 | 253,691,600 | | This metric provides gas throughput from distribution (quantity of natural gas delivered to end users) reported under Subpart W, 40 C.F.R. 98.236(aa)(9)(iv), as reported on the Subpart W e-GRRT integrated reporting form in the "Facility Overview" worksheet Excel form, Quantity of natural gas delivered to end users (column 4). |
| 2.3.1 | Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (MMscf/year) | 216,419 | 201,649 | 228,473 | 241,007 | | |
| | Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per MMscf of Methane Throughput) | | | | | | |
| 2.4 | | 0.25% | 0.24% | 0.20% | 0.20% | | Calculated annual metric: (MMSFC methane emissions/MMSCF methane throughput) |
| Natural Gas Transmission and Storage | | | | | | | |
| 1 | Onshore Natural Gas Transmission Compression Methane Emissions | | | | | | All methane leak sources per 98.232 (e) (1-8), (f)(1-8), and (m) are included for Transmission and Storage. Combustion sources are excluded. CO₂ and N₂O are excluded. |
| 1.1.1 | Pneumatic Device Venting (metric tons/year) | | | | | | Fugitive Methane emissions as defined in 40 CFR 98 Sub W Section 232 (e) (1-8). CO ₂ and N ₂ O emissions are excluded from this section. |
| 1.1.2 | Blowdown Vent Stacks (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(b)(4) |
| 1.1.3 | Transmission Storage Tanks (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(i)(1)(iii) |
| 1.1.4 | Flare Stack Emissions (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(k)(2)(v) |
| 1.1.5 | Centrifugal Compressor Venting (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(n)(11) |
| 1.1.6 | Reciprocating Compressor Venting (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(o)(2)(ii)(D)(2) |
| 1.1.7 | Equipment leaks from valves, connectors, open ended lines, pressure relief valves, and meters (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(p)(2)(ii)(D)(2) |
| 1.1.8 | Other Leaks (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v) |
| 1.2 | Total Transmission Compression Methane Emissions (metric tons/year) | | | | | | |
| 1.3 | Total Transmission Compression Methane Emissions (CO ₂ e/year) | | | | | | |
| 1.4 | Total Transmission Compression Methane Emissions (MSCF/year) | | | | | | Density of Methane = 0.0192 kg/ft ³ per 40 CFR Sub W EQ, W-36 |
| 2 | Underground Natural Gas Storage Methane Emissions | | | | | | Fugitive Methane emissions as defined in 40 CFR 98 Sub W Section 232 (f) (1-8). CO ₂ and N ₂ O emissions are excluded from this section. |
| 2.1.1 | Pneumatic Device Venting (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(b)(4) |
| 2.1.2 | Flare Stack Emissions (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(n)(11) |
| 2.1.3 | Centrifugal Compressor Venting (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(o)(2)(ii)(D)(2) |
| 2.1.4 | Reciprocating Compressor Venting (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(p)(2)(ii)(D)(2) |
| 2.1.5 | Equipment leaks from valves, connectors, open ended lines, pressure relief valves, and meters (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v) |
| 2.1.6 | Other Equipment Leaks (metric tons/year) | | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v) |

| | | | | | | |
|----------|--|--|--|--|--|--|
| 2.1.7 | Equipment leaks from valves, connectors, open-ended lines, and pressure relief valves associated with storage wellheads (metric tons/year) | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v) |
| 2.1.8 | Other equipment leaks from components associated with storage wellheads (metric tons/year) | | | | | Value reported using calculation in 40 CFR 98 Sub W Section 232(q)(2)(v) |
| 2.2 | Total Storage Compression Methane Emissions (metric tons/year) | | | | | |
| 2.3 | Total Storage Compression Methane Emissions (CO ₂ e/year) | | | | | |
| 2.4 | Total Storage Compression Methane Emissions (MSCF/year) | | | | | Density of Methane = 0.0192 kg/ft ³ per 40 CFR Sub W EQ, W-36 |
| 3 | Onshore Natural Gas Transmission Pipeline Blowdowns | | | | | <u>Blowdown vent stacks for onshore transmission pipeline</u> as defined in 40 CFR 98 Sub W Section 232 (m), CO ₂ and N ₂ O emissions are excluded from this section. Value reported using calculation in 40 CFR 98 Sub W Section 232(i)(3)(ii) |
| 3.1 | Transmission Pipeline Blowdown Vent Stacks (metric tons/year) | | | | | |
| 3.2 | Transmission Pipeline Blowdown Vent Stacks (CO ₂ e/year) | | | | | |
| 3.3 | Transmission Pipeline Blowdown Vent Stacks (MSCF/year) | | | | | |
| 4 | Other Non-Sub W Emissions Data (OPTIONAL) | | | | | (OPTIONAL) If desired, report additional sources required by ONE Future include dehydrator vents, storage station venting transmission pipeline leaks, and storage tank methane. |
| 4.1 | Total Methane Emissions from additional sources not recognized by 40 CFR 98 Subpart W (metric tons/year) | | | | | |
| 4.2 | Total Methane Emissions from additional sources not recognized by 40 CFR 98 Subpart W (CO ₂ e/year) | | | | | |
| 4.3 | Total Methane Emissions from additional sources not recognized by 40 CFR 98 Subpart W (MSCF/year) | | | | | |
| 5 | Summary and Metrics | | | | | |
| 5.1 | Total Transmission and Storage Methane Emissions (MMSCF/year) | | | | | |
| 5.2 | Annual Natural Gas Throughput from Gas Transmission and Storage Operations (MSCF/year) | | | | | <u>EIA 176 throughput or other reference for other throughput selected</u> |
| 5.2.1 | Annual Methane Gas Throughput from Gas Transmission and Storage Operations (MMSCF/year) | | | | | |
| 5.3 | Methane Emissions Intensity Metric (Percent MMscf of Methane Emissions per MMscf of Methane Throughput) | | | | | Methane content in natural gas equals 95% based on 40 CFR 98 Sub W 233(u)(2)(vii) |

Natural Gas Gathering and Boosting

| | | | | | | |
|----------|---|--|--|--|--|---|
| 1 | METHANE EMISSIONS | | | | | |
| 1.1 | Gathering and Boosting Pipelines, Blow Down Volumes, and Emissions | | | | | |
| 1.1.1 | Total Miles of Gathering Pipeline Operated by gas utility (miles) | | | | | |
| 1.1.2 | Volume of Gathering Pipeline Blow Down Emissions (scf) | | | | | This metric is collected to support calculations under EPA 40 CFR 98, Subpart W. |
| 1.1.4 | Gathering Pipeline Blow-Down Emissions outside storage and compression facilities (metric tons CO ₂ e) | | | | | |
| 2 | CO₂e COMBUSTION EMISSIONS FOR GATHERING & BOOSTING COMPRESSION | | | | | |
| 2.1 | CO ₂ e Emissions for Gathering & Boosting Compression Stations (metric tons) | | | | | CO ₂ combustion emissions reported to EPA under 40 CFR 98, Subpart C, as directed in Subpart W, 98.232(k). |
| 3 | CONVENTIONAL COMBUSTION EMISSIONS FROM GATHERING & BOOSTING COMPRESSION | | | | | |
| 3.1 | Emissions reported for all permitted sources (minor or major) | | | | | The number of permitted sources for conventional emissions may not be the same number of sources reporting under the EPA GHG reporting rule. Companies may wish to describe which, or how many, sources are included in the conventional pollutants data and whether the CO ₂ e data reported includes all of these sources. |
| 3.1.1 | NO _x (metric tons per year) | | | | | |
| 3.1.2 | VOC (metric tons per year) | | | | | |

Additional Metrics (Optional)

| | | | | | | |
|--|--|--|--|--|--|--|
| Insert additional rows in this section as necessary. | | | | | | |
|--|--|--|--|--|--|--|