



Climate Change Bureau Clean Transportation Fuel Program

New Mexico Clean Transportation Fuel Program: Electricity Distribution Utility Carbon Intensity Calculations Methodology

The information provided in this document is intended as informal guidance only and does not constitute a final agency determination, financial advice, or legal advice. In all cases, the applicable rule language under [20.2.92 NMAC](#) governs. Regulated and interested parties are encouraged to consult the rule directly and seek independent legal counsel as needed.

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New Mexico Environment Department
800-219-6157

1190 St. Francis Drive, Santa Fe, NM 87505
<https://www.env.nm.gov>



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Revision History Table

Revision #	Revision Date	Revised By	Reason for Revision
Original	06/24/2026	NMED Staff	Initial publication of the Electricity Distribution Utility Carbon Intensity Calculation Methodology and Documentation for the Clean Transportation Fuel Program.

Table 1. Summary of 2025 Calculated Carbon Intensities (and Data Sources for New Mexico Electric Distribution Utilities)

EDU Name	Type	Submitted 2025 NMED Utility Survey?	CI Data Source	WTW CI (gCO ₂ e/MJ)
City of Truth or Consequences Electric Division	Municipal	No	AZNM eGRID	106.8
City of Aztec	Municipal	No	AZNM eGRID	106.8
City of Farmington	Municipal	No	AZNM eGRID	106.8
City of Gallup	Municipal	No	AZNM eGRID	106.8
City of Raton	Municipal	No	AZNM eGRID	106.8
Los Alamos Department of Public Utilities	Municipal	Yes	Self-reported + AZNM eGRID	117.5
El Paso Electric	Investor-Owned Utility	Yes	Self-reported + AZNM eGRID	80.2
PNM Resources	Investor-Owned Utility	Yes	Self-reported + AZNM eGRID	51.7
Xcel Energy	Investor-Owned Utility	Yes	Self-reported + SPSO eGRID	114.3
Western Farmers Electric Coop	Wholesale Cooperative	No – public documentation used	Annual report + SPSO eGRID	112.2
Tri-State G&T	Wholesale Cooperative	Yes	Self-reported + AZNM eGRID	113.6
City of Springer	Municipal	No	AZNM eGRID	106.8
Central NM Electric Coop	Electric Cooperative	No – supplier data received	Tri-State G&T	113.6
Columbus Electric Coop	Electric Cooperative	No – supplier data received	Tri-State G&T	113.6
Continental Divide Electric Coop	Electric Cooperative	No – supplier data received	Tri-State G&T	113.6
Duncan Valley Electric Coop	Electric Cooperative	No	AZNM eGRID	106.8
Jemez Mountains Electric Coop	Electric Cooperative	No – supplier data received	Tri-State G&T	113.6
Mora-San Miguel Electric Coop	Electric Cooperative	No – supplier data received	Tri-State G&T	113.6
Northern Rio Arriba Electric Coop	Electric Cooperative	No – supplier data received	Tri-State G&T	113.6
Otero County Electric Coop	Electric Cooperative	No – supplier data received	Tri-State G&T	113.6
Rio Grande Electric Coop	Electric Cooperative	No – supplier data received	AZNM eGRID	106.8
Sierra Electric Coop	Electric Cooperative	No – supplier data received	Tri-State G&T	113.6
Socorro Electric Coop	Electric Cooperative	No – supplier data received	Tri-State G&T	113.6
Southwestern Electric Coop	Electric Cooperative	No – supplier data received	Tri-State G&T	113.6
Springer Electric Coop	Electric Cooperative	No – supplier data received	Tri-State G&T	113.6
Kit Carson Electric Coop	Electric Cooperative	No	AZNM eGRID	106.8
Navopache Electric Cooperative	Electric Cooperative	Yes	Tucson Electric Power	181.6
Central Valley Electric Coop	Electric Cooperative	No – supplier data received	Western Farmers Electric	112.2
Farmers' Electric Coop	Electric Cooperative	No – supplier data received	Western Farmers Electric	112.2
Lea County Electric Coop	Electric Cooperative	No – supplier data received	Western Farmers Electric	112.2
Roosevelt County Electric Coop	Electric Cooperative	No – supplier data received	Western Farmers Electric	112.2

1. Purpose

This methodology document accompanies the New Mexico Clean Transportation Fuel Program (CTFP) electricity distribution utility carbon intensities (CIs). The primary purpose of this spreadsheet is to provide transparency to NMED's calculations of CI values for electricity distribution utilities (EDUs) serving New Mexico customers based on the most recent data (2025). These baseline values fundamentally support CTFP reporting mechanisms for electricity dispensed as transportation fuel within CTFP jurisdiction.

As the transportation sector undergoes rapid electrification, the origin of the electrons powering EVs in the state becomes a critical metric in accounting for carbon emissions from transportation. Providing fixed, verifiable CI values allows electric vehicle (EV) charging station operators, fleet managers, and the utilities themselves to accurately quantify the greenhouse gas (GHG) emission reductions achieved when displacing traditional fossil fuels. This document outlines the structural framework, the data source hierarchy, and the logic deployed to translate utility fuel mixes into EDU CI's for use in the CTFP.

2. Regulatory Foundation and Programmatic Context

The CTFP was established under 20.2.92 NMAC¹. The rule creates a credit and deficit trading system for producers, importers, and distributors of transportation fuel in New Mexico that reduces their carbon intensity (CI) over time. To achieve annual statewide CI reduction targets, known as the Clean Transportation Fuel Standard (CTFS), parties that import or produce fuels exceeding each year's annual CTFS baseline incur deficits, whereas those supplying fuels with carbon intensities below the standard—such as renewable electricity or low-carbon biofuels—generate marketable credits. Electricity is specifically identified within the regulatory rule as an opt-in transportation fuel, enabling utilities and charging fuel supply equipment owners to generate and monetize credits.

The CTFP's first compliance period spans seven quarters, starting on April 1, 2026, and ending on December 31, 2027. Regulated parties are required to submit their first compliance reports between January 1 and April 30, 2028.

Electric distribution utilities (EDUs) do not generate deficits under the CTFP solely by distributing electricity. To generate credits, EDUs must opt in to the program to report electricity used as transportation fuel and meet applicable CTFP requirements. EDUs in the program must use service area specific CIs based on utility-specific data to accurately report this electricity, which NMED calculates. This document focuses on the electricity CI values NMED calculated.

2.1. Utility Classification

Under the administrative rules, an electric distribution utility (EDU) is an entity that distributes electricity to the public, which may include municipalities. To generate credits, an EDU must report dispensed electricity using a carbon intensity (CI) value associated with an approved fuel pathway. The carbon intensity of renewable electricity—defined as solar, wind, or hydropower generation—is zero under the

¹[New Mexico Clean Transportation Fuel Program Rule \(20.2.92 NMAC\)](#)

CTFP.

3. Spreadsheet Functionality and Categorization

The calculations estimate the well-to-wheels (WTW) lifecycle CI of electricity delivered in each applicable EDU service area.

NMED bases New Mexico EDU's individual CI calculation on its specific power generating fleet and wholesale procurement mix. Because many EDUs do not generate their own electricity, the spreadsheet also computes CI values for Generation and Transmission (G&T) utilities that supply wholesale power to these local cooperatives. The calculations also establish CI values for broader eGRID subregions, which serve as default regional proxies for utilities lacking specific fuel mix data. For all calculations, electricity generation volumes are grouped into ten standardized categories, each assigned a unique WTW CI. These categories include:

1. Coal
2. Natural Gas
3. Oil or Petroleum
4. Nuclear
5. Hydroelectric
6. Wind
7. Solar Photovoltaic (PV)
8. Geothermal
9. Biomass
10. Unknown or Unspecified Electricity

The spreadsheet uses these categories to assign each portion of a utility's electricity mix to the applicable source-specific CI factor and calculates a proportional weighted-average CI.

4. Approach to Calculate Carbon Intensity

The calculations use the WTW CI score of each fuel derived from version 1.0 of the New Mexico Greenhouse Gas, Regulated Emissions, and Energy Use in Technologies (NM-GREET v1.0) model². The NM-GREET model is a state specific adaptation of the lifecycle transportation GHG model originally developed by the Argonne National Laboratory and used by the NMED to calculate carbon intensities under 20.2.92 NMAC.

For a given utility, the total WTW CI is the sum product of the generation shares of each fuel type multiplied by their respective lifecycle CI, mathematically adjusted for the energy lost during

² [New Mexico Greenhouse Gas, Regulated Emissions, and Energy Use in Technologies \(NM-GREET v1.0\) Calculator](#)

transmission and distribution (T&D) across the state's electrical grid.

4.1. Integration of NM-GREET Constants and Emission Factors

The calculations uses NM-GREETv1.0 lifecycle carbon intensity factors for each electricity source category. The model expresses greenhouse gas emissions in grams of carbon dioxide equivalent per megajoule (gCO₂e/MJ). The calculations apply the applicable source-specific carbon intensity factor to each source’s share of the electricity mix.

5. Data Source Hierarchy

The precision of the EDU CI calculations depends on the quality and specificity of the electricity fuel mix data. In accordance with program regulations, NMED asked utilities and wholesalers to submit 2025 electricity fuel mix and sourcing data, with supporting documentation, through a standardized digital form by April 10, 2026. To account for differences in available utility information, NMED used the four-tier data source hierarchy shown in Table 2.

Table 2. Ranking of EDU generation mix data source types, in order of priority

Priority	Source Type	Use in Calculations
1	Direct utility-reported 2025 fuel mix data	Used as the primary basis for utility-specific CI values.
2	Supplier-reported 2025 fuel mix data	Used when an EDU purchases electricity from a known wholesale supplier.
3	Regulatory filings, public reports, or utility documentation	Used when direct reporting is incomplete or unavailable but publicly available source-specific information exists.
4	The U.S. Environmental Protection Agency’s Emissions and Generation Resource Integrated Database (eGRID) subregion fuel mix data	Used as a regional proxy when utility-specific or supplier-specific data are unavailable.

The reliance on regulatory filings (Priority 3) is a vital mechanism for the Public Service Company of New Mexico (PNM). PNM operates under strict carbon dioxide emission limits under the state's Energy Transition Act (ETA, 62-18 NMSA 1978). The ETA targets fleet CO₂ emissions for utilities that issue energy transition bonds to less than 400 lbs CO₂/MWh by 2023 and 200 lbs CO₂/MWh by 2032 and

thereafter (62-18-10 NMSA 1978). Because of PNM's reliance on regional energy markets, the calculations integrate specific New Mexico Public Regulation Commission (NM-PRC) fuel mix disclosures alongside U.S. Energy Information Administration (EIA) facility-level generation information to accurately resolve and assign emissions to PNM's unspecified electricity market purchase portions. Similarly, the Tri-State Generation and Transmission Association relies on extensive power purchase agreements (PPAs) to decarbonize its wholesale portfolio. Under Priority 2 of the data hierarchy, Tri-State's verified wholesale mix is directly applied to all of its constituent member cooperatives across New Mexico, ensuring that the environmental attributes of these renewable assets directly benefit local EDUs.

6. Use of eGRID Proxy Data and Municipal Utility Dynamics

When utilizing eGRID under Priority 4 of the data hierarchy, NMED does not directly import eGRID's published emission rates. Because eGRID publishes generation-only emission rates—which omit upstream extraction and transportation emissions—using these figures would violate the well-to-wheels (WTW) lifecycle accounting required by the CTFP and artificially suppress the carbon impact of fossil fuels. To correct this and maintain WTW accuracy, NMED extracts only the raw fuel mix percentage ratios from the most recently available 2023 eGRID subregion data and processes those fuel allocations through the NM-GREET model factors. For instance, because the raw 2023 AZNM subregion data summed to 100.2% of total generation, NMED subtracted 0.2% from the AZNM natural gas allocation to normalize the fuel mix to exactly 100.0%. Values based on eGRID must be interpreted strictly as regional proxy values, not utility-specific fuel mix determinations.

7. Utility Treatment and Comprehensive Carbon Intensity Profiles

By applying the established data source hierarchy (Table 2), NMED calculates specific well-to-wheels (WTW) carbon intensity (CI) metrics for each operating utility in the state. Depending on data availability, NMED derives these final CI values from direct utility fuel mix reports, the generation profiles of known wholesale suppliers, or regional eGRID proxy data. For utilities that voluntarily submitted their generation data in response to the NMED data request, NMED calculated CI scores based directly on their specific reported fuel mixtures, as detailed in the sections below. This methodology creates large differences in calculated carbon intensities for municipal EDUs, investor-owned utilities, and electric cooperatives, based largely on their wholesale providers and eGRID subregions shown in Table 1.

7.1. Tri-State Generation and Transmission

The Tri-State G&T wholesale network provides wholesale power generation services for eleven of New Mexico's rural electric cooperatives. In 2025, Tri-State reported to NMED a self-generated wholesale distribution of 8,174,301 MWh. The utility's internal fuel mix relies significantly on natural gas (5.7%), wind (46.9%), coal (5.7%), and unspecified plant purchases (20.4%). The final WTW CI is 113.6 gCO₂e/MJ.

7.2. Western Farmers Electric Cooperative (WFEC)

The WFEC wholesale network provides power to Central Valley Electric Cooperative, Farmers' Electric Cooperative, Lea County Electric Cooperative, and Roosevelt County Electric Cooperative. NMED used publicly available WFEC source information and available percent-of-total fuel mix shares from the WFEC 2025 Annual Report³. The utility's internal fuel mix relies significantly on unknown market purchases (57.0%), wind (19.0%), coal (11.0%), natural gas (6.0%), hydroelectric (5.0%), and solar (2.0%). The final WTW CI is 112.2 gCO₂e/MJ.

7.3. Investor-Owned Utilities

The baseline fuel mix data for the three investor-owned utilities (IOUs) came from direct utility reporting. NMED assigned regional eGRID proxy values only to electricity portions for which the utility did not provide source-specific fuel mix or procurement information.

PNM Resources processed 12,696,532 MWh to serve large population centers that include Albuquerque, Rio Rancho, and Santa Fe. The generation mix consists of 12.9% natural gas, 18.0% nuclear, 30.7% solar, 13.8% wind, 3.2% coal, and 20.9% unspecified market purchases and minor generation modes. The final WTW CI is 51.7 gCO₂e/MJ.

Xcel Energy distributed 29,315,507 MWh across eastern New Mexico load centers, including Roswell, Clovis, and Carlsbad. Xcel provided source-level data for its market purchases, so NMED treated those purchases as known-source market purchases and calculated a separate market purchase CI from the reported source mix. Xcel's overall generation and procurement mix consists of 43.6% known-source market purchases, 33.9% natural gas, 13.8% wind, 8.8% coal, and a small remaining unspecified portion assigned to the SPSO eGRID proxy. The final WTW CI is 114.3 gCO₂e/MJ.

El Paso Electric processed 14,096,629 MWh to serve New Mexico jurisdictional load centers, primarily in Doña Ana and Otero counties, including the city of Las Cruces. The generation mix consists of 40.7% natural gas, 35.1% nuclear (via the Palo Verde Generating Station), 6.2% solar, and 18.1% unspecified market purchases. The final WTW CI is 80.2 gCO₂e/MJ.

7.4. Navopache Electric Cooperative

Navopache Electric Cooperative receives wholesale electricity from Tucson Electric Power (TEP). NMED used TEP's finalized wholesale fuel mix disclosure for this supply profile. Because 2025 MWh data were not available in the calculations for this profile, the calculation uses percent-of-total fuel mix shares. The final WTW CI is 181.6 gCO₂e/MJ.

7.5. Los Alamos Department of Public Utilities (LADPU)

The Los Alamos Department of Public Utilities (LADPU) processed 581,853 MWh to serve the Los Alamos community. LADPU generation mix consists of 11.5% coal, 12.4% hydro, 1.8% natural gas, and 74.2% unspecified market purchases. NMED assigned the unspecified market purchase portion to the AZNM eGRID subregion proxy, consistent with the treatment of other unspecified market purchases in the calculations. The final WTW CI is 117.5 gCO₂e/MJ.

³ <https://www.wfec.com/publications-1/2026-wfec-annual-report>

8. Spreadsheet Structure and Transparency

The calculations include separate calculation sheets for PNM, Xcel Energy, Tri-State G&T, El Paso Electric, Los Alamos County, Navopache Electric Cooperative, Western Farmers Electric Cooperative, eGRID_AZNM, and eGRID_SPSO. The eGRID sheets provide regional proxy fuel mix calculations for utilities or electricity portions without utility-specific or supplier-specific data.

The centralized summary sheet is titled “New Mexico CTFP: 2025 Electricity Distribution Utility Carbon Intensity Summary.” It presents four standardized outputs: WTW CI (gCO₂e/MJ), electricity procurement volume in MWh where available, proportional fuel mix, and emissions in metric tons of CO₂e where MWh data are available. For percentage-only profiles, the workbook uses available percent-of-total fuel mix shares rather than MWh values.

The calculations are a locked Excel workbook where users may view formulas for transparency, but protected cells remain locked to preserve the published CI values. It provides EDU-specific, supplier-based, or regional proxy CI values for electricity used as transportation fuel under CTFP.