



Zia Natural Gas Company

**2025-2027
Energy Efficiency Program Plan**

September 30, 2024

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I. EXECUTIVE SUMMARY

Zia Natural Gas Company, a division of Natural Gas Processing Co. (“Zia”) herein presents for New Mexico Public Regulation Commission (“PRC” or “Commission”) approval its fourth proposed Energy Efficiency Program Plan pursuant to New Mexico’s Efficient Use of Energy Act, NMSA 1978 § 62-17-1 *et seq.* (“EUEA”), and the Energy Efficiency Rule, 17.7.2 NMAC. This 2025-2027 Energy Efficiency Program Plan summarizes Zia’s energy efficiency evaluation and proposal.

Following consultation with energy efficiency experts, research into various measures, and feedback from customers, Zia proposes to continue offering energy efficiency Measures in five general categories: (1) Space Heating, (2) Water Heating, (3) New Construction, (4) Income Qualified, and (5) Commercial. Zia’s Energy Efficiency Program is available to customers in its residential and commercial rate classes (“affected customers”) and provides every affected customer with the opportunity to participate and benefit economically. Zia proposes an annual Program budget of \$583,801 which will not exceed 5% of the total affected customer bills for the Plan Year. Zia estimates its proposed Energy Efficiency Program will result in benefit-cost ratios above 1.0 pursuant to the Commission’s Utility Cost Test (“UCT”) standards, both overall and for each of the five categories. Zia proposes to continue to fund the Energy Efficiency Program through its Seventh Revised Rate Rider No. 2, Energy Efficiency Rider, effective by operation of law on September 1, 2023, under Advice Notice No. 65.

This Program Plan describes and explains Zia’s 2025-2027 Energy Efficiency Program in the following six sections. Section II below provides background information on Zia and the requirements of EUEA and the Energy Efficiency Rule. Section III describes Zia’s pre-application coordination and results of the evaluation of the current 2023 Energy Efficiency Program Plan Year. Section IV identifies and describes the Measures in the current Energy Efficiency Program and proposed changes to the Measures. Section V explains the participation criteria and Program promotion. Section VI explains the cost-benefit analysis and compliance with the Commission’s UCT standards. Further details are provided in the Direct Testimony and Exhibits of Leslie A. Graham.

II. BACKGROUND

Zia is the operating division of Natural Gas Processing Co. (“NGP”) that owns, operates, and controls public utility plant, property, and facilities, including natural gas distribution facilities that provide retail gas service in New Mexico. Zia, as an operating division of NGP, is a public utility subject to the jurisdiction of the Commission.

Zia operates in four separate service areas in five different counties in New Mexico: the Hobbs District, the Ruidoso District, the Maxwell District, and the Dona Ana District. In Lea and Eddy Counties, in the southeast corner of New Mexico, Zia operates the Hobbs District, which provides distribution service in Hobbs, Jal, Malaga and to 23 customers directly across the state line in Texas. There are approximately 10,905 residential and commercial customers in the Hobbs District as of June, 2024. In Lincoln County, Zia provides transmission and distribution service in Ruidoso, Ruidoso Downs, Alto, Capitan, Carrizozo, and surrounding areas, collectively known

as the Ruidoso District. Zia lost approximately 800 customers in the recent South Fork/ Salt Fire and subsequent flooding in Lincoln County. Zia now serves approximately 13,389 residential and commercial customers in Lincoln County. In Colfax County, in northeastern New Mexico, Zia provides transmission and distribution service in the Village of Maxwell, the Village of Cimarron, the Town of Springer and areas around Raton, as well as sale for resale service to the City of Las Vegas. This is known as the Maxwell District. Zia currently serves 1,318 residential and commercial customers in the Maxwell District. In Dona Ana County, in the southern part of the state, Zia operates its Dona Ana System, which provides service to areas in Dona Ana County outside the City of Las Cruces. Zia currently serves 13,730 residential and commercial customers in the Dona Ana District. Overall, Zia serves approximately 38,755 residential and commercial customers statewide as of June, 2024. The vast majority of Zia's customers, approximately 35,916, are residential.

The EUEA establishes the state's policy that public utilities include cost effective energy efficiency and load management programs in their energy resource portfolios, that disincentives to development of such energy efficiency and load management programs be removed in a manner that balances the public interest, consumers' interests, and investors' interests, and that public utilities be allowed to earn a profit on cost-effective energy efficiency and load management resources. NMSA 1978, § 62-17-3. In furtherance of that policy, the EUEA requires public utilities to evaluate and implement cost-effective and achievable measures or programs available in their service territories that reduce energy demand and energy consumption. NMSA 1978, § 62-17-5.B and G.

The EUEA further requires public utilities to obtain Commission approval of energy efficiency and load management programs before they are implemented, and requires the Commission to first find that the portfolio of programs is cost-effective under the UCT and is designed to provide every affected customer class with the opportunity to participate and benefit economically. NMSA 1978, § 62-17-5.C and E.

On March 23, 2023 in Commission Case No. 21-00222-UT, Zia received approval for its 2022-2024 Energy Efficiency Program Plan. On July 31, 2024, Zia filed its Notice of No Change to its Energy Efficiency Rate Rider. On July 31, 2024, Zia filed its *Energy Efficiency Program Annual Report for Plan Year 2023*. On August 14, 2024, the Commission issued its *Order Granting Zia Natural Gas Company's Motion for Extension of Time to File Energy Efficiency Application*, allowing Zia to file its application for approval of its 2025-2027 Energy Efficiency Program in Case No. 21-00222-UT on or before September 30, 2024.

III. PRE-APPLICATION COORDINATION AND EVALUATION

A. Initial Coordination

Section 62-17-5. E of the EUEA requires that, prior to seeking Commission approval, utilities solicit nonbinding recommendations on the design, implementation and use of third-party energy service contractors through competitive bidding on the programs, from Commission Staff, the Attorney General, the Energy, Minerals, and Natural Resources Department ("EMNRD"), and other interested parties. Accordingly, prior to developing its proposed Energy Efficiency Program, Zia coordinated with its customers, Commission Staff, the Attorney General, EMNRD Staff, and

energy efficiency experts to identify and evaluate potential measures to achieve energy efficiency in its service territories that would be consistent with the Commission's standards under the EUEA and the Energy Efficiency Rule. Following this initial coordination, Zia met with New Mexico Gas Company and Zia's energy efficiency consultant CLEAResult to inform and assist our efforts to identify potential changes to the current Energy Efficiency Program.

On August 28, 2024, Zia conducted a Public Advisory Group meeting to gather input from regulators, peers, and industry leaders for guidance in increasing performance of Zia's Energy Efficiency Program. In addition to Zia's representatives, representatives from Commission Staff, CLEAResult, and New Mexico Gas Company attended this meeting via Zoom meetings. An invitation to attend this meeting was also extended to the New Mexico Department of Justice ("NM DOJ") and EMNRD, but neither representative attended. Zia presented its review of EcoMetric Consulting's ("EcoMetric") *PY2023 Evaluation of Zia Natural Gas Company Energy Efficiency Programs* regarding Zia's Energy Efficiency Program.¹

Zia also conducted a customer survey concerning the Energy Efficiency Program, which was delivered to Zia's customer base through the May 2024 issue of Zia's monthly newsletter, an insert in the customers' monthly billing statements. The survey was also available to customers in each of Zia's offices. A copy of the survey form is included in Program Plan Exhibit A. Zia received approximately 347 completed surveys, which collectively revealed that most of Zia's surveyed customers first learned of Zia's Energy Efficiency Program through information periodically included in Zia's newsletter. Customers responding to the survey further indicated that, now being aware of the Program, they would be more likely than not to participate in the Program, by a ratio of 9:1. Additionally, Zia customers support the continued funding of the Energy Efficiency Program through the rate rider with just over 61% in favor. The results of the customer surveys are shown in Program Plan Exhibit B.

Finally, Zia sought additional input from CLEAResult, the current contractor responsible for the direct installation and implementation of Zia's Income Qualified and Commercial measures. CLEAResult has been very successful at implementing both programs during PY 2022 and PY 2023. CLEAResult and Zia representatives discussed options such as CLEAResult managing the entire Energy Efficiency Program to adding management of the New Construction, termed New Homes, program. In both designs, the primary focus of the Program is high efficiency appliances and direct install conservation options. In the end, Zia chose not to implement either option as will be discussed later in the Plan report.

The advice and suggestions Zia received from these meetings and customer surveys support the conclusions of its evaluation, and included the following key points: (1) the cornerstones of an effective natural gas energy efficiency program focus on space and water heating; (2) starting with a higher efficiency home and high efficiency natural gas appliances is

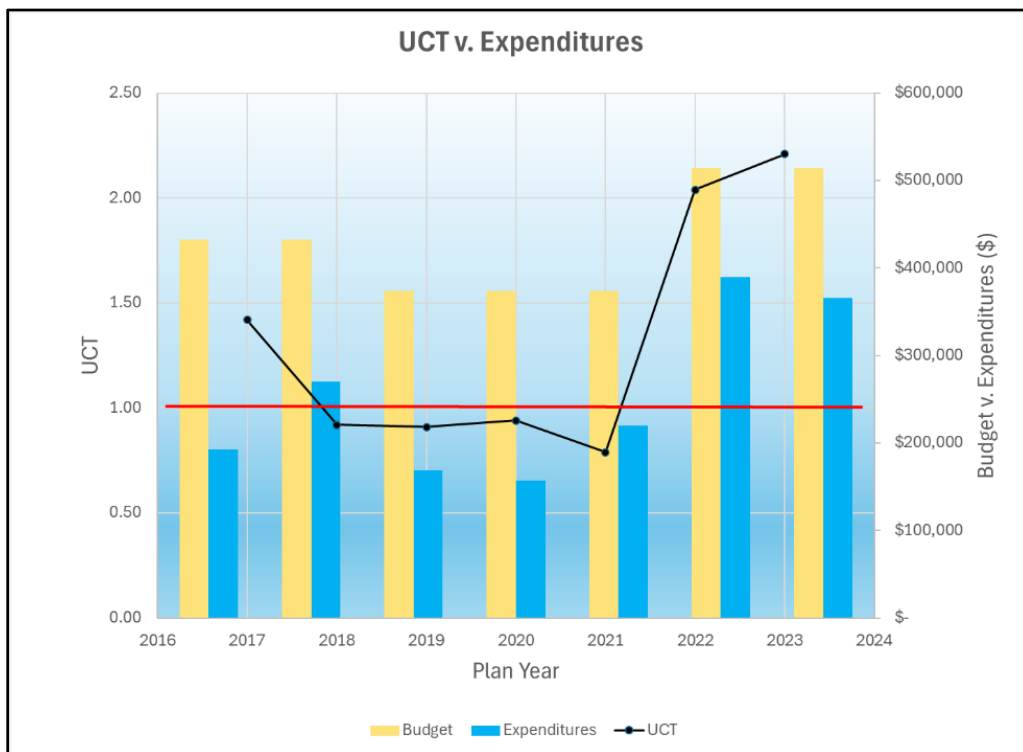
¹ EcoMetric Consulting, LLC is the Commission's selected contractor to perform the independent measurement and verification ("M&V") of a utility's energy efficiency program required by the Energy Efficiency Rule 17.7.2.15 NMAC. Zia provided EcoMetric's M&V Report regarding Zia's 2023 Energy Efficiency Program as an attachment to its Energy Efficiency Annual Report filed July 31, 2024 in Case No. 21-00222-UT.

the most cost effective way to realize overall energy savings; (3) in order to keep costs down, Zia should implement the majority of its program internally, but for Income Qualified and Commercial Measures Zia should utilize an external administrator who can take advantage of experience with multiple energy efficiency programs, utilize their expertise for these specific customer classes, and maximize the savings provided to the customer; (4) all Zia employees need to take an active role to educate and identify customers who could benefit from the Energy Efficiency Program; (5) upgrading or replacing existing appliances to higher efficiency models should be a top priority due to the increased therm savings over the life of the appliance, allowing incentives and rebates that keep these measures in line with UCT requirements for New Mexico; and (6) eliminating the need for increased energy usage should be accomplished through a reduction in water use, thus using less energy to heat, or by adding insulation and air sealing to the structure, which increases the overall energy efficiency. Zia proposes to build off the success of its 2022-2024 Energy Efficiency Program Plan in line with these key conclusions.

B. Energy Efficiency Program History

Zia is currently in its eighth year of implementing an energy efficiency program. The previous two years have finally resulted in cost effective Programs with the UCT ratio for PY 2022 at 2.04 and PY 2023 at 2.21. Chart 1 shows the trend of the UCT ratio, budgeted expenditures, and actual expenditures over the life of Zia’s energy efficiency programs.

Chart 1: UCT vs. Expenditures

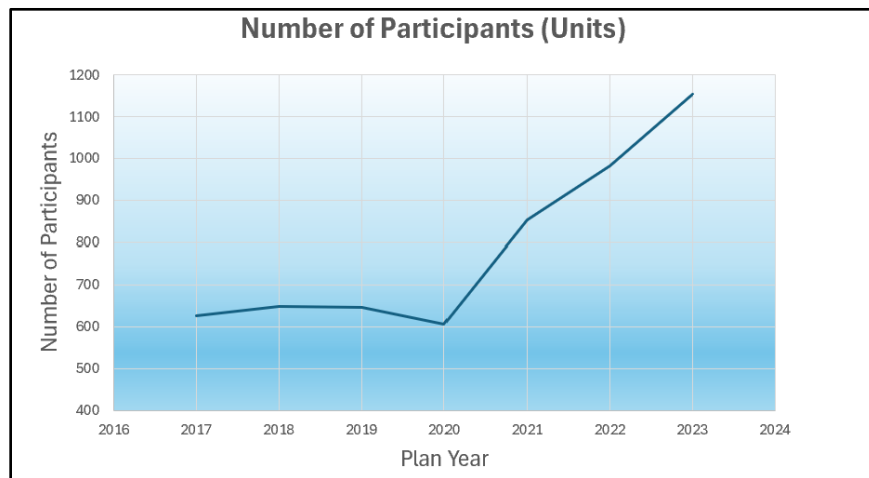


Participation in Zia’s Program increased over the past two plan years leading to an increase in energy savings. The increase in participation also reflects a change in how units are counted. The increase in therm savings directly reflects a successful Commercial Measure. Prior to PY 2022, Zia had 3 participants in the Commercial Measure:

- 1 in 2018 for a net therm savings of 72 therms.²
- 1 in 2020 for a net therm savings of 1,767 therms.³
- 1 in 2021 for a net therm savings of 318 therms.⁴

In PY 2022, CLEAResult contacted 30 commercial participants for a savings of 61,822 therms⁵ and in PY 2023, CLEAResult contacted 15 commercial participants for a savings of 75,736 therms.⁶ Chart 2 shows the change in participation over the life of Zia’s program, and Chart 3 shows the change in energy savings over the life of Zia’s program.

Chart 2: Number of Participants



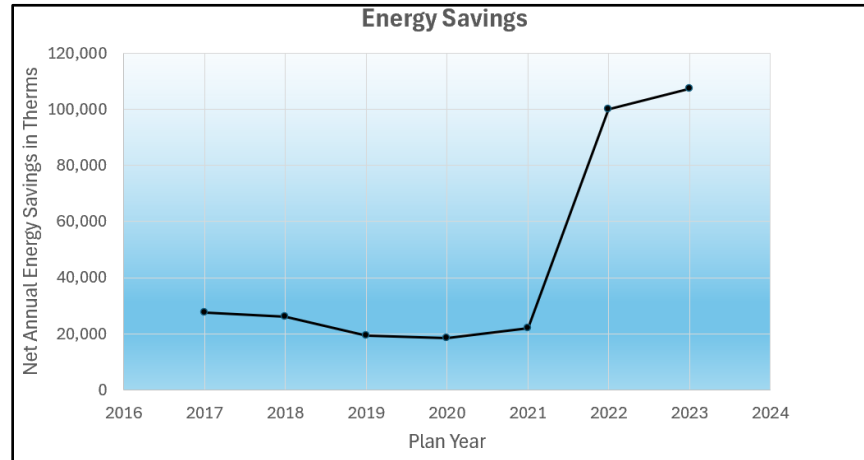
² See Zia's Energy Efficiency Annual Report, filed on June 28, 2019 in Case No. 18-00280-UT.

³ See Zia's Energy Efficiency Annual Report, filed on July 1, 2021 in Case No. 18-00280-UT.

⁴ See Zia's Energy Efficiency Annual Report, filed on July 1, 2022 in Case No. 21-00222-UT.

⁵ See Zia's Energy Efficiency Annual Report, filed on July 31, 2023 in Case No. 21-00222-UT.

⁶ See Zia's Energy Efficiency Annual Report, filed on July 31, 2024 in Case No. 21-00222-UT.

Chart 3: Energy Savings

Zia Space Heating, Water Heating, and Income Qualified measures were also cost-effective during PY 2022 and PY 2023. The New Construction Measure has not met its goals and has not, by itself, been cost effective over the life of Zia’s program. Zia’s proposes several changes to the New Construction Measure for the 2025-2027 Energy Efficiency Program as outlined in Section IV.C of the Program Plan.

C. Evaluation of Current Measures

EcoMetric’s M&V Report regarding Zia’s PY 2023 Energy Efficiency Program concluded “{t}he portfolio overall was found to be cost effective with a UCT ratio of 2.21.” M&V Report, page 4.⁷ EcoMetric reviewed each of the five Measures and the Components of each Measure. EcoMetric also noted in Section 3.1 that “[c]omparing the utility system costs of increased gas consumption to the utility system benefits of decreased electricity consumption shows that this measure is cost effective, with utility system benefits being greater than utility system costs.” EcoMetric M&V Report, page 19. EcoMetric further made five recommendations to assist in the evaluation of the Energy Efficiency Program. Three of the recommendations in the M&V Report pertained to updating the therm savings values to reflect updated information available in the 2023 New Mexico Technical Resource Manual (the “2023 NM TRM”). EcoMetric also noted that one reason the New Construction program had a low UCT was the equal allocation of internal administration costs among Measures, and recommended more detailed tracking of costs by Measure. EcoMetric M&V Report, page 22.

C. Potential New Measures

Zia does not propose to add any new Measures or Components to its 2025-2027 Energy Efficiency Program. Instead, Zia proposes to reorganize the rebates offered through the New Construction Measure to offer a rebate by Component as well as a rebate for the whole home.

⁷ The EcoMetric M&V Report is attached to Zia’s 2023 Energy Efficiency Annual Report filed at the Commission on July 31, 2024 in Case No. 21-00222-UT.

D. Rejected Measures

During the Public Advisory meeting in August, attendees suggested that we review the Dual Fuel Heat Pump and midstream incentives. Zia was unable to quantify the savings in a dual fuel heat pump, but representatives from New Mexico Gas Company noted that they were reviewing the option and looking at a pilot program. Zia will continue to evaluate the option in the future. Midstream incentives are rebates that are provided to the distributor of gas appliances to encourage sales of higher efficiency appliances. Zia does not have the internal management program to implement a midstream program at this time. Based on its research, coordination with energy efficiency experts, and customer feedback, Zia chose to forego adding the following into the proposed 2025-2027 Energy Efficiency Program: (1) luxury items such as fireplace inserts, natural gas log sets, gas lighting, barbeque grills, and outdoor fire pits; and (2) ancillary uses for natural gas such as cooking and clothes drying. Zia reviewed the Energy Savings Estimations for Energy Star Windows and Energy Star Clothes Dryer, but rejected the components because none had high enough therm savings values to be beneficial to the Program.

IV. CURRENT ENERGY EFFICIENCY PROGRAM AND PROPOSED CHANGES

Based on its research and coordination with energy efficiency experts, as well as customer feedback and Commission approval, Zia's 2022-2024 Energy Efficiency Program offered energy efficiency Measures in five general categories: (1) Space Heating, (2) Water Heating, (3) New Construction, (4) Low Income, and (5) Commercial. Within each of these general categories, Zia offered energy efficiency components designed to pinpoint high energy usage appliances, identify and eliminate drafts and energy leakage, and improve overall energy consumption and efficiency within both residential and commercial buildings. Because the majority of Zia's customers and load are residential, and the primary drivers of residential gas use are space heating and water heating, Zia's Program focused first on opportunities to increase energy efficiency in those areas. Zia's 2025-2027 Energy Efficiency Program proposes to continue the five categories with updates. The Measures and changes to each Measure offered for each category are described below.

A. Space Heating.

Space heating accounts for the largest proportion of natural gas consumption in residential applications and offers opportunities for energy efficiency savings.⁸ Zia's 2022-2024 Energy Efficiency Program offered eight distinct components within this category which will carry over to the 2025-2027 Energy Efficiency Program.

⁸ See, e.g., American Gas Association ("AGA") at <https://www.aga.org/research-policy/resource-library/gas-facts-appliance-and-housing-data/> and the U.S. Energy Information Administration ("EIA") at [Use of natural gas - U.S. Energy Information Administration \(EIA\)](#).

Table 1: Space Heating Components and Rebates

Component Description:	Current	Proposed
(1) Install Gas Furnace to AFUE ⁹ 92-94.9%.	\$200	\$250
(2) Install Gas Furnace to AFUE 95% or Higher.	\$275	\$325
(3) Upgrade Boiler/Hydronic Heating System to 0.90 or higher AFUE.	\$300	\$300
(4) Insulation from R-11 or Lower to R-30 or Higher.	\$300	\$300
(5) Gas Furnace/Heater Inspection or Tune-up.	\$25	\$50
(6) Upgrade from Electric Resistive Heat to Gas Forced Air Heat, AFUE 95% or Higher.	\$325	\$350
(7) Installation of Programmable Thermostat, Manual/No Thermostat to Programmable Thermostat.	\$25	\$25
(8) Installation of Smart Thermostat, Manual/No Thermostat upgraded to Smart Thermostat.	\$50	\$50

The only change Zia proposes for the space heating measure is to increase the amount of the rebate for four components. The increase is minor, but it is intended to increase participation.

During Case No. 18-00280-UT, component 6 of the Space Heating Measure (upgrade from electric to gas heat) came into question. The Hearing Examiner’s Recommended Decision in that case recommended that “[t]he holding from Case No. 12-00317-UT should be followed in this case, and electric savings from Zia’s Space Heating Measure should be counted as benefits in the UCT calculation. The Commission’s reasoning in Case No. 12-00317-UT, while involving the TRC calculation, applies equally to the UCT calculation. The EUEA’s mandate that ‘[t]he commission shall direct public utilities to evaluate and implement cost-effective programs that reduce energy demand and consumption’ has not changed: the EUEA today still contains that mandate to reduce energy demand and consumption overall. NMSA 1978 § 62-17-5(B). Zia should be required to revise its 2019-2021 Program Plan to continue offering a rebate for upgrading from electric resistive heat to natural gas forced air heat.”¹⁰ The Final Order issued February 27, 2019 in that case adopted the Recommended Decision and required Zia to “continue offering rebates for upgrading from electric resistive heat to natural gas forced air heat.”

In EcoMetric’s engineering review of the fuel conversion measure, the evaluation team found that the switch from electric resistive heat to gas forced air heat results in an increase in the “site-level gas consumption” which is off-set by the decrease in “site-level electric consumption.” In EcoMetric’s comparison of utility system benefits of reduced electricity consumption to the utility system cost of increased gas consumption, they converted the energy savings and consumption values into monetary impacts on the utility system, using units of dollars. The

⁹ “AFUE” is an acronym for Annual Fuel Utilization Efficiency.

¹⁰ Case No. 18-00280-UT, Recommended Decision (February 7, 2019, as corrected) at 16.

previous energy efficiency independent evaluator, Evergreen Economics ("Evergreen") agreed and noted "Comparing the utility system costs of increased gas consumption to the utility system benefits of decreased electricity consumption shows that this measure is cost effective, with utility system benefits being greater than utility system costs."¹¹ Evergreen's 2020 cost effectiveness analysis concluded this component is cost effective, with a lifetime savings of \$432.

Based on Evergreen's cost effectiveness analysis, Zia used the estimated lifetime value, 11 years, with the Net to Gross ("NTG") ratio of 53% to calculate avoided cost of gas per year, which resulted in a Net Benefit of \$432. The overall gross annual therm savings was calculated to be 117.5. Zia has chosen to keep the Measure as an incentive for those customers electing to participate in that manner.

Program Plan Exhibit C illustrates the expected savings in therms, incentives, expected life, and costs involved for the proposed update to the Space Heating Measure.

B. Water Heating.

Following space heating, water heating accounts for the second largest proportion of natural gas consumption in residential applications.¹² Zia's Program addresses this issue by focusing on increasing efficiency of current water heaters and reducing overall water usage to reduce the need for water heating. Zia's 2022-2024 Energy Efficiency Program offered three distinct components within this category:

Table 5: Water Heating Measures and Rebates

Component Description:	Current	Proposed
(1) Water Conservation Package – Low Flow Showerhead (1) and Faucet Aerator (2)	\$16.15	\$17.40
(2) Install Existing Water Heaters:		
(a) Natural Gas to Natural Gas UEF ¹³ of 0.64 or higher	\$150	\$125
(b) Natural Gas to Tankless	\$225	\$200
(c) Natural Gas to Condensing Storage Tank Water Heater	\$200	NA
(d) Electric to Natural Gas EF of 0.67 or higher	\$275	\$275
(3) Water Heater Tank Insulation	\$20	\$20

Zia proposes to remove the condensing storage tank water heater rebate from the Water Heating Measure for the 2025-2027 Energy Efficiency Program due to lack of use. In the Program model, the amount of the rebate was reduced on two Components to keep the Measure cost effective.

¹¹ Evergreen M&V Report attached to 2020 Annual Report, at 12.

¹² See [Gas Facts: Appliance and Housing Data - American Gas Association \(aga.org\)](https://www.aga.org/gas-facts).

¹³ "EF" is an acronym for Energy Factor.

During Case No. 18-00280-UT, component 3(d) of the Water Heating Measure (upgrade from electric to gas heat) came into question. The Hearing Examiner’s Recommended Decision referred to the Final Order in Case No. 12-00317-UT, which noted that “[a]s argued by PNM and CAE/WRA, the EUEA does not distinguish between different types of energy in the TRC Test or in its directive to reduce energy demand and consumption.”¹⁴ “The Commission’s reasoning in Case No. 12-000317-UT, while involving the TRC calculation, applies equally to the UCT calculation. The EUEA’s mandate that ‘[t]he commission shall direct public utilities to evaluate and implement cost-effective programs that reduce energy demand and consumption’ has not changed; the EUEA today still contains that mandate to reduce energy demand and consumption overall. NMSA 1978 § 62-17-5(B).”¹⁵ “The holding from Case No. 12-00317-UT should be followed in this case, and electric savings from Zia’s Water Heating Measure should be counted as benefits in the UCT calculation.”¹⁶ The Final Order adopted the Recommended Decision and ordered Zia to “continue offering rebates for..... upgrading from an electric water heater to a natural gas water heater with an EF or 0.67 or greater.”

During the review of the Program, EcoMetric validated the savings assumptions and calculations for the Water Heating Measure except for component 3(d). EcoMetric again used the cost effectiveness analysis as described in the Space Heating section to determine the conversion from electric to a gas water heater, which results in an overall increase in gas consumption and a decrease in electric consumption. “Comparing the utility system costs of increased gas consumption to the utility system benefits of decreased electricity consumption shows that this measure is cost effective, with utility system benefits being greater than utility system costs.”¹⁷ Evergreen’s cost effectiveness analysis concluded that this Measure is cost effective, with a lifetime savings of \$578.

Based on Evergreen’s 2020 cost effectiveness analysis results, Zia used the estimated lifetime value, 12 years, with the NTG ratio of 48% to calculate avoided cost of gas per year which resulted in a Net Benefit of \$578. The overall gross annual therm savings was calculated to be 158.8.

Zia is continuing the use of a Water Conservation Package that includes a low flow showerhead and two faucet aerators along with a reusable bag, Teflon tape for installation, and literature concerning the other Zia energy efficiency Measures. The package is an easy and professional way to distribute the showerhead and aerators to customers and will be counted as one component of the Water Heating Measure. However, the updated 2023 NM TRM released on March 24, 2023 shows the savings to be a mere 13.1 therms, thus limiting the cost effectiveness of the package and affecting the overall UCT performance of the Water Heating Measure.

Program Plan Exhibit D illustrates the expected number of participants, savings in therms, incentives, expected life, and costs involved for the proposed update to the Water Heating Measure.

¹⁴ Case No. 18-00280-UT, Recommended Decision (February 7, 2019, as corrected) at 15.

¹⁵ *Id.* at 16.

¹⁶ *Id.* at 18.

¹⁷ M&V Report attached to 2020 Annual Report, at 15.

C. New Construction.

Zia continues to encourage homebuilders to construct more energy efficient and environmentally friendly homes by offering incentives to reduce overall energy usage in new home or building construction. Without energy efficiency incentives, some homebuilders may design and build homes based on the lowest cost per square foot and not with overall energy usage and costs in mind. Providing new homebuilders an incentive to offset costs of higher efficiency upgrades can help ensure new energy efficient homes and buildings become a priority.

Zia offers incentives based on new home size for both space and water heating, inclusion of a smart thermostat and insulation with a higher R-value than set minimums. For larger new homes, 2,000 sq. ft. and above, Zia offers incentives for having four natural gas outlets. For smaller new homes, less than 2,000 sq. ft., Zia offers incentives for having just three natural gas outlets.

The New Construction Measure performed poorly compared to the other Measures in both PY 2022 and PY 2023, with a Measure-specific UCT of 0.20 and 0.17 respectively. Many homebuilders miss just one of the requirements to receive the rebate as the program is designed. In an effort to promote energy savings, Zia has provided a smaller rebate from the Space Heating or Water Heating Measure instead.

For the 2025-2027 Energy Efficiency Program, Zia has listed Component-specific rebates along with a larger whole home rebate. The goal is to provide some benefit to adding an efficient natural gas appliance over a baseline model and a larger rebate for using energy efficient models, better insulation, and a smart thermostat for the home.

Program Plan Exhibit E illustrates expected number of participants, savings in therms, incentives, expected life, and costs involved for the proposed update to the New Construction Measure.

D. Income Qualified.

In accordance with the Energy Efficiency Rule, 17.7.2.8.K and 17.7.2.9 NMAC, Zia proposes that no less than 5% of the energy efficiency funding shall be specifically directed to measures for income qualified customers. Zia selected CLEAResult to implement the Income Qualified Measure for the 2022-2024 Energy Efficiency Program. According to NMAC 17.7.2.7(D), the customer must meet the criteria of “an annual household income at or below two hundred percent of the federal poverty level, as published annually by the United State department of health and human services.” CLEAResult has implemented a cost effective Income Qualified Measure resulting in a UCT ratio that increased from 0.93 in PY 2021 to 2.14 in PY 2022 and 2.06 in PY 2023.

Currently, Zia through CLEAResult offers energy saving components through a variety of options. CLEAResult has focused on multi-family housing and was able to upgrade an apartment complex in the Lincoln County area in PY 2022, which resulted in large energy savings. They

also offer direct-install components to individual customers either at the customer request or as identified by the local area office. Finally CLEAResult reached out to New Mexico Mortgage Finance Authority (“NM MFA”) to partner in weatherization and improvement projects lead by the NM MFA.

Due to the success of the current Program, Zia has extended its contract with CLEAResult to continue to implement the Income Qualified Measure. CLEAResult intends to continue implementing the Measure through similar activities – multi-family income qualified housing, direct install for qualified customers, and partnerships with entities such as NM MFA. Program Plan Exhibit F illustrates the quoted savings in terms, incentives, expected life, and costs involved for the proposed update to the Income Qualified Measure.

E. Commercial.

Zia contracted with CLEAResult to implement its Commercial Measure. CLEAResult achieved the Commercial Measure goals in PY 2022 and PY 2023 through direct installation of overhead door weatherstripping. They propose to continue to directly install basic energy saving components such as pre-rinse spray nozzles, low-flow aerators, and weather-stripping. In addition, CLEAResult also proposes more prescriptive components based on an assessment of the commercial customer’s operations and needs. Building on the success of the 2022-2024 Program, Zia has increased the budget available for the Commercial Measure.

V. PARTICIPATION CRITERIA AND PROGRAM PROMOTION

A. Program Participation Criteria

Rebates or incentives are available to any current or prospective and eligible Zia customers. Specific Measures may apply to specific rate classes (for example, the Commercial Measure applies only to Zia’s Small Commercial and Large Commercial rate classes). Only qualified natural gas and HVAC equipment purchased, installed, or serviced during the timeframe that the Program is in effect is considered for a rebate or incentive. Rebate checks or incentives are subject to availability of Program funds. Completed applications are reviewed and processed by Zia on a first-come, first-served basis until program funds are depleted. Zia reserves the right for its representatives, contractors, and agents to inspect completed upgrades to ensure compliance with both its Energy Efficiency Program and New Mexico natural gas safety standards.

B. Program Promotion

Zia’s goal is to keep the Program as simple and straightforward as possible to administer while keeping costs to a minimum. Zia will dedicate a portion of one full-time employee to act as Program Manager and directly implement the Space Heating, Water Heating, and New Construction Measures and track the results from CLEAResult's implementation of the Income Qualified and Commercial Measures.. The Program Manager is required to travel between operating districts to both promote the Program and verify installation of approved Measures. The Program Manager is responsible for the following:

- Distribute the Water Conservation Package, which includes low flow showerheads and faucet aerators;
- Work with Zia’s Operations Department to verify installation of Program qualifying appliances;
- Promote the program with customers, contractors and retailers;
- Verify the installation of additional insulation;
- Process and approve rebate applications;
- Follow-up with customers to ensure installation of the various Program Measures; Connect Income Qualified and Commercial customers with CLEAResult for evaluation of potential energy efficiency upgrades;
- Maintain annual participation records;
- Coordinate with and provide Program data to the M&V evaluator; and
- Coordinate preparation of the Annual Report and other regulatory filings.

CLEAResult will continue to implement Zia’s Income Qualified and Commercial energy efficiency Measures. CLEAResult has several years of experience implementing energy efficiency programs and currently works with El Paso Electric Company (“EPE”), Public Service Company of New Mexico (“PNM”), and New Mexico Gas Company (“NMGC”) on their energy efficiency programs. CLEAResult has the national experience and expertise to assist income qualified customers with installation of the various items included in Zia’s Program. CLEAResult also has the industry connections and trade allies to successfully identify and implement energy saving options for commercial customers such as school districts, small businesses, restaurants, franchise organizations, and large chain businesses. Zia expects that CLEAResult’s expertise and efforts will help to maintain or increase Program participation in the 2025-2027 Plan Years.

VI. PROGRAM COST/BENEFIT ANALYSIS

A. Proposed Budget

Zia proposes a Program Year budget of \$583,801 for the next Energy Efficiency Program Plan, which includes three Program Years: PY2025, PY2026, and PY2027. The proposed budget is an increase of \$69,387 (13.4%) from the currently approved budget of \$514,414, a 13.4% increase. Zia increased the budget for the Commercial Measure by \$94,542, decreased the budget for the Income Qualified Measure by \$6,222, and decreased the internal administration by \$15,500. The annual budget is comprised of General Administration expenses and Direct expenses. The proposed PY2025 General Administration budget is \$96,000 and includes Program Manager labor, travel and meals, education, promotion, training, and legal expenses). The M&V expense for PY 2025 is contracted with EcoMetric at \$6,000. The proposed Direct expenses for PY2022 total \$439,100 and include \$115,000 in external administration and \$324,100 in rebates and incentives. Exhibit H, Page 1, “Program Administration Expense Budget” and Exhibit H, Page 2, “Direct Expense Summary” provide further detail for each piece of the budget. The cost labelled “Independent Measurement and Verification” on Exhibit H, Page 1, Line 12 is the estimated cost for the Independent Program Evaluator required by 17.7.2.15 NMAC. Currently EcoMetric serves as the Independent Program Evaluator for the state of New Mexico. As discussed in the Direct Testimony and Exhibits of Leslie A. Graham, Zia determined its proposed Plan Year budget is 1.7% of total affected customer bills, well below the 5% threshold limit.

B. UCT Analysis

In New Mexico, a utility's energy efficiency program must provide cost-effective measures that reduce energy demand and energy consumption. To prove cost-effectiveness, the Commission requires that a utility show that the Program meets the Utility Cost Test or UCT.¹⁸ The UCT compares the benefit from the utility's avoided supply side costs to the cost of offering the measure. If the avoided costs outweigh or are larger than the cost to the utility to offer the program, then the program is deemed cost effective; therefore, a program's UCT must be greater than 1.0 for a program to be deemed cost effective.

1. Overall UCT.

Zia estimates that its proposed Energy Efficiency Program starting with PY 2022 will result in a projected overall UCT ratio of 1.80. A summary table of the proposed measures and resulting UCT ratio is on Exhibit I, and the UCT ratio of each measure is discussed below. Zia has developed a simplified UCT spreadsheet to determine the UCT for the selected Measures. In addition to an overall portfolio UCT ratio of 1.80, each category of measures in the portfolio (*e.g.*, space heating, water heating, etc.) also resulted in a UCT ratio over 1.0.

EcoMetric validated the cost effectiveness of Zia's 2023 Energy Efficiency Program along with the parameters and assumptions originally made to predict the initial program in the *PY2023 Evaluation of Zia Natural Gas Company Energy Efficiency Program* (2023 M&V Report), which was attached to Zia's 2023 Annual Report filed with the Commission. The inputs to the cost effectiveness test are based on the experience of other utilities, published data for energy savings, and results from an internal customer survey. The information needed to calculate the UCT is energy savings in therms, expected useful life, number of participants, proposed rebate or incentive, a net-to-gross ratio, direct and allocated expenses, projected avoided supply side costs, and the discount rate.

To determine the energy savings in therms and expected useful life, Zia has used the New Mexico Technical Resource Manual dated March 24, 2023 ("2023 NM TRM"). If a potential component was not listed in the 2023 NM TRM, data from other state Technical Resource/Reference Manuals were used. To estimate participation, Zia used historical participation as well as a prediction that continued promotion would increase participation in the Program. The number of participants used in the calculation refers to the number of units installed rather than number of customers. For example, a customer going through a major remodel may choose to upgrade both the furnace and water heater as well as install a Water Conservation Package. Each one of those would count as one in the calculation for a total of three rebates. The free ridership factor was calculated from the net-to-gross ratios used by EcoMetric in the 2023 M&V Report and NM Gas Company's filing and experience. The discount rate is used to determine the net present value of the lifetime benefits received by the customer for saving energy.

¹⁸ The Utility Cost Test, or UCT, is only one of several ways to show cost effectiveness and is fairly limited in its scope. Although it does calculate energy efficiency cost effectiveness from the perspective of a single utility, it misses the broader scope of the energy efficiency of home and energy conservation on the larger scale of an area or region.

Zia used the Ratepayer Discount Rate, which is the rate that Zia’s customers might experience when making home buying decisions. The Ratepayer Discount Rate based on 30-year fixed mortgage rate in New Mexico at the time of filing is 6.05%. Use of the Ratepayer Discount Rate was approved in NM Gas Company’s Energy Efficiency filing in Commission Case No. 19-00248-UT, and is discussed further in the Direct Testimony and Exhibits of Leslie A. Graham.

The avoided supply side costs experienced by the utility should naturally be the avoided cost of purchasing gas because the customer is no longer burning as much gas. Therefore, Zia used Zia’s current Purchase Gas Adjustment Clause Transportation factor plus NYMEX Henry Hub Gas Futures projections published in the August 1, 2024 S&P Global Platts Gas Daily report and the Energy Information Administration’s (“EIA”) Annual Energy Outlook 2023 to project the total purchased gas cost. Both NM Gas Company and Raton Natural Gas Co. (“RNG”) included their distribution and transmission costs to determine the avoided supply side cost; Zia similarly added its current distribution and transmission cost of service to the price projection. Further details are provided in the Direct Testimony and Exhibits of Leslie A. Graham.

2. UCT for Individual Categories of Measures

a. **Space Heating.** The UCT ratio for Zia’s proposed PY2025 Space Heating Measure is 1.55. Although improving furnace efficiency and insulation both save energy, the warm New Mexico climate makes it challenging to provide a highly cost-effective program. The challenge is to provide enough of a rebate to entice customers to choose the higher cost of the more efficient appliance while still maintaining a cost-effective program. Program Plan Exhibit C outlines each of the components in the Space Heating Measure. The table shows the projected number of units, the projected energy savings in therms, an estimated cost to the customer, the proposed rebate, the potential expected useful life (“EUL”), a free ridership score, and the source for the information provided. The 2023 NM TRM estimates energy saving for heating measures in four different climate zones based on the heating degree days (“HDD”) in those zones. Zia’s operating districts are located in all four zones. To determine an average savings value, the energy savings from each zone was allocated based on customer count in each operating district.

In the 2023 NM TRM, a gas furnace has a baseline efficiency rating of 80% AFUE. Zia provides a rebate if a customer installs a gas furnace with an AFUE to above 92% or above 95% AFUE. Zia also provides a rebate for the installation of a new residential sized Energy Star qualified high efficiency gas fired condensing boiler for residential space heating, baseline having an AFUE of 82% while the Energy Star has an AFUE of at least 90%.

Insulation was included in the Space Heating Measure because it has heat load sensitive energy savings. The energy savings from improved insulation are very dependent upon initial insulation rating, house size, and where the insulation is installed. Zia chose to provide a rebate for ceiling insulation for any residential or small commercial customer with a starting insulation rating factor less than or equal to R-11 and a final insulation rating factor of more than R-30. As a low-cost option, inspecting and properly maintaining a gas furnace will result in higher heating efficiency with extended equipment life. Zia used the Arkansas TRM to determine savings because gas furnace inspection savings calculation yields a negative result. Finally, Zia added the thermostat components to include a rebate for the more efficient operation of source heating.

b. **Water Heating.** The UCT ratio for Zia’s proposed Water Heating Measure is 1.05. The water conservation package, which includes a low flow showerhead and two faucet aerators, has been a successful Measure for Zia with high participation rates and low cost to implement. Most of the data for the Water Heating Measure and its components were derived from the 2023 NM TRM. Program Plan Exhibit D shows the components of the Water Heating Measure and the various input values used to determine cost effectiveness. In summary, Zia provides a \$125 rebate for an upgrade to a natural gas water heater with a minimum UEF of 0.64 or higher. The rebate for an upgrade from a standard water heater to a tankless water heater is \$200. For customers who elect to convert from an electric water heater to a gas water heater with a minimum UEF of 0.64 or higher Zia provides a \$275 rebate. Finally, for the installation of water heater tank insulation Zia provides a \$20 rebate.

c. **New Construction.** The projected energy savings for the New Construction Measure is based upon the difference between baseline gas appliances and insulation and higher efficiency gas appliances and better insulation as well as the addition of a smart thermostat. The UCT ratio for the New Construction Measure is 1.44. The proposed Measure offers a rebate for installation of each individual Component: 1) Natural gas furnace with an AFUE between 92% and 94.9%, \$250, 2) Natural gas furnace with an AFUE above 95%, \$325, 3) Natural gas storage tank water heater with an UEF of 0.64 or higher, \$125, 4) Natural gas tankless instantaneous water heater with an UEF of 0.81 or higher, \$200, 5) Smart thermostat, \$50, 6) Insulation of R-60 or higher or equivalent in a home with less than 2,000 sq ft, \$100, and 7) Insulation of R-60 or higher or equivalent in a home with more than 2,000 sq ft, \$125. For a smaller new home of 2,000 sq ft or less, the gas furnace must have an AFUE of 92% or higher, the water heater should be tankless with an Energy Factor (“UEF”) of 0.81 or at a minimum a basic water heater with an UEF of 0.64 or greater, and the insulation must meet Energy Conservation Code.¹⁹ In addition, the home must have a connection for a third gas appliance. The rebate for the smaller home is \$600. The rebate for the larger new home with greater than 2,000 sq ft is \$900. The larger home must also include the more efficient gas furnace and water heater and higher rated insulation like the criteria for the smaller home. It must also have one more gas appliance and a connection for a fourth appliance. The type of smart thermostat is the builder’s choice. The components of the New Home Measure are shown on Program Plan Exhibit E.

d. **Income Qualified.** For the PY2025, Zia projects that approximately 21.2% of the Energy Efficiency Program budget will be allocated to the Income Qualified Measure, well above the 5% required minimum. The Income Qualified Measure is designed to provide multiple energy saving options that may be applied on an as-needed basis to the customer’s home. The components of the Measure would provide not only gas savings, but also electric savings. CLEAResult (Zia’s contractor for implementation of the Income Qualified Measure) utilizes a “whole-house” approach for residential customers, and will pair customers with non-profit programs to install more prescriptive energy efficiency measures such as new space heating, water heating, or insulation. Based on the target savings and the quoted external administration and

¹⁹ EMNRD reports that a new building energy code went into effect March 25, 2021. Builders will now need to comply with the requirements of the 2018 International Energy Conservation Code (2018 IECC) and New Mexico Construction Industries Commission Amendments. See <https://www.emnrd.nm.gov/ecmd/energy-efficiency/>.

rebate/incentive expenses, as well as an allocation of administrative costs, the projected UCT result is 1.00. As allowed in NMAC 17.7.2.9.B.4, Zia may assume that 20% of the calculated energy savings is the reasonable value of reductions in working capital, reduced collection costs, lower bad-debt expense, improved customer service, effectiveness, and other appropriate factors qualifying as utility system economic benefits. Therefore, to calculate the UCT for the Income Qualified Measure, Zia grossed up the calculated energy savings by 20% to determine the monetary benefit. See Program Plan Exhibit F for more details.

e. **Commercial.** Zia's Commercial Measure focuses on simple, direct install options that will result in therm savings at a very low cost. Additionally, CLEAResult will work with commercial customers to implement prescriptive energy saving components specific to the business' needs. CLEAResult will implement the Program. Based on the target savings and the quoted external administration and rebate costs as well as an allocation of administrative costs, the projected UCT result is 2.64. See Program Plan Exhibit G for more details.

VII. ENERGY EFFICIENCY RATE RIDER

On July 31, 2023, Zia filed Advice Notice No. 65, which reconciled the Energy Efficiency Rate Rider No. 2 and became effective on September 1, 2023. Advice Notice No. 65 set the Energy Efficiency Rider Rate at \$0.01709 per CSCF. On July 31, 2024, Zia filed a Notice of No Change which left the rate rider at the rate set in Advice Notice No. 65. In the current application, Zia does not propose to revise the Energy Efficiency Rider tariff rate or language.

VIII. CONCLUSION

Zia's 2025-2027 Energy Efficiency Program and Second Revised Rate Rider No. 2 meet or exceed the Commission's standards for approval. Following consultation with energy efficiency experts, research into various energy efficiency Measures and components, and feedback from customers and contractors, Zia proposes to continue offering energy efficiency Measures in five general categories: (1) Space Heating, (2) Water Heating, (3) New Construction, (4) Income Qualified, and (5) Commercial. Zia's Energy Efficiency Program is available to customers in its residential and commercial rate classes and provides every affected customer with the opportunity to participate and benefit economically. Zia proposes its Plan Year budget of \$583,801, which will not exceed 5% of the total affected customer bills for the Plan Year. Zia estimates its 2025-2027 Energy Efficiency Program Plan will result in benefit-cost ratios above 1.0 pursuant to the Commission's Utility Cost Test standards, both overall and for each of the five proposed Measures. Zia seeks to continue the currently successful Energy Efficiency Program to benefit its customers.