

North Dakota Energy Conservation Grant/GHG Budget Narrative April 2024

Budget Narrative

a. Budget detail

- i. Personnel: A fulltime staff in DCS along with fiscal support will be required to fully implement and manage this program. Additionally, contractors will be hired to monitor and support compliance with federal requirements such as Davis Bacon, Buy American and promotion of the project.
- ii. Fringe Benefits: As state employees, they will receive full benefits package and this is calculated by the Office of Management and Budget.
<https://www.omb.nd.gov/team-nd-careers/team-nd-benefits>
- iii. Travel: Travel across the state to review and promote the program will be required. Additionally, travel to appropriate conferences has been budgeted.
- iv. Supplies: Minimal supplies will be needed for operation
- v. Contractual: Supplemental staffing will be contracted to assure all federal requirements have been completed
- vi. Other: Direct subawards to political subdivisions for greenhouse gas reductions and energy efficiency measures
- vii. Indirect: The state has an indirect contact in place for all federal management and is available at request.

Budget Categories

Personnel and Fringe – Existing staff members Cameron Hayes and Maria Effertz currently manage the program and will continue until the award is received and additional executive staff can be hired to oversee the federal portion of the program.

All State of North Dakota employees receive full family medical, annual and sick leave and participation in retirement benefits. Commerce works remote and has office locations, if desired, in several communities throughout the state.

Total cost for personal, fringe and indirect expenses are \$172,668 the first year with incremental increases each year for salary and cost of living adjustments.

Consideration will be given to seek out applicants that will be from underserved and J40 areas to maximize the utilization of the program across the state.

1. Energy Conservation Grant Administrator (to be hired)
Duties: Promotion of the grant to areas identified, with emphasis placed on underserved and low income communities. The administrator will supervise

any contract work and assure that all projects are in compliance with federal and state requirements. This administrator will also assure projects fully close out and meet the greenhouse gas reduction anticipated outcomes.

Salary: \$75,000/year plus full benefits staff positions by title.

100% time on program

2. Account Budget Specialist (shared existing position)

Salary: \$60,000

50% time on program

Duties: This position will be shared with other federal grant requirements, allowing for cross training and understanding of the federal accounting needs.

Indirect: The State of North Dakota Division of Community Services has an approved indirect agreement which takes into consideration all indirect associated costs. This indirect rate for all federal programs is 60.28% and the agreement can be provided at request.

Contractual – Commerce administers a variety of federal and state grants. In order to do outreach and assure all federal requirements are met, local administrative contracts are issued to support the communities and political subdivisions in planning, applying and implementing the grants. This same protocol will be followed with all contractors procured using state standards. It is anticipated these contractors will be throughout the state and will spend more resources and time in underserved and rural areas where staffing is limited.

Travel – In order provide support and outreach the range of areas in the state, travel will be required by the administrator. In-state travel will be completed by state car in most cases. This will include regularly scheduled conferences such as the North Dakota League of Cities, North Dakota Association of Counties and Townships, Greater North Dakota Chamber of Commerce and the North Dakota Superintendent and School Board Associations. This person will also be called upon to provide presentations on statewide initiatives and federal programs that support underserved populations including the Native American areas.

Travel to training and nationally recognized learning opportunities are also budgeted for the staff to increase their knowledge and provide additional resources to areas of need in the state.

No travel reimbursements will be allowed under the Energy Conservation Grant or will be separately awarded to contractors.

Supplies: minimal supplies will be needed for this position and are limited to a state issued laptop computer and screens. Office space will be provided if the staff hired wishes to work in an office.

Subawards/Other: The majority of funding in this program goes directly to support sub awardees, the political subdivision, schools, cities and counties where energy efficiency grants will provide the greatest greenhouse gas reduction in a very short timeframe.

As this program is established, it is anticipated the additional funding can be delivered quickly to entities where either the funding wasn't enough to support the projects or new initiatives where out of questions with existing budgets.

The budget sets aside \$18,875,123 for reimbursable grants to subaward recipients for energy efficiency delivery.

Expenditure of Awarded Funds

Current grant delivery is quick and utilizes local promotion and online applications. Commerce does not anticipate any change in delivery of the granting system outside of increased capacity in resources to assure larger projects can be completed, thus further reducing greenhouse gas emissions.

The current application process requires five simple steps and reviews. Applicants are requested to do the following simple protocols to apply. The only additional step(s) which will be added will assurances for Buy American and reporting of their payrolls to comply with Davis Bacon. Local contractors will be available to support the application process, review and final reporting.

- Review the **Qualifications & Guidelines** below to determine if the project is a fit for the Energy Conservation Grant Program.
- Determine the energy savings estimated for the project and have the appropriate entity complete the [Energy Savings Analysis](#) form.
- Complete the [Section 106 Clearance](#) form if the building is more than 49 years old.
- Obtain a bid(s) for work to be done.
- Complete the [application form](#) and send it along with the documents to DCS staff at the state.

Qualifications & Guidelines for existing grant

- Projects must be an energy efficiency retrofit to a facility owned by a nonfederal political subdivision.
- Projects need to have a combined payback period of 10 years or less for the total estimated cost of the project. Only one building is allowed per application, however, multiple energy conservation measures can be combined on that building to determine the overall energy savings.
- Projects must save energy and will need to have proper analysis conducted to verify energy savings. Community Services reserves the right to review all energy savings calculations.
- Projects under \$50,000 will require confirmation of energy savings and payback period from Community Services or other appropriate entity as approved by Community Services. Complete the [Energy Saving Analysis Application](#) to request confirmation.

- Projects \$50,000 and over will require confirmation of energy savings and payback period from an engineering firm. [SEP grants](#) are available to assist with the associated costs.
- Projects with buildings on the National Register of Historic Places, or 50 years old or older will need approval from the State Historical Society.
- Applicants must certify that projects will comply with [State solid waste management requirements](#).
- Applicants must certify that projects will comply with [EPA's Renovation, Repair, and Painting rule](#)
- If there is no activity within 3 months of award, the award may be terminated and the funds may be reallocated.
- Funds will be provided on a reimbursement basis with appropriate supporting documentation.

GHG Reduction Assumptions

Analysis Methodology

GHG emissions reductions for the program expansion were estimated based on representative data from actual energy efficiency projects that were implemented in recent years due to the program's existing funding. GHG emissions reductions were estimated separately for each type of energy efficiency measure that may be funded by the expanded program, as listed in Table 3. Data used to inform the analysis from each previous project included grant funds received and estimated annual energy savings. Past project costs were converted to 2023 dollars using the Customer Price Index (CPI) based on the year the project was implemented.¹ See the following subsections for details on the assumptions and approach used to estimate GHG emissions reductions for each representative project implemented by measure.

Total GHG emissions reductions for the program expansion as a whole were estimated based on summing the GHG emissions reductions by each measure for all projects implemented over time, with savings accumulating over time. There are uncertainties around the types of measures that will actually get implemented in the future, therefore past program data were used to inform the types of measures that may be implemented most with the program expansion, based on where funding has previously been dispensed. These data indicated that the majority of funding has been used for projects that result in meaningful GHG emissions reductions, particularly LED lighting installations and HVAC upgrades. This information was used to estimate the available total share of additional funding that each measure may have access to in the future, as detailed in Table 3. Total funding requested for the program expansion is \$20 million, which includes \$1 million estimated for program administration. The remaining \$19 million is assumed to be available for implementation-ready projects that would contribute to GHG emissions reductions.

Table 3. Assumed Total Funds Available by Implementation-Ready Measure

	Share of Funding for Projects (%)	Funds for Projects (\$)
1. HVAC Upgrades	35%	\$6,650,000
2. Boiler Upgrades	2%	\$380,000
3. LED Lighting Installations	60%	\$11,400,000
4. Insulation Installations	2%	\$380,000
5. Window Upgrades	1%	\$190,000
Program Total	100%	\$19,000,000

¹ U.S. Bureau of Labor Statistics. 2024. "Consumer Price Index." Accessed March 2024. Retrieved from: <https://www.bls.gov/cpi/>

Each type of energy efficiency measure is implementation-ready and has been supported by the program in the past. The program is ready to dispense more funds to these kinds of projects beginning in 2025. The analysis assumes all funding would be dispensed before 2030, with 20% (i.e., \$3.8 million) of available funds spent based on the split by measure as noted in Table 3, in each year from 2025-2029. The total number of projects by measure implemented in each year of this 5-year period was based on the average cost assumed per representative project and up to the 20% share of funding assumed to be spent in that year.

All projects were assumed to have at least a 25-year lifespan, thus projects implemented in 2025 were assumed to maintain GHG emissions reductions compared to baseline throughout the time horizon of the analysis. In reality, the lifespan of a measure is uncertain and could vary by location, use, technology, and other factors.

GHG emissions reductions estimated from avoided fuel use only account for emissions from avoided fuel combustion. There would also be additional avoided emissions upstream of this fuel use due to avoided well to pump activities, such as production and transport of the fuel. These are assumed to be insignificant emissions and de minimis to this analysis as combustion accounts for the vast majority of emissions from fuel.²

Table 10 below includes information regarding the cost effectiveness of the program's GHG reductions. These dollar per MT CO₂e values were calculated based on the additional funds requested divided by the cumulative GHG emissions reduced from 2025-2030 and 2025-2050.

Table 10. Cost Effectiveness

Funds Requested	\$/MT CO ₂ e for GHG Reductions 2025-2030	\$/MT CO ₂ e for GHG Reductions 2025-2050
Program Total (\$20,000,000)	\$92	\$16
For GHG Reduction Measures (\$19,000,000)	\$87	\$16

² Wang, Michael. 13 April 2021. "Life-cycle Analysis of Vehicle/Fuel Systems Using the GREET Model." *Argonne National Laboratory*. Accessed March 2024. Retrieved from: <https://www.itf-oecd.org/sites/default/files/docs/analysis-vehicle-fuel-systems-anl.pdf>

North Dakota Energy Conservation Grant/Greenhouse Gas Reduction							
Categories	Line Item & Itemized Costs	Year 1	Year 2	Year 3	Year 4	Year 5	Total EPA Funding
PERSONNEL							
	Project Manager @ \$75,000/yr with salary increases	\$75,000	\$77,000	\$79,000	\$81,000	\$83,000	\$395,000
	Fiscal staff @ \$60,000, 0.5 FTE, with salary increases	\$30,000	\$32,500	\$35,000	\$37,500	\$40,000	\$175,000
	TOTAL PERSONNEL	\$105,000	\$109,500	\$114,000	\$118,500	\$123,000	\$570,000
FRINGE BENEFITS							
	Full-time Employees @ 30% of salary	\$31,500	\$32,850	\$34,200	\$35,550	\$36,900	\$171,000
	TOTAL FRINGE	\$31,500	\$32,850	\$34,200	\$35,550	\$36,900	\$171,000
TRAVEL							
	Travel for conference and workshop						
	Airfare - \$650 roundtrip @ 1 roundtrip per year	\$650	\$650	\$650	\$650	\$650	\$3,250
	Luggage Fees - \$40 per flight flights per year	\$40	\$40	\$40	\$40	\$40	\$200

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	Hotel - \$150 per day @ 3 days per year	\$450	\$450	\$450	\$450	\$450	\$2,250
	Per Diem - \$69 per day @ 4 days per year	\$276	\$276	\$276	\$276	\$276	\$1,380
	Taxi - \$120 per year	\$120	\$120	\$120	\$120	\$120	\$600
	Parking - \$20 per day @ 4 days per	\$80	\$80	\$80	\$80	\$80	\$400
	Mileage for local travel (500 miles per year at \$0.65/mile)	\$325	\$325	\$325	\$325	\$325	\$1,625
	TOTAL TRAVEL	\$1,941	\$1,941	\$1,941	\$1,941	\$1,941	\$9,705
SUPPLIES							
	1 Laptop Computer @ \$2,500	\$2,500	\$0	\$0	\$0	\$0	\$2,500
	TOTAL SUPPLIES	\$2,500	\$0	\$0	\$0	\$0	\$2,500
CONTRACTUAL							
	Davis Bacon/Buy American/onsite Contractual management \$65/hr estimate 500 hr/year	\$32,500	\$32,500	\$32,500	\$32,500	\$32,500	\$162,500
	TOTAL CONTRACTUAL	\$32,500	\$32,500	\$32,500	\$32,500	\$32,500	\$65,000
INDIRECT COSTS							
	Indirects Costs (60.2% of personnel costs)	\$63,294.00	\$66,006.60	\$68,719.20	\$71,431.80	\$74,144.40	\$343,596.00
	Total Indirect Costs	\$36,168.00	\$39,182.00	\$41,894.60	\$44,607.20	\$47,319.80	\$209,171.60

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Total personel and contractual costs		\$209,609.00	\$215,973.00	\$224,535.60	\$233,098.20	\$241,660.80	\$1,027,376.60
Subaward Grants (other)	Total Grant disperment to local political subdivisions	\$ 2,000,000.00	\$ 3,817,500.00	\$4,000,000.00	\$ 4,717,873.40	\$4,339,750.00	\$ 18,875,123.40
		\$ 2,209,609.00	\$ 4,033,473.00	\$4,224,535.60	\$ 4,950,971.60	\$4,581,410.80	\$ 20,000,000.00