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COMMUNITY IMPACT OF FUNDS FROM TRANSMISSION LINES

ENVIRONMENTAL IMPACT FEE ANALYSIS

OCT. 5, 2023 / ANALYSIS BY DR. CIARAN GALLAGHER, PH.D.

Introduction

The way we generate and use energy is changing. The climate crisis and low-cost renewables are driving a shift from generating electricity at large fossil fuel power plants to clean energy. At the same time, transportation, heating and cooling, and other commercial and residential uses are increasingly electrifying. These changes will have tremendous impacts on the electricity grid.

Experts agree that a clean energy transition requires a major expansion of the electric power transmission system [1]. Initial analysis from the Department of Energy finds that a low-emissions future of clean energy and electrification requires doubling transmission capacity by 2040 [2]. Transmission lines can bring clean, renewable energy from solar- and wind-rich areas to population centers. Building a larger and robust energy grid can insulate the grid from storms and extreme weather patterns, adding reliability and resilience—both of which will be needed more than ever in a changing climate.

Three transmission lines will be proposed in Wisconsin in the next couple of years. A state law ensures that the communities hosting high-voltage transmission lines receive financial benefits through an environmental impact fee (Wis. Stat. § 16.969).

Counties, towns, villages, and cities affected by these large public amenities are proportionally awarded a one-time 5% fee and annual 0.3% fee, both based on the cost of the line. The host county receives half of the fees, and municipalities hosting within the county split the rest.

The environmental impact fee is earmarked specifically for environmental projects, specifically “park, conservancy, wetland, or other similar environmental programs” (Wis. Stat. § 16.969(4)). However, municipalities may petition the Public Service Commission of Wisconsin (PSCW or Commission) to spend the funds in alternate ways that serve the public interest. These petitions are recorded in the transmission line project’s PSC docket, providing a source of information about how counties and towns spend funds.

This report will look at the uses of the environmental impact fees from three projects: CAPx2020, Badger-Coulee, and Cardinal-Hickory Creek. In addition to the information available on their respective PSC dockets, we include the first-year CAPx2020 funds uses by Buffalo and Trempealeau Counties as detailed in a report by the Center for Rural Affairs [3].

[1] Evolved Energy Research, GridLab, RENEW Wisconsin, and Clean Wisconsin. (2022). Achieving 100% clean energy in Wisconsin. https://gridlab.org/wp-content/uploads/2023/04/Evolved-Energy-Research_100-percent-in-Wisconsin.pdf, U.S. Department of Energy (2023). National Transmission Needs Study. <https://www.energy.gov/sites/default/files/2023-02/022423-DRAFTNeedsStudyforPublicComment.pdf>, Jenkins, J.D., Farbes, J., Jones, R., Patankar, N., and Schivley, G. (2022). Electricity Transmission is Key to Unlock the Full Potential of the Inflation Reduction Act, REPEAT Project, Princeton, NJ, September 2022. DOI: 10.5281/zenodo.7106176

[2] U.S. Department of Energy (2023). National Transmission Needs Study. <https://www.energy.gov/sites/default/files/2023-02/022423-DRAFTNeedsStudyforPublicComment.pdf>

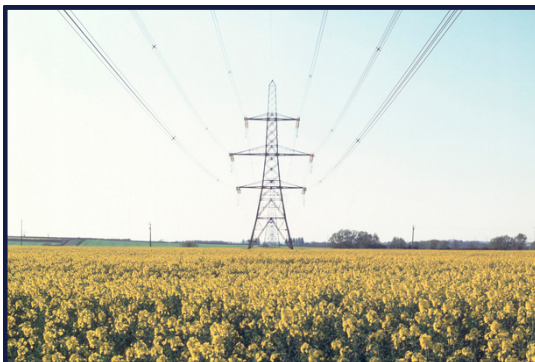
[3] Collins, T. and Hladik, J. (2017). Generation and delivery: the economic impact of transmission infrastructure in rural counties. Center for Rural Affairs. <https://www.cfra.org/sites/default/files/publications/generationanddelivery.pdf>

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Analysis

We highlight the various uses of environmental impact fees from three recent transmission projects in Wisconsin. The totals reported for each category are incomplete, as PSC dockets do not capture all the uses of the funds. Environmental uses do not require a petition to the PSC, but many municipalities include those in their letters to the PSC as well. Some of the petitions do not mention a monetary amount at all and cannot be captured in our analysis. If the total amount of environmental impact fees is identified but the allocation to different projects is unspecified, we divide the funds equally among the projects.

To date, we document \$14.9 million allocated to local governments from the environmental impact fee. **Table 1** lists the environmental impact fee reported by affected Counties and municipalities. Appendix A includes all projects identified for the analysis from the PSC docket letters and the aforementioned report.



Jurisdiction	Environmental impact fee to date (\$)
Buffalo County	1,095,000.00
Columbia County	1,209,754.00
Grant County	2,800,273.00
Iowa County	2,571,210.00
Juneau County	130,000.00
Monroe County	1,327,296.00
Templealeau County	1,409,182.00
Town of Albion	325,000.00
Town of Arlington	-
Town of Clifton	441,285.00
Town of Dekorra	-
Town of Dodgeville	71,000.00
Town of Ellenboro	140,719.00
Town of Ettrick	387,629.00
Town of Gale	-
Town of La Grange	384,158.00
Town of Lincoln	337,441.00
Town of Linden	90,235.00
Town of Middleton	122,171.00
Town of Millston	242,137.00
Town of Milton	-
Town of Orange	-
Town of South Lancaster	548,167.00
Town of Springdale	371,965.00
Town of Springfield	342,684.00
Town of Tomah	18,429.00
Town of Trempealeau	5,290.00
Town of Wingville	172,892.00
Township of Cassville	231,500.00
Village of Oakdale	51,309.00
City of Black River Falls	55,019.00
City of Galesville	25,000.00

TABLE 1

Total environmental impact fee to date, broken down for each county and municipality. Towns with "-" received funds but did not specify the amount in letters to the PSC.

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Even though Cardinal-Hickory Creek is the newest constructed transmission project (and the line is not in service yet), it accounts for over half of the environmental impact fees that have gone to local communities [Table 2]. This is due to the higher cost of the project and, consequently, the higher 5% one-time fee.

Transmission Project	Environmental impact fee in analysis (\$)	5% one-time fee (\$)	0.3% annual fee (\$)	Date of first payment
CAPx2020	2,534,472.00	8,973,050.00	538,383.00	2013
Badger-Coulee	4,810,856.00	20,528,600.00	1,231,716.00	2016
Cardinal-Hickory Creek	7,561,417.00	14,082,200.00	844,932.00	2021
Grand Total	14,906,745.00	43,583,850.00	2,615,031.00	

TABLE 2

Total environmental impact fee included in analysis, total project 5% one-time fee and yearly 0.3% fee by each transmission project, and the date of the first fee payment.

Town infrastructure and services

The largest reported expenditures of the environmental impact fee go towards county and municipality infrastructure and services at \$7 million. These include upgrades to the town hall, construction of salt sheds and purchases of equipment like snowplows, trucks and loaders. Road repair and improvements constituted over \$2 million of funds. The Town of Milton also contributed to a portion of the costs of new fire station that will serve four municipalities (amount allocated to expense not given).

Category	Environmental impact fee to date (\$)
Town infrastructure and services	7,044,354
Broadband access	1,353,421
Water-related	2,840,652
Parks and recreation	2,595,779
Other	1,385,258

TABLE 3

Environmental impact fees allocated to different categories.

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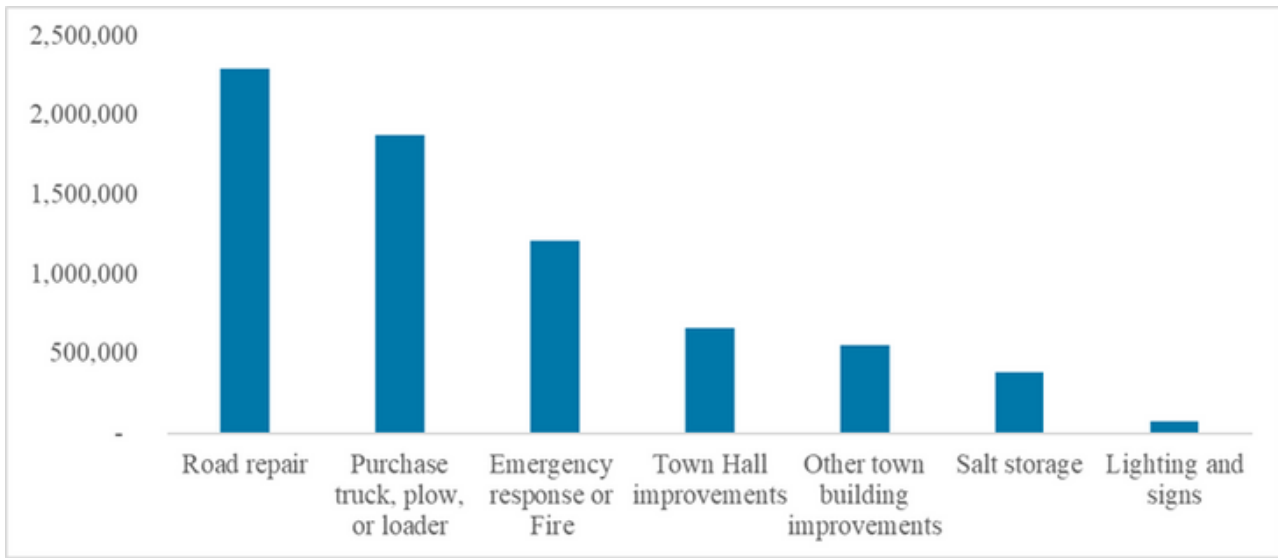


FIGURE 1

Breakdown of money allocated to infrastructure and services from transmission environmental impact fees

Broadband access

Another common use for the environmental impact fee is increasing broadband access. Across the three transmission projects, so far \$1.4 million has been earmarked for this purpose. For example, the Buffalo County Board of Supervisors requested to spend \$300,000 to improve quantity and quality of broadband for the underserved and unserved [Figure 2]. This ties into Buffalo County's broadband goals; other relevant actions include becoming a designated Broadband Community by State of Wisconsin, matching funds by a current provider in the County, and adopting a broadband ordinance framework.

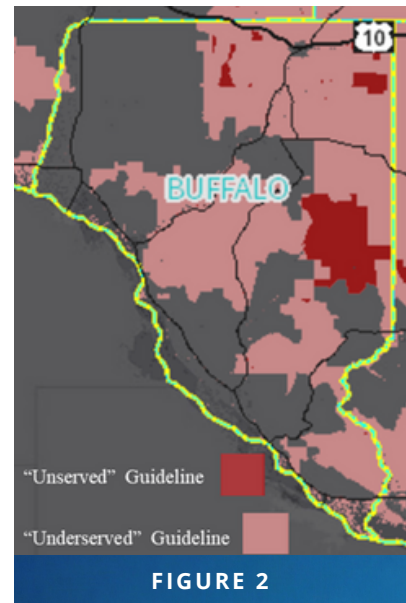


FIGURE 2

Map of Buffalo County unserved and underserved broadband [4]

[4] Public Service Commission of Wisconsin & Wisconsin Broadband Office (2022). Wisconsin Broadband Map. <https://maps.psc.wi.gov/apps/WisconsinBroadbandMap/>

Water infrastructure and services

At least \$2.8 million has been spent on water quality and flood-related programs and projects **[Figure 3]**. Testing private wells, cost-share replacement of contaminated wells, and participation in the Southwest Wisconsin Groundwater and Geology Study constitute groundwater projects, the largest of the expense sub-categories. Specifically, Iowa, Grant, and Buffalo County tested private well water for contamination. The nutrient management sub-category includes incentives to farmers for nitrogen management trials. The construction of a redundant looped water supply to 24-hour facilities makes up the water supply sub-category. Lastly, the environmental impact fee funded several flood response and mitigation efforts.

Repair to structures affected by recent flooding events and preventative flood mitigation projects make up over \$500,000 spent in Monroe County, Buffalo County, and the Town of Springfield. In Buffalo County alone, \$150,000 was used to repair conservation structures from a flooding event in August 2016. As landowners build and maintain these structures, whose cost approached \$300,000, the County planned to provide cost-sharing financial aid.

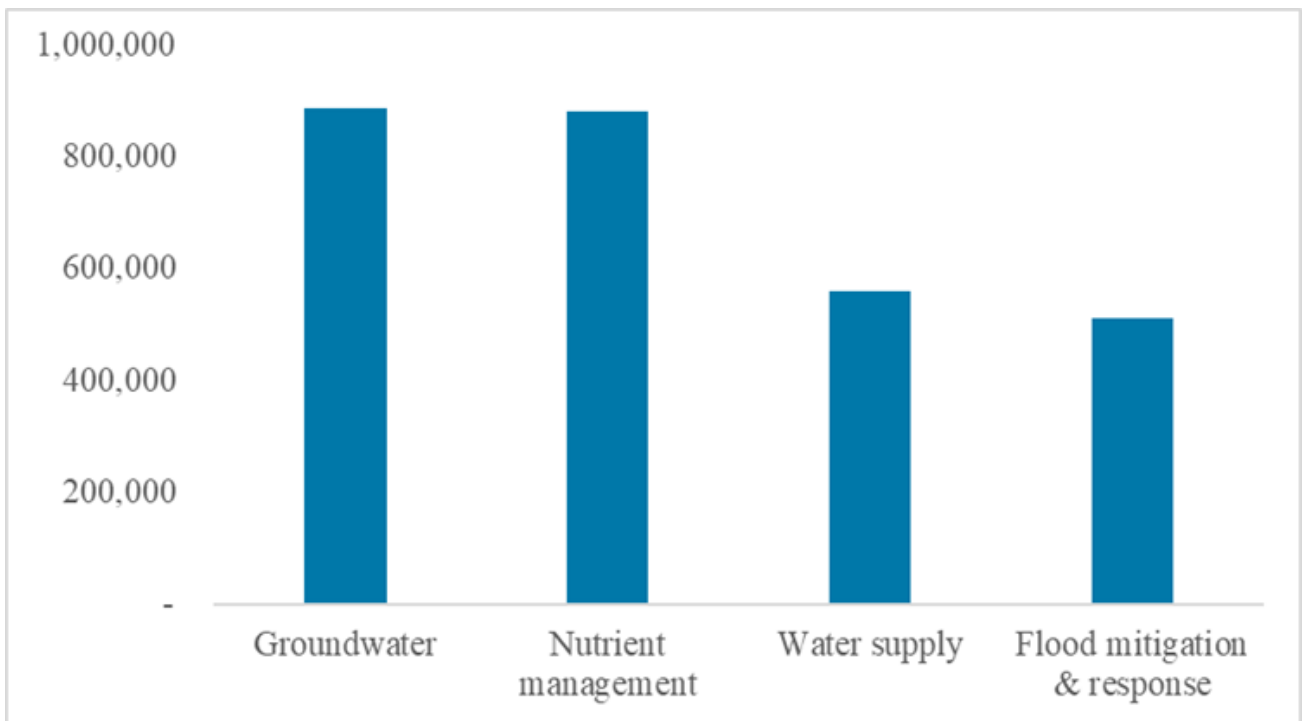


FIGURE 3

Breakdown of money allocated to infrastructure and services from transmission environmental impact fees

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Parks and recreation

To date, a minimum of \$2.6 million dollars have been allocated to parks and other outdoor recreation activities **[Figure 4]**. These include park amenities (i.e., restrooms, shelters, walking paths, plantings, playgrounds), campground purchase or renovation, and improvements to hunting, snowmobile, biking and hiking infrastructure. Stream bank improvements and fish habitat restoration, including funding the Upper Sugar River Watershed Association, support recreational fishing.

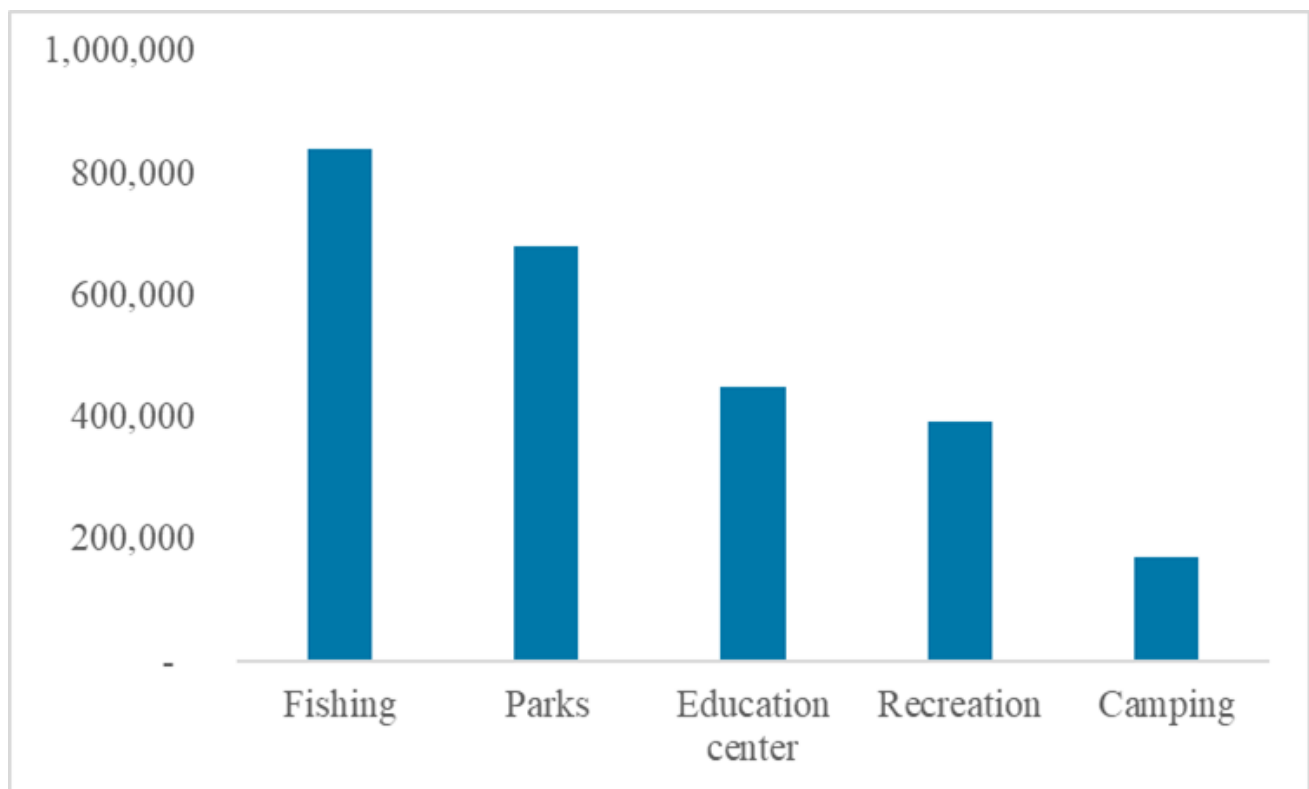


FIGURE 4

Breakdown of money allocated to parks and recreation from transmission environmental impact fees

Two thirds of the CAPx2020 environmental impact fee money allocated to Trempealeau County went towards park, camping, and recreational projects. A Center for Rural Affairs report documents the innovative process by which the County chose projects. In partnership with the University of Wisconsin Extension, the County created a mini-grant fund and used a weighted scoring sheet to identify awardees.

One of the major projects that came out of the scoring system was the grant to Friends of Trempealeau Refuge to build an education center (the only project in that subcategory on **Figure 4**, **[Figure 5]**). The center is in the Trempealeau National Wildlife Refuge, located along the Mississippi River in both Trempealeau and Buffalo Counties (Buffalo also receiving considerable environmental impact fees from the CAPx2020 transmission project).



FIGURE 5

Trempealeau National Wildlife Refuge Learning Center [5]

Other expenditures

From three recent transmission projects, \$1.4 million of the environmental impact fees were spent on programs and grants that do not fit in the broad categories used in this report. An innovative use of these funds by Buffalo County was a revolving loan fund to support existing business and job retention, as part of its Economic Development strategy. Iowa County has used the funds to partner with Alliant Energy in electric vehicle charging station installations, and multiple counties have funded Clean Sweep programs to dispose chemical and hazardous waste.

[5] U.S. Fish & Wildlife Service (2020). Outdoors Wonder Learning Center building at Trempealeau National Wildlife Refuge. [Photograph]. <https://www.fws.gov/media/outdoors-wonder-learning-center-building-trempealeau-national-wildlife-refuge>

Conclusions

The environmental impact fee ensures that communities hosting this large-scale infrastructure receive local and immediate benefits. This analysis has endeavored to identify how those funds support rural economies and residents directly. Millions of dollars are going towards well testing, flood disaster response, river conservation, local parks and recreation investment, and economic development. While a high-voltage transmission line transports electricity to Wisconsin residents who don't live in the area, these projects provide considerable funding opportunities for hosting rural counties and municipalities.

Small, rural communities in Wisconsin have increasingly faced financial pressures [6]. At the same time that state and federal aid has stagnated, rural communities' debt has increased. Tight town budgets have resulted in staffing shortages for emergency services and less expenditure on road maintenance. That is why the environmental impact fee can have a profound impact on county and municipal spending.

Funding essential safety services, increasing broadband, and creating recreational opportunities for residents and tourists alike, the environmental impact fee can be important sources of funding for rural Wisconsin. The funds from transmission lines can give a financial boost to rural communities with small budgets.



[6] Wisconsin Policy Forum. (2022). Budgets get tighter for Wisconsin Towns. <https://wispolicyforum.org/research/budgets-get-tighter-for-wisconsin-towns/>