PUBLIC EMPLOYEES FOR ENVIRONMENTAL RESPONSIBILITY
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May 13, 2022

Via e-filing

Consumer Affairs Office
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul MN 55101

Re: In the Matter of a Request for a Minor Alteration to Great River Energy's 170 MW, Natural Gas-Fired, Simple Cycle Combustion Turbine Generator at its Cambridge 2 Peaking Plant Site near Cambridge, Isanti County, Minnesota

Dear Commission Staff,

Public Employees for Environmental Responsibility (PEER) respectfully submits these comments for the Minnesota Public Utilities Commission's (Commission) above-captioned comment period. Great River Energy's (GRE) request for a minor alteration to its permit for the Cambridge gas-fired plant[1] does not meet the standards set out in Minnesota law, and the proposal to retrofit the plant to burn diesel fuel oil (the Project) can only be approved after a full Commission process for a new site permit, including full environmental review. The Project also requires a new Certificate of Need, and since there is no showing of need it cannot be granted.

I. Questions presented

- Should the Minnesota Public Utilities Commission (Commission) approve the request for a minor alteration to add fuel oil generation backup capabilities to the Cambridge 2 Peaking Plant (Cambridge 2 facility)?
- Should any conditions be required if a minor alteration is approved?
- Is the addition of backup fuel oil capabilities to the Cambridge 2 facility a changed circumstance under Minn. Rule 7849.0400?
- Are there other issues or concerns related to this matter?[2]

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[1] GRE, *Application for a Minor Alteration to Great River Energy's 170 MW, Natural Gas-Fired, Simple Cycle Combustion Turbine Generator at its Cambridge 2 Peaking Plant Site near Cambridge, Isanti County, Minnesota*, MPUC Docket No. ET-2/GS-22-122 (Mar. 11, 2022), eDockets ID No. 20223-183729-01 [hereinafter "GRE letter application"].

[2] Public Utilities Commission, *Notice of Comment Period on Great River Energy's Proposed Minor Alternation Request*, MPUC Docket No. ET-2/GS-22-122 (Mar. 25, 2022), eDockets ID No. 20223-184133-03 [hereinafter "Commission Notice"].

II. Short answers

No, the Commission should not approve the request for a minor alteration to add fuel oil generation backup capabilities to the Cambridge 2 facility. As expressed by the Department of Commerce Energy Environmental Review and Analysis Division (EERA),[3] the proposer has failed to provide sufficient evidence that the project is a minor alteration. In fact, under Minnesota law this project requires a new site permit, which follows preparation of an Environmental Impact Statement (EIS). The available evidence of impacts of the proposer's other dual fuel plant of the same type demonstrates that emissions from the plant are certain to significantly impact human health and the global climate.

No minor alteration to the existing facility's permit should be approved. The only condition that would be appropriate is requiring the applicant to apply for new permits for the facility and undergo full Commission review of the Project.

No, the addition of backup fuel oil capabilities to the Cambridge 2 facility is not a changed circumstance. The Project cannot be a changed circumstance under Minn. R. 7849.0400 because it neither occurred "before the facility is placed in service" nor does the existing Certificate of Need (CN) allow the project proposer to run a large electric generation facility on a fuel other than natural gas. The applicant has not provided information that would support a changed circumstance finding in any case. This Project can only proceed if the applicant proves need sufficient to obtain a new CN.

Therefore, the Commission should, in the interest of minimizing wasted agency resources, inform the applicant that the Project must undergo full Commission review with the requisite permits supported by an EIS.

III. Analysis

GRE has failed to provide sufficient information to satisfy the requirements for a minor alteration to its existing facility's site permit granted by the Commission. Also, because the Project is likely to impact the environment significantly, a full environmental review under MEPA is necessary. Even though the Project relates to a facility previously subject to alternative review, entirely new permits for the facility are required because a large power plant burning fuel oil is subject to full Commission review. This comment discusses the four questions presented by the Commission in its Notice of Comment Period and argues that: (1) the project is not a minor alteration because of the potential significant environmental and health impacts; (2) no conditions would be sufficient to make this protection a minor alteration; (3) the project cannot be considered changed circumstances to the existing facility's CN; and (4) public resources will be saved by proceeding directly to a new permitting process with a full environmental review.[4]

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[3] Department of Commerce, Energy Environmental Review and Analysis, *Comments and Recommendations, Cambridge 2 Peaking Plant Minor Alteration*, MPUC Docket No. ET2/GS-22-122 (April 28, 2022), eDockets ID No. 20224-185275-01.

[4] *See* Commission Notice, *supra* note 2.

1. **This project cannot be shoehorned into the "minor alteration" process laid out in 7850.4800**

As laid out in the Minnesota Rules: "A minor alteration is a change in a large electric power generating plant . . . that does not result in significant changes in the human or environmental impact of the facility."[5] The burden is on the applicant to show "the alteration in the large electric power generating plant . . . to be made and the explanation why the alteration is minor."[6] When an application has been made, the Commission may only "authorize the minor alteration, bring the matter to the commission for consideration, or determine that the alteration is not minor and requires a full permitting decision."[7] While the Commission has the option to give an application due consideration, if an application does not meet the standard for a minor alteration, the only other option is to put the proposal through the full permitting process. GRE's proposed Project here cannot meet the standard for a minor alteration and is therefore subject to the requirements of the full permitting process for a large electric power generating facility.

GRE bears the burden of proving that the project does not result in "significant changes in the human or environmental impact of the facility."[8] GRE has failed to do this. The Project is likely to have significant impacts on the human environment like air pollution impacts, climate change impacts, and environmental justice impacts, and therefore is subject to full review under both Commission standards and the Minnesota Environmental Policy Act (MEPA) and its implementing regulations.

A. Air pollution impacts

The Project is likely to have significant air pollution impacts because the new fuel creates higher amounts of pollutant emissions. GRE's project proposal states that "the facility will remain a minor source of air pollutants."[9] However, GRE's application does not account for potential actual emissions of air pollutants, and mere possession of a "minor source" air permit does not prevent foreseeable significant human health impacts.

When comparing the Project with a similar plant, the air pollution impacts are significant. Specifically, GRE's application invites comparison to its Elk River Peaking Station (ERPS) "as a proxy for fuel-oil operation modeling of Cambridge 2."[10] but differences in *actual* emissions between ERPS and Cambridge in past reporting to EPA demonstrate how misleading GRE's modeling can be. Far from demonstrating that there will be minimal impacts, comparison of actual annual emissions shows that for some deadly pollutants ERPS emits dozens, hundreds, or even thousands of times more annually than the existing Cambridge facility:

[5] Minn. R. 7850.4800, Subp. 1.
[6] Minn. R. 7850.4800, Subp. 2.
[7] Minn. R. 7850.4800, Subp. 3.
[8] Minn. R. 7850.4800, Subp. 1.
[9] GRE letter application, *supra* note 1, at 4.
[10] GRE letter application, *supra* note 1, at 2.

Pollutant	Cambridge 2017 annual emissions (in pounds)	ERPS 2017 annual emissions (in pounds)	Amount of increase in pollutant between gas-only and dual fuel facilities
Arsenic	0.022818	98.77053	4,328.623 times
Cadmium	0.02738938	1.023934	37.384 times
Carbon monoxide	6856.168	236974.09	34.564 times
Lead	0.07946	50.95276338	641.238 times
Mercury	0.007053752	9.040512	1,281.660 times
Nitrogen Oxides	18,767.96	783,487	41.746 times
Sulfur Dioxide	20.18298	46,168.95	2,287.519 times

Table 1. EPA ECHO data from the 2017 National Emissions Inventory for ERPS and Cambridge 2 (the most recent NEI data available for both facilities).[11]

Therefore, GRE's suggestion that there will be no significant increases in pollutant emissions cannot be correct as its ERPS plant, which is the same Siemens dual fuel unit that GRE is planning to use for its Cambridge facility,[12] has historically emitted significantly higher annual emissions.

B. Climate change impacts

GRE's proposed project is also likely to have significant climate change impacts. Currently, GRE's proposal implies that the Project's impacts will be so local as to be insignificant because, for example, it assures "construction of the modifications will be confined to the existing Cambridge 2 Site."[13] However, GRE's application does not credibly explain away, or even discuss, the potential climate change impacts from the Project's foreseeable greenhouse gas emissions.

Again, a comparison between the Project and the ERPS plant shows the potential greenhouse gas emissions. When comparing the ERPS plant with the Cambridge plant, ERPS produced far more greenhouse gas pollution in 2017, emitting 127,303 metric tons of carbon dioxide equivalent

[11] EPA, Enforcement and Compliance History Online (ECHO), Cambridge Air Pollutant Report, https://echo.epa.gov/air-pollutant-report?fid=110056145407 (click "Download Data" to access Excel spreadsheet file); EPA, ECHO, Elk River Air Pollutant Report, https://echo.epa.gov/air-pollutant-report?fid=110017390839 (click "Download Data" to access Excel spreadsheet file).
[12] Indeed, in submissions to PCA for a Major Amendment to its air pollution permit, GRE has provided emissions modeling data for ERPS as support for the amendment. The units therefore appear to be exactly the same, according to GRE's data.
[13] GRE letter application, *supra* note 1, at 4.

(CO_2e) compared to Cambridge's 14,533 metric tons of CO_2e.[14] While some of this difference is due to how much each plant ran that year,[15] it is also likely due to the fact that burning oil releases more CO_2 per unit of energy than natural gas.

Furthermore, under the current interim Federal Social Cost of Carbon (SCC) (set at $51/ton)[16] the annual difference between the two plants' 2017 greenhouse gas emissions is $5,751,270 of climate-related damage.[17] Nearly six million dollars of attributable present-value damage per year of emissions is a demonstrably significant impact.

The large difference in climate-changing emissions makes clear that further analysis of this Project is warranted due to the demonstrable potential for significant environmental impacts.

C. Environmental justice impacts

While GRE claims "[t]he addition of one fuel oil storage tank and one water storage tank will only nominally alter area aesthetics" and "the modifications will have no impact on recreational or cultural values of the surrounding land."[18] GRE fails to account for the Project's likely disproportionate impacts on environmental justice communities and vulnerable groups in Minnesota. EPA data reflect the fact that pollution from this facility may have disproportionate impacts on low-income communities—leading to large cumulative impacts on underserved Minnesotans.

According to EPA data, within a three-mile radius of the Cambridge facility 10.41% of the population lives on less than $15,000 per year, while an additional 7.78% has an income between

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[14] *Compare* EPA, Facility Level Information on Greenhouse Gases Tool (FLIGHT), Elk River, https://ghgdata.epa.gov/ghgp/service/facilityDetail/2017?id=1000211&ds=E&et=&popup=true *with* EPA, FLIGHT, Cambridge Station, https://ghgdata.epa.gov/ghgp/service/facilityDetail/2017?id=1000468&ds=E&et=&popup=true.

[15] While it is the case that ERPS appeared to have significantly more greenhouse gas emissions than Cambridge in all years between 2010 and 2018 as well, ERPS's CO_2e emissions were lower in 2019 and 2020. *See generally id.* (changing the "Data Year" yields each yearly result for each facility). This demonstrates that GRE's attempt to compare the two plants only for recent years when ERPS appears to have run less than Cambridge is a nonrepresentative data set that minimizes the potential for impacts that are evident from a slightly longer time frame using official EPA data.

[16] INTERAGENCY WORKING GROUP ON SOCIAL COST OF GREENHOUSE GASES, UNITED STATES GOVERNMENT, TECHNICAL SUPPORT DOCUMENT: SOCIAL COST OF CARBON, METHANE, AND NITROUS OXIDE: INTERIM ESTIMATES UNDER EXECUTIVE ORDER 13990 (February 2021) https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf.

[17] Using the equation: (127,303 – 14,533) x $51.

[18] GRE letter application, *supra* note 1, at 1.

$15,000 and $25,000 per year.[19] This squares with Minnesota's Pollution Control Agency (PCA) data showing that in the census tract where the Cambridge facility is located "29.05% (+/- 10.86%) reported income less than 185% poverty level."[20] Within a one-mile radius of the plant, EPA's EJ Indexes demonstrate that the population is already exposed to air pollution at relatively high levels for Minnesota:

1-mile Radius EJ Indexes	Percentile
Particulate Matter 2.5	45.3
Ozone	44.3
Diesel Particulate Matter	45.7
Air Toxics Cancer Risk	45.5
Air Toxics Respiratory Hazard Index	48.2
Traffic Proximity	55.3

Table 2. EPA EJScreen EJ Indexes data set to 1-mile radius from Cambridge facility.[21]

Moreover, the facility's air pollution will be transported significantly further than a three-mile or one-mile radius, likely impacting environmental justice communities throughout central Minnesota.[22] The existing burden to close neighbors, as well as the more distant air pollution impacts to environmental justice communities in the region, demonstrate that the potential for cumulative impacts to human health and the environment are certain.

The Project also has a high likelihood of having a disproportionate impact on individuals who are particularly vulnerable to air pollution, such as children. Less than one mile from the plant site is the Rum River Special Education Cooperative, serving students "with significant behavioral needs"[23] from six different school districts.[24] Approximately 1.32 miles[25] from the plant site is the Sandquist Family Park, a Cambridge city park that features softball fields, soccer

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[19] EPA, ECHO, Cambridge Detailed Facility Report, https://echo.epa.gov/detailed-facility-report?fid=110056145407 (under "Demographic Profile of Surrounding Area" select radius of "3 miles") [hereinafter "Cambridge ECHO Report"].
[20] *See* PCA, Understanding Environmental Justice in Minnesota, GIS Mapping Tool, https://arcg.is/vqaGa (data for census tract #1303.02) [hereinafter "PCA EJ map"].
[21] Cambridge ECHO Report, *supra* note 19 (under "EJScreen EJ Indexes" select "1-mile Radius").
[22] *See* PCA EJ map, *supra* note 20 (mapping areas of environmental justice concern in the state of Minnesota).
[23] Rum River Special Education Cooperative, Education Program Information, https://www.rrsec.org/education_programs/education_program_information (last visited Apr. 26, 2022).
[24] Rum River Special Education Cooperative, Member Districts, http://rrsec.ss18.sharpschool.com/cms/One.aspx?portalId=547216&pageId=946264 (last visited Apr. 26, 2022).
[25] Distance calculated between street addresses for the plant and the park using "How far is it? – Distance Calculator," *available at* https://www.gps-coordinates.net/distance.

and football fields, baseball fields, and playground equipment.[26] Impacts to youth participating in summer sports seem likely because GRE describes its existing and future Cambridge plants as "nominal summer generating" units.[27]

PCA recognizes that diesel exhaust is especially harmful to children, and comes from both mobile sources, like the tanker trucks serving this Project, as well as large stationary sources, such as the proposed facility itself.[28] Diesel exhaust is a known human carcinogen according to the International Agency for Research on Cancer and a toxic air contaminant according to California regulators, and "effects include premature death, hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma, increased respiratory symptoms, and decreased lung function in children."[29] The high likelihood of this Project's impacts to environmental justice communities and children's health should be fully analyzed in an EIS.

D. This Project requires an EIS

The Project is a type of project that naturally causes significant environmental impacts, which must be assessed before any permit is granted. Since the passage of MEPA and the Commission's permitting authorities all other oil-fired plants have been subject to full regulatory review including the preparation of an EIS, because of their potential for significant environmental impacts. While the Minnesota Legislature did create a type of fast-track alternative review process for gas-fired plants,[30] there is no legal justification for including this new oil-fired facility within that legislative carve out. GRE's application invites comparison to its other facility, ERPS,[31] and it is important to note that ERPS underwent full Commission review, including the preparation of an EIS.[32]

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[26] *See* Cambridge, Parks List, Sandquist Family Park, https://www.ci.cambridge.mn.us/Home/Components/FacilityDirectory/FacilityDirectory/6/86 (last visited Apr. 25, 2022).
[27] GRE letter application, *supra* note 1, at 1, 2.
[28] PCA, Diesel Exhaust in Minnesota (Feb. 2005), https://www.pca.state.mn.us/sites/default/files/aq-mvp2-25.pdf.
[29] California Air Resources Board, Overview: Diesel Exhaust & Health, https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. EPA has also established that diesel exhaust is a likely human carcinogen since 2003. EPA, IRIS, Diesel engine exhaust, https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=642 (last visited May 3, 2022).
[30] Minn. Stat. § 216E.04, subd. 2(2).
[31] GRE letter application, *supra* note 1, at 2.
[32] *See* Draft Environmental Impact Statement, Elk River Peaking Station, PUC Docket No. ET2/GS-07-715 at 19 (Nov. 2007), eDockets ID No. 4936997; Final Environmental Impact Statement, Elk River Peaking Station, PUC Docket No. ET2/GS-07-715 at 19 (Jan. 2008), eDockets ID No. 4901725.

2. No conditions would be sufficient to make this project a "minor alteration" within the law

Since the Project is certain to "result in significant changes in the human or environmental impact of the facility" it is not possible to convert GRE's proposal into a minor alteration using conditions.

While the Commission has ample authority to impose any conditions it "deems appropriate and are supported by the record,"[33] the only conditions that would allow the Project to meet the minor alteration criteria would deprive GRE the benefit of its Project. This is because both construction and operation of the diesel fuel oil portion of the Project will have significant impacts on the human environment—the Commission would have to impose significant and costly design and construction restrictions on the project to fully minimize the disruption caused by this $25-million build. Moreover, bringing the diesel fuel oil to the Project site will have traffic, noise, and air pollution impacts that are likely to disrupt the health and safety of Cambridge residents—the Commission would have to create conditions that effectively forbade delivery of diesel fuel oil to the facility at any times that would impact neighboring facilities or homes. Additionally, operation of the new unit while burning diesel fuel oil is certain to have significant climate change impacts, as evidenced by the difference in greenhouse gas emissions between Cambridge and ERPS historically—to make these climate change impacts insignificant enough to fit this application within the minor alteration frame, the Commission would have to forbid GRE from burning diesel fuel oil at the facility.

The company suggests that it will barely use the diesel part of its facility, but without a Commission condition that requires it to not burn diesel this is merely hot air. GRE's suggestion that the new unit will only "operate on fuel oil fewer than 24 hours each year (on average)"[34] is meaningless when compared to the historical data which shows that the comparable peaking plant either runs far more than that in a year or not at all.[35] And, to the extent that GRE is proposing to build a diesel-burning unit that it does not intend to use, it is wasting $25 million that will be borne by ratepayers.

3. The project is not a changed circumstance to the existing CN for the Cambridge plant

It is not possible for the Commission to treat GRE's minor alteration application as a changed circumstance to the existing CN for the Cambridge facility because the original facility was permitted for an entirely different fuel type[36] which is not simply a design change. Installing burners designed to burn diesel fuel oil as well as natural gas, contradicts the basic type determination specified by the certificate of need as stated in Minn. R. 7849.0400.

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[33] Minn. R. 7850.4600, Subp. 1.
[34] GRE letter application, *supra* note 1, at 2.
[35] GRE's estimate of minimal use is also heavily biased by being based on usage rates during a global pandemic, when power usage dipped in ahistorical ways.
[36] In 2005 the Cambridge plant was subject to alternative review because it was proposed as a gas-only facility.

This is not an appropriate change to the existing CN under Minn. R. 7849.0400 because of timing and type-of-fuel reasons. Since the Cambridge plant is already in service, and has been operating for roughly fifteen years, the rule does not allow a change to its CN because it specifies that changes can only be made "before the facility is placed in service[.]"[37] As any change would be made to the CN after the facility has a long history of operation, no change is allowed by this rule. Even though the last subsection of Minn. R. 7849.0400 does allow an applicant to apply for "a change in size, type, timing, or ownership other than specified in this subpart is necessary for a large generation . . . facility previously certified by the commission," and the Commission must determine "whether the change is acceptable without recertification,"[38] here, Minnesota law would not allow such a change without a new CN.[39]

Furthermore, in order to obtain a change to a CN "the applicant must inform the commission of the desired change and detail the reasons for the change[.]"[40] GRE has failed to do that. The application is lacking in any detail regarding GRE's economic interest in retrofitting the plant and it suggests, without proving, that diesel fuel oil will be cheaper than natural gas in the future.

Therefore, even if the Commission wanted to humor this as a change to the facility's existing CN under the applicable rule, it would need to obtain significantly more information from the applicant.

4. Requiring an EIS for the project will save both agency and public resources

Requiring GRE to resubmit the Project, with full applications for new need and site permits, will ultimately save resources because the construction and operation of large electric power generating plants has the potential for significant environmental effects. The Minnesota Environmental Quality Board (EQB) has established a mandatory EIS category for these projects[41] and Commission regulations require that the Department of Commerce prepare an EIS for this

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[37] Minn. R. 7849.0400, Subp. 2 (establishing a standard that applies to all subsections that follow in Subpart 2).
[38] Minn. R. 7849.0400, Subp. 2(H).
[39] *See* Minn. R. 7849.0030, Supb. 1 ("A certificate of need is required for a new LEGF. . . and for expansion of [a] facility when the expansion is itself of sufficient size to come within the definition of 'large electric generating facility' . . . in part 7849.0010.").
[40] Minn. R. 7849.0400, Subp. 2(H).
[41] Minn. R. 4410.4400, subp. 3, ("For construction of a large electric power generating plant, as defined in Minnesota Statutes, section 216E.01, subdivision 5, the PUC is the RGU. Environmental review must be conducted according to parts 7849.1000 to 7849.2100 and 7850.1000 to 7850.5600."). While Minn. R. 4410.4300, subp. 3(C), also would apply to require a mandatory EAW for this project, the first sentence of 4410.4300 makes clear that the EIS categories control when a project is within both mandatory EIS and EAW categories. *See* Minn. R. 4410.4300, subp. 1, ("An EAW must be prepared for projects that meet or exceed the threshold of any of subparts 2 to 37, unless the project meets or exceeds any thresholds of part 4410.4400, in which case an EIS must be prepared.").

Project following acceptance of GRE's application.[42] While GRE's application for a new dual fuel power plant may today be incomplete when judged against the standards for applying for need and site permits, it certainly satisfies the standard for the EQB's requirement of an EIS under the applicable mandatory category.

As a result of the clear need to prepare an EIS, it would be a waste of agency and commenter resources to proceed under the EERA's suggested route of conducting an EAW to decide whether a minor alteration is provable. If an EAW is warranted, then the necessary no-impact showing for a minor alteration is absent.[43] As these types of power plants always require an EIS under the prevailing MEPA regulation, it is not worthwhile to formally inquire whether it could burn hundreds of thousands of gallons of diesel fuel oil without having any significant impacts on the environment. Ultimately the Commission will be compelled by both the law and the facts to order the preparation of an EIS for this Project, doing so now rather than waiting for an EAW will save everyone—including GRE and its member co-ops' ratepayers—significant time and resources that could be best spent on conducting an adequate EIS for the Project.[44]

IV. Conclusion

For the reasons stated above the Commission should reject this application for a minor alteration and make clear to GRE that if it seeks to proceed with this Project it must apply for a new CN and site permit under the full permitting procedure. This will trigger the preparation of an EIS, consistent with Commission and EQB standards. Only after GRE has obtained a new permit may it consider embarking on this plan to add a new diesel fuel oil burning facility to its fleet. The Commission should deny these necessary permits to the extent that a new diesel fuel oil facility is not demonstrably needed or is inconsistent with environmental justice and Minnesota's climate goals.

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[42] Minn. R. 7850.2500, subp. 1, ("The commissioner of the Department of Commerce shall prepare an environmental impact statement on each proposed large electric power generating plant . . . for which a permit application has been accepted by the commissioner.")

[43] Again, to obtain a minor alteration the applicant bears the burden of proving the alteration "does not result in significant changes," so if there is an open question about whether there are significant changes the application must be denied because the burden has not been satisfied. *See* Minn. R. 7850.4800, Subp. 1.

[44] In the alternative, if the Commission rejects the minor alteration application for the above reasons, indicates that an EIS will be required, and GRE abandons this Project, that would save both the additional harms to the environment and $25 million of ratepayer expenses. A win-win for the environment and ratepayers is an ideal outcome for Minnesota and Minnesotans.