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Commission Chair Kristin Stephens
Commissioner John Kefalas
Commissioner Jody Shadduck-McNally
200 West Oak Street
Fort Collins, Colorado 80524

April 17, 2025

Dear Commissioners:

Northern Colorado Partners for Clean Energy (NCP4CE) submits the following reply comments to Platte River Power Authority's (PRPA) "Response to the March 10, 2025 Public Hearing Continuance" (Response) in permit application 24-ZONE3715.

Because PRPA's Response comments contained nothing new designed to avoid, minimize or mitigate the air quality impacts of its proposed project on Larimer County, NC4PCE continues to request the Commission to deny PRPA's 1041 application. The application still fails to meet Sections 10.1.9.E and 10.1.9.C of Larimer County's Land Use Code (LUC).

Introduction and Summary

NCP4CE is mindful of the Commission Chair's preference to hear comments related only to new information disclosed in PRPA's response.[1] However, PRPA's decision to disclose and argue virtually nothing new in its Response makes that limitation difficult to follow. PRPA's Response merely restated the insufficient arguments it previously put forth to the Commission. PRPA has clearly decided that it will not change its application to address legitimate concerns from the public and Commissioners, and it has determined to press forward with its desire to install up to 285 MW of new gas capacity at the Rawhide site.

PRPA's Response failed to address many of the concerns and issues brought forth by the public and Commissioners. Among those issues are:

1. The expected role of PRPA's 2026 membership in the Southwest Power Pool (SPP-West) in mitigating intermittent resource challenges;
2. Why PRPA is unwilling to restrict the use of its new gas turbines to local load during ozone alert days, rather than exporting excess power outside of PRPA's service area;

[1] Larimer County Board of County Commissioners Land Use Hearing, March 24, 2025 at 27:18. Available at https://www.youtube.com/live/BDCCIs0mDNg?si=-Fy5oM2ykHf-ZYK2.

3. Why PRPA is unwilling to minimize the impacts of its new gas generation by constructing 160 MW of new gas rather than up to 285 MW of new gas, even though its own IRP indicated 160 MW would be a viable option to preserve reliability and affordability;
4. Why PRPA continues to insist renewable energy generation resources, and particularly battery storage, be assigned an artificially low energy capacity value, which then led to PRPA's inflated "need" for new gas generation;
5. Why PRPA refused and continues to refuse to consult an independent third-party entity like NREL on its Integrated Resource Plan (IRP) or its application to build a new gas plant;
6. Why PRPA refuses to propose additional conditions of approval that would mitigate construction impacts through 2028 and minimize or mitigate emissions from running the coal unit and the new gas units between 2028 and 2030;
7. Why PRPA submitted Air Pollution Emission Notices (APENs) with the Colorado Air Pollution Control Division that asks for permission to run its five new turbines up to half of the year 24/7 while claiming those same turbines will merely address occasional renewable intermittency; and
8. What mitigation measures PRPA proposes to mitigate air quality impacts beyond 2035 because its assumptions about hydrogen conversion are not viable.

The Commissioners are aware PRPA has the burden to show its application complies with each requirement of the LUC. Merely restating what was insufficient to meet that burden before does nothing to meet the burden now. It up to the applicant – not the public, NCP4CE, Commissioners, or Larimer County staff – to meet the burden of proof. The Commissioners should deny PRPA's application now so it can come back to the County with an application that meets its burden.

Commissioners asked PRPA to address four main concerns in a supplemental filing: (1) whether PRPA's application complies with Section 10.9.1.C of the LUC; (2) whether the PRPA's application complies with Section 10.9.1.E of the LUC; (3) the climate impacts of its proposal; and (4) the application's compliance with the LUC's mitigation hierarchy. NCP4CE's reply will focus on those four areas as well.

LUC Section 10.9.1.C

Pages 3 through 10 of PRPA's Response restate its previous arguments related to its alleged compliance with LUC Section 10.9.1.C. PRPA claims its plan to operate five gas aeroderivative turbines that can produce up to 285 MW is the only feasible plan available that preserves reliability and affordability. But, that claim does not hold up to outside scrutiny or even PRPA's own IRP.

LUC Section 10.9.1.C requires the following:

The applicant has adequately considered reasonable siting and design alternatives, including co-location when requested by Larimer County, or shown why such alternatives are not available or not feasible, and the proposed project is the best alternative available based on consideration of consistency with the Comprehensive Plan, Land Use Code, need, existing technology, cost, and impact on the site and surrounding property.

PRPA's Response claimed it met LUC Section 10.9.1.C for the following reasons:

- The best location for the new gas turbines is the existing Rawhide site;
- Sites other than Rawhide are not available or feasible;
- Installing generation resources other than the proposed five aeroderivative turbines is not feasible;
- The proposal is consistent with the Comprehensive Plan and the Land Use Plan because it mitigates climate impacts while preserving redundancy and resiliency;
- The proposed new turbines are the best alternative based on the need; and
- The proposed new turbines are the best alternative based on existing technology and cost.

Virtually this entire section of PRPA's Response covers the same information it already presented to the Commission through its IRP, 1041 application, and/or March 10, 2025 presentation. The one exception is PRPA's new citation of an NREL report (which is a broken link) related to Xcel's 2030 resource acquisition needs. While NCP4CE appreciates PRPA finally considering NREL information in some small way, it notes Xcel's geographic service area, existing load, and expected load growth by 2030 are exponentially larger than PRPA's. NCP4CE realizes each utility's needs are different, which is why it consistently called for a trusted independent third-party review of PRPA's unique circumstances and recommendations. PRPA still has not explained why it did not consult NREL or any other independent third party during the writing of its IRP or 1041 application, in particular to respond to specific requests to do so by interested local ratepayers and legislators. Nor has it indicated what steps it took, if any, since the March 10 hearing to respond to Commissioner Kefalas's suggestion to consult an independent third-party expert to confirm PRPA's assumptions and build trust.[2] PRPA has instead consistently responded to questions related to its assumptions throughout this process by merely repeating its conclusions.

NCP4CE has not questioned PRPA's site selection for its proposed new gas turbines, so this reply letter will not go into any rebuttal related the physical location of any new turbines. However, NCP4CE has consistently questioned the need for PRPA to acquire five new aeroderivative gas turbines capable of producing up to 285 MW of electric power, and will summarize those arguments.

[2] Larimer County Board of County Commissioners Land Use Hearing, March 10, 2025 at 5:34. Available at https://www.youtube.com/live/14zJK7Zr65I?si=vqC8D1GjLM98qxQp

The most important point to emphasize here relates to two quotes from PRPA's Response. First, PRPA wrote that building and operating a new gas plant with five new aeroderivative turbines "is the fastest, lowest-cost way for Platte River to drastically reduce carbon emissions and close coal facilities. If Platte River cannot build the Project at Rawhide before Unit 1 closes, all other options will be more expensive, less reliable, and have a much greater impact on the surrounding land and other natural resources."[3] PRPA additionally wrote, "Platte River will retire its coal generation by the end of 2029, and Platte River committed in its Clean Energy Plan to reduce carbon emissions by 80% by 2030 (compared to 2005 levels). But Platte River cannot meet this goal, and keep the lights on, without this Project."[4] *PRPA's own IRP contradicts both of those statements.*

As previously discussed by NCP4CE but neither addressed nor rebutted in PRPA's Response, PRPA ultimately chose a portfolio with higher environmental impacts than its own IRP deemed necessary. PRPA's IRP modeled five different resource portfolios ranging from a "no new carbon" portfolio with zero added gas generation on one end to an "additional new carbon" portfolio adding 240 MW of new gas on the other. PRPA ultimately chose its "optimal new carbon" portfolio, which would add "at least 200 MW" of gas generation to its resources.[5] However, another scenario in the PRPA's list would provide reliable power within one percent of the cost of the optimal carbon portfolio and even reduce emissions more than the optimal new carbon portfolio. PRPA called it the "carbon-imposed cost" portfolio.

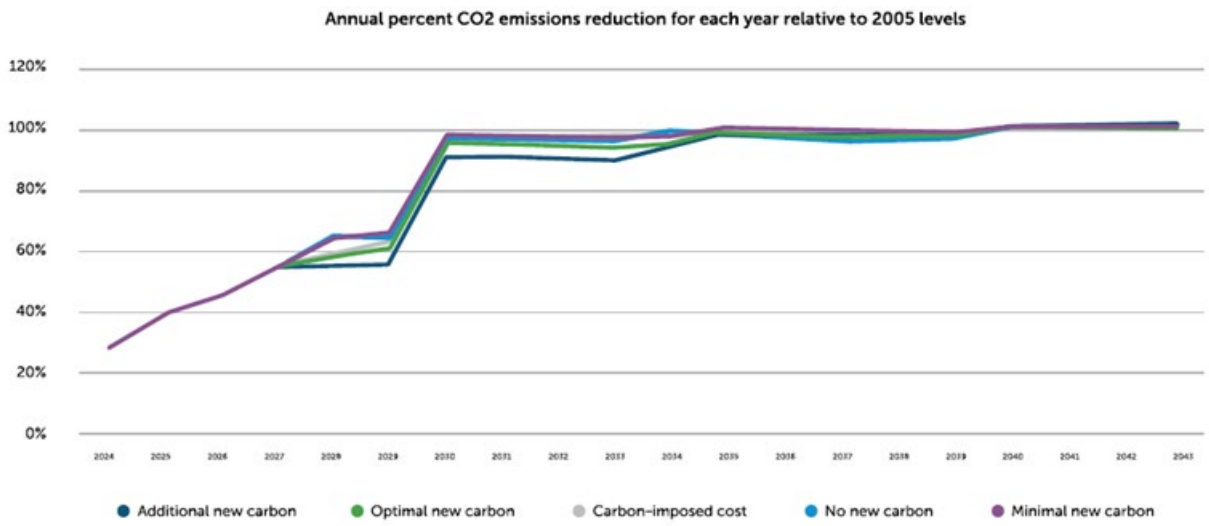
The carbon-imposed cost portfolio increased its solar allocation by 50 MW and 4-hour battery storage by 100 MW over the optimal new carbon portfolio in return for reducing new gas generation by 40 MW. Figures 1 and 2, below, show a graphical comparison between these two scenarios. As illustrated in those two figures, PRPA found its carbon-imposed cost portfolio would be virtually identical in costs and provide better short-term emissions reductions than its optimal new carbon portfolio.

Figure 1: PRPA portfolio cost comparison (IRP table 32)

20-year net present value ($000)	
No new carbon	$5,344,991
Minimal new carbon	$3,372,202
Carbon-imposed cost	$2,779,024
Optimal new carbon	$2,772,407
Additional new carbon	$2,761,036

[3] PRPA, "Response to the March 10, 2025 Public Hearing Continuance" (PRPA Response) at 2.
[4] *Id*. at 8-9.
[5] As detailed in NCP4CE's March 6, 2025 letter on page 12, and not rebutted by PRPA, the five aeroderivative turbines PRPA seeks to obtain will actually generate between 230 and 285 MW of electricity.

Figure 2: Comparison of emissions reductions of PRPA's five portfolios (IRP Figure 58 and PRPA Response at 5)



Regardless, PRPA chose to adopt its optimal new carbon portfolio – the one with an additional 40+ MW of gas generation and associated emissions – even though the carbon-imposed cost portfolio presented a cost-effective and workable path forward.[6] The sum of PRPA's reasoning for picking the optimal new carbon portfolio with more emissions was this: "[w]hile this portfolio is reliable for the historically experienced weather uncertainties, it may not be reliable if weather events continue to become more extreme as they have in the recent past."[7] PRPA's application contained no further analysis on the point, and, consistent with the rest of the application, it excluded any mention of the role the SPP-West wholesale power market may play in providing power in case of the vaguely referenced future extreme weather event.

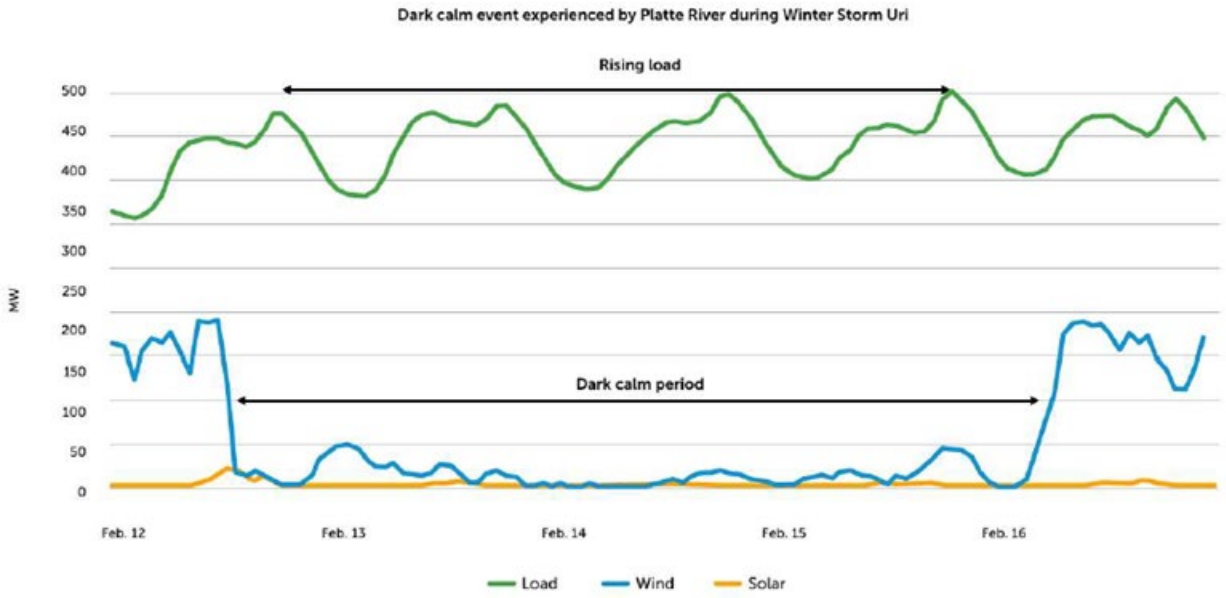
The dearth of analysis related to PRPA's choice between the optimal new carbon portfolio over the cost-imposed carbon portfolio in its IRP, 1041 application, presentation, and Response letter is inconsistent with PRPA meeting its burden in this proceeding. PRPA cannot prove its application meets Section C simply by making general statements related to the central question of the entire application. Sentences in its Response like "Platte River, working with industry experts and consultants, concluded it will need at least 200 MW of 'dispatchable capacity' to keep our system reliable…"[8] are wholly conclusory and provide no evidence of the purported fact. Nothing in the record supports it. What specific information led PRPA to conclude it must build a gas plant with five aeroderivative turbines instead of four? Why is 200 MW (keeping mind the turbines would actually produce between 230 and 285 MW) the magic number? Why can't four turbines, producing between 184 and 228 MW, provide adequate reliability? If 200 MW is somehow the magic number, and PRPA's membership in the SPP-West will somehow not make up the difference during exceptional events, surely PRPA could minimize its emissions and be

[6] PRPA, "Integrated Resource Plan" (IRP) at 161. Available at https://prpa.org/2024irp/
[7] *Id*.
[8] PRPA Response at 2.

more in line with its stated non-carbon generation goals by adding just 16 MW of battery storage to make up for one less gas turbine.

In addition, PRPA's Response again invoked the existence of "dark calms" to justify its quest for at least 200 MW of new gas generation. In its Response, it cited the energy needs compared with solar and wind generation during Winter Storm Uri in February 2021 and reproduced this graph from its IRP:

Figure 3: Winter Storm Uri (IRP Figure 50 and Response Figure 3)



However, PRPA did not mention in its Response that its existing dispatchable 458 MW of non-coal firm capacity (including 388 MW of existing gas and 70 MW of hydropower)[9] would have been enough to cover all but a small portion of the 500 MW needed at peak periods during Winter Storm Uri. PRPA's IRP forecasts winter peak demand to remain consistent around 500 MW from the present through 2050.[10] Left unexplained in PRPA's application and Response was why up to 285 MW of gas is necessary to make up an expected gap of approximately 40 MW, or 48 MW if one includes the standard Planning Reserve Margin, during a worst-case scenario like Winter Storm Uri. This is not to mention the new battery capacity PRPA says it will install and its forthcoming membership in the SPP-West, both of which should reduce the need for additional new gas during extraordinary circumstances. Once again, PRPA did not address either of those considerations in its application or Response letter.

Finally, while the topic was discussed briefly during Commissioner questions at the March 10, 2025 hearing, PRPA's Response letter did not address its arbitrarily low Electric Load Carrying

[9] IRP at 153.
[10] *Id*. at 61.

Capacity (ELCC) for renewable resources, particularly batteries. Its undervaluing of non-carbon resources led it to conclude it needed significant new gas capacity, but its ELCC numbers for renewables were even much lower than its soon-to-be wholesale power market partner SPP. NCP4CE will not repeat its arguments related to the ELCC here, as they were detailed in its March 6 letter, but we will note PRPA has yet to provide any explanation in the record related to why it assigned the ELCC numbers to renewable resources that it did. Arbitrary numbers lead to arbitrary recommendations, and decisions based on those arbitrary numbers and recommendations are not consistent with the Land Use Code.

LUC Section 10.9.1.E, climate impacts, and the mitigation hierarchy

Pages 11 through 23 of the Response outlined PRPA's arguments related to LUC 10.9.1.E, climate impacts, and the mitigation hierarchy. PRPA's Response combined the three topics and this Reply will follow the same pattern.

Section 10.9.1.E states:

> The proposed project incorporates and reflects the growth, development, and environmental and mitigation policies in the Larimer County Comprehensive Plan and regulations in Article 4.0, Development Standards to ensure that the development, to the greatest extent possible, has mitigated any impacts to the environment and natural resources, and will not significantly degrade the environment or natural resources, or exacerbate or worsen climate change. The mitigation shall follow a hierarchy to first avoid impacts to resources of highest value, second minimize the impacts that are unavoidable and finally mitigate the impacts that occur. For purposes of this section, the term environment shall include:
> 1. Air quality,
> 2. Surface water quality and stream and river health,
> 3. Groundwater quality,
> 4. The ecological and functional health of wetlands and riparian areas,
> 5. Terrestrial and aquatic animal life,
> 6. Terrestrial and aquatic plant life,
> 7. Soils and geologic conditions, and
> 8. Visual quality

NCP4CE has focused on the air quality and climate aspects of PRPA's application because those are among the most impactful consequences of installing unnecessary fossil fuel generation. PRPA's arguments related to those impacts can be summarized as 'gas is not as bad as coal' and therefore installing up to 285 MW of new gas meets the requirements of Section E. However, PRPA overlooks an essential provision in Section E, which is that the proposed development must mitigate environmental impacts and protect the climate "to the greatest extent possible." Unnecessary new gas, even if it is less harmful than coal, does not protect the environment and the climate to the greatest extent possible. The section above in this letter and NCP4CE's previous

comments have shown how up to 285 MW of new gas is unnecessary, even according to the PRPA's own Integrated Resource Plan.

Related, PRPA's claim it adhered to the mitigation hierarchy by merely repackaging the conditions of approval it already agreed to with Larimer County staff ignores the plain language of Section E. The mitigation hierarchy requires the applicant to first avoid impacts, but for those impacts that cannot be avoided, minimize those impacts. Then the applicant must mitigate any minimized impacts that remain.

PRPA's Response showed it is still unwilling to avoid, minimize, and mitigate impacts as Subsection E requires. First, PRPA failed to prove impacts of new gas generation cannot be avoided. As previously indicated, PRPA's assumptions related to the energy production value of renewable energy resources are questionable, and NCP4CE's previous letter to the Commission outlined important points about PRPA's unsupported recommendation to overbuild thousands of MW of costly new batteries in its "no new carbon" and "minimal new carbon" portfolios.[11] PRPA did not address either of those issues in its Response and those questions remain outstanding.

Second, the LUC requires any impacts that cannot be avoided to be minimized. This would include, but not be limited to, operational limitations for any new gas turbines that are deemed unavoidable. Among minimization strategies already suggested during this process were limitations on operating the new turbines during ozone alert days, or during ozone season when the energy produced is for export outside of the PRPA service territory. PRPA would not consider limitations to the operation of the turbines on high ozone days during the March 10 hearing, and PRPA's Response did not further discuss those reasonable minimization measures.[12]

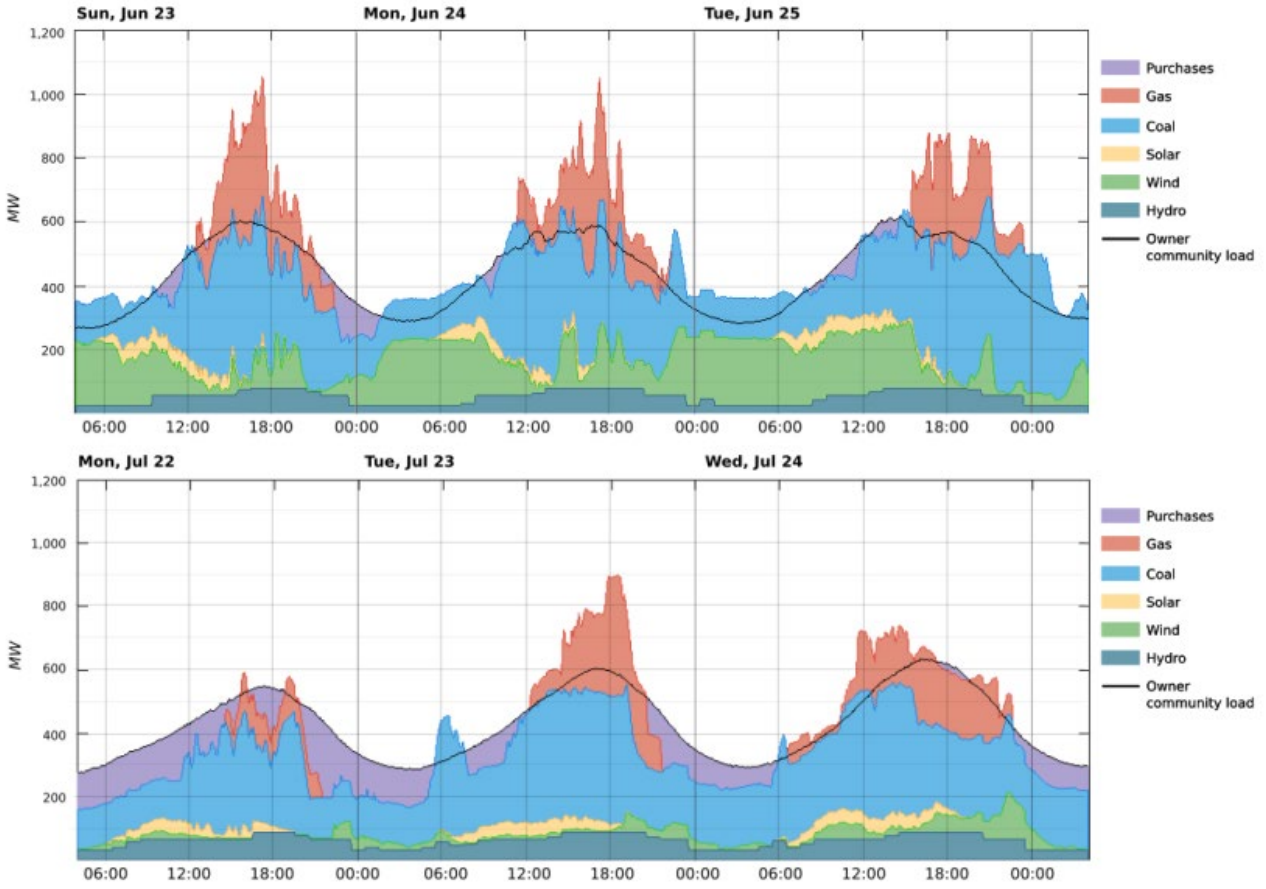
The likelihood of PRPA operating its turbines to produce excess energy for export during ozone season is of particular concern. PRPA has never contradicted the likelihood of this happening, only deflecting the issue during the March 10 hearing by saying the market seeks out the cheapest power available.[13] Furthermore, as outlined in NCP4CE's first letter to the Commission, PRPA submitted Air Pollution Emissions Notices (APENs) to the Colorado Department of Public Health and Environment (CDPHE) asking it for permission to run its new turbines for up to half the total hours of a year, or 4,380 hours, split evenly among four seasons. So PRPA is seeking a state permit that would allow it to run its gas turbines for up to 1,095 hours during the ozone season. While NCP4CE recognizes APENs are not necessarily indicative of how long an applicant will truly operate its facility, the state's approval of this APEN (which will inevitably occur because the state always approves APENs) will mean PRPA has state authorization to operate its new turbines up to the equivalent of 45 full days during the ozone season.

This is not a theoretical concern. PRPA has a pattern of producing more power than it needs from its existing gas plants during high ozone months. Two graphs archived from PRPA's energy usage indicator show relevant examples of this pattern.[14] The first graph shows peak load periods

[11] NCP4CE March 6, 2025 letter to the Commission at 11.
[12] Larimer County Board of County Commissioners Land Use Hearing, March 10, 2025 at 4:46.
[13] *Id*. at 2:10.
[14] *See* https://prpa.org/energy-production/

between June 23 and June 25, 2024 covered by renewables and coal-fired generation, but up to 400 MW of excess power produced by PRPA's existing gas resources. The second graph shows a similar dynamic between July 22 and July 24, 2024. Notably, data from the Fort Collins and Fort Collins West air monitoring stations showed July 23 and 24 were among the highest ozone days of 2024, with the Fort Collins CSU station reading 88 and 86 parts per billion, respectively, and the Fort Collins West station reading 90 and 89 parts per billion, respectively (recall the 2008 ozone attainment standard is 75 ppb and the 2015 standard is 70 ppb).[15] PRPA produced a considerable amount of excess energy, and the accompanying emissions, from its existing gas generation during the height of the ozone season last year. Nothing in its current application would stop it from doing the same thing with its new gas turbines.

Figure 4: PRPA energy demand and production, June 23-25 and July 22-24, 2024



PRPA's Response shed no further light on this issue, and at this point should be taken as an admission that it does, in fact, seek to operate its new gas turbines during ozone season for the purpose of exporting the power. The more gas turbines PRPA installs correspond to the amount of power it can export and, significantly, the amount of emissions it creates for Larimer County. This

[15] Daily CDPHE air quality reports are available at https://www.colorado.gov/airquality/report.aspx

is far from the minimization of impacts Section E requires. PRPA could solve this particular issue by proposing conditions of approval designed to avoid operating its turbines during ozone season for the purposes of exporting the power. But it has not done so, and appears to be unwilling to consider it. PRPA appears averse to even discussing it with the CDPHE, despite an urging by Commissioner Kefalas to do so during the March 10 hearing.[16] This is one prominent example of a feasible minimization strategy that PRPA failed to adopt, and it should be fatal to its application.

Third and finally, Section E's mitigation hierarchy requires any impacts that cannot be avoided to be minimized, and any minimized impact to be mitigated to the extent possible. PRPA's application presented PRPA's plan to convert the gas turbines to 50% hydrogen by 2035 and 100% hydrogen by 2040.[17] PRPA's 1041 application materials assumed those hydrogen benchmarks would occur and formed the basis for the carbon emissions reduction representations referenced in its Response and reprinted as Figure 2 in this Reply, above.[18] PRPA has concurrently backed away from those assumptions, however. PRPA's responses to March 10 Commissioner questions related to hydrogen adoption ranged from saying PRPA was "keeping an eye on the evolution of" hydrogen to "I don't know if [the new turbines] will ever run on hydrogen or not."[19] PRPA's Response letter barely mentions hydrogen, merely indicating that the proposed new gas turbines could potentially burn hydrogen at some point in the future.[20]

PRPA's backtracking is unsurprising given the multitude of issues with PRPA's hydrogen assumptions outlined in NCP4CE's March 6 letter.[21] NCP4CE recognizes the challenges of predicting technology feasibility over the next decade. It also sees the foundational importance hydrogen conversion played in PRPA's 1041 application, particularly when outlining PRPA's emissions reduction strategies. Speculation does not form the basis of a valid mitigation strategy, and employing guesses does not meet the applicant's burden of proof.

Approving the application as currently proposed would leave a large void in air quality mitigation strategies. It would allow PRPA to install its five new aeroderivative turbines with no viable hydrogen strategy and no replacement mitigation strategy in place. It would allow PRPA to continue burning gas at 2030 levels throughout the decade and beyond with no remedy available to the County. PRPA could simply say 'oops, it looks like hydrogen didn't work out after all' and keep producing the same amount of harmful emissions throughout the operating life of the turbines.

Conclusion

In its Response, PRPA presents the Commission's decision during its upcoming hearing as one that could cause dire consequences:

[16] Larimer County Board of County Commissioners Land Use Hearing, March 10, 2025 at 4:49.
[17] PRPA 1041 application, Document 3, "Project Description" at 26.
[18] PRPA Response at 5.
[19] Larimer County Board of County Commissioners Land Use Hearing, March 10, 2025 at 1:53 and 5:18.
[20] PRPA Response at 2 and 5.
[21] NCP4CE March 6, 2025 letter to the Commission at 18-20.

> While we recognize that some oppose this Project, denying this permit will not make the air cleaner. Denying this permit **will** make electricity more expensive and less reliable for Larimer County residents. If we cannot build this Project at Rawhide, Platte River will keep working to decarbonize while supporting a reliable grid, but it will take longer and cost more—potentially much more—with no benefit to Larimer County or its citizens (our customers).[22]

(emphasis in original).

However, PRPA inaccurately presents the Commission's decision as an all-or-nothing proposition between approving the application as presented or causing the County irreparable harm. First, as indicated earlier, PRPA's own application established an alternative scenario that presented virtually equal costs, better emissions reductions, and acceptable reliability. Other scenarios in PRPA's application could have led to similar results had they used more defensible assumptions. Second, the choices available to Commissioners are not limited to whether PRPA can build or not build. The Commission can require additional conditions of approval that can help address an applicant's non-compliance with the LUC, particularly related to air quality and climate. Third, the denial of PRPA's application would simply mean PRPA resubmits a better application at a later date. It would not require PRPA to restart its IRP process (as flawed as it was); it would instead require PRPA to reconsider its request to install five new aeroderivative gas turbines with no operational limitations outside of what PRPA itself wants to impose, and then submit a new 1041 application reflecting a new proposal that complies with the LUC.

The statement from PRPA quoted above encapsulates PRPA's approach throughout the IRP and the 1041 processes. PRPA staff renders its judgment, and anyone who disagrees is simply mistaken. Instead of accounting for alternative viewpoints or making necessary changes, PRPA's pattern has been to repeat what it said before, but just say it louder. The Commission's charge is to determine whether PRPA's plan complies with the County's LUC. NCP4CE has presented ample information showing it does not and respectfully requests the Commission to deny the application.

Respectfully submitted,

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Counsel for NCP4CE

[22] PRPA Response at 17.