

From: Rajat Krishna

Sent: Friday, September 29, 2023 12:44 PM

To: IPA.ContactUs <IPA.ContactUs@Illinois.gov>

Subject: [External] comment on the August 15, 2023 "Draft 2024 Long-Term Renewable Resources Procurement Plan"

To Whom It May Concern:

Per 220 ILCS 5/16-111.5(b)(5)(ii)(B), I write to comment on the August 15, 2023 "Draft 2024 Long-Term Renewable Resources Procurement Plan" (hereinafter, "the 2024 draft Plan") currently posted at <https://ipa.illinois.gov/energy-procurement/plans-under-development.html>.

The direct link to the 2024 draft Plan I am referencing is as follows:

[https://ipa.illinois.gov/content/dam/soi/en/web/ipa/documents/procurement-plans/2024/2024-draft-long-term-plan-\(15-Aug-2023\).pdf](https://ipa.illinois.gov/content/dam/soi/en/web/ipa/documents/procurement-plans/2024/2024-draft-long-term-plan-(15-Aug-2023).pdf).

I am writing solely on my own behalf, and thus the views in this message do not reflect the views of any other person or entity.

At Section 4.3.1, Pages 86-87 & Table 4-2, the 2024 draft Plan describes the calculation of the wind duration factor. Table 4-2 assigns a Factor of 0.085 to Wisconsin on the basis that Wisconsin is located in the N and NNW "Wind Direction Sectors". However, as Exhibit 1 below shows, wind blowing from Wisconsin should actually include the NW, NNW, N, NNE, and NE sectors.

Exhibit 1

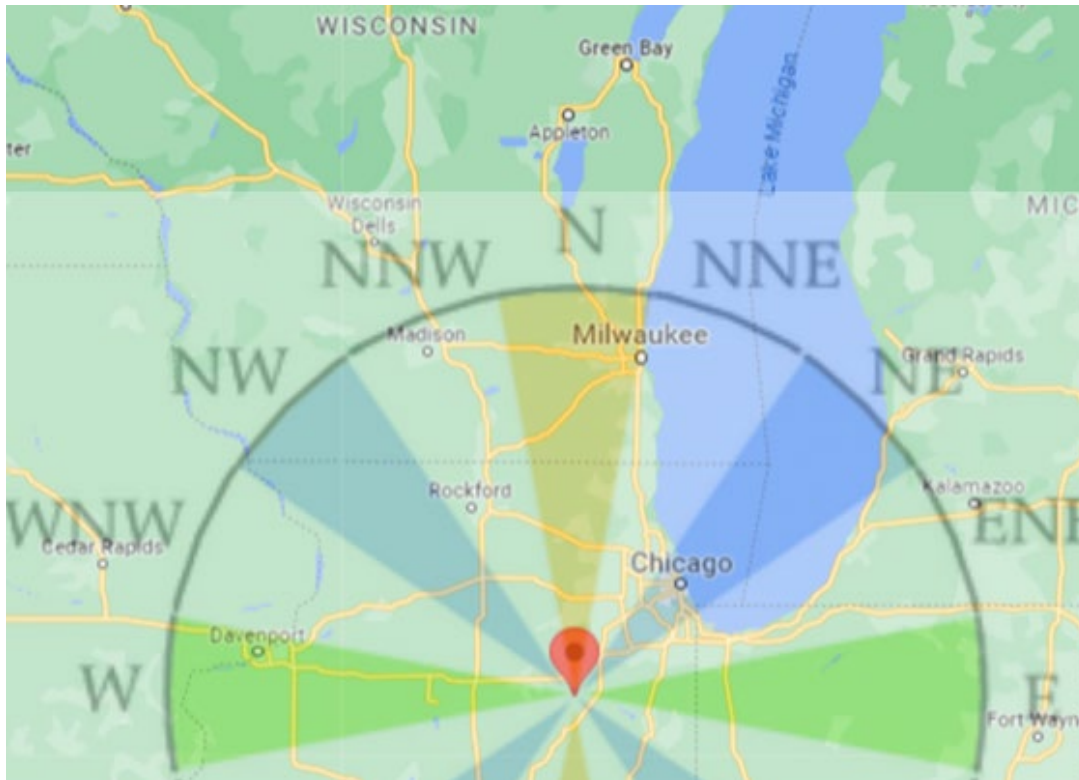


Exhibit 1 overlays a 16-point wind direction classification (taken from https://www.researchgate.net/figure/Classification-of-wind-directions-in-a-four-sectors-b-eight-sectors-c-sixteen_fig1_221914541) on top of a Google Maps image with the red indicator placed at +41.312077 latitude, -88.372974 longitude. This latitude/longitude coordinate is taken from Footnote 185 of the 2024 draft Plan, which I understand to be described on pages 88-89 of the 2024 draft Plan as "the population weighted geographic center of the State" based on the 2020 Census. Wind blowing from Wisconsin will clearly include the NW, NNW, N, NNE, and NE sectors. Although the NE sector only covers part of Lake Michigan in Wisconsin, I believe it is most consistent to include such Wisconsin territory, given that (1) Footnote 165 of the 2024 draft Plan defines Michigan as adjacent only by virtue of the Lake Michigan border, and (2) air quality over those waters is ostensibly most affected by Wisconsin.

The matter of wind from northern directional sectors is not a trivial one for Illinois. For example, the Illinois Dept. of Public Health website states that "wildfires in Canada have been responsible for poor air quality in Illinois" (<https://dph.illinois.gov/topics-services/environmental-health-protection/wildfire-smoke.html>, accessed 9/29/23). Because Wisconsin is the only state touching Illinois' northern border, an accurate reflection of Wisconsin's wind direction sectors (NW, NNW, N, NNE, and NE) should be important for Illinois. Therefore, I suggest that Table 4-2 be edited as follows:

- Change the "Wind Direction Sectors" entry for Wisconsin to "NW, NNW, N, NNE, NE".

- Update the "Wind Direction and Duration Factor" accordingly. I am unable to provide that number, because the 2024 draft Plan does not state the factor associated with each individual wind direction sector. The 2024 draft Plan simply states (on Page 87) that these factors have been updated with data through 2022. Presumably, these are readily available to the IPA, which would have used them to fill out the rest of Table 4-2.

Thank you for your consideration.

Best,
Rajat Krishna