

Legislative Background

The 2017 legislature passed HB 1378, which gives the PSC rule-making authority to require light-mitigation systems. For projects with a site certificate granted before June 5, 2017, the projects must be equipped with the system by December 31, 2021. And for projects with a site certificate granted after June 5, 2017, the projects must be equipped with the system by December 31, 2019.

Rulemaking Background

In April 2018, the PSC approved rules implementing the HB 1378. The rules define “Aircraft Detection Lighting System” and “Light-Mitigating Technology System.” The rules also reiterate the compliance deadlines set forth in the bill. The rules also include the following provisions:

- The PSC may grant an extension of time based on technical or economic feasibility considerations, as long as the extension request has an explanation of various factors.
- Allowance of temporary lighting until permanent lighting configuration including the light-mitigation technology can be implemented.
- Requirement that the owner provide written notice to the PSC upon implementation.
- Requires the cost of implementation and operation to be born by the owner.
- Incorporation of FAA laws relating to standards.

Vendor/Technological Background

There are two tracks for FAA regulation of lighting of wind farms: (1) Radar-activated systems, for which there are 4 FAA-approved vendors (one of which is defunct), and (2) light-dimming systems, for which there are currently no approved vendors. At a minimum, it will take months for the FAA to approve a light-dimming vendor.

Radar Activated Lighting Systems:

- Laufer Wind (now out of business) – FAA Technical Note released in May 2016.
- Vestas IntelliLight – FAA Technical Note released in June 2017.
- Terma – FAA Technical Note released in September 2018.
- DeTect – FAA Technical Note released in July 2018.

Light Dimming Technologies:

- The FAA tested a dimming technology in Oklahoma, and the FAA was not satisfied with the results because the lights were not visible enough to pilots.
- Sensors are measuring sensitivity at the light, not 5 miles out where pilots need to see them.
- FAA said lights at dimmed level didn’t have enough power to show them blinking at the same time or to signal a pilot that you were approaching a hazard area.
- FAA is planning to do additional flight tests, potentially before the end of the year to test different settings.
- If the results are better, could potentially be approved for use in 6 months or so.
- The FAA wants to consider whether dimming could be used with radar activated lighting.