

Night Along the Solar Fence Line



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July 30, 2025

Vision

Per its Vision Statement (<https://www.sjcindiana.gov/469/About-Us>), "The Department of Infrastructure, Planning and Growth is dedicated to enabling smart and sustainable growth in St. Joseph County to the benefit of all its residents." For that reason alone the Area Plan Commission (APC) should give Ordinance 47-25 an unfavorable recommendation.

I write to affirm how a large-scale solar energy systems (LS-SSES) fulfills the Vision Statement during a significant portion of the project's lifespan. I will describe and quantify factors that can be attributed to solar, which is one of the least offending industries while contributing perhaps most to quality of life. To compare similar genuine businesses in a small SJC region, I reference both the LS-SSES and the nearby data center in the Indiana Enterprise Center (IEC).



Legislation

According to SJC Council members, landowners complained that County-sanctioned development in formerly rural areas negatively impacted property values. The SJC Council increased some LS-SES setback requirements to 250 feet in July 2024. In October 2024, SJC Council addressed legitimate landowner concerns further by requiring additional screening and by expanding property setbacks up to 500 feet, ten-fold the 50-foot setback requirement of some other industries.

Now Ordinance 47-25 unevenly imposes financial burdens only on solar businesses with demands that will lessen if not kill solar businesses and jobs in St. Joseph County. Even the South Bend Regional Chamber of Commerce weighed in, with its President and CEO noting at a SJC Council meeting that the legislation is “bad policy that could get worse.” If approved, Ordinance 47-25 will outright impede “sustainable growth in SJC to the benefit of all.”

Half of Project’s Lifespan

I write to address half of a solar project’s lifespan, specifically the half from sunset to sunrise. With contracts and land leases sometimes about 20 years, half of the lifespan of a LS-SES would be ten calendar years. I ask the APC to consider how solar panels impact property values for the sunset-to-sunrise half of the Honeysuckle Solar Project's existence. Then compare how other industries like the Amazon data center, not subject to Ordinance 47-25 requirements, might impact property values from sunset to sunrise. The uneven application of law with Ordinance 47-25 is obvious.

Surveys

On April 9, 2018, I surveyed the night sky above then-proposed IEC boundaries (<https://tinyurl.com/iec-sqm-sites>) with a Sky Quality Meter (SQM) on a clear, moonless night. At multiple sites I measured the amount of skyglow and posted the results online at <https://www.nightwise.org/single-post/2018/04/11/sky-survey-over-fields-sprouting-industry>.

I did a similar second survey on June 5, 2018, with results at <https://www.nightwise.org/single-post/2018/06/07/results-of-sky-survey-near-new-carlisle>. As quantified by instruments and observations, the sky above the region on those two nights was **20.22** and **20.46** magnitudes per square arcsecond, respectively.

Another observer, Debra DuRall did sky surveys with SQMs on June 13, 2018 and July 12, 2018. The measured sky brightness from DuRall's six sites averaged **20.15** magnitudes per square arcsecond. (<https://www.nightwise.org/single-post/found-a-van-gogh-in-the-attic>).

Those SQM values are 2018 timestamps that reflect the baseline sky glow at the start of the IEC's blooming. However, light pollution includes sky glow, glare, light trespass, and horizon clutter. Back then the Open Space and Agricultural Alliance (OSAA) anticipated such impact of the IEC on the nightscape at <https://www.protectsjc.com/night>, and noted:

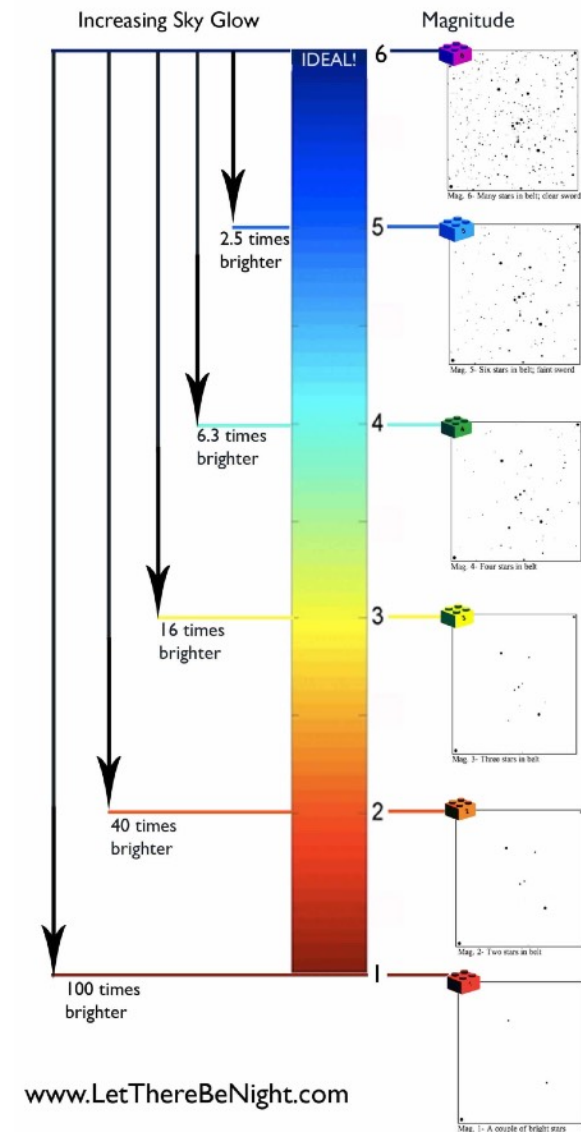
“Any development will impinge on the quality of the night sky. County building code is not sufficient by itself to dissuade bad lighting practices...The task of the community is to decide how much of its nighttime assets it is willing to denigrate for a return on its investment in the IEC mega-development...Night free of light pollution has intrinsic value.”

On July 23, 2025, I and DuRall re-visited six sites (<https://www.nightwise.org/single-post/2025-sky-survey-near-new-carlisle>). The SQM values yielded a current average of **19.81** magnitudes per square arcsecond. We also observed the limiting visual magnitude from two sites to be **magnitude=4.6** and **magnitude=4.8**.

To appreciate what limiting magnitude means, see the results from Let There Be Night (<https://www.lettherebenight.com/results.html>), a district-wide experiment by 3,400 students of the Penn-Harris-Madison School Corporation in 2009. An ideal night sky is roughly magnitude=6. Each drop in magnitude is a logarithmic loss of stars, with colored Lego® blocks representing steps of magnitude.

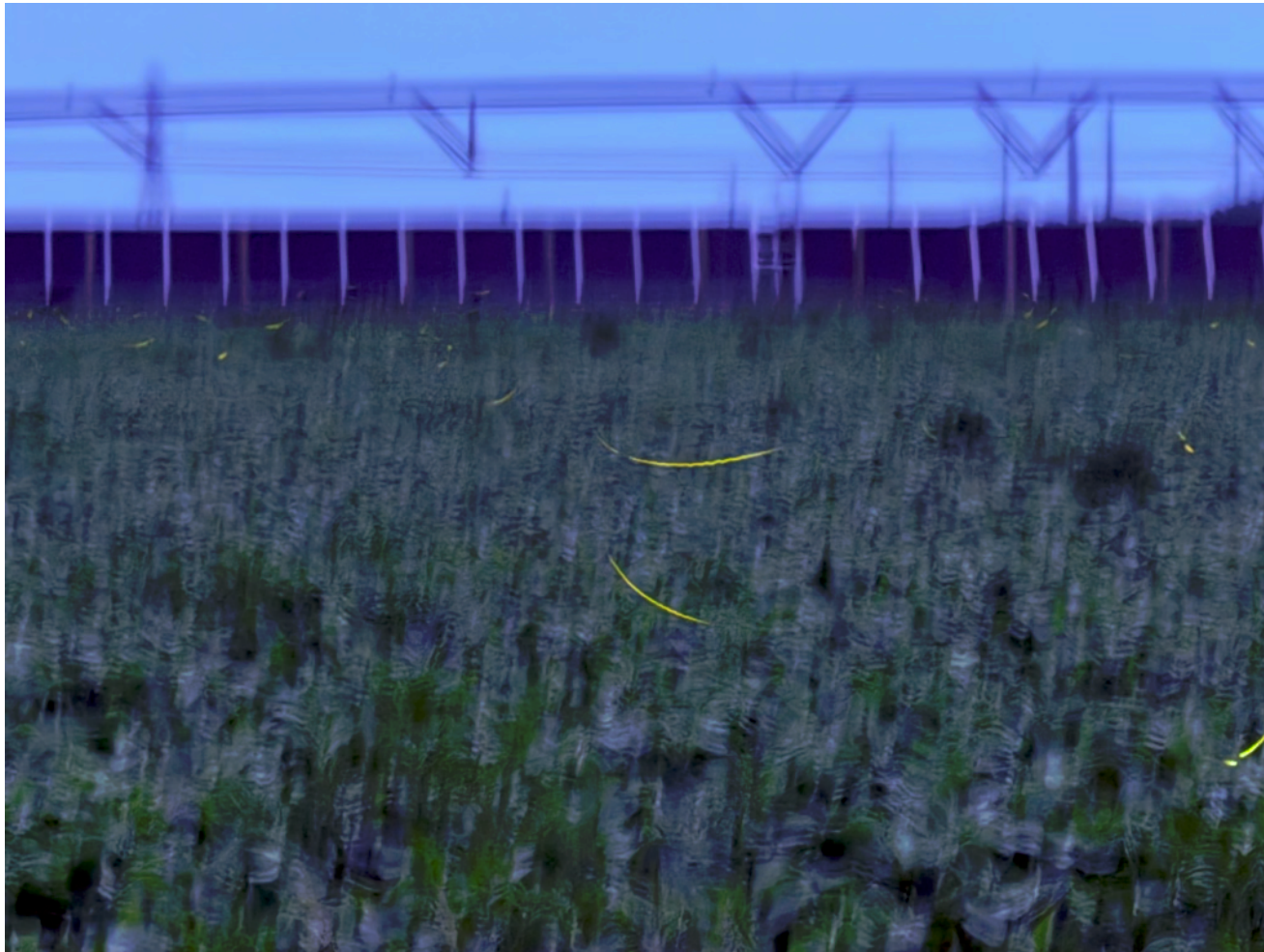
As shown in the PHM diagram using Lego® blocks, the New Carlisle sky of magnitude=4.7 is a loss of about one magnitude. That is, the sky over the IEC is around 2.5 times brighter than an ideal sky of magnitude=6. Light pollution from all sources has removed the equivalent of one of six Lego® blocks worth of darkness.

That said, the Honeysuckle Solar Project in New Carlisle is dark at night. Virtually none of the added light pollution since 2018 from new industry can be attributed to the LS-SES.



Observations

I have been an observer of and advocate for the night sky for decades, sharing some of those experiences at my website www.nightwise.org. Two nights after the SJC Council passed Ordinance 47-25 with amendments, I visited the IEC to experience first-hand the impact of a functioning LS-SSES.



At the Honeysuckle Solar Project on July 10, 2025, I observed the following after sunset:

- Outside the perimeter of the fence line were thriving crops in curving rows.
- The fence was a simple rustic design.
- The panels were set back beyond the fence.
- Inside the fence were plants that included native pollinators like coneflowers and daisy family flowers.
- The panels were arrayed with symmetry similar to the crops.
- Some of the adjustable panels were horizontal, showing their smallest profile; others were more vertical, rising about 15 feet above the ground.
- Under the panels was additional unidentified plant life.
- The land supported insects, with many fireflies in motion that smeared across my photos (above).
- The land appeared like it would be habitat capable of supporting wildlife, though I saw no animals.
- There was no smell attributable to the solar array.
- There was no noise emanating from the array.
- The entire array was dark, creating no light pollution.
- The panels were drawing no water from the aquifer below.
- The panels were mounted on removable piers that would allow a return to farmland.
- The land approaching, around, and under the array was not paved.
- The project supported agrivoltaics, with a sign indicating grazing livestock could be within the grounds, so close the gate.
- After twilight the fence and all infrastructure within were visible only with car headlights.
- The horizon above the low array was unobstructed until my line of sight reached other nearby industries.
- The roads surrounding the solar acreage were two-lane country roads.
- There was no traffic moving around or within the fence line.
- The array appeared to consume no or minimal energy at night.

- By day the array would deliver renewable energy, diversifying and strengthening the grid.
- By day the array would offset peak demand during heavy air cooling loads when solar is most productive, avoiding the costs of added capacity for ratepayers.

During the July 23, 2025, sky survey I did notice the Honeysuckle Solar Project had two negative lighting installations that it and future LS-SES could improve. The newly built electrical substation on Snowberry Rd. has unshielded floodlights that impinge on the night and should be full cutoff fixtures, as did a nearby work trailer. That said, the cumulative poor lighting from across hundreds of acres of the LS-SES footprint is almost matched by the exterior lighting of the lone SJC Highway Garage just down the street.

Nearly each of the two dozen observations cited above is a standalone quality of life feature, the very thing we all seek. Indeed, the Honeysuckle Solar Project that I observed is entirely smart and sustainable growth that benefits all SJC residents. Yet that's what Ordinance 47-25 strives to shut down by handicapping solar businesses and future solar developments.

Other Industry

Meanwhile, other industries like the data center will impact nearby property values 24 hours a day, 7 days a week, without facilitating any of these benefits. They are unsightly; closer to adjacent properties; tall and prominent above the horizon; ruinous of the night sky; paved over; barren of meaningful habitat; committing land to industrial use; extinguishing animal husbandry and traditional farming; extracting vast amounts of water from the aquifer; increasing small particulate matter from enormous energy consumption; weakening the grid with excessive demand; imposing permanent damage on the soil; and, in some industrial cases, causing noise, odors, vibrations, traffic, and other nuisances.

Yet there are no additional requirements placing financial burdens on these other types of businesses. No secret appraisals and second secret appraisals. No expensive surety bond requirements for guaranteeing property values for miles around. No means for land lease prices to be guaranteed at the level they were prior to any development announcement. No means for the investor to be rewarded when the LS-SES land bank is returned to open space and property values around it actually increase. All conducted without any appeals process.

In hours of meetings refining the County's Comprehensive Plan, I and many other volunteers and paid County staff alike raised the expectation of preserving the goodness SJC has to offer. The IPG willingly chose to impact property values when it aggressively pursued the IEC, encouraging industry in previously bucolic rural areas. County-sanctioned changes became inevitable. Legislation creating large setbacks and added screening for LS-SES—again, unlike that demanded on other industries—addressed ongoing landowner concerns about property values, which will forever be ongoing concerns whenever anyone sells property near a changed zoning area.

Conclusion

Not only are solar arrays singled out with some of the most extensive setback and screening requirements in the County, LS-SES are in fact among the least offensive opportunities that will fill County-defined zones for development. Legislation that guarantees property values in response to legitimate homeowner complaints should first address genuine offenders that impact the quality of life. Driving away solar businesses with Ordinance 47-25 denies the Vision of the APC while denying SJC residents a better future.

I encourage APC members to visit the Honeysuckle Solar Project between sunset and sunrise, look around and beyond the fence line, and prioritize the features and assets you want for at least half of our respective lifetimes.

Challenges to expanding renewable energy that come the APC's way, now and in the future, are often detrimental to the community's well being. The APC should deny Ordinance 47-25—not the quality of life that solar energy delivers.

