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To the members of the Electric Generation and Transmission Siting Board—

PUBLIC SERVICE
COMMISSION

I am writing to the Board as both a concerned member of the community of Hart County, Kentucky, and as someone who will soon be living adjacent to a major, industrial-scale solar farm project led by Thoroughbred Solar LLC., a subsidiary company of Leeward Renewable Energy of Dallas, Texas (itself a portfolio company of the investment arm of a Canadian pension fund). In my capacity as both an individual facing a profound change in his quality of life and a member of a community that is about to be fundamentally transformed, I am raising a series of objections to the project as it stands in its current form, and ask the Board to initiate further studies, public hearings, and community involvement at the soonest possible date.

It is on the latter point that we feel that Thoroughbred Solar/Leeward Energy has failed us the most, despite an impressive campaign that suggests the contrary. As people who live in immediate line of site with the project (our home will face one of the major solar farm builds), we had the profound misfortune of learning of the proposed project via a form letter issued by the company, which arrived a mere four days or so prior to the company's application filing. This, as you can imagine, was a shock—and one shared by some of our neighbors with whom we have spoken since.

We were informed by Rob Kalbouss, senior project lead, that Thoroughbred Solar/Leeward Renewable had attempted to contact us sometime in April, but were “unable to connect”. He offered that a ‘door hanger’ had been left. At around the same time, a small ad ran in the local newspaper concerning an open house that the company was hosting for a single night in downtown Munfordville.

While this allowed the company to meet its technical requirements, per state regulation, for public notification, we feel that Thoroughbred Solar/Leeward Renewable did the very bare minimum that they could possibly do, and perhaps even operated with duplicity. We have no memory of receiving any door hanger—a hanger saying that an industrial-scale solar farm would be built on the land adjacent to our property would have certainly caught our eye!—and the flier submitted by Thoroughbred Solar/Leeward Renewable in their case filings [see Public Involvement Program Report, attachment A-7] remains vague. Similarly, several neighbors with whom we have spoken also did not know about the project until the recent letter. Others who did know of the project had a totally different understanding of its scope and location.

Clearly, the company had failed to keep the general public of Hart County properly informed of its intentions in our backyards. This is further evidenced by the list of attendees for their open house [see Public Involvement Program Report, attachment A-9]. As the Board will note, a mere 13 individuals attended—13, while the population of Hart County is 18,833 persons. We feel that this cannot count as anything other than a profound failure in notifying the public, much less any ostensible ‘public involvement’.

This pattern of behavior raises an important question: why did Thoroughbred Solar/Leeward Renewable seemingly strive to keep those most impacted by the project out of the loop, right up to the point of its formal application before the Siting Board? We believe that the reason is that there are a number of troubling issues that arise when one begins to dig into the details of the company's proposed project. We hope that the Siting Board will take serious our concerns and the concerns of others in our community, and remain dedicated to fostering a culture of transparency as we all move forward into this uncertain territory. Public hearings are necessary, and are only a beginning.

In advance of such things, I would like to take time here to outline some of our most pressing concerns.

They are: impacts on property values, pollution and erosion issues connected to the region's high-risk karst geology and accompanying hydrological systems, and the efforts of Thoroughbred Solar/Leeward Renewable to have particular regulations waived.

When it comes to the impact on property values by solar energy, the usual line maintained by the solar industry is that there a 'little to no' negative value effects of the construction of industrial-scale plants on lands adjacent to residential properties. Thoroughbred Solar/Leeward Renewable holds to this narrative, arguing in documents submitted as part of their case files that the value of property and that of our neighbors will not go down. We feel, however, that the matter is at all settled, and that there are a number of important ambiguities that cannot be ignored.

A well-known analysis issued by the University of Rhode Island's Department of Environmental and Natural Resource Economics vividly illustrates this ambiguity. What they found is that between 1 and 2 miles of solar farm builds, changes in property values were found to be “statistically insignificant”—a discovery well in line with the arguments of the solar industry. Values within the range of a half-mile to a mile, however, increased. Within one-tenth of a mile, the University of Rhode Island researchers found that “property prices for homes... 7.0% (\$23,682) post-construction, compared to houses further away. These results suggest extremely large disamenities for properties in very close proximity.”

Furthermore, the researchers found that “developments on landfills and industrial areas or in rural areas have smaller and statistically insignificant effects on prices”, while “solar arrays on farm and forest lands cause greater externalities, given the dual loss of open space amenities and gain of industrial disamenities”. We should note that the study offered by Thoroughbred Solar/Leeward Renewable does not seek the level of statistical granularity that the researchers at the University of Rhode Island sought.

It is not enough to cite this particular study, due to the particular circumstances through which the study's methodology unfolds. The researcher's findings held that this 7.0% drop in property values took place in what they call 'non-rural' settings, in contrast with 'rural' settings where value changes were negligible. Importantly, the category of 'non-rural' is of the University of Rhode Island's researchers own making. The definition of rural utilized by the study “equals one if the town has a population density of 850 people per square mile or fewer”. This wasn't due to any underlying principle, and was instead motivated by the fact that the “average population density of MA [Massachusetts] , which forms the bulk of the observations in our dataset”. Non-rural, by contrast, was greater than this anchor point but less than the US Census definition of urban settings, which is bench-marked at 50,000 or more.

Translating this is the unique circumstances of Hart County, Kentucky poses a number of problems. For starters, the US Census does not deploy the category of 'non-rural', holding only 'urban' and 'rural' as its prime categories. At the same time, Census data for Rowletts—the unincorporated community closest to the solar farm project—does not exist, so we do not have on hand the necessary data to begin a comparative analysis and projection. We should note that these problems do not halt Thoroughbred Solar/Leeward Renewable's: their commissioned study cites the University of Rhode Island findings that there were no significant changes to property values in rural areas, while neglecting to mention that the definition of 'rural' used in the paper has specificities to the state of Massachusetts. We feel that this another example of the company's deceptive behavior.

Due to these types of ambiguities and uncertainties, we feel that the state should be cautious when considering Thoroughbred Solar/Leeward Renewable's property value study. At the very least, an independent study—that is, one not done by individuals who are under contract with the company—

should be carried out. We hope that such a study would strive to include the unique character of Hart County, a pursuit of statistical granularity when it comes to site distances and property value, local population densities, so on and so forth.

Our next concern deals with the issues of heavy, industrial-scale construction taking place in a landscape that is described, in the company's own commissioned report, as “high-risk karst” [see case-filing “Karst Consideration”, p. 20]. Karst is a unique geological topography that is formed by the dissolution of limestone rock, leading to complex hydrological systems, unique erosion patterns and the frequent sinkholes and caverns that have made this region famous—and have made it a significant hotbed of ecological concern. Indeed, Thorough Solar/Leeward Renewable's own study finds that there is extensive sinkhole activity within the proposed project boundaries. The study goes on to note the supreme difficulties in maintaining the project in this environment, noting that it would require “long-term maintenance and/or period replacement of foundations, solar panels, and associated infrastructure throughout the site”.

But there are more concerns that just the problems for the infrastructure of the solar itself. The karst geology has led to the development of a complex ecosystem that underpins much of the life in the region. This means that the region had particular vulnerabilities when it comes to the durability of these systems. University of Kentucky water quality assessment cites the Kentucky Division of Water, Groundwater branch as finding that Hart County “areas of moderate to high sensitivity to groundwater pollution”, with “hydrogeologic sensitivity of an area... defined as the ease and speed with which a contaminant can move into and within a groundwater system”. The Kentucky Division of Water further notes throughout this karst-dominated region, “Domestic wells are common; although in some areas contaminated water is a problem because of polluted surface runoff into sinkholes and sinking streams”.

While the solar industry presents itself as a pure, clean energy, there are number of issues that are immediately relevant to these hydrological issues. As noted by a Foundation for Economic Education report, there are a number of toxic, cancer-causing chemicals to be found in solar panels, which “include cadmium telluride, copper indium selenide, cadmium gallium (de)selenide, copper indium gallium (de)selenide, hexafluoroethane, lead, and polyvinyl fluoride”. They note that “[s]ilicon tetrachloride, a byproduct of producing crystalline silicon, is also highly toxic”. When recycled, solar panels are deemed toxic, and press reports from the past year have shown a number of growing problems, ranging from the issue of human exposure to these substances to groundwater contamination.

Beyond the issue of pollution, there is the problem of erosion. According to the Kentucky Division of Water, this region is characterized by unique erosion patterns, which are the result of the karst landscape. Industrial-scale solar has had a troubled track record when it comes to managing the erosion issues that naturally arise. For example, in 2020 the Massachusetts Attorney General's office filed a suit against energy company Dynamic Energy Solutions, LLC. Dynamic Energy, according to this suit, “caused sediment-laden stormwater to discharge in extreme amounts from the array site, eroding the hillside, scouring out perennial and intermittent streams, uprooting trees, destroying streambeds, filling in wetlands with sediment, and causing the river to become brown”. In the end, Dynamic Energy had to pay out over a million dollars to fix the ecological damage it had wreaked.

In a region identified by the Kentucky state as having a high susceptibility to groundwater pollution and unique erosion patterns, and where these same hydrological systems feed local wells and aquifers, is this truly a safe and clean alternative to our energy needs? We feel that, at the very least, more study is warranted and a public debate involving those most impacted must be had before any decisions are

made.

Finally, there is the issue of Thoroughbred Solar/Leeward Renewable's efforts to have waived KRS 278.706(2), which establishes setback requirements for the construction of industrial-scale solar projects. Per KRS 278.706(2), no solar infrastructure can be built within 2,000 of residential neighborhoods. Per Thoroughbred Solar/Leeward Renewable's own filings, three residential neighborhoods are found within the 2,000 parameters. One of these, the unincorporated community of Rowletts, falls entirely within that range.

In its public-facing persona, Thoroughbred Solar/Leeward Renewable makes zero mention of these setback requirements nor the efforts to have it waived to the public. We understand that they are not required by any sort of law to notify the public of this, but we feel that these matters are vital to a public understanding of the project. Should the people of Rowletts and other surrounding neighborhoods not be allowed to have a say in the waiver of specific regulations that affect them and their qualities of life?

It seems to us that Thoroughbred Solar/Leeward Renewable understands the untenable position that they're trying to take. On the one hand, they admit to a number of neighborhoods within the development zone, leading to their efforts to achieve a waiver. On the other hand, they seek that, in the event that this fails, to unmake the concrete status of these residential zones as neighborhoods: "In alternative, the Applicant respectfully requests a determination that no deviation is needed because one or more of these groupings does not constitute a 'residential neighborhoods'..." In short, Thoroughbred Solar/Leeward Renewable wishes to have their cake and eat it too, through legalistic sleight of hand.

We understand the problem of burdensome regulation and the way that it can choke commercial activity and economic progress. At the same time, some regulations do exist to protect the population—especially the vulnerable—from predatory behavior, from overreach, and from exploitation. We feel that Thoroughbred Solar/Leeward Energy has acted as precisely the sort of entity that regulation exists to reign in, or at least to mitigate. In the case of KRS 278.706(2), we humbly request that the Board do not grant Thoroughbred Solar/Leeward Energy the setback that they request. At the very least, please do act before the community can be educated as to what these sorts of things mean, and a public debate can be held. Such things are, after all, the foundation of civic life.

Thank you for your time,
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