BEFORE
THE OHIO POWER SITING BOARD

In the Matter of the Application of **Union Ridge Solar, LLC** for a Certificate of Environmental Compatibility and Public Need for a Solar Facility Located in Licking County, Ohio.	))))	Case No. 20-1757-EL-BGN

DIRECT TESTIMONY OF

ANDREW R. LINES

on behalf of

Union Ridge Solar, LLC

September 2, 2021

Q-1. Please state your name, title and business address.

A-1. My name is Andrew R. Lines, MAI. I am a Principal of the Valuation Advisory Services group for CohnReznick LLP. My business address is 200 S. Wacker Drive, Suite 2600, Chicago, Illinois 60606.

Q-2. What are your duties as a Principal of Valuation Advisory?

A-2. My duties as a Principal of CohnReznick LLP's Valuation Advisory group include overseeing a staff of 30 appraisers and valuation experts in all types of real estate. One of my specialty practices is property value impact studies. I have testified before numerous governmental bodies regarding proposed new developments, including solar power installations, and addressed community concerns regarding those proposed developments. I have worked on numerous redevelopment projects in multiple states, including determining values for acquisitions of property, easements and leases, and the evaluation of impacts caused by proposed projects on real estate values.

Q-3. What is your educational and professional background?

A-3. I have a B.F.A. degree from Syracuse University. I am a designated Member of the Appraisal Institute (MAI), a recognized designation by courts of law, government agencies, as well as financial institutions, with over 16 years of real estate appraisal experience. I am a Certified General Real Estate Appraiser with active licenses in the following states: Arizona, Florida, Georgia, Illinois, Indiana, Maryland, New Jersey, New York, Ohio, Kentucky, and the District of Columbia. I have performed valuations on a wide variety of real property types including single- and multi-unit residential (including Low Income Housing Tax Credit properties), student housing, office, retail, industrial, mixed-use and special purpose properties including landfills, waste transfer stations, marinas, hospitals,

universities, telecommunications facilities, data centers, self- storage facilities, racetracks, continuing care retirement communities, and railroad corridors. I am also experienced in the valuation of leasehold, leased fee, and partial interests, as well as purchase price allocations (GAAP, International Financial Reporting Standards and IRC 1060) for financial reporting. I have also completed valuations nationwide for a variety of assignments including mortgage financing, litigation, tax appeal, estate gifts, asset management, workouts, and restructuring, as well as valuation for financial reporting including purchase price allocations (ASC 805), impairment studies, and appraisals for investment company guidelines and REIS standards. I have qualified as an expert witness, providing testimony for eminent domain cases in the states of Illinois and Maryland. I have completed valuation impact studies on landfills, big box retail developments, electric power transmission lines, environmental stigma, view amenities, as well as solar farms. I have been previously accepted as an expert at zoning hearings in the states of Illinois, Indiana, Michigan, Colorado, New York, and Pennsylvania. I have also provided testimony to the Ohio Power Board for the Big Plain Solar proceeding (Case No. 19-1823-EL-BGN), and the Yellowbud Solar proceeding (Case No. 20-0972-EL-BGN).

Q-4. On whose behalf are you offering testimony?

A-4. I am testifying on behalf of the Applicant, Union Ridge Solar, LLC in support of its application filed in Case No. 20-1757-EL-BGN.

Q-5. What is the purpose of your testimony?

A-5. The purpose of my testimony is to evaluate the potential impact of the Union Ridge Solar Farm ("Project") on property values in the area surrounding the Project.

Q-6. Are you familiar with the Project?

A-6. Yes. I have reviewed, and am familiar with, the Application filed by the Applicant on March 26, 2021, and am familiar with the area in which the Project is proposed to be located.

Q-7. Are you familiar with the impact of commercial-scale solar projects on property values in the area surrounding the projects?

A-7. Yes. I have been involved in studies evaluating the potential impact of utility-scale solar projects on surrounding properties in the states of Indiana, Illinois, Michigan, Minnesota, North Carolina, New York, Georgia, Florida, Missouri and Virginia, one of the largest operational facilities being the North Star Solar plant in Minnesota, consisting of 100 MW facility on over 1,000 acres. Additionally, I have been involved in over one dozen studies evaluating the potential impact of community-sized solar farms in the states of Illinois, Indiana, Colorado, Hawaii, New York, Florida, Pennsylvania, and Missouri. For both sizes of projects, I have provided expert testimony at local zoning and county board hearings.

Q-8. Can you explain how those studies were conducted?

A-8. The purpose of the studies was to determine whether existing solar energy uses have had any measurable impact on the value of adjacent properties. In our studies, the properties adjacent to existing and established solar energy plants were researched and analyzed - focusing on rural and suburban areas with neighboring residential homes that are most comparable to the areas and adjacent uses of the proposed solar facilities. Those sales located physically contiguous to the solar farms, or the Target Group, are then compared to similar properties that are removed from any solar facility influence, referred to as the Control Group. This comparison was made in order to determine if proximity to solar energy uses results in any consistent and measurable impact on property values.

We have studied established, commercial-scale solar farms in the Midwest, Florida, Virginia, New York, and North Carolina, and their potential for impact on property values, in addition to the adjacent uses and development trends. As a part of this study, we examined other large-scale solar farms, including five solar farms in Ohio over 5 MW (three were utility scale – ranging between 10 MW and 20 MW, while two were smaller community scale projects) and in nearby states; however, they were mostly located in outlying areas or did not have sufficient adjoining sales that qualified for a paired sales analysis either due to limited sale activity or the newer age of the solar farm. The basic premise of this comparative analysis is that if there is any impact on the value of adjacent properties by virtue of their proximity to a solar energy use, it would be reflected by such factors as the range of sale prices, differences in unit sale prices, conditions of sale, and overall marketability. When comparing these factors for properties near an existing solar energy use to properties locationally removed from the solar energy use, it would be expected to see some emerging and consistent pattern of substantial difference in these comparative elements – if, in fact, there was an effect. The paired sales analysis is an effective method of determining if there is a measurable and consistent detrimental impact on surrounding properties and has been recognized as so by Randall Bell, PhD, MAI, author of the text Real Estate Damages, Third Edition, published by the Appraisal Institute in 2016. As an approved method, this technique can be utilized to extract the effect of a single characteristic on value, such as proximity to an existing solar energy use. By definition, paired data analysis is "a quantitative technique used to identify and measure adjustments to the sale prices or rents of comparable properties; to apply this technique, sales or rental data on nearly identical properties is analyzed to isolate a single

characteristic's effect on value or rent." The difference in sale price is considered to be the impact of the proximity to the solar farm. For each existing solar energy use studied, we have identified Test Area Sales (sales adjacent to existing solar energy uses that occurred after announcement and subsequent development of the solar farm) and have compared those to Control Area Sales (sales of comparable properties that are removed from the influence of a solar energy use) that occurred within a reasonable time frame of the Test Area Sales, adjusted to a common date utilizing a Trend Analysis.

Ownership and sales history for each adjoining property to an existing solar farm is maintained within our workfile through the effective date of the study. Adjoining properties with no sales data or that sold prior to the announcement of the solar farm were excluded from further analysis. Adjoining properties that sold in a non-arm's length transaction (such as a transaction between related parties, bank-owned transaction, or between adjacent owners) were excluded from analysis as these are not considered to be reflective of market price levels. The adjoining properties that remained after exclusions were considered for a paired sale analysis (Test Area Sales). We have found Control Area Sales data through the local Multiple Listing Service (MLS) and other real estate broker databases and verified these sales through county records, conversations with brokers, the individual county's GIS services, and the County Assessor's office. It is important to note that these Control Area Sales are not adjoining to any solar farm, nor do they have a view of a solar farm from the property. Therefore, neither the announcement nor the completion of the solar farm use could have impacted the sales price of these properties. To make direct comparisons, the sale prices of the Control Area Sales were adjusted for market conditions to a common date. In this analysis, the common date is the date (or median sale

date) of the Test Area Sales. After adjustment, any measurable difference between the sale prices would be indicative of a possible price impact of the solar farm, if any.

In addition to our research and analysis of existing solar energy facilities, we have reviewed property value trends of the adjacent land uses, including agricultural, single-family and residential properties; reviewed published studies, and held discussions with market participants (real estate assessors and brokers).

Q-9. And what were the results of the studies you conducted?

A-9. Based upon examination, research, and analyses of existing solar energy uses, the surrounding areas, and an extensive market database, we concluded that no consistent and measurable negative impact had occurred to adjacent property that could be attributed to proximity to the adjacent, commercial-scale, solar energy use, with regard to unit sale prices or other influential market indicators such as marketing time. In addition, interviews with market participants (local real estate assessors and brokers) were conducted to give additional insight as to how the market evaluates farm land and single-family homes that are proximate to solar energy uses. These interviews reaffirmed that there was no difference in price, marketing periods or demand for property directly adjacent to existing solar energy uses when compared to similar properties locationally removed from any solar energy use's influence. This conclusion has been confirmed by numerous county assessors who have also investigated this use's potential impact.

Q-10. Are there any existing or under construction solar projects in Ohio over 100 MW?

A-10. Other than the following, there are no existing solar projects in Ohio over 100 MW. There are 7 unique solar power generation facilities that are planned for construction in Ohio, according to the EIA, that will produce 1,066 MW of power when in service, as of

December 2020 information, ranging from 46 MW to 300 MW. Two projects in Ohio currently under construction are the 320 MW Hardin Solar Energy project (two phases) being developed by Invenergy and the 200 MW Hillcrest Solar project being developed by Innergex. The first phase (150 MW) of the Hardin Solar Energy project was placed in operation earlier this year in 2021; however, due to its recent completion date, there are no sales that sold after its completion that can be analyzed in a paired sale analysis. For Hillcrest Solar, which is still under construction to my knowledge, there were approximately three home sales adjacent to the project boundary that sold between late January 2020 (start of construction) and the date of my written testimony. Each of these sales sold during normal marketing time of 30-90 days on market and sold at list to sale price discounts of -2.2% to 12.6% (above list). It does not appear that the Hillcrest Solar project has had an impact on property values in the local area.

Q-11. Is there any reason to expect that the conclusions of the studies you previously conducted would be different from a study evaluating the impact of the Project?

A-11. No.

Q-12. What is your overall assessment of the potential impacts of the Project on property values?

A-12. Based on my experience with other commercial solar projects and my familiarity with the Union Ridge Solar Farm, as well as the results of the valuation study conducted, I would not expect the Project to be the cause of a decrease in property values in the project area. Specifically, my conclusion is supported by my experience on the North Star solar project in Minnesota, a comparably-sized solar project which has caused no decrease in property values. I note that our results on the North Star solar project were also corroborated by the

local county assessor who conducted their own study of properties that were adjacent to the existing solar array, and over a two-year period were found to have suffered no negative impact on their respective property values, further, all of the studied properties were found to be appreciating at a rate consistent with the rest of the county. The assessor presented this study in front of the Chisago County Board.

Q-13. Does this conclude your direct testimony?

A-13. Yes, it does. However, I reserve the right to offer supplemental testimony if necessary.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing Testimony was served upon the parties of record listed below this 2nd day of September 2021 *via* electronic mail.

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Summary: Testimony of Andrew R. Lines on behalf of Union Ridge Solar, LLC electronically filed by Teresa Orahood on behalf of Dylan F. Borchers