

Kingwood Solar FAQs

About Vesper Energy (formerly Lendlease Energy Development)

1. How can we find out more about Vesper Energy?
 - You can learn more about Vesper Energy at our website (vesperenergy.com) as well as the Kingwood Solar website (www.kingwoodsolar.com). You can also contact John Soininen at john.soininen@vesperenergy.com with any specific questions.
2. The EKPC Solar project that Lendlease/Vesper developed in KY is very small and not at all comparable in scale to Kingwood. What are the largest and average size of projects you have developed in the Midwest?
 - Vesper has commercialized approximately 700 megawatts (MWs) of solar projects over the last 5 years. Vesper does not have any operating projects in the Midwest. The 160 MW Rancho Seco II solar project in Sacramento CA is on approximately 530 acres and currently under construction. Vesper is currently developing projects ranging from 20 to 400 MWs and has gained approval for construction of the 80 MW Nestlewood project, which will be located on approximately 500 acres in Brown and Clermont Counties in Ohio.
3. Who owns/operates the 160 MW project Vesper developed in California?
 - Rancho Seco II is now owned by D.E. Shaw, a global infrastructure corporation. The power generated is sold under a long term agreement with the Sacramento Municipal Utility District.

Project Location & Site Selection

1. How does Ohio compare to the rest of the U.S. on the NREL scale?
 - www.nrel.gov/gis/assets/images/solar-annual-ghi-2018-usa-scale-01.jpg
2. How was this area specifically selected? Were other sites evaluated?
 - Yes, multiple sites throughout this region were considered, and this project area was selected due to the constructability of the land, willingness of landowners, and proximity to the existing transmission infrastructure.
3. Why, out of the 13 states in PJM, did you choose Greene County for a solar project?
 - The project site was chosen because of the existing transmission infrastructure with additional available capacity, developable land owned by interested landowners and the continuously growing demand for renewable energy in Ohio.

4. Why does Kingwood Solar want to use productive farmland? Why not non producing land?
 - Kingwood Solar needs to work with willing landowners, proximate to existing infrastructure on land that is economically developable. Significant increases in site preparation and construction costs can make a project economically unfeasible.
5. Have you considered siting this project on brownfields, rooftops or industrial zoned land instead of some of the best farmland in the country?
 - Vesper Energy does not do rooftop installations but is actively seeking additional development opportunities. Please feel free to recommend locations or specific landowners to Vesper Energy via email at john.soininen@vesperenergy.com .
6. How does the transfer of land ownership affect the leases? (e.g., if land is purchased that is already under lease what happens?)
 - Leases run with the land so the rights, privileges and obligations of the Lessee would transfer along with the title to the property.
7. Do you plan to acquire any more land for the project, or have you acquired all the land and easements needed for the project?
 - The project area has been finalized and Kingwood Solar does not anticipate acquiring any more land for this project.
8. Why did you not purchase the land instead of leasing?
 - Leasing land reduces the up-front capital needed for the project and the landowners were not interested in selling their property so in this instance a lease worked best. Vesper has purchased property for other projects so it can work either way.
9. How long is Vesper/Kingwood Solar committed to holding the leases that they have signed? Will you sell them off once you get your project built?
 - Kingwood Solar intends to own/operate this solar facility. Like any power generation facility, home or other piece of property, it is always possible that the ownership may change in the future. Similarly, a landowner may sell their property at any time.
10. What is the likelihood of this land being converted back to ag when the panels are no longer efficient?
 - The land will be returned back to landowners in essentially the same condition it is in today and it will be up to the landowners to determine how to utilize the land thereafter.
11. What do you say to the farmers who are going to lose work because the 1500 acres are being removed from agricultural production?

- Vesper and Kingwood Solar hope this project will be a valuable contribution to the community and economic development of Greene County and that the project creates or benefits more jobs than it negatively impacts.

Project Development & Permitting Process

1. On your Kingwood website, you refer to the project as Kingwood I. Does this mean there will be a Kingwood II? Do you intend to extend this energy plant into Clark County?
 - Kingwood Solar I LLC is the legal name of the project company. There are no plans for a phase II, and this Project is planned to remain only in Greene County. A second project would require a multi-year electrical interconnection process and the existing transmission line does not have any significant additional capacity.
2. Who holds Kingwood Solar accountable?
 - In order to build an energy project in Ohio greater than 50 MWs a developer must obtain a Certificate of Environmental Compatibility and Public Need (Certificate) from the Ohio Power Siting Board (OPSB). Any OPSB Certificate contains stipulations and conditions that require compliance and oversight by OPSB staff so the OPSB has the legal authority and ability to hold Kingwood Solar accountable to any conditions of the Certificate and/or the policies and requirements of other relevant state and local agencies.
3. Where is Kingwood Solar in the permit process?
 - Kingwood Solar is currently conducting environmental, cultural and other resource studies within the project area with the intention of submitting a formal application in the Spring of 2021.
4. When will Kingwood Solar be requesting the pre-application conference?
 - Kingwood Solar participated in a pre-application conference with the OPSB on January 21st, 2021.
5. Do we have access to all the studies and documents presented to OPSB?
 - The OPSB is a state agency and conducts a transparent process. All documents are publicly available unless the developer requests confidential status for proprietary financial or other highly sensitive information.
6. When was the PJM interconnection application submitted?
 - Kingwood Solar submitted its interconnection application to PJM in the Fall of 2017.
7. How is this proposed on land zoned agricultural?

- In Ohio all energy generating projects greater than 50 Megawatts are reviewed and certificated at the state level by the OPSB (and not at the local level)

Economic Benefits & Community Impact

1. How will Kingwood Solar benefit the local area?
 - At 175 MWs, operating under a PILOT, Kingwood Solar will pay more than \$1.5 million in taxes every year for the life of the project while requiring essentially no municipal services. That is a great form of economic development for the region. Please visit our website or review the presentation located at: <https://www.kingwoodsolar.com/kingwood-solar> for additional information on economic benefits.
2. How does Kingwood benefit from the PILOT program?
 - The PILOT program sets fixed, predictable tax payments for the life of the project, which provides certainty for the project and the community. Energy property taxation in Ohio is otherwise based on the fact that energy generation equipment is a depreciating asset, so tax revenue/payments start out high and decline over time. Fixed payments are vastly preferable for project finance purposes, and we believe more beneficial for the community and all involved.
3. I hear that the power produced will be sold to the east coast. Is that true?
 - The power is not being transmitted to the east coast. A fortune 50 company with a considerable footprint in Ohio will be procuring all the power from the facility.
4. How much of the electricity from Kingwood Solar will be supplied to Greene County?
 - 100% of the output from the Kingwood Solar Project will be supplied on to the electrical transmission system in Greene County. The electrons will flow from the generator, through the 138kV transmission lines, to the closest electrically connected load in First Energy's transmission and distribution system. The buyer of the power is actually just paying for the capacity and availability of this power to be supplied to the transmission system, not the specific electrons generated. Clean energy developed locally will be used locally, promote grid stability and contribute to a cleaner, lower carbon, domestic energy portfolio.
5. How many people are employed for a project like Kingwood Solar?
 - Kingwood Solar will create +/- 300 construction jobs and 80% of those jobs will be filled by Ohioans. The project will create approximately 5, well paying, permanent, full-time job equivalents for the life of the project. There will also be

supplier and contractor opportunities and the project will support regional manufacturing and fabrication.

6. It is estimated that property values of area homes will decrease 40%. Please comment.
 - This is simply not true. Numerous, peer reviewed, studies have demonstrated that solar farms located in rural areas have no statistically significant impact on area home values. Conversely, solar projects that contribute significantly to the local tax base have been demonstrated to reduce real estate taxes within the taxing jurisdiction making those areas more desirable and arguably increasing property values.
7. Who will compensate us for the loss in value of our property and possible well contamination?
 - We are not aware of any studies indicating the likelihood of a loss in property value or well contamination as a result of the development of a solar project so compensation has not been contemplated for these purposes. If you are interested in receiving financial assistance from Kingwood Solar to facilitate planting vegetative screening on your property that abuts the project or to discuss other property specific concerns, please email john.soininen@vesperenergy.com or call (617) 448-1318 to discuss this further.
8. Who did the property value study referenced in the Kingwood Solar presentation conducted in October?
 - The study referenced in the presentation was conducted by the University of Rhode Island.
9. When sold to electric utilities on the PJM grid, will this "clean" energy be less expensive when sold on the wholesale market vs other energy on the market?
 - Solar power has been proven to generate power at a lesser cost than most other power generating technologies on the market today.
10. How many are you putting out of work with this project?
 - Kingwood Solar does not intend to eliminate any local jobs.

Solar Panel Technology and Project Equipment

1. Are there toxic materials in the solar panels?
 - 80% of a solar panel by weight is comprised of glass and aluminum which are readily recycled commodities. Copper, silver and semiconductor materials make up the majority of the rest of a panel. Some panels may contain lead or other heavy metals, however, the concentrations of those materials are very small and those materials are sealed in to the panel using laminated glass and a back sheet

(or second layer of laminated glass) so they cannot readily leach out of a panel. Tommy Cleveland's 2017 White Paper published by the North Carolina Clean Energy Technology Center titled "Health and Safety Impacts of Solar Photovoltaics" details why toxicity of solar panels is not a serious concern.

<https://nccleantech.ncsu.edu/wp-content/uploads/2019/10/Health-and-Safety-Impacts-of-Solar-Photovoltaics-PV.pdf>)

2. What is the life expectancy of a solar panel?
 - Solar panels are typically warranted for 25-30 years, but they can last for 35 years or more. Panels degrade over time and produce less energy every year so they will typically be replaced after 25-30 years.
3. How do solar panels hold up to tornadoes and large hail?
 - Solar panel arrays are typically designed to withstand hurricane force winds. Nothing stands up well to tornadoes, that is why we have insurance. The Kingwood Solar project will employ single axis tracking technology that allows the panels to tilt from approximately 60 degrees east of horizontal to 60 degrees west of horizontal to maximize energy generation throughout the day. That system, in the event of a hailstorm, can rotate the panels to the "full tilt" position 60 degrees off of horizontal. That results in hail stones creating a glancing blow as opposed to a "direct" (perpendicular) hit. These glancing blows dramatically reduce damage to solar panels from hail stones.
4. Where are the electronic components sourced?
 - Solar panels and the associated inverters and transformers are global commodities manufactured and made available around the world. The equipment used for this project will be competitively procured from various "Tier-1" suppliers capable of providing sufficient, credible, warranties to enable the project to be financed. Decisions on specific suppliers will not be made until after the project receives an OPSB certificate and final engineering can be completed.
5. How are panels disposed of?
 - Solar panels are recycled. 80 percent of their weight is comprised of glass and aluminum which are readily recycled commodities. Copper, silver and semiconductor materials can also be successfully recovered and reused.
6. Where are panels disposed?
 - The Solar Energy Industries Association has a national recycling partner network which First Solar, an Ohio solar panel manufacturer, is a member of. Recycled solar panels provide the raw materials necessary to manufacture new solar panels.

7. What about glare from the panels?
 - Solar panels are designed to absorb sunlight, not reflect it, however, it is certainly possible that at certain times in certain locations glare may occur. A visual impact study will be conducted during the development process and any areas identified as potentially problematic will be closely evaluated and efforts made to mitigate those impacts.
8. Do these panels affect cellular signals and tv?
 - No, they do not.
9. What are the health risks from EMF or radiation from the substations?
 - Thousands of electrical substations operate around the world every day. Kingwood solar is not aware of any specific health risks associated with substations. As stated in Tommy Cleveland's 2017 White Paper published by the North Carolina Clean Energy Technology Center titled "Health and Safety Impacts of Solar Photovoltaics", "*...the overall impact of Solar development on human health is overwhelmingly positive.*"
10. You mentioned that fossil fuel plants are retiring. How will that happen if fossil fuels are still required to power the factories that produce the supplies for your so-called progress?
 - Many conventional (i.e., thermal) power generators are reaching the end of their functional lifespan and becoming uneconomic to operate and maintain because renewable facilities such as Kingwood Solar can produce electricity more efficiently and cost effectively. So, while energy is required to produce and transports equipment, fossil fuels are not and that is why you are seeing a shift to more clean energy production.

Project Construction & Facility Operation

1. Who is the contractor scheduled to build this 'solar farm'?
 - The construction contractor for this project has not yet been selected. Kingwood Solar will seek competitive proposals from qualified contractors after the project obtains its permits.
2. What happens if this company goes bankrupt in 10 years? Who is responsible for the clean-up?
 - Kingwood Solar will be responsible for decommissioning the facility once it stops commercial operation. Kingwood Solar will provide decommissioning funding assurance in the form of a letter of credit or a bond.
3. Are power lines to inverters above ground or buried?

- Kingwood solar will likely have buried and above ground electrical lines. The final electrical engineering design for the project will not be completed until just before construction starts as technology is changing very rapidly.
4. How many substations will be included in this project and where will they be?
 - Kingwood Solar will have one switchyard, as required and ultimately owned by the transmission owner, adjacent to the existing Clark-Greene 138kV transmission line in the northeastern portion of the project area. The project's substation will be located adjacent to the switchyard.
 5. What are the decibel levels of the equipment used in a solar facility?
 - Kingwood Solar will conduct a project specific acoustical assessment as part of the OPSB application process. The typical equipment in a solar facility generally does not exceed 65 decibels, similar to the sound emissions of a larger residential air conditioner.
 6. Do you place the noise generating equipment (transformers or power transmitting equipment) away from residential property?
 - Yes. Vesper typically does not locate substations or inverters within 100 feet of non-participating landowners to ensure sound levels dissipate to acceptable levels at the exterior of area homes.
 7. How close are residential homes to the sound "hotspots" in your projects?
 - Vesper typically does not locate substations or inverters within 100 feet of non-participating landowners to ensure sound levels dissipate to acceptable levels at the exterior of area homes.
 8. How long are the steel piles and how far are they driven into the ground?
 - Depending on the geotechnical properties of the ground, steel piles are typically driven 4-10 feet down into the soil using standard pile driving equipment.
 9. What if your pilings damage existing field drainage tiles?
 - The primary objective is to avoid damaging drainage tiles, and the construction contractors use sonar and/or ground penetrating radar to facilitate this effort. If drainage tiles are damaged it will be the project's responsibility to repair them.
 10. If these pilings are driven into the ground, how do you know if you hit an existing old field tile still flowing water?
 - Drain tiles create underground voids to allow for water to flow or drain from the site. If the pile driver encounters an underground void of any significance it will be obvious to the equipment operator. The pile will be relocated and the drain tile will be excavated and repaired.
 11. How long does it take for the steel pylons to be inserted into the ground? How loud will this be?

- The construction process in total will be 12-18 months, but a detailed construction schedule for the project has not yet been developed. Each pile takes about 1 minute to drive. Construction will only take place during approved working hours. An example of the pile driving process can be seen in a video here: <https://www.youtube.com/watch?v=2XDYa4UaPrk>
12. Will there be wildflowers covering the ground during the growing season?
- Prior to commencing construction of the solar array areas, the project site will be planted with pollinator friendly vegetation that consist of native grasses and wildflowers specifically tailored to the site to establish a native, pollinator friendly meadow.
13. What are your plans to use visual barriers for the benefit of residents whose property adjoins the project?
- Kingwood Solar will provide vegetative screening to mitigate potential visual impacts for neighbors of the project.
14. Will trees be planted between this project and adjacent properties?
- Kingwood Solar will provide vegetative screening in certain areas around the perimeter of the project. If you are interested in receiving financial assistance from Kingwood Solar to facilitate planting vegetative screening on your property that abuts the project, please email john.soininen@vesperenergy.com or call (617) 448-1318 to discuss this further.
15. Will you plant vegetative screening along all the roadsides?
- No. Vegetative screening will be planted in areas where it is determined the visual impact of the project would have a significant effect on neighboring landowners.
16. Who maintains the vegetative screening?
- Kingwood Solar is responsible for maintaining the vegetation across the entire project area.
17. How tall/mature will the screening be at the beginning of the project?
- The vegetative screening is intended to be in a mature state with a height of 10-15' in approximately 8 years after planting.
18. Are you going to employ local arborists to maintain the plantings to achieve these 3-5 year growth plans?
- Landscaping and vegetation management will be overseen by Kingwood Solar and most likely outsourced to a local company to provide labor and local expertise.
19. Can you guarantee the screening as seen on your photo in Tate & Clark Township (Nestlewood Solar) will be used here?

- Kingwood Solar has committed to providing vegetative screening in certain locations around the perimeter of the project. The specifics of this will be detailed and documented during the permitting process. If you would like to share a specific request or better understand the project's commitment, please email john.soininen@vesperenergy.com or call (617) 448-1318 to discuss this further.
20. Regarding Tate & Clark Townships, how long did it take the trees to look like this?
- The images of the Nestlewood vegetative screening are artists renderings. They are not real photos. The vegetative screening is intended to be in a mature state with a height of 10-15' in approximately 8 years after planting.
21. How far from the property line of the project parcels will the fence barrier and the vegetated buffer be located?
- This will vary throughout the project area. In all instances they will be located on the private property of the participating landowners, outside of easements and right-of-ways for roads and utilities in accordance with applicable regulations.
22. How do you keep down the weeds?
- A native pollinator friendly meadow is designed to create a robust vegetative cover that is not conducive to weed growth. Vegetation management will be contracted locally during the project lifecycle and may include grazing and/or mechanical management. Use of herbicides will be limited and likely less than what is currently used for the ongoing agricultural purposes.
23. What is Kingwood Solar doing to mitigate for potential damage from natural disasters?
- This solar facility will be subject to potential damage from natural disasters just like everything else in the area, however, precautions are certainly being taken. Equipment will be located outside of flood plains, racking systems are designed to withstand extreme wind events and the single axis tracking system will default to the full tilt position in the event of forecasted hail events. Kingwood Solar will have comprehensive insurance covering extreme weather events and any related damage to the facility.
24. Who is responsible for decommissioning and cleaning up?
- The Project Owner is responsible for decommissioning the facility once it stops commercial operation. As part of the permitting process the Owner will provide decommissioning funding assurance in the form of a letter of credit or a bond.
25. Can you guarantee the land will be restored to its original level of productivity and how?
- No. The landowners are under no obligation to return their property to agricultural production, however, conventional wisdom suggests that land that is allowed to lay fallow for some period of time will result in improved yields in the

future. Establishing the area as a pollinator friendly native meadow has been documented to have numerous ecosystem benefits and NREL is currently conducting studies on this subject.

(<https://www.nrel.gov/news/features/2019/beneath-solar-panels-the-seeds-of-opportunity-sprout.html>)

26. Will the decommissioning bond be fully funded up front?

- Kingwood Solar will hire a professional engineer registered in the state of Ohio to estimate the cost of decommissioning the facility. That estimate will be updated every 5 years. If or when the decommissioning cost exceeds the salvage/recycling value of the equipment then decommissioning funding assurance (a bond or letter of credit) will be put in place for the net cost of decommissioning the facility.

27. How much property is set aside to buffer our property from the effects of the solar panels (heat island temperature increases, water contamination, weed control chemicals)?

- Setbacks from property lines will vary throughout the project area. In all instances solar panels will be located on the private property of the participating landowners, outside of easements and right-of-ways for roads and utilities in accordance with applicable regulations.

28. Will substations be located near homes?

- The project switchyard has not yet been engineered and its final location is subject to approval by the transmission system owner so we do not yet have a precise location, but it will be located adjacent to the existing transmission line in the northeastern portion of the project area. The project's substation will be located adjacent to the switchyard and sited so as to minimize sound impacts to adjacent residential properties.

29. Some locations within the project area flood every spring with between 4 and 5 foot of water for about a week. How is this handled?

- The environmental studies and risk assessments conducted during the development process identify flood plains and detailed engineering analyses of every watershed within the project area are conducted as part of the stormwater permitting process. Equipment is not located in flood plains and panels are raised up off the ground by several feet so limited amounts of standing water is not a concern. Inverters and transformers are located on higher ground to ensure they are not subject to water damage.

30. What measures do you put in place other than vegetation to lower noise and visual pollution?

- The project will be laid out and equipment sited so as to minimize visual and acoustic impacts to neighbors.
31. What about lights around the facility? Security measures like cameras?
- There are typically very few, if any, lights around a solar facility; just what is required for safety. The entire facility will be fenced and gated. Cameras will be used in select locations. The switchyard will be owned and managed by the transmission owner so lighting and security for that facility will be managed in accordance with their standard practices.
32. Realistically, how much vegetation control is herbicides and how much is mowing?
- Kingwood Solar has committed to establishing the site as a pollinator friendly meadow which will consist of slow-growth native grasses and pollinator friendly native wildflower and other native plants. This is being done in part to reduce maintenance requirements. Mowing will be done as necessary but is anticipated to be 1-3 times per year. The use of herbicide across the project area will in all likelihood be considerably less than what it is today.
33. Is there any additional training to local Fire Departments needed if there is an emergency at the facility, such as fire, hail etc.?
- A comprehensive emergency management plan is developed prior to construction, working closely with the local emergency response teams.

Environmental Impact and Mitigation

1. How do you control the water run-off from the solar panels?
 - Should the project receive a Certificate from the OPSB it will then need to obtain all necessary stormwater management permits from the Ohio EPA and US Army Corp of Engineers based on a comprehensive site design that includes stormwater best management practices to address any calculated increase in rates and volumes of runoff within every watershed in which the project is located. This is standard engineering practice for all significant land development projects within the state.
2. Because of the toxins in the solar panels and our extreme weather, can you guarantee that our wells will not be contaminated?
 - We can guarantee that your wells will not be contaminated by the Kingwood Solar Project. Tommy Cleveland's 2017 White Paper published by the North Carolina Clean Energy Technology Center titled "Health and Safety Impacts of Solar Photovoltaics" details why this is not a serious concern.
(<https://nccleantech.ncsu.edu/wp-content/uploads/2019/10/Health-and-Safety-Impacts-of-Solar-Photovoltaics-PV.pdf>)

3. How much data is available concerning leaching of heavy metals into the environment considering this is a newer large-scale technology?
 - Tommy Cleveland's 2017 White Paper published by the North Carolina Clean Energy Technology Center titled "Health and Safety Impacts of Solar Photovoltaics" details why toxicity of solar panels is not a serious concern. (<https://nccleantech.ncsu.edu/wp-content/uploads/2019/10/Health-and-Safety-Impacts-of-Solar-Photovoltaics-PV.pdf>)
4. How will runoff be monitored under the NPDES permit for all adjacent waterways?
 - Ohio EPA permits require that the permittee shall assign "qualified inspection personnel" to conduct inspections where "qualified inspection personnel" means a person knowledgeable in the principals and practices of erosion and sediment controls, who possesses the skills to assess all the conditions at the construction site that could impact stormwater quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of stormwater discharges from the construction activity. Further any issues identified during the inspections must be addressed in the standard timeframes detailed in the permit.
5. Will your insurance cover damage to my health if panels leak chemicals into my water system?
 - Tommy Cleveland's 2017 White Paper published by the North Carolina Clean Energy Technology Center titled "Health and Safety Impacts of Solar Photovoltaics" details why toxicity of solar panels is not a serious concern. (<https://nccleantech.ncsu.edu/wp-content/uploads/2019/10/Health-and-Safety-Impacts-of-Solar-Photovoltaics-PV.pdf>)
6. Will a water source be necessary and, if so, where will that water source come from?
 - Water is necessary for the construction and operation of a solar farm. That water will be sourced from a well(s) located on one or more of the leased properties or brought in by truck.
7. We have a lot of wildlife in our area. What is the impact on them?
 - As indicated above there are likely to be numerous beneficial impacts to the ecosystem as a result of establishing the site as a pollinator friendly native meadow. In terms of negative impacts, Kingwood Solar has consulted with ODNR to ensure there will be no significant impacts to rare, threatened or endangered species or their habitats. Kingwood Solar will continue to consult with all relevant state and federal agencies throughout the permitting process to eliminate and/or mitigate potential impacts to species of concern.
8. Are corridors for wildlife going to be included in the fenced areas/Project acres?

- Fencing is required by the National Electric Code to protect humans and animals. Landowners use fences for many different reasons and wildlife can move freely around the fenced areas.
9. Do the environmental studies consider endangered species' hunting grounds being destroyed by this industrial complex?
- Yes. Project environmental studies evaluate and consider all critical habitat for rare, threatened and endangered species, however, agricultural land is not typically considered critical habitat as it is neither natural or unique.