

The Village at Orchard Ridge is going solar

Orchard Ridge is excited to announce a solar partnership with DSD Renewables to develop, construct and operate an 1,844.7kW ground mount project.

This project is expected to start construction at the end of Spring of 2022 and reach completion by end of the year.

DSD

This project is expected to generate 2,386,744 kWh of clean renewable energy in the first year equivalent to:

- 1,864 tons of CO2 avoided
- 364 cars off the street
- 2,002 acres of forest preserved
- 190,328 gallons of gasoline avoided
- 73,215 trash bags of waste recycled instead of landfill



Shenandoah Valley Electric Cooperative

How Solar Energy at Orchard Ridge will work:



In addition to the solar project, DSD is also installing up to four dual EV Charging Stations in Orchard Ridge parking lot areas.

The chargers are single pedestal, dual plug units that will be located to allow both residents and visitors to charge their electric vehicles. One station will be in the service area enabling Orchard Ridge to electrify its own fleet and cut fossil fuel emissions and costs. Other stations are planned for the Village Center and outside the Engage Center.







The Village at Orchard Ridge **Solar Project FAQ**

How big is the system, and how much power does it generate?

The size of the solar ground mount system is 1,844.7kW, located on about seven acres of property that has limited use for The Village at Orchard Ridge. This project is expected to generate 2,386,744 kWh of clean, renewable energy in the first year, equivalent to 1,864 tons of CO2 avoided, 364 cars off the street, and 2,002 acres of forest preserved.

How do you know if the solar system is producing the amount of power it should be?

DSD has an in-house Asset Management team that continuously monitors all systems we own and operate and can mobilize personnel to correct any problems.

How much does it cost, and who owns it?

There is no upfront cost to Orchard Ridge to have the solar project installed. DSD Renewables will finance, develop, construct, own and operate the system. Orchard Ridge will pay DSD for the energy used from the solar system. The initial term is 25 years, but Orchard Ridge has the option to purchase the system as soon as year eight or other times during the term if they wish to own the system themselves.

Are we selling power from the system back to the grid?

If the system produces more than The Village at Orchard Ridge Orchard Ridge doing solar? consumes at certain periods during the day, extra power will be exported to the Shenandoah Valley Electric Cooperative (SVEC) Orchard Ridge desires to be good stewards of the planet and grid and credited against future consumption by Orchard Ridge, a responsibly resource its energy. Having this solar project is a process known as Net Metering. visible and economically viable way to do so.

How does the solar power connect to The Village at Orchard Ridge?

The energy generated by the solar project will be connected to the two main SVEC circuits that feed the community. All electrical equipment is provided by DSD Renewables in compliance with SVEC rules and requirements.

Is it safe for people and wildlife (especially deer) to walk through that area? Will I get electrocuted if I accidentally touch a module?

There will be security fencing installed around the entire array once construction is complete. The system is properly grounded and conforms to current codes, so there is no risk to people or wildlife from touching a module.

Will there be any glare/reflection from the solar modules visible from my apartment? Can I even see the system from my apartment?

There will be no glare from the solar panels. By design, solar modules absorb rather than reflect light to convert it to electricity. In addition, due to the distance of the project site from The Village at Orchard Ridge buildings and significant tree coverage in the area, the system will not easily be visible. DSD received an FAA determination of no hazard for glare affecting passing aircraft during the development process.

Will there be an audible hum or noise from the solar system?

As with any piece of utility electrical equipment, there can be an audible hum when close to transformers, which follow codes regulations.

Can the system be damaged by high wind, hail or snow? How do you keep it clean from dirt and bird droppings?

The system is designed to withstand regional wind and snow loads and meet module hail impact test requirements. Dirt and bird droppings usually wash off with rain, and our Operations and Maintenance team takes care of preventative and emergency maintenance.

How long will it take to build it? When will it generate power?

The project is expected to be completed and deliver power to Orchard Ridge at the end of 2022.

How long will the system operate, and what happens to it when it's no longer useful?

The system design life is 35 years, with solar modules carrying a 25-year warranty. At the end of the 25-year initial term, if DSD still owns the system, it may offer to sell it to Orchard Ridge, renew the power purchase agreement or decommission and remove the system.

Do you know if anyone else in the Valley is doing similar solar projects?

Virginia is relatively a new market for solar, but there are other companies in the area taking advantage of the technology, such as Winchester Medical Center, Shenandoah University and a solar farm in Clarke County. We anticipate many more companies adopting solar in the near future.

How does Orchard Ridge benefit from the system, and why is

Where will the EV charging stations be located, are there enough for everyone to use and is the power "free" to charge my car?

Up to four charging stations have been considered for installation at Orchard Ridge. Chargers are single pedestal, dual plug units that will be located to allow both residents and visitors to charge their electric vehicles. The residents will be charged a TBD rate/ kWh for electricity consumed to recharge personal use vehicles. One station will be in the service area enabling Orchard Ridge to electrify its own fleet and cut fossil fuel emissions and costs. Other stations are planned for the Village Center and outside the Engage Center.

Can I take my family or grandkids over to see it?

Yes, once construction is done, we invite folks to see the system if you keep out of the securely fenced area.

How can I keep informed about the project's progress? Who can residents contact if they have further questions or concerns about the project?

The Village at Orchard Ridge will keep residents informed through Touchtown Community Apps when major changes and progress happen. You can also e-mail all questions, comments, and concerns to solar@thevillageatorchardridge.org

DSD

We push solar forward.

DSD provides customized turnkey PV energy and storage solutions to businesses, enterprises, and institutions throughout North America.

Transforming Energy

The status quo is draining dollars and the health of our planet. So we're leading the charge to transform the way organizations harness energy.

At DSD, we're thinking outside the box about the future of commercial, industrial and municipal energy. Because true, transformative change never comes from the status quo. It's born of ingenuity.

With unparalleled capabilities including development, structured financing, project acquisition and long-term asset ownership, DSD creates significant value for our commercial, industrial and municipal customers and partners.

Financing Partners

In July 2019, GE Solar was relaunched as Distributed Solar Development (DSD). DSD is backed by one of the largest renewable energy power equity investment platforms in the world, BlackRock Real Assets.

Our unique position is strengthened by funds raised for project development and deployment from powerful financing partners like Morgan Stanley, Credit Suisse, Bank of America, and Rabobank.

Our Impact & Experience

Our team brings a distinct combination of ingenuity, rigor, and accountability to every project we manage, acquire, own and maintain.



>450 lifetime GWh renewable energy production

>\$785 million project funds raised

120 years energy legacy from GE