Western Farmers Electric Cooperative entered into a power purchase agreement with a unit of NextEra Energy Resources for a combined wind, solar and energy storage project.

The Skeleton Creek project will be located in three Oklahoma counties.

The project will come online in two phases:

- **Skeleton Creek Wind** (previously announced) – 250 megawatts (MW) of wind energy, expected to begin operations by the end of 2019
- **Skeleton Creek Solar** – 250 MW of solar energy, expected to begin operations by the end of 2023
- **Skeleton Creek Storage** – 200 MW, 4-hour battery energy storage project, expected to begin operations by the end of 2023

The Skeleton Creek wind, solar and energy storage projects, once commercial, will help further diversify WFEC’s generation portfolio to consist of 521 MW of solar generation: 955 MW of wind generation and 270 MW of hydroelectric generation. Also, when completed, some 50 percent of WFEC nameplate capacity will include facilities generating electricity by wind, solar or hydroelectric power.
The Skeleton Creek projects will be located in Garfield, Alfalfa and Major counties in Oklahoma. In addition to the clean energy they generate, they have the potential to stimulate the local economy by creating hundreds of construction jobs, full-time operational jobs, as well as millions of dollars in additional revenue for landowners and the local communities.

**CaliforniaGeo Responds—**
Western Farmers Energy Cooperative has been interested in a strategic departure from base load generation by fossil fuel plants for some time. The earliest example we know of is when load growth had them thinking (ten years ago) about the need for an additional coal plant. This came on the heels of an experimental program they did to pre-install geothermal heat pump ground loops in residential housing developments in their service area of southwestern Oklahoma and northeastern New Mexico.

On a moderate scale, over time, WFEC would pre-drill ground loop heat exchangers in future lots ahead of that development’s infrastructure and offer access to that thermal resource at cost of around $20 per month. Developers and eventual residents were satisfied with the program and WFEC discovered that the reduced air conditioning load that geo provided was enough (when expanded) to ditch that next coal-fired plant. This turned out to be a permanent renewable thermal energy offset, potentially ending conventional generation expansion.

So, while the story above features their soon-to-be-realized 50% renewable generation, there are other benefits. WFEC might be able to concentrate more geo where grid assets were near capacity. The use of geo heat pumps for heating provides them with some grid load balance and an improved revenue stream. Their choice to blend solar and wind with right-sized grid scale storage is another step that will increase their ability to target perennially weak voltage zones of their transmission lines.

This story, and WFEC’s mission provides an example of the potential for non-profit provider of a critical resource to operate more in collective self-interest for the long term rather than shorter term profits with a non-renewable, carbon-based resource. Extractive energy industries such as coal represent emissions, waste, and long-distance fuel transport. The geothermal resource is everywhere, as is solar and wind energy. They are always free, perpetual, and non-polluting.