

## Solar Energy February 2022

There is a growing movement for residents to use solar energy panels to power their homes. The solar systems save overtime energy costs and contributes to green energy solutions to address climate change.

In Highlands we are getting an increase interest in the use of solar energy. The town needs to review its current solar energy polices in several areas. At the March 10 Highlands Town Retreat Kevin O'Donnel of Nova Energy, our electric utility consultants, will do a presentation on solar energy policies. Kevin, along with Lamar Nix, will brief the board on basic installation standards as they relate to the operation of our electric grid and how the town's electrical feed to a home or business should comport with a solar system. Lamar has examined engineering standards for this kind of setup.

Kevin will address the issue of net metering and selling back power to the town. He will brief the board on the issues of net metering and the impact on our whole sale contract with Duke Energy.

The town entered a long-term contract with Duke Energy several years ago. The contract is in effect for about 7 more years. At that time, the town will either go with another electric provider or enter a new contract with Duke Energy. Since the current contract was signed many years ago, new competition and options have developed. The town can't simply cancel the current contract. Also, the town board has always maintained the policy of honoring contracts where conditions and agreements are met.

Each month, the Town of Highlands pays Duke Energy between \$250,000 to \$280,000 for power. Another \$25,000 to \$27,000 is payed to Duke for transporting the electricity from their generating plant to the town. The costs, with some variation, are fixed by the contract regardless of whether 10 or 14 megawatts are used by the town.

Our electric contract with Duke is one of the most complicated areas of town operations. We use Nova Energy consultants who represent the town in any negotiations and contract issues with Duke. Nova Energy routinely finds areas in the contract execution and Duke charges where money can be saved for the town. These savings help keep rate increases down. Highlands has not had a electric rate increase for a number of years.

The electric department customer rates are comparable, or slightly below, Duke residential customer rates, as well area EMC rates. The profits from operating the town electric utility system goes into a town enterprise fund. Those reserve funds are used to support town infrastructure and operation projects, thereby helping to offset the need for property tax increases. Similar profits from Duke customers go to Duke Energy stockholders.

Another recurring dream for some is the restoration of the Highlands Hydro Electric Plant just below Lake Sequoyah on the Cullasaja River. With the construction in 1929 of the dam that formed Lake Sequoyah and the hydro generating plant below on the Cullasaja River, the Town of Highlands was the first electric utility in this part of Western Carolina. At its peak the hydro plant generated 1 megawatt of power. We now use at least ten times more to power the town. The town stopped generating power in 1965, and thereby lost the special use permit to operate

the generating plant on US Forest Service land. The cost to resume hydro generation would be a prohibitive multimillion dollar project. In addition, the US Forest Service would not be open to issuing a new special use permit. The hydro plant was a technological wonder at its inception but is now a faded memory in the storied history of this community.