

Feature Release

Johnson County (MO) Citizens for Environmental Action (CEA)

Release date: August 6, 2020

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CEA salutes Brett and Angela Palmer for their multifaceted commitment to a cleaner and more sustainable world through the many choices they make in their daily lives.

Brett and Angela moved into their rural Johnson County home in 2011, and since that time they thought about going “Solar” for their energy needs. In March of 2019 they decided to “take the plunge,” and worked hard to complete a system and have it approved by early July in order to qualify for higher energy rebates from (then) KCP&L.

They barely made the deadline – but make it they did – using their own labor and construction experience. The 48 panel, 14.8 kilowatt system cost around \$16,000. With the (then) KCP&L rebate of \$6,900, and a (then) tax rebate of \$2,649, Brett estimated the project would fully be paid for after four years of operation. He thought it would take around eight years if they had hired-out the installation.

Brett and Angela have an electric hybrid vehicle and would like to go full EV in the future to save even more on their monthly energy costs.

As for decisions along the way, Brett said he had to decide whether to go with a locked down system, or one in which the panels could be tilted to maximize the solar efficiency throughout the year. They went with “tilt” panels, but he said he might have broken the panel array into three or four distinctive sets, had he known how hard it was to reposition a 48-panel array manually. He has recently installed actuators to help mechanize the tilting process.



In the first year of operation, the Palmer's solar array produced 20,866 Kilowatt Hours, and their total home usage was around 12,000 KWH. That's plenty of spare power for that new EV vehicle.

Angela Palmer is Vice President of Johnson County Citizens for Environmental Action (CEA). Her husband Brett works in the healthcare industry.