ANOTHER STEM INTERVIEW!

Meet Jeanne Harshbarger

Manager of System Planning & Protection

We recently interviewed **Jeanne Harshbarger** to find out more about her job at the PUD.

What sparked you towards a STEM career field?

I was just super lucky to have found engineering. I knew very few people growing up who had completed college. When I was in high school, an electric utility in another part of the state decided to build a generating station in our town and offered a scholarship each year to one student who was going into engineering. I did well in school, including math and science classes, so I applied for and received the scholarship, even though I had no idea what engineering was. Because the scholarship included the opportunity to work during vacations, I was fortunate enough to work in various groups at the utility, experiencing a variety of types of work that are available even in the same company. I worked in System Planning, Substation Engineering, Substation Operations, and power plant construction.

What type of training do you have?

I have a Bachelor's of Science and a Master's of Science degree in electrical engineering from New Mexico State University, both with a power emphasis. On-the-job training has been crucial to learning about my chosen job. Also, during my career, my employers have also made training specific to my area of specialty available.

What STEM skills are important in your job?

In my job particularly, math and logic are applied a lot, as well as some computer skills. During college, the other science classes and all the electricity theory classes are very important to developing an understanding of how things and systems work, so as to know how to make them useful.

Why is your career unique?

When I started, engineering jobs in general, and particularly in utilities, were almost exclusively held by men. About 10% of the students in my graduating class were women. At the utility where I started as a student, there were no women engineers besides me and my two roommates, also students. At my first job out of college, the System Protection group had only had one woman, who was on a rotational position, before I started. About six years later when I returned to school for my Master's degree, though, about 20% of the students in the engineering classes were women. Since then, it has continued to increase. It has been gratifying to see how attitudes have changed to make opportunities in challenging and rewarding careers available to anyone willing to apply themselves to learn the necessary skills and to work hard.

It's also interesting to note that with the same degree, a wide variety of jobs are available. In engineering, you could end up in a job that keeps you inside all day, working exclusively on your computer, you could be out in the field most of the time, or anywhere in between. Your job could be mostly analytical, or could involve heavy interaction with others. There is most likely a job that fits everyone! Because we all have different skills and interests, the different requirements for different jobs will appeal to everyone differently.

What do you like about your job?

My job as a protection engineer is technically challenging; includes a lot of variety; allows opportunity for applying all the skills, experience, and training I have; provides excellent feedback on performance (both positive and negative!); and allows me to make a positive change that improves people's lives (at least as far as electric service goes). Taking a project from initial conceptual design, to evaluation of options and selection of the best project, through design, to settings, testing and commissioning of the components, and then seeing the first operation of the system during a fault is immensely satisfying. In my role at the PUD, I sometimes interface directly with customers, and researching the operation of equipment on the system that affects their service and implementing solutions fits well with the customer-oriented attitude of the PUD.

Any advice for students who want to go into a similar career?

Always do your best! You'll never regret having tried your hardest at something that is worthwhile. Don't do your best just to get a good grade in a class, but always try to understand the WHY of what you learn. It stays with you better that way, and you can apply it more effectively. Learn to work well in teams, as well as pushing yourself to achieve goals. Keep an open mind; don't rule out a job or career just because it doesn't sound appealing. You can learn something from every experience you have. Develop a network of people you can count on both for support and for encouragement, and be the kind of friend who makes their lives better, too.