

## Sloan Career Cornerstone Center

## **Profiles of Electrical/Power Engineers**



Cheri Warren

Chief of Staff to the CEO (soon to be VP, Smartgrid) National Grid London, UK

EDUCATION	▶ BSEE, Union College ▶ MSE, Union College
JOB DESCRIPTION	Be the hands, eyes and ears of the CEO.
ADVICE TO STUDENTS	"Learn to write well and present well. The best idea in the world won't go anywhere if you can't sell it. Learn to work with others. As good as you are, the ideas you create will be better if they are rigorously debated with team mates as you will see flaws sooner. Have passion for what you do!"

## ► INTERVIEW SEGMENTS

- ▶ Q: When did you know you wanted to become an Engineer?
- ► Warren: I always wanted to be a scientist maybe a chemist. Then I took chemistry and realized there was no way I wanted to be a chemist. After that I focused on engineering.
- Q: What was your college experience like?
- ▶ Warren: Hard work, but worth it! Those four hard years have led to an exciting and exhilarating career! I was AFROTC so I had a lot going on in addition to labs, studying and classes I also had to drill and learn about the military. That scholarship enabled me to become an engineer!
- Q: Did you incorporate work experiences while you were an undergrad?
- ► Warren: Yes and they changed my life. I thought I was going into the Air Force, but in my 3rd year I hurt my knees and they bounced me on a medical discharge. In the summer of my junior year I worked for GE in their power systems division and found a career! The people there excited my natural curiosity and I developed a real desire to work in this area.
- Q: How did you get your first job?
- ► Warren: I went through college recruiting and had 3 job offers. Based on my work experience in power, I took the job with the utility and never looked back.
- Q: What's the most rewarding thing about being an Engineer?
- ► Warren: The challenge and excitement of solving problems that haven't been solved before. Every day there are new problems to solve and for me I've been lucky enough to solve them all over the world. You can do anything with an engineering degree!

- ▶ Q: Is there an example you can provide that shows how something you've worked on has positively impacted the world?
- ▶ Warren: I think about this often and am proud to say that I think I have positively affected my corner of the world through my work in electric reliability. I've been able to help companies significantly reduce the number of times and duration of power outages thereby improving quality of life. In the US it's on the scale of minutes, but elsewhere in the world it's on the scale of hours. Also, my experience as a board member of the IEEE Power & Energy Society enabled me to interact with people all over the world and help to make things a little better.
- ▶ Q: Do you spend a fair amount of time traveling?
- ► Warren: I do because I choose to. Traveling for has helped me to see the big picture and helped me to solve problems globally. Not all engineers travel. You can get a job with or without travel.
- Q: Do you have a mentor? Or did you in your college years?
- ▶ Warren: Yes and yes. Mentors have been a huge part of my life and I am very thankful for them. I know there is no way I would be where I am today without them. I'm not convinced that having a mentor assigned to you is the best way to get one. For me, I was lucky enough to connect with people who really cared and gave me great advice; addressing both positives and negatives. That really helped me grow.
- Q: Do you find yourself working more in a team situation, or more alone?
- ▶ Warren: I work more in team situations. When I first became an engineer, there was much more individual effort, but as I've progressed in management, it's all about team. My husband is also an engineer. He is a subject matter expert and he still spends a healthy amount of time as an individual contributor, but there is always some team time. You can take either path as it suits you.
- ▶ Q: Do you find you are able to balance work with social/family life while working in your current job?
- ▶ Warren: Work life balance is always a challenge and one that you should think about right from the beginning of your career. As engineers, we like to solve problems and that is a great thing. Sometimes, though, that love of problem solving adds to the work-life balance issue because we can get caught up doing our jobs at the expense of our life balance. I like to play as hard as I work, so we typically take multiple vacations a year to recharge. That works for me, but surely wouldn't work for everyone. Some people have families and they need to be sure they take time out for them!
- ▶ Q: If you had to do it all over again, would you still become an Engineer?
- ► Warren: Unequivocally YES! And if I was able to do it right now I would be so excited. There are so many wonderful things happening in this world that need engineers; especially in the power industry. I'd love to have my whole career to look forward to again.
- Q: Did you think that school prepared you for the way the work gets done in the real world?
- ▶ Warren: Not really, but what it did do was teach me to think. That is the great strength of an engineering degree. I don't think you really can teach students what it will be like...they just have to get there and start doing the job. You can have them work more in cross-functional teams to solve problems. That would help better prepare students for the work place.
- ▶ Q: Where do you see jobs for Engineers in the future? What should students be doing to prepare themselves to take on those roles?
- ▶ Warren: The power industry has and will continue to have a huge need for engineers. With the trichallenge of climate, security of energy supplies and affordability, there is more than enough work to go around. We are now designing smarter grids, replacing power systems that were built by Edison and Westinghouse, and changing the way people interact with energy. Nearly 50% of our work force will retire by 2015! That creates huge opportunity for engineers and a promise of exciting careers!
- ▶ Q: What other advice do you have for students?
- ▶ Warren: Learn to write well and present well. The best idea in the world won't go anywhere if you can't sell it. Learn to work with others. As good as you are, the ideas you create will be better if they are rigorously debated with team mates as you will see flaws sooner. Have passion for what you do!