

# Q&A

AN EXPERT Q&A WITH: **HAMIDEH BITARAF**  
ADVISORY AND POWER SYSTEM  
SIMULATIONS MANAGER



Employers in the industry can show their support for gender equality by having family friendly work policies like providing the same opportunities to women as compared to men by boosting their corporate careers and closing the gender gap in terms of salary.

**You are an Advisory and Power Systems Simulations Manager at Hitachi. Tell us about your professional journey. How did you come to this position? How does Hitachi as a company motivate you to build your career there?**

**Hamideh Bitaraf:** I joined Hitachi Energy's predecessor in 2017 as a microgrid advisor after completing my PhD from Virginia Tech. This led to my interest in consulting and advisory services. I enjoy supporting customers on their path to achieve sustainability goals. I interact with a broad range of global customers from different sectors including utilities, commercial and industrial, remote communities, and universities. This was an exciting opportunity for me to get to know their challenges and their goals with different cultural maps.

Besides exposure to different customers and Hitachi grid edge technologies, I was chosen to attend the female talent development program to accelerate my career growth. Now, I am an Advisory and Power Systems Simulation Manager for Hitachi Energy in North America and Europe regions. I manage a team of consultants dedicated to providing advisory services to customers interested in Grid Edge Technologies with the goal of carbon emission reduction and a sustainable energy future.



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**You have a PhD in Electrical Engineering. What inspired you to choose an engineering profession? What would you say to young women and men considering the engineering profession?**

**HB:** I chose to take Electrical Engineering because I am passionate about math and renewable energy resources. I enjoy solving engineering problems by applying the science derived from both math and physics. For those who are considering going into the engineering profession, I would suggest to young men and women to follow their passion while also considering the market trends for that profession. Nowadays, a noticeable market trend across many engineering professions is the use and application of artificial intelligence and digital technologies. It is interesting to see how engineering professions are continuously evolving with new market trends and technologies.

**What are the specific challenges you have faced in your educational and professional journey? What can employers in the industry do to alleviate such challenges for current and new employees?**

**HB:** The main challenge that I faced during my educational and professional journey was the unconscious bias towards minorities in the industry. The Power System industry is mainly dominated by men and women who often face unconscious biases which is an unintentional and automatic mental association, based on gender.

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**As an engineer analyzing new market trends, regulations, and incentives – what would you list as the current challenges the Power Systems industry is facing? How can these challenges be addressed?**

**HB:** Renewable power technologies are dominating the global market for new generation capacity, and key enabling technologies such as batteries are experiencing rapid reductions in costs. These grid edge technologies are growing fast and in need to get interconnection approval to be able to connect to the grid. Renewables and energy storage projects must secure an approval from electric transmission system operators before connecting to the grid. These projects submit requests for interconnection approval so that system operators can conduct a series of necessary grid impact studies. These studies establish the standard of interconnecting new assets to the grid exploring the need for any necessary transmission system upgrade. One challenge that these projects may face is the waiting time to get approvals, which often takes a couple of months to as long as a few years. This consequently delays the project executions for both the customer and the developers. There are fast tracks designed to accelerate the process which will hopefully resolve the issue in the near future.

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**HITACHI**  
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