

## Olga Weiss



### **What do you find fascinating/challenging about energy research and the energy transition?**

Energy is a fascinating and important field. Researching the area of energy means two things for me. The first is doing something useful that can significantly help tackle global problems such as climate change and contribute to having a sustainable and clean planet. Secondly, energy is a broad and interdisciplinary topic, which includes knowledge in engineering, economics, social science and politics. For me, that means a continuous process of gaining new knowledge and expertise in different research disciplines.

### **What are your research topics and what is your role within the SCCER Mobility?**

I am a postdoc in Energy Systems Group at ETH Zurich. I am developing a model that simulates the transition pathways of the Swiss energy and transport sectors. In my research, I try to understand the role of different technological components, related business models and policies in shaping the future energy and transport systems towards sustainability and lower emissions. My research is very interdisciplinary as it focuses on examining and finding the most socially, economically and politically acceptable transition pathways of the energy and transport sectors.

### **Why did you become a scientist?**

I cannot say that becoming a scientist was ever my childhood dream. As a child, I wanted to become a teacher, later a journalist. However, I always loved math and was fascinated by how many things you can explain with math. Math is

everywhere in our life. That is why I decided to study electrical engineering and later energy economics and finally to become a scientist in the field of energy. Now, I realize that by being a scientist, I could also materialize my childhood dream: I teach and share my knowledge with students; I write and publish articles in scientific journals.

### **What are your main career highlights?**

I think that obtaining a PhD is one of the most significant achievements that trained me in how to approach complex problems from different angles. Getting a research position at ETH and becoming part of the research community that is searching for solutions for today's energy and mobility transition challenges particularly for Switzerland, I would consider being my second career achievement.

### **How do you think mobility will change in the next 10 years and what role will renewable energy play?**

Future mobility and energy systems are going through a challenging transformation and will most likely be very different in the future. New technological, economic, social trends, together with policy measures, will be shaping our mobility and energy systems in the next 10-15 years towards being more sustainable and clean. Electrification, shared mobility, autonomous driving are new trends in mobility. Eco-friendly energy systems dominated by renewable energy sources, decentralized smart energy systems with proactive consumers and power-to-X solutions will have an increasingly important role in energy sector. The increased integration or coupling of the mobility and energy sectors will also be crucial in enabling faster carbon emission reductions. Of course, not every country in the world will be able to follow these trends with the same path and pace as Switzerland as countries have different economic, social and political conditions. However, I hope that during this transition period, researchers from my research community and I can provide answers to many challenging questions about the future transformation of the mobility and energy sectors. I hope this valuable knowledge can be transferred and applied to other countries in the world.

### **What is your "work-life-balance" recipe?**

To separate and prioritize my professional and private life situationally. In our profession, we scientists create new ideas and for that, we need "creative" energy. Family and sports are my two biggest battery-recharging stations.

**Can you provide recommendations for young scientists wishing to pursue a career in the field of (energy) research?**

Always be inspired by your topic and never stop believing that what you are doing is meaningful and would, in any case, benefit our society, research community or

advance your career. Follow an ambitious goal, but at the same time, do not forget to enjoy the whole process and path to achieve that goal.

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