

Industry Roundtable - EPFL

Careers in Sustainable Energy

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What I can share with you is:

- The current state of «sustainable energy» (in academia, in the market, in politics)
- My experiences - choices I made & whether they paid off

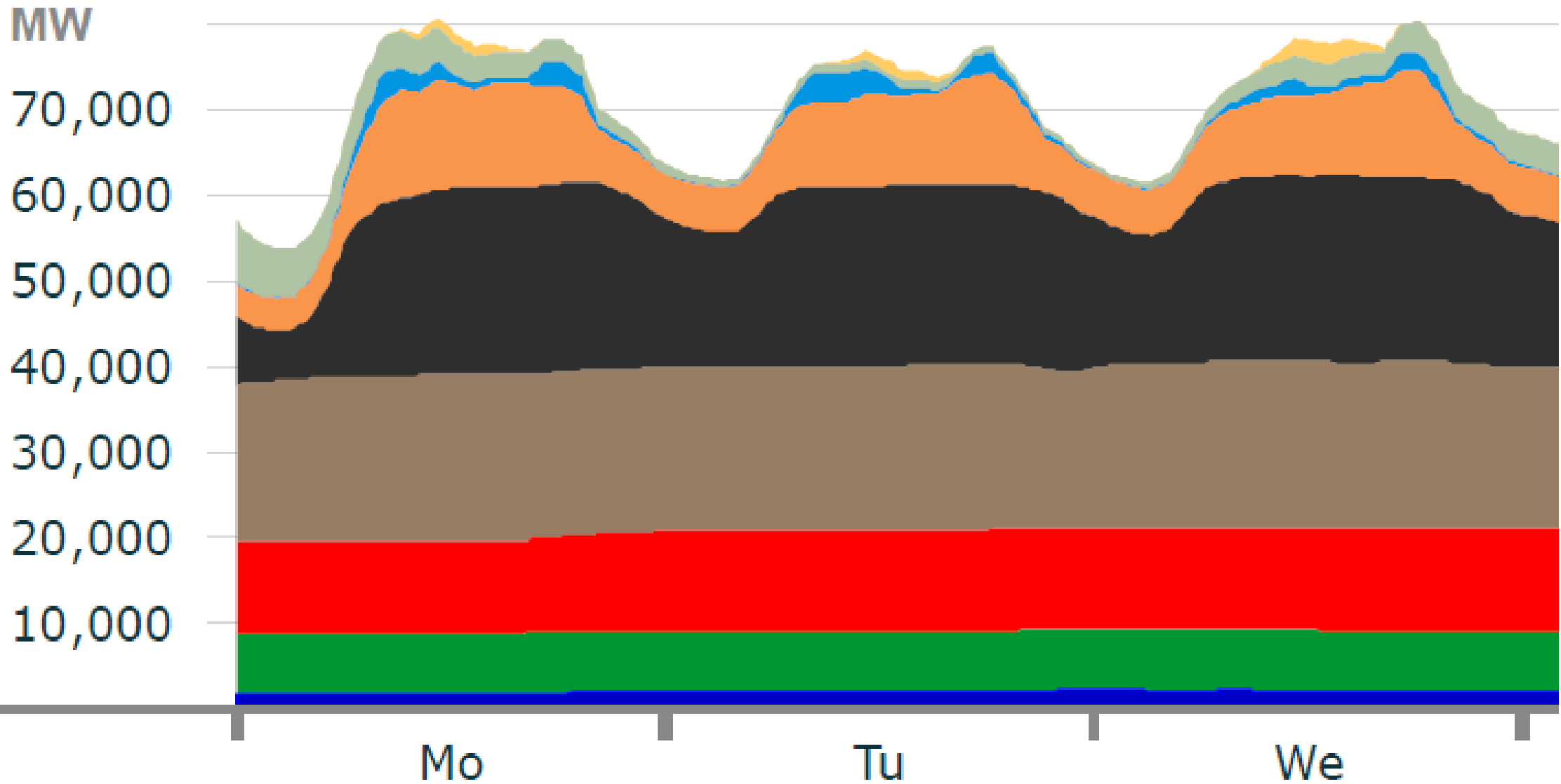


How to lose half a trillion euros

Europe's electricity providers face an existential threat

where electricity from renewable sources has grown fastest. The country's biggest utility, E.ON, has seen its share price fall by three-quarters from the peak and its income from conventional power generation (fossil fuels and nuclear) fall by more than a third since 2010. At the second-largest utility, RWE, recurrent net income has also fallen by a third since 2010. As the

Electricity production in the twentieth century



Electricity production this week (in Germany)

<https://www.energy-charts.de/power.htm>

«Sustainable energy» in politics and industry

- **Political** will at national level to change national strategies
- **Political** commitment at local level to implement change
- Energy **markets and industry** are in turmoil
 - need to innovate, need for applied R&D
(done either within industry or in academia)

«Sustainable energy» in academia

- Political will at national level to change national strategies
Public money invested in fundamental and applied research
- Political commitment at local level to implement change
Public tenders for applied research, support & consultancy
- Energy markets and industry are in turmoil
→ need to innovate, need for applied R&D
(done either within industry or in academia)
Private tenders for applied research, technology transfer, support & consultancy

My Curriculum Vitae

1996-2002: Masters in Physics (Univ. of Fribourg)

2002-2007: Dr ès Sciences - EPFL (LESO-PB)

2007-2010: ARUP (London): sustainable energy consultant

2010-2013: Austrian Institute of Technology (Vienna):
thematic coordinator « energy in cities»

2013-today: Univ. of Applied Sciences (HES-SO):
Professor in «energy systems»

Reading between the lines

1996-2002: Masters in Physics (Univ. of Fribourg)

2002-2007: Dr ès Sciences - EPFL (LESO-PB)

2007-2010: ARUP (London): sustainable energy consultant

Academia → industry: experience in management & acquisition

2010-2013: Austrian Institute of Technology (Vienna):
thematic coordinator « energy in cities»

Industry → academia: lack of publications! Is there still a bridge?

2013-today: Univ. of Applied Sciences (HES-SO):

Prof. in «energy systems»

Each country has its customs and career models



Schools of higher education / academic research

EPFL, ETHZ, Univ.:

- Tenure-track professorships (risky, what is the back-up plan?)
- Tough competition → need to be flexible (move)
- Choose between a career in industry *or* academia

Univ. of applied sciences:

- New players & new opportunities
- *Applied* research
- Close ties with local industry and local authorities
- Filling up fast!

Careers in sustainable energy

Energy is actually booming with a need to change and innovate

- This means new job opportunities (in industry, consultancy and research) and a need for people from a broad variety of fields who think differently (**YOU!**)

If we want to keep jobs in Switzerland/Europe we need to discover/invent/invest in markets focused on innovation and not in traditional industry

- Start-ups, SMEs and innovative & «risk-friendly» large companies

Thank you for your attention

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Check these links out

http://valais.epfl.ch/energypolis_en (HES-SO - EPFL)

<http://www.smartlivinglab.ch/index.php/fr/> (HES-SO - EPFL)

<http://nest.empa.ch/en/>

<https://www.kti.admin.ch/kti/en/home/unsere-foerderangebote/foerderprogramm-energie.html>

<https://www.hslu.ch/de-ch/technik-architektur/energiewende/sccer/sccer-feeabd/>