



## The Instrumental but Extremely Challenging Role of Hydrogen Towards a Decarbonized Society

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### Abstract:

The energy transition, which in fact should be correctly named climate transition, holds unprecedented challenges that are widely underestimated. The presentation will start with a cruising altitude view that explains why all current efforts are much too slow and not orchestrated well enough to successfully meet the 2-degree target. It is shown that a successful decarbonization must be based on a few cornerstones that must be addressed swiftly, relentlessly, and in a globally coordinated manner. Hydrogen belongs to these pillars. It will be explained why hydrogen is so important, but also why there is no chance that hydrogen can develop quickly enough, unless there is both a national and a global consensus and coordinated action to overcome the barriers. The question also arises as to what role power electronics will play in the development of a hydrogen infrastructure. The presentation will show that power electronics will not be the glamorous main cast, but that it will be an indispensable and ubiquitous team member, playing its role mostly out of the limelight.

### Curriculum Vitae:



Stefan Linder holds an electrical engineering and a PhD degree from the Swiss Federal Institute of Technology (ETH) Zurich. His career took him from the US Semiconductor Industry, via an 18-year employment at ABB, to Alpiq, a Swiss European electricity generation and energy trading company. At Alpiq, Stefan Linder is Head of Technology and Innovation. His main responsibilities are to conduct energy system studies and asset valuations, and to prepare strategy recommendations. Stefan Linder developed the conviction early on that hydrogen will play an instrumental role in the successful decarbonization of society. Alpiq shares this view and was among the first companies to start investing systematically in hydrogen. Alpiq is a key partner in the development of the Swiss ecosystem for the decarbonization of road freight transport with fuel cell heavy duty trucks.

Besides his role at Alpiq, Stefan Linder has engagements in several international committees in the energy and power semiconductor sectors. He is also president of the Swiss Association for Energy and Network Research.

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