

Technology and Policy of Electrical Energy Storage

Lecturers: Prof. Tobias Schmidt (tobiasschmidt@ethz.ch) and Prof. Vanessa Wood (vwood@ethz.ch)

Time: Wednesdays 16:15-18:00

Location: NO C 60

Syllabus The class is divided into 3 parts: weeks 1-2 introductory lectures; weeks 3-8 focus on battery technology and weeks 9-13 focus on policy. The exact content of each lecture is subject to change based on availability of guest speakers and the content of their presentations.

Title	Lecturer
Introduction to Electrical Energy Storage	VW&TS
The applications of energy storage, their economics and policies	TS
Lithium Ion Battery Operation	VW
Lithium Ion Battery Materials	VW
Lithium Ion Battery Manufacturing	VW
Next Generation Battery Materials & Systems	VW
Guest Speaker	VW
Insights from Industry – Batteries for E-Mobility and Energy Storage	VW
Case study: designing a policy to spur electricity storage diffusion	TS
Technological innovation and learning – implications for policy	TS
Constructive controversy (student discussion in teams of 7 students)	TS
Designing policy to reflect innovation patterns of different technologies	TS
Review of Course, Q&A for exam	TS (&VW)
90 minute final exam	VW&TS

Reading: There is no textbook for the class. Relevant readings will be available on the class Moodle.

Grading: Your grade will be based 100% on an in-class final exam (no materials allowed).

Additional 3KP course: For interested students, it is possible to enroll in 860-0014-00 “A Paper Project on Technology and Policy of Electric Energy Storage” and prepare a 10-page research paper for an additional 2KP. The paper will be due on August 12, 2017 at 15:00 to be submitted via email to both Prof. Schmidt and Prof. Wood. A list of project topics, which will require you to bring together your knowledge from technology and policy, will be provided to enrolled students in May.