

Fiche analytique – Mémoire de Master MUSE

A rendre au secrétariat lors de l'inscription à la soutenance du mémoire

* champs obligatoires

AUTEUR*	NOM : de Maio		PRENOM : Marc Vlad
TITRE MEMOIRE*	The impact of policies on the attractiveness of PV-coupled Battery Energy Storage Systems in Switzerland		
NUMERO MEMOIRE	408		
DATE SOUTENANCE	22.09.2020	Salle : CV 003	Heure : 16h30
THEMATIQUE* (AFFILIATION)	Energie		
VOLEE MUSE*	2018		
TITRE ACADEMIQUE* (par ex.: licencié en biologie)	Maîtrise en Science de l'Environnement		
DIRECTION* / EVALUATION	Directeur de mémoire* David Parra Mendoza	Co-directeur de mémoire* Alejandro Pena-Bello	Nom(s) du ou des juré(s)* - David Parra Mendoza - Alejandro Pena-Bello - Selin Yilmaz
STAGE (éventuel)	Organisme d'accueil X	Maître de stage X	
Projet de l'ISE (éventuel) auquel le mémoire est rattaché	X		
Bourse (éventuelle) reçue par l'étudiant	X		
COLLATION*	Nb de pages* 53	Nb de figures* 17	Nb de tableaux* 12 +2 Appendix
TERRAIN D'ETUDE OU D'APPLICATION	Geneva, Switzerland		
MOTS-CLES* (entre 5 et 10)	PV coupled battery storage system – Residential Scale – Battery optimizer - Geneva – Policy review – Techno-economic and Technical performance –		
SUMMARY* (en anglais)	Battery energy storage systems allow supplying solar photovoltaic (PV) electricity on demand and therefore increase its value. For over two decades, countries have implemented deployment policies based on economic incentives to accelerate the adoption of PV, and in some cases, for battery storage. This paper analyses the impacts of various types of deployment policies on the attractiveness of PV-coupled battery systems . The method combines an international review of deployment policies together with a model which optimizes the techno-economic performance of self-consumption and demand load shifting. The results of the analysis show that the greatest benefit of a PV coupled battery system is obtained with a Time of use (ToU) tariff with Photovoltaic self-consumption (PVSC) and Demand Load Shifting (DLS). Secondly, direct subsidies which reduce the capital investment made by prosumers increase the attractiveness of the systems the LCOS of the PV coupled battery system rise by 0.021 \$/kWh without a 30% rebate on PV, and without subsidies for the battery system, the LCOS increase between 0.11 \$/kWh and 0.35 \$/kWh.		
REMARQUES			