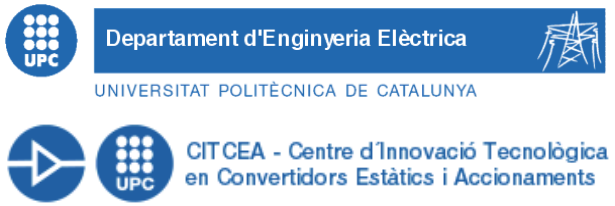
Universitat Politècnica de Catalunya

Departament d'Enginyeria Elèctrica



Doctoral Thesis

Aggregated flexibility services for distribution network operation

Íngrid Munné Collado

Thesis advisors:
Dra. Monica Aragues Penalba (UPC, Spain)
Dr. Andreas Sumper (UPC, Spain)

Examination Commitee:
Prof. XXXXXXX (NTNU, Norway)
Prof. XXXXXX (UPC, Spain)
Prof. XXXXXXX (DTU, Denmark)

Thesis reviewers:
Prof. XXXXX (NTNU, Norway)
Prof. XXXXXXX (DTU, Denmark)

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Universitat Politècnica de Catalunya
Departament d'Enginyeria Elèctrica
Centre d'Innovació Tecnològica en Convertidors Estàtics i Accionaments
Av. Diagonal, 647. Pl. 2
08028, Barcelona

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"Oh how much is left to learn"

Ziggy Alberts

"Always remember the blue sky.
Let thoughts come and go"

"Pas a pas"

To Sílvia,
Joan and Jèssica

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- EIT InnoEnergy PhD School.
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Abstract

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Publications

Included in the thesis

Published journal papers

J2 P. Olivella-Rosell, P. Lloret-Gallego, Í. Munné-Collado, R. Villafafila-Robles, A. Sumper, S. Ottesen, J. Rajasekharan, B. Bremdal, "Local flexibility market design for aggregators providing multiple flexibility services at distribution network Level," *Energies*, vol. 11, no. 4, p. 822, Apr. 2018. doi: 10.3390/en11040822

Submitted journal papers

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Conference papers

C2 P. Olivella-Rosell, G. Bosch-Llufriu, R. Villafafila-Robles, D. Heredero-Peris, Mario Kovačević, N. Leemput, "Assessment of the impact of Electric vehicles on iberian day-ahead electricity market," *IEEE International Electric Vehicle Conference (IEVC)*, Florence, Italy, Dec. 2014. doi: 10.1109/IEVC.2014.7056160

Book chapters

BC1 Í. Munné-Collado, P. Olivella-Rosell, A. Sumper, "Power Market Fundamentals," in A. Sumper (ed) Micro and Local Power Markets, John Wiley & Sons, pp. 1-35, 2019. doi: 10.1002/9781119434573.ch1

BC2 Í. Munné-Collado, E. Bullich-Massagué, M. Aragüés-Peñalba, P. Olivella-Rosell "Local and Micro Power Markets," in A. Sumper (ed) Micro and Local Power Markets, John Wiley & Sons, pp. 37-97, 2019. doi: 10.1002/9781119434573.ch2

Not included in the thesis

Published journal papers

J9 Í. Munné-Collado, F. M. Aprà, P. Olivella-Rosell, R. Villafafila-Robles, A. Sumper, "The potential role of flexibility during peak hours on greenhouse gas emissions: a life cycle assessment of five targeted national electricity grid mixes," *Energies*, vol. 12, no. 23, Nov. 2019. doi: 10.3390/en12234443

Submitted journal papers

Conference papers

C18 I. Munné-Collado, P. Lloret-Gallego, P. Olivella-Rosell, R. Villafafila-Robles, S. Ø. Ottesen, R. Gallart-Fernandez, V. Palma-Costa, A. Sumper, "System architecture for managing congestions in distributions grids using flexibility,"

Local conferences

Published papers

Conference presentations

Supervised bachelor and master thesis

T1 F. Apra, "Análisis de datos de una flota de vehículos eléctricos," Bachelor's thesis, Universitat Politècnica de Catalunya, June 2014.

Published technical reports

TR7 E. F. Bødal, P. Crespo-del-Granado, H. Farahmand, M. Korpås, P. Olivella-Rosell, I. Munné-Collado, P. Lloret-Gallego, "INVADE Deliverable 5.1 Challenges in distribution grid with high penetration of renewables," June 2017. doi: 10.5281/zenodo.853271