## Coordination of Electric Vehicle Aggregator Participation in the Day-Ahead Market

Alvaro Perez-Diaz, University of Southampton

## The problem

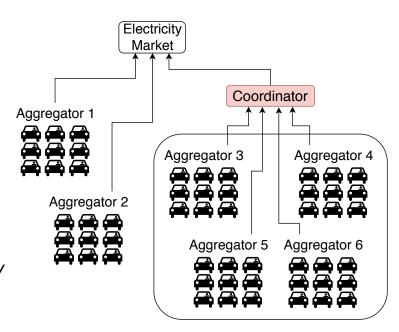
- Electric vehicles
- Aggregator



- Multiple aggregators
- Inefficient bidding

Can joint bidding reduce energy costs and grid impact?

How to handle coordination?



## **During my PhD**

- Centralised coordinator
  - Mechanism design approach [1]
  - ▶ Coop game theory approach [2]
- Decentralised [3]

Simulations show that significant savings arise from coordination