ANSWER TO THE REVIEWER:

PROF. DIEGO ALEJANDRO PATIÑO GUEVARA

"Optimal Management of Network Integrated EV Batteries by Individual EV Usage Forecasts: Vehicle to Home and Vehicle to Grid Case Studies"

Francesco Giordano

Dear Professor Patiño,

firstly, I would like to thank you for the detailed comments, remarks, and for indicating some imprecisions in the doctoral dissertation which give me the possibility to improve the work presented.

In order to meet your remarks, the new version of the thesis presents some added parts, some punctual clarification, and some error corrections. Despite the content of the thesis results unchanged in its general flow, some sections have been added or reshaped with the aim of presenting a more complete and formally exact work. Moreover, some additional mathematical details have been inserted with the aim of provides all the instruments for a full understanding of the used methodology. The principal variations are reported more in details below:

- Section 3.2.3 (page 46) reports now a deeper discussion on the global error of the Day-ahead forecasts logic.

- More mathematical details have been added in Section 3.2.1 (page 37) – which now contains an additional subsubsection-, and in Section 4.1.3 (page 59).

- Section 4.3 (page 81) and Section 5.3.1 (page 111) discusses now the expected impact of the Infra-day forecasts if they would be used in the model.

- In Section 5.2 (page 103) the sentence "due to computational reasons" has been better motived providing the computational time of the simulation.

- Section 5.3.3 (page 117) presents now an additional subsubsection which provides the study of further scenarios with a lower number of available chargers, thus considers several percentages of vehicles connected to the grid.

Finally, I will be pleased to deeper clarify or further discuss any other observations rising at the final examination.