

Buffering Energy Storage Systems for Reduced Grid and Battery Stress

Disclosure Number

201202956

Technology Summary

The disclosure relates to electric vehicles and more specifically to charging systems for such vehicles. Both the grid side and the vehicle side grid converters are modified in order to smoothen the power delivered by the grid and captured by the vehicle for in-motion or dynamic wireless charging applications. During the in-motion wireless power transfer, grid power varies significantly and power ripples are considerable. This technique eliminates the grid power transients and ripples and ensures a leveled power demand from the grid. At the same time, proposed EC captures a high power pulse and slowly recharges the vehicle battery for improved lifetime, reduced stress, and current ripples on the battery.

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