A stochastic receding horizon approach to manage an EV charging station participating in DR programs for RECs has been proposed.Additional developments may regard the adaptation of the procedure to dynamic traffic conditions, the integration of renewable resources, and the experimental validation of the approach in real-world RECsThe developed procedure implements a stochastic approach that is (i) able to exploit online information to schedule the EV charging such that the aggregated power consumption lies within prescribed energy bounds during DR windows, and is (ii) computationally feasible to be deployed in real-world applications.Moreover, the computation time remains feasible even for scenarios involving a high EV penetration.