Intelligent Electric Vehicle Charging System (IEVCS)

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Abstract : The security of the power distribution grid remains a paramount to the utility professionals while enhancing and making it more efficient. The most serious threat to the system can be maintaining the transformers, as the load is ever increasing with the addition of elements like electric vehicles. In this paper, intelligent transformer monitoring and grid management has been proposed. The engineering is done to use the evolving data from the smart meter for grid analytics and diagnostics for preventive maintenance. The two-tier architecture for hardware and software integration is coupled to form a robust system for the smart grid. The proposal also presents interoperable meter standards for easy integration. Distribution transformer analytics based on real-time data benefits utilities preventing outages, protects the revenue loss, improves the return on asset and reduces overall maintenance cost by predictive monitoring.