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# A Modified High Gain Step up Converter Using Multilevel Inverter for HVDC Application and Harmonics Reduction

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**Abstract :** The large-scale renewable energy sources and HVDC grid is connected by a pure DC system where high-power high-voltage step-up DC–DC converters are the solution tools to transmit the electrical energy. The converter can achieve high efficiency and low-cost with the help of an LC parallel resonant tank where soft switches are employed. If transformer is used large amount of harmonic distortion is observed. Hence an attempt is made in this project to reduce harmonic distortion, overcome power demand and to produce high step up voltage by using multilevel inverter topology and used to reduces the harmonics. The proposed method is extensively simulated in simulated in MATLAB/SIMULINK.

**Keywords:** Renewable energy, Voltage step-up converter, Multilevel Inverter, Soft switching, DC Motor.

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