# Global Series Compensation Market (2015-2019) FACTS Infographic

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#### Introduction

In order to fully integrate renewable resources, such as wind and solar, into the transmission system, additional capacity must be realized in the short term using the existing transmission capacity. Series compensation systems increase power transfer capability of a line by 10% to 30%. From an economical standpoint, series compensation cost is approximately 10% of the cost of new transmission line installation.

A quick summary of global series compensation market for last 5 years (2015-2019) has been presented in in the infographic below.

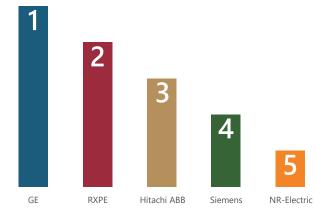
### **Global Hotspots**



Unlike other Flexible AC Transmission Systems (FACTS) such as Static VAR Compensator (SVC) or Static Synchronous Compensator (STATCOM), series compensation systems do not have great affinity in many countries around the world.

In past 5 years, maximum number of series compensation installations have been done in USA followed by China. The reason is that both countries have been investing large amount of resources into renewables which warrants them to expand capacity of their existing transmission networks. Vietnam has also installed a significant number of series compensation systems in the past 5 years to increase the reliability of its transmission infrastructure. In South America, Brazil was the major demand center of these systems whereas in Europe Turkey has deployed large number of series compensation systems.

#### Key Suppliers rankings in global market



GE's experience of series compensation goes way back to 1928 when it installed its first system in USA. When ABB, now called Hitachi ABB Power Grids, entered this market in the early 1950s, GE faced a fierce competition.

However, in the last 5 years, GE has been able to capture largest market share followed by multiple Asian suppliers such as RXPE which holds the 2nd ranking and NR Electric holding 5th ranking. In last one decade, Hitachi ABB Power Grids' focus has been more towards SVC technology due to which it has jumped down from 2nd to 3rd ranking. Siemens primary focus has been on its SVC Plus technology for past one decade however due to a stronghold in few global markets, Siemens has been able to retain its position in top 5 suppliers.

## **Market Split by Installation Type**

The series compensation systems are segmented based on the installation type; new additions and refurbishments. Refurbishments primarily are of the yard equipment i.e., capacitors which are inspected for replacement after 10-12 years of operation. The other type of refurbishments are control and protection systems upgrades of the complete system. The refurbishment share of 20% shown in the graph represents both types of refurbishments done in last 5 years.

