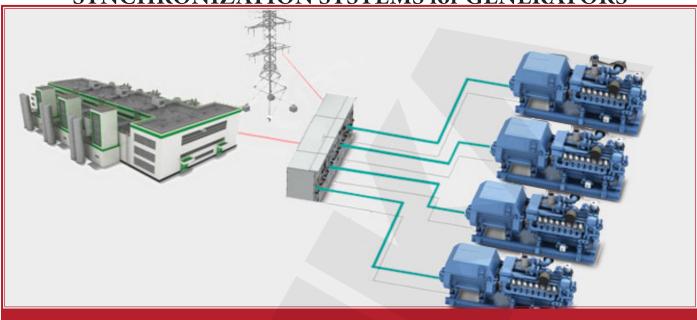


# **SYNCHRONIZATION SYSTEMS for GENERATORS**



## INTRODUCTION —

Synchronization is to bring the frequency and voltage values of a different source (network or generator) to the same values at the same time by changing the frequency and voltage values of a generating group.

Generator synchronization, on the other hand, is the simultaneous operation of generators, that is, more than one generator as a single source.

The most basic feature of generator synchronization systems is that one or more generators work on the same energy line and share the load with another generator or network. This mode of operation is provided by controlling the amplitude, frequency, and phase angle of the voltage signal produced by the generators.

### **ADVANTAGES**

- · Low operating cost
- Low initial setup cost
- Low maintenance cost
- Longer system life
- Flexible use
- Increased system reliability
- Service, spare parts and ease of maintenance

## TYPES

#### **Generator-Generator Synchronization:**

It is the combination of the power of two or more generators in the busbar and active/reactive traffic jams in their power.

#### Generator-Grid Synchronization:

Depending on the application, the generator automatically becomes available and transitions to a transitional state with a subsistence state.

#### Multi-Grid - Generator Synchronization:

In case the control becomes control while the load is powered by the generator, it is transferred by the synchronous system to the generator being synchronous to the grid and from the generator for a defined period of time. The synchronous-soft operation ID may seem to be from smallest to largest in case it will be in case it is too much for the network.

### **Fail-over Operation:**

It is the equal aging and fail-back operation of two generators.

