



GENERATOR SET EXCITATION CHANGES WHILE IN PARALLEL WITH AN INFINITE UTILITY POWER GRID

The scenarios below illustrate what happens when a diesel generator is delivering constant kW load while running in parallel with an infinite utility power grid.

If the alternator excitation is **reduced**:

- 1) **KVAR ZERO**
Current will **INCREASE** due to **kVARs IN** increasing
- 2) **KVAR OUT**
Current will **DECREASE** due to **kVARs OUT** reducing
- 3) **KVAR IN**
Current will **INCREASE** due to **kVARs IN** increasing

If the alternator excitation is **increased**:

- 4) **KVAR ZERO**
Current will **INCREASE** due to **kVARs OUT** increasing
- 5) **KVAR OUT**
Current will **INCREASE** due to **kVARs OUT** increasing
- 6) **KVAR IN**
Current will **DECREASE** due to **kVARs IN** reducing