



ELECTRICAL STUDIES FOR RENEWABLE GENERATION

ELECTRICAL STUDIES FOR PLANTS WITH RENEWABLE GENERATION

To start operations, a renewable generation system that is connected to the National Electric System, it is necessary to carry out evaluation studies of compliance with the Grid Code.



Fig. 1 Renewable Generation Plant

Theoretical Studies

Load flow and power factor, IEEE-399 standard.

- Specification of the equipment required to comply with the power factor requirement.

Power quality, IEEE-519 standard.

- Specification of the equipment required to comply with the power quality requirement.

Short circuit, ANSI and IEC standards.

- Calculation of short-circuit fault levels and evaluation of interrupting capacities of circuit breakers.

Coordination of protections, IEEE-242 standard.

- Evaluation of protection schemes and overcurrent protections coordination study.

High voltage and transmission lines protection

- High voltage protections and transmission lines.
- Calculation of settings for transformer differential protections, voltage and frequency.
- Calculation of settings for directional overcurrent, distance and line differential protections.

Studies of compliance with the Grid Code

Evaluation of the Grid Code from electrical measurements with class A meters for the following variables:

- Voltage.
- Frequency
- Power Factor
- Power quality

ETAP Solution Provider

RADTHINK is recognized as an **ETAP Solution Provider**. It is awarded by the ETAP brand to engineering firms that have staff with the skills, knowledge and resources to develop electrical engineering solutions using ETAP analysis software.



Power quality meter

We use Class A power quality meters. Class A meters record all electrical variables cycle by cycle and can graph in 5-minute format, where the maximum, average and minimum value of the variable is shown every five minutes of the measured period.



“Committed to the safety of the people, equipment protection, and production continuity.”

CONTACT US

- ☎ 81 3849 1587 | 81 8309 6730
- ✉ ventas@radthink.com.mx | abel.gutierrez@radthink.com.mx
- 📍 Av. Topo Chico 570-Interior 4A, Anáhuac, 66450, San Nicolás de los Garza, N.L.
- 🌐 radthink.com.mx

