



WYRULEC COMPANY
PROCEDURES & GUIDELINES
MOTORS, MOTOR STARTERS & PHASE CONVERTERS

Good utility practice requires the cooperative to balance three-phase loading. Therefore, where three phase service is available or economically practical, it would be the preferred method of installation and operation of all new loads. The following guidelines will be used to limit power quality and system design issues due to member motor operation:

POWER FACTOR EQUIPMENT

At the members expense, the member shall install power factor improvement devices (such as capacitors) on all motors of (10) horsepower or greater. Such corrective equipment should normally be installed in the circuit between the low power factor devices and the switch controlling the devices in such a manner that the corrective equipment will operate only when such devices are in operation. The Member is expected to maintain a power factor of not less than 95% for all loads.

MOTOR STARTING REQUIREMENTS

A single motor or a combination of motors capable of starting simultaneously that are equal to 20 horsepower or greater will be required to have properly installed and operating reduced voltage starting equipment, sometimes known as “soft starts”. The purpose of such equipment is to limit the starting current and reduce voltage fluctuations and maintain acceptable system voltage. All types of soft start, but variable frequency drives (VFD) motors in particular, must meet the Institute of Electrical and Electronic Engineers (IEEE) Standard 519 “IEEE Recommended Practices and Requirements for Harmonic Control in Electric Power Systems”.

All add-a-phase or phase converter installations shall be reviewed and approved by the company’s engineering department. The cost associated with the engineering review will be included in the Company’s construction estimate supplied to the member. The company will require the member to supply all connected load data, all information pertaining to the type and size of phase converter/add-a-phase and exact location for installation. All add-a-phase and phase converter installations must comply with Electrical and Electronic Engineers (IEEE) Standard 519 “IEEE Recommended Practices and Requirements for Harmonic Control in Electric Power Systems”.

INTERMITTENT, FLUCTUATING AND DISTURBING LOADS

When the Members use of electric service is intermittent or causes unusual fluctuations, including but not limited to harmonics, flicker, voltage dips and spikes, phase imbalances or other detrimental effects on the service supplied to other members of Wyrulec Company, Wyrulec reserves the right to require the Member to furnish, install and maintain at the Members expense, suitable corrective equipment which will correct fluctuations or detrimental effects in a reasonable manner. The Cooperative also reserves the right to discontinue the service with proper notice to the member until the problem is corrected.

MEMBERS LIABILITY

The member assumes full responsibility for the electrical facilities upon the members premises at and from the point of attachment. The Company may require an electric permit from the state of Wyoming on the installation of all new services and service upgrades.

The Company recommends the Member review Wyrulec Company Policies D-11R, D-38R and D-39R. These policies can be found at www.wyrulec.com under rules & regulations, on the Wyoming Public Service Commission website or a copy can be obtained at the Wyrulec headquarters.