

## CITY OF DOVER UTILITIES



### Power Factor Can Be Corrected, but It Is A Complex Process!

The customer should contact a consultant  
or electrician who specializes in this type  
of work

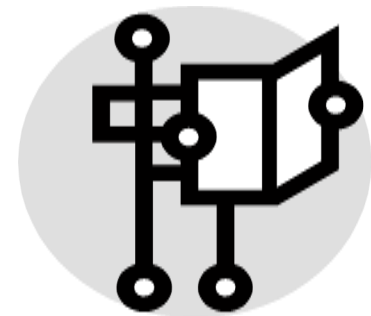


### CITY OF DOVER

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## POWER FACTOR



### LARGE COMMERCIAL ACCOUNTS

# Power Factor

Nearly all electrical circuits draw some reactive power. Reactive power is the power that is used by components in a circuit, but does not produce useful work.

## REACTIVE POWER CONCEPT



For example, the power that is used to establish and maintain the magnetic field in an electric motor is reactive power. This power is necessary for the motor to operate, but it produces no useful

work. Although reactive power produces no useful work, it still must be supplied to the customer.

The Power Factor is important because it imposes cost on a utility that **are not recovered with demand and energy charges.**

To insure that customer who use large amounts of reactive power are billed for their consumption, we rely on reactive meter installation.



## KVAR METER

Any commercial account that have this type of meter, is subject to power factor correction. These are our accounts that have multipliers. The electric meters we install record usage for kWh, kW, and kVAR (these are measured values) and three readings are displayed on the Meter.



The “measured power factor” and “billing demand” are calculated using these usages.

To calculate the billing demand you must know what the measured power factor is. The “measured demand” is multiplied by .95 and then divided by the “measured power factor”

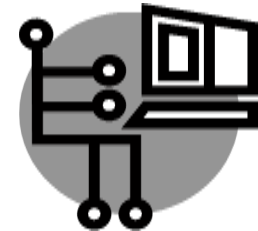
### Example

**If the measured demand is 250 kW and the measured power factor is .85% You would multiply 250 X .95 and then divide this number by .85 The billing demand would be 279.4 kW**

This means the customer would be paying a penalty of 29.4 kW (the difference between the read demand and the billing demand)

The dollar amount for the penalties are based on what tariff (rate) the customer is on.

CURRENT RATES ARE AVAILABLE ON OUR  
WEBSITE: [WWW.CITYOFDOVER.COM](http://WWW.CITYOFDOVER.COM)



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