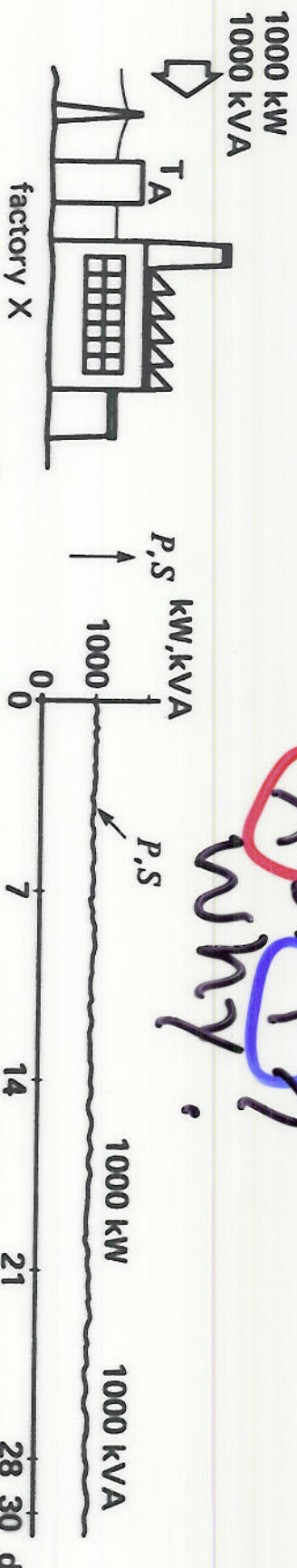


Take of two factories

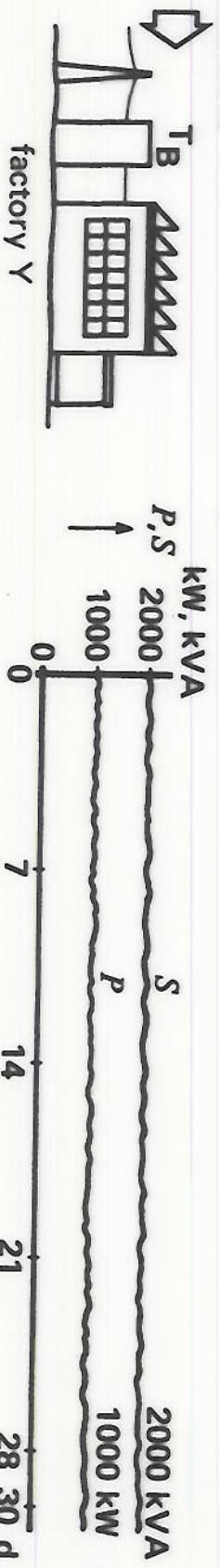
Figure 27-5 A low plant power factor requires larger utility company lines and equipment.

Who ~~is~~ runs a "bad" factory?

Why?



1000 kW
2000 kVA
Ouch!



1000 kW
1000 kVA

$PF=1$ "Good
Factory"

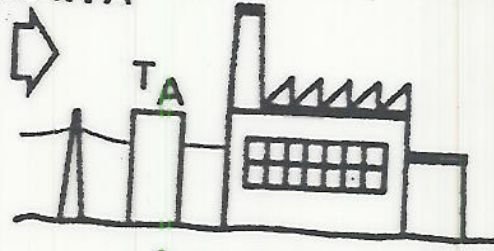
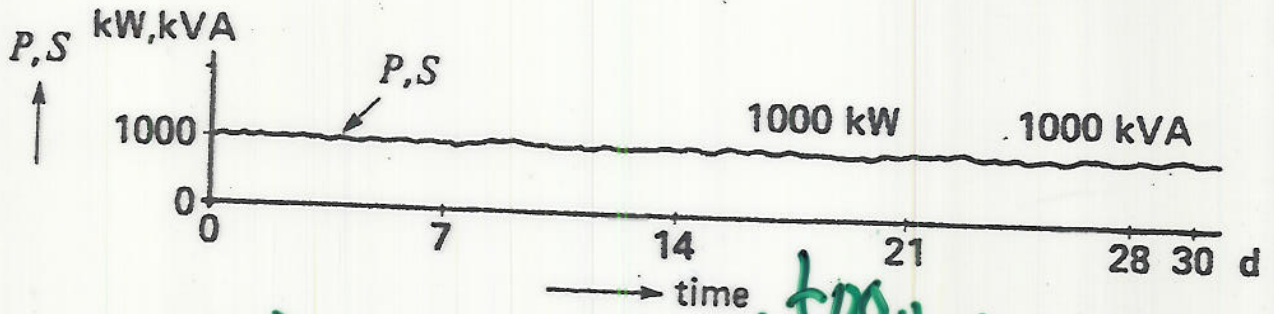


Fig 27.5

PS 732



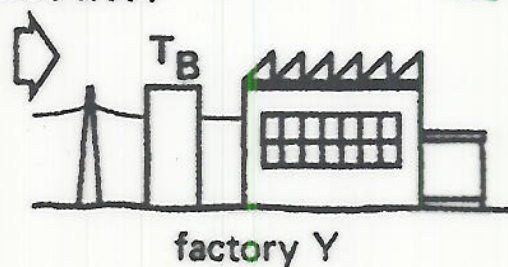
Utility charges "too" good factory less
But Any problems?

1st Tale of Two Factories

- Same Energy demand Av
- Same Peak demand

Fig 7.5 pg 732

1000 kW
2000 kVA

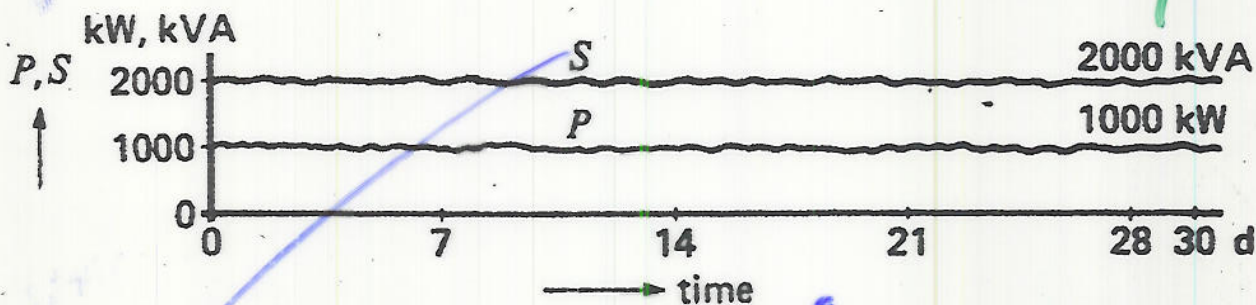


$$PF = \frac{1}{2}$$

Bad Factory



Charge more
why?



Current draw \gg i needed for
 \Rightarrow bigger infrastructure I billed

Whats a utility to do?

Charge extra for $PF < .85$

Why fix it "too good?"