

This is a design for the power supply system:

- 1) Meets all the pulsing, harmonic and power factor requirement,
- 2) Would cost less than the present system
- 3) Would take less space than the present system
- 4) Would be redundant
- 5) Would operate at 66% under normal conditions
- 6) The cost could be determined without development.

It would power 6 modulators at a time with one bulk SCR supply to charge the system to 80% voltage and then individual switching supplies to charge between pulses. If the bulk supply failed the modulators would be powered from the adjacent supplies at 100% load (i.e. 9 Modulators). Fuses, diode and disconnect would isolate and protect the system.

(note: DC fuses for 12kV are available, single phase vacuum switches for 12kv are small and not too expensive. The SCR rectifier at 8 KV 200A is about the same cost and size as a 12kV 15A SCR rectifier.)

