

```

# == NESM_Load_Shape_Analysis(PJM+ECAR)-step0.scc ==#
# Author: Yihsu Chen, yschen@Jhu.edu #

options(object.size=5000000000)
#== Read Data ==#
year <- c(1991:1998, 2050:2055)
lse <- c("AE","BC","DPL","JC","ME","PE","PEP","PL","PN","PS", "AEP","DECO","IPL")

data.load.final <- NULL

for (l in 1:13)
{
  print(lse[l])
#== Read Data ==#
  name.load <- paste("c:\\my stuffs\\my research\\epa\\capacityexpansion\\data\\load_temp_analysis\\",
    lse[l], "_SIM52_1991_2055_warmup.txt", sep="") # .. the file name .._02 indicates the second try by
  Crow
  data.load <- read.table (name.load, sep="\t", na.string="NA", header=T, skip=0)
  if (l ==11|l==12|l==13)
    data.load <- data.load*2 #
    else data.load <- data.load
  max.load <- max(data.load)
  min.load <- min(data.load)
  #par(mfrow=c(2,3))
  data.load.lse <- NULL
  for (y in 1:14)
  {
    data.load.year <- NULL
    for (d in 1:150)
    {
      data.load.temp <- t(data.load[(y-1)*150+d, ])
      data.load.year <- append(data.load.year, data.load.temp) # yearly load #
    }
    med.load <- round(median(data.load.year),0)
    mean.load <- round(mean(data.load.year),0)
    std.load <- round(stdev(data.load.year),0)
    #hist(data.load.year, probability=T, main=paste(lse[l], "-", year[y], " Load"), ylab=paste
    ("Frequency"), xlab=paste("(Mean=", mean.load, "/SD=", std.load, "MW)"), breaks=seq(min.load,
    max.load, length=50))
    data.load.lse <- append(data.load.lse, data.load.year) # combined load #
  }
  data.load.final <- cbind(data.load.final, data.load.lse)
}

PJM <- apply(data.load.final[, c(1:10)], 1, sum)
data.load.final <- cbind(PJM, data.load.final)
data.load.output <- rbind(c("PJM", lse), round(data.load.final,1)) # put lse name in the first row

#== Write output ==#
name.output <- paste("c:/my stuffs/my
  research/epa/capacityexpansion/data/load_temp_analysis/PJM_ECAR_load_90_55_warmup.txt",

```

```
    sep="")  
write.table(data.load.output, name.output, sep="\t", dimnames.write=F)
```

