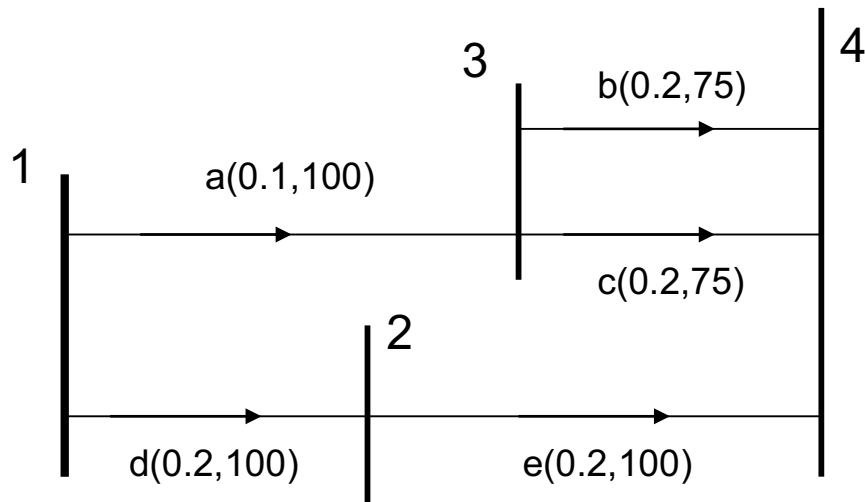


### Application of PTDF and ATC:



The values between parentheses indicate respectively the reactance in pu and the maximum capacity in MW of the line

1. For the considered 4 nodes power system, use the PTDF approach in order:
  - a) to determine the power flow in each line for a transaction  $T_{23}$  of 100 MW. Initially the power system is not loaded.
  - b) to determine  $ATC_{14}$  while considering the transaction  $T_{23}$ .