

```
SUBROUTINE UserVSCont ( HSS_Spd, GBRatio, NumBl, ZTime, DT, GenEff, DelGenTrq,  
DirRoot, GenTrq, ElecPwr )
```

```
    ! This torque control routine was written by Eric Anderson of UC Davis. The torque  
control scheme
```

```
    ! is based on the controller described in the NREL 5MW specifications, with the  
addition of a
```

```
    ! derating scheme described in Eric's dissertation. Derating is achieved by using  
subroutine
```

```
    ! ControlParameters() to scale relevant control parameters. WARNING: This routine  
does not include the
```

```
    ! logic required to run linearizations.
```

```
USE                                precision
```

```
USE                                Output
```

```
USE                                EAControl    ! contains variables: TimeDRStart,  
TimeDREnd, DerateFactor, TEmShutdown, maxOverspeed, EmergencyShutdown, GenSpeedF,  
PC_RefSpd, PC_MinPit, VS_Rgn2_K, and VS_RtPwr. See EAControl module in FAST_Mods.f90  
for variable descriptions.
```