Resource ID:

Generator Name:

POI:

**PSLF power flow condition**

**PSLF dynamic model parameter review (CheckREModels.p)**

* Q priority
* Plant level V and local Q/V: regulate HV side of GSU; monitor HV flow;
* Kqv control: vdip=, vup=, kqv=
* Frequency control: baseload=, frqflag=

**PSLF dynamic model tests**

|  |  |  |
| --- | --- | --- |
| SCR | Test | Description |
| 3 | bump | 4-cycle 3-ph fault at POI bus |
| 3 | vstep | Voltage reference step change: +5% at t=5sec, -10% at t=35sec |
| 3 | fstep | Frequency reference step change: -0.3Hz at t=5sec, +0.6Hz at t=35sec |
| 1000 | vrt | Play back voltage profile at Whirlwind 230kV bus |

**PSLF Test results**

1. Bump test at SCR=3

Figure: Bump Test at SCR=3

1. Voltage reference step change test:

Figure: Voltage reference step change test at SCR=3

1. Fequency reference step change test :

Figure: Frequency reference step change test at SCR=3

1. Voltage ride-through test:

Figure: Voltage ride-through test

**PSCAD Test**

1. Bump test

Figure : PSCAD bump test at SCR=3

1. Distortions on the instantaneous voltage and current:

Figure : PSCAD flat run instantaneous voltage and current at SCR=3

1. PPC voltage reference change test:

Figure : PSCAD voltage reference step change at SCR=3

1. PPC active power reference change test:

Figure : PSCAD active power reference step change at SCR=3

1. Voltage tripping test:
2. Frequency tripping test:
3. SCR ramping test: