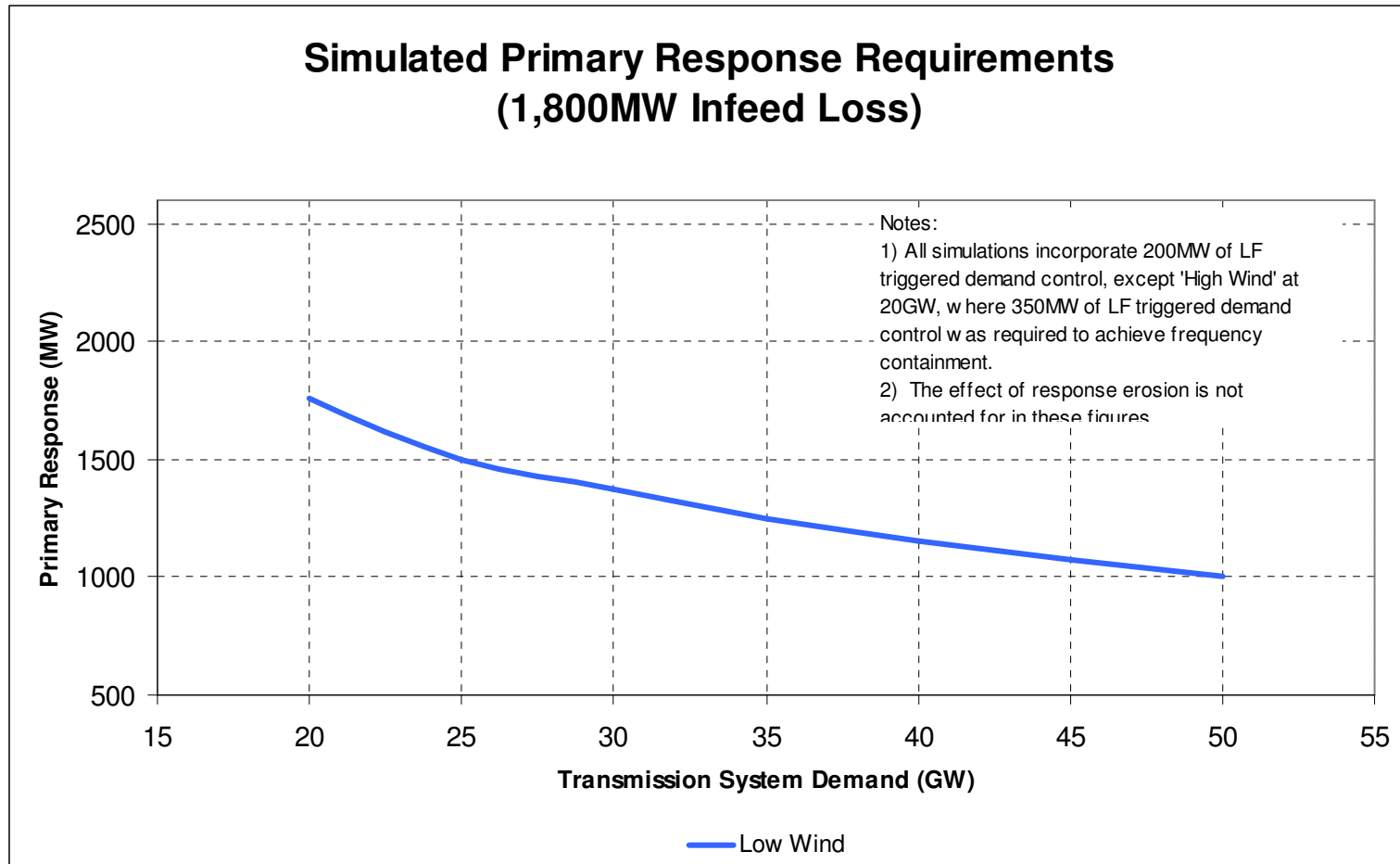


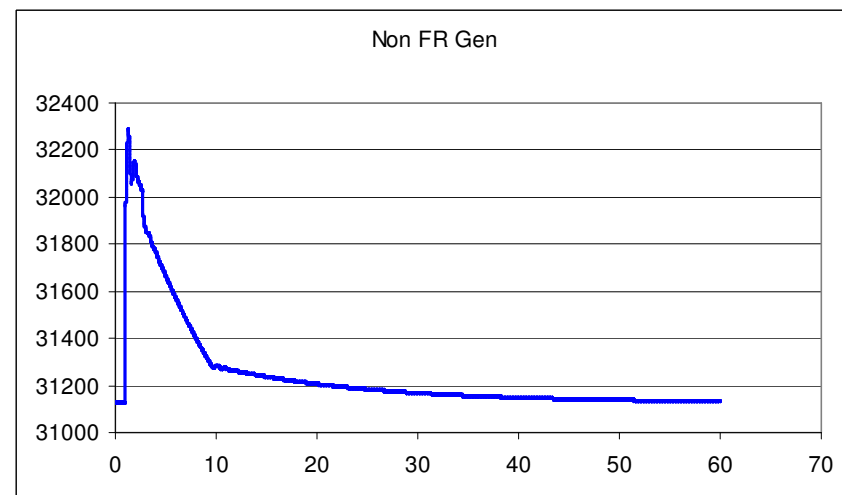
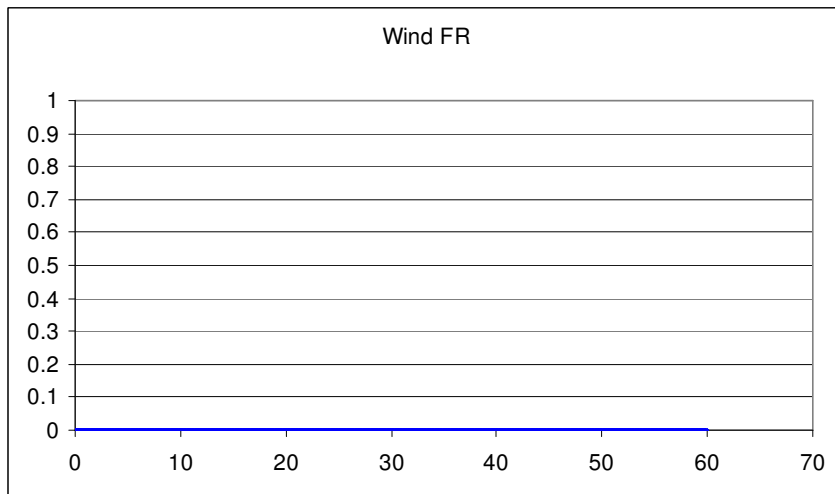
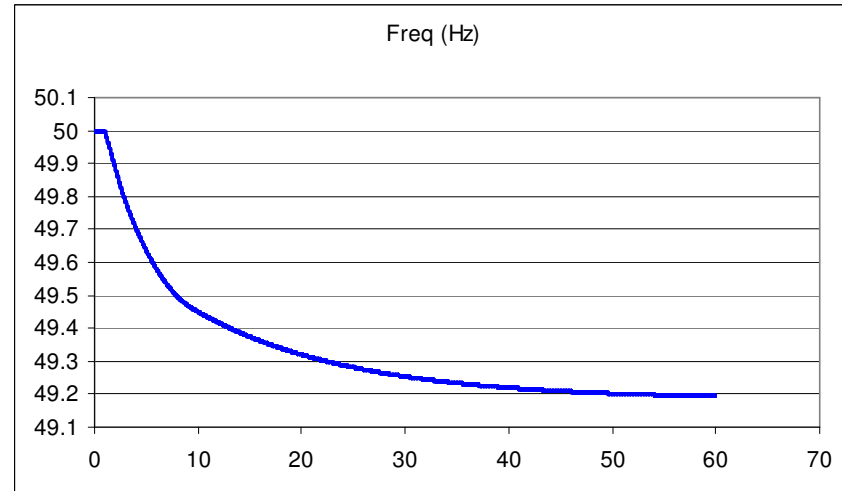
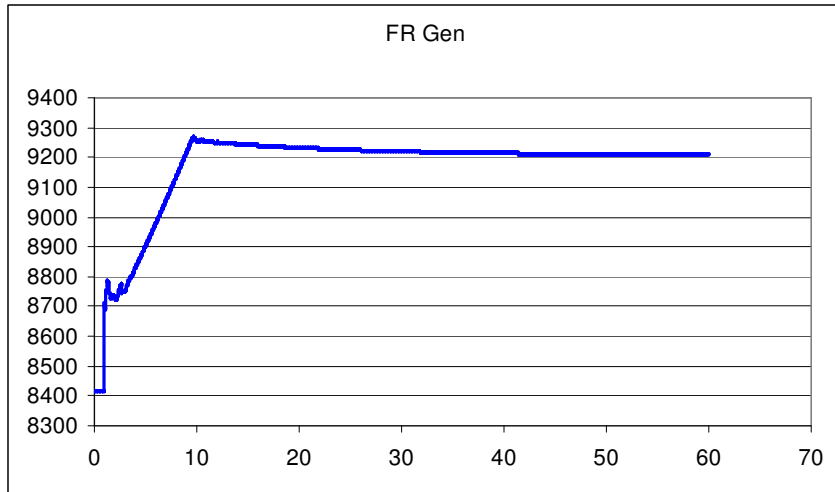
Summary of Latest Simulation Results

- Response Requirements for 1,800 MW Infeed Loss
 - Results for Low, Medium and High Wind
 - Demand characteristic
 - 2% per Hz, H=4 for 12% of Demand
 - Generation
 - H=4/H=6 for appropriate categories of plant
 - Response characteristics
 - 1 second delay
 - Linear ramp to max volume (8.5% at high load, 12.5 % at other loads)
 - 'Fast' response used to solve some scenarios (5 seconds rather than 10 seconds)
- Further work highlighted

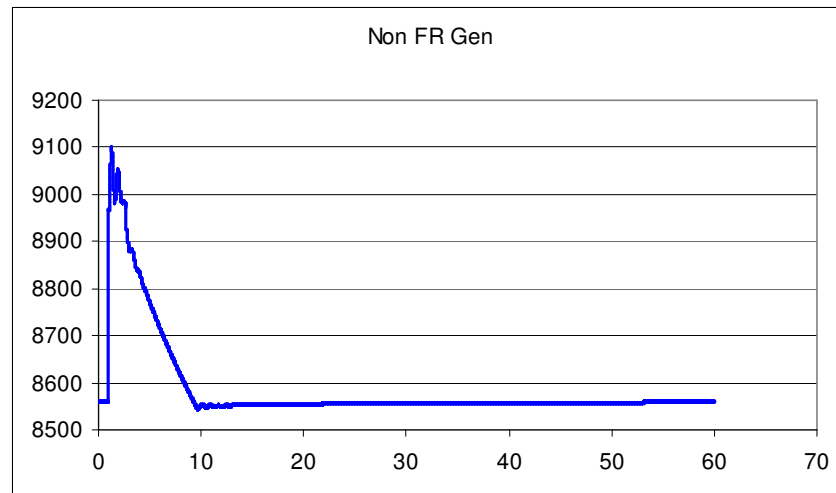
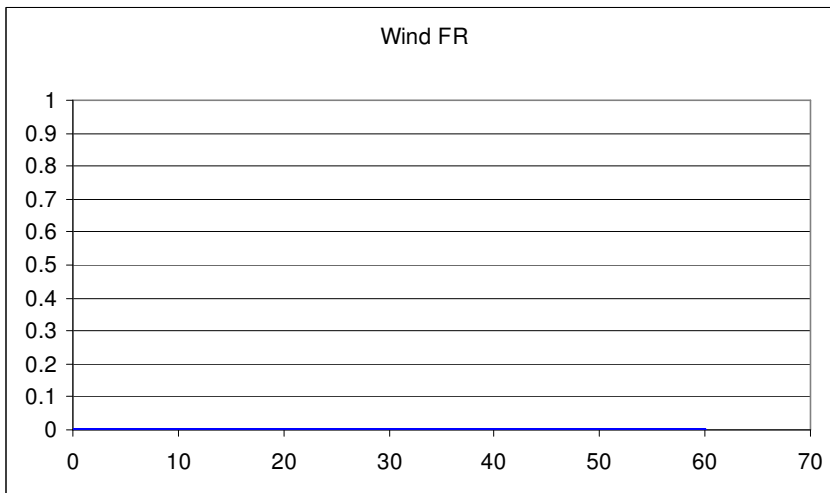
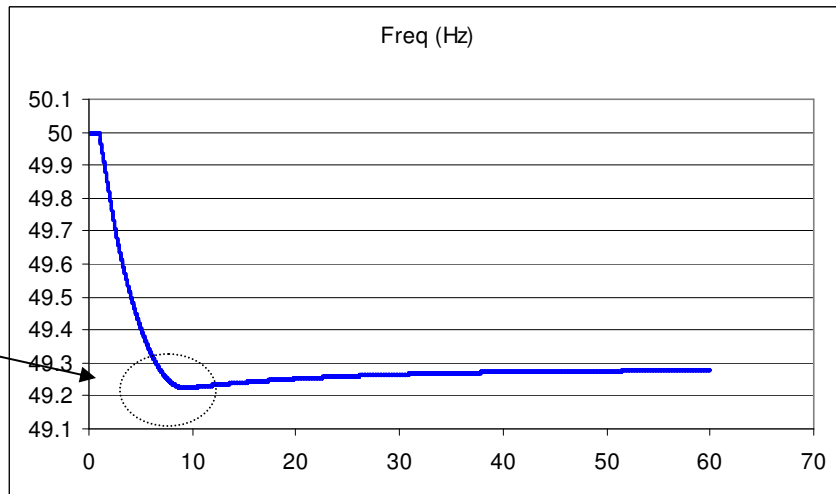
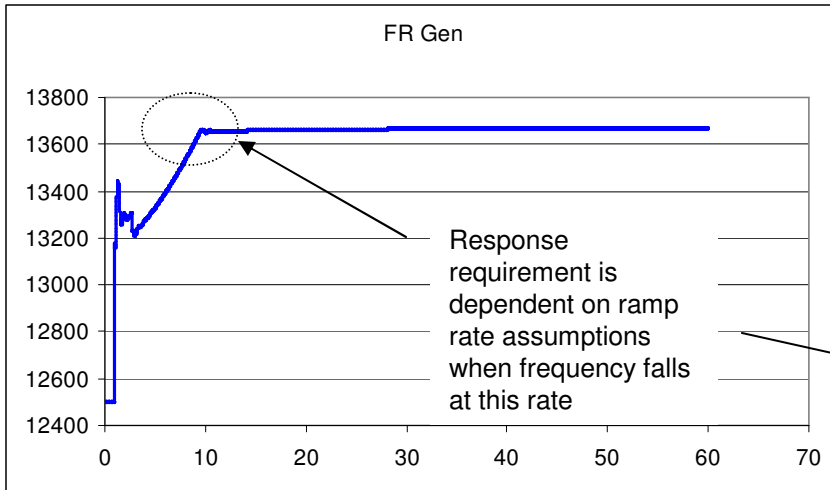
Low Wind



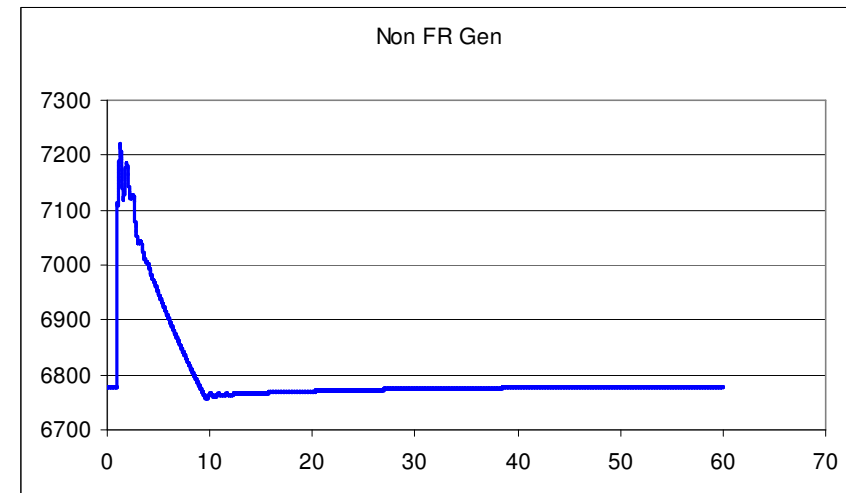
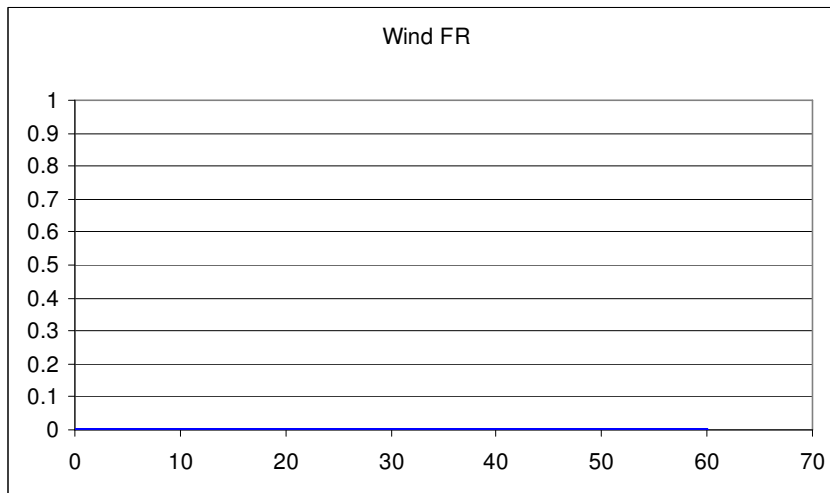
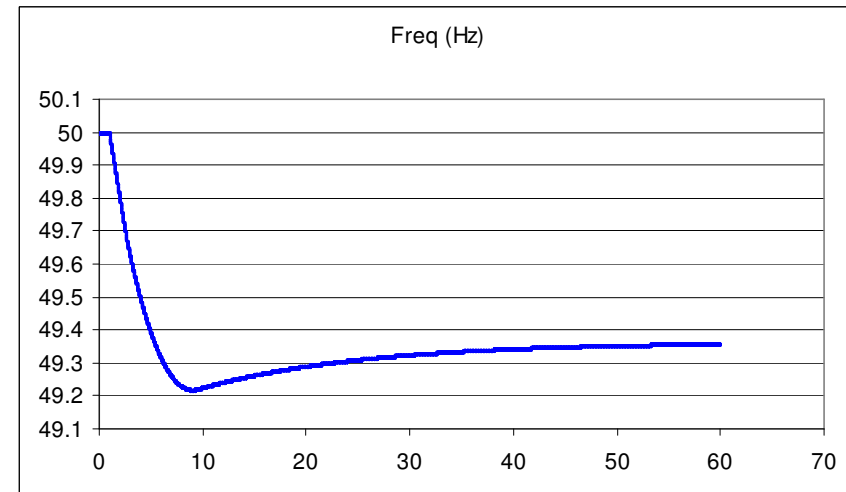
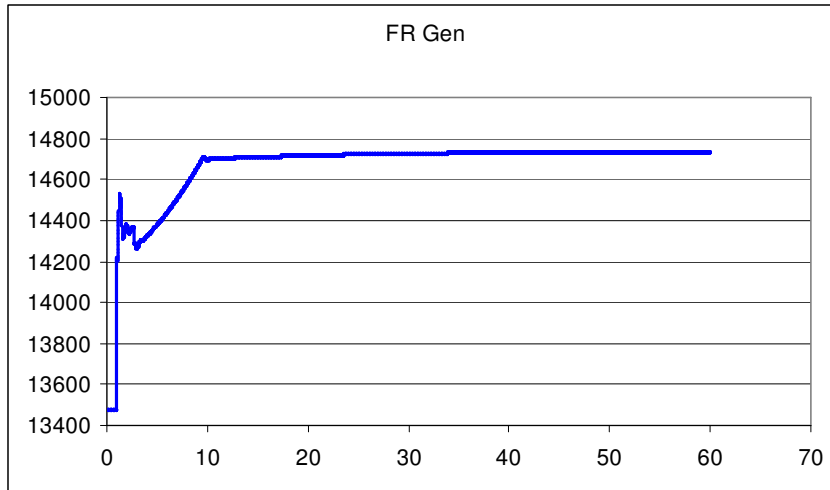
50 GW Low Wind Frequency Minimum > 10Sec



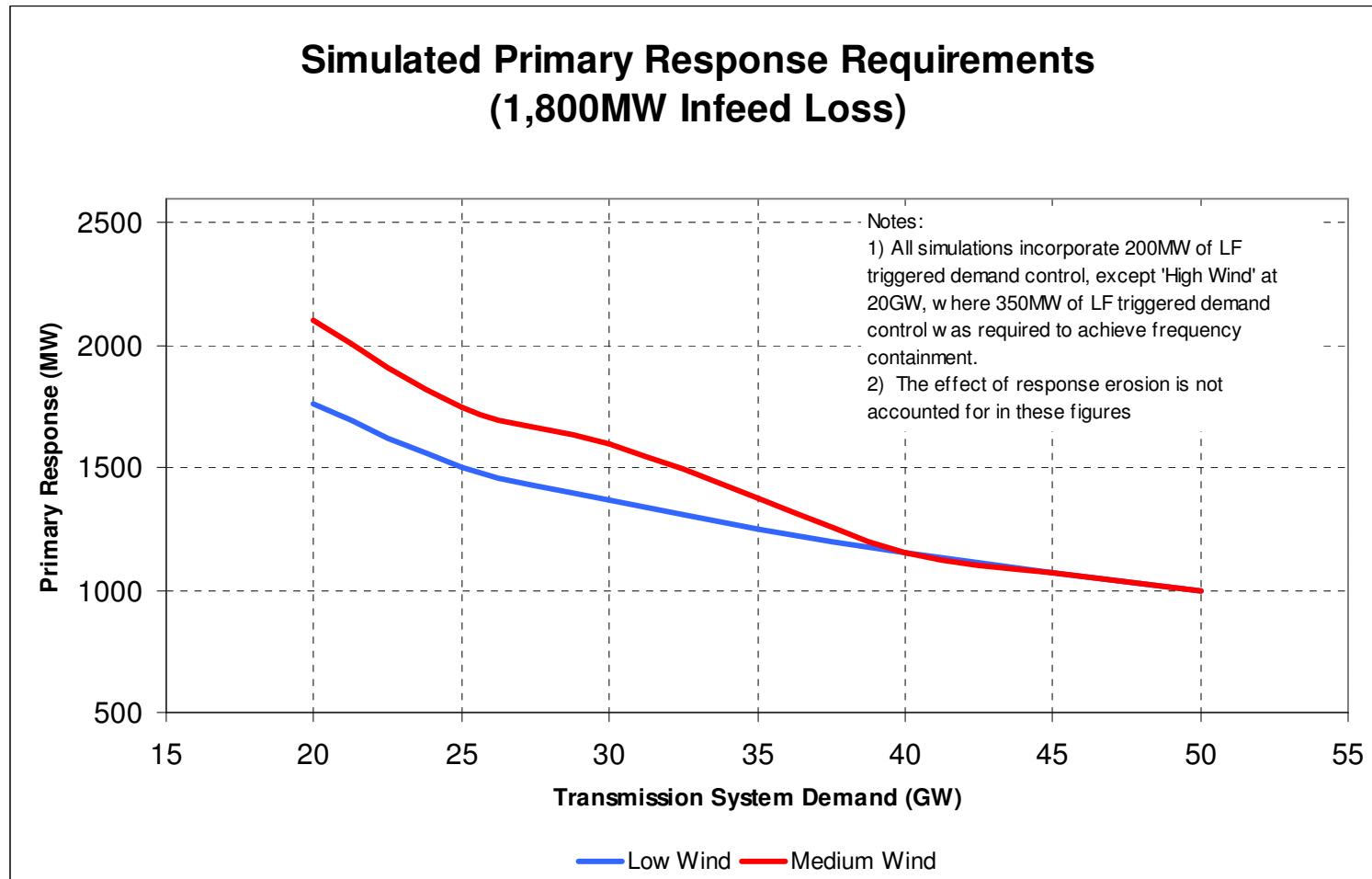
30 GW Low Wind Frequency Minimum < 10Sec



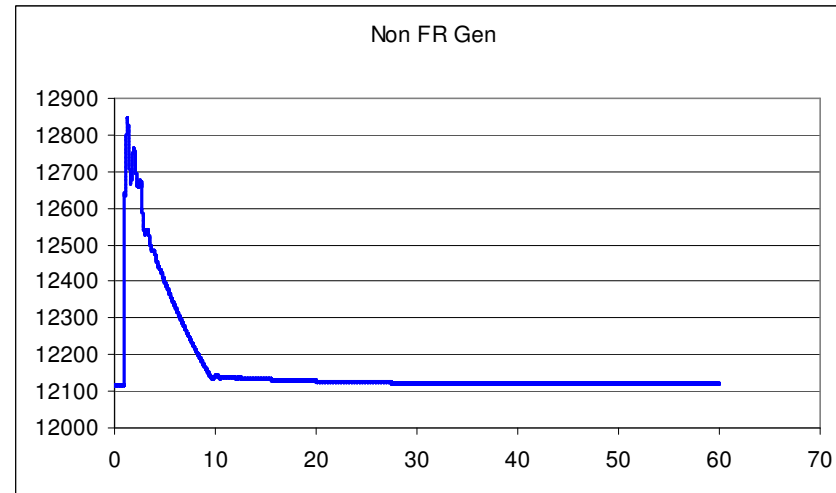
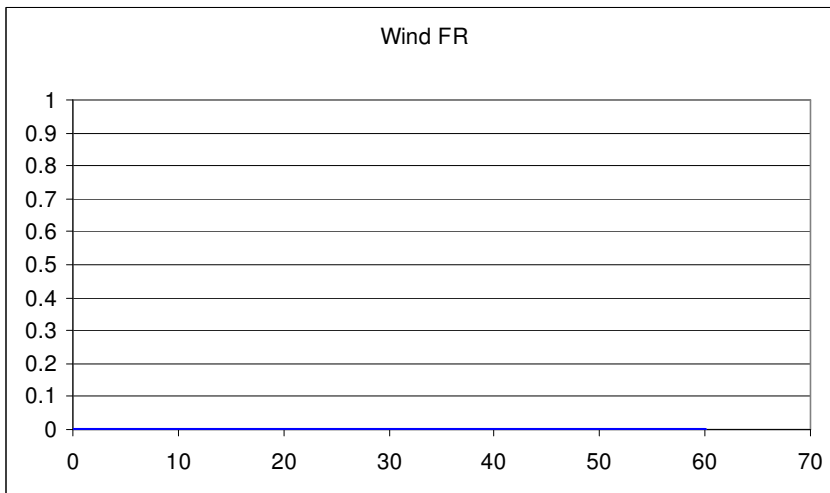
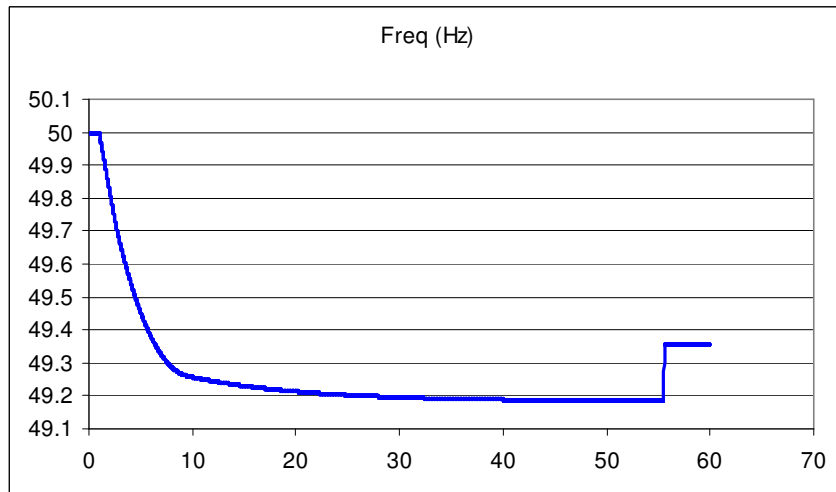
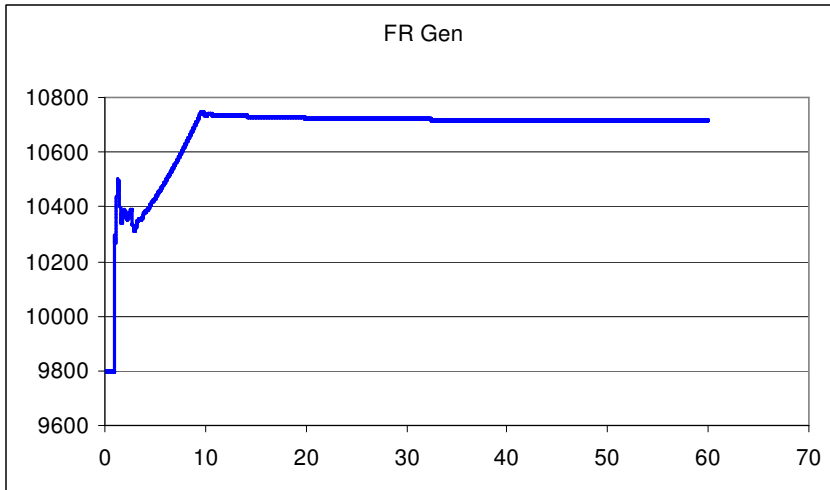
25 GW Low Wind Frequency Minimum < 10Sec



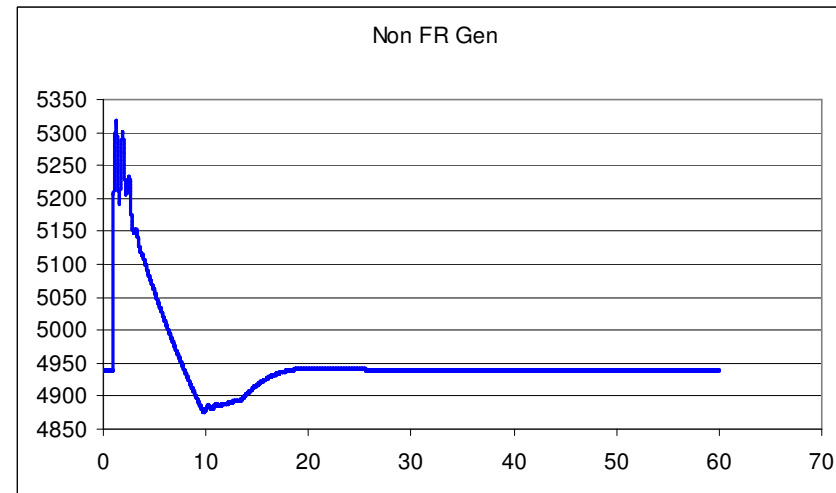
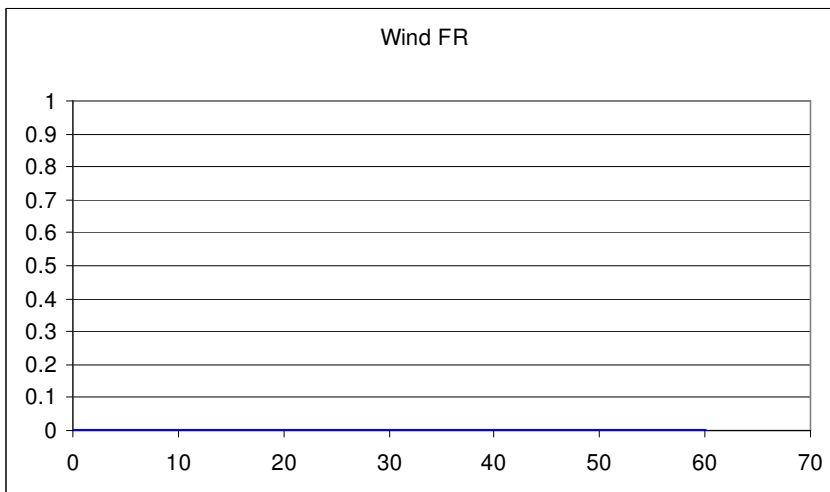
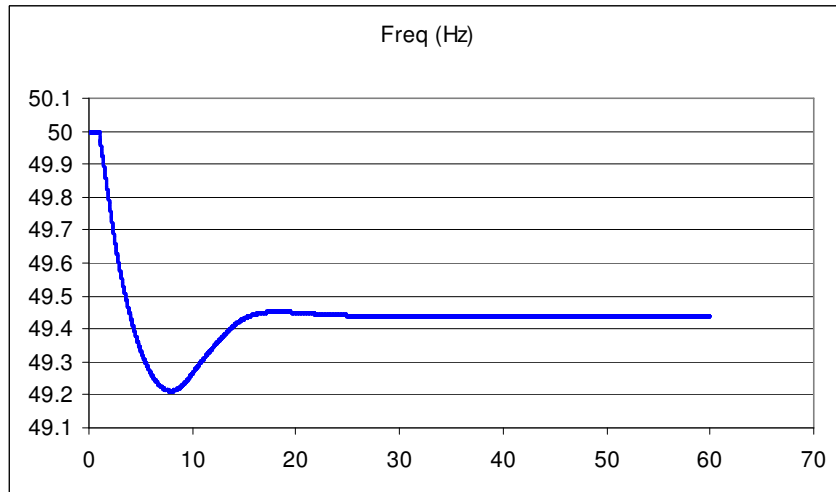
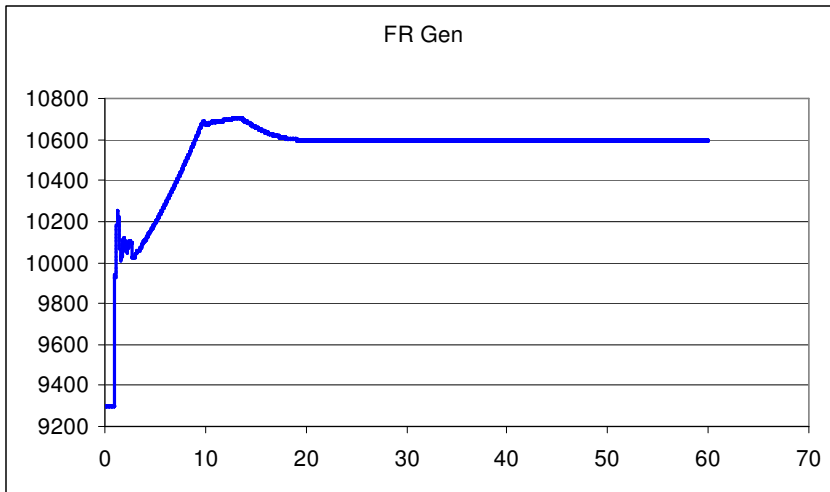
Medium Wind



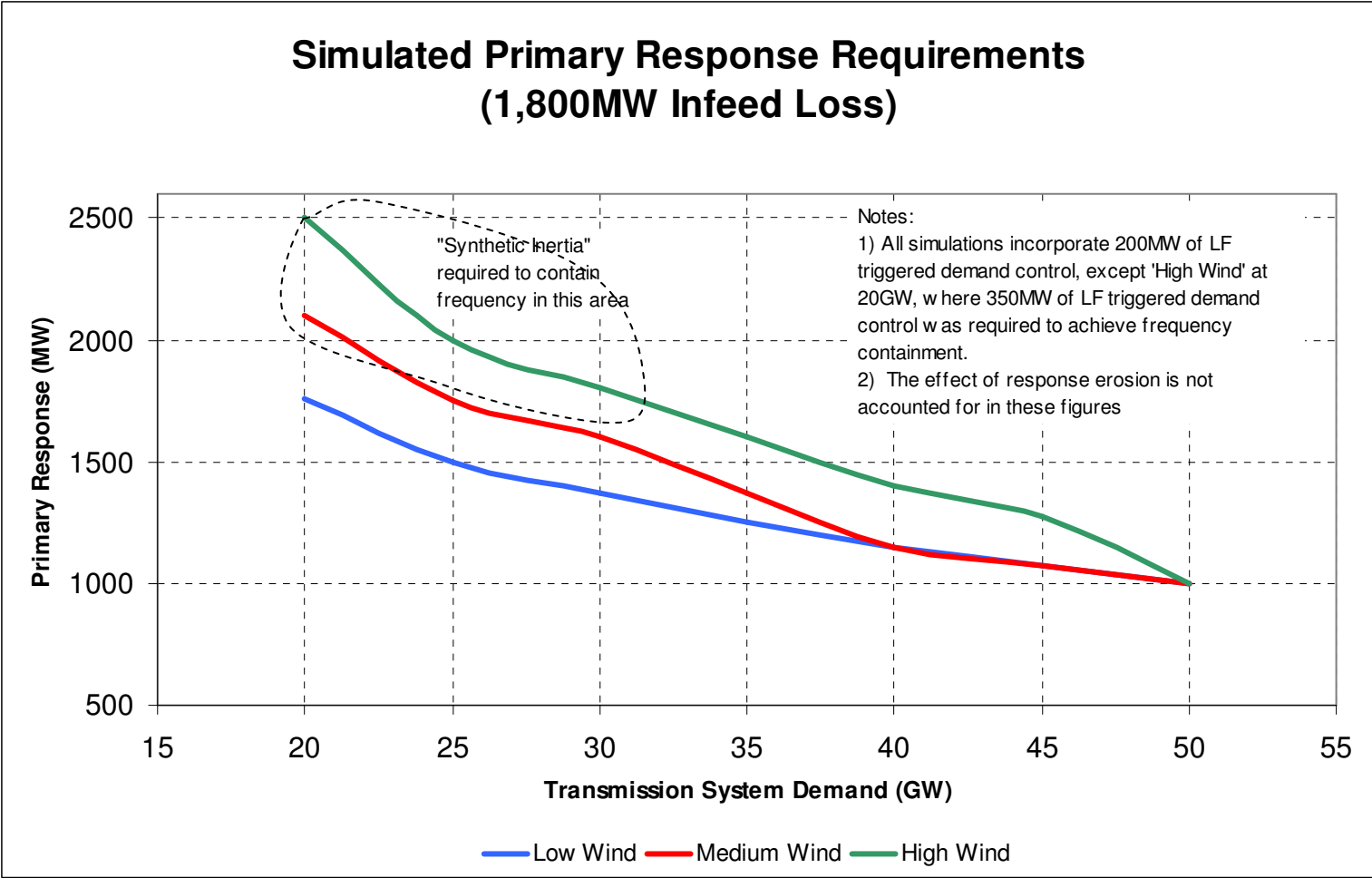
40 GW Medium Wind Frequency Minimum > 10Sec



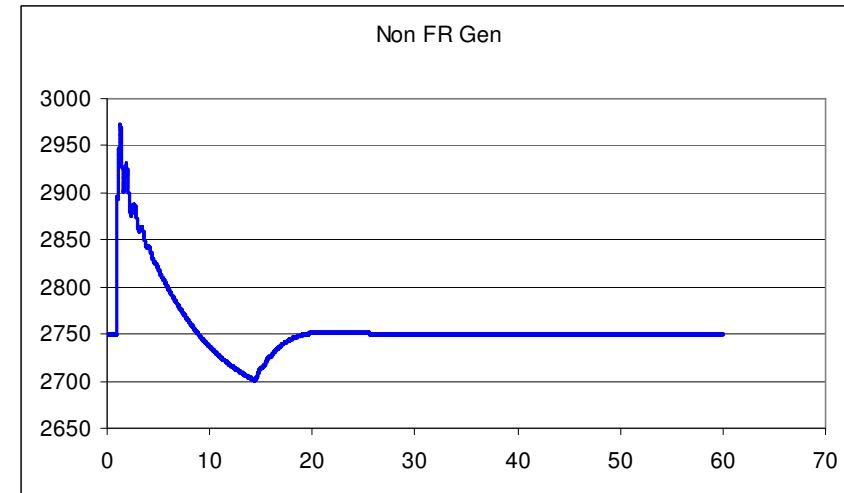
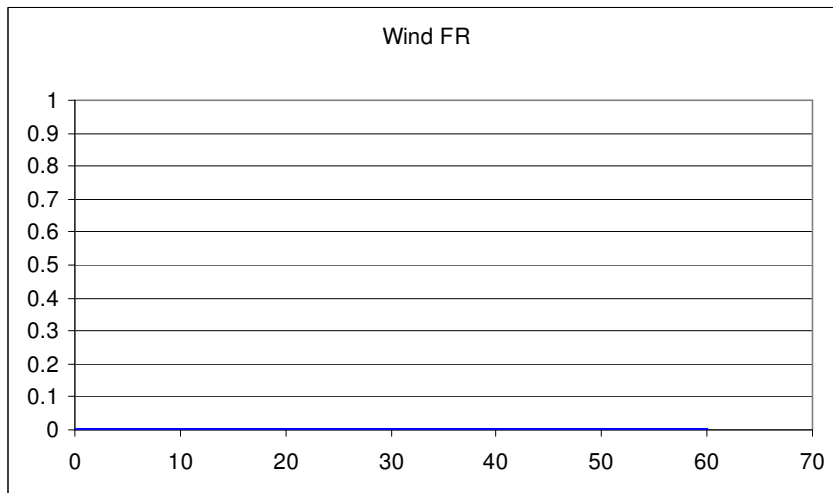
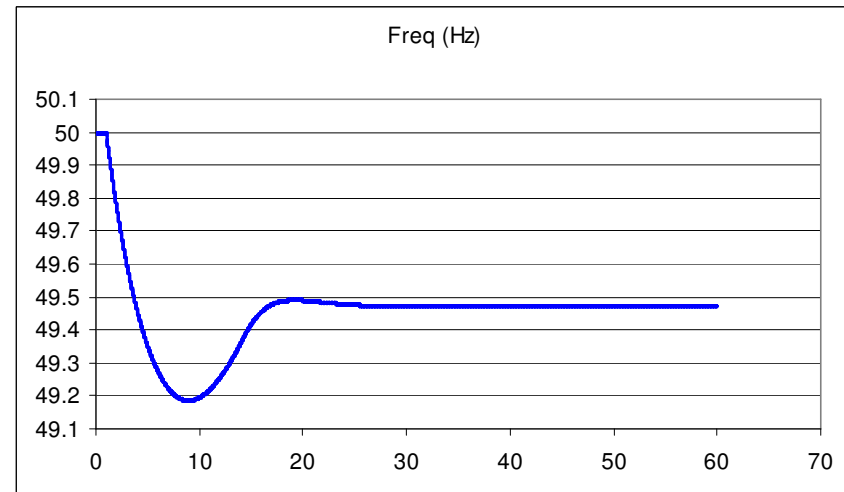
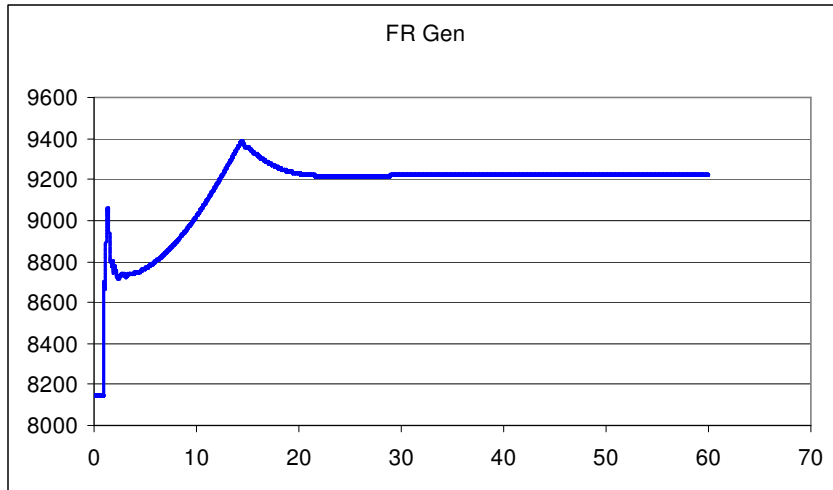
30 GW Medium Wind Frequency Minimum < 10Sec



High Wind

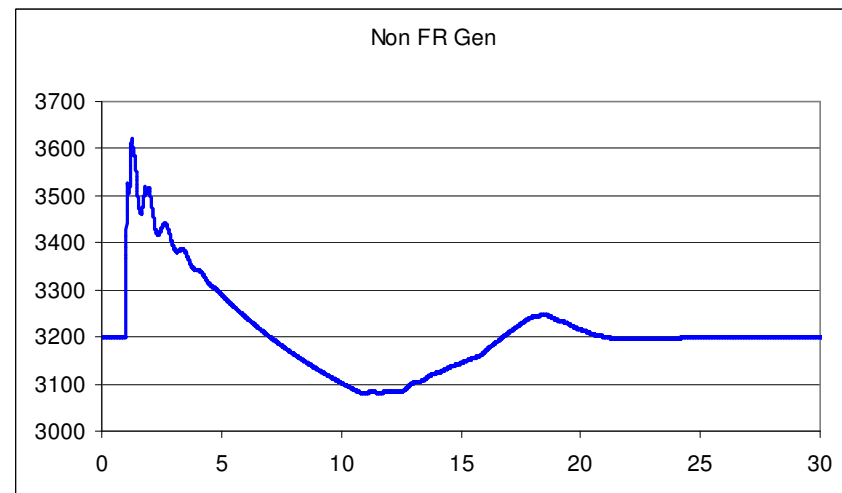
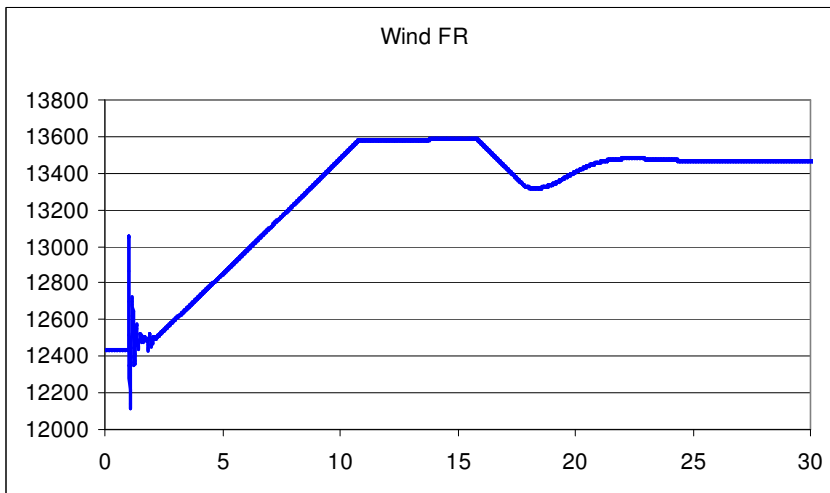
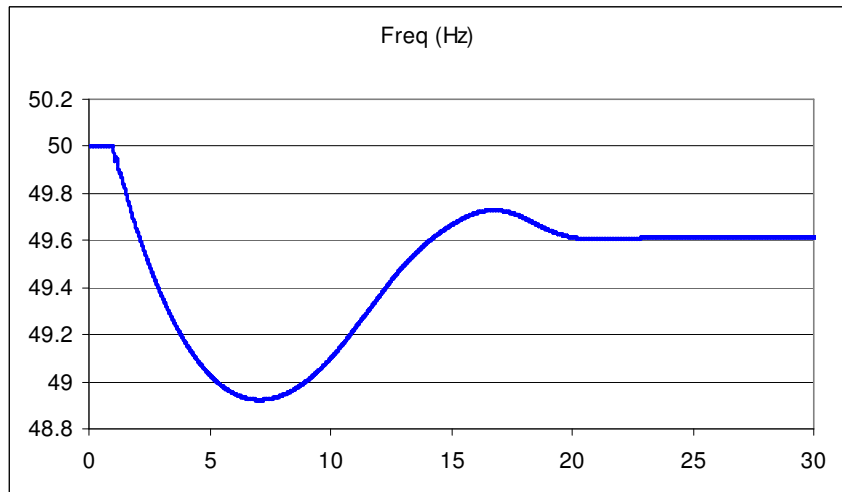
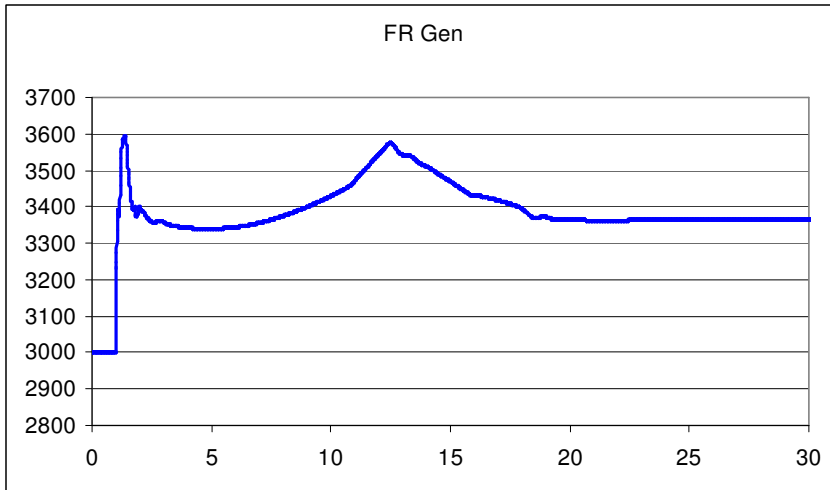


45 GW High Wind Frequency Minimum < 10Sec



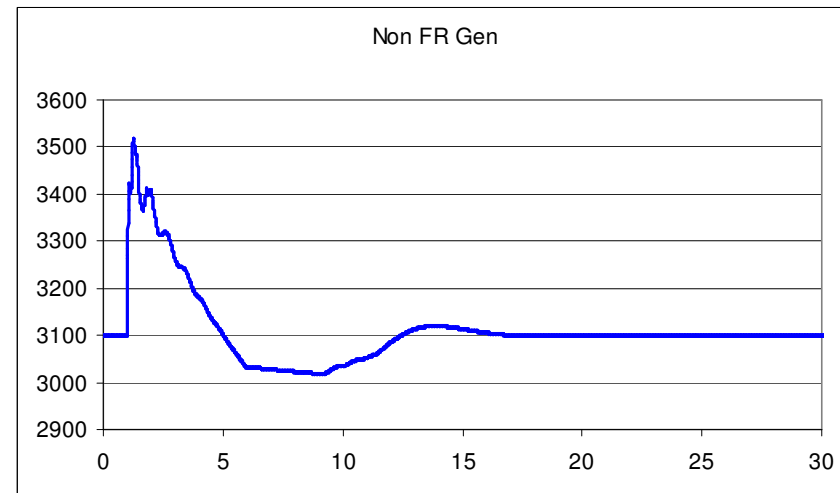
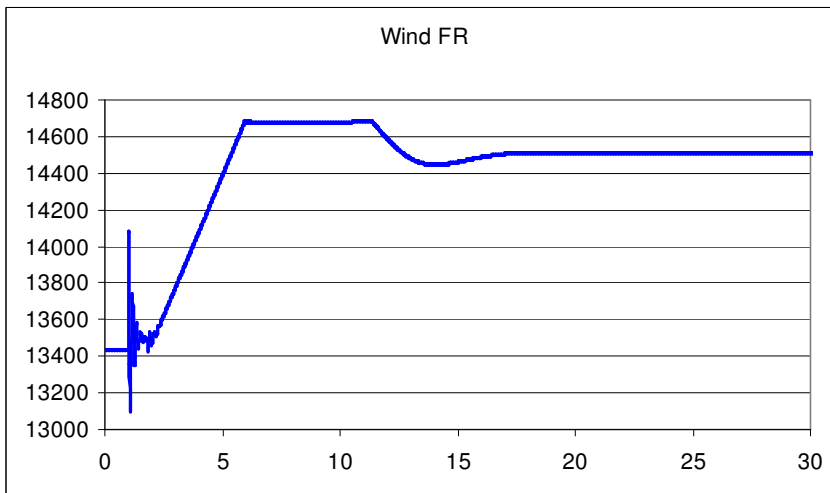
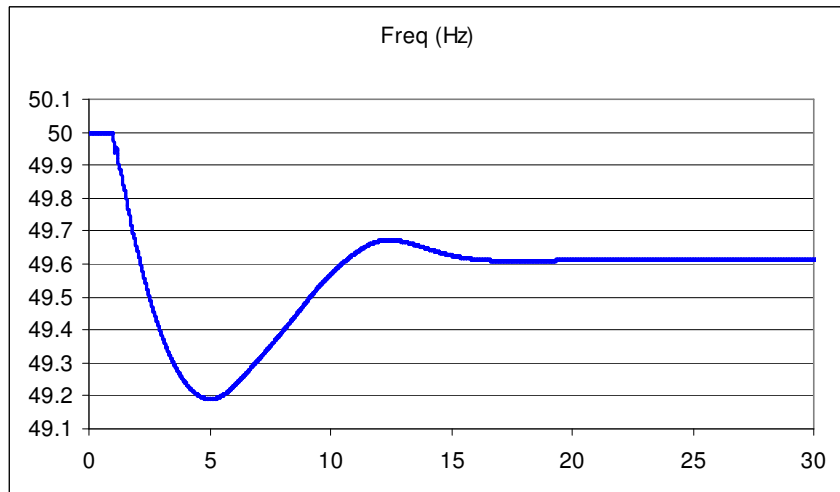
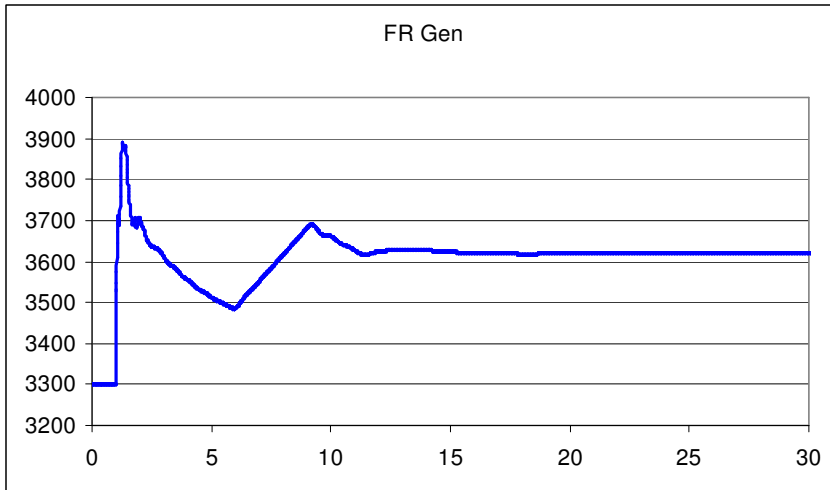
25 GW High Wind

Frequency Containment not achieved



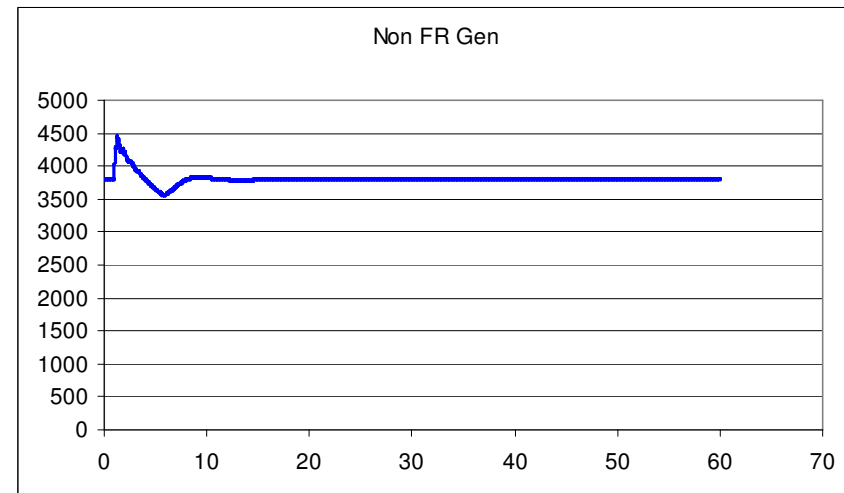
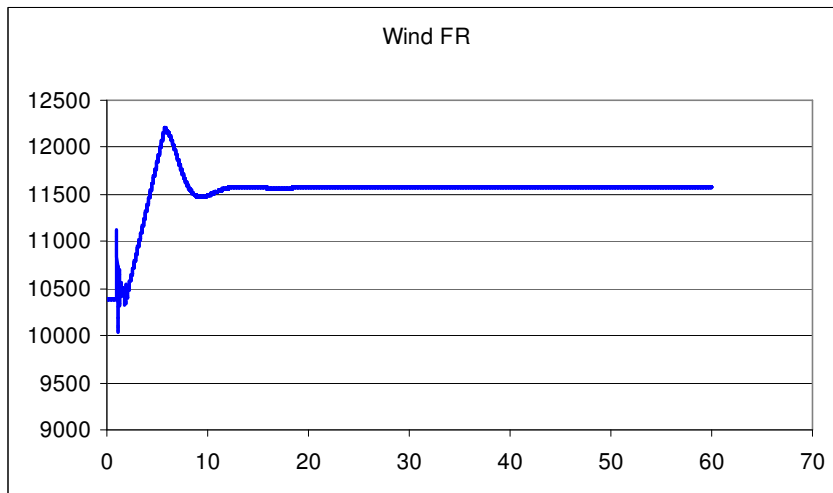
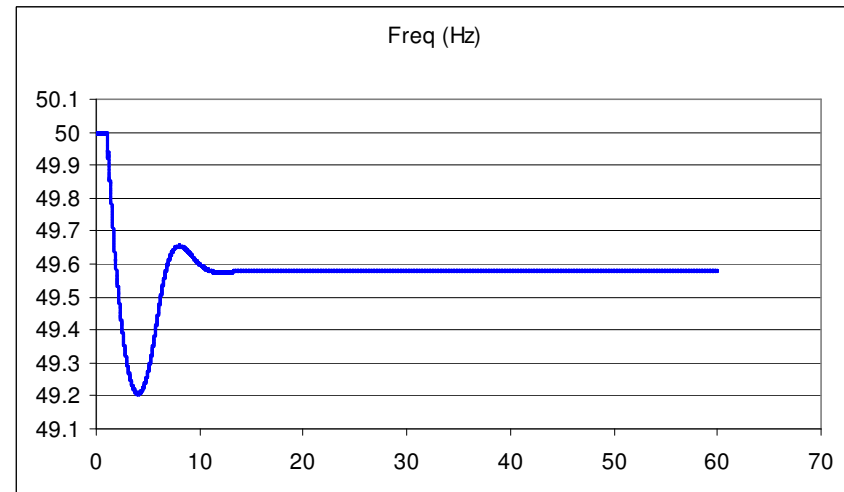
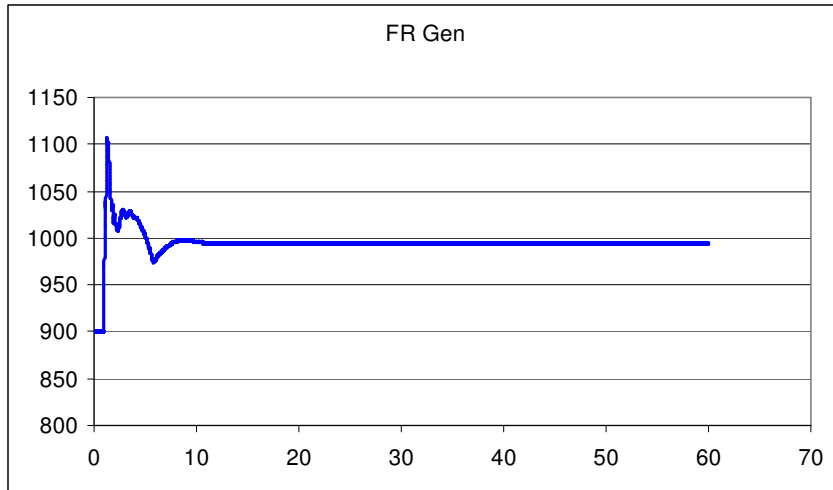
25 GW High Wind

Asynchronous response in 5 seconds



20 GW High Wind

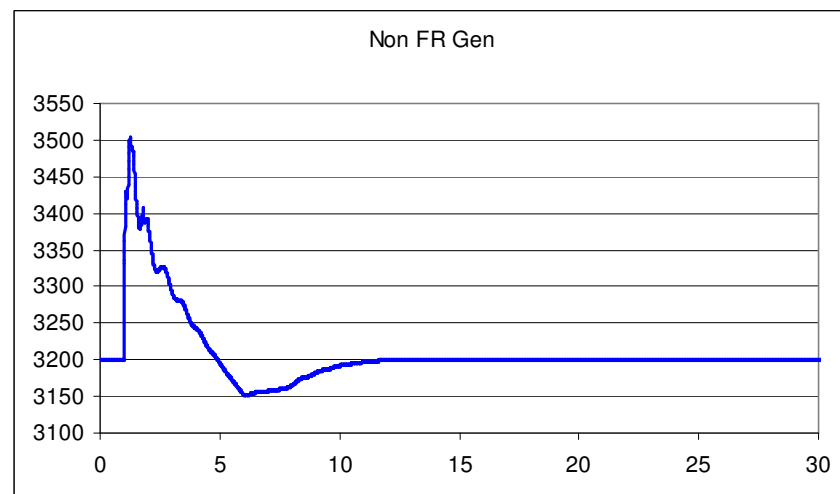
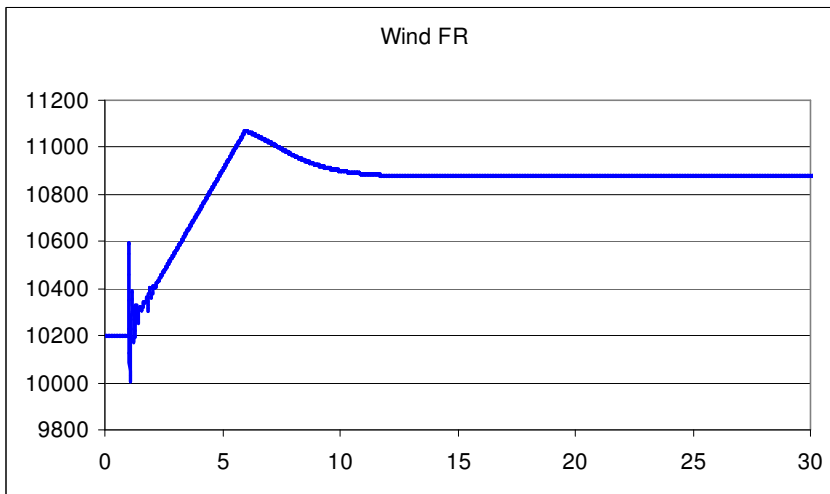
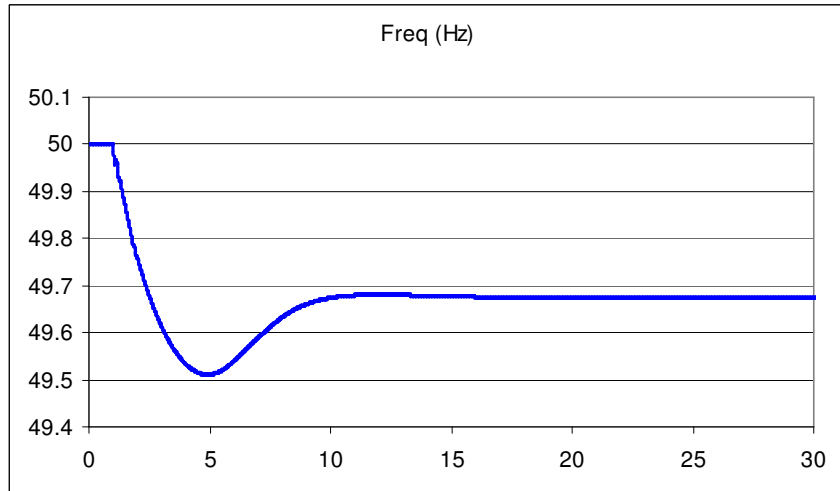
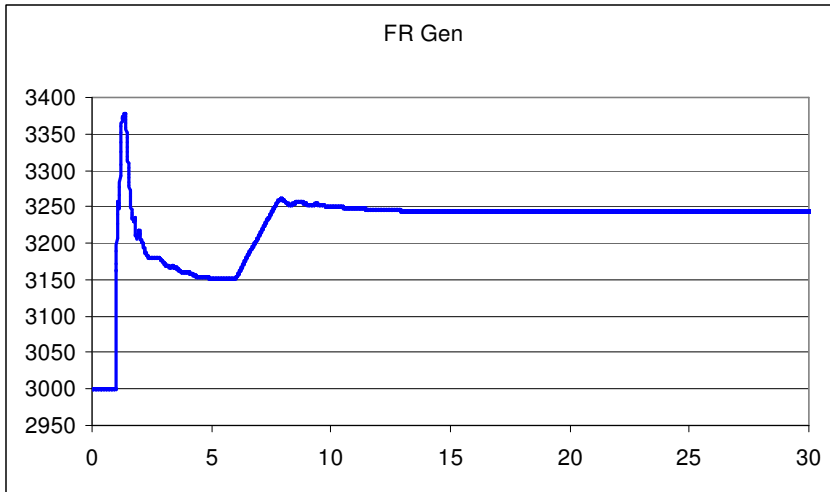
Asynchronous response in 5 seconds



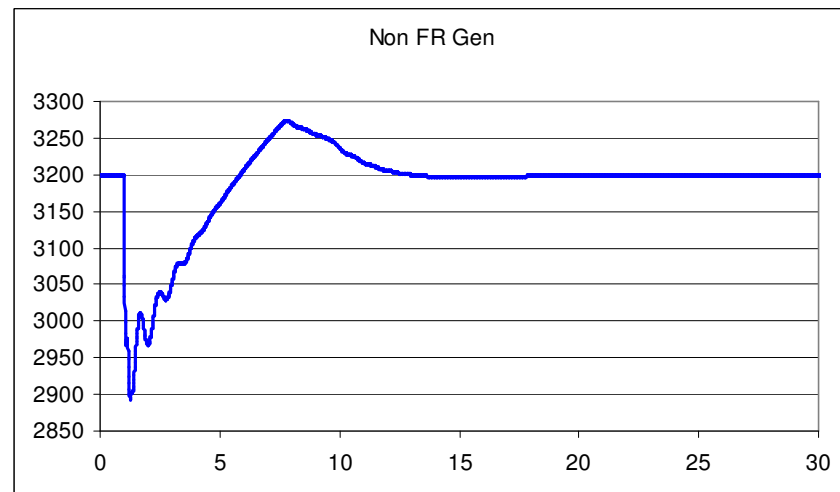
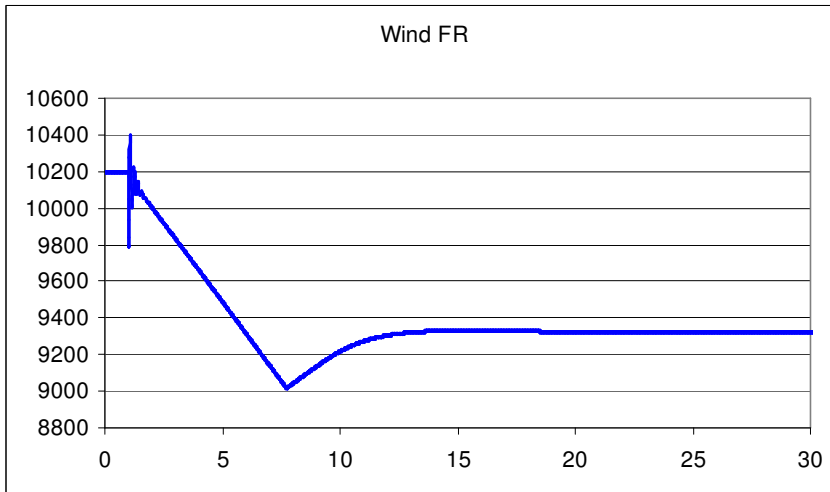
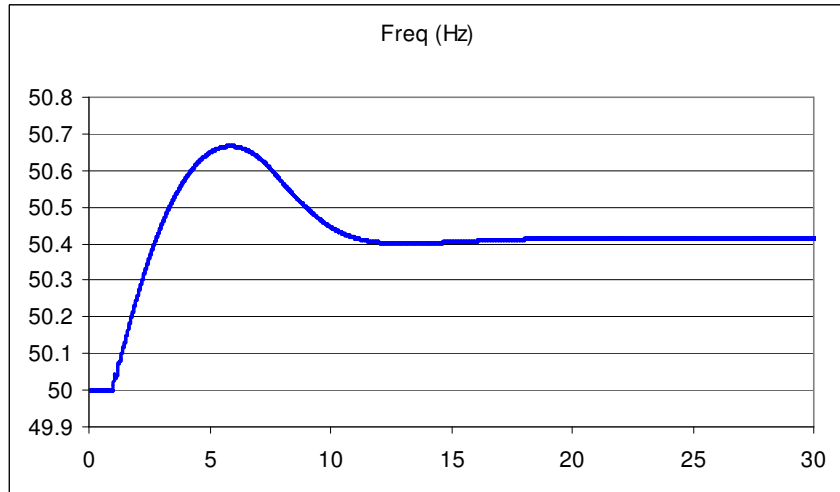
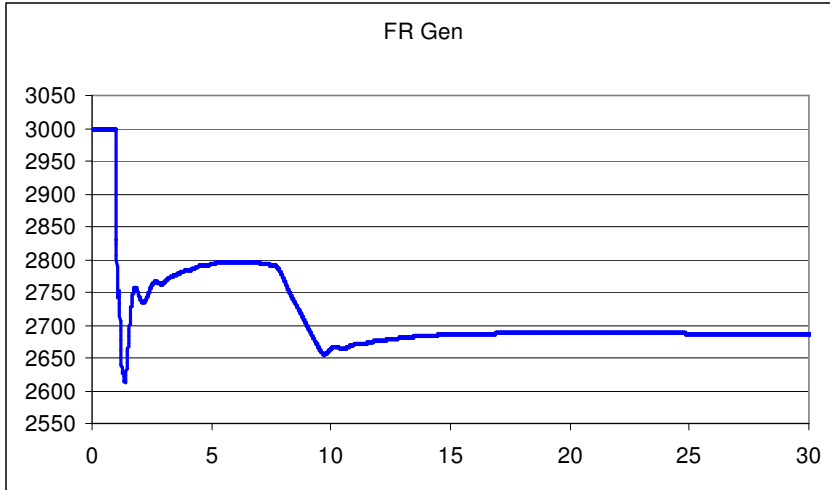
Further Work

1,320MW Infeed, High Frequency and
Response Erosion

25 GW High Wind 1320MW Infeed Loss



25 GW High Wind 1400MW Demand Loss



25 GW Low Wind

1800MW Infeed Loss – response erosion

