

# Performance Monitoring – A Generators Perspective

June 2013  
Dublin

## Performance Management

- History of Performance Monitoring in NI
- Impact of SEM Performance Monitoring
- Recent Developments



AES Ballylumford



AES Kilroot

## History of Performance Monitoring

- Culture of performance Monitoring since privatisation and introduction of GUAs
- Monitoring against contract requirements for performance
  - Active Power/flexibility
  - Reactive power capability
  - Transient response capability
- Penalties for underperformance
  - Availability payment reduction
  - Rebates of availability payments
- Notification by Post event notice
- Event recorder information shared

# Active Power/Flexibility

As a result of real time monitoring and warning with reduction in penalty with increase in notice given

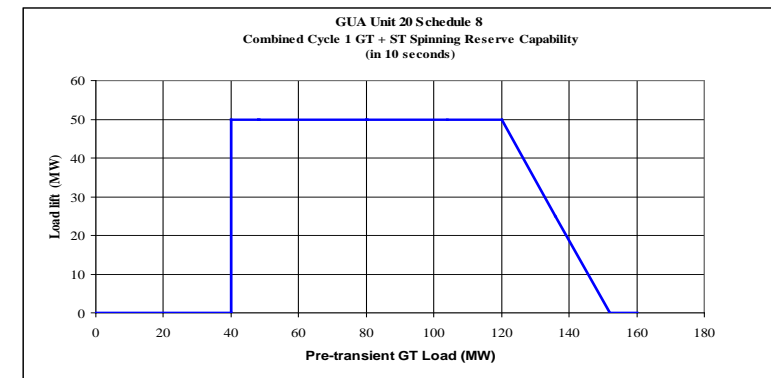
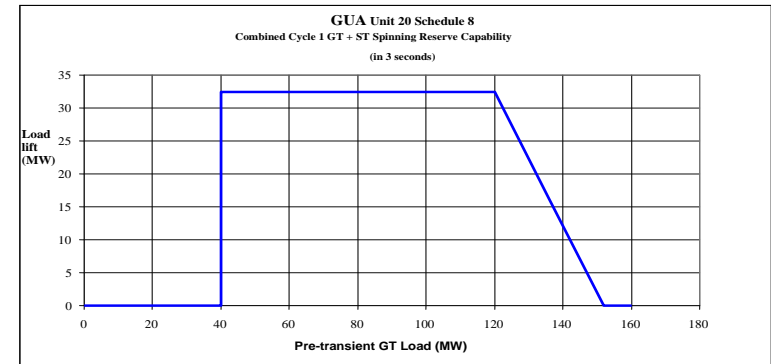


## Frequency Response

- Defined in GUA - Initial response and sustained response
- Measured against contract response curve
- Significant financial penalty for failure to provide sustained response
  - $150 * SRD * BAC$

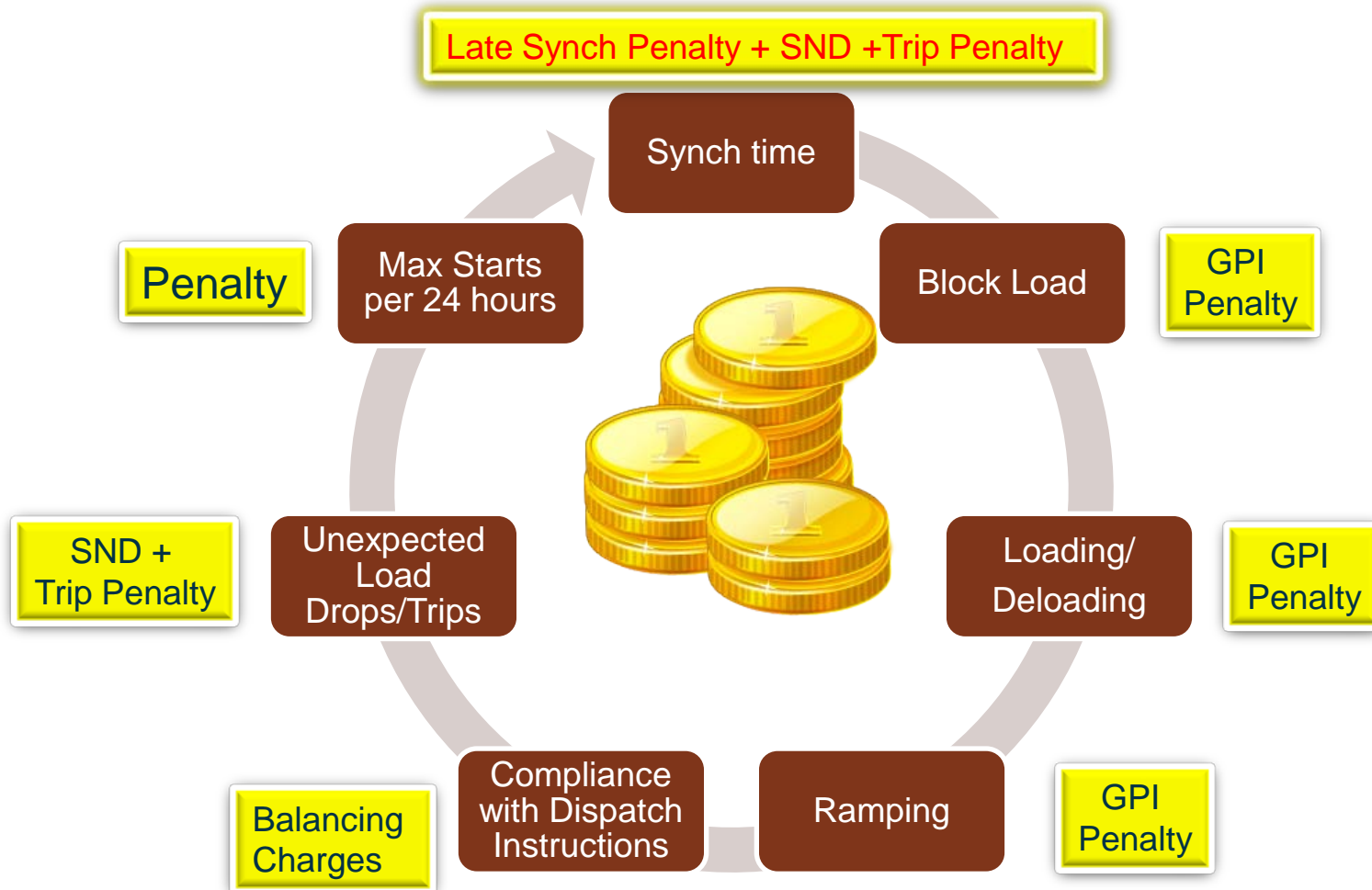
## Reactive Power

- Penalty based on MVAR reduction
  - value subject to monitoring notice issued



# SEM Performance Monitoring

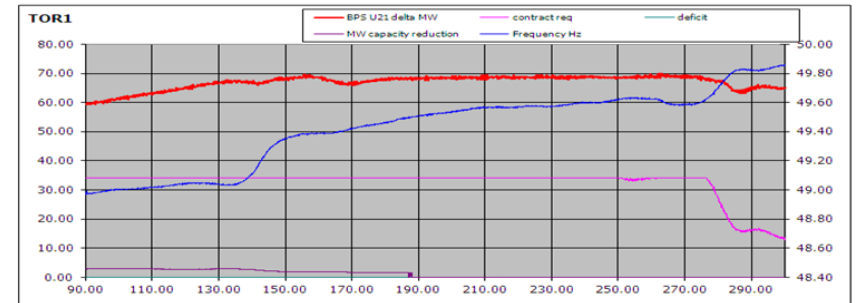
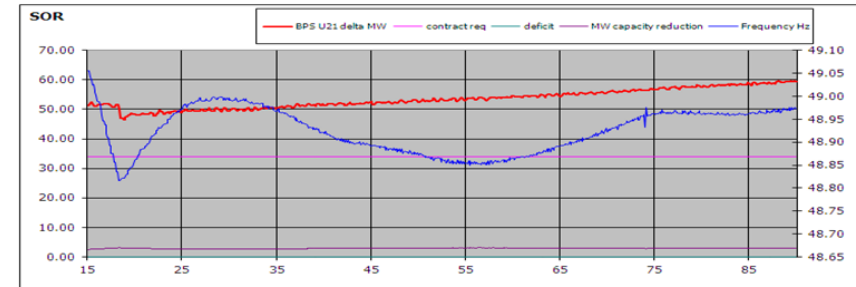
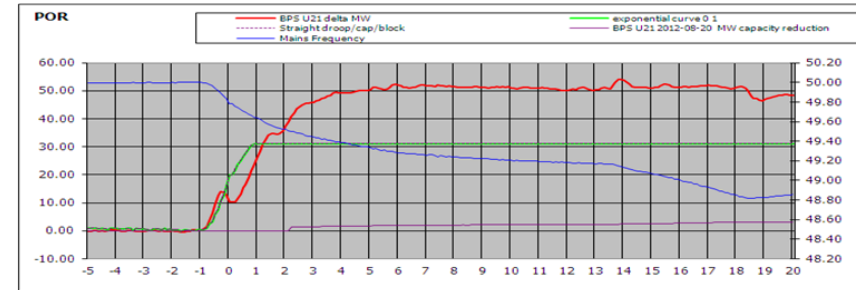
- Active Power/Flexibility



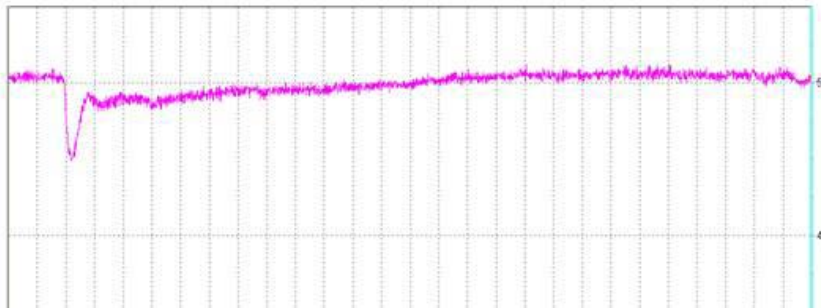
# SEM Performance Monitoring



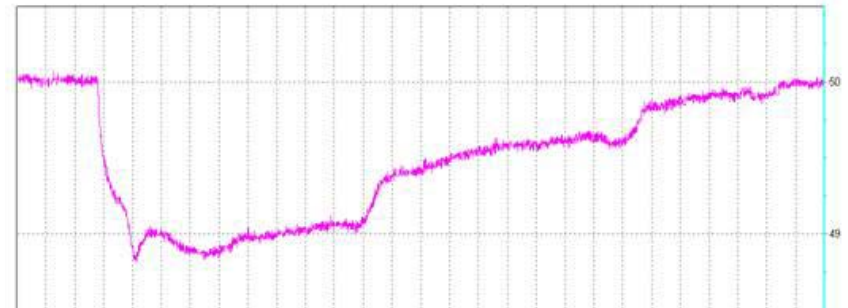
- Frequency Response
  - GUA Contracted Response vs HAS Response Contract
    - Initial & sustained vs POR, SOR, TOR
  - Good Provision of data for assessment of performance
- Reactive Power
  - Full Load values in HAS – min range



# TRANSIENT VARIANCE



1

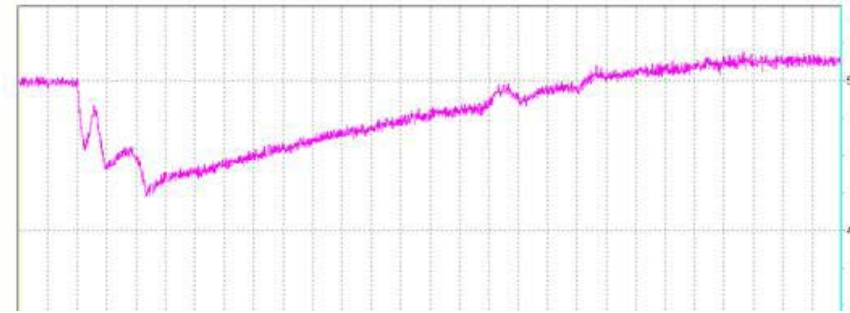
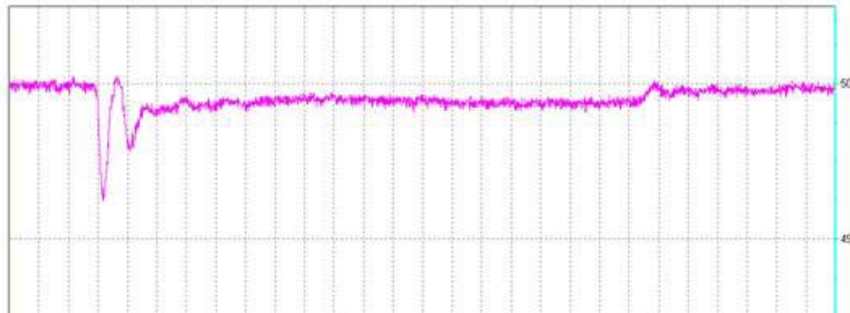


2

The changing nature of transients,  
rapid recovery, double dip and  
rapid rise transients

4

3





# Recent Developments

- Flexibility reduction
  - Notice time – by TSO
  - Pre start Monitoring
  - Ramp up/down penalties
    - Provision for routine testing
  - Target frequency dispatch
- Grid Code compliance – OC11
  - Lack of real time transparency
  - Loading/deloading/ramp
  - Monitoring/warning/monitoring notice
  - Ability to challenge data
  - Operation at Max rates (TOD data)
- Fuel Switching
  - No fuel switching arrangements in place yet in NI

