# Joska Ferencz Basslink Interconnector

6th June 2008



#### **Frequency Controller**

- 1. The Basslink Frequency Controller has a non linear response by design to additionally modulate the power reference to control the system frequencies while considering the different frequency standards of the two systems.
- 2. Frequency control is a stability function inherent to HVDC.
- 3. Limitations of the Basslink FC are:
  - a. If flow in wrong direction, or
  - b. There is an AC Under/Over-voltage.



#### **Frequency Controller**

- 4. June 1 & 2, FC Active 500 times
  - a. Min duration 4 Sec
  - b. Max duration 5.43 Min
  - c. Mean 2.08 Min
  - d. Standard deviation 1.32 Min
  - e. Total 17.42 Hours of 48 Hours or 36%



#### **Costs**

- 1. Majority of submission concede that more FCAS may be required.
  - NEMMCO "If sufficient FCAS could not be procured under certain conditions, then NEMMCO could be forced at times to constrain flow on Basslink or the output of the largest Tasmanian generating unit to ensure that the frequency standard is met."
  - a. If standard change means that Basslink flows are restricted through market mechanisms then direct negative impact on revenue.
- 2. If standard change modelling and augmentation cost would need to be recovered.



#### **Conclusion**

1. BPL advocates for frequency review outcomes/solutions that protect the current level of flows and manoeuvrability of Basslink under NEMDE dispatch.

