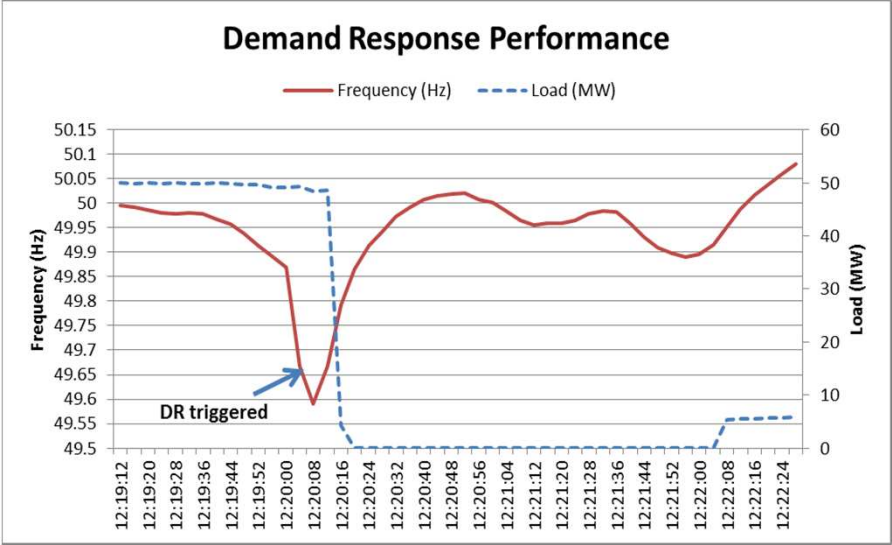


Optimise Demand Response for Primary Frequency Control

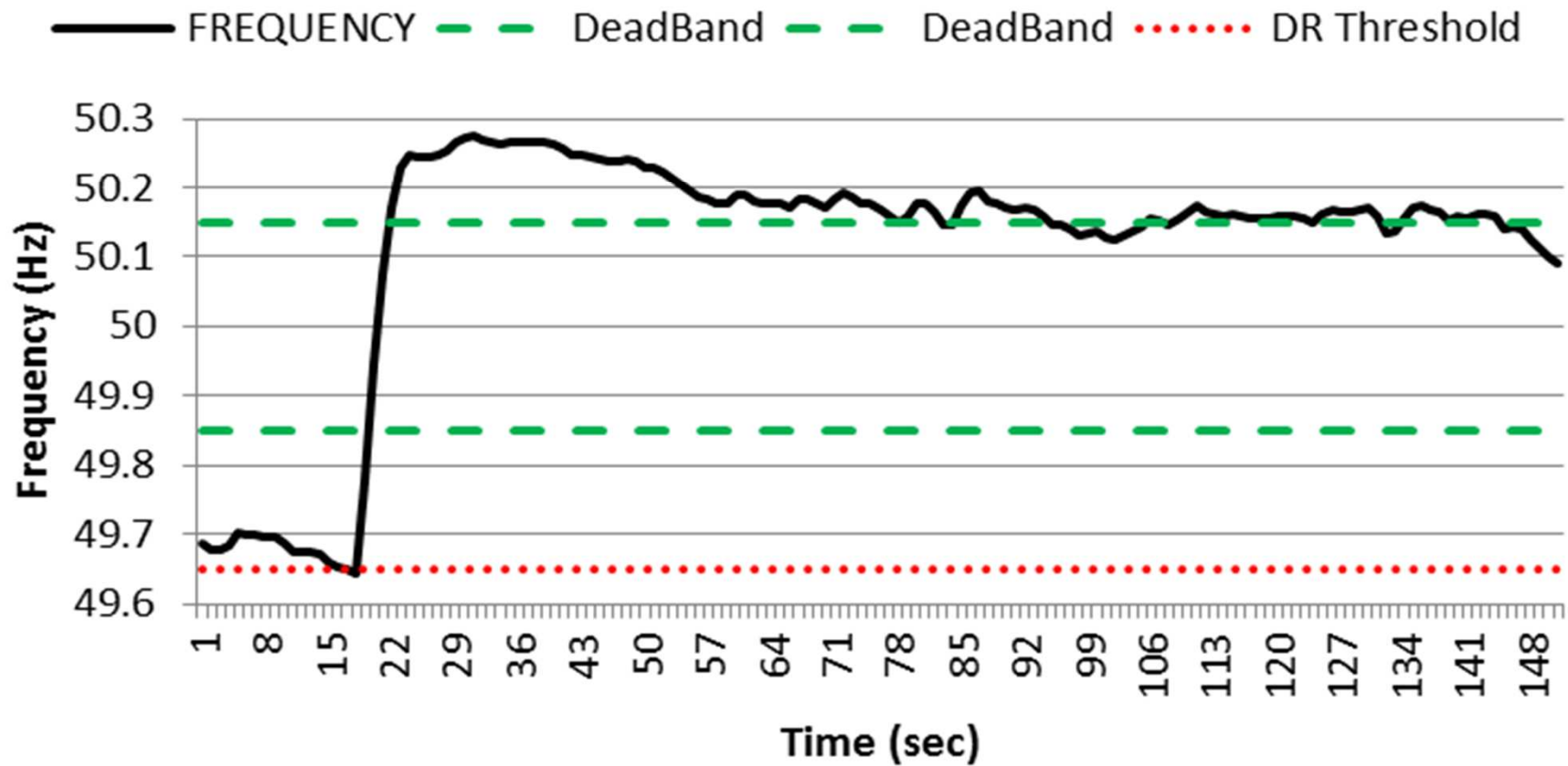
Musa Gumede
Eskom Holdings SOC Ltd

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Frequency Overshoot when large IDR block activated





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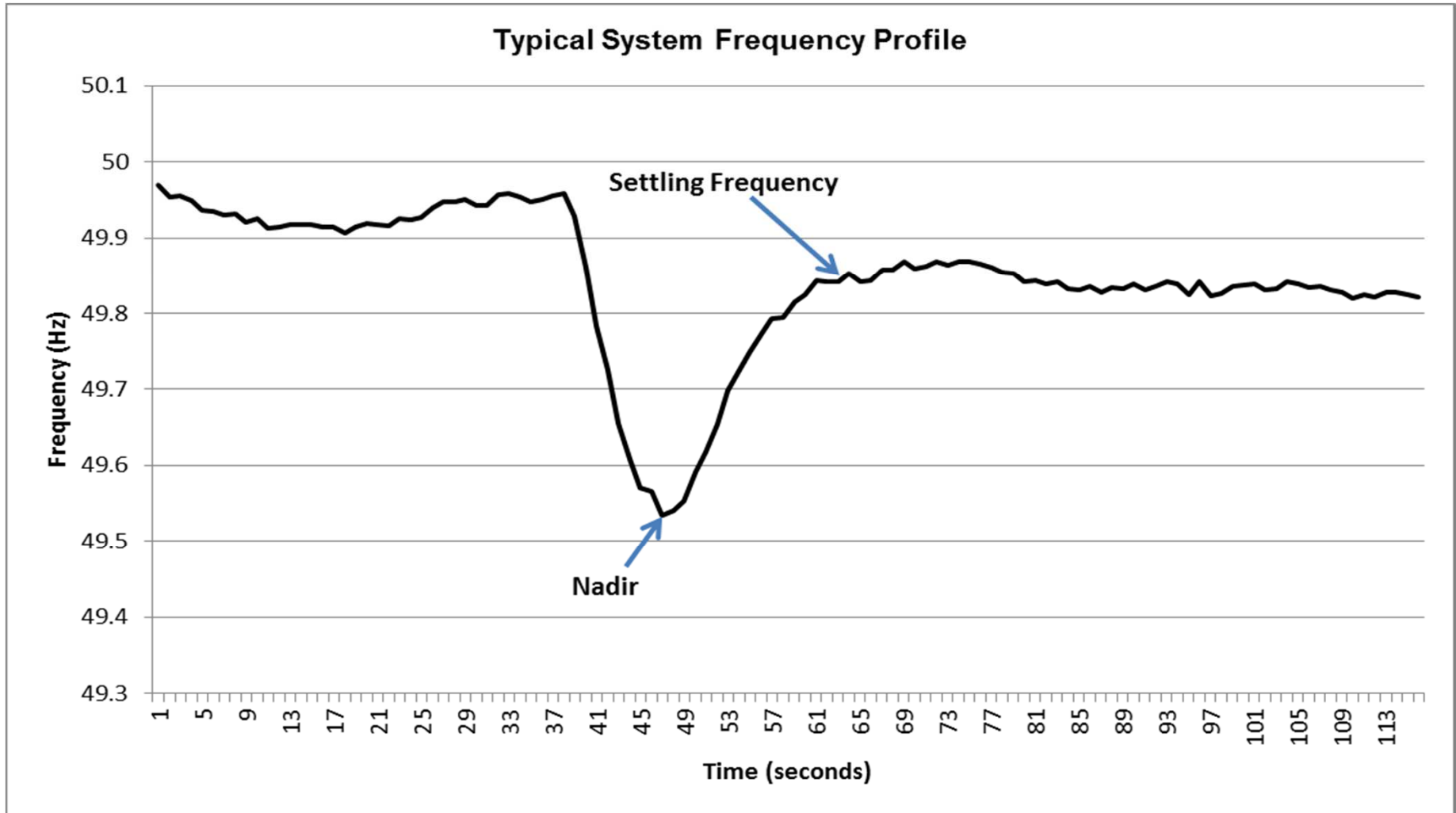
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Typical System Frequency Profile





DR Load (MW)	Nadir (Hz)	Settling Frequency (Hz)
200	49.531	49.624
400	49.531	49.719
600	49.531	49.770
800	49.531	49.810
1000	49.531	49.848





DR Load (MW)	Nadir (Hz)	Settling Frequency (Hz)
200	49.599	49.619
400	49.599	49.719
600	49.599	49.770
800	49.599	49.809
1000	49.599	49.849





DR Load (MW)	Nadir (Hz)	Settling Frequency (Hz)
200	49.535	49.627
400	49.535	49.727
600	49.535	49.780
800	49.535	49.820





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IDR Performance during large frequency deviation

