

Presentation for Norwegian industry parties

Sensitivity tests of NPT's v8D LRIC model

4 March 2013

Sensitivity tests have been implemented in the NPT v8D model to consider the impact of various network modelling decisions on the generic operator results

- Sensitivities have been implemented relating to the following aspects of the generic operator in the v8D model

1. GSM traffic
2. UMTS-only network
3. Voice migration (3G to LTE)
4. HSPA data traffic forecasts
5. Treatment of LTE data traffic
6. Cost trends
7. Market share

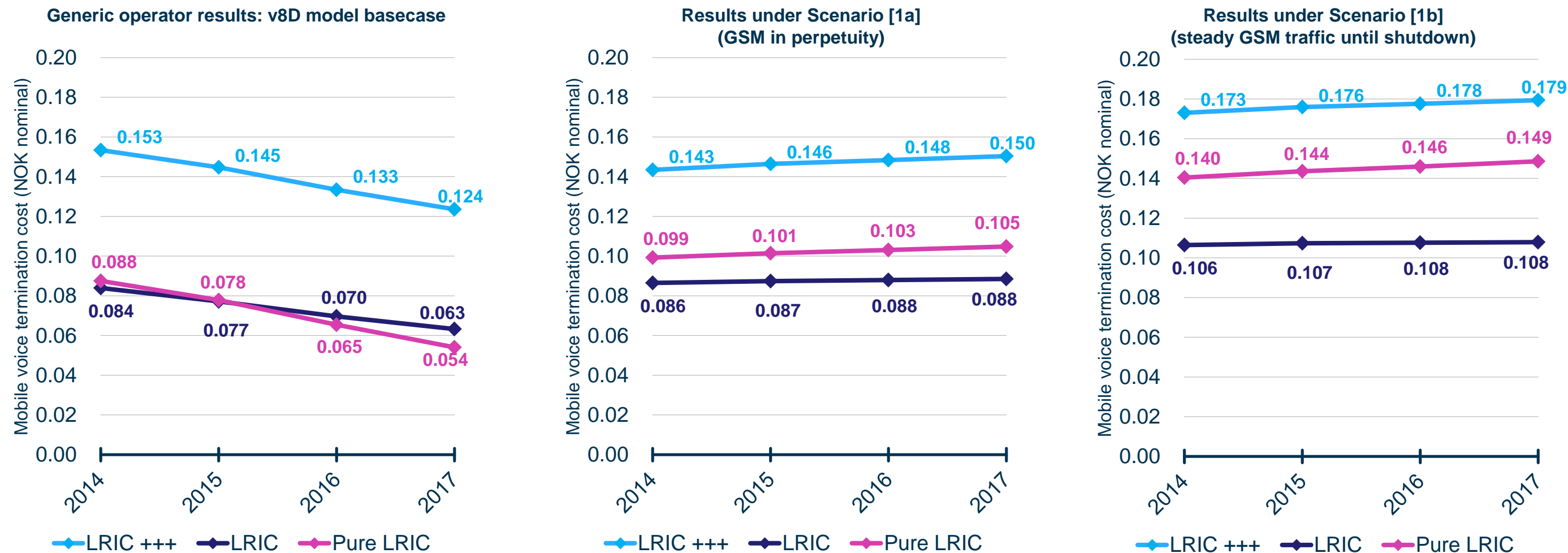
- All results are quoted in nominal NOK

Sensitivity tests implemented in the NPT v8D model

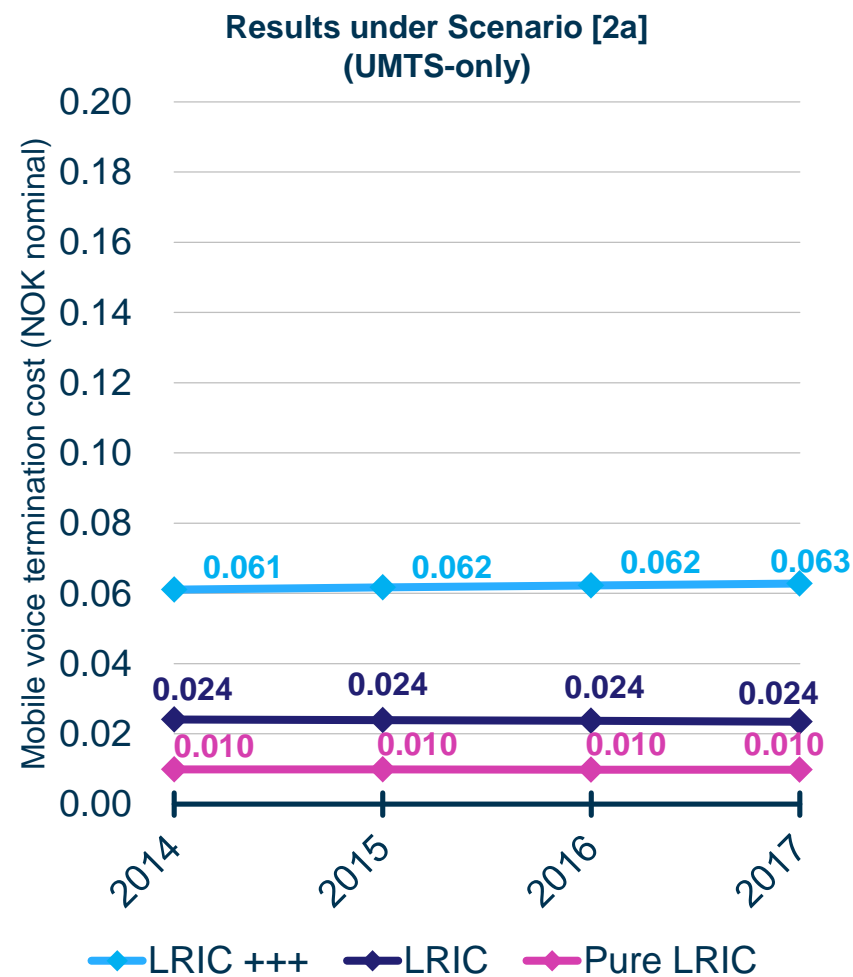
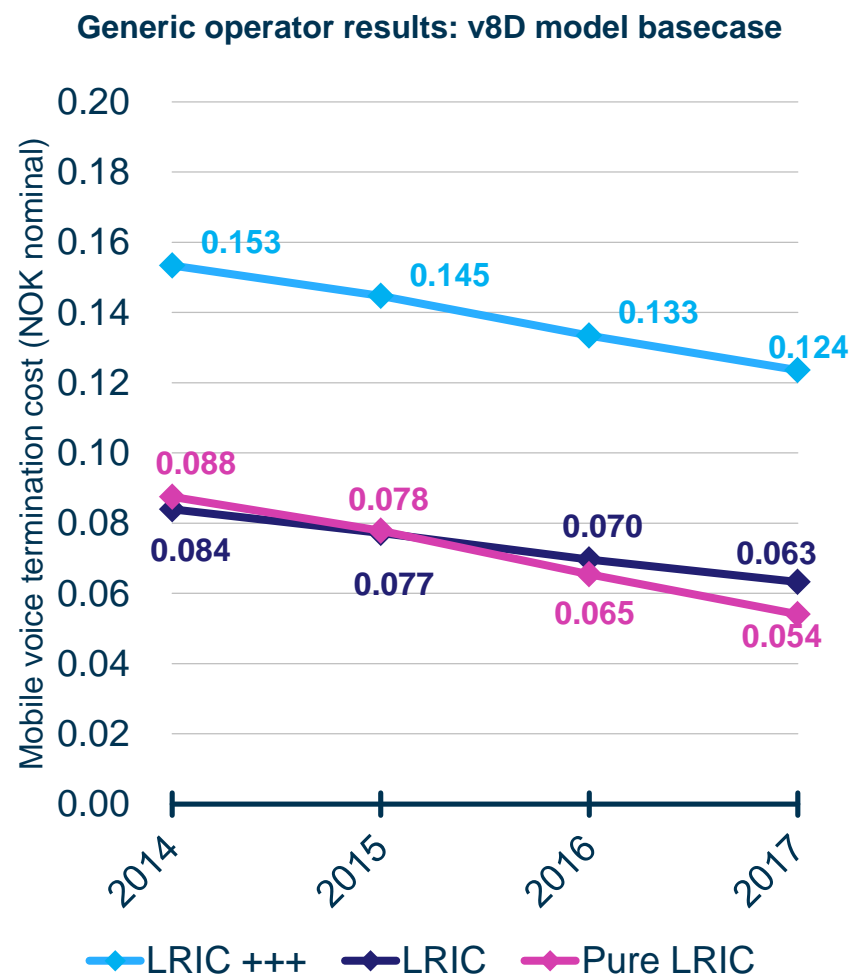
No	Draft base case assumption	First test	Second test
1	GSM is shut down in 2019, with a linear migration	[1a] GSM in perpetuity	[1b] Flat levels of GSM traffic until shutdown
2	GSM shut down in 2019, UMTS in perpetuity	[2a] UMTS network in perpetuity only	
3	20% of voice migrates to LTE in the long term	[3a] 60% of voice migrates to LTE in the long term	[3b] 3G shutdown 2030 – all voice to LTE
4	1750MB per subscriber per month in the long term	[4a] Double HSPA data	[4b] Half HSPA data
5	No costs are allocated to LTE megabytes	[5a] Allocate some site costs to LTE using routing factors	
6	Cost trends as in the v8D model	[6a] Cost trends in perpetuity	[6b] Zero cost trends after 2015
7	Mobile Norway has 85% coverage in long term	[7a] Mobile Norway has 75% coverage in long term	[7b] Mobile Norway has 100% coverage in long term

Source: NPT v8D model

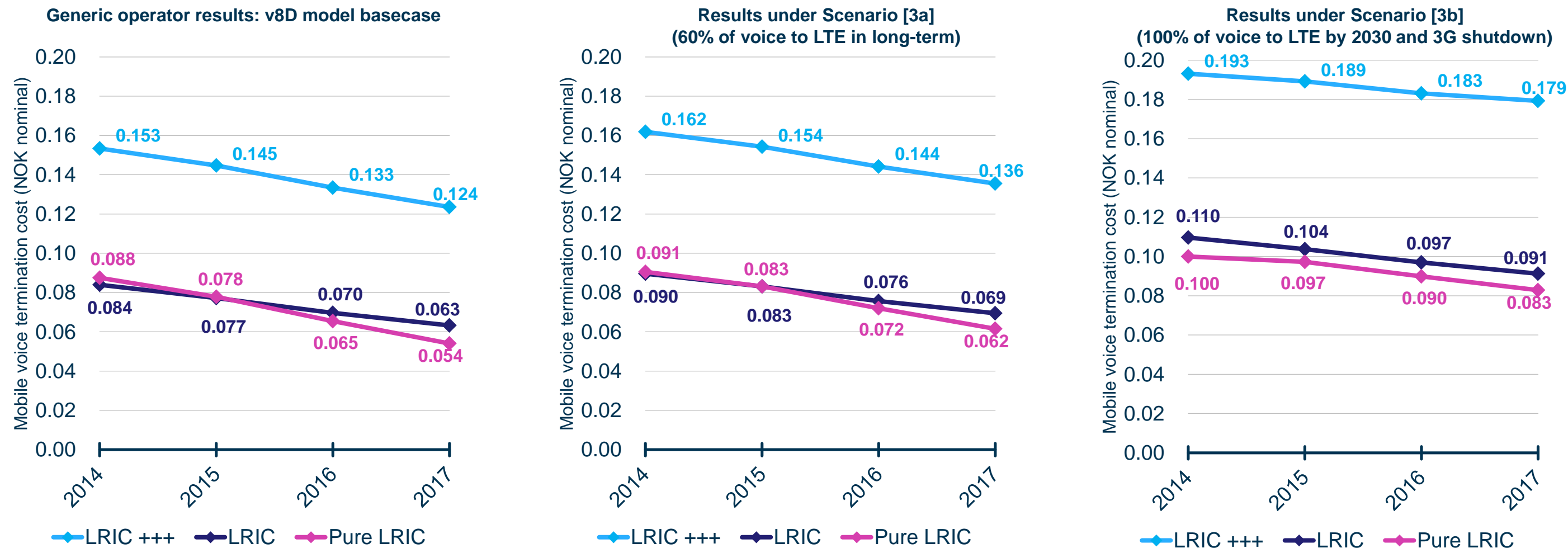
Sensitivity test 1: Treatment of traffic carried over the GSM network



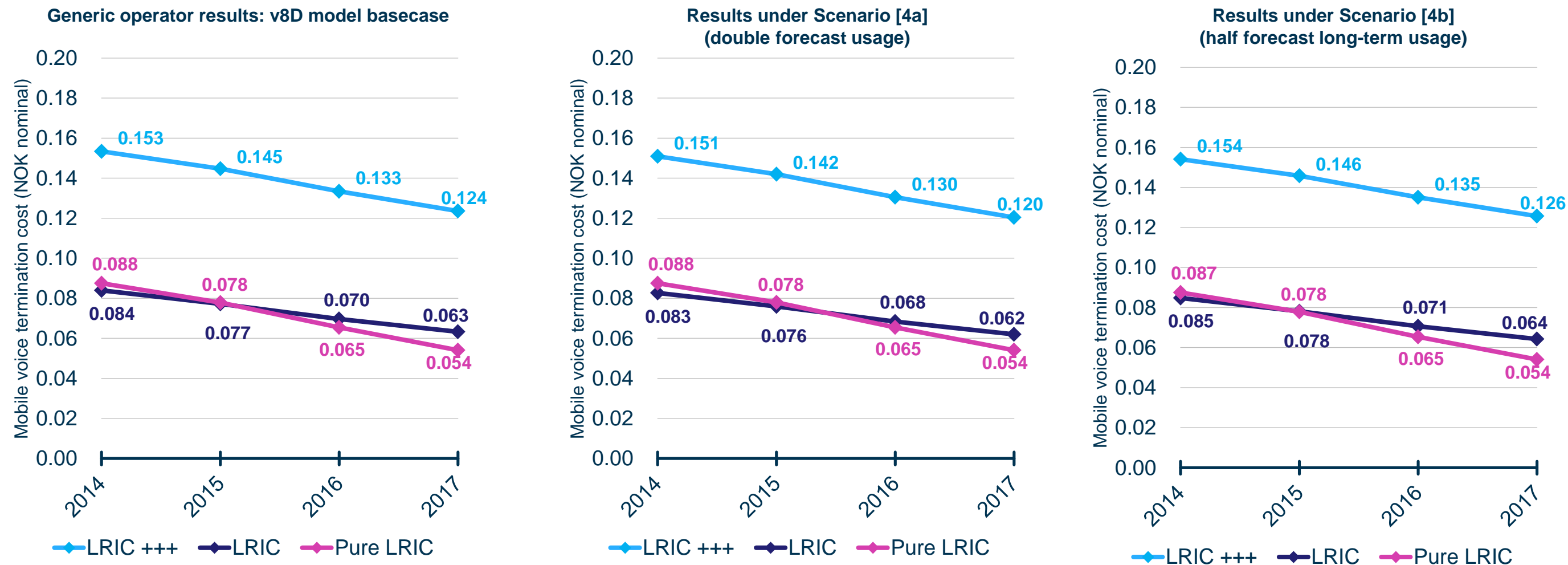
Sensitivity test 2: Treatment of traffic carried over the GSM network



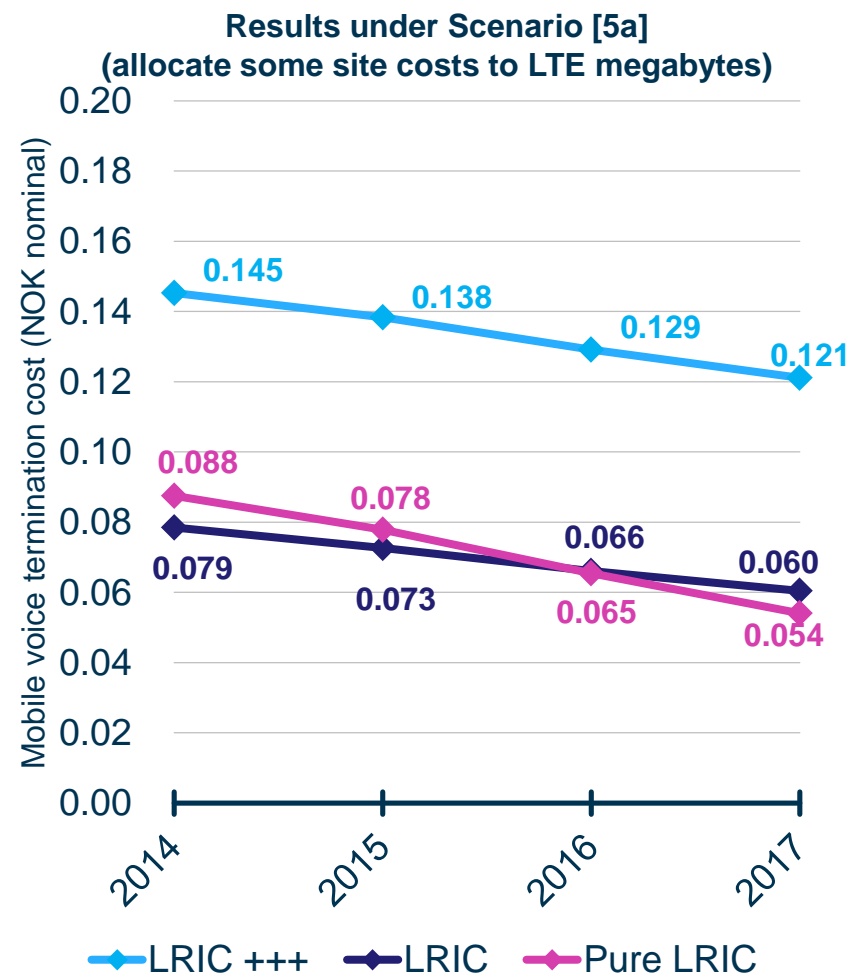
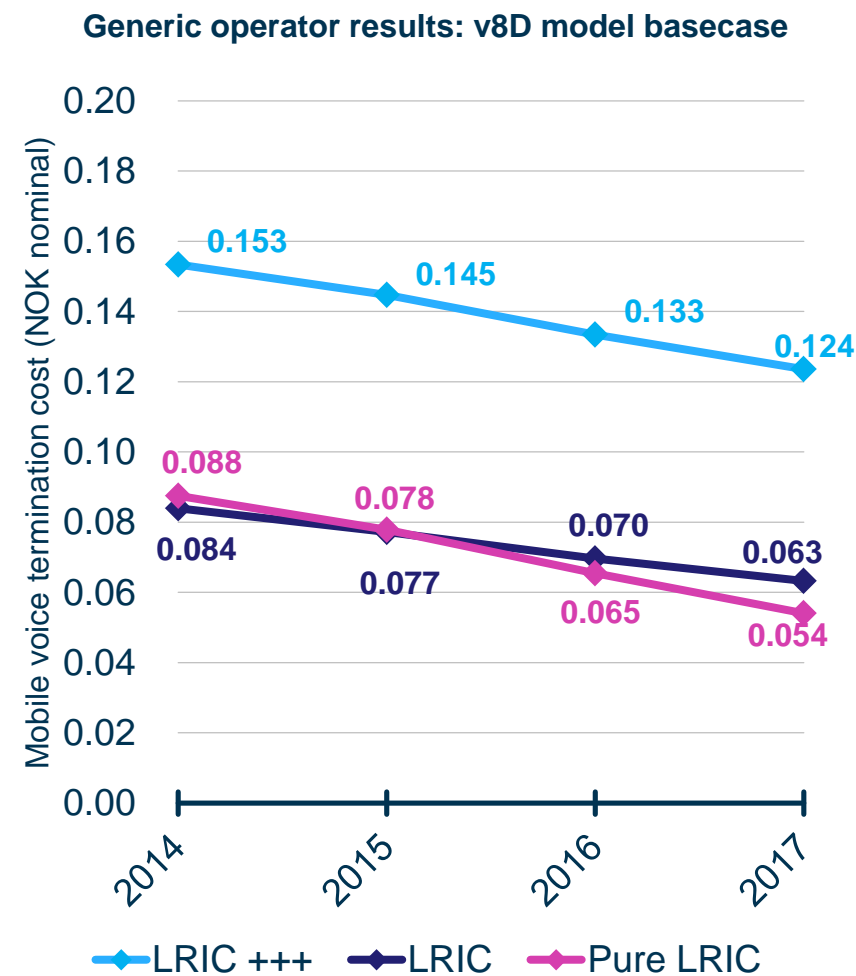
Sensitivity test 3: Treatment of voice migration from 3G to LTE



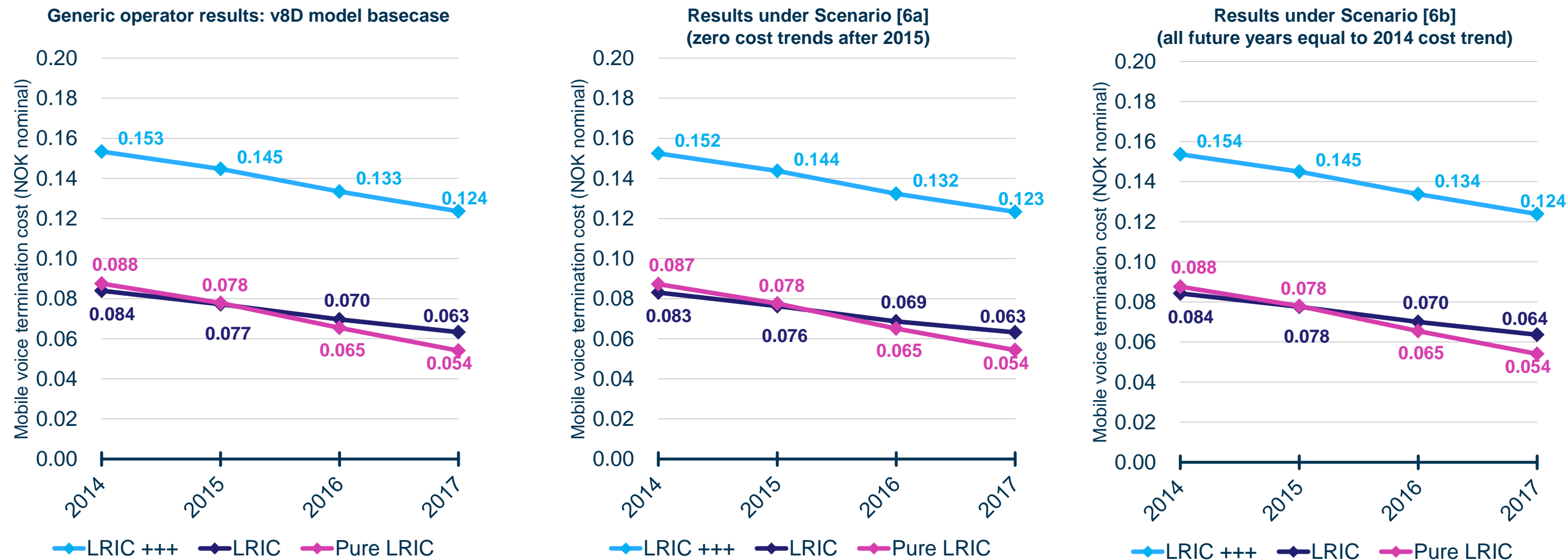
Sensitivity test 4: Data traffic carried on the 3G HSPA network



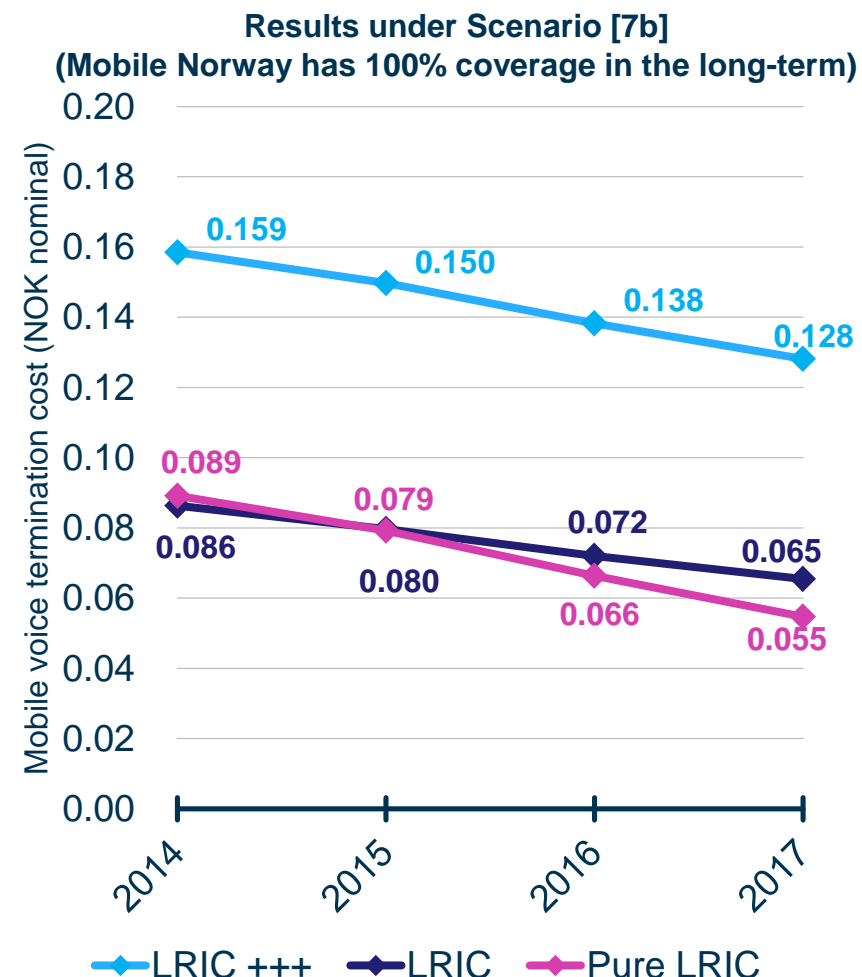
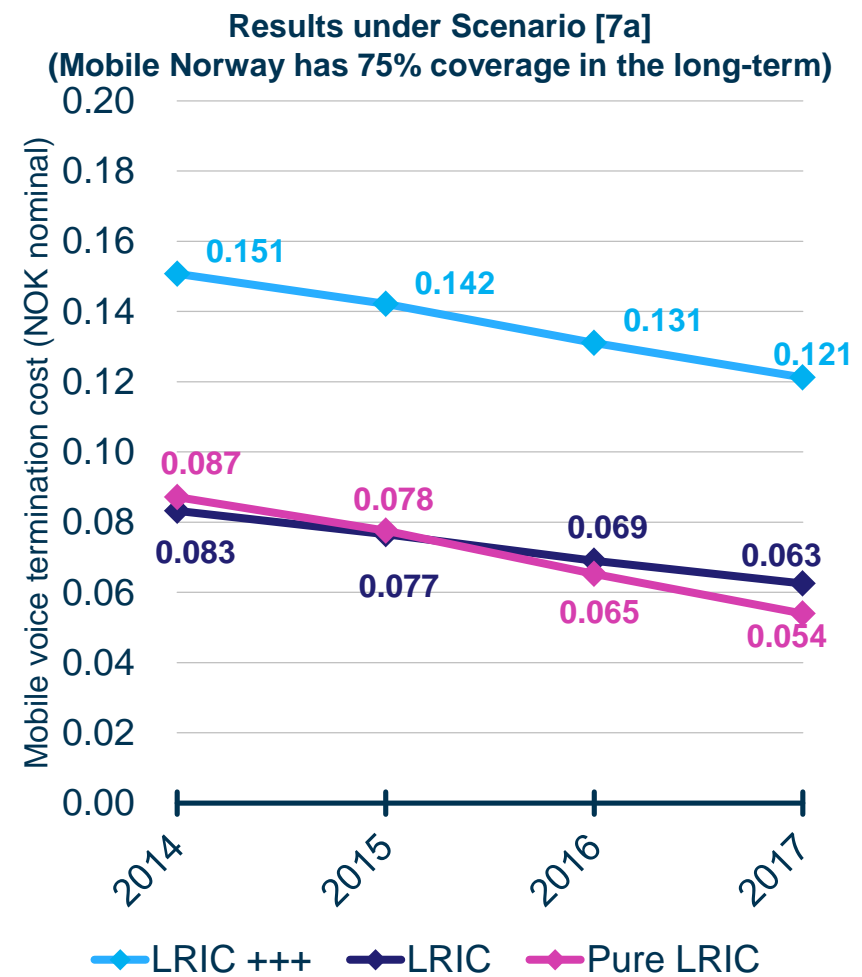
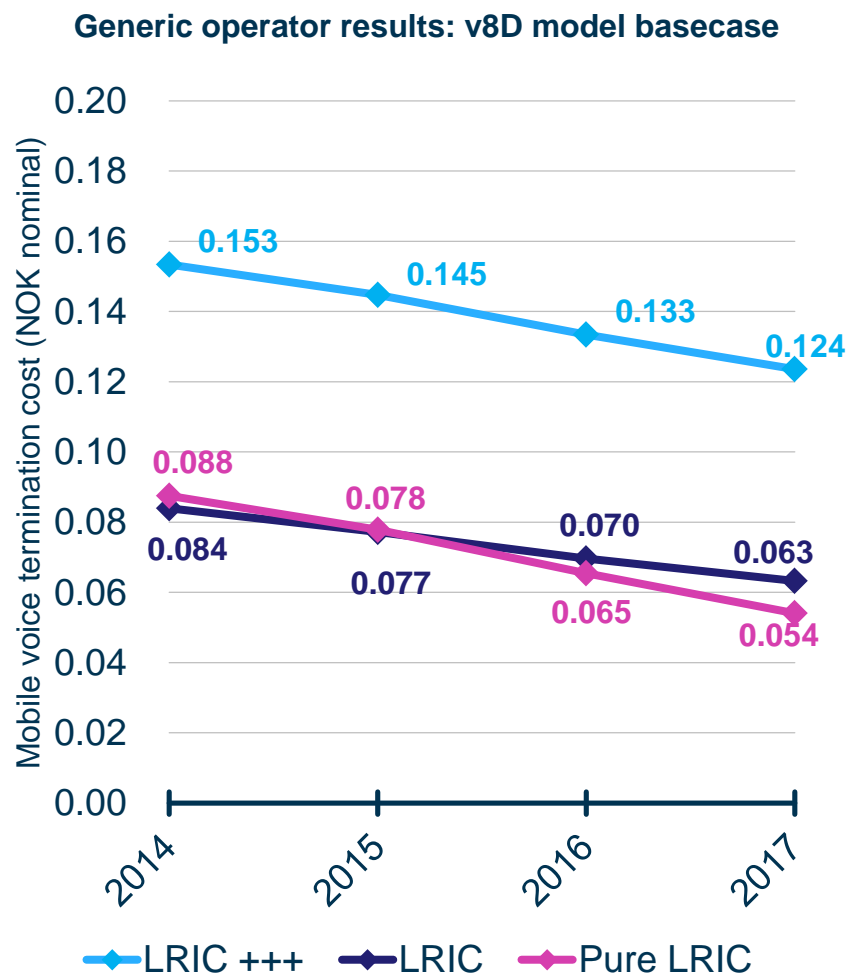
Sensitivity test 5: Treatment of LTE data traffic in the model



Sensitivity test 6: Generic operator asset unit cost trends (capex and opex)



Sensitivity test 7: Market share



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