



सत्यमेव जयते

राजीव अग्रवाल, भा.दू.से.

RAJEEV AGRAWAL, I.T.S

सचिव /Secretary

भारतीय दूरसंचार विनियामक प्राधिकरण

महानगर दूरसंचार भवन, जवाहर लाल नेहरू मार्ग,
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TELECOM REGULATORY AUTHORITY OF INDIA

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D.O.No.15-01/2012-FA

June 21, 2012

Dear *shri chandrashekhar,*

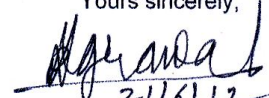
This carries reference to DoT letter No.P-11014/02/2012-PP dated 29.05.2012 seeking specific analysis of the impact of recommended reserve price for auction of spectrum consequent to TRAI's Recommendations on auction of spectrum dated 23.04.2012.

TRAI has developed a model for carrying out the required analysis after taking into consideration inputs received from various stakeholders, including analysts and service providers.

The response of TRAI to your above mentioned reference as approved by the Authority, is enclosed herewith for your kind perusal and further necessary action.

With *best regards,*

Yours sincerely,


21/6/12
(Rajeev Agrawal)

Shri R.Chandrashekhar,
Secretary,
Department of Telecommunications,
Sanchar Bhawan,
New Delhi.

Encl: as above.



Telecom Regulatory Authority of India



TRAI's RECOMMENDATIONS ON AUCTION OF SPECTRUM

ANALYSIS OF EFFECTS ON COSTS, TARIFFS AND FINANCIAL RETURNS

New Delhi 21st June, 2012

Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg, New Delhi-110002

ANALYSIS OF EFFECTS ON COSTS, TARIFFS AND FINANCIAL RETURNS

BACKGROUND:

1. During the consultation process undertaken by Telecom Regulatory Authority of India (TRAI) to finalise its recommendations on the auction of spectrum, some stakeholders had expressed concern that a high reserve price for spectrum may render services unaffordable. To deal with this concern, TRAI analysed the effect of the recommended reserve price in terms of the impact on per minute costs across the telecommunications sector. This impact analysis was contained in Annexure VII and VIII of TRAI's "Recommendations on Auction of Spectrum" dated 23rd April, 2012.
2. At that juncture, a simplified analysis was undertaken to assess the impact under two possible scenarios. The object of this simple exercise was not to assess profitability of operations or determine possible increases in tariffs. In essence, it was an attempt to provide a rough estimate of the cost implications of the recommended reserve price. In the first scenario, (Annexure VII), the numerical analysis computed the cost impact per minute on the entire wireless GSM segment on the assumption that the entire available spectrum in the 1800 MHz band was sold at the reserve price. In the second scenario (Annexure VIII), the analysis computed the cost impact per minute for a hypothetical operator with a subscriber base of 50 million who acquired 5 MHz of 1800 MHz on PAN-India basis.

STAKEHOLDERS' CONCERNS AND TRAI'S RESPONSE:

3. After TRAI's recommendations were submitted, industry associations represented that the reserve price was set too high and that there would

be a much larger impact on tariffs than the simplified calculations suggested. In response to stake-holders' concern and the larger public interest, TRAI undertook a more detailed analysis of the incremental impact of its recommendations. This exercise attempted to assess the system-wide impact on costs and profitability of the recommendations contained in TRAI's document of 23rd April, 2012 viz. the incremental costs that can be attributed to the recommendations. This analysis was contained in TRAI's document titled "Impact Analysis of Recommendations on Auction of Spectrum" forwarded to Department of Telecommunications (DoT) vide letter dated 13th May, 2012.

4. Between the time the recommendations were submitted and now, industry associations, analysts, industry-watchers and public representatives have continued to express concern that while the recommended reserve price may protect the revenue interests of the Government, the hike in spectrum price may: (a) entail a relatively large increase in tariffs, and (b) erode the financial viability of the industry.

PRELIMINARY REMARKS:

5. At the outset, it is important to recognize some notable differences between the Authority's analysis and those made by some of the above mentioned parties. Firstly, ab initio, TRAI's approach has consistently focused on the impact of the recommendations (including the reserve price) on incremental costs and the incremental cost per unit of output viz. the cost per minute. In contrast, private parties have invariably couched their conclusions in terms of the impact on tariffs. It is not entirely clear how such analyses have reached these results in terms of the increase in tariff. Secondly, some of these private analyses continue to use Annexures VII & VIII of the original recommendations as the basis for their commentary. It is pertinent that TRAI has moved well beyond

that, using a far more sophisticated model for analysis. Thirdly, while industry associations have continued to maintain that the impact on tariffs would be high, none have provided any detailed modeling, statistical analysis and industry-wide computations, on which these conclusions are based.

6. TRAI has also received numerous comments from industry watchers, analysts, academicians and the media drawing attention to assumptions made in TRAI's analyses and suggesting modifications thereto.

THE ANALYSIS SOUGHT BY DEPARTMENT OF TELECOMMUNICATIONS:

7. The DoT through its letter dated 29.5.12 has requested the TRAI for a specific analysis of the impact of the recommended reserve price. The analysis sought is as follows: (cited verbatim)

" (i) Impact on tariffs if the cost impact of the proposed increase in spectrum price is

a. Passed on entirely to the user in the form of tariff increase

b. Absorbed by TSP to the extent feasible while still providing for adequate return on investment/capital employed and passed on to the user in the form of tariff increase only to the extent necessary after that.

(i) Above analyses may be made if increased cost of spectrum is applicable

a. Only to spectrum allocated in the future including through the present auction.

b. To all spectrum including all spectrum currently held.

(ii) Above analyses may be made

a. Separately for 800 MHz and 1800 MHz

b. Service Area-wise. "

TRAI'S ANALYTICAL FRAMEWORK:

8. Keeping in view the request of DoT and the numerous constructive comments that the Authority has received over the past few weeks, TRAI has developed a model for carrying out the necessary analysis. Suggestions made by both analysts and service providers have been taken into account and projected growth and revenue figures have been suitably adjusted. For reasons of clarity, it is important to describe the modeling underlying the analysis and the assumptions on which the analysis is based:

- The model's unit of examination is the entire wireless service industry viz. the system as a whole. Thus revenues, costs and minutes of usage are on an all-India industry-wide basis. The intention is to assess the impact industry-wide.
- We must begin with a base over which the impact has to be assessed. This base case includes all legacy liabilities, namely, the price paid for 3G spectrum, the associated capex and opex costs etc. Thus, the base case revenues represent actual revenues of the industry and the costs of the industry include legacy costs.
- The change to be analysed is measured with respect to the base case. There are additional costs on account of the recommendations made. It is the incremental impact arising from these costs that has to be assessed.
- The impact on costs because of the rural rollout obligations recommended by the TRAI has not been taken into consideration.

- A number of simulations have been conducted with the model to assess the impact of different policy options.
- A set of simulations focuses on how refarming is carried out. In one setting it is assumed that there is full refarming of 800/900 MHz spectrum. In a second option, refarming is assumed to be partial in which operators are permitted to retain up to 5 MHz of spectrum in the 800/900 MHz band.
- A crucial variable in the analysis is the manner in which spectrum is re-priced. The model has simulated two alternatives:
 - (I) Spectrum in 1800 MHz band to be auctioned now will be for a period of 20 years. For purposes of analysis, the reserve price is assumed to be the final auction price. For non-auctioned spectrum currently held by service providers: such spectrum will be re-priced at the time of renewal of licences. The price at which such non-auctioned spectrum will be re-priced is the auction price duly indexed for passage of time. Further, the renewal period for such non-auctioned spectrum would be 10 years whereafter it would be re-allocated but at a higher price once again duly indexed by an inflation factor for 10 years. This option is called Track - I.
 - (II) Spectrum in 1800 MHz being auctioned now will be for a period of 20 years. The reserve price is assumed to be the auction price. All non-auctioned spectrum held by service providers will be suitably repriced at zero date (2012-13) at the reserve prices suggested for spectrum in different frequency bands. The validity for this spectrum will also be 20 years. In this setting, all spectrum gets repriced now and

service operators holding spectrum will continue to hold it for 20 years. This option is called Track-II.

- On the revenue side, projections have been made for growth in subscribers, minutes of usage and the changing composition of voice and non-voice revenues. These assumptions yield projections for system-wide revenues. The analysis simulates two options: a normal case scenario and a pessimistic scenario. The major difference between the two pertains to the projections in growth of non-voice revenues. In the pessimistic option, the growth in non-voice revenues is markedly lower. The normal scenario projects that non-voice revenues as a percentage of total revenue will reach 50% in Metro circles by 2016-17, in A circles by 2019-20 and in B & C Circles by 2021-22. In the pessimistic scenario, non-voice revenue as a percentage of total revenue will reach only 35% in 2030-32 in Metros & A circles and 30% in B & C circles.

IMPACT ANALYSIS: WHAT QUESTIONS NEED ANSWERS

9. First things first. It is important to stand back and ask ourselves: What are the questions we seek answers for? And, does the answer to the question provide an unambiguous reply which can be used for assessing impact?
10. The first question seems simple enough to state.
 - What is the system-wide impact of the set of recommendations, specifically the reserve price, on total costs and, in particular, on the cost of a unit of output i.e. what is the increment in total costs and costs per minute that can be attributed to the policy decisions and the reserve price?

- The answer to this question is not as straightforward as it may seem on first sight. The reasons are manifold:
 - (i) Costs can be both lumpy and/or bunched. For instance, large costs are incurred when spectrum is auctioned; and they can be bunched, as happens when spectrum is repriced at the time of license renewal. The point is that the impact on total costs (and, hence on costs per minute) varies with time. The incremental cost impact in one year is very different from that in another year. Thus, when looking at the incremental impact on costs system-wide over a block period of 20 years, the analysis cannot throw up a single number but a range. For instance, in the Track II setting, where all spectrum is re-priced at year zero, the additional cost per minute will be higher in the initial years than in succeeding years.
 - (ii) Some additional costs are amortized over a 10 year period. Obviously, such costs do not show up from year 11 onwards. This is one reason why the incremental impact in terms of cost per minute can decline over time.
 - (iii) In the Track-I setting, where spectrum is repriced at the time of license renewal and duly indexed for inflation, the situation is one where a large cost is incurred at the time of renewal and then again ten years later. Once again the additional costs materialise at different points of time resulting in sharp variations in the impact on cost per minute over time.
 - (iv) As subscribers and minutes of usage increase over time, even if a fixed regular additional cost for each year had to be taken into account, the incremental cost per minute would decline. The cost

per minute is not time invariant because of the increase in demand for minutes of use.

11. The upshot of this discussion is that any analysis of the impact on the incremental cost will come down to providing a range of numbers viz. the additional cost per minute varies between X to Y over a 20 year period. Secondly, and more importantly, it is simply not possible to aggregate this range of additional costs per minute into a single indicator. Thus, if we are trying to arrive at a credible single measure of the incremental cost per minute, it is simply not possible using this approach.
12. A second question to pose is: What is the increase in revenue in the form of subscriber tariff increases which would neutralize the additional cost impact? This question goes beyond the additional impact costs and requires a response on how the cost increase would be passed on as a tariff increase.
13. Once again the answer to the question is neither simple nor as clear-cut as it appears on first sight. As before, the reasons are manifold:
 - (i) Since the analysis in the foregoing paragraphs has already brought out that incremental costs per minute vary over the 20 year period, it follows that the increment in tariff required to offset the incremental cost would also vary from year to year. If there was an average tariff for the base year then, since the incremental cost varies from year to year, the increase over that base tariff would also vary from year to year. Put simply, there is not a definitive single number but a range viz. if the incremental costs were to be neutralized through a tariff increase, the tariff increase itself would vary from year to year and the range would be between X and Y. And, as before, it is simply not possible to

aggregate this range of tariff increases into a single indicator. Thus, if the object of the exercise was to identify a **single measure** which would capture the tariff increase necessary to off-set the incremental cost, such object cannot be achieved.

- (ii) The premise that all additional costs would be recovered through a tariff hike is itself debatable. It may not even be sound business practice. Tariff plans of individual service operators constitute part of overall business strategy. Also, the sheer variety of tariff plans on offer does not render it simple to answer this sort of question. Most importantly, in a market that is growing and where capacity utilization (in terms of minutes of usage) is expected to increase, it is almost impossible to give a categorical answer because part of the additional costs can be recovered quite simply through an expansion of demand and diversification of services.

14. A third way to analytically approach the issue is to simulate what would happen if tariff increases of 5, 10, 15, 20, 25 and 30 paise per minute were to be effected. The model would then be able to answer how such tariff increases would impact industry-wide Earning before Interest, Depreciation, Tax and Amortisation (EBIDTA), EBIDTA margins, Profit before Interest and Tax (PBIT) and Return on Capital Employed (ROCE) taking into account the additional costs arising from the different policy options under consideration. There are some inherent advantages in pursuing this approach. Firstly, it captures the three elements which are variables in the exercise, namely, changes in costs, changes in tariffs and the impact on service operators' financials. Secondly, such an approach enables us to model the cost increases and simulate the effect of a single number tariff increase on overall financial viability. The point is that surely the service operators' concerns do not merely revolve around recovering costs. At the end of the day what matters is the impact of costs

and tariffs on returns to the service operators. Thirdly, by simulating scenarios for different tariff increases, it will be possible to arrive at a more reasonable single measure of how much tariffs would need to increase to keep service operators' financial ratios viable over the 20 year tenure.

15. Finally, it is obvious that when one is analyzing the system as a whole (industry-wide) we are essentially talking of averages across the system. The situation will naturally vary from region to region quite simply because the cost of spectrum and the revenue profile in different regions varies accordingly. The impact on additional costs will naturally vary across various circles. To get a better micro understanding of the cost impact, TRAI has extended the analysis outlined above to cover the wireless segment analyses for one circle each in the Metro category (Delhi), Category A (Andhra Pradesh), Category B (UP-East) and Category C (Bihar).

THE MODEL'S ASSUMPTIONS:

16. The assumptions of the model are listed below.
 - The percentage growth year-on-year of total minutes on the network during the last 3 years has been 30.8%, 28%, 14.1% respectively. The minutes on the network have been projected for 20 years at a conservative growth rate starting at 15%, reducing to 5% in 5 years, and then tapering to 1% from 2024-25 onwards. The total minutes of usage have been projected as 736404 crores by March 2032. In aggregate terms, the minutes grow at 7% per annum in the first 10 years and at 1.2% per annum thereafter.
 - The average wireless subscriber base was 871 million in the year 2011-12, which implies around 321 minutes of usage (MoU) per subscriber. However, if we consider only the active customers in the Visitor Location

Register (VLR), the adjusted MoU per subscriber is 434. In the model, the MoU per active subscriber has been progressively reduced to around 415.

- The percentage growth year-on-year of the wireless subscribers' base during the last three years has been 49.1%, 38.9% and 13.3% respectively. However, we have assumed a conservative growth figure of 7% and 6% for the next two years, further reducing it to around 2% by 2020 and tapering to 0.5% by 2032. As per the GSM Cellular Operators Association of India (COAI) report regarding Wireless Subscriber Projection, (supported by a study Ovum/Ernst & Young analysis), the teledensity is expected to reach 109.9% in 2020. The NTP 2012 policy also envisages rural teledensity to reach 100% by 2020. The model assumes a conservative teledensity of 99% by 2020.
- Revenue projections are based on estimates of voice and non-voice revenues. Voice revenue per minute is estimated for 2011-12 and is assumed to be constant for the 20 year period. Thus, the entire projected growth in voice revenues emanates from the expansion in the number of minutes. It is assumed that non-voice revenues will reach a share of 50% of total revenue in the Metros in 2016-17, A Circles by 2019-20, and in B & C Circles by 2021-22. Given the projected share of voice and non-voice revenues, it is possible to derive what non-voice revenues would be. The sum of voice and non-voice revenues is projected as total revenues.
- The Gross Block for the year is the opening Gross Block to which is added the Capital Work In Progress (CWIP). From the Gross Block it is possible to compute the Capital Employed, namely, the Net Block, the CWIP, and Working Capital which is projected as a fixed proportion of total revenue.

- Employees cost, administration cost, sales and marketing cost and other costs are estimated on a per subscriber basis. These costs grow with growth in the number of subscribers and are further escalated at 10%, 5%, 10% and 5% respectively per annum.
- Network operating cost (including maintenance cost and lease cost) and finance charges are estimated as a ratio of Gross Block. These costs grow with increase in Gross Block and are further escalated by 5% per annum.
- Licence fee and Government charges (including Spectrum Usage Charges) are projected based on revenue as they are levied on a revenue share basis.
- Additional costs arising out of refarming include both capital expenses and operating expenses. The model builds these costs into the computations.

HOW THE MODEL WORKS:

17. The first pass with the model is to estimate total incremental costs and incremental costs per unit of output. Each simulation models a particular policy scenario. The additional costs associated with that particular policy option are plugged in to compute incremental costs per minute on a year by year basis.
18. The second pass relates to computing the tariff increase necessary to neutralize the increase in cost. Total incremental cost per minute is decomposed into that attributable to voice and non-voice services. After the incremental cost per minute for voice has been computed, it is adjusted for the following:

- (i) A return on capital employed;
- (ii) The license fee and the spectrum usage charge;
- (iii) Tariffs are collectible on outgoing minutes.

19. The third set of simulations examines what happens to financial viability ratios when tariffs are increased by a fixed amount per minute. The analysis has been conducted for a range of tariff hikes between 5 paise to 30 paise in 5-paise steps.

20. For each policy scenario examined, the model also computes macro figures for Government Revenues, increase in costs etc. The summary sheets are at **Annexures I (a) to VIII (a)**.

ANALYSIS OF RESULTS:

21. **What if the additional impact per minute was passed on fully to the user in the form of a tariff increase including a 15% return on additional investment made?**

The additional cost impact per minute and the incremental revenue to fully neutralize the cost impact (after building in a 15% rate of return on investment) have been assessed. As brought out earlier, cost impacts are not time invariant, as they vary from year to year in every case. Conclusions about likely impacts should not therefore be made on the basis of any one year's results. There are inherent analytical difficulties in aggregating incremental costs across time. Nevertheless, a simple average has been computed.

The results are presented below:

Table 1: Additional Revenue per minute to fully neutralise Impact

(In Rupees)

Particulars		2012-13	2016-17	2020-21	2025-26	2030-31	2031-32	Average 20 years
FULL REFARMING	Normal Scenario							
	TRACK I	0.034	0.069	0.059	0.098	0.119	0.099	0.086
	TRACK II	0.160	0.117	0.083	0.069	0.068	0.068	0.094
	Pessimistic Scenario							
	TRACK I	0.036	0.089	0.096	0.153	0.166	0.135	0.125
	TRACK II	0.169	0.153	0.135	0.110	0.096	0.094	0.130
PARTIAL REFARMING	Normal Scenario							
	TRACK I	0.038	0.061	0.065	0.118	0.137	0.109	0.094
	TRACK II	0.229	0.134	0.096	0.073	0.069	0.068	0.108
	Pessimistic Scenario							
	TRACK I	0.040	0.018	0.105	0.184	0.190	0.149	0.138
	TRACK II	0.243	0.174	0.155	0.115	0.096	0.094	0.148

The results for all 20 years are summarized at **Annexures Ib to VIIIb**.

22. **What if the additional impact per minute is partly absorbed by the service providers while still providing an adequate return on investment/capital employed and a part is passed on to the user in the form of tariff increase?**

This part of the analysis asks the question: If tariffs are not raised by the full extent of the additional cost impact, what happens? This analyzes the effect of the additional costs on Earnings before Interest, Tax, Depreciation, and Amortization (EBITDA), EBITDA margin, Profit before Interest and Tax (PBIT) and Return on Capital Employed (RoCE) when only part of the cost is passed through. The results suggest that the additional cost impact per minute does not have to be fully passed on to the subscriber in the form of tariff increase. In all the cases, the pre-impact profitability position of the industry is restored when the additional impact is partially passed on to consumers. If tariffs are raised by 10 paise per minute, the profitability position of the industry as indicated by EBITDA, EBITDA margin, PBIT and RoCE actually improves. This prompts the conclusion is that the impact on tariff is likely to be lower than the full additional cost impact per minute.

23. The effects on industry EBITDA, EBITDA margin, PBIT and RoCE with a 5 paise tariff increase have been simulated and the results are summarized and tabulated below:

Table 2: Effect of a 5 paise tariff hike – Industry- Normal Scenario

		EFFECT OF 5 PAISE TARIFF HIKE						Rs. in Crore	
Particulars		2012-13	2013-14	2014-15	2020-21	2021-22	2025-26	2031-32	
BASE CASE <i>Before Additional Costs</i>	EBITDA	7292	16407	29114	120580	133268	138296	142129	
	EBITDA Margin (%)	6.52%	12.63%	19.14%	41.29%	42.90%	41.94%	40.61%	
	PBIT	-19045	-10619	1903	93923	107059	113821	118396	
	RoCE (%)	-8.68%	-4.17%	0.64%	16.40%	17.57%	17.60%	17.24%	
<i>After Additional Costs</i>									
NORMAL SCENARIO : FULL REFORMING	TRACK I	EBITDA	17302	26600	40574	145848	160174	167357	171345
		EBITDA Margin (%)	14.00%	18.52%	24.13%	45.19%	46.65%	45.93%	44.29%
		PBIT	-13753	-6447	5146	102523	107549	113624	117119
		RoCE (%)	-5.67%	-2.20%	1.37%	14.57%	13.12%	13.00%	13.33%
	TRACK II	EBITDA	19146	28744	43103	146968	161377	167357	171345
		EBITDA Margin (%)	15.49%	20.01%	25.63%	45.54%	47.00%	45.93%	44.29%
		PBIT	-18187	-10581	1640	102947	117413	128631	133360
		RoCE (%)	-4.26%	-2.26%	0.31%	13.56%	14.92%	16.34%	17.45%
NORMAL SCENARIO : PARTIAL REFORMING	TRACK I	EBITDA	17302	28039	42733	150440	164996	173217	179198
		EBITDA Margin (%)	14.00%	19.52%	25.41%	46.62%	48.05%	47.53%	46.33%
		PBIT	-14046	-3999	9294	102071	103619	110500	117665
		RoCE (%)	-5.79%	-1.42%	2.61%	14.31%	12.09%	11.87%	12.83%
	TRACK II	EBITDA	19146	30183	45261	151560	166198	173217	179198
		EBITDA Margin (%)	15.49%	21.02%	26.92%	46.96%	48.40%	47.53%	46.33%
		PBIT	-22746	-12399	2495	103181	117495	133187	139910
		RoCE (%)	-4.48%	-2.32%	0.44%	13.11%	14.44%	16.67%	18.44%

24. The PBIT and RoCE, pre-impact, stand at Rs (-) 19045 cr and (-) 8.68% respectively, in year 2012-13. In each case, after a 5 paise tariff increase post-impact, these parameters improve in year 2012-13 over pre-impact figures, though they continue to remain negative. In year 2013-14, these figures move closer to positive territory, and in year 2014-15, they actually turn positive. Under Track II, there is continuous increase in PBIT and ROCE, as the incremental costs of spectrum are front-loaded. Under Track I, while there is a continuous increase in the initial period up to 2020-21, there are variations in ROCE thereafter because of the bunching of licence renewals in certain years and the associated spike in spectrum costs.
25. In the case of Track I and II, with full re-farming as well as partial re-farming, the post-impact EBITDA and EBITDA margins are consistently better than in the base case. **This means that with just a 5 paise per minute increase in tariff, the EBITDA and EBITDA margins post-impact, are higher than in the base case for every year under all policy options in the normal scenario. What is more, for most years, the PBIT too is higher than in the base case.**
26. The RoCE figures vary due to variations in the amount of capital employed in different years. In Track I as well as Track II, in the initial years, RoCE is higher than in the base case. Thereafter, in Track II RoCE is 3-5% lower than in the base case in the intermediate years and approximately equal to the base case at the end of the 20 year period. In the case of Track I, the trend is reversed.
27. The conclusion is that with a 5 paise tariff increase, the profitability position of the industry post-impact is more than restored in terms of EBITDA, EBITDA margin and PBIT. In terms of RoCE, in the initial three years, the position is better than in the base case; however, thereafter, it is less than but close to the pre-impact position.

28. What are the effects on industry profitability if tariffs were to be raised by an amount greater than 5 paise? The effect on industry parameters of a hike in tariff by 10 paise has also been simulated and the results are summarised in Table 3 below:

Table 3: Effect of a 10 paise tariff hike – Industry- Normal Scenario

		EFFECT OF 10 PAISE TARIFF HIKE						Rs. in Crore	
Particulars		2012-13	2013-14	2014-15	2020-21	2021-22	2025-26	2031-32	
BASE CASE Before Additional Costs	EBITDA	7292	16407	29114	120580	133268	138296	142129	
	EBITDA Margin (%)	6.52%	12.63%	19.14%	41.29%	42.90%	41.94%	40.61%	
	PBIT	-19045	-10619	1903	93923	107059	113821	118396	
	RoCE (%)	-8.68%	-4.17%	0.64%	16.40%	17.57%	17.60%	17.24%	
After Additional Costs									
NORMAL SCENARIO : FULL REFORMING	TRACK I	EBITDA	27313	38232	54193	172340	188356	197385	203220
		EBITDA Margin (%)	20.18%	24.31%	29.43%	48.76%	50.09%	49.46%	47.97%
		PBIT	-3742	5185	18764	129015	135730	143652	148994
		RoCE (%)	-1.41%	1.62%	4.62%	16.89%	15.36%	15.25%	15.67%
	TRACK II	EBITDA	29332	40580	56962	173567	189672	197385	203220
		EBITDA Margin (%)	21.67%	25.80%	30.93%	49.11%	50.44%	49.46%	47.97%
		PBIT	-8001	1255	15500	129545	145709	158659	165235
		RoCE (%)	-1.78%	0.25%	2.80%	15.81%	17.12%	18.55%	19.76%
NORMAL SCENARIO : PARTIAL REFORMING	TRACK I	EBITDA	27313	39671	56351	176931	193177	203245	211073
		EBITDA Margin (%)	20.18%	25.22%	30.60%	50.06%	51.37%	50.93%	49.82%
		PBIT	-4036	7633	22913	128563	131800	140528	149540
		RoCE (%)	-1.52%	2.47%	5.92%	16.62%	14.30%	14.07%	15.11%
	TRACK II	EBITDA	29332	42019	59121	178158	194494	203245	211073
		EBITDA Margin (%)	21.67%	26.71%	32.10%	50.41%	51.72%	50.93%	49.82%
		PBIT	-12560	-563	16355	129779	145791	163215	171785
		RoCE (%)	-2.36%	-0.10%	2.73%	15.32%	16.61%	18.83%	20.67%

29. It is easily discernible that a 10 paise tariff hike would lead to substantially higher EBITDA, EBITDA margins and PBIT in every year. Further, PBIT and RoCE would become positive a year in advance i.e. in 2013-14 in three out of four cases in the normal scenario.

- **The EBITDA margins range between 20% in 2012-13 to 49.8% in 2031-32 as compared to EBITDA margins of 6.5% in 2012-13 and 40.6% in 2031-32 in the base case. The EBITDA margins are higher in every year and under all policy options.**
- **In every year the PBIT is significantly higher than in the base case; to gauge the order of magnitude, the PBIT is generally as much as 36% to 45% higher than in the base case.**
- **The ROCE for the Track II option is close to or higher than the base case ROCE in almost every year, but especially dominates in the later years.**

30. The foregoing analysis prompts the conclusion that the additional impact arising on account of the current recommendations would largely be neutralized by a tariff hike of 5 paise, and a tariff hike in excess of 5 paise would at least partially be utilized by the service providers to cover pre-impact legacy losses of the industry.

31. What are the results in the pessimistic scenario? The results of a 5 paise and 10 paise tariff hike in the pessimistic scenario are presented in Tables 4 and 5 below:

Table 4: Effect of a 5 paise tariff hike – Industry- Pessimistic Scenario

		EFFECT OF 5 PAISE TARIFF HIKE						Rs. in Crore	
Particulars		2012-13	2013-14	2014-15	2020-21	2021-22	2025-26	2031-32	
BASE CASE Before Additional Costs	EBITDA	2089	9034	15262	30594	32570	41858	65972	
	EBITDA Margin (%)	1.98%	7.45%	11.23%	16.43%	16.93%	19.34%	25.32%	
	PBIT	-24248	-17993	-11949	3937	6360	17384	42239	
	RoCE (%)	-11.69%	-7.56%	-4.48%	1.08%	1.69%	4.10%	8.26%	
After Additional Costs									
PESSIMISTIC SCENARIO : FULL REFARMING	TRACK I	EBITDA	11552	18451	25265	45081	47451	59008	85823
		EBITDA Margin (%)	9.89%	13.76%	16.83%	21.90%	22.32%	24.67%	29.81%
		PBIT	-19503	-14596	-10164	1756	-5175	5276	31597
		RoCE (%)	-8.51%	-5.31%	-2.99%	0.37%	-0.92%	0.84%	4.61%
	TRACK II	EBITDA	13340	20502	27563	45821	48215	59008	85823
		EBITDA Margin (%)	11.42%	15.30%	18.36%	22.26%	22.68%	24.67%	29.81%
		PBIT	-23993	-18823	-13900	1799	4251	20282	47838
		RoCE (%)	-5.80%	-4.19%	-2.85%	0.34%	0.80%	3.75%	8.39%
PESSIMISTIC SCENARIO : PARTIAL REFARMING	TRACK I	EBITDA	11552	19890	27423	49673	52272	64868	93676
		EBITDA Margin (%)	9.89%	14.84%	18.26%	24.13%	24.59%	27.13%	32.54%
		PBIT	-19796	-12148	-6015	1304	-9105	2152	32143
		RoCE (%)	-8.64%	-4.62%	-1.88%	0.27%	-1.52%	0.31%	4.45%
	TRACK II	EBITDA	13340	21941	29722	50413	53036	64868	93676
		EBITDA Margin (%)	11.42%	16.37%	19.79%	24.49%	24.95%	27.13%	32.54%
		PBIT	-28552	-20641	-13045	2034	4333	24839	54388
		RoCE (%)	-5.77%	-4.01%	-2.45%	0.36%	0.78%	4.49%	9.63%

Table 5: Effect of a 10 paise tariff hike – Industry- Pessimistic Scenario

		EFFECT OF 10 PAISE TARIFF HIKE						Rs. in Crore	
Particulars		2012-13	2013-14	2014-15	2020-21	2021-22	2025-26	2031-32	
BASE CASE Before Additional Costs	EBITDA	2089	9034	15262	30594	32570	41858	65972	
	EBITDA Margin (%)	1.98%	7.45%	11.23%	16.43%	16.93%	19.34%	25.32%	
	PBIT	-24248	-17993	-11949	3937	6360	17384	42239	
	RoCE (%)	-11.69%	-7.56%	-4.48%	1.08%	1.69%	4.10%	8.26%	
After Additional Costs									
PESSIMISTIC SCENARIO : FULL REFORMING	TRACK I	EBITDA	21015	29307	37426	61981	64902	78723	109557
		EBITDA Margin (%)	16.42%	19.96%	22.76%	27.49%	27.88%	30.06%	34.75%
		PBIT	-10040	-3740	1998	18656	12277	24991	55332
		RoCE (%)	-4.00%	-1.25%	0.54%	3.64%	2.04%	3.72%	7.49%
	TRACK II	EBITDA	22973	31553	39943	62792	65739	78723	109557
		EBITDA Margin (%)	17.95%	21.49%	24.29%	27.85%	28.24%	30.06%	34.75%
		PBIT	-14359	-7772	-1519	18770	21776	39997	71573
		RoCE (%)	-3.30%	-1.64%	-0.29%	3.30%	3.82%	6.83%	11.47%
PESSIMISTIC SCENARIO : PARTIAL REFORMING	TRACK I	EBITDA	21015	30746	39584	66573	69723	84583	117410
		EBITDA Margin (%)	16.42%	20.94%	24.07%	29.53%	29.95%	32.30%	37.24%
		PBIT	-10333	-1292	6146	18204	8347	21867	55878
		RoCE (%)	-4.12%	-0.45%	1.76%	3.48%	1.30%	3.00%	7.19%
	TRACK II	EBITDA	22973	32992	42102	67383	70560	84583	117410
		EBITDA Margin (%)	17.95%	22.47%	25.60%	29.89%	30.31%	32.30%	37.24%
		PBIT	-18919	-9590	-664	19004	21858	44554	78122
		RoCE (%)	-3.66%	-1.78%	-0.12%	3.19%	3.66%	7.45%	12.63%

32. The first thing to note is that in the pessimistic scenario, the base case EBIDTA, EBIDTA margin and PBIT are significantly lower than in the normal scenario. Nevertheless, with a 5 paise tariff hike, the pre-impact profitability position, as measured by EBIDTA and EBIDTA margin is restored. This is akin to the finding in the normal scenario case. (See paras 25 and 27).
33. A 10 paise tariff hike markedly raises EBIDTA, EBIDTA margin and PBIT as well as the ROCE. In the pessimistic scenario, a 10 paise increase in tariff leads to:
- **The EBIDTA margins range between 16.4% in 2012-13 to 37.2% in 2031-32 as compared to EBIDTA margins of 2% in 2012-13 and 25.3% in 2031-32 in the base case. The EBIDTA margins are higher in every year and under all policy options.**
 - **In every year the PBIT is much higher than the base case; to gauge the order of magnitude, the PBIT is generally more than 80% higher than in the base case and in some years it is several times higher.**
 - **The ROCE in the Track II option dominates the base case ROCE in every year.**
34. The results for all 20 years of simulations for tariff hikes of 5, 10, 15, 20, 25 and 30 paise are at Annexures Ic to VIIIc.

GOVERNMENT REVENUES:

35. The Government revenues have been calculated on the basis of net cash inflows over 20 years. The sources of inflows are renewal fees, payment for excess spectrum held by the operators, payment for additional allocations of spectrum to operators holding 4.4 MHz in the 1800 MHz band and auction money received for auction of spectrum, adjusted for savings to

the industry due to reduction in spectrum usage charges to 3% of Adjusted Gross Revenue. The impact on revenue to the Government in different scenarios has been assessed. The results are summarized in Table 6 below:

Table 6: Net Revenue to the Government under various Policy Options

(Rs. in crore)

Case	Net Revenue to the Government	NPV
Full re-farming		
<i>Normal scenario</i>		
Track I	451291	167193
Track II	150185	204624
<i>Pessimistic scenario:</i>		
Track I	470948	172311
Track II	173143	211424
Partial re-farming		
<i>Normal scenario</i>		
Track I	673104	245389
Track II	253274	307713
<i>Pessimistic scenario:</i>		
Track I	692761	250507
Track II	276232	314514

36. The NPV of inflows to the Government are consistently higher under Track II option, than under Track I. This is primarily because Track II reprices spectrum in year zero (2012-13) while Track I reprices spectrum in later years. The reason for higher inflows to the Government in the pessimistic scenario as against the normal scenario is because industry revenue growth, and therefore the quantum of savings to the industry in the form of spectrum usage charges, is lower in the pessimistic scenario while other cash flows remain the same.

ANALYSIS ON CIRCLE WISE BASIS:

37. A pan India analysis will always mask regional differences. Reserve prices are different in each circle and in some circles reserve price is several orders of magnitude higher than in others. To understand the impact of these differences, analysis has been undertaken on circle-wise basis for one sample circle in each category. The sample circles are:

- Metro: Delhi
- Category A: Andhra Pradesh
- Category B: Uttar Pradesh (East)
- Category C: Bihar

38. The results obtained from the analysis indicating the average revenue per minute required over 20 years to fully neutralize the impact for the 4 selected circles are tabulated below.

Table 7: Average Revenue per minute required over 20 years to fully neutralize Impact- Circles

(Amount in Rs)

Case	Metro: Delhi	Category A: Andhra Pradesh	Category B: UP (East)	Category C: Bihar
Full Re-farming				
Normal scenario				
Track I	0.253	0.082	0.045	0.032
Track II	0.277	0.091	0.043	0.031
Partial Re-farming				
Normal scenario				
Track I	0.363	0.090	0.022	0.015
Track II	0.403	0.105	0.024	0.015

39. As expected, the impacts are higher in Metro and A category circles than B and C category circles in line with the reserve price for the spectrum. It is seen that except in the case of UP (East) and Bihar, the average impact under the Track II option is higher than in the case of Track I. In the case of UP (East) and Bihar, the renewal period of some of the licences is in 2024/26 and therefore the impacts due to reduction in rate of Spectrum Usage Charges are available much later in the case of Track I. Also, the impact of partial re-farming is higher than that of full re-farming in Delhi and Andhra Pradesh, whereas it is lower than that of full re-farming in UP (East) and Bihar. This is also due to the comparatively higher cost of spectrum in Delhi and Andhra Pradesh.
40. At first sight it would appear that large tariff increases would be required post-impact, especially in a Metro circle such as Delhi in order to neutralize the additional impact. In actual fact, tariff increases that would restore the pre-impact profitability status in all circles would be much lower.
41. As before, let us examine what happens if tariffs are raised by 5 paise and 10 paise in these circles. For Andhra Pradesh, the general result continues to hold: the additional impact arising on account of the current recommendations would be largely neutralized by a tariff hike of 5 paise, restoring EBITDA and EBITDA margins to pre-impact levels, and PBIT in most years would be in excess of the base case. Further, any tariff hike in excess of 5 paise would at least partially be utilized by the service providers to cover pre-impact legacy losses of the industry. For instance, a 10 paise tariff hike in Andhra Pradesh yields EBITDA, EBITDA margins and PBIT under Track II that consistently exceeds the corresponding number in the base case for every year. And, for Track I, the EBITDA, EBITDA margins and PBIT dominate the corresponding number in the base case in every year.
42. The results of the simulations for Andhra Pradesh circle with 5 and 10 paise tariff increases and Delhi with 15 and 20 paise tariff increases are presented below:

Table 8: Effect of 5 paise tariff increase - Andhra Pradesh

ANDHRA PRADESH CIRCLE : EFFECT OF 5 PAISE TARIFF HIKE								Rs. in Crore	
Particulars		2012-13	2013-14	2014-15	2020-21	2021-22	2025-26	2031-32	
BASE CASE Before Additional Costs	EBITDA	243	906	1886	8773	8904	9391	9868	
	EBITDA Margin (%)	3.08%	9.86%	17.33%	40.95%	40.75%	40.50%	40.09%	
	PBIT	-1608	-990	-27	6868	7025	7617	8129	
	RoCE (%)	-13.31%	-7.01%	-0.16%	20.87%	20.93%	21.39%	21.50%	
After Additional Costs									
NORMAL SCENARIO : FULL REFARMING	TRACK I	EBITDA	1047	1722	2813	10970	11133	11710	12190
		EBITDA Margin (%)	11.86%	16.70%	23.04%	45.65%	45.42%	45.02%	44.15%
		PBIT	-1133	-612	298	7596	7086	7625	8069
		RoCE (%)	-8.36%	-3.64%	1.41%	17.29%	14.30%	14.44%	15.39%
	TRACK II	EBITDA	1201	1901	3026	10986	11149	11710	12190
		EBITDA Margin (%)	13.61%	18.44%	24.79%	45.72%	45.49%	45.02%	44.15%
		PBIT	-1518	-971	-27	7686	7844	8797	9311
		RoCE (%)	-5.41%	-3.18%	-0.08%	16.38%	16.83%	19.25%	21.73%
NORMAL SCENARIO : PARTIAL REFARMING	TRACK I	EBITDA	1047	1845	2999	11366	11548	12215	12866
		EBITDA Margin (%)	11.86%	17.90%	24.57%	47.30%	47.12%	46.96%	46.60%
		PBIT	-1158	-404	732	7482	6745	7391	8157
		RoCE (%)	-8.54%	-2.55%	3.90%	16.45%	12.78%	12.76%	14.60%
	TRACK II	EBITDA	1201	2025	3212	11382	11565	12215	12866
		EBITDA Margin (%)	13.61%	19.65%	26.31%	47.37%	47.18%	46.96%	46.60%
		PBIT	-1895	-1115	53	7721	7867	9197	9882
		RoCE (%)	-5.45%	-3.11%	0.14%	15.70%	16.12%	19.72%	23.30%

Table 9: Effect of 10 paise tariff increase - Andhra Pradesh

ANDHRA PRADESH CIRCLE : EFFECT OF 10 PAISE TARIFF HIKE								Rs. in Crore	
Particulars		2012-13	2013-14	2014-15	2020-21	2021-22	2025-26	2031-32	
BASE CASE Before Additional Costs	EBITDA	243	906	1886	8773	8904	9391	9868	
	EBITDA Margin (%)	3.08%	9.86%	17.33%	40.95%	40.75%	40.50%	40.09%	
	PBIT	-1608	-990	-27	6868	7025	7617	8129	
	RoCE (%)	-13.31%	-7.01%	-0.16%	20.87%	20.93%	21.39%	21.50%	
After Additional Costs									
NORMAL SCENARIO : FULL REFARMING	TRACK I	EBITDA	1851	2661	3925	13203	13411	14130	14758
		EBITDA Margin (%)	18.92%	23.28%	29.01%	49.57%	49.36%	49.00%	48.22%
		PBIT	-329	327	1411	9830	9364	10044	10638
		RoCE (%)	-2.19%	1.77%	6.10%	20.51%	17.46%	17.58%	18.65%
	TRACK II	EBITDA	2021	2860	4161	13221	13429	14130	14758
		EBITDA Margin (%)	20.67%	25.03%	30.75%	49.64%	49.43%	49.00%	48.22%
		PBIT	-697	-12	1108	9921	10124	11217	11880
		RoCE (%)	-2.36%	-0.04%	3.07%	19.49%	19.97%	22.42%	25.04%
NORMAL SCENARIO : PARTIAL REFARMING	TRACK I	EBITDA	1851	2785	4111	13599	13826	14635	15435
		EBITDA Margin (%)	18.92%	24.37%	30.38%	51.05%	50.89%	50.75%	50.43%
		PBIT	-354	536	1844	9715	9023	9811	10725
		RoCE (%)	-2.35%	3.05%	8.87%	19.64%	15.86%	15.76%	17.74%
	TRACK II	EBITDA	2021	2984	4347	13617	13845	14635	15435
		EBITDA Margin (%)	20.67%	26.11%	32.13%	51.12%	50.96%	50.75%	50.43%
		PBIT	-1074	-156	1189	9956	10147	11617	12451
		RoCE (%)	-2.97%	-0.42%	2.99%	18.72%	19.19%	22.79%	26.48%

Table 10: Effect of 15 paise tariff increase - Delhi

DELHI CIRCLE : EFFECT OF 15 PAISE TARIFF HIKE								Rs. in Crore	
Particulars		2012-13	2013-14	2014-15	2020-21	2021-22	2025-26	2031-32	
BASE CASE Before Additional Costs	EBITDA	1035	1802	3465	10186	10431	11128	11893	
	EBITDA Margin (%)	13.76%	20.50%	31.08%	49.74%	49.93%	50.20%	50.54%	
	PBIT	-872	-170	1431	7933	8163	8780	9422	
	RoCE (%)	-2.90%	-0.48%	3.21%	9.68%	9.76%	9.89%	10.00%	
After Additional Costs									
NORMAL SCENARIO : FULL REFARMING	TRACK I	EBITDA	2717	3764	5953	15351	15698	16761	17869
		EBITDA Margin (%)	28.44%	33.73%	42.05%	59.01%	59.17%	59.52%	59.78%
		PBIT	-533	429	2421	10647	8663	8889	9849
		RoCE (%)	-1.39%	0.96%	3.72%	9.60%	6.55%	6.17%	6.97%
	TRACK II	EBITDA	2949	4036	6298	15391	15739	16761	17869
		EBITDA Margin (%)	30.88%	36.16%	44.49%	59.17%	59.32%	59.52%	59.78%
		PBIT	-1231	-229	1940	10196	10453	12088	13072
		RoCE (%)	-1.61%	-0.28%	2.13%	8.06%	8.26%	9.67%	10.92%
NORMAL SCENARIO : PARTIAL REFARMING	TRACK I	EBITDA	2717	3767	5958	15360	15708	16773	17885
		EBITDA Margin (%)	28.44%	33.75%	42.08%	59.05%	59.20%	59.57%	59.84%
		PBIT	-592	394	1964	9256	6160	6357	7819
		RoCE (%)	-1.55%	0.88%	2.85%	8.12%	4.28%	4.00%	5.24%
	TRACK II	EBITDA	2949	4039	6303	15401	15750	16773	17885
		EBITDA Margin (%)	30.88%	36.19%	44.52%	59.21%	59.36%	59.57%	59.84%
		PBIT	-2186	-1161	1040	8686	8866	11197	12185
		RoCE (%)	-2.33%	-1.19%	0.98%	6.38%	6.55%	8.60%	10.18%

Table 11: Effect of 20 paise tariff increase - Delhi

DELHI CIRCLE : EFFECT OF 20 PAISE TARIFF HIKE								Rs. in Crore	
Particulars		2012-13	2013-14	2014-15	2020-21	2021-22	2025-26	2031-32	
BASE CASE Before Additional Costs	EBITDA	1035	1802	3465	10186	10431	11128	11893	
	EBITDA Margin (%)	13.76%	20.50%	31.08%	49.74%	49.93%	50.20%	50.54%	
	PBIT	-872	-170	1431	7933	8163	8780	9422	
	RoCE (%)	-2.90%	-0.48%	3.21%	9.68%	9.76%	9.89%	10.00%	
After Additional Costs									
NORMAL SCENARIO : FULL REFORMING	TRACK I	EBITDA	3244	4380	6735	16826	17203	18361	19567
		EBITDA Margin (%)	31.84%	36.79%	44.60%	60.64%	60.79%	61.13%	61.37%
		PBIT	-6	1045	3202	12122	10168	10489	11548
		RoCE (%)	-0.01%	2.19%	4.65%	10.29%	7.30%	6.92%	7.74%
	TRACK II	EBITDA	3492	4670	7103	16869	17247	18361	19567
		EBITDA Margin (%)	34.28%	39.23%	47.03%	60.80%	60.94%	61.13%	61.37%
		PBIT	-688	405	2744	11674	11961	13688	14771
		RoCE (%)	-0.87%	0.48%	2.89%	8.75%	8.95%	10.33%	11.57%
NORMAL SCENARIO : PARTIAL REFORMING	TRACK I	EBITDA	3244	4383	6739	16836	17213	18374	19584
		EBITDA Margin (%)	31.84%	36.82%	44.63%	60.68%	60.82%	61.17%	61.42%
		PBIT	-65	1010	2746	10731	7665	7957	9518
		RoCE (%)	-0.16%	2.12%	3.78%	8.87%	5.08%	4.79%	6.06%
	TRACK II	EBITDA	3492	4673	7107	16879	17257	18374	19584
		EBITDA Margin (%)	34.28%	39.26%	47.06%	60.83%	60.98%	61.17%	61.42%
		PBIT	-1644	-527	1845	10164	10374	12797	13884
		RoCE (%)	-1.71%	-0.53%	1.68%	7.10%	7.28%	9.29%	10.88%

43. In the case of Delhi, a tariff hike of 15 paise is required to substantially restore the pre-impact profitability position. A 15 paise tariff hike raises EBIDTA, EBIDTA margins and PBIT (in most years) well above base case levels. And, for the Track II option, in Delhi, a 20 paise tariff hike, of course, raises EBIDTA, EBIDTA margins and PBIT well above base case levels, while the RoCE is close to or higher than in the base case in most years.
44. As is evident, with a mere 5 paise increase in tariff in the case of Andhra Pradesh and 15 paise in Delhi, the pre-impact EBITDA, EBITDA margin and PBIT figures are generally restored; with 10 and 20 paise increases respectively, the positions improve over the pre-impact levels in most years under all the policy options. The results of the circle wise analysis are enclosed at Annexures IX to XII.

ANALYSIS FOR 800 AND 1800 MHZ:

45. This analysis is not possible through the above model as segregated data on revenue, costs and profitability for the different frequency bands is not available with TRAI.

INTERNATIONAL EXPERIENCE WITH REGARD TO RATIO APPLIED TO ESTIMATE MARKET PRICE OF SPECTRUM:

46. TRAI has been asked to analyse/indicate international experience with regard to the ratio applied to estimated/assessed market price of spectrum while setting a reserve price.
47. Information about the market price of spectrum estimated by the various administrators globally, while setting the reserve price, is generally not available in the public domain. However, the following table gives the information regarding the reserve price and the final auction price in various auctions held globally in during the last two years.

Table 12

Sl. No.	Country	Year	Spectrum Band	Amount of Spectrum Auctioned	Reserve Price per MHz (in INR crore)	Auction Price per MHz (in INR crore)	Auction Price per MHz per pop (in INR)	Ratio of Reserve Price to Auction Price
1	Denmark	2010	900	10	0.71	0.71	1.30	1.00
2	Denmark	2010	1800	20	0.18	0.18	0.33	1.00
3	Germany	2010	800	60	1.63	390.00	47.50	0.004
4	Germany	2010	1800	50	1.63	13.65	1.66	0.12
5	Sweden	2011	800	60	11.25	25.68	27.84	0.44
6	Sweden	2011	1800	70	7.50	14.46	15.69	0.52
7	Hongkong	2011	850/900	20	2.00	62.46	89.19	0.03
8	Singapore	2011	1800	20	0.16	4.31	8.62	0.04
9	France	2011	800	60	195.00	286.00	44.08	0.68
10	Spain	2011	800	60	110.50	141.41	30.25	0.78
11	Spain	2011	900	10	10.50	109.85	23.49	0.10
12	Italy	2011	800	60	2.00	331.90	55.50	0.01
13	Italy	2011	1800	30	2.00	106.90	18.00	0.02
14	Portugal	2011	800	60	29.35	29.35	27.50	1.00
15	Portugal	2011	900	10	19.55	19.55	18.50	1.00
16	Portugal	2011	1800	84	2.55	2.55	2.50	1.00
17	USA	2008	700	62	806.45	1932.20	64.00	0.42
18	S. Korea	2011	1800	20	104.50	233.25	47.72	0.45
19	S. Korea	2011	800	10	122.50	122.50	25.06	1.00

48. In the above table, the ratio of the reserve price to the auction price varies from 0.004 (Germany, 800 MHz) to 1 (where the auction concluded on the reserve price itself).

SUMMARY

Normal: Full Refarming

Industry (wireless) : Track I

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	385896	439922	488313	537144	564002	592202	609968	628267	640832	653649	666722	680056	686857	693725	700663	707669	714746	721893	729112	736404
3	Revenue	111837	129949	152148	178847	203862	227031	249463	276005	292006	310674	316888	323225	326458	329722	333019	336350	339713	343110	346541	350007
4	Total Cost	132152	141919	151670	161993	171167	179558	187521	194851	199857	205423	209251	212276	214957	217795	220779	223547	225908	228362	230921	233578
5	EBITDA	7292	16407	29114	45862	61887	76597	91117	110116	120580	133268	135389	138122	138201	138296	138406	138878	139652	140452	141277	142129
6	EBITDA Margin (%)	6.52%	12.63%	19.14%	25.64%	30.36%	33.74%	36.53%	39.90%	41.29%	42.90%	42.72%	42.73%	42.33%	41.94%	41.56%	41.29%	41.11%	40.93%	40.77%	40.61%
7	PBIT	-19045	-10619	1903	18358	34269	49107	63636	82896	93923	107059	109478	112809	113377	113821	114153	114733	115744	116697	117578	118396
8	RoCE (%)	-8.68%	-4.17%	0.64%	5.23%	8.57%	11.03%	13.00%	15.31%	16.40%	17.57%	17.61%	17.79%	17.70%	17.60%	17.47%	17.39%	17.37%	17.34%	17.29%	17.24%
	Likely Impact due to additional costs:																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	4718	4718	4961	8065	8373	10493	10913	11221	13412	23160	23598	24090	29422	26002	32960	34515	34592	34592	33811	27237
10	Amortisation of additional CAPEX (refer Note 2)	0	1302	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256
11	Likely OPEX on additional towers & BTS equipments	0	1439	2159	3598	3777	3966	4165	4373	4591	4821	5062	5315	5581	5860	6153	6461	6784	7123	7479	7853
12	Saving in Spectrum Usage Charges	0	0	0	-471	-1598	-1847	-2205	-2497	-3368	-3546	-4292	-4377	-4851	-4893	-4942	-4991	-5041	-5092	-5143	-5194
	Likely Impact due to additional costs	4718	7459	10376	14448	13809	15869	16129	16352	17891	27691	27624	28284	33408	30225	37427	39240	39590	39879	39404	33152
13	EBITDA after considering Net Impact	7292	14968	26955	42736	59707	74478	89157	108240	119357	131993	134618	137184	137472	137329	137195	137409	137910	138420	138941	139470
14	EBITDA Margin (%) after considering Net Impact	6.52%	11.52%	17.72%	23.90%	29.29%	32.80%	35.74%	39.22%	40.87%	42.49%	42.48%	42.44%	42.11%	41.65%	41.20%	40.85%	40.60%	40.34%	40.09%	39.85%
15	PBIT after considering Net Impact	-23763	-18079	-8473	3910	20460	33238	47507	66544	76032	79368	81854	84525	79970	83596	76725	75493	76154	76818	78174	85244
16	RoCE after additional capital investment (%)	-10.83%	-6.78%	-2.47%	0.96%	4.53%	6.48%	8.58%	11.05%	11.82%	10.51%	10.98%	11.42%	10.08%	10.38%	9.04%	8.79%	9.10%	9.45%	9.80%	10.57%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	33992	0	19156	19720	2922	25269	2824	270	22013	97319	-351	56	67214	29240	67217	35484	-1704	-5092	9319	26423
18	NPV - Estimated Cash inflow to Govt.	167193																			
19	Total Net impact per minute	0.012	0.017	0.021	0.027	0.024	0.027	0.026	0.026	0.028	0.042	0.041	0.042	0.049	0.044	0.053	0.055	0.055	0.055	0.054	0.045
20	Net impact per minute- Voice services	0.010	0.014	0.016	0.019	0.016	0.017	0.015	0.014	0.015	0.021	0.021	0.021	0.024	0.022	0.027	0.028	0.028	0.028	0.027	0.023
21	Total Net impact per minute (including 15% return on capital investment)	0.018	0.025	0.040	0.049	0.046	0.053	0.046	0.045	0.050	0.080	0.078	0.078	0.092	0.087	0.107	0.110	0.110	0.109	0.106	0.088
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.015	0.020	0.031	0.035	0.031	0.033	0.027	0.024	0.026	0.040	0.039	0.039	0.046	0.044	0.053	0.055	0.055	0.055	0.053	0.044

(1) Includes License Renewal Fees, Auction Price (for 5 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

(2) Includes depreciation on likely additional CAPEX on towers & BTS equipments due to refarming of Spectrum

Normal : FULL REFARMING

Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute

Normal Scenario (Spectrum Usage Charges @ 3%)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK I	Amount (Rs.)																			
Total Net Impact per minute	0.012	0.017	0.021	0.027	0.024	0.027	0.026	0.026	0.028	0.042	0.041	0.042	0.049	0.044	0.053	0.055	0.055	0.055	0.054	0.045
Net impact per minute - Voice services	0.010	0.014	0.016	0.019	0.016	0.017	0.015	0.014	0.015	0.021	0.021	0.021	0.024	0.022	0.027	0.028	0.028	0.028	0.027	0.023
Net impact per minute on Voice services while considering O/G min only (2 times)	0.020	0.027	0.032	0.038	0.032	0.033	0.031	0.028	0.029	0.042	0.041	0.042	0.049	0.044	0.053	0.055	0.055	0.055	0.054	0.045
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.023	0.031	0.036	0.043	0.036	0.037	0.035	0.032	0.033	0.048	0.047	0.047	0.055	0.049	0.060	0.062	0.062	0.062	0.061	0.051
Average of 20 years	0.045																			
TRACK I (including 15% return on capital investment)																				
Total Net Impact per minute	0.018	0.025	0.040	0.049	0.046	0.053	0.046	0.045	0.050	0.080	0.078	0.078	0.092	0.087	0.107	0.110	0.110	0.109	0.106	0.088
Net impact per minute - Voice services	0.015	0.020	0.031	0.035	0.031	0.033	0.027	0.024	0.026	0.040	0.039	0.039	0.046	0.044	0.053	0.055	0.055	0.055	0.053	0.044
Net impact per minute on Voice services while considering O/G min only (2 times)	0.030	0.041	0.062	0.070	0.061	0.066	0.053	0.048	0.053	0.080	0.078	0.078	0.092	0.087	0.107	0.110	0.110	0.109	0.106	0.088
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.034	0.046	0.069	0.079	0.069	0.074	0.060	0.054	0.059	0.090	0.088	0.088	0.103	0.098	0.120	0.124	0.123	0.123	0.119	0.099
Average of 20 years	0.086																			

Impact at different levels of tariff changes

Normal : FULL REFARMING

Industry (Wireless Service) : Normal Scenario (Track I) - SUC @ 3%

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	EBITDA before additional costs	7292	16407	29114	45862	61887	76597	91117	110116	120580	133268	135389	138122	138201	138296	138406	138878	139652	140452	141277	142129
2	EBITDA Margin (%) before additional costs	6.52%	12.63%	19.14%	25.64%	30.36%	33.74%	36.53%	39.90%	41.29%	42.90%	42.72%	42.73%	42.33%	41.94%	41.56%	41.29%	41.11%	40.93%	40.77%	40.61%
3	PBIT before additional costs	-19045	-10619	1903	18358	34269	49107	63636	82896	93923	107059	109478	112809	113377	113821	114153	114733	115744	116697	117578	118396
4	RoCE (%) before additional costs	-8.68%	-4.17%	0.64%	5.23%	8.57%	11.03%	13.00%	15.31%	16.40%	17.57%	17.61%	17.79%	17.70%	17.60%	17.47%	17.39%	17.37%	17.34%	17.29%	17.24%
5	EBITDA after additional costs	7292	14968	26955	42736	59707	74478	89157	108240	119357	131993	134618	137184	137472	137329	137195	137409	137910	138420	138941	139470
6	EBITDA Margin (%) after additional costs	6.52%	11.52%	17.72%	23.90%	29.29%	32.80%	35.74%	39.22%	40.87%	42.49%	42.48%	42.44%	42.11%	41.65%	41.20%	40.85%	40.60%	40.34%	40.09%	39.85%
7	PBIT after additional costs	-23763	-18079	-8473	3910	20460	33238	47507	66544	76032	79368	81854	84525	79970	83596	76725	75493	76154	76818	78174	85244
8	RoCE after additional costs (%)	-10.83%	-6.78%	-2.47%	0.96%	4.53%	6.48%	8.58%	11.05%	11.82%	10.51%	10.98%	11.42%	10.08%	10.38%	9.04%	8.79%	9.10%	9.45%	9.80%	10.57%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	17302	26600	40574	58794	78123	94993	111718	133208	145848	160174	163434	166577	167203	167357	167523	168040	168847	169668	170500	171345
10	EBITDA Margin (%)	14.00%	18.52%	24.13%	29.74%	34.67%	37.86%	40.52%	43.67%	45.19%	46.65%	46.67%	46.63%	46.34%	45.93%	45.52%	45.20%	44.97%	44.74%	44.52%	44.29%
11	PBIT	-13753	-6447	5146	19968	38876	53754	70068	91512	102523	107549	110670	113917	109701	113624	107054	106124	107092	108065	109734	117119
12	RoCE (%)	-5.67%	-2.20%	1.37%	4.49%	7.87%	9.61%	11.58%	13.89%	14.57%	13.12%	13.65%	14.11%	12.74%	13.00%	11.66%	11.43%	11.81%	12.23%	12.62%	13.33%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	27313	38232	54193	74852	96539	115509	134280	158176	172340	188356	192250	195969	196934	197385	197851	198671	199785	200915	202060	203220
14	EBITDA Margin (%)	20.18%	24.31%	29.43%	34.58%	39.12%	42.03%	44.47%	47.35%	48.76%	50.09%	50.12%	50.09%	49.84%	49.46%	49.08%	48.80%	48.59%	48.38%	48.17%	47.97%
15	PBIT	-3742	5185	18764	36026	57292	74269	92629	116479	129015	135730	139485	143309	139432	143652	137382	136756	138030	139312	141293	148994
16	RoCE (%)	-1.41%	1.62%	4.62%	7.48%	10.69%	12.25%	14.11%	16.27%	16.89%	15.36%	15.92%	16.40%	15.02%	15.25%	13.93%	13.70%	14.13%	14.60%	15.02%	15.67%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	37323	49863	67811	90910	114954	136025	156841	183144	198831	216537	221066	225361	226666	227413	228179	229303	230723	232162	233620	235095
18	EBITDA Margin (%)	25.37%	29.17%	33.88%	38.64%	42.86%	45.54%	47.79%	50.44%	51.76%	52.98%	53.03%	53.00%	52.78%	52.43%	52.08%	51.82%	51.62%	51.43%	51.24%	51.06%
19	PBIT	6268	16816	32383	52084	75707	94785	115190	141447	155507	163912	168301	172701	169163	173680	167710	167387	168967	170559	172853	180870
20	RoCE (%)	2.17%	4.84%	7.39%	10.05%	13.09%	14.51%	16.27%	18.30%	18.87%	17.29%	17.87%	18.36%	16.99%	17.20%	15.89%	15.68%	16.14%	16.64%	17.07%	17.67%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	47334	61495	81430	106968	133370	156540	179402	208112	225323	244718	249882	254753	256397	257440	258508	259934	261661	263409	265179	266971
22	EBITDA Margin (%)	29.79%	33.31%	37.67%	42.10%	46.05%	48.53%	50.62%	53.07%	54.31%	55.44%	55.50%	55.47%	55.28%	54.95%	54.64%	54.39%	54.21%	54.03%	53.86%	53.69%
23	PBIT	16279	28448	46002	68142	94123	115301	137752	166415	181998	192093	197117	202093	198895	203708	198038	198019	199905	201807	204413	212745
24	RoCE (%)	5.22%	7.61%	9.80%	12.27%	15.18%	16.47%	18.14%	20.05%	20.58%	18.98%	19.57%	20.06%	18.71%	18.90%	17.62%	17.42%	17.90%	18.41%	18.86%	19.42%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	57344	73127	95049	123026	151785	177056	201963	233079	251815	272899	278697	284145	286128	287468	288836	290566	292599	294656	296739	298846
26	EBITDA Margin (%)	33.60%	36.88%	40.94%	45.08%	48.79%	51.11%	53.05%	55.34%	56.51%	57.56%	57.63%	57.61%	57.44%	57.13%	56.84%	56.61%	56.44%	56.28%	56.11%	55.95%
27	PBIT	26289	40080	59620	84200	112538	135816	160313	191383	208490	220274	225933	231485	228626	233736	228366	228650	230843	233054	235972	244620
28	RoCE (%)	7.85%	10.00%	11.91%	14.22%	16.99%	18.19%	19.77%	21.58%	22.07%	20.47%	21.06%	21.56%	20.23%	20.40%	19.15%	18.96%	19.45%	19.97%	20.42%	20.95%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	67355	84758	108667	139084	170201	197572	224524	258047	278306	301081	307513	313537	315859	317496	319164	321197	323536	325904	328299	330721
30	EBITDA Margin (%)	36.92%	39.99%	43.79%	47.67%	51.18%	53.35%	55.18%	57.32%	58.43%	59.41%	59.49%	59.47%	59.31%	59.03%	58.75%	58.54%	58.39%	58.23%	58.08%	57.93%
31	PBIT	36300	51711	73239	100258	130954	156332	182874	216350	234981	248455	254749	260878	258357	263764	258695	259282	261781	264301	267532	276495
32	RoCE (%)	10.14%	12.09%	13.76%	15.94%	18.59%	19.70%	21.21%	22.92%	23.38%	21.79%	22.39%	22.87%	21.57%	21.73%	20.51%	20.32%	20.82%	21.36%	21.81%	22.30%

SUMMARY

Normal: Full Refarming

Industry (wireless) : Track II

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	385896	439922	488313	537144	564002	592202	609968	628267	640832	653649	666722	680056	686857	693725	700663	707669	714746	721893	729112	736404
3	Revenue	111837	129949	152148	178847	203862	227031	249463	276005	292006	310674	316888	323225	326458	329722	333019	336350	339713	343110	346541	350007
4	Total Cost	132152	141919	151670	161993	171167	179558	187521	194851	199857	205423	209251	212276	214957	217795	220779	223547	225908	228362	230921	233578
5	EBITDA	7292	16407	29114	45862	61887	76597	91117	110116	120580	133268	135389	138122	138201	138296	138406	138878	139652	140452	141277	142129
6	EBITDA Margin (%)	6.52%	12.63%	19.14%	25.64%	30.36%	33.74%	36.53%	39.90%	41.29%	42.90%	42.72%	42.73%	42.33%	41.94%	41.56%	41.29%	41.11%	40.93%	40.77%	40.61%
7	PBIT	-19045	-10619	1903	18358	34269	49107	63636	82896	93923	107059	109478	112809	113377	113821	114153	114733	115744	116697	117578	118396
8	RoCE (%)	-8.68%	-4.17%	0.64%	5.23%	8.57%	11.03%	13.00%	15.31%	16.40%	17.57%	17.61%	17.79%	17.70%	17.60%	17.47%	17.39%	17.37%	17.34%	17.29%	17.24%
	Likely Impact due to additional costs:																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	10996	10996	10996	12723	12939	13182	13456	13763	14109	14498	14936	15429	15983	10996	10996	10996	10996	10996	10996	10996
10	Amortisation of additional CAPEX (refer Note 2)	0	1302	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256
11	Likely OPEX on additional towers & BTS equipments	0	1439	2159	3598	3777	3966	4165	4373	4591	4821	5062	5315	5581	5860	6153	6461	6784	7123	7479	7853
12	Saving in Spectrum Usage Charges	-1668	-1940	-2288	-2712	-3121	-3459	-3782	-4164	-4382	-4634	-4727	-4821	-4869	-4893	-4942	-4991	-5041	-5092	-5143	-5194
	Likely Impact due to additional costs	9328	11797	14122	16865	16852	16945	17094	17228	17575	17941	18528	19179	19950	15219	15463	15721	15994	16283	16588	16911
13	EBITDA after considering Net Impact	8960	16908	29244	44977	61231	76090	90735	109907	120370	133081	135053	137628	137490	137329	137195	137409	137910	138420	138941	139470
14	EBITDA Margin (%) after considering Net Impact	8.01%	13.01%	19.22%	25.15%	30.04%	33.52%	36.37%	39.82%	41.22%	42.84%	42.62%	42.58%	42.12%	41.65%	41.20%	40.85%	40.60%	40.34%	40.09%	39.85%
15	PBIT after considering Net Impact	-28373	-22417	-12219	1493	17418	32161	46542	65668	76348	89117	90950	93630	93427	98603	98690	99012	99750	100414	100990	101485
16	RoCE after additional capital investment (%)	-7.0%	-5.1%	-2.5%	0.3%	3.1%	5.4%	7.3%	9.6%	10.9%	12.3%	12.6%	12.9%	12.9%	13.7%	13.9%	14.0%	14.2%	14.3%	14.5%	14.7%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	230379	-1940	-2288	-2712	-3121	-3459	-3782	-4164	-4382	-4634	-4727	-4821	-4869	-4893	-4942	-4991	-5041	-5092	-5143	-5194
18	NPV - Estimated Cash inflow to Govt.	204624																			
19	Total Net impact per minute	0.024	0.027	0.029	0.031	0.030	0.029	0.028	0.027	0.027	0.027	0.028	0.028	0.029	0.022	0.022	0.022	0.022	0.023	0.023	0.023
20	Net impact per minute- Voice services	0.020	0.022	0.022	0.022	0.020	0.018	0.016	0.015	0.014	0.014	0.014	0.014	0.015	0.011	0.011	0.011	0.011	0.011	0.011	0.011
21	Total Net impact per minute (including 15% return on capital investment)	0.087	0.085	0.085	0.083	0.079	0.076	0.074	0.072	0.071	0.070	0.070	0.070	0.070	0.062	0.061	0.061	0.061	0.061	0.061	0.060
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.071	0.068	0.065	0.059	0.052	0.047	0.043	0.039	0.037	0.035	0.035	0.035	0.035	0.031	0.031	0.031	0.030	0.030	0.030	0.030

Note:

(1) Includes License Renewal Fees, Auction Price (for 5 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

(2) Includes depreciation on likely additional CAPEX on towers & BTS equipments due to refarming of Spectrum

Normal : FULL REFARMING

Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute

Normal Scenario (Spectrum Usage Charges @ 3%)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK II	Amount (Rs.)																			
Total Net Impact per minute	0.024	0.027	0.029	0.031	0.030	0.029	0.028	0.027	0.027	0.027	0.028	0.028	0.029	0.022	0.022	0.022	0.022	0.023	0.023	0.023
Net impact per minute - Voice services	0.020	0.022	0.022	0.022	0.020	0.018	0.016	0.015	0.014	0.014	0.014	0.014	0.015	0.011	0.011	0.011	0.011	0.011	0.011	0.011
Net impact per minute on Voice services while considering O/G	0.040	0.043	0.044	0.045	0.039	0.035	0.033	0.030	0.029	0.027	0.028	0.028	0.029	0.022	0.022	0.022	0.022	0.023	0.023	0.023
Net impact per minute on Voice services after loading LF (8%) &	0.045	0.048	0.050	0.050	0.044	0.040	0.037	0.033	0.032	0.031	0.031	0.032	0.033	0.025	0.025	0.025	0.025	0.025	0.026	0.026
Average of 20 years	0.034																			
TRACK II (including 15% return on capital investment)																				
Total Net Impact per minute	0.087	0.085	0.085	0.083	0.079	0.076	0.074	0.072	0.071	0.070	0.070	0.070	0.070	0.062	0.061	0.061	0.061	0.061	0.061	0.060
Net impact per minute - Voice services	0.071	0.068	0.065	0.059	0.052	0.047	0.043	0.039	0.037	0.04	0.035	0.035	0.035	0.031	0.031	0.031	0.030	0.030	0.030	0.030
Net impact per minute on Voice services while considering O/G	0.142	0.136	0.130	0.119	0.104	0.094	0.086	0.078	0.074	0.070	0.070	0.070	0.070	0.062	0.061	0.061	0.061	0.061	0.061	0.060
Net impact per minute on Voice services after loading LF (8%) &	0.160	0.153	0.146	0.134	0.117	0.106	0.096	0.088	0.083	0.079	0.079	0.078	0.079	0.069	0.069	0.069	0.069	0.068	0.068	0.068
Average of 20 years	0.094																			

Impact at different levels of tariff changes

Normal : FULL REFORMING

Annexure IIc

		Industry (Wireless Service) : Normal Scenario (Track II) - SUC @ 3%																			Rs. in crore	
SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
1	EBITDA before additional costs	7292	16407	29114	45862	61887	76597	91117	110116	120580	133268	135389	138122	138201	138296	138406	138878	139652	140452	141277	142129	
2	EBITDA Margin (%) before additional costs	6.52%	12.63%	19.14%	25.64%	30.36%	33.74%	36.53%	39.90%	41.29%	42.90%	42.72%	42.73%	42.33%	41.94%	41.56%	41.29%	41.11%	40.93%	40.77%	40.61%	
3	PBIT before additional costs	-19045	-10619	1903	18358	34269	49107	63636	82896	93923	107059	109478	112809	113377	113821	114153	114733	115744	116697	117578	118396	
4	RoCE (%) before additional costs	-8.68%	-4.17%	0.64%	5.23%	8.57%	11.03%	13.00%	15.31%	16.40%	17.57%	17.61%	17.79%	17.70%	17.60%	17.47%	17.39%	17.37%	17.34%	17.29%	17.24%	
5	EBITDA after additional costs	8960	16908	29244	44977	61231	76090	90735	109907	120370	133081	135053	137628	137490	137329	137195	137409	137910	138420	138941	139470	
6	EBITDA Margin (%) after additional costs	8.01%	13.01%	19.22%	25.15%	30.04%	33.52%	36.37%	39.82%	41.22%	42.84%	42.62%	42.58%	42.12%	41.65%	41.20%	40.85%	40.60%	40.34%	40.09%	39.85%	
7	PBIT after additional costs	-28373	-22417	-12219	1493	17418	32161	46542	65668	76348	89117	90950	93630	93427	98603	98690	99012	99750	100414	100990	101485	
8	RoCE after additional costs (%)	-7.02%	-5.08%	-2.48%	0.28%	3.07%	5.36%	7.33%	9.65%	10.92%	12.33%	12.60%	12.90%	12.88%	13.71%	13.85%	14.02%	14.17%	14.26%	14.47%	14.67%	
AFTER Additional Costs																						
(A) Tariff (Outgoing Calls) increased by 5 Paisa																						
9	EBITDA	19146	28744	43103	61271	79806	96775	113462	135050	146968	161377	163915	167067	167223	167357	167523	168040	168847	169668	170500	171345	
10	EBITDA Margin (%)	15.49%	20.01%	25.63%	31.00%	35.42%	38.57%	41.15%	44.27%	45.54%	47.00%	46.80%	46.77%	46.35%	45.93%	45.52%	45.20%	44.97%	44.74%	44.52%	44.29%	
11	PBIT	-18187	-10581	1640	17787	35993	52847	69270	90811	102947	117413	119812	123069	123160	128631	129018	129643	130688	131661	132549	133360	
12	RoCE (%)	-4.26%	-2.26%	0.31%	3.13%	5.91%	8.17%	10.09%	12.31%	13.56%	14.92%	15.22%	15.53%	15.53%	16.34%	16.51%	16.72%	16.88%	16.99%	17.22%	17.45%	
(B) Tariff (Outgoing Calls) increased by 10 Paisa																						
13	EBITDA	29332	40580	56962	77564	98382	117461	136189	160193	173567	189672	192776	196506	196956	197385	197851	198671	199785	200915	202060	203220	
14	EBITDA Margin (%)	21.67%	25.80%	30.93%	35.83%	39.87%	42.74%	45.10%	47.95%	49.11%	50.44%	50.26%	50.23%	49.84%	49.46%	49.08%	48.80%	48.59%	48.38%	48.17%	47.97%	
15	PBIT	-8001	1255	15500	34081	54569	73532	91997	115955	129545	145709	148674	152508	152893	158659	159347	160275	161626	162908	164109	165235	
16	RoCE (%)	-1.78%	0.25%	2.80%	5.63%	8.38%	10.60%	12.46%	14.59%	15.81%	17.12%	17.43%	17.75%	17.77%	18.55%	18.75%	18.97%	19.14%	19.26%	19.51%	19.76%	
(C) Tariff (Outgoing Calls) increased by 15 Paisa																						
17	EBITDA	39518	52415	70822	93858	116958	138146	158917	185336	200165	217968	221638	225945	226689	227413	228179	229303	230723	232162	233620	235095	
18	EBITDA Margin (%)	26.86%	30.66%	35.38%	39.89%	43.61%	46.25%	48.42%	51.04%	52.10%	53.33%	53.16%	53.13%	52.78%	52.43%	52.08%	51.82%	51.62%	51.43%	51.24%	51.06%	
19	PBIT	2185	13091	29359	50374	73145	94217	114724	141098	156143	174005	177535	181947	182627	188687	189675	190906	192563	194156	195669	197111	
20	RoCE (%)	0.46%	2.51%	5.01%	7.85%	10.55%	12.73%	14.53%	16.57%	17.75%	19.01%	19.34%	19.65%	19.68%	20.44%	20.64%	20.88%	21.06%	21.18%	21.44%	21.69%	
(D) Tariff (Outgoing Calls) increased by 20 Paisa																						
21	EBITDA	49704	64251	84681	110152	135534	158831	181644	210480	226763	246264	250500	255383	256423	257440	258508	259934	261661	263409	265179	266971	
22	EBITDA Margin (%)	31.28%	34.80%	39.17%	43.35%	46.79%	49.24%	51.25%	53.67%	54.66%	55.79%	55.64%	55.61%	55.28%	54.95%	54.64%	54.39%	54.21%	54.03%	53.86%	53.69%	
23	PBIT	12371	24926	43218	66668	91721	114903	137451	166241	182741	202300	206397	211385	212360	218715	220003	221538	223501	225403	227228	228986	
24	RoCE (%)	2.49%	4.54%	7.00%	9.82%	12.47%	14.60%	16.34%	18.30%	19.44%	20.66%	20.98%	21.30%	21.34%	22.06%	22.28%	22.52%	22.70%	22.82%	23.09%	23.35%	
(E) Tariff (Outgoing Calls) increased by 25 Paisa																						
25	EBITDA	59890	76087	98540	126446	154110	179517	204371	235623	253361	274560	279361	284822	286156	287468	288836	290566	292599	294656	296739	298846	
26	EBITDA Margin (%)	35.09%	38.37%	42.44%	46.33%	49.54%	51.82%	53.69%	55.94%	56.86%	57.91%	57.77%	57.75%	57.44%	57.13%	56.84%	56.61%	56.44%	56.28%	56.11%	55.95%	
27	PBIT	22557	36762	57078	82962	110297	135588	160178	191384	209339	230596	235258	240824	242093	248742	250331	252169	254439	256650	258788	260861	
28	RoCE (%)	4.34%	6.39%	8.80%	11.59%	14.18%	16.26%	17.95%	19.82%	20.93%	22.10%	22.43%	22.73%	22.79%	23.48%	23.70%	23.94%	24.13%	24.25%	24.51%	24.77%	
(E) Tariff (Outgoing Calls) increased by 30 Paisa																						
29	EBITDA	70075	87922	112400	142739	172686	200202	227098	260766	279959	302855	308223	314261	315889	317496	319164	321197	323536	325904	328299	330721	
30	EBITDA Margin (%)	38.41%	41.48%	45.29%	48.93%	51.93%	54.06%	55.81%	57.92%	58.78%	59.76%	59.63%	59.60%	59.32%	59.03%	58.75%	58.54%	58.39%	58.23%	58.08%	57.93%	
31	PBIT	32743	48598	70937	99256	128873	156273	182905	216527	235938	258892	264120	270263	271826	278770	280659	282801	285377	287897	290347	292736	
32	RoCE (%)	6.03%	8.07%	10.43%	13.19%	15.72%	17.74%	19.38%	21.18%	22.24%	23.38%	23.70%	24.00%	24.06%	24.73%	24.95%	25.19%	25.37%	25.50%	25.76%	26.01%	

SUMMARY

Pessimistic : Full Refarming

		Industry (wireless) : Track I																			Rs. in crore	
SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	
2	Projected Minutes (in crores)	385896	439922	488313	537144	564002	592202	609968	628267	640832	653649	666722	680056	686857	693725	700663	707669	714746	721893	729112	736404	
3	Revenue	105723	121283	135868	150850	158788	168304	174233	181645	186247	192325	197229	203710	209897	216381	223184	230330	239200	246494	254134	260501	
4	Total Cost	131240	140626	149242	157818	164444	170799	176301	180778	184084	187772	191405	194451	197573	200891	204398	207735	210918	213952	217140	220229	
5	EBITDA	2089	9034	15262	22041	23536	26628	27107	29828	30594	32570	33576	36431	39025	41858	44951	48670	54129	58244	62651	65972	
6	EBITDA Margin (%)	1.98%	7.45%	11.23%	14.61%	14.82%	15.82%	15.56%	16.42%	16.43%	16.93%	17.02%	17.88%	18.59%	19.34%	20.14%	21.13%	22.63%	23.63%	24.65%	25.32%	
7	PBIT	-24248	-17993	-11949	-5463	-4082	-862	-374	2608	3937	6360	7665	11118	14201	17384	20698	24525	30221	34490	38952	42239	
8	RoCE (%)	-11.69%	-7.56%	-4.48%	-1.85%	-1.31%	-0.26%	-0.11%	0.73%	1.08%	1.69%	1.98%	2.78%	3.45%	4.10%	4.73%	5.43%	6.44%	7.13%	7.81%	8.26%	
	Likely Impact due to additional costs:																					
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	4718	4718	4961	8065	8373	10493	10913	11221	13412	23160	23598	24090	29422	26002	32960	34515	34592	34592	33811	27237	
10	Amortisation of additional CAPEX (refer Note 2)	0	1302	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	
11	Likely OPEX on additional towers & BTS equipments	0	1439	2159	3598	3777	3966	4165	4373	4591	4821	5062	5315	5581	5860	6153	6461	6784	7123	7479	7853	
12	Saving in Spectrum Usage Charges	0	0	0	-346	-1203	-1348	-1513	-1636	-2179	-2250	-2734	-2824	-3199	-3295	-3401	-3513	-3649	-3758	-3872	-3969	
	Likely Impact due to additional costs	4718	7459	10376	14572	14203	16367	16821	17214	19080	28987	29182	29837	35060	31823	38968	40719	40983	41213	40674	34377	
13	EBITDA after considering Net Impact	2089	7595	13103	18790	20961	24010	24455	27091	28181	29999	31248	33940	36643	39294	42199	45722	50994	54879	59044	62088	
14	EBITDA Margin (%) after considering Net Impact	1.98%	6.26%	9.64%	12.46%	13.20%	14.27%	14.04%	14.91%	15.13%	15.60%	15.84%	16.66%	17.46%	18.16%	18.91%	19.85%	21.32%	22.26%	23.23%	23.83%	
15	PBIT after considering Net Impact	-28966	-25452	-22325	-20036	-18286	-17229	-17195	-14605	-15144	-22626	-21516	-18719	-20859	-14439	-18270	-16194	-10761	-6723	-1723	7862	
16	RoCE after additional capital investment (%)	-13.97%	-10.19%	-7.16%	-5.68%	-5.03%	-4.34%	-4.24%	-3.50%	-3.47%	-4.32%	-4.21%	-3.70%	-3.69%	-2.48%	-2.88%	-2.49%	-1.68%	-1.08%	-0.28%	1.25%	
17	Estimated Cash Inflow to Govt. (net of SUC savings)	33992	0	19156	19845	3317	25767	3516	1131	23202	98614	1206	1609	68866	30837	68758	36963	-312	-3758	10590	27648	
18	NPV - Estimated Cash inflow to Govt.	172311																				
19	Total Net impact per minute	0.012	0.017	0.021	0.027	0.025	0.028	0.028	0.027	0.030	0.044	0.044	0.044	0.051	0.046	0.056	0.058	0.057	0.057	0.056	0.047	
20	Net impact per minute- Voice services	0.011	0.015	0.018	0.023	0.021	0.023	0.023	0.023	0.024	0.036	0.035	0.035	0.040	0.035	0.041	0.042	0.041	0.040	0.038	0.031	
21	Total Net impact per minute (including 15% return on capital investment)	0.018	0.025	0.040	0.049	0.047	0.054	0.047	0.046	0.052	0.082	0.081	0.080	0.094	0.090	0.109	0.112	0.112	0.111	0.108	0.090	
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.016	0.022	0.035	0.042	0.040	0.045	0.039	0.038	0.043	0.066	0.065	0.064	0.073	0.068	0.081	0.082	0.079	0.077	0.074	0.060	

Note:

(1) Includes License Renewal Fees, Auction Price (for 5 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

(2) Includes depreciation on likely additional CAPEX on towers & BTS equipments due to refarming of Spectrum

Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute										Pessimistic Scenario (Spectrum Usage Charges @ 3%)										
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK I																				Amount (Rs.)
Total Net Impact per minute	0.012	0.017	0.021	0.027	0.025	0.028	0.028	0.027	0.030	0.044	0.044	0.044	0.051	0.046	0.056	0.058	0.057	0.057	0.056	0.047
Net impact per minute - Voice services	0.011	0.015	0.018	0.023	0.021	0.023	0.023	0.023	0.024	0.036	0.035	0.035	0.040	0.035	0.041	0.042	0.041	0.040	0.038	0.031
Net impact per minute on Voice services while considering O/G min only (2 times)	0.021	0.029	0.036	0.046	0.043	0.046	0.046	0.045	0.049	0.072	0.070	0.070	0.079	0.070	0.083	0.084	0.081	0.079	0.076	0.063
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.024	0.033	0.041	0.052	0.048	0.052	0.052	0.051	0.055	0.080	0.079	0.078	0.089	0.079	0.093	0.094	0.091	0.089	0.085	0.070
Average of 20 years	0.067																			
TRACK I (including 15% return on capital investment)																				
Total Net Impact per minute	0.018	0.025	0.040	0.049	0.047	0.054	0.047	0.046	0.052	0.082	0.081	0.080	0.094	0.090	0.109	0.112	0.112	0.111	0.108	0.090
Net impact per minute - Voice services	0.016	0.022	0.035	0.042	0.040	0.045	0.039	0.038	0.043	0.066	0.065	0.064	0.073	0.068	0.081	0.082	0.079	0.077	0.074	0.060
Net impact per minute on Voice services while considering O/G min only (2 times)	0.032	0.044	0.069	0.084	0.080	0.090	0.078	0.076	0.086	0.132	0.130	0.127	0.146	0.137	0.162	0.164	0.159	0.154	0.147	0.120
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.036	0.049	0.078	0.094	0.089	0.101	0.088	0.085	0.096	0.149	0.146	0.143	0.164	0.153	0.182	0.184	0.178	0.174	0.166	0.135
Average of 20 years	0.125																			

Impact at different levels of tariff changes

Pessimistic : FULL REFORMING

Annexure IIIc

		Industry (Wireless Service) : Pessimistic Scenario (Track I) - SUC @ 3%																		Rs. in crore	
Sl No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	EBITDA before additional costs	2089	9034	15262	22041	23536	26628	27107	29828	30594	32570	33576	36431	39025	41858	44951	48670	54129	58244	62651	65972
2	EBITDA Margin (%) before additional costs	1.98%	7.45%	11.23%	14.61%	14.82%	15.82%	15.56%	16.42%	16.43%	16.93%	17.02%	17.88%	18.59%	19.34%	20.14%	21.13%	22.63%	23.63%	24.65%	25.32%
3	PBIT before additional costs	-24248	-17993	-11949	-5463	-4082	-862	-374	2608	3937	6360	7665	11118	14201	17384	20698	24525	30221	34490	38952	42239
4	RoCE (%) before additional costs	-11.69%	-7.56%	-4.48%	-1.85%	-1.31%	-0.26%	-0.11%	0.73%	1.08%	1.69%	1.98%	2.78%	3.45%	4.10%	4.73%	5.43%	6.44%	7.13%	7.81%	8.26%
5	EBITDA after additional costs	2089	7595	13103	18790	20961	24010	24455	27091	28181	29999	31248	33940	36643	39294	42199	45722	50994	54879	59044	62088
6	EBITDA Margin (%) after additional costs	1.98%	6.26%	9.64%	12.46%	13.20%	14.27%	14.04%	14.91%	15.13%	15.60%	15.84%	16.66%	17.46%	18.16%	18.91%	19.85%	21.32%	22.26%	23.23%	23.83%
7	PBIT after additional costs	-28966	-25452	-22325	-20036	-18286	-17229	-17195	-14605	-15144	-22626	-21516	-18719	-20859	-14439	-18270	-16194	-10761	-6723	-1723	7862
8	RoCE after additional costs (%)	-13.97%	-10.19%	-7.16%	-5.68%	-5.03%	-4.34%	-4.24%	-3.50%	-3.47%	-4.32%	-4.21%	-3.70%	-3.69%	-2.48%	-2.88%	-2.49%	-1.68%	-1.08%	-0.28%	1.25%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	11552	18451	25265	32329	35301	39217	40210	43522	45081	47451	49189	52471	55767	59008	62534	66708	72789	77338	82199	85823
10	EBITDA Margin (%)	9.89%	13.76%	16.83%	19.39%	20.12%	21.08%	20.88%	21.68%	21.90%	22.32%	22.57%	23.31%	24.04%	24.67%	25.35%	26.21%	27.53%	28.39%	29.27%	29.81%
11	PBIT	-19503	-14596	-10164	-6497	-3946	-2023	-1440	1826	1756	-5175	-3575	-188	-1735	5276	2065	4792	11033	15735	21432	31597
12	RoCE (%)	-8.51%	-5.31%	-2.99%	-1.69%	-1.00%	-0.47%	-0.33%	0.40%	0.37%	-0.92%	-0.65%	-0.03%	-0.29%	0.84%	0.30%	0.69%	1.60%	2.33%	3.20%	4.61%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	21015	29307	37426	45868	49640	54423	55965	59953	61981	64902	67131	71002	74891	78723	82869	87694	94583	99797	105353	109557
14	EBITDA Margin (%)	16.42%	19.96%	22.76%	25.12%	25.83%	26.72%	26.54%	27.27%	27.49%	27.88%	28.12%	28.80%	29.48%	30.06%	30.68%	31.46%	32.67%	33.45%	34.25%	34.75%
15	PBIT	-10040	-3740	1998	7042	10393	13184	14314	18257	18656	12277	14366	18343	17389	24991	22400	25778	32828	38194	44587	55332
16	RoCE (%)	-4.00%	-1.25%	0.54%	1.70%	2.42%	2.82%	3.00%	3.71%	3.64%	2.04%	2.43%	3.11%	2.67%	3.72%	3.09%	3.45%	4.45%	5.27%	6.18%	7.49%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	30478	40163	49587	59406	63980	69630	71719	76384	78881	82354	85072	89534	94015	98438	103204	108680	116378	122255	128508	133292
18	EBITDA Margin (%)	21.91%	25.17%	27.74%	29.93%	30.63%	31.45%	31.29%	31.96%	32.19%	32.55%	32.79%	33.41%	34.05%	34.58%	35.15%	35.87%	36.98%	37.70%	38.44%	38.89%
19	PBIT	-577	7116	14159	20581	24733	28390	30069	34688	35556	29728	32308	36874	36513	44706	42734	46764	54622	60653	67741	79067
20	RoCE (%)	-0.21%	2.19%	3.58%	4.61%	5.36%	5.66%	5.85%	6.55%	6.45%	4.63%	5.10%	5.83%	5.26%	6.23%	5.54%	5.89%	6.94%	7.82%	8.75%	9.98%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	39942	51019	61749	72945	78320	84837	87474	92816	95781	99805	103014	108065	113140	118153	123538	129667	138172	144714	151663	157027
22	EBITDA Margin (%)	26.59%	29.61%	31.99%	34.03%	34.72%	35.48%	35.34%	35.96%	36.20%	36.52%	36.76%	37.34%	37.94%	38.43%	38.96%	39.62%	40.66%	41.32%	42.00%	42.43%
23	PBIT	8887	17972	26320	34120	39073	43597	45824	51119	52456	47180	50249	55405	55638	64420	63069	67751	76416	83112	90896	102801
24	RoCE (%)	3.02%	5.14%	6.21%	7.15%	7.90%	8.13%	8.34%	9.02%	8.90%	6.92%	7.46%	8.22%	7.54%	8.45%	7.71%	8.05%	9.13%	10.05%	11.00%	12.15%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	49405	61875	73910	86484	92659	100043	103229	109247	112681	117257	120955	126596	132264	137867	143873	150653	159967	167173	174817	180762
26	EBITDA Margin (%)	30.62%	33.43%	35.65%	37.57%	38.24%	38.95%	38.83%	39.41%	39.65%	39.95%	40.19%	40.72%	41.29%	41.75%	42.24%	42.86%	43.82%	44.44%	45.08%	45.47%
27	PBIT	18350	28828	38482	47659	53412	58804	61578	67550	69356	64632	68191	73936	74762	84135	83404	88737	98211	105570	114051	126536
28	RoCE (%)	5.80%	7.69%	8.51%	9.38%	10.13%	10.30%	10.51%	11.18%	11.04%	8.96%	9.55%	10.32%	9.57%	10.43%	9.65%	9.98%	11.08%	12.03%	12.98%	14.06%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	58868	72731	86072	100023	106999	115250	118983	125678	129581	134709	138897	145127	151388	157582	164208	171639	181761	189632	197972	204497
30	EBITDA Margin (%)	34.14%	36.76%	38.84%	40.65%	41.31%	41.98%	41.87%	42.42%	42.65%	42.94%	43.17%	43.67%	44.22%	44.65%	45.11%	45.68%	46.58%	47.16%	47.76%	48.13%
31	PBIT	27813	39684	50643	61198	67752	74010	77333	83981	86256	82083	86132	92467	93886	103850	103739	109723	120005	128029	137205	150271
32	RoCE (%)	8.22%	9.92%	10.55%	11.35%	12.10%	12.22%	12.44%	13.09%	12.94%	10.78%	11.41%	12.20%	11.38%	12.20%	11.40%	11.72%	12.83%	13.79%	14.73%	15.76%

SUMMARY

Pessimistic : Full Refarming

Annexure IVa

		Industry (wireless) : Track II																			Rs. in crore	
SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	
2	Projected Minutes (in crores)	385896	439922	488313	537144	564002	592202	609968	628267	640832	653649	666722	680056	686857	693725	700663	707669	714746	721893	729112	736404	
3	Revenue	105723	121283	135868	150850	158788	168304	174233	181645	186247	192325	197229	203710	209897	216381	223184	230330	239200	246494	254134	260501	
4	Total Cost	131240	140626	149242	157818	164444	170799	176301	180778	184084	187772	191405	194451	197573	200891	204398	207735	210918	213952	217140	220229	
5	EBITDA	2089	9034	15262	22041	23536	26628	27107	29828	30594	32570	33576	36431	39025	41858	44951	48670	54129	58244	62651	65972	
6	EBITDA Margin (%)	1.98%	7.45%	11.23%	14.61%	14.82%	15.82%	15.56%	16.42%	16.43%	16.93%	17.02%	17.88%	18.59%	19.34%	20.14%	21.13%	22.63%	23.63%	24.65%	25.32%	
7	PBIT	-24248	-17993	-11949	-5463	-4082	-862	-374	2608	3937	6360	7665	11118	14201	17384	20698	24525	30221	34490	38952	42239	
8	RoCE (%)	-11.69%	-7.56%	-4.48%	-1.85%	-1.31%	-0.26%	-0.11%	0.73%	1.08%	1.69%	1.98%	2.78%	3.45%	4.10%	4.73%	5.43%	6.44%	7.13%	7.81%	8.26%	
	Likely Impact due to additional costs																					
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	10996	10996	10996	12723	12939	13182	13456	13763	14109	14498	14936	15429	15983	10996	10996	10996	10996	10996	10996	10996	
10	Amortisation of additional CAPEX (refer Note 2)	0	1302	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256	
11	Likely OPEX on additional towers & BTS equipments	0	1439	2159	3598	3777	3966	4165	4373	4591	4821	5062	5315	5581	5860	6153	6461	6784	7123	7479	7853	
12	Saving in Spectrum Usage Charges	-1618	-1856	-2080	-2310	-2431	-2577	-2666	-2780	-2849	-2942	-3015	-3114	-3211	-3295	-3401	-3513	-3649	-3758	-3872	-3969	
	Likely Impact due to additional costs	9378	11881	14330	17267	17542	17827	18210	18612	19108	19633	20239	20886	21609	16816	17003	17199	17387	17617	17859	18136	
13	EBITDA after considering Net Impact	3707	9451	15183	20753	22189	25239	25609	28235	28851	30691	31529	34230	36654	39294	42199	45722	50994	54879	59044	62088	
14	EBITDA Margin (%) after considering Net Impact	3.51%	7.79%	11.17%	13.76%	13.97%	15.00%	14.70%	15.54%	15.49%	15.96%	15.99%	16.80%	17.46%	18.16%	18.91%	19.85%	21.32%	22.26%	23.23%	23.83%	
15	PBIT after considering Net Impact	-33626	-29874	-26280	-22730	-21624	-18690	-18584	-16003	-15171	-13273	-12574	-9768	-7408	568	3695	7325	12835	16873	21093	24103	
16	RoCE after additional capital investment (%)	-8.6%	-7.0%	-5.7%	-4.8%	-4.5%	-3.9%	-3.8%	-3.2%	-3.1%	-2.7%	-2.6%	-2.0%	-1.5%	0.1%	0.7%	1.5%	2.5%	3.3%	4.1%	4.7%	
17	Estimated Cash Inflow to Govt. (net of SUC savings)	230429	-1856	-2080	-2310	-2431	-2577	-2666	-2780	-2849	-2942	-3015	-3114	-3211	-3295	-3401	-3513	-3649	-3758	-3872	-3969	
18	NPV - Estimated Cash inflow to Govt.	211424																				
19	Total Net impact per minute	0.024	0.027	0.029	0.032	0.031	0.030	0.030	0.030	0.030	0.030	0.030	0.031	0.031	0.024	0.024	0.024	0.024	0.024	0.024	0.025	
20	Net impact per minute- Voice services	0.021	0.023	0.025	0.027	0.026	0.025	0.025	0.024	0.024	0.024	0.024	0.024	0.024	0.018	0.018	0.018	0.017	0.017	0.017	0.017	
21	Total Net impact per minute (including 15% return on capital investment)	0.087	0.085	0.086	0.084	0.081	0.077	0.076	0.074	0.074	0.073	0.073	0.072	0.073	0.064	0.064	0.063	0.063	0.063	0.062	0.062	
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.075	0.073	0.073	0.071	0.068	0.065	0.063	0.061	0.060	0.059	0.058	0.057	0.057	0.049	0.047	0.046	0.045	0.044	0.042	0.042	

Note:

(1) Includes License Renewal Fees, Excess Spectrum, Auction Price (for 5MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

(2) Includes depreciation on likely additional CAPEX on towers & BTS equipments due to refarming of Spectrum

Annexure IVb

Pessimistic : FULL REFARMING

Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute

Pessimistic Scenario (Spectrum Usage Charges @ 3%)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
TRACK II																				Amount (Rs.)	
Total Net Impact per minute	0.024	0.027	0.029	0.032	0.031	0.030	0.030	0.030	0.030	0.030	0.030	0.031	0.031	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.025
Net impact per minute - Voice services	0.021	0.023	0.025	0.027	0.026	0.025	0.025	0.024	0.024	0.024	0.024	0.024	0.024	0.018	0.018	0.018	0.017	0.017	0.017	0.017	0.017
Net impact per minute on Voice services while considering O/G min only (2 times)	0.042	0.047	0.050	0.054	0.053	0.050	0.050	0.049	0.049	0.049	0.049	0.049	0.049	0.037	0.036	0.035	0.035	0.034	0.033	0.033	0.033
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.047	0.052	0.056	0.061	0.059	0.057	0.056	0.055	0.055	0.055	0.055	0.055	0.055	0.042	0.041	0.040	0.039	0.038	0.038	0.038	0.037
Average of 20 years	0.050																				
TRACK II (including 15% return on capital investment)																					
Total Net Impact per minute	0.087	0.085	0.086	0.084	0.081	0.077	0.076	0.074	0.074	0.073	0.073	0.072	0.073	0.064	0.064	0.063	0.063	0.063	0.062	0.062	0.062
Net impact per minute - Voice services	0.075	0.073	0.073	0.071	0.068	0.065	0.063	0.061	0.060	0.06	0.058	0.057	0.057	0.049	0.047	0.046	0.045	0.044	0.042	0.042	0.042
Net impact per minute on Voice services while considering O/G min only (2 times)	0.151	0.147	0.147	0.142	0.136	0.129	0.126	0.122	0.120	0.118	0.117	0.115	0.113	0.098	0.095	0.092	0.089	0.087	0.085	0.083	0.083
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.169	0.165	0.165	0.160	0.153	0.145	0.142	0.137	0.135	0.133	0.131	0.129	0.127	0.110	0.107	0.104	0.100	0.098	0.096	0.094	0.094
Average of 20 years	0.130																				

Impact at different levels of tariff changes

Pessimistic : FULL REFORMING

Annexure IVc

		Industry (Wireless Service) : Pessimistic Scenario (Track II) - SUC @ 3%																			Rs. in crore
Sl No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	EBITDA before additional costs	2089	9034	15262	22041	23536	26628	27107	29828	30594	32570	33576	36431	39025	41858	44951	48670	54129	58244	62651	65972
2	EBITDA Margin (%) before additional costs	1.98%	7.45%	11.23%	14.61%	14.82%	15.82%	15.56%	16.42%	16.43%	16.93%	17.02%	17.88%	18.59%	19.34%	20.14%	21.13%	22.63%	23.63%	24.65%	25.32%
3	PBIT before additional costs	-24248	-17993	-11949	-5463	-4082	-862	-374	2608	3937	6360	7665	11118	14201	17384	20698	24525	30221	34490	38952	42239
4	RoCE (%) before additional costs	-11.69%	-7.56%	-4.48%	-1.85%	-1.31%	-0.26%	-0.11%	0.73%	1.08%	1.69%	1.98%	2.78%	3.45%	4.10%	4.73%	5.43%	6.44%	7.13%	7.81%	8.26%
5	EBITDA after additional costs	3707	9451	15183	20753	22189	25239	25609	28235	28851	30691	31529	34230	36654	39294	42199	45722	50994	54879	59044	62088
6	EBITDA Margin (%) after additional costs	3.51%	7.79%	11.17%	13.76%	13.97%	15.00%	14.70%	15.54%	15.49%	15.96%	15.99%	16.80%	17.46%	18.16%	18.91%	19.85%	21.32%	22.26%	23.23%	23.83%
7	PBIT after additional costs	-33626	-29874	-26280	-22730	-21624	-18690	-18584	-16003	-15171	-13273	-12574	-9768	-7408	568	3695	7325	12835	16873	21093	24103
8	RoCE after additional costs (%)	-8.58%	-7.04%	-5.72%	-4.77%	-4.52%	-3.86%	-3.81%	-3.23%	-3.09%	-2.71%	-2.58%	-1.99%	-1.49%	0.11%	0.74%	1.47%	2.53%	3.28%	4.08%	4.67%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	13340	20502	27563	34499	36657	40575	41485	44787	45821	48215	49500	52792	55780	59008	62534	66708	72789	77338	82199	85823
10	EBITDA Margin (%)	11.42%	15.30%	18.36%	20.69%	20.89%	21.81%	21.54%	22.31%	22.26%	22.68%	22.71%	23.45%	24.05%	24.67%	25.35%	26.21%	27.53%	28.39%	29.27%	29.81%
11	PBIT	-23993	-18823	-13900	-8985	-7156	-3354	-2708	548	1799	4251	5397	8794	11717	20282	24029	28311	34629	39332	44248	47838
12	RoCE (%)	-5.80%	-4.19%	-2.85%	-1.77%	-1.40%	-0.65%	-0.52%	0.10%	0.34%	0.80%	1.02%	1.65%	2.17%	3.75%	4.42%	5.19%	6.23%	6.95%	7.77%	8.39%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	22973	31553	39943	48244	51126	55911	57361	61338	62792	65739	67471	71353	74906	78723	82869	87694	94583	99797	105353	109557
14	EBITDA Margin (%)	17.95%	21.49%	24.29%	26.42%	26.60%	27.45%	27.20%	27.90%	27.85%	28.24%	28.26%	28.94%	29.48%	30.06%	30.68%	31.46%	32.67%	33.45%	34.25%	34.75%
15	PBIT	-14359	-7772	-1519	4761	7313	11982	13168	17099	18770	21776	23368	27355	30843	39997	44364	49298	56424	61790	67402	71573
16	RoCE (%)	-3.30%	-1.64%	-0.29%	0.88%	1.34%	2.16%	2.35%	3.00%	3.30%	3.82%	4.11%	4.75%	5.28%	6.83%	7.53%	8.31%	9.32%	10.02%	10.84%	11.47%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	32607	42604	52323	61990	65595	71247	73236	77889	79762	83264	85442	89915	94031	98438	103204	108680	116378	122255	128508	133292
18	EBITDA Margin (%)	23.44%	26.70%	29.27%	31.24%	31.40%	32.18%	31.95%	32.59%	32.55%	32.91%	32.93%	33.55%	34.05%	34.58%	35.15%	35.87%	36.98%	37.70%	38.44%	38.89%
19	PBIT	-4726	3280	10861	18506	21782	27318	29044	33651	35740	39300	41339	45917	49968	59712	64699	70284	78218	84249	90557	95308
20	RoCE (%)	-1.03%	0.66%	2.00%	3.25%	3.77%	4.64%	4.88%	5.53%	5.89%	6.45%	6.78%	7.44%	7.97%	9.47%	10.18%	10.97%	11.94%	12.62%	13.43%	14.07%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	42240	53656	64704	75735	80064	86582	89112	94441	96733	100788	103413	108477	113157	118153	123538	129667	138172	144714	151663	157027
22	EBITDA Margin (%)	28.12%	31.14%	33.52%	35.34%	35.49%	36.21%	36.00%	36.59%	36.56%	36.88%	36.90%	37.48%	37.94%	38.43%	38.96%	39.62%	40.66%	41.32%	42.00%	42.43%
23	PBIT	4908	14331	23241	32251	36250	42654	44920	50202	52711	56824	59310	64479	69094	79427	85034	91270	100013	106708	113712	119042
24	RoCE (%)	1.02%	2.73%	4.06%	5.37%	5.94%	6.84%	7.12%	7.78%	8.17%	8.75%	9.12%	9.78%	10.31%	11.76%	12.48%	13.26%	14.20%	14.86%	15.65%	16.28%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	51874	64707	77084	89481	94532	101918	104988	110992	113703	118312	121384	127038	132282	137867	143873	150653	159967	167173	174817	180762
26	EBITDA Margin (%)	32.15%	34.96%	37.18%	38.87%	39.01%	39.68%	39.49%	40.04%	40.01%	40.31%	40.33%	40.87%	41.30%	41.75%	42.24%	42.86%	43.82%	44.44%	45.08%	45.47%
27	PBIT	14541	25382	35621	45997	50719	57989	60796	66753	69681	74349	77281	83040	88219	99141	105369	112256	121807	129167	136866	142777
28	RoCE (%)	2.90%	4.62%	5.94%	7.28%	7.89%	8.81%	9.11%	9.77%	10.19%	10.79%	11.19%	11.84%	12.36%	13.77%	14.49%	15.26%	16.16%	16.79%	17.57%	18.19%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	61507	75758	89464	103226	109001	117254	120864	127544	130674	135837	139355	145600	151408	157582	164208	171639	181761	189632	197972	204497
30	EBITDA Margin (%)	35.67%	38.29%	40.37%	41.95%	42.08%	42.71%	42.53%	43.05%	43.01%	43.30%	43.32%	43.82%	44.22%	44.65%	45.11%	45.68%	46.58%	47.16%	47.76%	48.13%
31	PBIT	24174	36433	48001	59742	65188	73325	76672	83305	86652	91873	95252	101602	107345	118856	125703	133242	143601	151625	160021	166512
32	RoCE (%)	4.62%	6.34%	7.64%	9.01%	9.65%	10.58%	10.90%	11.56%	12.00%	12.61%	13.02%	13.66%	14.18%	15.54%	16.25%	17.01%	17.88%	18.49%	19.25%	19.85%

SUMMARY

Normal : Partial Refarming

Annexure Va

Industry (wireless) : Track I

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	385896	439922	488313	537144	564002	592202	609968	628267	640832	653649	666722	680056	686857	693725	700663	707669	714746	721893	729112	736404
3	Revenue	111837	129949	152148	178847	203862	227031	249463	276005	292006	310674	316888	323225	326458	329722	333019	336350	339713	343110	346541	350007
4	Total Cost	132152	141919	151670	161993	171167	179558	187521	194851	199857	205423	209251	212276	214957	217795	220779	223547	225908	228362	230921	233578
5	EBITDA	7292	16407	29114	45862	61887	76597	91117	110116	120580	133268	135389	138122	138201	138296	138406	138878	139652	140452	141277	142129
6	EBITDA Margin (%)	6.52%	12.63%	19.14%	25.64%	30.36%	33.74%	36.53%	39.90%	41.29%	42.90%	42.72%	42.73%	42.33%	41.94%	41.56%	41.29%	41.11%	40.93%	40.77%	40.61%
7	PBIT	-19045	-10619	1903	18358	34269	49107	63636	82896	93923	107059	109478	112809	113377	113821	114153	114733	115744	116697	117578	118396
8	RoCE (%)	-8.68%	-4.17%	0.64%	5.23%	8.57%	11.03%	13.00%	15.31%	16.40%	17.57%	17.61%	17.79%	17.70%	17.60%	17.47%	17.39%	17.37%	17.34%	17.29%	17.24%
	Likely Impact due to additional costs:																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	5011	5011	6227	12013	12726	16341	17190	17799	21712	35167	36034	37010	45341	38242	45421	47760	47885	47885	46620	37800
10	Saving in Spectrum Usage Charges	0	0	0	-471	-1598	-1847	-2205	-2497	-3368	-3546	-4292	-4377	-4851	-4893	-4942	-4991	-5041	-5092	-5143	-5194
	Likely Impact due to additional costs	5011	5011	6227	11542	11128	14494	14985	15302	18344	31621	31743	32633	40490	33349	40480	42769	42844	42793	41477	32606
11	EBITDA after considering Net Impact	7292	16407	29114	46333	63485	78444	93322	112613	123948	136814	139680	142500	143053	143189	143348	143869	144693	145543	146420	147323
12	EBITDA Margin (%) after considering Net Impact	6.52%	12.63%	19.14%	25.91%	31.14%	34.55%	37.41%	40.80%	42.45%	44.04%	44.08%	44.09%	43.82%	43.43%	43.04%	42.77%	42.59%	42.42%	42.25%	42.09%
13	PBIT after considering Net Impact	-24057	-15630	-4324	6815	23141	34612	48651	67594	75579	75438	77735	80176	72888	80472	73673	71964	72900	73904	76100	85790
14	RoCE after additional capital investment (%)	-10.96%	-6.13%	-1.33%	1.71%	5.18%	6.66%	8.72%	11.28%	11.57%	9.51%	9.99%	10.50%	8.71%	9.33%	8.17%	7.80%	8.21%	8.72%	9.14%	10.15%
15	Estimated Cash Inflow to Govt. (net of SUC savings)	39855	0	28883	31293	6754	39986	6842	2985	38887	134010	3514	4404	106387	51249	71352	55898	381	-5092	18296	37222
16	NPV - Estimated Cash inflow to Govt.	245389																			
17	Total Net impact per minute	0.013	0.011	0.013	0.021	0.020	0.024	0.025	0.024	0.029	0.048	0.048	0.048	0.059	0.048	0.058	0.060	0.060	0.059	0.057	0.044
18	Net impact per minute- Voice services	0.011	0.009	0.010	0.015	0.013	0.015	0.014	0.013	0.015	0.024	0.024	0.024	0.029	0.024	0.029	0.030	0.030	0.030	0.028	0.022
19	Total Net impact per minute (including 15% return on capital investment)	0.021	0.018	0.028	0.043	0.041	0.052	0.046	0.045	0.055	0.095	0.094	0.093	0.114	0.105	0.124	0.129	0.128	0.127	0.122	0.097
20	Net impact per minute (including 15% return on capital investment) - Voice services	0.017	0.015	0.022	0.030	0.027	0.032	0.027	0.024	0.029	0.048	0.047	0.047	0.057	0.052	0.062	0.065	0.064	0.064	0.061	0.049

Note:

(1) Includes License Renewal Fees, Auction Price (for 10 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute										Normal Scenario (Spectrum Usage Charges @ 3%)										
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK I																				Amount (Rs.)
Total Net Impact per minute	0.013	0.011	0.013	0.021	0.020	0.024	0.025	0.024	0.029	0.048	0.048	0.048	0.059	0.048	0.058	0.060	0.060	0.059	0.057	0.044
Net impact per minute - Voice services	0.011	0.009	0.010	0.015	0.013	0.015	0.014	0.013	0.015	0.024	0.024	0.024	0.029	0.024	0.029	0.030	0.030	0.030	0.028	0.022
Net impact per minute on Voice services while considering O/G min only (2 times)	0.021	0.018	0.019	0.031	0.026	0.030	0.029	0.026	0.030	0.048	0.048	0.048	0.059	0.048	0.058	0.060	0.060	0.059	0.057	0.044
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.024	0.021	0.022	0.034	0.029	0.034	0.032	0.030	0.034	0.054	0.053	0.054	0.066	0.054	0.065	0.068	0.067	0.067	0.064	0.050
Average of 20 years	0.046																			
TRACK I (including 15% return on capital investment)																				
Total Net Impact per minute	0.021	0.018	0.028	0.043	0.041	0.052	0.046	0.045	0.055	0.095	0.094	0.093	0.114	0.105	0.124	0.129	0.128	0.127	0.122	0.097
Net impact per minute - Voice services	0.017	0.015	0.022	0.030	0.027	0.032	0.027	0.024	0.029	0.048	0.047	0.047	0.057	0.052	0.062	0.065	0.064	0.064	0.061	0.049
Net impact per minute on Voice services while considering O/G min only (2 times)	0.034	0.029	0.043	0.061	0.054	0.065	0.053	0.049	0.058	0.095	0.094	0.093	0.114	0.105	0.124	0.129	0.128	0.127	0.122	0.097
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.038	0.033	0.048	0.068	0.061	0.073	0.060	0.055	0.065	0.107	0.105	0.105	0.129	0.118	0.140	0.145	0.144	0.143	0.137	0.109
Average of 20 years	0.094																			

Impact at different levels of tariff changes

Normal : PARTIAL REFORMING

Annexure Vc

Sl No:	Particulars	Industry (Wireless Service) : Normal Scenario (Track I) - SUC @ 3%																			Rs. in crore	
		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
1	EBITDA before additional costs	7292	16407	29114	45862	61887	76597	91117	110116	120580	133268	135389	138122	138201	138296	138406	138878	139652	140452	141277	142129	
2	EBITDA Margin (%) before additional costs	6.52%	12.63%	19.14%	25.64%	30.36%	33.74%	36.53%	39.90%	41.29%	42.90%	42.72%	42.73%	42.33%	41.94%	41.56%	41.29%	41.11%	40.93%	40.77%	40.61%	
3	PBIT before additional costs	-19045	-10619	1903	18358	34269	49107	63636	82896	93923	107059	109478	112809	113377	113821	114153	114733	115744	116697	117578	118396	
4	RoCE (%) before additional costs	-8.68%	-4.17%	0.64%	5.23%	8.57%	11.03%	13.00%	15.31%	16.40%	17.57%	17.61%	17.79%	17.70%	17.60%	17.47%	17.39%	17.37%	17.34%	17.29%	17.24%	
5	EBITDA after additional costs	7292	16407	29114	46333	63485	78444	93322	112613	123948	136814	139680	142500	143053	143189	143348	143869	144693	145543	146420	147323	
6	EBITDA Margin (%) after additional costs	6.52%	12.63%	19.14%	25.91%	31.14%	34.55%	37.41%	40.80%	42.45%	44.04%	44.08%	44.09%	43.82%	43.43%	43.04%	42.77%	42.59%	42.42%	42.25%	42.09%	
7	PBIT after additional costs	-24057	-15630	-4324	6815	23141	34612	48651	67594	75579	75438	77735	80176	72888	80472	73673	71964	72900	73904	76100	85790	
8	RoCE after additional costs (%)	-10.96%	-6.13%	-1.33%	1.71%	5.18%	6.66%	8.72%	11.28%	11.57%	9.51%	9.99%	10.50%	8.71%	9.33%	8.17%	7.80%	8.21%	8.72%	9.14%	10.15%	
AFTER Additional Costs																						
(A) Tariff (Outgoing Calls) increased by 5 Paisa																						
9	EBITDA	17302	28039	42733	62391	81900	98960	115883	137581	150440	164996	168496	171892	172784	173217	173676	174501	175631	176791	177979	179198	
10	EBITDA Margin (%)	14.00%	19.52%	25.41%	31.56%	36.35%	39.44%	42.03%	45.10%	46.62%	48.05%	48.11%	48.12%	47.89%	47.53%	47.19%	46.94%	46.78%	46.62%	46.47%	46.33%	
11	PBIT	-14046	-3999	9294	22873	41557	55128	71212	92562	102071	103619	106551	109568	102619	110500	104001	102595	103838	105151	107660	117665	
12	RoCE (%)	-5.79%	-1.42%	2.61%	5.24%	8.50%	9.73%	11.69%	14.10%	14.31%	12.09%	12.63%	13.19%	11.34%	11.87%	10.72%	10.35%	10.84%	11.45%	11.91%	12.83%	
(B) Tariff (Outgoing Calls) increased by 10 Paisa																						
13	EBITDA	27313	39671	56351	78449	100316	119475	138444	162549	176931	193177	197312	201284	202515	203245	204004	205132	206569	208038	209539	211073	
14	EBITDA Margin (%)	20.18%	25.22%	30.60%	36.24%	40.65%	43.48%	45.85%	48.66%	50.06%	51.37%	51.44%	51.45%	51.25%	50.93%	50.61%	50.39%	50.24%	50.09%	49.96%	49.82%	
15	PBIT	-4036	7633	22913	38931	59972	75643	93773	117530	128563	131800	135367	138960	132350	140528	134330	133227	134776	136398	139219	149540	
16	RoCE (%)	-1.52%	2.47%	5.92%	8.23%	11.29%	12.33%	14.19%	16.47%	16.62%	14.30%	14.89%	15.49%	13.62%	14.07%	12.93%	12.56%	13.11%	13.79%	14.27%	15.11%	
(C) Tariff (Outgoing Calls) increased by 15 Paisa																						
17	EBITDA	37323	51302	69970	94507	118732	139991	161005	187517	203423	221358	226128	230676	232247	233273	234332	235764	237507	239285	241099	242948	
18	EBITDA Margin (%)	25.37%	30.01%	34.96%	40.17%	44.27%	46.87%	49.06%	51.64%	52.95%	54.16%	54.24%	54.25%	54.08%	53.78%	53.49%	53.28%	53.14%	53.01%	52.88%	52.76%	
19	PBIT	5975	19265	36532	54989	78388	96159	116334	142498	155054	159981	164183	168353	162082	170556	164658	163858	165714	167645	170779	181415	
20	RoCE (%)	2.07%	5.74%	8.73%	10.78%	13.68%	14.56%	16.33%	18.50%	18.60%	16.23%	16.85%	17.46%	15.59%	15.99%	14.87%	14.49%	15.09%	15.82%	16.31%	17.09%	
(D) Tariff (Outgoing Calls) increased by 20 Paisa																						
21	EBITDA	47334	62934	83588	110565	137147	160507	183567	212484	229914	249539	254944	260068	261978	263300	264661	266395	268444	270532	272658	274824	
22	EBITDA Margin (%)	29.79%	34.09%	38.67%	43.51%	47.35%	49.76%	51.79%	54.18%	55.42%	56.53%	56.62%	56.63%	56.48%	56.20%	55.94%	55.74%	55.62%	55.50%	55.38%	55.26%	
23	PBIT	15985	30896	50150	71047	96804	116675	138895	167465	181546	188163	192999	197745	191813	200584	194986	194490	196652	198892	202339	213291	
24	RoCE (%)	5.13%	8.53%	11.14%	12.99%	15.74%	16.49%	18.19%	20.24%	20.31%	17.93%	18.56%	19.19%	17.33%	17.67%	16.58%	16.21%	16.84%	17.59%	18.09%	18.81%	
(E) Tariff (Outgoing Calls) increased by 25 Paisa																						
25	EBITDA	57344	74566	97207	126623	155563	181022	206128	237452	256406	277720	283760	289460	291709	293328	294989	297027	299382	301779	304218	306699	
26	EBITDA Margin (%)	33.60%	37.60%	41.87%	46.40%	50.01%	52.25%	54.15%	56.38%	57.54%	58.58%	58.68%	58.69%	58.56%	58.30%	58.05%	57.87%	57.75%	57.64%	57.53%	57.42%	
27	PBIT	25996	42528	63769	87105	115219	137191	161456	192433	208037	216344	221814	227137	221544	230612	225314	225121	227589	230139	233898	245166	
28	RoCE (%)	7.76%	10.93%	13.24%	14.91%	17.53%	18.19%	19.81%	21.76%	21.80%	19.42%	20.07%	20.70%	18.87%	19.17%	18.10%	17.74%	18.38%	19.15%	19.66%	20.33%	
(E) Tariff (Outgoing Calls) increased by 30 Paisa																						
29	EBITDA	67355	86197	110826	142681	173978	201538	228689	262420	282898	305902	312575	318853	321440	323356	325317	327658	330320	333026	335778	338574	
30	EBITDA Margin (%)	36.92%	40.66%	44.66%	48.91%	52.32%	54.42%	56.20%	58.29%	59.39%	60.36%	60.47%	60.48%	60.36%	60.12%	59.89%	59.72%	59.61%	59.50%	59.40%	59.30%	
31	PBIT	36006	54160	77387	103163	133635	157706	184018	217401	234529	244525	250630	256529	251276	260640	255642	255753	258527	261387	265458	277041	
32	RoCE (%)	10.06%	13.02%	15.09%	16.61%	19.11%	19.69%	21.23%	23.10%	23.12%	20.76%	21.41%	22.04%	20.24%	20.51%	19.46%	19.10%	19.76%	20.54%	21.04%	21.67%	

SUMMARY

Normal : Partial Refarming

Annexure VIa

Industry (wireless) : Track II

Rs. in crore

Sl No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	385896	439922	488313	537144	564002	592202	609968	628267	640832	653649	666722	680056	686857	693725	700663	707669	714746	721893	729112	736404
3	Revenue	111837	129949	152148	178847	203862	227031	249463	276005	292006	310674	316888	323225	326458	329722	333019	336350	339713	343110	346541	350007
4	Total Cost	132152	141919	151670	161993	171167	179558	187521	194851	199857	205423	209251	212276	214957	217795	220779	223547	225908	228362	230921	233578
5	EBITDA	7292	16407	29114	45862	61887	76597	91117	110116	120580	133268	135389	138122	138201	138296	138406	138878	139652	140452	141277	142129
6	EBITDA Margin (%)	6.52%	12.63%	19.14%	25.64%	30.36%	33.74%	36.53%	39.90%	41.29%	42.90%	42.72%	42.73%	42.33%	41.94%	41.56%	41.29%	41.11%	40.93%	40.77%	40.61%
7	PBIT	-19045	-10619	1903	18358	34269	49107	63636	82896	93923	107059	109478	112809	113377	113821	114153	114733	115744	116697	117578	118396
8	RoCE (%)	-8.68%	-4.17%	0.64%	5.23%	8.57%	11.03%	13.00%	15.31%	16.40%	17.57%	17.61%	17.79%	17.70%	17.60%	17.47%	17.39%	17.37%	17.34%	17.29%	17.24%
	Likely Impact due to additional costs																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	15555	15555	15555	18977	19405	19886	20428	21037	21722	22493	23360	24336	25434	15555	15555	15555	15555	15555	15555	15555
10	Saving in Spectrum Usage Charges	-1668	-1940	-2288	-2712	-3121	-3459	-3782	-4164	-4382	-4634	-4727	-4821	-4869	-4893	-4942	-4991	-5041	-5092	-5143	-5194
	Likely Impact due to additional costs	13887	13615	13267	16265	16284	16427	16645	16873	17340	17859	18634	19515	20564	10662	10613	10564	10514	10463	10413	10361
11	EBITDA after considering Net Impact	8960	18347	31402	48574	65008	80056	94900	114280	124962	137902	140115	142943	143071	143189	143348	143869	144693	145543	146420	147323
12	EBITDA Margin (%) after considering Net Impact	8.01%	14.12%	20.64%	27.16%	31.89%	35.26%	38.04%	41.40%	42.79%	44.39%	44.22%	44.22%	43.83%	43.43%	43.04%	42.77%	42.59%	42.42%	42.25%	42.09%
13	PBIT after considering Net Impact	-32932	-24234	-11364	2092	17985	32679	46991	66023	76583	89200	90844	93294	92813	103159	103540	104169	105230	106234	107165	108035
14	RoCE after additional capital investment (%)	-6.8%	-4.8%	-2.1%	0.4%	2.9%	5.1%	7.0%	9.3%	10.5%	11.9%	12.2%	12.5%	12.6%	14.1%	14.3%	14.6%	14.9%	15.2%	15.4%	15.7%
15	Estimated Cash Inflow to Govt. (net of SUC savings)	333468	-1940	-2288	-2712	-3121	-3459	-3782	-4164	-4382	-4634	-4727	-4821	-4869	-4893	-4942	-4991	-5041	-5092	-5143	-5194
16	NPV - Estimated Cash inflow to Govt.	307713																			
17	Total Net impact per minute	0.036	0.031	0.027	0.030	0.029	0.028	0.027	0.027	0.027	0.027	0.028	0.029	0.030	0.015	0.015	0.015	0.015	0.014	0.014	0.014
18	Net impact per minute- Voice services	0.030	0.025	0.021	0.022	0.019	0.017	0.016	0.015	0.014	0.014	0.014	0.014	0.015	0.008	0.008	0.007	0.007	0.007	0.007	0.007
19	Total Net impact per minute (including 15% return on capital investment)	0.124	0.109	0.097	0.095	0.090	0.086	0.084	0.083	0.082	0.081	0.081	0.081	0.082	0.065	0.064	0.063	0.062	0.062	0.061	0.060
20	Net impact per minute (including 15% return on capital investment) - Voice services	0.102	0.087	0.074	0.068	0.059	0.054	0.049	0.045	0.043	0.041	0.040	0.040	0.041	0.032	0.032	0.032	0.031	0.031	0.031	0.030

Note:

(1) Includes License Renewal Fees, Excess Spectrum, Auction Price (for 10 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

Annexure VIb

Normal : PARTIAL REFARMING

Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute										Normal Scenario (Spectrum Usage Charges @ 3%)										
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK II																				Amount (Rs.)
Total Net Impact per minute	0.036	0.031	0.027	0.030	0.029	0.028	0.027	0.027	0.027	0.027	0.028	0.029	0.030	0.015	0.015	0.015	0.015	0.014	0.014	0.014
Net impact per minute - Voice services	0.030	0.025	0.021	0.022	0.019	0.017	0.016	0.015	0.014	0.014	0.014	0.014	0.015	0.008	0.008	0.007	0.007	0.007	0.007	0.007
Net impact per minute on Voice services while considering O/G min only (2 times)	0.059	0.050	0.041	0.043	0.038	0.034	0.032	0.029	0.028	0.027	0.028	0.029	0.030	0.015	0.015	0.015	0.015	0.014	0.014	0.014
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.066	0.056	0.047	0.049	0.043	0.039	0.036	0.033	0.032	0.031	0.031	0.032	0.034	0.017	0.017	0.017	0.017	0.016	0.016	0.016
Average of 20 years	0.032																			
TRACK II (including 15% return on capital investment)																				
Total Net Impact per minute	0.124	0.109	0.097	0.095	0.090	0.086	0.084	0.083	0.082	0.081	0.081	0.081	0.082	0.065	0.064	0.063	0.062	0.062	0.061	0.060
Net impact per minute - Voice services	0.102	0.087	0.074	0.068	0.059	0.054	0.049	0.045	0.043	0.04	0.040	0.040	0.041	0.032	0.032	0.032	0.031	0.031	0.031	0.030
Net impact per minute on Voice services while considering O/G min only (2 times)	0.204	0.175	0.148	0.135	0.119	0.107	0.098	0.089	0.085	0.081	0.081	0.081	0.082	0.065	0.064	0.063	0.062	0.062	0.061	0.060
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.229	0.196	0.166	0.152	0.134	0.120	0.110	0.100	0.096	0.091	0.091	0.091	0.092	0.073	0.072	0.071	0.070	0.069	0.069	0.068
Average of 20 years	0.108																			

SUMMARY

Pessimistic: Partial Refarming Annexure VIIa

		Industry (wireless) : Track I																			Rs. in crore	
SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	
2	Projected Minutes (in crores)	385896	439922	488313	537144	564002	592202	609968	628267	640832	653649	666722	680056	686857	693725	700663	707669	714746	721893	729112	736404	
3	Revenue	105723	121283	135868	150850	158788	168304	174233	181645	186247	192325	197229	203710	209897	216381	223184	230330	239200	246494	254134	260501	
4	Total Cost	131240	140626	149242	157818	164444	170799	176301	180778	184084	187772	191405	194451	197573	200891	204398	207735	210918	213952	217140	220229	
5	EBITDA	2089	9034	15262	22041	23536	26628	27107	29828	30594	32570	33576	36431	39025	41858	44951	48670	54129	58244	62651	65972	
6	EBITDA Margin (%)	1.98%	7.45%	11.23%	14.61%	14.82%	15.82%	15.56%	16.42%	16.43%	16.93%	17.02%	17.88%	18.59%	19.34%	20.14%	21.13%	22.63%	23.63%	24.65%	25.32%	
7	PBIT	-24248	-17993	-11949	-5463	-4082	-862	-374	2608	3937	6360	7665	11118	14201	17384	20698	24525	30221	34490	38952	42239	
8	RoCE (%)	-11.69%	-7.56%	-4.48%	-1.85%	-1.31%	-0.26%	-0.11%	0.73%	1.08%	1.69%	1.98%	2.78%	3.45%	4.10%	4.73%	5.43%	6.44%	7.13%	7.81%	8.26%	
	Likely Impact due to additional costs:																					
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	5011	5011	6227	12013	12726	16341	17190	17799	21712	35167	36034	37010	45341	38242	45421	47760	47885	47885	46620	37800	
10	Saving in Spectrum Usage Charges	0	0	0	-346	-1203	-1348	-1513	-1636	-2179	-2250	-2734	-2824	-3199	-3295	-3401	-3513	-3649	-3758	-3872	-3969	
	Likely Impact due to additional costs	5011	5011	6227	11667	11523	14993	15677	16163	19533	32917	33300	34186	42142	34947	42020	44247	44236	44127	42748	33831	
11	EBITDA after considering Net Impact	2089	9034	15262	22387	24739	27976	28620	31464	32773	34820	36310	39256	42224	45154	48352	52182	57778	62002	66523	69941	
12	EBITDA Margin (%) after considering Net Impact	1.98%	7.45%	11.23%	14.84%	15.58%	16.62%	16.43%	17.32%	17.60%	18.10%	18.41%	19.27%	20.12%	20.87%	21.66%	22.66%	24.15%	25.15%	26.18%	26.85%	
13	PBIT after considering Net Impact	-29259	-23004	-18177	-17131	-15605	-15855	-16051	-13555	-15596	-26557	-25635	-23068	-27941	-17563	-21322	-19723	-14015	-9638	-3796	8408	
14	RoCE after additional capital investment (%)	-14.11%	-9.67%	-6.21%	-4.97%	-4.35%	-3.92%	-3.91%	-3.27%	-3.50%	-4.73%	-4.72%	-4.36%	-4.59%	-2.74%	-3.11%	-2.76%	-2.03%	-1.46%	-0.58%	1.26%	
15	Estimated Cash Inflow to Govt. (net of SUC savings)	39855	0	28883	31417	7148	40484	7534	3846	40077	135306	5071	5957	108039	52846	72892	57376	1774	-3758	19566	38447	
16	NPV - Estimated Cash inflow to Govt.	250507																				
17	Total Net impact per minute	0.013	0.011	0.013	0.022	0.020	0.025	0.026	0.026	0.030	0.050	0.050	0.050	0.061	0.050	0.060	0.063	0.062	0.061	0.059	0.046	
18	Net impact per minute- Voice services	0.011	0.010	0.011	0.018	0.017	0.021	0.021	0.021	0.025	0.041	0.040	0.040	0.048	0.038	0.045	0.046	0.044	0.043	0.040	0.031	
19	Total Net impact per minute (including 15% return on capital investment)	0.021	0.018	0.028	0.043	0.042	0.053	0.047	0.046	0.057	0.097	0.096	0.095	0.117	0.107	0.126	0.132	0.130	0.129	0.124	0.099	
20	Net impact per minute (including 15% return on capital investment) - Voice services	0.018	0.016	0.024	0.036	0.035	0.044	0.039	0.038	0.047	0.078	0.077	0.076	0.091	0.082	0.094	0.096	0.093	0.090	0.085	0.066	

Note:

(1) Includes License Renewal Fees, Auction Price (for 10 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute										Pessimistic Scenario (Spectrum Usage Charges @ 3%)										
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK I																				Amount (Rs.)
Total Net Impact per minute	0.013	0.011	0.013	0.022	0.020	0.025	0.026	0.026	0.030	0.050	0.050	0.050	0.061	0.050	0.060	0.063	0.062	0.061	0.059	0.046
Net impact per minute - Voice services	0.011	0.010	0.011	0.018	0.017	0.021	0.021	0.021	0.025	0.041	0.040	0.040	0.048	0.038	0.045	0.046	0.044	0.043	0.040	0.031
Net impact per minute on Voice services while considering O/G min only (2 times)	0.023	0.020	0.022	0.037	0.034	0.042	0.043	0.042	0.050	0.081	0.080	0.080	0.095	0.077	0.089	0.091	0.088	0.085	0.080	0.062
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.025	0.022	0.024	0.041	0.039	0.048	0.048	0.048	0.056	0.091	0.090	0.090	0.107	0.086	0.101	0.103	0.099	0.096	0.090	0.069
Average of 20 years	0.069																			
TRACK I (including 15% return on capital investment)																				
Total Net Impact per minute	0.021	0.018	0.028	0.043	0.042	0.053	0.047	0.046	0.057	0.097	0.096	0.095	0.117	0.107	0.126	0.132	0.130	0.129	0.124	0.099
Net impact per minute - Voice services	0.018	0.016	0.024	0.036	0.035	0.044	0.039	0.038	0.047	0.078	0.077	0.076	0.091	0.082	0.094	0.096	0.093	0.090	0.085	0.066
Net impact per minute on Voice services while considering O/G min only (2 times)	0.036	0.031	0.048	0.072	0.070	0.089	0.078	0.076	0.093	0.157	0.154	0.152	0.182	0.163	0.189	0.192	0.185	0.180	0.169	0.133
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.040	0.035	0.054	0.081	0.079	0.100	0.087	0.086	0.105	0.176	0.173	0.170	0.204	0.184	0.212	0.216	0.208	0.202	0.190	0.149
Average of 20 years	0.138																			

Impact at different levels of tariff changes

Pessimistic: PARTIAL REFORMING

Annexure VIIc

		Industry (Wireless Service) : Pessimistic Scenario (Track I) - SUC @ 3%																	Rs. in crore		
SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	EBITDA before additional costs	2089	9034	15262	22041	23536	26628	27107	29828	30594	32570	33576	36431	39025	41858	44951	48670	54129	58244	62651	65972
2	EBITDA Margin (%) before additional costs	1.98%	7.45%	11.23%	14.61%	14.82%	15.82%	15.56%	16.42%	16.43%	16.93%	17.02%	17.88%	18.59%	19.34%	20.14%	21.13%	22.63%	23.63%	24.65%	25.32%
3	PBIT before additional costs	-24248	-17993	-11949	-5463	-4082	-862	-374	2608	3937	6360	7665	11118	14201	17384	20698	24525	30221	34490	38952	42239
4	RoCE (%) before additional costs	-11.69%	-7.56%	-4.48%	-1.85%	-1.31%	-0.26%	-0.11%	0.73%	1.08%	1.69%	1.98%	2.78%	3.45%	4.10%	4.73%	5.43%	6.44%	7.13%	7.81%	8.26%
5	EBITDA after additional costs	2089	9034	15262	22387	24739	27976	28620	31464	32773	34820	36310	39256	42224	45154	48352	52182	57778	62002	66523	69941
6	EBITDA Margin (%) after additional costs	1.98%	7.45%	11.23%	14.84%	15.58%	16.62%	16.43%	17.32%	17.60%	18.10%	18.41%	19.27%	20.12%	20.87%	21.66%	22.66%	24.15%	25.15%	26.18%	26.85%
7	PBIT after additional costs	-29259	-23004	-18177	-17131	-15605	-15855	-16051	-13555	-15596	-26557	-25635	-23068	-27941	-17563	-21322	-19723	-14015	-9638	-3796	8408
8	RoCE after additional costs (%)	-14.11%	-9.67%	-6.21%	-4.97%	-4.35%	-3.92%	-3.91%	-3.27%	-3.50%	-4.73%	-4.72%	-4.36%	-4.59%	-2.74%	-3.11%	-2.76%	-2.03%	-1.46%	-0.58%	1.26%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	11552	19890	27423	35926	39078	43183	44375	47895	49673	52272	54251	57787	61348	64868	68687	73169	79572	84461	89678	93676
10	EBITDA Margin (%)	9.89%	14.84%	18.26%	21.55%	22.27%	23.22%	23.04%	23.86%	24.13%	24.59%	24.89%	25.67%	26.45%	27.13%	27.85%	28.74%	30.10%	31.00%	31.93%	32.54%
11	PBIT	-19796	-12148	-6015	-3592	-1265	-649	-297	2876	1304	-9105	-7694	-4537	-8817	2152	-987	1263	7779	12821	19358	32143
12	RoCE (%)	-8.64%	-4.62%	-1.88%	-0.96%	-0.32%	-0.15%	-0.07%	0.64%	0.27%	-1.52%	-1.32%	-0.79%	-1.35%	0.31%	-0.13%	0.17%	1.05%	1.81%	2.75%	4.45%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	21015	30746	39584	49465	53418	58390	60129	64326	66573	69723	72193	76318	80472	84583	89022	94155	101367	106920	112833	117410
14	EBITDA Margin (%)	16.42%	20.94%	24.07%	27.09%	27.79%	28.66%	28.51%	29.26%	29.53%	29.95%	30.24%	30.95%	31.67%	32.30%	32.95%	33.77%	35.01%	35.84%	36.68%	37.24%
15	PBIT	-10333	-1292	6146	9947	13074	14558	15458	19307	18204	8347	10248	13994	10307	21867	19347	22250	29574	35280	42513	55878
16	RoCE (%)	-4.12%	-0.45%	1.76%	2.45%	3.08%	3.07%	3.21%	3.95%	3.48%	1.30%	1.64%	2.28%	1.48%	3.00%	2.49%	2.75%	3.75%	4.64%	5.62%	7.19%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	30478	41602	51746	63004	67757	73596	75884	80757	83473	87175	90134	94849	99596	104298	109357	115141	123161	129378	135987	141145
18	EBITDA Margin (%)	21.91%	26.07%	28.95%	31.75%	32.44%	33.24%	33.11%	33.79%	34.07%	34.45%	34.74%	35.39%	36.07%	36.64%	37.24%	38.00%	39.14%	39.90%	40.67%	41.18%
19	PBIT	-870	9564	18308	23486	27414	29764	31213	35738	35104	25798	28189	32525	29432	41581	39682	43236	51368	57739	65668	79612
20	RoCE (%)	-0.32%	3.06%	4.86%	5.36%	6.00%	5.85%	6.03%	6.78%	6.26%	3.79%	4.23%	4.96%	3.98%	5.37%	4.82%	5.05%	6.13%	7.12%	8.12%	9.58%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	39942	52458	63907	76543	82097	88803	91639	97188	100373	104627	108076	113380	118721	124013	129691	136127	144956	151837	159142	164880
22	EBITDA Margin (%)	26.59%	30.44%	33.11%	35.71%	36.39%	37.14%	37.02%	37.66%	37.93%	38.29%	38.57%	39.17%	39.81%	40.34%	40.90%	41.60%	42.65%	43.36%	44.07%	44.55%
23	PBIT	8594	20420	30469	37025	41753	44971	46967	52169	52004	43250	46131	51056	48556	61296	60017	64222	73163	80197	88822	103347
24	RoCE (%)	2.92%	6.04%	7.53%	7.89%	8.53%	8.27%	8.48%	9.24%	8.68%	6.01%	6.53%	7.32%	6.21%	7.48%	6.90%	7.10%	8.24%	9.31%	10.32%	11.69%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	49405	63314	76069	90082	96437	104009	107393	113619	117273	122078	126017	131911	137845	143727	150026	157113	166750	174296	182296	188615
26	EBITDA Margin (%)	30.62%	34.21%	36.69%	39.13%	39.80%	40.50%	40.39%	40.99%	41.26%	41.60%	41.87%	42.43%	43.04%	43.53%	44.05%	44.70%	45.68%	46.34%	47.01%	47.45%
27	PBIT	18057	31276	42630	50564	56093	60178	62722	68600	68904	60702	64072	69587	67680	81011	80352	85208	94957	102656	111977	127082
28	RoCE (%)	5.71%	8.61%	9.85%	10.11%	10.74%	10.40%	10.63%	11.40%	10.80%	7.99%	8.57%	9.41%	8.20%	9.38%	8.77%	8.95%	10.13%	11.25%	12.26%	13.55%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	58868	74170	88230	103621	110776	119216	123148	130050	134173	139530	143959	150442	156969	163442	170361	178100	188545	196755	205451	212350
30	EBITDA Margin (%)	34.14%	37.49%	39.81%	42.11%	42.77%	43.42%	43.33%	43.89%	44.16%	44.48%	44.75%	45.27%	45.85%	46.31%	46.80%	47.40%	48.32%	48.93%	49.56%	49.97%
31	PBIT	27520	42132	54792	64103	70433	75384	78477	85031	85804	78153	82014	88118	86804	100726	100687	106194	116752	125115	135132	150817
32	RoCE (%)	8.13%	10.86%	11.89%	12.06%	12.69%	12.30%	12.54%	13.30%	12.69%	9.78%	10.41%	11.27%	9.99%	11.09%	10.46%	10.63%	11.83%	12.99%	13.99%	15.21%

SUMMARY

Pessimistic: Partial Refarming Annexure VIIIa

Industry (wireless) : Track II

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	385896	439922	488313	537144	564002	592202	609968	628267	640832	653649	666722	680056	686857	693725	700663	707669	714746	721893	729112	736404
3	Revenue	105723	121283	135868	150850	158788	168304	174233	181645	186247	192325	197229	203710	209897	216381	223184	230330	239200	246494	254134	260501
4	Total Cost	131240	140626	149242	157818	164444	170799	176301	180778	184084	187772	191405	194451	197573	200891	204398	207735	210918	213952	217140	220229
5	EBITDA	2089	9034	15262	22041	23536	26628	27107	29828	30594	32570	33576	36431	39025	41858	44951	48670	54129	58244	62651	65972
6	EBITDA Margin (%)	1.98%	7.45%	11.23%	14.61%	14.82%	15.82%	15.56%	16.42%	16.43%	16.93%	17.02%	17.88%	18.59%	19.34%	20.14%	21.13%	22.63%	23.63%	24.65%	25.32%
7	PBIT	-24248	-17993	-11949	-5463	-4082	-862	-374	2608	3937	6360	7665	11118	14201	17384	20698	24525	30221	34490	38952	42239
8	RoCE (%)	-11.69%	-7.56%	-4.48%	-1.85%	-1.31%	-0.26%	-0.11%	0.73%	1.08%	1.69%	1.98%	2.78%	3.45%	4.10%	4.73%	5.43%	6.44%	7.13%	7.81%	8.26%
	Likely Impact due to additional costs																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	15555	15555	15555	18977	19405	19886	20428	21037	21722	22493	23360	24336	25434	15555	15555	15555	15555	15555	15555	15555
10	Saving in Spectrum Usage Charges	-1618	-1856	-2080	-2310	-2431	-2577	-2666	-2780	-2849	-2942	-3015	-3114	-3211	-3295	-3401	-3513	-3649	-3758	-3872	-3969
	Likely Impact due to additional costs	13937	13699	13475	16668	16975	17309	17761	18257	18874	19551	20345	21222	22223	12260	12154	12042	11906	11797	11683	11586
11	EBITDA after considering Net Impact	3707	10890	17341	24351	25966	29205	29773	32608	33442	35512	36591	39546	42235	45154	48352	52182	57778	62002	66523	69941
12	EBITDA Margin (%) after considering Net Impact	3.51%	8.98%	12.76%	16.14%	16.35%	17.35%	17.09%	17.95%	17.96%	18.46%	18.55%	19.41%	20.12%	20.87%	21.66%	22.66%	24.15%	25.15%	26.18%	26.85%
13	PBIT after considering Net Impact	-38185	-31692	-25425	-22131	-21057	-18172	-18136	-15649	-14937	-13191	-12680	-10104	-8022	5124	8544	12482	18315	22692	27269	30653
14	RoCE after additional capital investment (%)	-8.1%	-6.5%	-5.0%	-4.3%	-4.0%	-3.5%	-3.5%	-3.0%	-2.9%	-2.6%	-2.5%	-2.0%	-1.6%	1.0%	1.7%	2.5%	3.6%	4.4%	5.3%	6.0%
15	Estimated Cash Inflow to Govt. (net of SUC savings)	333519	-1856	-2080	-2310	-2431	-2577	-2666	-2780	-2849	-2942	-3015	-3114	-3211	-3295	-3401	-3513	-3649	-3758	-3872	-3969
16	NPV - Estimated Cash inflow to Govt.	314514																			
17	Total Net impact per minute	0.036	0.031	0.028	0.031	0.030	0.029	0.029	0.029	0.029	0.030	0.031	0.031	0.032	0.018	0.017	0.017	0.017	0.016	0.016	0.016
18	Net impact per minute- Voice services	0.031	0.027	0.024	0.026	0.025	0.024	0.024	0.024	0.024	0.024	0.025	0.025	0.025	0.013	0.013	0.012	0.012	0.011	0.011	0.011
19	Total Net impact per minute (including 15% return on capital investment)	0.125	0.109	0.098	0.096	0.092	0.088	0.086	0.085	0.084	0.084	0.083	0.083	0.084	0.067	0.066	0.065	0.064	0.064	0.063	0.062
20	Net impact per minute (including 15% return on capital investment) - Voice services	0.108	0.094	0.083	0.081	0.077	0.074	0.072	0.070	0.069	0.068	0.067	0.066	0.065	0.051	0.049	0.048	0.046	0.044	0.043	0.042

Note:

(1) Includes License Renewal Fees, Excess Spectrum, Auction Price (for 10 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

Annexure VIIIb

Pessimistic: PARTIAL REFARMING

Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute

Pessimistic Scenario (Spectrum Usage Charges @ 3%)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK II																				Amount (Rs.)
Total Net Impact per minute	0.036	0.031	0.028	0.031	0.030	0.029	0.029	0.029	0.029	0.030	0.031	0.031	0.032	0.018	0.017	0.017	0.017	0.016	0.016	0.016
Net impact per minute - Voice services	0.031	0.027	0.024	0.026	0.025	0.024	0.024	0.024	0.024	0.024	0.025	0.025	0.025	0.013	0.013	0.012	0.012	0.011	0.011	0.011
Net impact per minute on Voice services while considering O/G min only (2 times)	0.063	0.054	0.047	0.053	0.051	0.049	0.048	0.048	0.048	0.048	0.049	0.050	0.050	0.027	0.026	0.025	0.024	0.023	0.022	0.021
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.070	0.060	0.053	0.059	0.057	0.055	0.054	0.054	0.054	0.054	0.055	0.056	0.057	0.030	0.029	0.028	0.027	0.026	0.025	0.024
Average of 20 years	0.046																			
TRACK II (including 15% return on capital investment)																				
Total Net Impact per minute	0.125	0.109	0.098	0.096	0.092	0.088	0.086	0.085	0.084	0.084	0.083	0.083	0.084	0.067	0.066	0.065	0.064	0.064	0.063	0.062
Net impact per minute - Voice services	0.108	0.094	0.083	0.081	0.077	0.074	0.072	0.070	0.069	0.07	0.067	0.066	0.065	0.051	0.049	0.048	0.046	0.044	0.043	0.042
Net impact per minute on Voice services while considering O/G min only (2 times)	0.216	0.188	0.167	0.162	0.155	0.147	0.144	0.139	0.138	0.135	0.134	0.132	0.131	0.102	0.099	0.095	0.092	0.089	0.086	0.083
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.243	0.211	0.187	0.182	0.174	0.165	0.161	0.156	0.155	0.152	0.151	0.149	0.147	0.115	0.111	0.107	0.103	0.100	0.096	0.094
Average of 20 years	0.148																			

Impact at different levels of tariff changes

Pessimistic: PARTIAL REFORMING

Annexure VIIIc

Industry (Wireless Service) : Pessimistic Scenario (Track II) - SUC @ 3%

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	EBITDA before additional costs	2089	9034	15262	22041	23536	26628	27107	29828	30594	32570	33576	36431	39025	41858	44951	48670	54129	58244	62651	65972
2	EBITDA Margin (%) before additional costs	1.98%	7.45%	11.23%	14.61%	14.82%	15.82%	15.56%	16.42%	16.43%	16.93%	17.02%	17.88%	18.59%	19.34%	20.14%	21.13%	22.63%	23.63%	24.65%	25.32%
3	PBIT before additional costs	-24248	-17993	-11949	-5463	-4082	-862	-374	2608	3937	6360	7665	11118	14201	17384	20698	24525	30221	34490	38952	42239
4	RoCE (%) before additional costs	-11.69%	-7.56%	-4.48%	-1.85%	-1.31%	-0.26%	-0.11%	0.73%	1.08%	1.69%	1.98%	2.78%	3.45%	4.10%	4.73%	5.43%	6.44%	7.13%	7.81%	8.26%
5	EBITDA after additional costs	3707	10890	17341	24351	25966	29205	29773	32608	33442	35512	36591	39546	42235	45154	48352	52182	57778	62002	66523	69941
6	EBITDA Margin (%) after additional costs	3.51%	8.98%	12.76%	16.14%	16.35%	17.35%	17.09%	17.95%	17.96%	18.46%	18.55%	19.41%	20.12%	20.87%	21.66%	22.66%	24.15%	25.15%	26.18%	26.85%
7	PBIT after additional costs	-38185	-31692	-25425	-22131	-21057	-18172	-18136	-15649	-14937	-13191	-12680	-10104	-8022	5124	8544	12482	18315	22692	27269	30653
8	RoCE after additional costs (%)	-8.07%	-6.47%	-5.04%	-4.26%	-4.04%	-3.45%	-3.46%	-2.99%	-2.88%	-2.55%	-2.47%	-1.98%	-1.57%	1.01%	1.68%	2.46%	3.58%	4.44%	5.32%	6.00%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	13340	21941	29722	38096	40435	44541	45649	49160	50413	53036	54562	58107	61361	64868	68687	73169	79572	84461	89678	93676
10	EBITDA Margin (%)	11.42%	16.37%	19.79%	22.85%	23.04%	23.95%	23.71%	24.49%	24.49%	24.95%	25.03%	25.81%	26.45%	27.13%	27.85%	28.74%	30.10%	31.00%	31.93%	32.54%
11	PBIT	-28552	-20641	-13045	-8386	-6588	-2836	-2260	903	2034	4333	5291	8458	11103	24839	28879	33469	40109	45151	50423	54388
12	RoCE (%)	-5.77%	-4.01%	-2.45%	-1.52%	-1.19%	-0.51%	-0.40%	0.16%	0.36%	0.78%	0.96%	1.53%	2.01%	4.49%	5.21%	6.03%	7.15%	8.03%	8.92%	9.63%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	22973	32992	42102	51842	54904	59877	61525	65711	67383	70560	72533	76669	80487	84583	89022	94155	101367	106920	112833	117410
14	EBITDA Margin (%)	17.95%	22.47%	25.60%	28.39%	28.57%	29.39%	29.17%	29.89%	29.89%	30.31%	30.38%	31.09%	31.68%	32.30%	32.95%	33.77%	35.01%	35.84%	36.68%	37.24%
15	PBIT	-18919	-9590	-664	5360	7881	12500	13616	17454	19004	21858	23262	27019	30229	44554	49214	54455	61904	67610	73578	78122
16	RoCE (%)	-3.66%	-1.78%	-0.12%	0.92%	1.34%	2.10%	2.29%	2.91%	3.19%	3.66%	3.91%	4.54%	5.07%	7.45%	8.20%	9.03%	10.15%	11.02%	11.92%	12.63%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	32607	44043	54482	65587	69372	75213	77401	82262	84354	88085	90504	95230	99612	104298	109357	115141	123161	129378	135987	141145
18	EBITDA Margin (%)	23.44%	27.60%	30.48%	33.05%	33.21%	33.97%	33.77%	34.42%	34.43%	34.81%	34.88%	35.53%	36.07%	36.64%	37.24%	38.00%	39.14%	39.90%	40.67%	41.18%
19	PBIT	-9285	1462	11716	19105	22349	27836	29492	34006	35975	39382	41233	45581	49354	64268	69549	75441	83698	90069	96733	101857
20	RoCE (%)	-1.72%	0.26%	1.99%	3.12%	3.61%	4.42%	4.67%	5.34%	5.67%	6.19%	6.49%	7.15%	7.72%	10.00%	10.77%	11.60%	12.69%	13.56%	14.44%	15.15%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	42240	55095	66862	79333	83841	90549	93277	98814	101324	105609	108475	113792	118738	124013	129691	136127	144956	151837	159142	164880
22	EBITDA Margin (%)	28.12%	31.97%	34.64%	37.01%	37.16%	37.87%	37.68%	38.29%	38.29%	38.65%	38.71%	39.32%	39.82%	40.34%	40.90%	41.60%	42.65%	43.36%	44.07%	44.55%
23	PBIT	348	12513	24096	32851	36818	43172	45368	50557	52945	56906	59204	64142	68480	83983	89883	96427	105493	112527	119887	125592
24	RoCE (%)	0.06%	2.12%	3.91%	5.10%	5.64%	6.49%	6.80%	7.50%	7.87%	8.42%	8.76%	9.44%	10.03%	12.22%	12.99%	13.82%	14.89%	15.74%	16.60%	17.30%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	51874	66146	79242	93078	98310	105885	109153	115365	118295	123133	126446	132353	137863	143727	150026	157113	166750	174296	182296	188615
26	EBITDA Margin (%)	32.15%	35.74%	38.22%	40.43%	40.57%	41.23%	41.05%	41.62%	41.62%	41.96%	42.01%	42.58%	43.04%	43.53%	44.05%	44.70%	45.68%	46.34%	47.01%	47.45%
27	PBIT	9982	23564	36476	46596	51287	58508	61244	67108	69916	74431	77175	82704	87605	103698	110218	117413	127287	134986	143042	149327
28	RoCE (%)	1.71%	3.83%	5.66%	6.90%	7.49%	8.36%	8.71%	9.43%	9.83%	10.40%	10.77%	11.46%	12.06%	14.17%	14.93%	15.75%	16.79%	17.62%	18.46%	19.15%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	61507	77197	91622	106824	112778	121220	125029	131916	135265	140658	144417	150915	156989	163442	170361	178100	188545	196755	205451	212350
30	EBITDA Margin (%)	35.67%	39.02%	41.34%	43.41%	43.54%	44.15%	43.99%	44.52%	44.52%	44.84%	44.89%	45.42%	45.85%	46.31%	46.80%	47.40%	48.32%	48.93%	49.56%	49.97%
31	PBIT	19615	34615	48856	60342	65755	73843	77120	83660	86886	91955	95146	101265	106731	123413	130553	138400	149082	157445	166197	173062
32	RoCE (%)	3.25%	5.41%	7.26%	8.54%	9.16%	10.06%	10.43%	11.17%	11.59%	12.17%	12.57%	13.26%	13.87%	15.90%	16.65%	17.45%	18.46%	19.28%	20.09%	20.76%

SUMMARY

Normal: Full Refarming

Annexure IX

		Delhi : Track I																			Rs. in crore	
SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	
2	Projected Minutes (in crores)	20885	23809	26428	29071	30524	32051	33012	34002	34682	35376	36084	36805	37173	37545	37921	38300	38683	39070	39460	39855	
3	Revenue	7520	8787	11147	14305	18024	18926	19493	20078	20480	20889	21307	21733	21951	22170	22392	22616	22842	23070	23301	23534	
4	Total Cost	8456	9023	9785	10700	11648	12012	12247	12451	12627	12807	12992	13181	13337	13474	13594	13716	13841	13969	14087	14198	
5	EBITDA	1035	1802	3465	5776	8619	9198	9557	9948	10186	10431	10681	10938	11021	11128	11247	11367	11489	11612	11749	11893	
6	EBITDA Margin (%)	13.76%	20.50%	31.08%	40.38%	47.82%	48.60%	49.03%	49.55%	49.74%	49.93%	50.13%	50.33%	50.21%	50.20%	50.23%	50.26%	50.30%	50.33%	50.42%	50.54%	
7	PBIT	-872	-170	1431	3677	6452	6991	7325	7706	7933	8163	8397	8635	8697	8780	8882	8984	9086	9187	9300	9422	
8	RoCE (%)	-2.90%	-0.48%	3.21%	6.42%	8.94%	9.23%	9.39%	9.59%	9.68%	9.76%	9.85%	9.93%	9.90%	9.89%	9.91%	9.92%	9.94%	9.95%	9.97%	10.00%	
	Likely Impact due to additional costs:																					
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	1342	1342	1447	1789	1832	2215	2269	2330	2398	4715	4802	4900	6460	5472	6659	7062	7062	7062	7062	5496	
10	Amortisation of additional CAPEX (refer Note 2)	0	21	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	
11	Likely OPEX on additional towers & BTS equipments	0	3	5	8	8	8	9	9	10	10	11	11	12	12	13	14	14	15	16	17	
12	Saving in Spectrum Usage Charges	0	0	0	-263	-331	-348	-445	-458	-467	-476	-519	-530	-535	-540	-546	-551	-557	-562	-568	-574	
	Likely Impact due to additional costs	1342	1366	1503	1586	1561	1927	1885	1933	1993	4301	4346	4433	5989	4996	6178	6576	6571	6567	6562	4991	
13	EBITDA after considering Net Impact	1035	1799	3460	6031	8942	9537	9993	10397	10644	10897	11190	11456	11544	11656	11780	11904	12031	12160	12301	12450	
14	EBITDA Margin (%) after considering Net Impact	13.76%	20.47%	31.04%	42.16%	49.61%	50.39%	51.26%	51.78%	51.97%	52.16%	52.52%	52.71%	52.59%	52.58%	52.61%	52.64%	52.67%	52.71%	52.79%	52.90%	
15	PBIT after considering Net Impact	-2215	-1536	-72	2091	4892	5063	5440	5773	5940	3862	4051	4201	2708	3784	2704	2408	2514	2620	2738	4431	
16	RoCE after additional capital investment (%)	-7.36%	-4.36%	-0.14%	3.23%	6.22%	5.82%	6.19%	6.51%	6.70%	3.52%	3.77%	3.99%	2.18%	3.15%	2.14%	1.84%	2.02%	2.21%	2.43%	3.83%	
17	Estimated Cash Inflow to Govt. (net of SUC savings)	6850	0	9078	79	54	6548	42	90	149	23405	261	348	24035	-540	11319	9942	-557	-562	-568	6956	
18	NPV - Estimated Cash inflow to Govt.	36268																				
19	Total Net impact per minute	0.064	0.057	0.057	0.055	0.051	0.060	0.057	0.057	0.057	0.122	0.120	0.120	0.161	0.133	0.163	0.172	0.170	0.168	0.166	0.125	
20	Net impact per minute- Voice services	0.053	0.046	0.040	0.033	0.026	0.030	0.029	0.028	0.029	0.061	0.060	0.060	0.081	0.067	0.081	0.086	0.085	0.084	0.083	0.063	
21	Total Net impact per minute (including 15% return on capital investment)	0.072	0.064	0.128	0.121	0.115	0.151	0.114	0.113	0.112	0.243	0.240	0.238	0.317	0.283	0.343	0.360	0.356	0.353	0.349	0.267	
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.059	0.052	0.090	0.073	0.057	0.075	0.057	0.056	0.056	0.122	0.120	0.119	0.158	0.142	0.171	0.180	0.178	0.176	0.175	0.134	

Note:

(1) Includes License Renewal Fees, Auction Price (for 5 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

(2) Includes depreciation on likely additional CAPEX on towers & BTS equipments due to refarming of Spectrum

Annexure IX

Normal: FULL REFARMING

Delhi - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute										Normal Scenario (Spectrum Usage Charges @ 3%)										
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK I																				Amount (Rs.)
Total Net Impact per minute	0.064	0.057	0.057	0.055	0.051	0.060	0.057	0.057	0.057	0.122	0.120	0.120	0.161	0.133	0.163	0.172	0.170	0.168	0.166	0.125
Net impact per minute - Voice services	0.053	0.046	0.040	0.033	0.026	0.030	0.029	0.028	0.029	0.061	0.060	0.060	0.081	0.067	0.081	0.086	0.085	0.084	0.083	0.063
Net impact per minute on Voice services while considering O/G min only (2 times)	0.105	0.092	0.080	0.065	0.051	0.060	0.057	0.057	0.057	0.122	0.120	0.120	0.161	0.133	0.163	0.172	0.170	0.168	0.166	0.125
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.118	0.103	0.089	0.074	0.057	0.068	0.064	0.064	0.065	0.137	0.135	0.135	0.181	0.150	0.183	0.193	0.191	0.189	0.187	0.141
Average of 20 years	0.126																			
TRACK I (including 15% return on capital investment)																				
Total Net Impact per minute	0.072	0.064	0.128	0.121	0.115	0.151	0.114	0.113	0.112	0.243	0.240	0.238	0.317	0.283	0.343	0.360	0.356	0.353	0.349	0.267
Net impact per minute - Voice services	0.059	0.052	0.090	0.073	0.057	0.075	0.057	0.056	0.056	0.122	0.120	0.119	0.158	0.142	0.171	0.180	0.178	0.176	0.175	0.134
Net impact per minute on Voice services while considering O/G min only (2 times)	0.118	0.103	0.180	0.145	0.115	0.151	0.114	0.113	0.112	0.243	0.240	0.238	0.317	0.283	0.343	0.360	0.356	0.353	0.349	0.267
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.132	0.116	0.202	0.163	0.129	0.169	0.128	0.127	0.126	0.273	0.270	0.267	0.356	0.318	0.385	0.405	0.400	0.396	0.392	0.300
Average of 20 years	0.253																			

Impact at different levels of tariff changes

Normal: FULL REFORMING

Annexure IX

Delhi : Normal Scenario (Track I) - SUC @ 3%

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	EBITDA before additional costs	1035	1802	3465	5776	8619	9198	9557	9948	10186	10431	10681	10938	11021	11128	11247	11367	11489	11612	11749	11893
2	EBITDA Margin (%) before additional costs	13.76%	20.50%	31.08%	40.38%	47.82%	48.60%	49.03%	49.55%	49.74%	49.93%	50.13%	50.33%	50.21%	50.20%	50.23%	50.26%	50.30%	50.33%	50.42%	50.54%
3	PBIT before additional costs	-872	-170	1431	3677	6452	6991	7325	7706	7933	8163	8397	8635	8697	8780	8882	8984	9086	9187	9300	9422
4	RoCE (%) before additional costs	-2.90%	-0.48%	3.21%	6.42%	8.94%	9.23%	9.39%	9.59%	9.68%	9.76%	9.85%	9.93%	9.90%	9.89%	9.91%	9.92%	9.94%	9.95%	9.97%	10.00%
5	EBITDA after additional costs	1035	1799	3460	6031	8942	9537	9993	10397	10644	10897	11190	11456	11544	11656	11780	11904	12031	12160	12301	12450
6	EBITDA Margin (%) after additional costs	13.76%	20.47%	31.04%	42.16%	49.61%	50.39%	51.26%	51.78%	51.97%	52.16%	52.52%	52.71%	52.59%	52.58%	52.61%	52.64%	52.67%	52.71%	52.79%	52.90%
7	PBIT after additional costs	-2215	-1536	-72	2091	4892	5063	5440	5773	5940	3862	4051	4201	2708	3784	2704	2408	2514	2620	2738	4431
8	RoCE after additional costs (%)	-7.36%	-4.36%	-0.14%	3.23%	6.22%	5.82%	6.19%	6.51%	6.70%	3.52%	3.77%	3.99%	2.18%	3.15%	2.14%	1.84%	2.02%	2.21%	2.43%	3.83%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	1662	2532	4390	7251	10480	11151	11665	12118	12400	12688	13020	13323	13430	13561	13703	13847	13993	14141	14303	14472
10	EBITDA Margin (%)	20.08%	26.18%	35.78%	46.05%	52.82%	53.53%	54.36%	54.83%	55.00%	55.18%	55.51%	55.69%	55.58%	55.57%	55.59%	55.62%	55.65%	55.68%	55.76%	55.86%
11	PBIT	-1587	-803	858	3311	6429	6677	7112	7495	7696	5653	5882	6068	4593	5688	4628	4351	4476	4602	4739	6452
12	RoCE (%)	-4.79%	-2.07%	1.49%	4.70%	7.49%	7.05%	7.43%	7.74%	7.94%	4.79%	5.07%	5.32%	3.45%	4.41%	3.42%	3.11%	3.34%	3.59%	3.88%	5.15%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	2189	3148	5172	8276	11772	12508	13069	13565	13875	14193	14558	14892	15014	15161	15319	15479	15642	15806	15985	16170
14	EBITDA Margin (%)	24.56%	30.22%	39.14%	48.81%	55.09%	55.75%	56.56%	56.99%	57.15%	57.31%	57.63%	57.80%	57.70%	57.69%	57.71%	57.74%	57.77%	57.80%	57.87%	57.96%
15	PBIT	-1060	-187	1639	4337	7721	8034	8516	8941	9171	7158	7419	7637	6178	7289	6244	5983	6125	6267	6421	8151
16	RoCE (%)	-2.97%	-0.45%	2.68%	5.76%	8.40%	7.95%	8.33%	8.63%	8.83%	5.72%	6.02%	6.29%	4.39%	5.34%	4.37%	4.06%	4.33%	4.61%	4.94%	6.12%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	2717	3764	5953	9302	13063	13864	14473	15011	15351	15698	16096	16460	16598	16761	16935	17112	17290	17471	17666	17869
18	EBITDA Margin (%)	28.44%	33.73%	42.05%	51.19%	57.06%	57.68%	58.46%	58.86%	59.01%	59.17%	59.48%	59.63%	59.53%	59.52%	59.55%	59.57%	59.60%	59.62%	59.69%	59.78%
19	PBIT	-533	429	2421	5362	9013	9390	9920	10388	10647	8663	8957	9205	7762	8889	7860	7615	7774	7932	8103	9849
20	RoCE (%)	-1.39%	0.96%	3.72%	6.69%	9.19%	8.73%	9.11%	9.41%	9.60%	6.55%	6.87%	7.15%	5.24%	6.17%	5.23%	4.91%	5.21%	5.52%	5.88%	6.97%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	3244	4380	6735	10327	14355	15220	15878	16458	16826	17203	17633	18029	18183	18361	18551	18744	18939	19137	19348	19567
22	EBITDA Margin (%)	31.84%	36.79%	44.60%	53.28%	58.79%	59.36%	60.12%	60.50%	60.64%	60.79%	61.09%	61.23%	61.14%	61.13%	61.15%	61.18%	61.20%	61.23%	61.29%	61.37%
23	PBIT	-6	1045	3202	6387	10304	10746	11325	11834	12122	10168	10495	10774	9346	10489	9476	9247	9422	9597	9785	11548
24	RoCE (%)	-0.01%	2.19%	4.65%	7.52%	9.89%	9.43%	9.80%	10.10%	10.29%	7.30%	7.63%	7.92%	6.00%	6.92%	6.00%	5.68%	6.00%	6.33%	6.71%	7.74%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	3771	4996	7516	11352	15647	16577	17282	17904	18301	18708	19171	19598	19767	19961	20167	20376	20588	20802	21030	21266
26	EBITDA Margin (%)	34.84%	39.50%	46.84%	55.13%	60.31%	60.85%	61.59%	61.95%	62.08%	62.21%	62.51%	62.64%	62.56%	62.55%	62.57%	62.59%	62.61%	62.64%	62.70%	62.77%
27	PBIT	522	1661	3984	7412	11596	12103	12729	13281	13598	11673	12033	12343	10931	12089	11092	10880	11071	11262	11466	13247
28	RoCE (%)	1.20%	3.28%	5.49%	8.25%	10.51%	10.06%	10.42%	10.71%	10.90%	7.98%	8.31%	8.60%	6.70%	7.60%	6.70%	6.39%	6.72%	7.07%	7.46%	8.43%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	4298	5612	8298	12377	16939	17933	18686	19351	19777	20213	20709	21166	21351	21561	21784	22009	22236	22467	22712	22964
30	EBITDA Margin (%)	37.50%	41.91%	48.84%	56.77%	61.66%	62.17%	62.89%	63.23%	63.36%	63.49%	63.77%	63.90%	63.82%	63.81%	63.83%	63.85%	63.87%	63.89%	63.95%	64.02%
31	PBIT	1049	2277	4765	8437	12888	13459	14133	14727	15073	13178	13571	13911	12515	13689	12708	12512	12719	12927	13148	14945
32	RoCE (%)	2.29%	4.24%	6.24%	8.91%	11.07%	10.62%	10.98%	11.26%	11.45%	8.59%	8.92%	9.22%	7.34%	8.22%	7.34%	7.03%	7.37%	7.73%	8.14%	9.05%

SUMMARY

Normal: Full Refarming

Annexure IX

Delhi : Track II

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	20885	23809	26428	29071	30524	32051	33012	34002	34682	35376	36084	36805	37173	37545	37921	38300	38683	39070	39460	39855
3	Revenue	7520	8787	11147	14305	18024	18926	19493	20078	20480	20889	21307	21733	21951	22170	22392	22616	22842	23070	23301	23534
4	Total Cost	8456	9023	9785	10700	11648	12012	12247	12451	12627	12807	12992	13181	13337	13474	13594	13716	13841	13969	14087	14198
5	EBITDA	1035	1802	3465	5776	8619	9198	9557	9948	10186	10431	10681	10938	11021	11128	11247	11367	11489	11612	11749	11893
6	EBITDA Margin (%)	13.76%	20.50%	31.08%	40.38%	47.82%	48.60%	49.03%	49.55%	49.74%	49.93%	50.13%	50.33%	50.21%	50.20%	50.23%	50.26%	50.30%	50.33%	50.42%	50.54%
7	PBIT	-872	-170	1431	3677	6452	6991	7325	7706	7933	8163	8397	8635	8697	8780	8882	8984	9086	9187	9300	9422
8	RoCE (%)	-2.90%	-0.48%	3.21%	6.42%	8.94%	9.23%	9.39%	9.59%	9.68%	9.76%	9.85%	9.93%	9.90%	9.89%	9.91%	9.92%	9.94%	9.95%	9.97%	10.00%
	Likely Impact due to additional costs																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	2273	2273	2273	2615	2658	2706	2760	2821	2889	2966	3053	3151	3260	2273	2273	2273	2273	2273	2273	2273
10	Amortisation of additional CAPEX (refer Note 2)	0	21	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
11	Likely OPEX on additional towers & BTS equipments	0	3	5	8	8	8	9	9	10	10	11	11	12	12	13	14	14	15	16	17
12	Saving in Spectrum Usage Charges	-183	-214	-272	-349	-439	-461	-475	-489	-499	-509	-519	-530	-535	-540	-546	-551	-557	-562	-568	-574
	Likely Impact due to additional costs	2090	2083	2058	2326	2279	2305	2346	2393	2452	2520	2597	2684	2789	1797	1792	1788	1783	1778	1773	1768
13	EBITDA after considering Net Impact	1218	2013	3732	6117	9051	9651	10024	10428	10676	10930	11190	11456	11544	11656	11780	11904	12031	12160	12301	12450
14	EBITDA Margin (%) after considering Net Impact	16.20%	22.91%	33.48%	42.76%	50.21%	50.99%	51.42%	51.94%	52.13%	52.32%	52.52%	52.71%	52.59%	52.58%	52.61%	52.64%	52.67%	52.71%	52.79%	52.90%
15	PBIT after considering Net Impact	-2962	-2253	-627	1351	4174	4685	4979	5313	5481	5643	5800	5950	5907	6983	7090	7197	7303	7409	7527	7654
16	RoCE after additional capital investment (%)	-4.3%	-3.1%	-0.8%	1.5%	4.1%	4.5%	4.8%	5.1%	5.3%	5.4%	5.6%	5.8%	5.8%	6.9%	7.1%	7.3%	7.5%	7.7%	7.9%	8.1%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	47678	-214	-272	-349	-439	-461	-475	-489	-499	-509	-519	-530	-535	-540	-546	-551	-557	-562	-568	-574
18	NPV - Estimated Cash inflow to Govt.	44638																			
19	Total Net impact per minute	0.100	0.087	0.078	0.080	0.075	0.072	0.071	0.070	0.071	0.071	0.072	0.073	0.075	0.048	0.047	0.047	0.046	0.046	0.045	0.044
20	Net impact per minute- Voice services	0.082	0.070	0.055	0.048	0.037	0.036	0.036	0.035	0.035	0.036	0.036	0.036	0.038	0.024	0.024	0.023	0.023	0.023	0.022	0.022
21	Total Net impact per minute (including 15% return on capital investment)	0.339	0.297	0.268	0.254	0.241	0.230	0.225	0.220	0.218	0.216	0.214	0.213	0.214	0.181	0.180	0.178	0.176	0.174	0.172	0.170
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.278	0.238	0.187	0.153	0.120	0.115	0.113	0.110	0.109	0.108	0.107	0.106	0.107	0.091	0.090	0.089	0.088	0.087	0.086	0.085

Note:

(1) Includes License Renewal Fees, Excess Spectrum, Auction Price (for 5MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

(2) Includes depreciation on likely additional CAPEX on towers & BTS equipments due to refarming of Spectrum

Annexure IX

Normal: FULL REFARMING

Delhi - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute

Normal Scenario (Spectrum Usage Charges @ 3%)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK II																				Amount (Rs.)
Total Net Impact per minute	0.100	0.087	0.078	0.080	0.075	0.072	0.071	0.070	0.071	0.071	0.072	0.073	0.075	0.048	0.047	0.047	0.046	0.046	0.045	0.044
Net impact per minute - Voice services	0.082	0.070	0.055	0.048	0.037	0.036	0.036	0.035	0.035	0.036	0.036	0.036	0.038	0.024	0.024	0.023	0.023	0.023	0.022	0.022
Net impact per minute on Voice services while considering O/G min only (2 times)	0.164	0.140	0.109	0.096	0.075	0.072	0.071	0.070	0.071	0.071	0.072	0.073	0.075	0.048	0.047	0.047	0.046	0.046	0.045	0.044
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.184	0.157	0.122	0.108	0.084	0.081	0.080	0.079	0.079	0.080	0.081	0.082	0.084	0.054	0.053	0.052	0.052	0.051	0.050	0.050
Average of 20 years	0.083																			
TRACK II (including 15% return on capital investment)																				
Total Net Impact per minute	0.339	0.297	0.268	0.254	0.241	0.230	0.225	0.220	0.218	0.216	0.214	0.213	0.214	0.181	0.180	0.178	0.176	0.174	0.172	0.170
Net impact per minute - Voice services	0.278	0.238	0.187	0.153	0.120	0.115	0.113	0.110	0.109	0.11	0.107	0.106	0.107	0.091	0.090	0.089	0.088	0.087	0.086	0.085
Net impact per minute on Voice services while considering O/G min only (2 times)	0.556	0.476	0.375	0.305	0.241	0.230	0.225	0.220	0.218	0.216	0.214	0.213	0.214	0.181	0.180	0.178	0.176	0.174	0.172	0.170
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.625	0.535	0.421	0.343	0.271	0.259	0.253	0.248	0.245	0.243	0.241	0.239	0.240	0.204	0.202	0.200	0.197	0.195	0.193	0.191
Average of 20 years	0.277																			

SUMMARY

Normal:Partial Refarming

Annexure IX

Delhi : Track I

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	20885	23809	26428	29071	30524	32051	33012	34002	34682	35376	36084	36805	37173	37545	37921	38300	38683	39070	39460	39855
3	Revenue	7520	8787	11147	14305	18024	18926	19493	20078	20480	20889	21307	21733	21951	22170	22392	22616	22842	23070	23301	23534
4	Total Cost	8456	9023	9785	10700	11648	12012	12247	12451	12627	12807	12992	13181	13337	13474	13594	13716	13841	13969	14087	14198
5	EBITDA	1035	1802	3465	5776	8619	9198	9557	9948	10186	10431	10681	10938	11021	11128	11247	11367	11489	11612	11749	11893
6	EBITDA Margin (%)	13.76%	20.50%	31.08%	40.38%	47.82%	48.60%	49.03%	49.55%	49.74%	49.93%	50.13%	50.33%	50.21%	50.20%	50.23%	50.26%	50.30%	50.33%	50.42%	50.54%
7	PBIT	-872	-170	1431	3677	6452	6991	7325	7706	7933	8163	8397	8635	8697	8780	8882	8984	9086	9187	9300	9422
8	RoCE (%)	-2.90%	-0.48%	3.21%	6.42%	8.94%	9.23%	9.39%	9.59%	9.68%	9.76%	9.85%	9.93%	9.90%	9.89%	9.91%	9.92%	9.94%	9.95%	9.97%	10.00%
	Likely Impact due to additional costs:																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	1402	1402	1960	2644	2730	3484	3592	3714	3851	7280	7454	7649	10044	8069	9255	9860	9860	9860	9860	7595
10	Amortisation of additional CAPEX (refer Note 2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Likely OPEX on additional towers & BTS equipments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Saving in Spectrum Usage Charges	0	0	0	-263	-331	-348	-445	-458	-467	-476	-519	-530	-535	-540	-546	-551	-557	-562	-568	-574
	Likely Impact due to additional costs	1402	1402	1960	2381	2398	3136	3148	3256	3384	6804	6934	7119	9509	7529	8710	9309	9303	9298	9292	7021
13	EBITDA after considering Net Impact	1035	1802	3465	6039	8951	9546	10002	10406	10654	10907	11200	11468	11556	11669	11793	11918	12046	12175	12317	12467
14	EBITDA Margin (%) after considering Net Impact	13.76%	20.50%	31.08%	42.21%	49.66%	50.44%	51.31%	51.83%	52.02%	52.21%	52.57%	52.76%	52.65%	52.63%	52.66%	52.70%	52.73%	52.77%	52.86%	52.97%
15	PBIT after considering Net Impact	-2274	-1571	-529	1296	4054	3854	4178	4450	4549	1359	1462	1515	-812	1252	173	-324	-218	-111	8	2400
16	RoCE after additional capital investment (%)	-7.55%	-4.47%	-0.93%	1.90%	4.96%	4.16%	4.51%	4.81%	4.95%	1.12%	1.25%	1.34%	-0.57%	0.93%	0.12%	-0.22%	-0.16%	-0.09%	0.01%	1.94%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	8033	0	13617	421	439	10212	530	638	766	34451	1041	1226	36814	-540	11319	15189	-557	-562	-568	10318
18	NPV - Estimated Cash inflow to Govt.	52944																			
19	Total Net impact per minute	0.067	0.059	0.074	0.082	0.079	0.098	0.095	0.096	0.098	0.192	0.192	0.193	0.256	0.201	0.230	0.243	0.240	0.238	0.235	0.176
20	Net impact per minute- Voice services	0.055	0.047	0.052	0.049	0.039	0.049	0.048	0.048	0.049	0.096	0.096	0.097	0.128	0.100	0.115	0.122	0.120	0.119	0.118	0.088
21	Total Net impact per minute (including 15% return on capital investment)	0.081	0.071	0.167	0.169	0.162	0.218	0.181	0.180	0.180	0.371	0.368	0.366	0.486	0.420	0.479	0.505	0.500	0.495	0.490	0.372
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.066	0.057	0.117	0.102	0.081	0.109	0.091	0.090	0.090	0.185	0.184	0.183	0.243	0.210	0.239	0.253	0.250	0.247	0.245	0.186

Note:

(1) Includes License Renewal Fees, Auction Price (for 10 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

Annexure IX

Normal: PARTIAL REFARMING

Delhi - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute										Normal Scenario (Spectrum Usage Charges @ 3%)											
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
TRACK I																					Amount (Rs.)
Total Net Impact per minute	0.067	0.059	0.074	0.082	0.079	0.098	0.095	0.096	0.098	0.192	0.192	0.193	0.256	0.201	0.230	0.243	0.240	0.238	0.235	0.176	
Net impact per minute - Voice services	0.055	0.047	0.052	0.049	0.039	0.049	0.048	0.048	0.049	0.096	0.096	0.097	0.128	0.100	0.115	0.122	0.120	0.119	0.118	0.088	
Net impact per minute on Voice services while considering O/G min only (2 times)	0.110	0.094	0.104	0.098	0.079	0.098	0.095	0.096	0.098	0.192	0.192	0.193	0.256	0.201	0.230	0.243	0.240	0.238	0.235	0.176	
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.124	0.106	0.117	0.110	0.088	0.110	0.107	0.108	0.110	0.216	0.216	0.217	0.287	0.225	0.258	0.273	0.270	0.267	0.265	0.198	
Average of 20 years	0.184																				
TRACK I (including 15% return on capital investment)																					
Total Net Impact per minute	0.081	0.071	0.167	0.169	0.162	0.218	0.181	0.180	0.180	0.371	0.368	0.366	0.486	0.420	0.479	0.505	0.500	0.495	0.490	0.372	
Net impact per minute - Voice services	0.066	0.057	0.117	0.102	0.081	0.109	0.091	0.090	0.090	0.185	0.184	0.183	0.243	0.210	0.239	0.253	0.250	0.247	0.245	0.186	
Net impact per minute on Voice services while considering O/G min only (2 times)	0.133	0.113	0.233	0.203	0.162	0.218	0.181	0.180	0.180	0.371	0.368	0.366	0.486	0.420	0.479	0.505	0.500	0.495	0.490	0.372	
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.149	0.127	0.262	0.228	0.182	0.245	0.204	0.202	0.203	0.416	0.413	0.412	0.546	0.472	0.538	0.568	0.562	0.556	0.550	0.418	
Average of 20 years	0.363																				

Impact at different levels of tariff changes

Normal: PARTIAL REFORMING

Annexure IX

Delhi : Normal Scenario (Track I) - SUC @ 3%

Rs. in crore

Sl No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	EBITDA before additional costs	1035	1802	3465	5776	8619	9198	9557	9948	10186	10431	10681	10938	11021	11128	11247	11367	11489	11612	11749	11893
2	EBITDA Margin (%) before additional costs	13.76%	20.50%	31.08%	40.38%	47.82%	48.60%	49.03%	49.55%	49.74%	49.93%	50.13%	50.33%	50.21%	50.20%	50.23%	50.26%	50.30%	50.33%	50.42%	50.54%
3	PBIT before additional costs	-872	-170	1431	3677	6452	6991	7325	7706	7933	8163	8397	8635	8697	8780	8882	8984	9086	9187	9300	9422
4	RoCE (%) before additional costs	-2.90%	-0.48%	3.21%	6.42%	8.94%	9.23%	9.39%	9.59%	9.68%	9.76%	9.85%	9.93%	9.90%	9.89%	9.91%	9.92%	9.94%	9.95%	9.97%	10.00%
5	EBITDA after additional costs	1035	1802	3465	6039	8951	9546	10002	10406	10654	10907	11200	11468	11556	11669	11793	11918	12046	12175	12317	12467
6	EBITDA Margin (%) after additional costs	13.76%	20.50%	31.08%	42.21%	49.66%	50.44%	51.31%	51.83%	52.02%	52.21%	52.57%	52.76%	52.65%	52.63%	52.66%	52.70%	52.73%	52.77%	52.86%	52.97%
7	PBIT after additional costs	-2274	-1571	-529	1296	4054	3854	4178	4450	4549	1359	1462	1515	-812	1252	173	-324	-218	-111	8	2400
8	RoCE after additional costs (%)	-7.55%	-4.47%	-0.93%	1.90%	4.96%	4.16%	4.51%	4.81%	4.95%	1.12%	1.25%	1.34%	-0.57%	0.93%	0.12%	-0.22%	-0.16%	-0.09%	0.01%	1.94%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	1662	2535	4395	7259	10488	11160	11673	12128	12409	12698	13031	13334	13442	13573	13716	13861	14008	14156	14319	14488
10	EBITDA Margin (%)	20.08%	26.21%	35.82%	46.10%	52.86%	53.57%	54.40%	54.87%	55.05%	55.22%	55.56%	55.74%	55.63%	55.62%	55.65%	55.68%	55.71%	55.74%	55.83%	55.93%
11	PBIT	-1646	-838	401	2516	5591	5469	5849	6172	6305	3150	3293	3382	1073	3156	2096	1618	1745	1871	2009	4422
12	RoCE (%)	-4.97%	-2.17%	0.65%	3.40%	6.29%	5.45%	5.82%	6.13%	6.30%	2.43%	2.61%	2.77%	0.71%	2.20%	1.42%	1.05%	1.20%	1.36%	1.56%	3.32%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	2189	3151	5176	8284	11780	12516	13078	13574	13885	14203	14569	14903	15026	15173	15332	15493	15656	15821	16001	16187
14	EBITDA Margin (%)	24.56%	30.25%	39.17%	48.85%	55.13%	55.79%	56.59%	57.03%	57.19%	57.36%	57.68%	57.84%	57.74%	57.73%	57.76%	57.79%	57.82%	57.85%	57.93%	58.02%
15	PBIT	-1119	-222	1183	3541	6883	6825	7254	7618	7780	4655	4831	4951	2657	4756	3712	3250	3393	3536	3691	6120
16	RoCE (%)	-3.14%	-0.53%	1.82%	4.50%	7.24%	6.40%	6.78%	7.09%	7.27%	3.40%	3.63%	3.82%	1.68%	3.15%	2.39%	2.00%	2.21%	2.44%	2.70%	4.34%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	2717	3767	5958	9309	13071	13873	14482	15021	15360	15708	16106	16472	16610	16773	16948	17125	17305	17487	17682	17885
18	EBITDA Margin (%)	28.44%	33.75%	42.08%	51.24%	57.10%	57.71%	58.49%	58.90%	59.05%	59.20%	59.51%	59.67%	59.58%	59.57%	59.59%	59.62%	59.65%	59.68%	59.75%	59.84%
19	PBIT	-592	394	1964	4566	8175	8181	8658	9065	9256	6160	6368	6520	4242	6357	5328	4883	5042	5201	5373	7819
20	RoCE (%)	-1.55%	0.88%	2.85%	5.46%	8.08%	7.23%	7.62%	7.93%	8.12%	4.28%	4.54%	4.76%	2.56%	4.00%	3.28%	2.87%	3.12%	3.40%	3.72%	5.24%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	3244	4383	6739	10335	14363	15229	15887	16467	16836	17213	17644	18040	18195	18374	18564	18758	18954	19152	19364	19584
22	EBITDA Margin (%)	31.84%	36.82%	44.63%	53.32%	58.82%	59.39%	60.15%	60.54%	60.68%	60.82%	61.12%	61.27%	61.18%	61.17%	61.20%	61.22%	61.25%	61.27%	61.34%	61.42%
23	PBIT	-65	1010	2746	5591	9466	9538	10062	10511	10731	7665	7906	8088	5826	7957	6945	6515	6690	6866	7054	9518
24	RoCE (%)	-0.16%	2.12%	3.78%	6.32%	8.82%	7.98%	8.37%	8.68%	8.87%	5.08%	5.36%	5.61%	3.37%	4.79%	4.08%	3.67%	3.96%	4.27%	4.63%	6.06%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	3771	4999	7521	11360	15655	16585	17291	17914	18311	18718	19182	19609	19779	19974	20181	20390	20602	20817	21046	21283
26	EBITDA Margin (%)	34.84%	39.52%	46.87%	55.17%	60.34%	60.88%	61.62%	61.98%	62.11%	62.25%	62.54%	62.68%	62.60%	62.59%	62.61%	62.63%	62.66%	62.68%	62.75%	62.82%
27	PBIT	462	1626	3527	6617	10758	10894	11467	11958	12207	9170	9444	9657	7410	9557	8561	8147	8339	8531	8736	11216
28	RoCE (%)	1.07%	3.21%	4.61%	7.09%	9.49%	8.65%	9.04%	9.35%	9.54%	5.80%	6.10%	6.37%	4.11%	5.50%	4.81%	4.40%	4.71%	5.06%	5.45%	6.79%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	4298	5615	8302	12385	16947	17942	18695	19360	19787	20223	20720	21177	21363	21574	21797	22022	22251	22482	22728	22981
30	EBITDA Margin (%)	37.50%	41.93%	48.87%	56.80%	61.69%	62.20%	62.92%	63.26%	63.39%	63.52%	63.80%	63.93%	63.85%	63.85%	63.87%	63.89%	63.91%	63.94%	64.00%	64.07%
31	PBIT	990	2242	4309	7642	12050	12250	12871	13404	13682	10675	10982	11225	8995	11157	10177	9780	9988	10196	10418	12915
32	RoCE (%)	2.16%	4.18%	5.37%	7.78%	10.08%	9.26%	9.64%	9.95%	10.15%	6.46%	6.78%	7.06%	4.79%	6.15%	5.49%	5.07%	5.41%	5.78%	6.20%	7.46%

SUMMARY

Normal: Partial Refarming

Annexure IX

Delhi : Track II

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	20885	23809	26428	29071	30524	32051	33012	34002	34682	35376	36084	36805	37173	37545	37921	38300	38683	39070	39460	39855
3	Revenue	7520	8787	11147	14305	18024	18926	19493	20078	20480	20889	21307	21733	21951	22170	22392	22616	22842	23070	23301	23534
4	Total Cost	8456	9023	9785	10700	11648	12012	12247	12451	12627	12807	12992	13181	13337	13474	13594	13716	13841	13969	14087	14198
5	EBITDA	1035	1802	3465	5776	8619	9198	9557	9948	10186	10431	10681	10938	11021	11128	11247	11367	11489	11612	11749	11893
6	EBITDA Margin (%)	13.76%	20.50%	31.08%	40.38%	47.82%	48.60%	49.03%	49.55%	49.74%	49.93%	50.13%	50.33%	50.21%	50.20%	50.23%	50.26%	50.30%	50.33%	50.42%	50.54%
7	PBIT	-872	-170	1431	3677	6452	6991	7325	7706	7933	8163	8397	8635	8697	8780	8882	8984	9086	9187	9300	9422
8	RoCE (%)	-2.90%	-0.48%	3.21%	6.42%	8.94%	9.23%	9.39%	9.59%	9.68%	9.76%	9.85%	9.93%	9.90%	9.89%	9.91%	9.92%	9.94%	9.95%	9.97%	10.00%
	Likely Impact due to additional costs																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	3229	3229	3229	3913	3998	4095	4203	4325	4462	4616	4789	4984	5204	3229	3229	3229	3229	3229	3229	3229
10	Amortisation of additional CAPEX (refer Note 2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Likely OPEX on additional towers & BTS equipments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Saving in Spectrum Usage Charges	-183	-214	-272	-349	-439	-461	-475	-489	-499	-509	-519	-530	-535	-540	-546	-551	-557	-562	-568	-574
	Likely Impact due to additional costs	3045	3015	2957	3564	3559	3633	3728	3835	3963	4107	4270	4455	4669	2688	2683	2678	2672	2666	2661	2655
13	EBITDA after considering Net Impact	1218	2016	3736	6124	9059	9659	10033	10437	10685	10940	11200	11468	11556	11669	11793	11918	12046	12175	12317	12467
14	EBITDA Margin (%) after considering Net Impact	16.20%	22.94%	33.52%	42.81%	50.26%	51.04%	51.47%	51.98%	52.18%	52.37%	52.57%	52.76%	52.65%	52.63%	52.66%	52.70%	52.73%	52.77%	52.86%	52.97%
15	PBIT after considering Net Impact	-3918	-3184	-1526	113	2893	3357	3597	3871	3970	4056	4127	4180	4028	6092	6199	6307	6414	6520	6639	6767
16	RoCE after additional capital investment (%)	-4.6%	-3.6%	-1.62%	0.11%	2.50%	2.88%	3.10%	3.35%	3.48%	3.60%	3.70%	3.79%	3.72%	5.73%	5.95%	6.17%	6.40%	6.64%	6.90%	7.18%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	69196	-214	-272	-349	-439	-461	-475	-489	-499	-509	-519	-530	-535	-540	-546	-551	-557	-562	-568	-574
18	NPV - Estimated Cash inflow to Govt.	66155																			
19	Total Net impact per minute	0.146	0.127	0.112	0.123	0.117	0.113	0.113	0.113	0.114	0.116	0.118	0.121	0.126	0.072	0.071	0.070	0.069	0.068	0.067	0.067
20	Net impact per minute- Voice services	0.120	0.101	0.078	0.074	0.058	0.057	0.056	0.056	0.057	0.058	0.059	0.061	0.063	0.036	0.035	0.035	0.035	0.034	0.034	0.033
21	Total Net impact per minute (including 15% return on capital investment)	0.485	0.424	0.380	0.370	0.353	0.339	0.332	0.326	0.324	0.322	0.321	0.321	0.324	0.260	0.258	0.255	0.252	0.250	0.247	0.244
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.398	0.339	0.266	0.222	0.176	0.169	0.166	0.163	0.162	0.161	0.161	0.160	0.162	0.130	0.129	0.127	0.126	0.125	0.124	0.122

Note:

(1) Includes License Renewal Fees, Excess Spectrum, Auction Price (for 10 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

Annexure IX

Normal:PARTIAL REFARMING

Delhi - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute

Normal Scenario (Spectrum Usage Charges @ 3%)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK II																				Amount (Rs.)
Total Net Impact per minute	0.146	0.127	0.112	0.123	0.117	0.113	0.113	0.113	0.114	0.116	0.118	0.121	0.126	0.072	0.071	0.070	0.069	0.068	0.067	0.067
Net impact per minute - Voice services	0.120	0.101	0.078	0.074	0.058	0.057	0.056	0.056	0.057	0.058	0.059	0.061	0.063	0.036	0.035	0.035	0.035	0.034	0.034	0.033
Net impact per minute on Voice services while considering O/G min only (2 times)	0.239	0.203	0.157	0.147	0.117	0.113	0.113	0.113	0.114	0.116	0.118	0.121	0.126	0.072	0.071	0.070	0.069	0.068	0.067	0.067
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.269	0.228	0.176	0.165	0.131	0.127	0.127	0.127	0.128	0.130	0.133	0.136	0.141	0.080	0.079	0.079	0.078	0.077	0.076	0.075
Average of 20 years	0.128																			
TRACK II (including 15% return on capital investment)																				
Total Net Impact per minute	0.485	0.424	0.380	0.370	0.353	0.339	0.332	0.326	0.324	0.322	0.321	0.321	0.324	0.260	0.258	0.255	0.252	0.250	0.247	0.244
Net impact per minute - Voice services	0.398	0.339	0.266	0.222	0.176	0.169	0.166	0.163	0.162	0.16	0.161	0.160	0.162	0.130	0.129	0.127	0.126	0.125	0.124	0.122
Net impact per minute on Voice services while considering O/G min only (2 times)	0.796	0.679	0.532	0.444	0.353	0.339	0.332	0.326	0.324	0.322	0.321	0.321	0.324	0.260	0.258	0.255	0.252	0.250	0.247	0.244
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.894	0.763	0.598	0.499	0.396	0.380	0.373	0.366	0.364	0.362	0.361	0.360	0.364	0.293	0.290	0.286	0.283	0.281	0.278	0.275
Average of 20 years	0.403																			

Impact at different levels of tariff changes

Normal: PARTIAL REFORMING

Annexure IX

		Delhi : Normal Scenario (Track II) - SUC @ 3%																			Rs. in crore
SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	EBITDA before additional costs	1035	1802	3465	5776	8619	9198	9557	9948	10186	10431	10681	10938	11021	11128	11247	11367	11489	11612	11749	11893
2	EBITDA Margin (%) before additional costs	13.76%	20.50%	31.08%	40.38%	47.82%	48.60%	49.03%	49.55%	49.74%	49.93%	50.13%	50.33%	50.21%	50.20%	50.23%	50.26%	50.30%	50.33%	50.42%	50.54%
3	PBIT before additional costs	-872	-170	1431	3677	6452	6991	7325	7706	7933	8163	8397	8635	8697	8780	8882	8984	9086	9187	9300	9422
4	RoCE (%) before additional costs	-2.90%	-0.48%	3.21%	6.42%	8.94%	9.23%	9.39%	9.59%	9.68%	9.76%	9.85%	9.93%	9.90%	9.89%	9.91%	9.92%	9.94%	9.95%	9.97%	10.00%
5	EBITDA after additional costs	1218	2016	3736	6124	9059	9659	10033	10437	10685	10940	11200	11468	11556	11669	11793	11918	12046	12175	12317	12467
6	EBITDA Margin (%) after additional costs	16.20%	22.94%	33.52%	42.81%	50.26%	51.04%	51.47%	51.98%	52.18%	52.37%	52.57%	52.76%	52.65%	52.63%	52.66%	52.70%	52.73%	52.77%	52.86%	52.97%
7	PBIT after additional costs	-3918	-3184	-1526	113	2893	3357	3597	3871	3970	4056	4127	4180	4028	6092	6199	6307	6414	6520	6639	6767
8	RoCE after additional costs (%)	-4.58%	-3.63%	-1.62%	0.11%	2.50%	2.88%	3.10%	3.35%	3.48%	3.60%	3.70%	3.79%	3.72%	5.73%	5.95%	6.17%	6.40%	6.64%	6.90%	7.18%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	1864	2771	4694	7353	10607	11285	11707	12162	12445	12734	13031	13334	13442	13573	13716	13861	14008	14156	14319	14488
10	EBITDA Margin (%)	22.52%	28.64%	38.25%	46.70%	53.46%	54.17%	54.56%	55.03%	55.20%	55.38%	55.56%	55.74%	55.63%	55.62%	55.65%	55.68%	55.71%	55.74%	55.83%	55.93%
11	PBIT	-3272	-2430	-569	1341	4441	4983	5272	5595	5729	5851	5957	6047	5913	7996	8123	8249	8376	8502	8640	8788
12	RoCE (%)	-3.69%	-2.66%	-0.58%	1.22%	3.61%	4.01%	4.26%	4.53%	4.68%	4.83%	4.96%	5.08%	5.05%	6.94%	7.17%	7.41%	7.66%	7.91%	8.18%	8.48%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	2407	3405	5498	8386	11908	12651	13114	13611	13923	14242	14569	14903	15026	15173	15332	15493	15656	15821	16001	16187
14	EBITDA Margin (%)	27.00%	32.69%	41.61%	49.45%	55.73%	56.39%	56.75%	57.19%	57.35%	57.51%	57.68%	57.84%	57.74%	57.73%	57.76%	57.79%	57.82%	57.85%	57.93%	58.02%
15	PBIT	-2729	-1795	236	2374	5742	6349	6679	7045	7208	7358	7495	7615	7498	9597	9739	9882	10024	10167	10322	10487
16	RoCE (%)	-3.00%	-1.91%	0.23%	2.07%	4.44%	4.86%	5.12%	5.41%	5.58%	5.74%	5.88%	6.02%	6.02%	7.82%	8.06%	8.31%	8.56%	8.82%	9.10%	9.39%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	2949	4039	6303	9418	13209	14017	14521	15060	15401	15750	16106	16472	16610	16773	16948	17125	17305	17487	17682	17885
18	EBITDA Margin (%)	30.88%	36.19%	44.52%	51.84%	57.70%	58.31%	58.65%	59.06%	59.21%	59.36%	59.51%	59.67%	59.58%	59.57%	59.59%	59.62%	59.65%	59.68%	59.75%	59.84%
19	PBIT	-2186	-1161	1040	3406	7043	7715	8086	8494	8686	8866	9033	9184	9082	11197	11355	11514	11673	11832	12004	12185
20	RoCE (%)	-2.33%	-1.19%	0.98%	2.85%	5.20%	5.63%	5.90%	6.20%	6.38%	6.55%	6.71%	6.86%	6.88%	8.60%	8.84%	9.09%	9.35%	9.61%	9.89%	10.18%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	3492	4673	7107	10451	14510	15383	15928	16510	16879	17257	17644	18040	18195	18374	18564	18758	18954	19152	19364	19584
22	EBITDA Margin (%)	34.28%	39.26%	47.06%	53.92%	59.42%	59.99%	60.31%	60.69%	60.83%	60.98%	61.12%	61.27%	61.18%	61.17%	61.20%	61.22%	61.25%	61.27%	61.34%	61.42%
23	PBIT	-1644	-527	1845	4439	8344	9081	9493	9943	10164	10374	10571	10753	10666	12797	12971	13146	13322	13497	13686	13884
24	RoCE (%)	-1.71%	-0.53%	1.68%	3.57%	5.90%	6.33%	6.61%	6.91%	7.10%	7.28%	7.45%	7.62%	7.65%	9.29%	9.54%	9.79%	10.05%	10.31%	10.59%	10.88%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	4035	5307	7912	11483	15811	16749	17335	17959	18357	18765	19182	19609	19779	19974	20181	20390	20602	20817	21046	21283
26	EBITDA Margin (%)	37.27%	41.96%	49.31%	55.77%	60.94%	61.48%	61.78%	62.14%	62.27%	62.40%	62.54%	62.68%	62.60%	62.59%	62.61%	62.63%	62.66%	62.68%	62.75%	62.82%
27	PBIT	-1101	107	2649	5471	9645	10447	10900	11392	11642	11881	12109	12321	12250	14397	14587	14779	14970	15163	15367	15582
28	RoCE (%)	-1.11%	0.10%	2.33%	4.24%	6.53%	6.97%	7.25%	7.56%	7.76%	7.95%	8.13%	8.29%	8.34%	9.91%	10.16%	10.41%	10.67%	10.93%	11.20%	11.49%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	4578	5942	8717	12516	17111	18115	18742	19408	19835	20273	20720	21177	21363	21574	21797	22022	22251	22482	22728	22981
30	EBITDA Margin (%)	39.94%	44.37%	51.31%	57.40%	62.29%	62.80%	63.08%	63.42%	63.55%	63.67%	63.80%	63.93%	63.85%	63.85%	63.87%	63.89%	63.91%	63.94%	64.00%	64.07%
31	PBIT	-558	741	3454	6504	10946	11813	12307	12841	13120	13389	13646	13890	13835	15997	16204	16411	16619	16828	17049	17281
32	RoCE (%)	-0.55%	0.70%	2.94%	4.86%	7.12%	7.56%	7.85%	8.15%	8.36%	8.55%	8.73%	8.91%	8.96%	10.47%	10.72%	10.97%	11.22%	11.48%	11.75%	12.04%

SUMMARY

Normal: Full Refarming

Annexure X

AP : Track I

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	31401	35797	39735	43708	45893	48188	49634	51123	52145	53188	54252	55337	55890	56449	57014	57584	58160	58741	59329	59922
3	Revenue	7866	9191	10882	12825	14503	16497	18536	21002	21422	21850	22287	22733	22960	23190	23422	23656	23893	24131	24373	24616
4	Total Cost	9524	10234	10966	11731	12390	13065	13724	14364	14623	14896	15136	15320	15478	15646	15824	15987	16121	16262	16409	16564
5	EBITDA	243	906	1886	3093	4127	5445	6832	8646	8773	8904	9085	9309	9350	9391	9433	9501	9590	9681	9774	9868
6	EBITDA Margin (%)	3.08%	9.86%	17.33%	24.12%	28.46%	33.01%	36.86%	41.17%	40.95%	40.75%	40.76%	40.95%	40.72%	40.50%	40.27%	40.16%	40.14%	40.12%	40.10%	40.09%
7	PBIT	-1608	-990	-27	1154	2174	3496	4879	6706	6868	7025	7223	7485	7555	7617	7672	7744	7847	7946	8039	8129
8	RoCE (%)	-13.31%	-7.01%	-0.16%	5.86%	9.76%	13.80%	17.14%	20.79%	20.87%	20.93%	21.10%	21.44%	21.42%	21.39%	21.33%	21.31%	21.38%	21.44%	21.48%	21.50%
	Likely Impact due to additional costs:																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	329	329	329	631	648	886	909	934	1196	1897	1933	1973	2019	2040	2531	2667	2667	2667	2561	2109
10	Amortisation of additional CAPEX (refer Note 2)	0	109	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272
11	Likely OPEX on additional towers & BTS equipments	0	124	186	310	325	342	359	377	396	415	436	458	481	505	530	557	584	614	644	677
12	Saving in Spectrum Usage Charges	0	0	0	0	-193	-220	-247	-280	-359	-367	-389	-397	-401	-405	-409	-413	-417	-421	-425	-430
	Likely Impact due to additional costs	329	562	787	1212	1052	1280	1292	1303	1504	2217	2252	2306	2370	2412	2925	3083	3107	3132	3051	2628
13	EBITDA after considering Net Impact	243	782	1700	2783	3995	5323	6720	8549	8737	8855	9038	9248	9269	9291	9312	9357	9423	9488	9555	9621
14	EBITDA Margin (%) after considering Net Impact	3.08%	8.51%	15.63%	21.70%	27.54%	32.27%	36.25%	40.70%	40.78%	40.53%	40.55%	40.68%	40.37%	40.06%	39.76%	39.55%	39.44%	39.32%	39.20%	39.08%
15	PBIT after considering Net Impact	-1937	-1551	-814	-58	1122	2216	3586	5403	5363	4808	4971	5179	5185	5205	4747	4661	4740	4814	4988	5501
16	RoCE after additional capital investment (%)	-16.03%	-10.28%	-4.27%	-0.24%	4.19%	7.10%	10.59%	14.46%	13.43%	10.58%	11.21%	11.88%	12.15%	10.74%	9.30%	8.95%	9.49%	10.03%	10.48%	11.50%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	2702	0	0	3524	-34	2140	-45	-53	2943	6606	-66	-33	8	7284	4503	3127	-417	-421	1554	1741
18	NPV - Estimated Cash inflow to Govt.	12934																			
19	Total Net impact per minute	0.010	0.016	0.020	0.028	0.023	0.027	0.026	0.025	0.029	0.042	0.042	0.042	0.042	0.043	0.051	0.054	0.053	0.053	0.051	0.044
20	Net impact per minute- Voice services	0.009	0.013	0.015	0.019	0.015	0.016	0.014	0.013	0.014	0.021	0.021	0.021	0.021	0.021	0.026	0.027	0.027	0.027	0.026	0.022
21	Total Net impact per minute (including 15% return on capital investment)	0.017	0.025	0.033	0.052	0.046	0.053	0.046	0.045	0.055	0.080	0.079	0.078	0.079	0.085	0.102	0.106	0.106	0.105	0.101	0.085
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.014	0.020	0.024	0.036	0.030	0.032	0.025	0.022	0.027	0.040	0.039	0.039	0.039	0.043	0.051	0.053	0.053	0.052	0.050	0.043

Note:

(1) Includes License Renewal Fees, Auction Price (for 5 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

(2) Includes depreciation on likely additional CAPEX on towers & BTS equipments due to refarming of Spectrum

AP - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute										Normal Scenario (Spectrum Usage Charges @ 3%)											
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
TRACK I																					Amount (Rs.)
Total Net Impact per minute	0.010	0.016	0.020	0.028	0.023	0.027	0.026	0.025	0.029	0.042	0.042	0.042	0.042	0.043	0.051	0.054	0.053	0.053	0.051	0.044	
Net impact per minute - Voice services	0.009	0.013	0.015	0.019	0.015	0.016	0.014	0.013	0.014	0.021	0.021	0.021	0.021	0.021	0.026	0.027	0.027	0.027	0.026	0.022	
Net impact per minute on Voice services while considering O/G min only (2 times)	0.017	0.025	0.030	0.039	0.030	0.032	0.029	0.025	0.029	0.042	0.042	0.042	0.042	0.043	0.051	0.054	0.053	0.053	0.051	0.044	
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.019	0.028	0.033	0.044	0.033	0.036	0.032	0.029	0.032	0.047	0.047	0.047	0.048	0.048	0.058	0.060	0.060	0.060	0.058	0.049	
Average of 20 years	0.043																				
TRACK I (including 15% return on capital investment)																					
Total Net Impact per minute	0.017	0.025	0.033	0.052	0.046	0.053	0.046	0.045	0.055	0.080	0.079	0.078	0.079	0.085	0.102	0.106	0.106	0.105	0.101	0.085	
Net impact per minute - Voice services	0.014	0.020	0.024	0.036	0.030	0.032	0.025	0.022	0.027	0.040	0.039	0.039	0.039	0.043	0.051	0.053	0.053	0.052	0.050	0.043	
Net impact per minute on Voice services while considering O/G min only (2 times)	0.029	0.040	0.049	0.072	0.059	0.063	0.050	0.045	0.055	0.080	0.079	0.078	0.079	0.085	0.102	0.106	0.106	0.105	0.101	0.085	
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.032	0.045	0.055	0.081	0.067	0.071	0.056	0.050	0.062	0.090	0.089	0.088	0.089	0.096	0.115	0.119	0.119	0.118	0.113	0.096	
Average of 20 years	0.082																				

Impact at different levels of tariff changes

Normal: FULL REFARMING

Annexure X

Sl No:	Particulars	AP : Normal Scenario (Track I) - SUC @ 3%																	Rs. in crore		
		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	EBITDA before additional costs	243	906	1886	3093	4127	5445	6832	8646	8773	8904	9085	9309	9350	9391	9433	9501	9590	9681	9774	9868
2	EBITDA Margin (%) before additional costs	3.08%	9.86%	17.33%	24.12%	28.46%	33.01%	36.86%	41.17%	40.95%	40.75%	40.76%	40.95%	40.72%	40.50%	40.27%	40.16%	40.14%	40.12%	40.10%	40.09%
3	PBIT before additional costs	-1608	-990	-27	1154	2174	3496	4879	6706	6868	7025	7223	7485	7555	7617	7672	7744	7847	7946	8039	8129
4	RoCE (%) before additional costs	-13.31%	-7.01%	-0.16%	5.86%	9.76%	13.80%	17.14%	20.79%	20.87%	20.93%	21.10%	21.44%	21.42%	21.39%	21.33%	21.31%	21.38%	21.44%	21.48%	21.50%
5	EBITDA after additional costs	243	782	1700	2783	3995	5323	6720	8549	8737	8855	9038	9248	9269	9291	9312	9357	9423	9488	9555	9621
6	EBITDA Margin (%) after additional costs	3.08%	8.51%	15.63%	21.70%	27.54%	32.27%	36.25%	40.70%	40.78%	40.53%	40.55%	40.68%	40.37%	40.06%	39.76%	39.55%	39.44%	39.32%	39.20%	39.08%
7	PBIT after additional costs	-1937	-1551	-814	-58	1122	2216	3586	5403	5363	4808	4971	5179	5185	5205	4747	4661	4740	4814	4988	5501
8	RoCE after additional costs (%)	-16.03%	-10.28%	-4.27%	-0.24%	4.19%	7.10%	10.59%	14.46%	13.43%	10.58%	11.21%	11.88%	12.15%	10.74%	9.30%	8.95%	9.49%	10.03%	10.48%	11.50%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	1047	1722	2813	4094	5501	7036	8645	10729	10970	11133	11363	11620	11665	11710	11755	11825	11915	12006	12098	12190
10	EBITDA Margin (%)	11.86%	16.70%	23.04%	28.46%	33.81%	38.02%	41.58%	45.54%	45.65%	45.42%	45.45%	45.57%	45.29%	45.02%	44.74%	44.56%	44.46%	44.36%	44.25%	44.15%
11	PBIT	-1133	-612	298	1252	2628	3929	5511	7584	7596	7086	7297	7551	7581	7625	7191	7129	7233	7332	7531	8069
12	RoCE (%)	-8.36%	-3.64%	1.41%	4.60%	8.91%	11.46%	14.77%	18.37%	17.29%	14.30%	15.05%	15.79%	16.14%	14.44%	12.98%	12.62%	13.30%	13.97%	14.45%	15.39%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	1851	2661	3925	5405	7006	8749	10569	12910	13203	13411	13688	13992	14061	14130	14199	14294	14408	14524	14641	14758
14	EBITDA Margin (%)	18.92%	23.28%	29.01%	33.89%	38.85%	42.65%	45.86%	49.44%	49.57%	49.36%	49.39%	49.50%	49.25%	49.00%	48.76%	48.59%	48.50%	48.40%	48.31%	48.22%
15	PBIT	-329	327	1411	2563	4134	5642	7436	9765	9830	9364	9622	9923	9976	10044	9635	9598	9726	9849	10074	10638
16	RoCE (%)	-2.19%	1.77%	6.10%	8.66%	12.84%	15.10%	18.23%	21.60%	20.51%	17.46%	18.27%	19.05%	19.46%	17.58%	16.12%	15.76%	16.52%	17.28%	17.77%	18.65%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	2655	3600	5037	6716	8512	10462	12494	15091	15437	15689	16014	16364	16456	16549	16643	16762	16901	17042	17184	17327
18	EBITDA Margin (%)	24.72%	28.70%	33.91%	38.36%	43.00%	46.45%	49.37%	52.64%	52.79%	52.60%	52.63%	52.73%	52.50%	52.28%	52.05%	51.90%	51.82%	51.73%	51.65%	51.56%
19	PBIT	475	1267	2523	3874	5639	7355	9361	11945	12063	11642	11948	12295	12372	12464	12079	12066	12219	12367	12617	13206
20	RoCE (%)	2.88%	6.26%	10.03%	12.11%	16.16%	18.19%	21.15%	24.31%	23.23%	20.17%	21.02%	21.83%	22.27%	20.27%	18.83%	18.47%	19.29%	20.10%	20.60%	21.43%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	3459	4540	6150	8027	10018	12175	14419	17271	17670	17967	18339	18736	18852	18969	19087	19230	19394	19560	19727	19895
22	EBITDA Margin (%)	29.57%	33.22%	38.01%	42.09%	46.46%	49.64%	52.32%	55.31%	55.48%	55.30%	55.34%	55.43%	55.22%	55.01%	54.81%	54.67%	54.59%	54.51%	54.44%	54.36%
23	PBIT	1279	2206	3635	5185	7145	9068	11285	14126	14297	13920	14273	14666	14767	14883	14522	14534	14712	14885	15160	15775
24	RoCE (%)	7.12%	10.04%	13.37%	15.07%	18.99%	20.83%	23.65%	26.62%	25.56%	22.52%	23.40%	24.21%	24.68%	22.61%	21.19%	20.84%	21.70%	22.54%	23.04%	23.82%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	4263	5479	7262	9338	11524	13888	16344	19452	19903	20245	20665	21108	21247	21388	21531	21698	21887	22078	22270	22463
26	EBITDA Margin (%)	33.69%	37.06%	41.49%	45.26%	49.40%	52.34%	54.81%	57.58%	57.76%	57.60%	57.64%	57.72%	57.53%	57.34%	57.15%	57.02%	56.95%	56.88%	56.80%	56.73%
27	PBIT	2083	3146	4748	6496	8651	10780	13210	16307	16530	16198	16598	17038	17163	17303	16966	17002	17205	17403	17703	18343
28	RoCE (%)	10.72%	13.28%	16.25%	17.65%	21.45%	23.13%	25.81%	28.61%	27.58%	24.58%	25.47%	26.28%	26.76%	24.66%	23.27%	22.92%	23.81%	24.67%	25.16%	25.90%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	5067	6419	8374	10649	13030	15601	18268	21633	22137	22523	22990	23479	23643	23808	23974	24166	24380	24595	24813	25032
30	EBITDA Margin (%)	37.23%	40.36%	44.48%	47.99%	51.93%	54.65%	56.96%	59.53%	59.72%	59.57%	59.62%	59.69%	59.51%	59.34%	59.16%	59.04%	58.97%	58.91%	58.84%	58.77%
31	PBIT	2887	4085	5860	7807	10157	12493	15135	18488	18763	18476	18924	19410	19559	19723	19410	19470	19697	19921	20246	20912
32	RoCE (%)	13.81%	16.08%	18.75%	19.92%	23.60%	25.14%	27.69%	30.35%	29.34%	26.41%	27.30%	28.10%	28.59%	26.48%	25.11%	24.77%	25.67%	26.54%	27.02%	27.72%

SUMMARY

Normal: Full Refarming

Annexure X

AP : Track II

Rs. in crore

Sl No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	31401	35797	39735	43708	45893	48188	49634	51123	52145	53188	54252	55337	55890	56449	57014	57584	58160	58741	59329	59922
3	Revenue	7866	9191	10882	12825	14503	16497	18536	21002	21422	21850	22287	22733	22960	23190	23422	23656	23893	24131	24373	24616
4	Total Cost	9524	10234	10966	11731	12390	13065	13724	14364	14623	14896	15136	15320	15478	15646	15824	15987	16121	16262	16409	16564
5	EBITDA	243	906	1886	3093	4127	5445	6832	8646	8773	8904	9085	9309	9350	9391	9433	9501	9590	9681	9774	9868
6	EBITDA Margin (%)	3.08%	9.86%	17.33%	24.12%	28.46%	33.01%	36.86%	41.17%	40.95%	40.75%	40.76%	40.95%	40.72%	40.50%	40.27%	40.16%	40.14%	40.12%	40.10%	40.09%
7	PBIT	-1608	-990	-27	1154	2174	3496	4879	6706	6868	7025	7223	7485	7555	7617	7672	7744	7847	7946	8039	8129
8	RoCE (%)	-13.31%	-7.01%	-0.16%	5.86%	9.76%	13.80%	17.14%	20.79%	20.87%	20.93%	21.10%	21.44%	21.42%	21.39%	21.33%	21.31%	21.38%	21.44%	21.48%	21.50%
	Likely Impact due to additional costs																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	868	868	868	1009	1027	1047	1069	1094	1123	1155	1191	1231	1276	868	868	868	868	868	868	868
10	Amortisation of additional CAPEX (refer Note 2)	0	109	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272	272
11	Likely OPEX on additional towers & BTS equipments	0	124	186	310	325	342	359	377	396	415	436	458	481	505	530	557	584	614	644	677
12	Saving in Spectrum Usage Charges	-137	-160	-190	-224	-253	-288	-323	-366	-374	-381	-389	-397	-401	-405	-409	-413	-417	-421	-425	-430
	Likely Impact due to additional costs	730	940	1135	1367	1371	1372	1376	1376	1416	1461	1510	1564	1628	1240	1261	1283	1307	1332	1358	1386
13	EBITDA after considering Net Impact	380	942	1890	3007	4055	5391	6797	8636	8751	8870	9038	9248	9269	9291	9312	9357	9423	9488	9555	9621
14	EBITDA Margin (%) after considering Net Impact	4.83%	10.25%	17.37%	23.45%	27.96%	32.68%	36.67%	41.12%	40.85%	40.59%	40.55%	40.68%	40.37%	40.06%	39.76%	39.55%	39.44%	39.32%	39.20%	39.08%
15	PBIT after considering Net Impact	-2339	-1930	-1163	-213	803	2123	3502	5330	5451	5565	5713	5921	5927	6378	6411	6461	6540	6614	6681	6743
16	RoCE after additional capital investment (%)	-8.8%	-6.7%	-3.6%	-0.6%	2.3%	5.7%	8.8%	12.3%	12.7%	13.1%	13.5%	14.0%	14.1%	15.4%	15.8%	16.2%	16.5%	16.7%	17.2%	17.6%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	18209	-160	-190	-224	-253	-288	-323	-366	-374	-381	-389	-397	-401	-405	-409	-413	-417	-421	-425	-430
18	NPV - Estimated Cash inflow to Govt.	16064																			
19	Total Net impact per minute	0.023	0.026	0.029	0.031	0.030	0.028	0.028	0.027	0.027	0.027	0.028	0.028	0.029	0.022	0.022	0.022	0.022	0.023	0.023	0.023
20	Net impact per minute- Voice services	0.019	0.021	0.021	0.022	0.019	0.017	0.015	0.013	0.014	0.014	0.014	0.014	0.015	0.011	0.011	0.011	0.011	0.011	0.011	0.012
21	Total Net impact per minute (including 15% return on capital investment)	0.084	0.083	0.084	0.082	0.078	0.075	0.073	0.070	0.070	0.069	0.069	0.069	0.069	0.061	0.061	0.060	0.060	0.060	0.060	0.060
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.069	0.066	0.063	0.057	0.051	0.045	0.040	0.035	0.035	0.035	0.035	0.034	0.035	0.030	0.030	0.030	0.030	0.030	0.030	0.030

Note:

(1) Includes License Renewal Fees, Excess Spectrum, Auction Price (for 5MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

(2) Includes depreciation on likely additional CAPEX on towers & BTS equipments due to refarming of Spectrum

AP - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute

Normal Scenario (Spectrum Usage Charges @ 3%)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK II																				Amount (Rs.)
Total Net Impact per minute	0.023	0.026	0.029	0.031	0.030	0.028	0.028	0.027	0.027	0.027	0.028	0.028	0.029	0.022	0.022	0.022	0.022	0.023	0.023	0.023
Net impact per minute - Voice services	0.019	0.021	0.021	0.022	0.019	0.017	0.015	0.013	0.014	0.014	0.014	0.014	0.015	0.011	0.011	0.011	0.011	0.011	0.011	0.012
Net impact per minute on Voice services while considering O/G min only (2 times)	0.038	0.042	0.043	0.044	0.039	0.034	0.031	0.027	0.027	0.027	0.028	0.028	0.029	0.022	0.022	0.022	0.022	0.023	0.023	0.023
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.043	0.047	0.048	0.049	0.044	0.038	0.034	0.030	0.031	0.031	0.031	0.032	0.033	0.025	0.025	0.025	0.025	0.025	0.026	0.026
Average of 20 years	0.033																			
TRACK II (including 15% return on capital investment)																				
Total Net Impact per minute	0.084	0.083	0.084	0.082	0.078	0.075	0.073	0.070	0.070	0.069	0.069	0.069	0.069	0.061	0.061	0.060	0.060	0.060	0.060	0.060
Net impact per minute - Voice services	0.069	0.066	0.063	0.057	0.051	0.045	0.040	0.035	0.035	0.03	0.035	0.034	0.035	0.030	0.030	0.030	0.030	0.030	0.030	0.030
Net impact per minute on Voice services while considering O/G min only (2 times)	0.138	0.132	0.126	0.115	0.102	0.089	0.080	0.070	0.070	0.069	0.069	0.069	0.069	0.061	0.061	0.060	0.060	0.060	0.060	0.060
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.155	0.149	0.141	0.129	0.114	0.100	0.090	0.079	0.079	0.078	0.078	0.077	0.078	0.068	0.068	0.068	0.068	0.067	0.067	0.067
Average of 20 years	0.091																			

Impact at different levels of tariff changes

Normal: FULL REFORMING

Annexure X

		AP : Normal Scenario (Track II) - SUC @ 3%																Rs. in crore			
Sl No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	EBITDA before additional costs	243	906	1886	3093	4127	5445	6832	8646	8773	8904	9085	9309	9350	9391	9433	9501	9590	9681	9774	9868
2	EBITDA Margin (%) before additional costs	3.08%	9.86%	17.33%	24.12%	28.46%	33.01%	36.86%	41.17%	40.95%	40.75%	40.76%	40.95%	40.72%	40.50%	40.27%	40.16%	40.14%	40.12%	40.10%	40.09%
3	PBIT before additional costs	-1608	-990	-27	1154	2174	3496	4879	6706	6868	7025	7223	7485	7555	7617	7672	7744	7847	7946	8039	8129
4	RoCE (%) before additional costs	-13.31%	-7.01%	-0.16%	5.86%	9.76%	13.80%	17.14%	20.79%	20.87%	20.93%	21.10%	21.44%	21.42%	21.39%	21.33%	21.31%	21.38%	21.44%	21.48%	21.50%
5	EBITDA after additional costs	380	942	1890	3007	4055	5391	6797	8636	8751	8870	9038	9248	9269	9291	9312	9357	9423	9488	9555	9621
6	EBITDA Margin (%) after additional costs	4.83%	10.25%	17.37%	23.45%	27.96%	32.68%	36.67%	41.12%	40.85%	40.59%	40.55%	40.68%	40.37%	40.06%	39.76%	39.55%	39.44%	39.32%	39.20%	39.08%
7	PBIT after additional costs	-2339	-1930	-1163	-213	803	2123	3502	5330	5451	5565	5713	5921	5927	6378	6411	6461	6540	6614	6681	6743
8	RoCE after additional costs (%)	-8.80%	-6.69%	-3.63%	-0.63%	2.26%	5.66%	8.76%	12.31%	12.70%	13.08%	13.55%	14.04%	14.10%	15.42%	15.76%	16.15%	16.48%	16.71%	17.17%	17.63%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	1201	1901	3026	4345	5568	7112	8731	10827	10986	11149	11363	11620	11665	11710	11755	11825	11915	12006	12098	12190
10	EBITDA Margin (%)	13.61%	18.44%	24.79%	30.21%	34.23%	38.44%	41.99%	45.96%	45.72%	45.49%	45.45%	45.57%	45.29%	45.02%	44.74%	44.56%	44.46%	44.36%	44.25%	44.15%
11	PBIT	-1518	-971	-27	1125	2316	3845	5437	7521	7686	7844	8039	8293	8323	8797	8855	8929	9033	9131	9224	9311
12	RoCE (%)	-5.41%	-3.18%	-0.08%	3.09%	6.06%	9.46%	12.51%	15.93%	16.38%	16.83%	17.35%	17.86%	17.96%	19.25%	19.65%	20.10%	20.45%	20.72%	21.22%	21.73%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	2021	2860	4161	5684	7081	8834	10665	13018	13221	13429	13688	13992	14061	14130	14199	14294	14408	14524	14641	14758
14	EBITDA Margin (%)	20.67%	25.03%	30.75%	35.64%	39.27%	43.06%	46.27%	49.85%	49.64%	49.43%	49.39%	49.50%	49.25%	49.00%	48.76%	48.59%	48.50%	48.40%	48.31%	48.22%
15	PBIT	-697	-12	1108	2463	3830	5566	7371	9712	9921	10124	10364	10665	10718	11217	11299	11397	11526	11649	11767	11880
16	RoCE (%)	-2.36%	-0.04%	3.07%	6.35%	9.36%	12.73%	15.70%	18.99%	19.49%	19.97%	20.52%	21.04%	21.17%	22.42%	22.86%	23.33%	23.70%	23.97%	24.51%	25.04%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	2842	3819	5297	7022	8594	10555	12599	15209	15456	15709	16014	16364	16456	16549	16643	16762	16901	17042	17184	17327
18	EBITDA Margin (%)	26.47%	30.44%	35.65%	40.11%	43.41%	46.87%	49.79%	53.05%	52.85%	52.66%	52.63%	52.73%	52.50%	52.28%	52.05%	51.90%	51.82%	51.73%	51.65%	51.56%
19	PBIT	123	947	2243	3801	5343	7287	9305	11903	12156	12404	12690	13037	13114	13637	13743	13866	14019	14167	14310	14448
20	RoCE (%)	0.40%	2.79%	5.88%	9.23%	12.24%	15.57%	18.46%	21.61%	22.13%	22.64%	23.21%	23.73%	23.88%	25.09%	25.54%	26.03%	26.40%	26.68%	27.22%	27.76%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	3663	4778	6432	8360	10107	12276	14533	17401	17691	17989	18339	18736	18852	18969	19087	19230	19394	19560	19727	19895
22	EBITDA Margin (%)	31.32%	34.97%	39.75%	43.84%	46.87%	50.05%	52.73%	55.72%	55.54%	55.37%	55.34%	55.43%	55.22%	55.01%	54.81%	54.67%	54.59%	54.51%	54.44%	54.36%
23	PBIT	944	1906	3379	5139	6856	9008	11239	14095	14392	14684	15015	15409	15510	16056	16186	16334	16512	16685	16853	17016
24	RoCE (%)	2.91%	5.34%	8.41%	11.80%	14.79%	18.06%	20.87%	23.89%	24.42%	24.94%	25.52%	26.04%	26.20%	27.35%	27.82%	28.31%	28.69%	28.96%	29.50%	30.04%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	4483	5737	7567	9698	11621	13997	16467	19592	19927	20269	20665	21108	21247	21388	21531	21698	21887	22078	22270	22463
26	EBITDA Margin (%)	35.43%	38.81%	43.23%	47.01%	49.81%	52.75%	55.23%	57.99%	57.83%	57.67%	57.64%	57.72%	57.53%	57.34%	57.15%	57.02%	56.95%	56.88%	56.80%	56.73%
27	PBIT	1765	2865	4514	6478	8369	10730	13173	16286	16627	16964	17340	17781	17905	18476	18630	18802	19004	19203	19396	19585
28	RoCE (%)	5.20%	7.66%	10.70%	14.09%	17.06%	20.26%	22.98%	25.88%	26.42%	26.95%	27.52%	28.03%	28.20%	29.31%	29.77%	30.27%	30.64%	30.91%	31.44%	31.97%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	5304	6696	8703	11036	13134	15719	18401	21783	22162	22548	22990	23479	23643	23808	23974	24166	24380	24595	24813	25032
30	EBITDA Margin (%)	38.97%	42.11%	46.22%	49.73%	52.34%	55.07%	57.37%	59.95%	59.79%	59.64%	59.62%	59.69%	59.51%	59.34%	59.16%	59.04%	58.97%	58.91%	58.84%	58.77%
31	PBIT	2586	3824	5650	7816	9882	12451	15107	18477	18862	19243	19666	20152	20301	20895	21074	21270	21497	21721	21939	22153
32	RoCE (%)	7.30%	9.77%	12.77%	16.16%	19.09%	22.22%	24.85%	27.64%	28.18%	28.70%	29.28%	29.78%	29.95%	31.02%	31.48%	31.97%	32.33%	32.60%	33.12%	33.64%

SUMMARY

Normal: Partial Refarming

Annexure X

AP : Track I

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	31401	35797	39735	43708	45893	48188	49634	51123	52145	53188	54252	55337	55890	56449	57014	57584	58160	58741	59329	59922
3	Revenue	7866	9191	10882	12825	14503	16497	18536	21002	21422	21850	22287	22733	22960	23190	23422	23656	23893	24131	24373	24616
4	Total Cost	9524	10234	10966	11731	12390	13065	13724	14364	14623	14896	15136	15320	15478	15646	15824	15987	16121	16262	16409	16564
5	EBITDA	243	906	1886	3093	4127	5445	6832	8646	8773	8904	9085	9309	9350	9391	9433	9501	9590	9681	9774	9868
6	EBITDA Margin (%)	3.08%	9.86%	17.33%	24.12%	28.46%	33.01%	36.86%	41.17%	40.95%	40.75%	40.76%	40.95%	40.72%	40.50%	40.27%	40.16%	40.14%	40.12%	40.10%	40.09%
7	PBIT	-1608	-990	-27	1154	2174	3496	4879	6706	6868	7025	7223	7485	7555	7617	7672	7744	7847	7946	8039	8129
8	RoCE (%)	-13.31%	-7.01%	-0.16%	5.86%	9.76%	13.80%	17.14%	20.79%	20.87%	20.93%	21.10%	21.44%	21.42%	21.39%	21.33%	21.31%	21.38%	21.44%	21.48%	21.50%
	Likely Impact due to additional costs:																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	353	353	353	1008	1043	1402	1446	1497	1978	2925	2997	3077	3168	3050	3542	3740	3740	3740	3567	2970
10	Amortisation of additional CAPEX (refer Note 2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Likely OPEX on additional towers & BTS equipments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Saving in Spectrum Usage Charges	0	0	0	0	-193	-220	-247	-280	-359	-367	-389	-397	-401	-405	-409	-413	-417	-421	-425	-430
	Likely Impact due to additional costs	353	353	353	1008	850	1182	1200	1217	1619	2558	2608	2681	2768	2646	3133	3327	3323	3319	3141	2541
13	EBITDA after considering Net Impact	243	906	1886	3093	4320	5665	7079	8925	9132	9270	9474	9706	9750	9795	9842	9914	10007	10102	10199	10298
14	EBITDA Margin (%) after considering Net Impact	3.08%	9.86%	17.33%	24.12%	29.79%	34.34%	38.19%	42.50%	42.63%	42.43%	42.51%	42.70%	42.47%	42.24%	42.02%	41.91%	41.88%	41.86%	41.85%	41.83%
15	PBIT after considering Net Impact	-1962	-1343	-381	146	1324	2314	3679	5489	5249	4467	4615	4804	4788	4972	4539	4417	4524	4627	4898	5588
16	RoCE after additional capital investment (%)	-16.24%	-9.52%	-2.28%	0.59%	4.96%	7.22%	10.72%	14.74%	12.66%	9.17%	9.79%	10.54%	10.96%	9.28%	8.19%	7.71%	8.37%	9.11%	9.63%	10.90%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	3192	0	0	5779	126	3323	157	174	5103	9036	257	330	417	12089	4503	4756	-417	-421	2791	2437
18	NPV - Estimated Cash inflow to Govt.	19485																			
19	Total Net impact per minute	0.011	0.010	0.009	0.023	0.019	0.025	0.024	0.024	0.031	0.048	0.048	0.048	0.050	0.047	0.055	0.058	0.057	0.057	0.053	0.042
20	Net impact per minute- Voice services	0.009	0.008	0.007	0.016	0.012	0.015	0.013	0.012	0.016	0.024	0.024	0.024	0.025	0.023	0.027	0.029	0.029	0.028	0.026	0.021
21	Total Net impact per minute (including 15% return on capital investment)	0.020	0.017	0.016	0.047	0.041	0.053	0.046	0.045	0.063	0.096	0.095	0.095	0.096	0.103	0.119	0.124	0.123	0.122	0.115	0.094
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.016	0.014	0.012	0.033	0.027	0.032	0.025	0.023	0.031	0.048	0.048	0.047	0.048	0.051	0.059	0.062	0.062	0.061	0.057	0.047

Note:

(1) Includes License Renewal Fees, Auction Price (for 10 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

AP - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute										Normal Scenario (Spectrum Usage Charges @ 3%)										
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK I																				Amount (Rs.)
Total Net Impact per minute	0.011	0.010	0.009	0.023	0.019	0.025	0.024	0.024	0.031	0.048	0.048	0.048	0.050	0.047	0.055	0.058	0.057	0.057	0.053	0.042
Net impact per minute - Voice services	0.009	0.008	0.007	0.016	0.012	0.015	0.013	0.012	0.016	0.024	0.024	0.024	0.025	0.023	0.027	0.029	0.029	0.028	0.026	0.021
Net impact per minute on Voice services while considering O/G min only (2 times)	0.018	0.016	0.013	0.032	0.024	0.029	0.027	0.024	0.031	0.048	0.048	0.048	0.050	0.047	0.055	0.058	0.057	0.057	0.053	0.042
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.021	0.018	0.015	0.036	0.027	0.033	0.030	0.027	0.035	0.054	0.054	0.054	0.056	0.053	0.062	0.065	0.064	0.063	0.059	0.048
Average of 20 years	0.044																			
TRACK I (including 15% return on capital investment)																				
Total Net Impact per minute	0.020	0.017	0.016	0.047	0.041	0.053	0.046	0.045	0.063	0.096	0.095	0.095	0.096	0.103	0.119	0.124	0.123	0.122	0.115	0.094
Net impact per minute - Voice services	0.016	0.014	0.012	0.033	0.027	0.032	0.025	0.023	0.031	0.048	0.048	0.047	0.048	0.051	0.059	0.062	0.062	0.061	0.057	0.047
Net impact per minute on Voice services while considering O/G min only (2 times)	0.033	0.028	0.024	0.066	0.054	0.063	0.051	0.045	0.063	0.096	0.095	0.095	0.096	0.103	0.119	0.124	0.123	0.122	0.115	0.094
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.037	0.031	0.026	0.074	0.060	0.071	0.057	0.051	0.071	0.108	0.107	0.107	0.108	0.115	0.133	0.140	0.138	0.137	0.129	0.105
Average of 20 years	0.090																			

Impact at different levels of tariff changes

Normal: PARTIAL REFORMING

Annexure X

Sl No:	Particulars	AP : Normal Scenario (Track I) - SUC @ 3%																			Rs. In crore	
		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
1	EBITDA before additional costs	243	906	1886	3093	4127	5445	6832	8646	8773	8904	9085	9309	9350	9391	9433	9501	9590	9681	9774	9868	
2	EBITDA Margin (%) before additional costs	3.08%	9.86%	17.33%	24.12%	28.46%	33.01%	36.86%	41.17%	40.95%	40.75%	40.76%	40.95%	40.72%	40.50%	40.27%	40.16%	40.14%	40.12%	40.10%	40.09%	
3	PBIT before additional costs	-1608	-990	-27	1154	2174	3496	4879	6706	6868	7025	7223	7485	7555	7617	7672	7744	7847	7946	8039	8129	
4	RoCE (%) before additional costs	-13.31%	-7.01%	-0.16%	5.86%	9.76%	13.80%	17.14%	20.79%	20.87%	20.93%	21.10%	21.44%	21.42%	21.39%	21.33%	21.31%	21.38%	21.44%	21.48%	21.50%	
5	EBITDA after additional costs	243	906	1886	3093	4320	5665	7079	8925	9132	9270	9474	9706	9750	9795	9842	9914	10007	10102	10199	10298	
6	EBITDA Margin (%) after additional costs	3.08%	9.86%	17.33%	24.12%	29.79%	34.34%	38.19%	42.50%	42.63%	42.43%	42.51%	42.70%	42.47%	42.24%	42.02%	41.91%	41.88%	41.86%	41.85%	41.83%	
7	PBIT after additional costs	-1962	-1343	-381	146	1324	2314	3679	5489	5249	4467	4615	4804	4788	4972	4539	4417	4524	4627	4898	5588	
8	RoCE after additional costs (%)	-16.24%	-9.52%	-2.28%	0.59%	4.96%	7.22%	10.72%	14.74%	12.66%	9.17%	9.79%	10.54%	10.96%	9.28%	8.19%	7.71%	8.37%	9.11%	9.63%	10.90%	
AFTER Additional Costs																						
(A) Tariff (Outgoing Calls) increased by 5 Paisa																						
9	EBITDA	1047	1845	2999	4404	5826	7378	9003	11106	11366	11548	11799	12078	12146	12215	12286	12382	12500	12620	12742	12866	
10	EBITDA Margin (%)	11.86%	17.90%	24.57%	30.61%	35.81%	39.87%	43.30%	47.14%	47.30%	47.12%	47.20%	47.36%	47.16%	46.96%	46.76%	46.66%	46.64%	46.62%	46.61%	46.60%	
11	PBIT	-1158	-404	732	1457	2830	4027	5604	7669	7482	6745	6941	7176	7183	7391	6983	6885	7017	7144	7441	8157	
12	RoCE (%)	-8.54%	-2.55%	3.90%	5.39%	9.63%	11.46%	14.83%	18.63%	16.45%	12.78%	13.53%	14.40%	14.98%	12.76%	11.68%	11.15%	12.00%	12.93%	13.42%	14.60%	
(B) Tariff (Outgoing Calls) increased by 10 Paisa																						
13	EBITDA	1851	2785	4111	5715	7332	9091	10928	13287	13599	13826	14125	14450	14541	14635	14729	14850	14993	15138	15285	15435	
14	EBITDA Margin (%)	18.92%	24.37%	30.38%	35.84%	40.66%	44.32%	47.41%	50.88%	51.05%	50.89%	50.97%	51.12%	50.93%	50.75%	50.58%	50.49%	50.47%	50.45%	50.44%	50.43%	
15	PBIT	-354	536	1844	2768	4336	5740	7529	9850	9715	9023	9266	9548	9579	9811	9427	9353	9509	9662	9984	10725	
16	RoCE (%)	-2.35%	3.05%	8.87%	9.40%	13.51%	15.02%	18.25%	21.85%	19.64%	15.86%	16.71%	17.66%	18.33%	15.76%	14.69%	14.14%	15.10%	16.16%	16.64%	17.74%	
(C) Tariff (Outgoing Calls) increased by 15 Paisa																						
17	EBITDA	2655	3724	5223	7026	8838	10803	12853	15467	15832	16104	16450	16822	16937	17054	17173	17318	17486	17656	17828	18003	
18	EBITDA Margin (%)	24.72%	29.68%	35.16%	40.13%	44.64%	47.97%	50.79%	53.95%	54.14%	53.99%	54.07%	54.21%	54.04%	53.87%	53.71%	53.63%	53.61%	53.60%	53.58%	53.57%	
19	PBIT	450	1475	2956	4079	5841	7453	9453	12031	11949	11301	11591	11920	11975	12230	11870	11822	12002	12180	12527	13294	
20	RoCE (%)	2.73%	7.65%	12.96%	12.81%	16.78%	18.04%	21.14%	24.55%	22.34%	18.54%	19.44%	20.44%	21.17%	18.37%	17.32%	16.75%	17.80%	18.94%	19.41%	20.43%	
(D) Tariff (Outgoing Calls) increased by 20 Paisa																						
21	EBITDA	3459	4664	6336	8337	10344	12516	14778	17648	18066	18382	18775	19194	19333	19474	19617	19787	19979	20173	20371	20572	
22	EBITDA Margin (%)	29.57%	34.13%	39.16%	43.72%	47.97%	51.03%	53.62%	56.52%	56.72%	56.58%	56.66%	56.79%	56.63%	56.48%	56.33%	56.26%	56.24%	56.23%	56.21%	56.21%	
23	PBIT	1254	2415	4069	5389	7347	9166	11378	14212	14182	13579	13917	14292	14370	14650	14314	14290	14495	14698	15070	15862	
24	RoCE (%)	6.98%	11.50%	16.37%	15.74%	19.58%	20.65%	23.62%	26.85%	24.67%	20.88%	21.81%	22.84%	23.62%	20.66%	19.63%	19.06%	20.16%	21.36%	21.81%	22.77%	
(E) Tariff (Outgoing Calls) increased by 25 Paisa																						
25	EBITDA	4263	5603	7448	9648	11850	14229	16702	19829	20299	20660	21101	21566	21728	21893	22061	22255	22472	22691	22914	23140	
26	EBITDA Margin (%)	33.69%	37.90%	42.55%	46.77%	50.79%	53.62%	56.02%	58.70%	58.91%	58.78%	58.86%	58.98%	58.83%	58.69%	58.56%	58.49%	58.47%	58.46%	58.45%	58.44%	
27	PBIT	2058	3354	5181	6700	8853	10879	13303	16392	16415	15857	16242	16664	16766	17070	16758	16758	16988	17216	17613	18430	
28	RoCE (%)	10.59%	14.77%	19.27%	18.29%	22.01%	22.92%	25.76%	28.83%	26.70%	22.94%	23.90%	24.94%	25.74%	22.68%	21.68%	21.10%	22.25%	23.48%	23.91%	24.82%	
(E) Tariff (Outgoing Calls) increased by 30 Paisa																						
29	EBITDA	5067	6543	8560	10959	13355	15942	18627	22010	22532	22938	23426	23937	24124	24313	24505	24723	24964	25209	25457	25708	
30	EBITDA Margin (%)	37.23%	41.14%	45.46%	49.38%	53.22%	55.85%	58.08%	60.57%	60.79%	60.67%	60.75%	60.86%	60.72%	60.59%	60.47%	60.40%	60.39%	60.38%	60.37%	60.36%	
31	PBIT	2862	4293	6293	8011	10359	12591	15227	18573	18649	18135	18568	19036	19162	19489	19202	19226	19481	19734	20156	20999	
32	RoCE (%)	13.69%	17.58%	21.76%	20.53%	24.13%	24.91%	27.63%	30.55%	28.47%	24.77%	25.74%	26.78%	27.60%	24.49%	23.51%	22.93%	24.10%	25.36%	25.77%	26.62%	

SUMMARY

Normal: Partial Refarming

Annexure X

AP : Track II

Rs. in crore

Sl No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	31401	35797	39735	43708	45893	48188	49634	51123	52145	53188	54252	55337	55890	56449	57014	57584	58160	58741	59329	59922
3	Revenue	7866	9191	10882	12825	14503	16497	18536	21002	21422	21850	22287	22733	22960	23190	23422	23656	23893	24131	24373	24616
4	Total Cost	9524	10234	10966	11731	12390	13065	13724	14364	14623	14896	15136	15320	15478	15646	15824	15987	16121	16262	16409	16564
5	EBITDA	243	906	1886	3093	4127	5445	6832	8646	8773	8904	9085	9309	9350	9391	9433	9501	9590	9681	9774	9868
6	EBITDA Margin (%)	3.08%	9.86%	17.33%	24.12%	28.46%	33.01%	36.86%	41.17%	40.95%	40.75%	40.76%	40.95%	40.72%	40.50%	40.27%	40.16%	40.14%	40.12%	40.10%	40.09%
7	PBIT	-1608	-990	-27	1154	2174	3496	4879	6706	6868	7025	7223	7485	7555	7617	7672	7744	7847	7946	8039	8129
8	RoCE (%)	-13.31%	-7.01%	-0.16%	5.86%	9.76%	13.80%	17.14%	20.79%	20.87%	20.93%	21.10%	21.44%	21.42%	21.39%	21.33%	21.31%	21.38%	21.44%	21.48%	21.50%
	Likely Impact due to additional costs																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	1245	1245	1245	1528	1563	1603	1648	1698	1755	1819	1891	1971	2062	1245	1245	1245	1245	1245	1245	1245
10	Amortisation of additional CAPEX (refer Note 2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Likely OPEX on additional towers & BTS equipments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Saving in Spectrum Usage Charges	-137	-160	-190	-224	-253	-288	-323	-366	-374	-381	-389	-397	-401	-405	-409	-413	-417	-421	-425	-430
	Likely Impact due to additional costs	1107	1084	1055	1304	1310	1315	1325	1332	1381	1438	1502	1575	1662	840	836	832	828	824	819	815
13	EBITDA after considering Net Impact	380	1066	2076	3317	4380	5733	7155	9012	9147	9285	9474	9706	9750	9795	9842	9914	10007	10102	10199	10298
14	EBITDA Margin (%) after considering Net Impact	4.83%	11.60%	19.08%	25.86%	30.20%	34.75%	38.60%	42.91%	42.70%	42.49%	42.51%	42.70%	42.47%	42.24%	42.02%	41.91%	41.88%	41.86%	41.85%	41.83%
15	PBIT after considering Net Impact	-2716	-2074	-1082	-150	864	2181	3554	5374	5486	5587	5721	5910	5894	6777	6836	6912	7019	7122	7220	7314
16	RoCE after additional capital investment (%)	-8.2%	-6.1%	-3.0%	-0.4%	2.2%	5.3%	8.3%	11.8%	12.1%	12.5%	12.9%	13.5%	13.7%	16.0%	16.5%	16.9%	17.5%	18.1%	18.7%	19.3%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	26746	-160	-190	-224	-253	-288	-323	-366	-374	-381	-389	-397	-401	-405	-409	-413	-417	-421	-425	-430
18	NPV - Estimated Cash inflow to Govt.	24600																			
19	Total Net impact per minute	0.035	0.030	0.027	0.030	0.029	0.027	0.027	0.026	0.026	0.027	0.028	0.028	0.030	0.015	0.015	0.014	0.014	0.014	0.014	0.014
20	Net impact per minute- Voice services	0.029	0.024	0.020	0.021	0.019	0.016	0.015	0.013	0.013	0.014	0.014	0.014	0.015	0.007	0.007	0.007	0.007	0.007	0.007	0.007
21	Total Net impact per minute (including 15% return on capital investment)	0.122	0.107	0.095	0.093	0.089	0.085	0.083	0.081	0.080	0.080	0.080	0.080	0.081	0.063	0.063	0.062	0.061	0.061	0.060	0.059
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.100	0.085	0.071	0.065	0.058	0.051	0.046	0.040	0.040	0.040	0.040	0.040	0.040	0.032	0.031	0.031	0.031	0.030	0.030	0.030

Note:

(1) Includes License Renewal Fees, Excess Spectrum, Auction Price (for 10 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

Annexure X

Normal: PARTIAL REFARMING

AP - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute

Normal Scenario (Spectrum Usage Charges @ 3%)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK II																				Amount (Rs.)
Total Net Impact per minute	0.035	0.030	0.027	0.030	0.029	0.027	0.027	0.026	0.026	0.027	0.028	0.028	0.030	0.015	0.015	0.014	0.014	0.014	0.014	0.014
Net impact per minute - Voice services	0.029	0.024	0.020	0.021	0.019	0.016	0.015	0.013	0.013	0.014	0.014	0.014	0.015	0.007	0.007	0.007	0.007	0.007	0.007	0.007
Net impact per minute on Voice services while considering O/G min only (2 times)	0.058	0.048	0.040	0.042	0.037	0.033	0.029	0.026	0.026	0.027	0.028	0.028	0.030	0.015	0.015	0.014	0.014	0.014	0.014	0.014
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.065	0.054	0.045	0.047	0.042	0.037	0.033	0.029	0.030	0.030	0.031	0.032	0.033	0.017	0.016	0.016	0.016	0.016	0.016	0.015
Average of 20 years	0.031																			
TRACK II (including 15% return on capital investment)																				
Total Net Impact per minute	0.122	0.107	0.095	0.093	0.089	0.085	0.083	0.081	0.080	0.080	0.080	0.080	0.081	0.063	0.063	0.062	0.061	0.061	0.060	0.059
Net impact per minute - Voice services	0.100	0.085	0.071	0.065	0.058	0.051	0.046	0.040	0.040	0.04	0.040	0.040	0.040	0.032	0.031	0.031	0.031	0.030	0.030	0.030
Net impact per minute on Voice services while considering O/G min only (2 times)	0.201	0.171	0.143	0.131	0.116	0.102	0.091	0.081	0.080	0.080	0.080	0.080	0.081	0.063	0.063	0.062	0.061	0.061	0.060	0.059
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.225	0.192	0.161	0.147	0.130	0.115	0.103	0.091	0.090	0.090	0.090	0.090	0.091	0.071	0.070	0.070	0.069	0.068	0.067	0.067
Average of 20 years	0.105																			

SUMMARY

Normal: Full Refarming

Annexure XI

UP East : Track I

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	29625	33773	37488	41236	43298	45463	46827	48232	49197	50180	51184	52208	52730	53257	53790	54328	54871	55420	55974	56534
3	Revenue	9266	10828	12820	15109	17085	19434	21837	24741	25236	25741	26256	26781	27049	27319	27592	27868	28147	28429	28713	29000
4	Total Cost	9125	9831	10551	11300	11948	12611	13258	13884	14149	14425	14668	14856	15019	15190	15371	15534	15669	15810	15956	16109
5	EBITDA	1493	2380	3651	5195	6519	8189	9937	12195	12389	12588	12840	13140	13216	13293	13372	13477	13606	13737	13870	14006
6	EBITDA Margin (%)	16.11%	21.98%	28.48%	34.38%	38.16%	42.14%	45.50%	49.29%	49.09%	48.90%	48.90%	49.07%	48.86%	48.66%	48.46%	48.36%	48.34%	48.32%	48.31%	48.30%
7	PBIT	184	1041	2317	3859	5190	6877	8635	10915	11146	11376	11649	11986	12092	12192	12285	12398	12542	12683	12821	12957
8	RoCE (%)	1.94%	9.40%	17.65%	24.95%	29.67%	34.57%	38.63%	43.10%	43.15%	43.17%	43.35%	43.73%	43.67%	43.60%	43.50%	43.46%	43.53%	43.59%	43.62%	43.65%
	Likely Impact due to additional costs:																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	58	58	58	127	132	137	143	150	219	405	415	426	682	630	762	762	762	762	1207	1087
10	Amortisation of additional CAPEX (refer Note 2)	0	113	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282
11	Likely OPEX on additional towers & BTS equipments	0	195	293	488	512	538	565	593	622	654	686	721	757	794	834	876	920	966	1014	1065
12	Saving in Spectrum Usage Charges	0	0	0	0	-76	-86	-97	-110	-173	-176	-202	-206	-320	-323	-327	-330	-333	-336	-340	-343
	Likely Impact due to additional costs	58	366	633	897	850	871	893	915	951	1165	1182	1223	1400	1384	1552	1591	1631	1674	2163	2091
13	EBITDA after considering Net Impact	1493	2185	3359	4708	6083	7738	9469	11712	11939	12110	12355	12625	12780	12822	12864	12931	13019	13108	13196	13284
14	EBITDA Margin (%) after considering Net Impact	16.11%	20.18%	26.20%	31.16%	35.61%	39.82%	43.36%	47.34%	47.31%	47.05%	47.06%	47.14%	47.25%	46.93%	46.62%	46.40%	46.25%	46.11%	45.96%	45.81%
15	PBIT after considering Net Impact	126	676	1684	2962	4339	6006	7742	10000	10195	10211	10468	10764	10692	10808	10733	10808	10911	11009	10658	10866
16	RoCE after additional capital investment (%)	1.33%	5.58%	10.83%	16.44%	22.02%	27.57%	31.87%	36.36%	35.88%	33.90%	34.82%	35.42%	32.52%	32.47%	31.69%	32.63%	33.30%	33.78%	29.07%	30.02%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	670	0	0	487	-34	-39	-43	-50	704	1675	-116	-109	2275	697	994	-330	-333	-336	4916	233
18	NPV - Estimated Cash inflow to Govt.	3073																			
19	Total Net impact per minute	0.002	0.011	0.017	0.022	0.020	0.019	0.019	0.019	0.019	0.023	0.023	0.023	0.027	0.026	0.029	0.029	0.030	0.030	0.039	0.037
20	Net impact per minute- Voice services	0.002	0.009	0.013	0.015	0.013	0.011	0.010	0.009	0.010	0.012	0.012	0.012	0.013	0.013	0.014	0.015	0.015	0.015	0.019	0.018
21	Total Net impact per minute (including 15% return on capital investment)	0.004	0.017	0.027	0.032	0.030	0.029	0.027	0.027	0.029	0.036	0.036	0.036	0.044	0.044	0.049	0.049	0.049	0.050	0.066	0.062
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.004	0.013	0.020	0.023	0.019	0.017	0.015	0.013	0.015	0.018	0.018	0.018	0.022	0.022	0.024	0.025	0.025	0.025	0.033	0.031

Note:

(1) Includes License Renewal Fees, Auction Price (for 5 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

(2) Includes depreciation on likely additional CAPEX on towers & BTS equipments due to refarming of Spectrum

UP East - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute										Normal Scenario (Spectrum Usage Charges @ 3%)											
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
TRACK I																					Amount (Rs.)
Total Net Impact per minute	0.002	0.011	0.017	0.022	0.020	0.019	0.019	0.019	0.019	0.023	0.023	0.023	0.027	0.026	0.029	0.029	0.030	0.030	0.039	0.037	
Net impact per minute - Voice services	0.002	0.009	0.013	0.015	0.013	0.011	0.010	0.009	0.010	0.012	0.012	0.012	0.013	0.013	0.014	0.015	0.015	0.015	0.019	0.018	
Net impact per minute on Voice services while considering O/G min only (2 times)	0.003	0.017	0.025	0.030	0.026	0.023	0.021	0.019	0.019	0.023	0.023	0.023	0.027	0.026	0.029	0.029	0.030	0.030	0.039	0.037	
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.004	0.019	0.028	0.034	0.029	0.026	0.024	0.021	0.022	0.026	0.026	0.026	0.030	0.029	0.032	0.033	0.033	0.034	0.043	0.042	
Average of 20 years	0.028																				
TRACK I (including 15% return on capital investment)																					
Total Net Impact per minute	0.004	0.017	0.027	0.032	0.030	0.029	0.027	0.027	0.029	0.036	0.036	0.036	0.044	0.044	0.049	0.049	0.049	0.050	0.066	0.062	
Net impact per minute - Voice services	0.004	0.013	0.020	0.023	0.019	0.017	0.015	0.013	0.015	0.018	0.018	0.018	0.022	0.022	0.024	0.025	0.025	0.025	0.033	0.031	
Net impact per minute on Voice services while considering O/G min only (2 times)	0.007	0.027	0.040	0.045	0.039	0.035	0.030	0.027	0.029	0.036	0.036	0.036	0.044	0.044	0.049	0.049	0.049	0.050	0.066	0.062	
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.008	0.030	0.045	0.051	0.043	0.039	0.033	0.030	0.033	0.041	0.040	0.040	0.049	0.049	0.055	0.055	0.056	0.056	0.074	0.069	
Average of 20 years	0.045																				

Impact at different levels of tariff changes

Normal: FULL REFARMING

Annexure XI

		UP East : Normal Scenario (Track I) - SUC @ 3%																Rs. in crore			
SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	EBITDA before additional costs	1493	2380	3651	5195	6519	8189	9937	12195	12389	12588	12840	13140	13216	13293	13372	13477	13606	13737	13870	14006
2	EBITDA Margin (%) before additional costs	16.11%	21.98%	28.48%	34.38%	38.16%	42.14%	45.50%	49.29%	49.09%	48.90%	48.90%	49.07%	48.86%	48.66%	48.46%	48.36%	48.34%	48.32%	48.31%	48.30%
3	PBIT before additional costs	184	1041	2317	3859	5190	6877	8635	10915	11146	11376	11649	11986	12092	12192	12285	12398	12542	12683	12821	12957
4	RoCE (%) before additional costs	1.94%	9.40%	17.65%	24.95%	29.67%	34.57%	38.63%	43.10%	43.15%	43.17%	43.35%	43.73%	43.67%	43.60%	43.50%	43.46%	43.53%	43.59%	43.62%	43.65%
5	EBITDA after additional costs	1493	2185	3359	4708	6083	7738	9469	11712	11939	12110	12355	12625	12780	12822	12864	12931	13019	13108	13196	13284
6	EBITDA Margin (%) after additional costs	16.11%	20.18%	26.20%	31.16%	35.61%	39.82%	43.36%	47.34%	47.31%	47.05%	47.06%	47.14%	47.25%	46.93%	46.62%	46.40%	46.25%	46.11%	45.96%	45.81%
7	PBIT after additional costs	126	676	1684	2962	4339	6006	7742	10000	10195	10211	10468	10764	10692	10808	10733	10808	10911	11009	10658	10866
8	RoCE after additional costs (%)	1.33%	5.58%	10.83%	16.44%	22.02%	27.57%	31.87%	36.36%	35.88%	33.90%	34.82%	35.42%	32.52%	32.47%	31.69%	32.63%	33.30%	33.78%	29.07%	30.02%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	2280	3104	4447	5990	7541	9396	11332	13823	14098	14312	14603	14919	15107	15172	15238	15328	15441	15553	15666	15779
10	EBITDA Margin (%)	22.42%	26.12%	31.60%	36.12%	40.22%	44.05%	47.29%	50.91%	50.90%	50.66%	50.68%	50.76%	50.89%	50.60%	50.32%	50.12%	49.99%	49.85%	49.72%	49.58%
11	PBIT	913	1595	2772	4245	5797	7664	9605	12111	12354	12413	12716	13057	13019	13158	13107	13205	13332	13455	13128	13361
12	RoCE (%)	8.77%	12.10%	16.47%	21.74%	27.07%	32.30%	36.28%	40.40%	39.94%	37.97%	38.91%	39.49%	36.59%	36.54%	35.79%	36.78%	37.48%	37.98%	33.21%	34.18%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	3066	4023	5535	7272	8998	11054	13195	15933	16257	16514	16851	17212	17434	17523	17612	17726	17862	17999	18137	18274
14	EBITDA Margin (%)	27.69%	31.09%	36.13%	40.28%	44.08%	47.60%	50.57%	53.89%	53.91%	53.69%	53.71%	53.78%	53.94%	53.68%	53.42%	53.23%	53.11%	52.98%	52.86%	52.73%
15	PBIT	1699	2514	3860	5527	7254	9322	11468	14222	14513	14615	14964	15350	15346	15509	15480	15603	15754	15901	15598	15856
16	RoCE (%)	14.99%	17.63%	21.32%	26.28%	31.38%	36.32%	40.02%	43.83%	43.39%	41.45%	42.39%	42.96%	40.09%	40.03%	39.32%	40.33%	41.05%	41.56%	36.79%	37.77%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	3853	4942	6623	8555	10456	12712	15058	18044	18415	18716	19100	19505	19761	19873	19986	20123	20284	20445	20607	20769
18	EBITDA Margin (%)	32.17%	35.32%	39.97%	43.81%	47.35%	50.61%	53.36%	56.43%	56.46%	56.26%	56.29%	56.35%	56.53%	56.29%	56.04%	55.87%	55.76%	55.65%	55.53%	55.41%
19	PBIT	2486	3433	4949	6809	8712	10980	13331	16332	16672	16817	17212	17643	17673	17859	17854	18000	18175	18347	18069	18351
20	RoCE (%)	20.28%	22.38%	25.53%	30.21%	35.09%	39.78%	43.24%	46.78%	46.35%	44.46%	45.39%	45.94%	43.13%	43.07%	42.39%	43.41%	44.13%	44.64%	39.92%	40.90%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	4639	5861	7711	9837	11913	14370	16921	20155	20574	20918	21348	21798	22088	22223	22359	22521	22705	22891	23077	23264
22	EBITDA Margin (%)	36.02%	38.95%	43.28%	46.84%	50.17%	53.20%	55.75%	58.61%	58.66%	58.47%	58.50%	58.56%	58.75%	58.53%	58.30%	58.14%	58.04%	57.93%	57.83%	57.72%
23	PBIT	3272	4352	6037	8092	10170	12638	15194	18443	18830	19019	19460	19936	20000	20209	20228	20398	20597	20792	20539	20845
24	RoCE (%)	24.82%	26.50%	29.21%	33.65%	38.33%	42.78%	46.03%	49.34%	48.93%	47.08%	48.00%	48.53%	45.79%	45.73%	45.08%	46.10%	46.82%	47.32%	42.68%	43.64%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	5426	6780	8799	11120	13371	16028	18784	22265	22733	23120	23596	24091	24415	24574	24733	24919	25127	25336	25547	25759
26	EBITDA Margin (%)	39.37%	42.10%	46.15%	49.48%	52.62%	55.45%	57.83%	60.50%	60.56%	60.39%	60.42%	60.48%	60.69%	60.48%	60.27%	60.12%	60.02%	59.92%	59.82%	59.72%
27	PBIT	4059	5271	7125	9374	11627	14296	17057	20554	20989	21221	21709	22230	22327	22560	22602	22795	23018	23238	23009	23340
28	RoCE (%)	28.77%	30.12%	32.47%	36.69%	41.18%	45.41%	48.47%	51.58%	51.19%	49.39%	50.30%	50.81%	48.15%	48.09%	47.45%	48.47%	49.18%	49.68%	45.12%	46.07%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	6212	7699	9887	12402	14829	17686	20647	24376	24892	25322	25844	26384	26742	26924	27107	27316	27548	27782	28017	28254
30	EBITDA Margin (%)	42.30%	44.87%	48.66%	51.79%	54.76%	57.42%	59.66%	62.17%	62.24%	62.07%	62.11%	62.16%	62.38%	62.19%	61.99%	61.85%	61.76%	61.66%	61.57%	61.47%
31	PBIT	4845	6190	8213	10657	13085	15954	18920	22865	23148	23423	23957	24523	24654	24910	24976	25193	25440	25684	25479	25835
32	RoCE (%)	32.23%	33.31%	35.36%	39.38%	43.71%	47.74%	50.63%	53.56%	53.19%	51.45%	52.33%	52.83%	50.24%	50.18%	49.57%	50.58%	51.28%	51.77%	47.31%	48.24%

SUMMARY

Normal: Full Refarming

Annexure XI

UP East : Track II

Rs. in crore

Sl No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	29625	33773	37488	41236	43298	45463	46827	48232	49197	50180	51184	52208	52730	53257	53790	54328	54871	55420	55974	56534
3	Revenue	9266	10828	12820	15109	17085	19434	21837	24741	25236	25741	26256	26781	27049	27319	27592	27868	28147	28429	28713	29000
4	Total Cost	9125	9831	10551	11300	11948	12611	13258	13884	14149	14425	14668	14856	15019	15190	15371	15534	15669	15810	15956	16109
5	EBITDA	1493	2380	3651	5195	6519	8189	9937	12195	12389	12588	12840	13140	13216	13293	13372	13477	13606	13737	13870	14006
6	EBITDA Margin (%)	16.11%	21.98%	28.48%	34.38%	38.16%	42.14%	45.50%	49.29%	49.09%	48.90%	48.90%	49.07%	48.86%	48.66%	48.46%	48.36%	48.34%	48.32%	48.31%	48.30%
7	PBIT	184	1041	2317	3859	5190	6877	8635	10915	11146	11376	11649	11986	12092	12192	12285	12398	12542	12683	12821	12957
8	RoCE (%)	1.94%	9.40%	17.65%	24.95%	29.67%	34.57%	38.63%	43.10%	43.15%	43.17%	43.35%	43.73%	43.67%	43.60%	43.50%	43.46%	43.53%	43.59%	43.62%	43.65%
	Likely Impact due to additional costs																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	221	221	221	259	264	269	275	281	289	297	307	318	330	221	221	221	221	221	221	221
10	Amortisation of additional CAPEX (refer Note 2)	0	113	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282
11	Likely OPEX on additional towers & BTS equipments	0	195	293	488	512	538	565	593	622	654	686	721	757	794	834	876	920	966	1014	1065
12	Saving in Spectrum Usage Charges	-110	-128	-152	-179	-202	-230	-258	-293	-299	-305	-311	-317	-320	-323	-327	-330	-333	-336	-340	-343
	Likely Impact due to additional costs	112	401	644	850	856	859	863	864	895	929	965	1004	1048	975	1011	1049	1090	1133	1178	1225
13	EBITDA after considering Net Impact	1603	2313	3510	4886	6210	7882	9631	11895	12065	12239	12464	12737	12780	12822	12864	12931	13019	13108	13196	13284
14	EBITDA Margin (%) after considering Net Impact	17.30%	21.36%	27.38%	32.34%	36.34%	40.56%	44.10%	48.08%	47.81%	47.55%	47.47%	47.56%	47.25%	46.93%	46.62%	46.40%	46.25%	46.11%	45.96%	45.81%
15	PBIT after considering Net Impact	72	640	1672	3009	4334	6018	7772	10052	10251	10447	10685	10983	11044	11217	11274	11349	11452	11551	11644	11732
16	RoCE after additional capital investment (%)	0.5%	4.1%	8.9%	14.5%	19.4%	24.9%	29.2%	33.9%	34.6%	35.2%	35.9%	36.4%	36.2%	37.0%	37.4%	37.9%	38.0%	37.9%	38.4%	38.9%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	4579	-128	-152	-179	-202	-230	-258	-293	-299	-305	-311	-317	-320	-323	-327	-330	-333	-336	-340	-343
18	NPV - Estimated Cash inflow to Govt.	2865																			
19	Total Net impact per minute	0.004	0.012	0.017	0.021	0.020	0.019	0.018	0.018	0.018	0.019	0.019	0.019	0.020	0.018	0.019	0.019	0.020	0.020	0.021	0.022
20	Net impact per minute- Voice services	0.003	0.010	0.013	0.014	0.013	0.011	0.010	0.009	0.009	0.009	0.009	0.010	0.010	0.009	0.009	0.010	0.010	0.010	0.011	0.011
21	Total Net impact per minute (including 15% return on capital investment)	0.020	0.030	0.038	0.040	0.038	0.036	0.035	0.034	0.034	0.034	0.034	0.035	0.035	0.033	0.033	0.034	0.034	0.035	0.035	0.036
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.017	0.024	0.029	0.028	0.025	0.022	0.019	0.017	0.017	0.017	0.017	0.017	0.018	0.017	0.017	0.017	0.017	0.017	0.018	0.018

Note:

(1) Includes License Renewal Fees, Excess Spectrum, Auction Price (for 5MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

(2) Includes depreciation on likely additional CAPEX on towers & BTS equipments due to refarming of Spectrum

UP East - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute

Normal Scenario (Spectrum Usage Charges @ 3%)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK II																				Amount (Rs.)
Total Net Impact per minute	0.004	0.012	0.017	0.021	0.020	0.019	0.018	0.018	0.018	0.019	0.019	0.019	0.020	0.018	0.019	0.019	0.020	0.020	0.021	0.022
Net impact per minute - Voice services	0.003	0.010	0.013	0.014	0.013	0.011	0.010	0.009	0.009	0.009	0.009	0.010	0.010	0.009	0.009	0.010	0.010	0.010	0.011	0.011
Net impact per minute on Voice services while considering O/G min only (2 times)	0.006	0.019	0.026	0.029	0.026	0.023	0.020	0.018	0.018	0.019	0.019	0.019	0.020	0.018	0.019	0.019	0.020	0.020	0.021	0.022
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.007	0.021	0.029	0.032	0.029	0.025	0.023	0.020	0.020	0.021	0.021	0.022	0.022	0.021	0.021	0.022	0.022	0.023	0.024	0.024
Average of 20 years	0.022																			
TRACK II (including 15% return on capital investment)																				
Total Net Impact per minute	0.020	0.030	0.038	0.040	0.038	0.036	0.035	0.034	0.034	0.034	0.034	0.035	0.035	0.033	0.033	0.034	0.034	0.035	0.035	0.036
Net impact per minute - Voice services	0.017	0.024	0.029	0.028	0.025	0.022	0.019	0.017	0.017	0.02	0.017	0.017	0.018	0.017	0.017	0.017	0.017	0.017	0.018	0.018
Net impact per minute on Voice services while considering O/G min only (2 times)	0.033	0.048	0.057	0.056	0.049	0.044	0.039	0.034	0.034	0.034	0.034	0.035	0.035	0.033	0.033	0.034	0.034	0.035	0.035	0.036
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.037	0.054	0.064	0.063	0.056	0.049	0.044	0.039	0.039	0.039	0.039	0.039	0.039	0.037	0.038	0.038	0.038	0.039	0.039	0.040
Average of 20 years	0.043																			

SUMMARY

Normal: Partial Refarming

Annexure XI

UP East : Track I

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	29625	33773	37488	41236	43298	45463	46827	48232	49197	50180	51184	52208	52730	53257	53790	54328	54871	55420	55974	56534
3	Revenue	9266	10828	12820	15109	17085	19434	21837	24741	25236	25741	26256	26781	27049	27319	27592	27868	28147	28429	28713	29000
4	Total Cost	9125	9831	10551	11300	11948	12611	13258	13884	14149	14425	14668	14856	15019	15190	15371	15534	15669	15810	15956	16109
5	EBITDA	1493	2380	3651	5195	6519	8189	9937	12195	12389	12588	12840	13140	13216	13293	13372	13477	13606	13737	13870	14006
6	EBITDA Margin (%)	16.11%	21.98%	28.48%	34.38%	38.16%	42.14%	45.50%	49.29%	49.09%	48.90%	48.90%	49.07%	48.86%	48.66%	48.46%	48.36%	48.34%	48.32%	48.31%	48.30%
7	PBIT	184	1041	2317	3859	5190	6877	8635	10915	11146	11376	11649	11986	12092	12192	12285	12398	12542	12683	12821	12957
8	RoCE (%)	1.94%	9.40%	17.65%	24.95%	29.67%	34.57%	38.63%	43.10%	43.15%	43.17%	43.35%	43.73%	43.67%	43.60%	43.50%	43.46%	43.53%	43.59%	43.62%	43.65%
	Likely Impact due to additional costs:																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	64	64	64	199	209	219	231	245	372	624	643	664	1074	950	1082	1082	1082	1082	1036	878
10	Amortisation of additional CAPEX (refer Note 2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Likely OPEX on additional towers & BTS equipments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Saving in Spectrum Usage Charges	0	0	0	0	-76	-86	-97	-110	-173	-176	-202	-206	-320	-323	-327	-330	-333	-336	-340	-343
	Likely Impact due to additional costs	64	64	64	199	133	133	134	135	200	447	441	458	754	627	755	752	749	745	696	534
13	EBITDA after considering Net Impact	1493	2380	3651	5195	6595	8276	10034	12305	12561	12764	13041	13346	13536	13617	13698	13807	13939	14073	14210	14349
14	EBITDA Margin (%) after considering Net Impact	16.11%	21.98%	28.48%	34.38%	38.60%	42.58%	45.95%	49.73%	49.77%	49.59%	49.67%	49.83%	50.04%	49.84%	49.65%	49.54%	49.52%	49.50%	49.49%	49.48%
15	PBIT after considering Net Impact	120	977	2253	3660	5057	6744	8501	10781	10947	10928	11208	11528	11339	11565	11530	11646	11793	11938	12125	12422
16	RoCE after additional capital investment (%)	1.26%	8.82%	17.17%	22.70%	27.98%	33.05%	37.30%	41.96%	40.09%	36.76%	37.59%	38.54%	34.09%	33.74%	33.11%	34.20%	35.43%	36.71%	37.13%	37.80%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	800	0	0	805	9	9	10	11	1277	2320	-30	-13	3801	1335	994	-330	-333	-336	514	418
18	NPV - Estimated Cash inflow to Govt.	4033																			
19	Total Net impact per minute	0.002	0.002	0.002	0.005	0.003	0.003	0.003	0.003	0.004	0.009	0.009	0.009	0.014	0.012	0.014	0.014	0.014	0.013	0.012	0.009
20	Net impact per minute- Voice services	0.002	0.002	0.001	0.003	0.002	0.002	0.002	0.001	0.002	0.004	0.004	0.004	0.007	0.006	0.007	0.007	0.007	0.007	0.006	0.005
21	Total Net impact per minute (including 15% return on capital investment)	0.005	0.005	0.004	0.009	0.007	0.007	0.006	0.005	0.010	0.019	0.019	0.019	0.032	0.030	0.035	0.034	0.034	0.033	0.031	0.025
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.004	0.004	0.003	0.007	0.005	0.004	0.003	0.003	0.005	0.010	0.009	0.009	0.016	0.015	0.017	0.017	0.017	0.017	0.016	0.013

Note:

(1) Includes License Renewal Fees, Auction Price (for 10 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

UP East - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute										Normal Scenario (Spectrum Usage Charges @ 3%)											
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
TRACK I																					Amount (Rs.)
Total Net Impact per minute	0.002	0.002	0.002	0.005	0.003	0.003	0.003	0.003	0.004	0.009	0.009	0.009	0.014	0.012	0.014	0.014	0.014	0.013	0.012	0.009	
Net impact per minute - Voice services	0.002	0.002	0.001	0.003	0.002	0.002	0.002	0.001	0.002	0.004	0.004	0.004	0.007	0.006	0.007	0.007	0.007	0.007	0.006	0.005	
Net impact per minute on Voice services while considering O/G min only (2 times)	0.004	0.003	0.003	0.007	0.004	0.004	0.003	0.003	0.004	0.009	0.009	0.009	0.014	0.012	0.014	0.014	0.014	0.013	0.012	0.009	
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.004	0.003	0.003	0.008	0.004	0.004	0.004	0.003	0.005	0.010	0.010	0.010	0.016	0.013	0.016	0.016	0.015	0.015	0.014	0.011	
Average of 20 years	0.009																				
TRACK I (including 15% return on capital investment)																					
Total Net Impact per minute	0.005	0.005	0.004	0.009	0.007	0.007	0.006	0.005	0.010	0.019	0.019	0.019	0.032	0.030	0.035	0.034	0.034	0.033	0.031	0.025	
Net impact per minute - Voice services	0.004	0.004	0.003	0.007	0.005	0.004	0.003	0.003	0.005	0.010	0.009	0.009	0.016	0.015	0.017	0.017	0.017	0.017	0.016	0.013	
Net impact per minute on Voice services while considering O/G min only (2 times)	0.008	0.007	0.006	0.013	0.010	0.008	0.006	0.005	0.010	0.019	0.019	0.019	0.032	0.030	0.035	0.034	0.034	0.033	0.031	0.025	
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.010	0.008	0.007	0.015	0.011	0.010	0.007	0.006	0.011	0.022	0.021	0.021	0.036	0.034	0.039	0.038	0.038	0.038	0.035	0.029	
Average of 20 years	0.022																				

SUMMARY

Normal: Partial Refarming

Annexure XI

		UP East : Track II																			Rs. in crore	
SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	
2	Projected Minutes (in crores)	29625	33773	37488	41236	43298	45463	46827	48232	49197	50180	51184	52208	52730	53257	53790	54328	54871	55420	55974	56534	
3	Revenue	9266	10828	12820	15109	17085	19434	21837	24741	25236	25741	26256	26781	27049	27319	27592	27868	28147	28429	28713	29000	
4	Total Cost	9125	9831	10551	11300	11948	12611	13258	13884	14149	14425	14668	14856	15019	15190	15371	15534	15669	15810	15956	16109	
5	EBITDA	1493	2380	3651	5195	6519	8189	9937	12195	12389	12588	12840	13140	13216	13293	13372	13477	13606	13737	13870	14006	
6	EBITDA Margin (%)	16.11%	21.98%	28.48%	34.38%	38.16%	42.14%	45.50%	49.29%	49.09%	48.90%	48.90%	49.07%	48.86%	48.66%	48.46%	48.36%	48.34%	48.32%	48.31%	48.30%	
7	PBIT	184	1041	2317	3859	5190	6877	8635	10915	11146	11376	11649	11986	12092	12192	12285	12398	12542	12683	12821	12957	
8	RoCE (%)	1.94%	9.40%	17.65%	24.95%	29.67%	34.57%	38.63%	43.10%	43.15%	43.17%	43.35%	43.73%	43.67%	43.60%	43.50%	43.46%	43.53%	43.59%	43.62%	43.65%	
	Likely Impact due to additional costs																					
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	321	321	321	397	406	417	428	442	457	474	493	514	538	321	321	321	321	321	321	321	
10	Amortisation of additional CAPEX (refer Note 2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	Likely OPEX on additional towers & BTS equipments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Saving in Spectrum Usage Charges	-110	-128	-152	-179	-202	-230	-258	-293	-299	-305	-311	-317	-320	-323	-327	-330	-333	-336	-340	-343	
	Likely Impact due to additional costs	212	193	170	218	204	186	170	149	158	169	182	197	218	-2	-5	-9	-12	-15	-19	-22	
13	EBITDA after considering Net Impact	1603	2508	3803	5374	6722	8419	10195	12488	12687	12892	13150	13457	13536	13617	13698	13807	13939	14073	14210	14349	
14	EBITDA Margin (%) after considering Net Impact	17.30%	23.17%	29.66%	35.57%	39.34%	43.32%	46.69%	50.47%	50.27%	50.08%	50.09%	50.25%	50.04%	49.84%	49.65%	49.54%	49.52%	49.50%	49.49%	49.48%	
15	PBIT after considering Net Impact	-28	848	2147	3641	4986	6691	8465	10766	10988	11207	11467	11789	11874	12194	12290	12407	12554	12698	12840	12979	
16	RoCE after additional capital investment (%)	-0.2%	5.2%	11.9%	18.1%	22.8%	27.9%	32.4%	37.4%	37.9%	38.3%	38.9%	39.7%	40.0%	41.1%	41.4%	41.8%	42.3%	42.8%	43.3%	43.7%	
17	Estimated Cash Inflow to Govt. (net of SUC savings)	6846	-128	-152	-179	-202	-230	-258	-293	-299	-305	-311	-317	-320	-323	-327	-330	-333	-336	-340	-343	
18	NPV - Estimated Cash inflow to Govt.	5131																				
19	Total Net impact per minute	0.007	0.006	0.005	0.005	0.005	0.004	0.004	0.003	0.003	0.003	0.004	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
20	Net impact per minute- Voice services	0.006	0.005	0.003	0.004	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
21	Total Net impact per minute (including 15% return on capital investment)	0.031	0.027	0.023	0.023	0.021	0.020	0.019	0.018	0.018	0.018	0.018	0.018	0.018	0.013	0.013	0.013	0.013	0.012	0.012	0.012	
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.025	0.021	0.018	0.016	0.014	0.012	0.010	0.009	0.009	0.009	0.009	0.009	0.009	0.007	0.007	0.006	0.006	0.006	0.006	0.006	

Note:

(1) Includes License Renewal Fees, Excess Spectrum, Auction Price (for 10 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

UP East - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute

Normal Scenario (Spectrum Usage Charges @ 3%)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK II																				Amount (Rs.)
Total Net Impact per minute	0.007	0.006	0.005	0.005	0.005	0.004	0.004	0.003	0.003	0.003	0.004	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net impact per minute - Voice services	0.006	0.005	0.003	0.004	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net impact per minute on Voice services while considering O/G min only (2 times)	0.012	0.009	0.007	0.007	0.006	0.005	0.004	0.003	0.003	0.003	0.004	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.013	0.010	0.008	0.008	0.007	0.006	0.004	0.003	0.004	0.004	0.004	0.004	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Average of 20 years	0.004																			
TRACK II (including 15% return on capital investment)																				
Total Net Impact per minute	0.031	0.027	0.023	0.023	0.021	0.020	0.019	0.018	0.018	0.018	0.018	0.018	0.018	0.013	0.013	0.013	0.013	0.012	0.012	0.012
Net impact per minute - Voice services	0.025	0.021	0.018	0.016	0.014	0.012	0.010	0.009	0.009	0.01	0.009	0.009	0.009	0.007	0.007	0.006	0.006	0.006	0.006	0.006
Net impact per minute on Voice services while considering O/G min only (2 times)	0.051	0.043	0.035	0.032	0.028	0.024	0.021	0.018	0.018	0.018	0.018	0.018	0.018	0.013	0.013	0.013	0.013	0.012	0.012	0.012
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.057	0.048	0.039	0.036	0.031	0.027	0.024	0.020	0.020	0.020	0.020	0.020	0.020	0.015	0.015	0.014	0.014	0.014	0.014	0.014
Average of 20 years	0.024																			

Impact at different levels of tariff changes

Normal: PARTIAL REFARMING

Annexure XI

SI No:	Particulars	UP East : Normal Scenario (Track II) - SUC @ 3%																			Rs. in crore
		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	
1	EBITDA before additional costs	1493	2380	3651	5195	6519	8189	9937	12195	12389	12588	12840	13140	13216	13293	13372	13477	13606	13737	13870	14006
2	EBITDA Margin (%) before additional costs	16.11%	21.98%	28.48%	34.38%	38.16%	42.14%	45.50%	49.29%	49.09%	48.90%	48.90%	49.07%	48.86%	48.66%	48.46%	48.36%	48.34%	48.32%	48.31%	48.30%
3	PBIT before additional costs	184	1041	2317	3859	5190	6877	8635	10915	11146	11376	11649	11986	12092	12192	12285	12398	12542	12683	12821	12957
4	RoCE (%) before additional costs	1.94%	9.40%	17.65%	24.95%	29.67%	34.57%	38.63%	43.10%	43.15%	43.17%	43.35%	43.73%	43.67%	43.60%	43.50%	43.46%	43.53%	43.59%	43.62%	43.65%
5	EBITDA after additional costs	1603	2508	3803	5374	6722	8419	10195	12488	12687	12892	13150	13457	13536	13617	13698	13807	13939	14073	14210	14349
6	EBITDA Margin (%) after additional costs	17.30%	23.17%	29.66%	35.57%	39.34%	43.32%	46.69%	50.47%	50.27%	50.08%	50.09%	50.25%	50.04%	49.84%	49.65%	49.54%	49.52%	49.50%	49.49%	49.48%
7	PBIT after additional costs	-28	848	2147	3641	4986	6691	8465	10766	10988	11207	11467	11789	11874	12194	12290	12407	12554	12698	12840	12979
8	RoCE after additional costs (%)	-0.19%	5.20%	11.90%	18.12%	22.84%	27.94%	32.41%	37.38%	37.87%	38.32%	38.90%	39.65%	39.96%	41.05%	41.39%	41.80%	42.30%	42.79%	43.26%	43.72%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	2400	3440	4906	6674	8192	10091	12074	14616	14858	15107	15409	15761	15863	15967	16072	16204	16360	16519	16680	16844
10	EBITDA Margin (%)	23.60%	28.95%	34.87%	40.25%	43.69%	47.31%	50.38%	53.83%	53.65%	53.48%	53.48%	53.63%	53.44%	53.25%	53.08%	52.98%	52.96%	52.95%	52.93%	52.92%
11	PBIT	769	1780	3250	4941	6456	8363	10344	12895	13159	13421	13726	14093	14201	14544	14664	14804	14975	15144	15310	15473
12	RoCE (%)	4.84%	10.24%	16.82%	22.87%	27.43%	32.31%	36.56%	41.24%	41.73%	42.19%	42.76%	43.50%	43.81%	44.85%	45.20%	45.60%	46.09%	46.58%	47.04%	47.50%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	3197	4371	6009	7974	9661	11763	13953	16745	17029	17321	17668	18065	18190	18317	18446	18602	18782	18965	19150	19339
14	EBITDA Margin (%)	28.87%	33.79%	39.22%	44.16%	47.32%	50.65%	53.47%	56.64%	56.47%	56.31%	56.31%	56.45%	56.28%	56.11%	55.95%	55.86%	55.84%	55.83%	55.82%	55.81%
15	PBIT	1567	2711	4353	6241	7926	10035	12222	15023	15331	15636	15985	16397	16528	16894	17038	17202	17397	17590	17780	17968
16	RoCE (%)	9.31%	14.69%	21.13%	27.00%	31.40%	36.06%	40.11%	44.53%	45.02%	45.48%	46.04%	46.75%	47.07%	48.06%	48.41%	48.81%	49.29%	49.76%	50.21%	50.66%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	3994	5303	7112	9274	11131	13435	15831	18873	19201	19536	19927	20369	20517	20667	20820	20999	21203	21411	21621	21834
18	EBITDA Margin (%)	33.35%	37.89%	42.92%	47.49%	50.41%	53.49%	56.09%	59.02%	58.87%	58.72%	58.72%	58.85%	58.69%	58.54%	58.38%	58.30%	58.29%	58.27%	58.26%	58.25%
19	PBIT	2364	3643	5456	7541	9395	11707	14101	17152	17502	17850	18244	18701	18855	19245	19412	19599	19818	20036	20250	20463
20	RoCE (%)	13.31%	18.65%	24.93%	30.63%	34.87%	39.33%	43.18%	47.37%	47.86%	48.31%	48.86%	49.55%	49.87%	50.81%	51.15%	51.54%	52.01%	52.47%	52.91%	53.34%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	4792	6234	8215	10574	12601	15107	17710	21002	21372	21750	22186	22673	22844	23018	23194	23397	23625	23856	24091	24329
22	EBITDA Margin (%)	37.20%	41.43%	46.10%	50.35%	53.07%	55.93%	58.35%	61.07%	60.93%	60.79%	60.79%	60.91%	60.76%	60.62%	60.48%	60.40%	60.39%	60.38%	60.37%	60.36%
23	PBIT	3161	4574	6559	8841	10865	13378	15980	19280	19673	20065	20502	21005	21182	21595	21785	21997	22240	22481	22721	22958
24	RoCE (%)	16.92%	22.19%	28.32%	33.84%	37.92%	42.20%	45.88%	49.85%	50.33%	50.77%	51.31%	51.97%	52.29%	53.18%	53.52%	53.91%	54.36%	54.80%	55.23%	55.65%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	5589	7166	9318	11873	14071	16779	19589	23130	23543	23965	24444	24977	25171	25368	25567	25794	26047	26302	26561	26823
26	EBITDA Margin (%)	40.55%	44.50%	48.86%	52.83%	55.37%	58.05%	60.31%	62.86%	62.72%	62.59%	62.59%	62.71%	62.57%	62.43%	62.30%	62.23%	62.22%	62.20%	62.19%	62.19%
27	PBIT	3958	5506	7662	10141	12335	15050	17858	21409	21844	22279	22761	23309	23509	23945	24159	24395	24661	24927	25191	25453
28	RoCE (%)	20.19%	25.38%	31.35%	36.69%	40.64%	44.74%	48.25%	52.04%	52.50%	52.94%	53.46%	54.09%	54.41%	55.26%	55.59%	55.97%	56.41%	56.83%	57.25%	57.65%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	6386	8097	10420	13173	15541	18451	21467	25259	25714	26179	26703	27281	27498	27718	27941	28192	28468	28748	29031	29318
30	EBITDA Margin (%)	43.48%	47.19%	51.29%	55.01%	57.39%	59.91%	62.03%	64.42%	64.29%	64.17%	64.17%	64.28%	64.15%	64.02%	63.90%	63.83%	63.82%	63.81%	63.80%	63.79%
31	PBIT	4755	6437	8765	11441	13805	16722	19737	23537	24015	24494	25020	25613	25836	26296	26533	26792	27083	27373	27661	27948
32	RoCE (%)	23.16%	28.26%	34.08%	39.26%	43.06%	47.00%	50.36%	53.97%	54.43%	54.85%	55.36%	55.97%	56.28%	57.09%	57.42%	57.78%	58.21%	58.62%	59.02%	59.41%

SUMMARY

Normal: Full Refarming

Annexure XII

Bihar : Track I

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	26273	29951	33246	36571	38399	40319	41529	42774	43630	44502	45393	46300	46763	47231	47703	48180	48662	49149	49640	50137
3	Revenue	5913	6910	8181	9642	10903	12402	13936	15789	16105	16427	16756	17091	17262	17434	17609	17785	17962	18142	18323	18507
4	Total Cost	7382	7803	8242	8722	9153	9501	9782	10053	10164	10286	10418	10558	10688	10809	10907	11010	11117	11229	11337	11434
5	EBITDA	-202	366	1170	2129	2947	4064	5270	6796	6952	7113	7279	7451	7475	7515	7576	7638	7702	7767	7841	7926
6	EBITDA Margin (%)	-3.41%	5.30%	14.30%	22.08%	27.03%	32.77%	37.82%	43.04%	43.17%	43.30%	43.44%	43.60%	43.31%	43.11%	43.03%	42.95%	42.88%	42.81%	42.79%	42.83%
7	PBIT	-1404	-826	10	994	1827	2981	4235	5818	6023	6224	6421	6617	6659	6711	6788	6862	6933	7001	7074	7161
8	RoCE (%)	-12.30%	-6.19%	0.06%	5.34%	8.68%	12.45%	15.74%	19.08%	19.37%	19.62%	19.85%	20.05%	19.98%	19.94%	19.96%	19.98%	19.99%	19.99%	20.00%	20.04%
	Likely Impact due to additional costs:																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	39	39	39	79	81	84	88	91	130	167	172	178	363	334	480	480	480	480	464	443
10	Amortisation of additional CAPEX (refer Note 2)	0	71	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177
11	Likely OPEX on additional towers & BTS equipments	0	144	215	359	377	396	415	436	458	481	505	530	557	584	614	644	677	710	746	783
12	Saving in Spectrum Usage Charges	0	0	0	0	-11	-13	-14	-16	-42	-42	-43	-44	-191	-193	-195	-197	-199	-200	-202	-205
	Likely Impact due to additional costs	39	254	432	615	624	644	666	688	724	782	811	841	906	903	1076	1105	1135	1167	1185	1198
13	EBITDA after considering Net Impact	-202	223	955	1770	2582	3681	4869	6376	6535	6675	6818	6965	7110	7124	7157	7190	7224	7257	7297	7347
14	EBITDA Margin (%) after considering Net Impact	-3.41%	3.23%	11.67%	18.36%	23.68%	29.68%	34.94%	40.38%	40.58%	40.63%	40.69%	40.75%	41.19%	40.86%	40.65%	40.43%	40.22%	40.00%	39.82%	39.70%
15	PBIT after considering Net Impact	-1444	-1079	-422	379	1203	2337	3569	5129	5299	5441	5610	5775	5753	5808	5712	5757	5798	5834	5890	5963
16	RoCE after additional capital investment (%)	-12.65%	-7.72%	-2.44%	1.88%	5.36%	9.30%	12.70%	16.11%	16.23%	16.33%	16.66%	16.85%	15.83%	15.80%	15.07%	15.31%	15.44%	15.52%	15.66%	15.91%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	488	0	0	272	12	14	15	17	448	318	5	10	1727	377	1261	-197	-199	-200	91	-101
18	NPV - Estimated Cash inflow to Govt.	1652																			
19	Total Net impact per minute	0.001	0.008	0.013	0.017	0.016	0.016	0.016	0.016	0.017	0.018	0.018	0.018	0.019	0.019	0.023	0.023	0.023	0.024	0.024	0.024
20	Net impact per minute- Voice services	0.001	0.007	0.010	0.012	0.011	0.010	0.009	0.008	0.008	0.009	0.009	0.009	0.010	0.010	0.011	0.011	0.012	0.012	0.012	0.012
21	Total Net impact per minute (including 15% return on capital investment)	0.004	0.013	0.020	0.025	0.024	0.023	0.022	0.022	0.023	0.025	0.025	0.025	0.030	0.030	0.037	0.037	0.037	0.038	0.037	0.037
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.003	0.010	0.015	0.017	0.015	0.014	0.012	0.011	0.012	0.012	0.012	0.013	0.015	0.015	0.018	0.019	0.019	0.019	0.019	0.018

Note:

(1) Includes License Renewal Fees, Auction Price (for 5 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

(2) Includes depreciation on likely additional CAPEX on towers & BTS equipments due to refarming of Spectrum

Bihar - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute																			Normal Scenario (Spectrum Usage Charges @ 3%)	
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK I																				Amount (Rs.)
Total Net Impact per minute	0.001	0.008	0.013	0.017	0.016	0.016	0.016	0.016	0.017	0.018	0.018	0.018	0.019	0.019	0.023	0.023	0.023	0.024	0.024	0.024
Net impact per minute - Voice services	0.001	0.007	0.010	0.012	0.011	0.010	0.009	0.008	0.008	0.009	0.009	0.009	0.010	0.010	0.011	0.011	0.012	0.012	0.012	0.012
Net impact per minute on Voice services while considering O/G min only (2 times)	0.002	0.014	0.019	0.024	0.021	0.019	0.018	0.016	0.017	0.018	0.018	0.018	0.019	0.019	0.023	0.023	0.023	0.024	0.024	0.024
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.003	0.015	0.022	0.026	0.024	0.022	0.020	0.018	0.019	0.020	0.020	0.020	0.022	0.021	0.025	0.026	0.026	0.027	0.027	0.027
Average of 20 years	0.021																			
TRACK I (including 15% return on capital investment)																				
Total Net Impact per minute	0.004	0.013	0.020	0.025	0.024	0.023	0.022	0.022	0.023	0.025	0.025	0.025	0.030	0.030	0.037	0.037	0.037	0.038	0.037	0.037
Net impact per minute - Voice services	0.003	0.010	0.015	0.017	0.015	0.014	0.012	0.011	0.012	0.012	0.012	0.013	0.015	0.015	0.018	0.019	0.019	0.019	0.019	0.018
Net impact per minute on Voice services while considering O/G min only (2 times)	0.006	0.021	0.031	0.034	0.031	0.028	0.024	0.022	0.023	0.025	0.025	0.025	0.030	0.030	0.037	0.037	0.037	0.038	0.037	0.037
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.007	0.023	0.034	0.039	0.034	0.031	0.027	0.024	0.026	0.028	0.028	0.028	0.034	0.034	0.041	0.042	0.042	0.042	0.042	0.041
Average of 20 years	0.032																			

SUMMARY

Normal: Full Refarming

Annexure XII

Bihar : Track II

Rs. in crore

Sl No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	26273	29951	33246	36571	38399	40319	41529	42774	43630	44502	45393	46300	46763	47231	47703	48180	48662	49149	49640	50137
3	Revenue	5913	6910	8181	9642	10903	12402	13936	15789	16105	16427	16756	17091	17262	17434	17609	17785	17962	18142	18323	18507
4	Total Cost	7382	7803	8242	8722	9153	9501	9782	10053	10164	10286	10418	10558	10688	10809	10907	11010	11117	11229	11337	11434
5	EBITDA	-202	366	1170	2129	2947	4064	5270	6796	6952	7113	7279	7451	7475	7515	7576	7638	7702	7767	7841	7926
6	EBITDA Margin (%)	-3.41%	5.30%	14.30%	22.08%	27.03%	32.77%	37.82%	43.04%	43.17%	43.30%	43.44%	43.60%	43.31%	43.11%	43.03%	42.95%	42.88%	42.81%	42.79%	42.83%
7	PBIT	-1404	-826	10	994	1827	2981	4235	5818	6023	6224	6421	6617	6659	6711	6788	6862	6933	7001	7074	7161
8	RoCE (%)	-12.30%	-6.19%	0.06%	5.34%	8.68%	12.45%	15.74%	19.08%	19.37%	19.62%	19.85%	20.05%	19.98%	19.94%	19.96%	19.98%	19.99%	19.99%	20.00%	20.04%
	Likely Impact due to additional costs																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	126	126	126	147	150	153	156	160	164	169	174	180	187	126	126	126	126	126	126	126
10	Amortisation of additional CAPEX (refer Note 2)	0	71	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177
11	Likely OPEX on additional towers & BTS equipments	0	144	215	359	377	396	415	436	458	481	505	530	557	584	614	644	677	710	746	783
12	Saving in Spectrum Usage Charges	-65	-76	-90	-107	-120	-137	-154	-174	-178	-182	-185	-189	-191	-193	-195	-197	-199	-200	-202	-205
	Likely Impact due to additional costs	61	264	428	576	583	588	594	598	621	645	671	698	730	695	722	751	781	813	847	882
13	EBITDA after considering Net Impact	-136	299	1045	1877	2691	3805	5009	6534	6672	6814	6960	7110	7110	7124	7157	7190	7224	7257	7297	7347
14	EBITDA Margin (%) after considering Net Impact	-2.30%	4.33%	12.77%	19.46%	24.68%	30.68%	35.94%	41.38%	41.43%	41.48%	41.54%	41.60%	41.19%	40.86%	40.65%	40.43%	40.22%	40.00%	39.82%	39.70%
15	PBIT after considering Net Impact	-1465	-1090	-418	417	1244	2392	3640	5219	5402	5579	5750	5918	5929	6016	6065	6111	6151	6188	6228	6279
16	RoCE after additional capital investment (%)	-10.9%	-6.8%	-2.2%	1.9%	5.2%	9.0%	12.4%	15.8%	16.2%	16.6%	16.9%	17.1%	16.9%	17.2%	17.3%	17.4%	17.3%	17.2%	17.3%	17.4%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	2604	-76	-90	-107	-120	-137	-154	-174	-178	-182	-185	-189	-191	-193	-195	-197	-199	-200	-202	-205
18	NPV - Estimated Cash inflow to Govt.	1582																			
19	Total Net impact per minute	0.002	0.009	0.013	0.016	0.015	0.015	0.014	0.014	0.014	0.014	0.015	0.015	0.016	0.015	0.015	0.016	0.016	0.017	0.017	0.018
20	Net impact per minute- Voice services	0.002	0.007	0.010	0.011	0.010	0.009	0.008	0.007	0.007	0.007	0.007	0.008	0.008	0.007	0.008	0.008	0.008	0.008	0.009	0.009
21	Total Net impact per minute (including 15% return on capital investment)	0.013	0.021	0.027	0.029	0.027	0.026	0.026	0.025	0.025	0.025	0.025	0.025	0.026	0.025	0.025	0.025	0.026	0.026	0.026	0.027
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.011	0.016	0.020	0.020	0.018	0.016	0.014	0.012	0.013	0.013	0.013	0.013	0.013	0.012	0.012	0.013	0.013	0.013	0.013	0.013

Note:

(1) Includes License Renewal Fees, Excess Spectrum, Auction Price (for 5MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

(2) Includes depreciation on likely additional CAPEX on towers & BTS equipments due to refarming of Spectrum

Bihar - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute

Normal Scenario (Spectrum Usage Charges @ 3%)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK II																				Amount (Rs.)
Total Net Impact per minute	0.002	0.009	0.013	0.016	0.015	0.015	0.014	0.014	0.014	0.014	0.015	0.015	0.016	0.015	0.015	0.016	0.016	0.017	0.017	0.018
Net impact per minute - Voice services	0.002	0.007	0.010	0.011	0.010	0.009	0.008	0.007	0.007	0.007	0.007	0.008	0.008	0.007	0.008	0.008	0.008	0.008	0.009	0.009
Net impact per minute on Voice services while considering O/G min only (2 times)	0.004	0.014	0.019	0.022	0.020	0.018	0.016	0.014	0.014	0.014	0.015	0.015	0.016	0.015	0.015	0.016	0.016	0.017	0.017	0.018
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.004	0.016	0.022	0.025	0.022	0.020	0.018	0.016	0.016	0.016	0.017	0.017	0.018	0.017	0.017	0.018	0.018	0.019	0.019	0.020
Average of 20 years	0.018																			
TRACK II (including 15% return on capital investment)																				
Total Net Impact per minute	0.013	0.021	0.027	0.029	0.027	0.026	0.026	0.025	0.025	0.025	0.025	0.025	0.026	0.025	0.025	0.025	0.026	0.026	0.026	0.027
Net impact per minute - Voice services	0.011	0.016	0.020	0.020	0.018	0.016	0.014	0.012	0.013	0.01	0.013	0.013	0.013	0.012	0.012	0.013	0.013	0.013	0.013	0.013
Net impact per minute on Voice services while considering O/G min only (2 times)	0.021	0.033	0.040	0.040	0.036	0.031	0.028	0.025	0.025	0.025	0.025	0.025	0.026	0.025	0.025	0.025	0.026	0.026	0.026	0.027
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.024	0.037	0.045	0.045	0.040	0.035	0.032	0.028	0.028	0.028	0.028	0.028	0.029	0.028	0.028	0.028	0.029	0.029	0.030	0.030
Average of 20 years	0.031																			

Impact at different levels of tariff changes

Normal: FULL REFORMING

Annexure XII

Sl No:	Particulars	Bihar : Normal Scenario (Track II) - SUC @ 3%																			Rs. in crore	
		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	
1	EBITDA before additional costs	-202	366	1170	2129	2947	4064	5270	6796	8952	7113	7279	7451	7475	7515	7576	7638	7702	7767	7841	7926	
2	EBITDA Margin (%) before additional costs	-3.41%	5.30%	14.30%	22.08%	27.03%	32.77%	37.82%	43.04%	43.17%	43.30%	43.44%	43.60%	43.31%	43.11%	43.03%	42.95%	42.88%	42.81%	42.79%	42.83%	
3	PBIT before additional costs	-1404	-826	10	994	1827	2981	4235	5818	6023	6224	6421	6617	6659	6711	6788	6862	6933	7001	7074	7161	
4	RoCE (%) before additional costs	-12.30%	-6.19%	0.06%	5.34%	8.68%	12.45%	15.74%	19.08%	19.37%	19.62%	19.85%	20.05%	19.98%	19.94%	19.96%	19.98%	19.99%	19.99%	20.00%	20.04%	
5	EBITDA after additional costs	-136	299	1045	1877	2691	3805	5009	6534	6672	6814	6960	7110	7110	7124	7157	7190	7224	7257	7297	7347	
6	EBITDA Margin (%) after additional costs	-2.30%	4.33%	12.77%	19.46%	24.68%	30.68%	35.94%	41.38%	41.43%	41.48%	41.54%	41.60%	41.19%	40.86%	40.65%	40.43%	40.22%	40.00%	39.82%	39.70%	
7	PBIT after additional costs	-1465	-1090	-418	417	1244	2392	3640	5219	5402	5579	5750	5918	5929	6016	6065	6111	6151	6188	6228	6279	
8	RoCE after additional costs (%)	-10.87%	-6.84%	-2.18%	1.92%	5.21%	9.04%	12.39%	15.81%	16.20%	16.56%	16.90%	17.09%	16.93%	17.15%	17.27%	17.37%	17.34%	17.24%	17.32%	17.43%	
AFTER Additional Costs																						
(A) Tariff (Outgoing Calls) increased by 5 Paisa																						
9	EBITDA	586	1143	2044	3054	4022	5320	6710	8462	8638	8820	9005	9196	9217	9252	9307	9362	9417	9472	9534	9607	
10	EBITDA Margin (%)	8.72%	14.57%	22.00%	27.89%	32.49%	37.78%	42.41%	47.20%	47.24%	47.28%	47.33%	47.39%	47.03%	46.74%	46.55%	46.36%	46.17%	45.98%	45.83%	45.72%	
11	PBIT	-743	-246	581	1594	2575	3907	5342	7147	7368	7584	7796	8005	8037	8144	8215	8282	8345	8403	8465	8539	
12	RoCE (%)	-4.95%	-1.39%	2.73%	6.58%	9.64%	13.15%	16.18%	19.24%	19.62%	19.97%	20.30%	20.48%	20.33%	20.55%	20.68%	20.80%	20.77%	20.68%	20.78%	20.90%	
(B) Tariff (Outgoing Calls) increased by 10 Paisa																						
13	EBITDA	1308	1987	3043	4231	5354	6834	8412	10390	10605	10825	11051	11283	11325	11381	11457	11533	11610	11687	11772	11867	
14	EBITDA Margin (%)	17.40%	22.62%	29.27%	34.53%	38.63%	43.36%	47.49%	51.78%	51.81%	51.85%	51.90%	51.95%	51.62%	51.36%	51.20%	51.03%	50.86%	50.69%	50.55%	50.45%	
15	PBIT	-21	598	1580	2772	3906	5421	7043	9075	9335	9590	9842	10092	10144	10273	10365	10454	10538	10618	10702	10798	
16	RoCE (%)	-0.13%	3.06%	6.74%	10.36%	13.22%	16.45%	19.21%	21.99%	22.35%	22.69%	23.00%	23.17%	23.03%	23.25%	23.38%	23.50%	23.49%	23.40%	23.50%	23.63%	
(C) Tariff (Outgoing Calls) increased by 15 Paisa																						
17	EBITDA	2030	2830	4042	5408	6685	8348	10113	12318	12571	12831	13097	13370	13432	13510	13607	13705	13803	13902	14009	14126	
18	EBITDA Margin (%)	24.41%	29.12%	35.13%	39.88%	43.60%	47.86%	51.60%	55.47%	55.50%	55.54%	55.58%	55.62%	55.33%	55.10%	54.95%	54.79%	54.64%	54.49%	54.36%	54.27%	
19	PBIT	701	1441	2579	3949	5237	6935	8745	11003	11301	11596	11888	12178	12252	12402	12515	12625	12731	12833	12940	13058	
20	RoCE (%)	3.87%	6.75%	10.08%	13.49%	16.16%	19.16%	21.70%	24.23%	24.58%	24.90%	25.20%	25.35%	25.23%	25.44%	25.57%	25.70%	25.69%	25.61%	25.71%	25.84%	
(D) Tariff (Outgoing Calls) increased by 20 Paisa																						
21	EBITDA	2752	3674	5041	6586	8016	9863	11815	14245	14537	14837	15143	15456	15540	15638	15757	15876	15996	16117	16246	16386	
22	EBITDA Margin (%)	30.18%	34.49%	39.96%	44.30%	47.68%	51.58%	54.99%	58.52%	58.55%	58.58%	58.62%	58.66%	58.39%	58.18%	58.04%	57.90%	57.76%	57.62%	57.51%	57.43%	
23	PBIT	1423	2285	3578	5126	6569	8450	10446	12930	13267	13601	13934	14265	14359	14530	14665	14797	14924	15048	15177	15318	
24	RoCE (%)	7.23%	9.86%	12.90%	16.13%	18.63%	21.43%	23.77%	26.10%	26.43%	26.74%	27.03%	27.17%	27.05%	27.26%	27.39%	27.51%	27.50%	27.43%	27.54%	27.66%	
(E) Tariff (Outgoing Calls) increased by 25 Paisa																						
25	EBITDA	3474	4518	6040	7763	9347	11377	13516	16173	16504	16842	17189	17543	17647	17767	17907	18048	18190	18332	18483	18645	
26	EBITDA Margin (%)	35.02%	38.98%	44.01%	48.00%	51.11%	54.69%	57.83%	61.07%	61.10%	61.13%	61.16%	61.20%	60.95%	60.76%	60.63%	60.50%	60.37%	60.25%	60.14%	60.07%	
27	PBIT	2145	3129	4576	6304	7900	9964	12148	14858	15234	15607	15979	16352	16467	16659	16815	16968	17117	17263	17414	17577	
28	RoCE (%)	10.11%	12.53%	15.32%	18.37%	20.73%	23.35%	25.52%	27.69%	28.00%	28.29%	28.57%	28.70%	28.59%	28.79%	28.92%	29.04%	29.03%	28.96%	29.07%	29.19%	
(E) Tariff (Outgoing Calls) increased by 30 Paisa																						
29	EBITDA	4196	5361	7039	8940	10679	12891	15218	18101	18470	18848	19234	19630	19755	19896	20057	20219	20383	20547	20721	20905	
30	EBITDA Margin (%)	39.14%	42.80%	47.46%	51.15%	54.03%	57.34%	60.24%	63.24%	63.27%	63.30%	63.33%	63.36%	63.13%	62.95%	62.84%	62.72%	62.60%	62.48%	62.38%	62.31%	
31	PBIT	2867	3972	5575	7481	9231	11478	13849	16786	17200	17613	18025	18439	18575	18788	18965	19139	19310	19478	19651	19837	
32	RoCE (%)	12.60%	14.83%	17.42%	20.31%	22.54%	25.00%	27.03%	29.04%	29.34%	29.62%	29.88%	30.01%	29.91%	30.10%	30.22%	30.34%	30.34%	30.27%	30.37%	30.49%	

SUMMARY

Normal: Partial Refarming

Annexure XII

Bihar : Track I

Rs. in crore

SI No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	26273	29951	33246	36571	38399	40319	41529	42774	43630	44502	45393	46300	46763	47231	47703	48180	48662	49149	49640	50137
3	Revenue	5913	6910	8181	9642	10903	12402	13936	15789	16105	16427	16756	17091	17262	17434	17609	17785	17962	18142	18323	18507
4	Total Cost	7425	7955	8471	9008	9474	9934	10385	10801	11000	11209	11397	11532	11656	11788	11927	12056	12158	12264	12375	12491
5	EBITDA	-244	241	984	1901	2683	3701	4768	6180	6259	6341	6457	6621	6637	6654	6672	6707	6766	6826	6888	6951
6	EBITDA Margin (%)	-4.13%	3.49%	12.02%	19.71%	24.61%	29.84%	34.21%	39.14%	38.86%	38.60%	38.54%	38.74%	38.45%	38.17%	37.89%	37.71%	37.67%	37.63%	37.59%	37.56%
7	PBIT	-1447	-977	-218	710	1509	2551	3636	5076	5195	5310	5451	5652	5700	5742	5778	5826	5903	5977	6047	6115
8	RoCE (%)	-12.67%	-7.32%	-1.38%	3.81%	7.17%	10.65%	13.51%	16.65%	16.71%	16.74%	16.85%	17.13%	17.10%	17.06%	17.00%	16.97%	17.02%	17.06%	17.09%	17.11%
	Likely Impact due to additional costs:																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	43	43	43	119	124	130	137	144	216	289	299	311	582	513	658	658	658	658	632	589
10	Amortisation of additional CAPEX (refer Note 2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Likely OPEX on additional towers & BTS equipments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Saving in Spectrum Usage Charges	0	0	0	0	-11	-13	-14	-16	-42	-42	-43	-44	-191	-193	-195	-197	-199	-200	-202	-205
	Likely Impact due to additional costs	43	43	43	119	113	117	122	128	174	246	256	267	391	320	463	462	460	458	430	385
13	EBITDA after considering Net Impact	-244	241	984	1901	2694	3713	4782	6196	6301	6383	6501	6665	6828	6847	6866	6904	6965	7027	7090	7156
14	EBITDA Margin (%) after considering Net Impact	-4.13%	3.49%	12.02%	19.71%	24.71%	29.94%	34.32%	39.24%	39.12%	38.86%	38.80%	39.00%	39.55%	39.27%	38.99%	38.82%	38.77%	38.73%	38.70%	38.66%
15	PBIT after considering Net Impact	-1490	-1020	-261	591	1396	2434	3514	4948	5021	5064	5195	5385	5309	5422	5315	5365	5443	5519	5617	5730
16	RoCE after additional capital investment (%)	-13.05%	-7.64%	-1.65%	3.11%	6.53%	10.04%	12.94%	16.12%	15.73%	15.35%	15.53%	15.87%	14.56%	14.57%	13.85%	14.09%	14.41%	14.72%	14.90%	15.20%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	561	0	0	449	36	40	45	51	768	678	53	64	2579	733	1261	-197	-199	-200	274	2
18	NPV - Estimated Cash inflow to Govt.	2504																			
19	Total Net impact per minute	0.002	0.001	0.001	0.003	0.003	0.003	0.003	0.003	0.004	0.006	0.006	0.006	0.008	0.007	0.010	0.010	0.009	0.009	0.009	0.008
20	Net impact per minute- Voice services	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.001	0.002	0.003	0.003	0.003	0.004	0.003	0.005	0.005	0.005	0.005	0.004	0.004
21	Total Net impact per minute (including 15% return on capital investment)	0.004	0.004	0.003	0.007	0.006	0.006	0.005	0.005	0.008	0.011	0.011	0.011	0.019	0.018	0.024	0.024	0.023	0.023	0.022	0.020
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.003	0.003	0.002	0.005	0.004	0.004	0.003	0.002	0.004	0.005	0.005	0.005	0.009	0.009	0.012	0.012	0.012	0.012	0.011	0.010

Note:

(1) Includes License Renewal Fees, Auction Price (for 10 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

Bihar - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute										Normal Scenario (Spectrum Usage Charges @ 3%)										
Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK I																				Amount (Rs.)
Total Net Impact per minute	0.002	0.001	0.001	0.003	0.003	0.003	0.003	0.003	0.004	0.006	0.006	0.006	0.008	0.007	0.010	0.010	0.009	0.009	0.009	0.009
Net impact per minute - Voice services	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.001	0.002	0.003	0.003	0.003	0.004	0.003	0.005	0.005	0.005	0.005	0.004	0.004
Net impact per minute on Voice services while considering O/G min only (2 times)	0.003	0.002	0.002	0.005	0.004	0.003	0.003	0.003	0.004	0.006	0.006	0.006	0.008	0.007	0.010	0.010	0.009	0.009	0.009	0.008
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.003	0.003	0.002	0.005	0.004	0.004	0.004	0.003	0.004	0.006	0.006	0.006	0.009	0.008	0.011	0.011	0.011	0.010	0.010	0.009
Average of 20 years	0.006																			
TRACK I (including 15% return on capital investment)																				
Total Net Impact per minute	0.004	0.004	0.003	0.007	0.006	0.006	0.005	0.005	0.008	0.011	0.011	0.011	0.019	0.018	0.024	0.024	0.023	0.023	0.022	0.020
Net impact per minute - Voice services	0.003	0.003	0.002	0.005	0.004	0.004	0.003	0.002	0.004	0.005	0.005	0.005	0.009	0.009	0.012	0.012	0.012	0.012	0.011	0.010
Net impact per minute on Voice services while considering O/G min only (2 times)	0.007	0.006	0.005	0.009	0.008	0.007	0.005	0.005	0.008	0.011	0.011	0.011	0.019	0.018	0.024	0.024	0.023	0.023	0.022	0.020
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.008	0.007	0.006	0.010	0.009	0.008	0.006	0.005	0.009	0.012	0.012	0.012	0.021	0.020	0.027	0.027	0.026	0.026	0.024	0.022
Average of 20 years	0.015																			

SUMMARY

Normal: Partial Refarming

Annexure XII

Bihar : Track II

Rs. in crore

Sl No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	Projected growth in Minutes (%)	15%	14%	11%	10%	5%	5%	3%	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
2	Projected Minutes (in crores)	26273	29951	33246	36571	38399	40319	41529	42774	43630	44502	45393	46300	46763	47231	47703	48180	48662	49149	49640	50137
3	Revenue	5913	6910	8181	9642	10903	12402	13936	15789	16105	16427	16756	17091	17262	17434	17609	17785	17962	18142	18323	18507
4	Total Cost	7425	7955	8471	9008	9474	9934	10385	10801	11000	11209	11397	11532	11656	11788	11927	12056	12158	12264	12375	12491
5	EBITDA	-244	241	984	1901	2683	3701	4768	6180	6259	6341	6457	6621	6637	6654	6672	6707	6766	6826	6888	6951
6	EBITDA Margin (%)	-4.13%	3.49%	12.02%	19.71%	24.61%	29.84%	34.21%	39.14%	38.86%	38.60%	38.54%	38.74%	38.45%	38.17%	37.89%	37.71%	37.67%	37.63%	37.59%	37.56%
7	PBIT	-1447	-977	-218	710	1509	2551	3636	5076	5195	5310	5451	5652	5700	5742	5778	5826	5903	5977	6047	6115
8	RoCE (%)	-12.67%	-7.32%	-1.38%	3.81%	7.17%	10.65%	13.51%	16.65%	16.71%	16.74%	16.85%	17.13%	17.10%	17.06%	17.00%	16.97%	17.02%	17.06%	17.09%	17.11%
	Likely Impact due to additional costs																				
9	Amortisation of Renewal Fees/ Auction money (refer Note 1)	182	182	182	224	229	235	242	249	258	267	278	290	303	182	182	182	182	182	182	182
10	Amortisation of additional CAPEX (refer Note 2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Likely OPEX on additional towers & BTS equipments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Saving in Spectrum Usage Charges	-65	-76	-90	-107	-120	-137	-154	-174	-178	-182	-185	-189	-191	-193	-195	-197	-199	-200	-202	-205
	Likely Impact due to additional costs	117	106	92	117	109	98	88	75	80	85	92	101	112	-11	-13	-15	-17	-19	-21	-23
13	EBITDA after considering Net Impact	-179	318	1074	2007	2803	3838	4922	6355	6437	6522	6643	6810	6828	6847	6866	6904	6965	7027	7090	7156
14	EBITDA Margin (%) after considering Net Impact	-3.03%	4.60%	13.13%	20.82%	25.71%	30.94%	35.32%	40.25%	39.97%	39.71%	39.64%	39.84%	39.55%	39.27%	38.99%	38.82%	38.77%	38.73%	38.70%	38.66%
15	PBIT after considering Net Impact	-1564	-1082	-309	593	1400	2453	3548	5001	5115	5224	5359	5552	5588	5753	5791	5841	5919	5995	6068	6137
16	RoCE after additional capital investment (%)	-10.8%	-6.7%	-1.7%	2.8%	6.0%	9.4%	12.2%	15.4%	15.6%	15.7%	15.9%	16.2%	16.2%	16.6%	16.6%	16.7%	16.8%	17.0%	17.1%	17.2%
17	Estimated Cash Inflow to Govt. (net of SUC savings)	3868	-76	-90	-107	-120	-137	-154	-174	-178	-182	-185	-189	-191	-193	-195	-197	-199	-200	-202	-205
18	NPV - Estimated Cash inflow to Govt.	2847																			
19	Total Net impact per minute	0.004	0.004	0.003	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	Net impact per minute- Voice services	0.004	0.003	0.002	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	Total Net impact per minute (including 15% return on capital investment)	0.020	0.017	0.015	0.014	0.013	0.013	0.012	0.011	0.011	0.011	0.011	0.011	0.011	0.008	0.008	0.008	0.008	0.008	0.008	0.008
22	Net impact per minute (including 15% return on capital investment) - Voice services	0.016	0.013	0.011	0.010	0.009	0.008	0.007	0.006	0.006	0.006	0.006	0.006	0.006	0.004	0.004	0.004	0.004	0.004	0.004	0.004

Note:

(1) Includes License Renewal Fees, Excess Spectrum, Auction Price (for 10 MHz pan India basis & Charges for additional Spectrum to existing Service Provider having 4.4 MHz)

Bihar - Statement of Required Revenue Per Minute to neutralise Net Impact Per Minute

Normal Scenario (Spectrum Usage Charges @ 3%)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
TRACK II																				Amount (Rs.)
Total Net Impact per minute	0.004	0.004	0.003	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net impact per minute - Voice services	0.004	0.003	0.002	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net impact per minute on Voice services while considering O/G min only (2 times)	0.007	0.006	0.004	0.004	0.004	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.008	0.006	0.005	0.005	0.004	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	-0.001
Average of 20 years	0.002																			
TRACK II (including 15% return on capital investment)																				
Total Net Impact per minute	0.020	0.017	0.015	0.014	0.013	0.013	0.012	0.011	0.011	0.011	0.011	0.011	0.011	0.008	0.008	0.008	0.008	0.008	0.008	0.008
Net impact per minute - Voice services	0.016	0.013	0.011	0.010	0.009	0.008	0.007	0.006	0.006	0.01	0.006	0.006	0.006	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Net impact per minute on Voice services while considering O/G min only (2 times)	0.032	0.027	0.022	0.020	0.017	0.015	0.013	0.011	0.011	0.011	0.011	0.011	0.011	0.008	0.008	0.008	0.008	0.008	0.008	0.008
Net impact per minute on Voice services after loading LF (8%) & SUC (3%)	0.036	0.030	0.025	0.023	0.020	0.017	0.015	0.013	0.013	0.013	0.013	0.013	0.013	0.009	0.009	0.009	0.009	0.009	0.009	0.008
Average of 20 years	0.015																			

Impact at different levels of tariff changes

Normal: PARTIAL REFORMING

Annexure-XII

Bihar : Normal Scenario (Track II) - SUC @ 3%

Rs. in crore

Sl No:	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
1	EBITDA before additional costs	-244	241	984	1901	2683	3701	4768	6180	6259	6341	6457	6621	6637	6654	6672	6707	6766	6826	6888	6951
2	EBITDA Margin (%) before additional costs	-4.13%	3.49%	12.02%	19.71%	24.61%	29.84%	34.21%	39.14%	38.86%	38.60%	38.54%	38.74%	38.45%	38.17%	37.89%	37.71%	37.67%	37.63%	37.59%	37.56%
3	PBIT before additional costs	-1447	-977	-218	710	1509	2551	3636	5076	5195	5310	5451	5652	5700	5742	5778	5826	5903	5977	6047	6115
4	RoCE (%) before additional costs	-12.67%	-7.32%	-1.38%	3.81%	7.17%	10.65%	13.51%	16.65%	16.71%	16.74%	16.85%	17.13%	17.10%	17.06%	17.00%	16.97%	17.02%	17.06%	17.09%	17.11%
5	EBITDA after additional costs	-179	318	1074	2007	2803	3838	4922	6355	6437	6522	6643	6810	6828	6847	6866	6904	6965	7027	7090	7156
6	EBITDA Margin (%) after additional costs	-3.03%	4.60%	13.13%	20.82%	25.71%	30.94%	35.32%	40.25%	39.97%	39.71%	39.64%	39.84%	39.55%	39.27%	38.99%	38.82%	38.77%	38.73%	38.70%	38.66%
7	PBIT after additional costs	-1564	-1082	-309	593	1400	2453	3548	5001	5115	5224	5359	5552	5588	5753	5791	5841	5919	5995	6068	6137
8	RoCE after additional costs (%)	-10.80%	-6.67%	-1.67%	2.80%	5.97%	9.36%	12.24%	15.43%	15.56%	15.68%	15.86%	16.19%	16.22%	16.61%	16.64%	16.70%	16.83%	16.96%	17.07%	17.18%
AFTER Additional Costs																					
(A) Tariff (Outgoing Calls) increased by 5 Paisa																					
9	EBITDA	543	1161	2073	3185	4135	5352	6623	8282	8403	8528	8688	8896	8935	8975	9016	9075	9158	9242	9328	9415
10	EBITDA Margin (%)	8.09%	14.80%	22.32%	29.09%	33.40%	38.01%	41.86%	46.20%	45.95%	45.72%	45.67%	45.84%	45.59%	45.34%	45.10%	44.94%	44.90%	44.86%	44.83%	44.81%
11	PBIT	-842	-239	690	1770	2731	3968	5250	6929	7082	7230	7405	7638	7696	7882	7941	8012	8112	8210	8305	8397
12	RoCE (%)	-5.25%	-1.32%	3.34%	7.46%	10.38%	13.48%	16.08%	18.96%	19.10%	19.22%	19.39%	19.71%	19.75%	20.11%	20.15%	20.22%	20.35%	20.48%	20.59%	20.70%
(B) Tariff (Outgoing Calls) increased by 10 Paisa																					
13	EBITDA	1265	2005	3072	4362	5466	6866	8325	10210	10370	10534	10734	10983	11043	11104	11166	11247	11351	11457	11565	11675
14	EBITDA Margin (%)	16.83%	22.83%	29.55%	35.59%	39.45%	43.56%	47.00%	50.88%	50.66%	50.46%	50.41%	50.56%	50.34%	50.11%	49.90%	49.76%	49.72%	49.69%	49.66%	49.64%
15	PBIT	-120	605	1689	2947	4062	5482	6951	8857	9048	9236	9451	9725	9803	10010	10091	10184	10306	10425	10542	10657
16	RoCE (%)	-0.68%	3.05%	7.40%	11.23%	13.93%	16.77%	19.16%	21.78%	21.91%	22.03%	22.20%	22.50%	22.54%	22.88%	22.93%	23.00%	23.13%	23.25%	23.36%	23.47%
(C) Tariff (Outgoing Calls) increased by 15 Paisa																					
17	EBITDA	1987	2849	4071	5539	6797	8381	10026	12138	12336	12540	12780	13070	13151	13233	13316	13418	13544	13672	13802	13934
18	EBITDA Margin (%)	23.89%	29.31%	35.38%	40.85%	44.33%	48.05%	51.16%	54.66%	54.47%	54.28%	54.23%	54.38%	54.17%	53.97%	53.77%	53.65%	53.61%	53.59%	53.56%	53.54%
19	PBIT	602	1449	2687	4124	5394	6996	8653	10785	11014	11241	11496	11812	11911	12139	12241	12355	12499	12641	12780	12916
20	RoCE (%)	3.15%	6.69%	10.77%	14.34%	16.84%	19.47%	21.67%	24.07%	24.21%	24.32%	24.49%	24.76%	24.82%	25.13%	25.18%	25.25%	25.37%	25.49%	25.60%	25.70%
(D) Tariff (Outgoing Calls) increased by 20 Paisa																					
21	EBITDA	2709	3692	5070	6716	8128	9895	11728	14066	14303	14545	14826	15156	15258	15361	15466	15589	15737	15887	16039	16194
22	EBITDA Margin (%)	29.71%	34.66%	40.19%	45.18%	48.35%	51.75%	54.58%	57.78%	57.60%	57.43%	57.39%	57.52%	57.33%	57.15%	56.97%	56.85%	56.82%	56.80%	56.77%	56.75%
23	PBIT	1324	2292	3686	5302	6725	8510	10355	12713	12981	13247	13542	13898	14018	14268	14391	14526	14692	14856	15017	15176
24	RoCE (%)	6.41%	9.77%	13.61%	16.95%	19.28%	21.73%	23.76%	25.98%	26.11%	26.23%	26.38%	26.64%	26.70%	26.99%	27.04%	27.11%	27.23%	27.34%	27.45%	27.55%
(E) Tariff (Outgoing Calls) increased by 25 Paisa																					
25	EBITDA	3431	4536	6069	7894	9460	11409	13429	15994	16269	16551	16872	17243	17366	17490	17616	17761	17930	18102	18277	18454
26	EBITDA Margin (%)	34.59%	39.14%	44.23%	48.81%	51.73%	54.85%	57.45%	60.39%	60.23%	60.07%	60.03%	60.15%	59.98%	59.81%	59.65%	59.54%	59.51%	59.49%	59.47%	59.45%
27	PBIT	2046	3136	4685	6479	8056	10025	12056	14641	14947	15253	15588	15985	16126	16396	16541	16698	16885	17071	17254	17436
28	RoCE (%)	9.21%	12.41%	16.03%	19.17%	21.36%	23.63%	25.53%	27.59%	27.72%	27.83%	27.98%	28.22%	28.28%	28.55%	28.60%	28.67%	28.79%	28.90%	29.00%	29.09%
(E) Tariff (Outgoing Calls) increased by 30 Paisa																					
29	EBITDA	4153	5380	7068	9071	10791	12923	15131	17921	18235	18557	18917	19330	19473	19619	19766	19932	20124	20317	20514	20713
30	EBITDA Margin (%)	38.74%	42.95%	47.66%	51.90%	54.60%	57.48%	59.90%	62.62%	62.46%	62.32%	62.28%	62.39%	62.23%	62.08%	61.92%	61.83%	61.80%	61.78%	61.76%	61.74%
31	PBIT	2768	3980	5684	7656	9387	11539	13758	16568	16913	17258	17634	18072	18234	18525	18691	18869	19078	19286	19491	19695
32	RoCE (%)	11.65%	14.70%	18.12%	21.08%	23.14%	25.27%	27.05%	28.97%	29.09%	29.20%	29.34%	29.58%	29.63%	29.89%	29.94%	30.00%	30.11%	30.22%	30.32%	30.41%