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IDEA counter comments - TRAI's Consultation on 'Review of Interconnection Usage Charges" dated the 05th Aug, 2016

1 message

Rahul Vatts <rahul.vatts@idea.adityabirla.com> Mon, Oct 31, 2016 at 11:58 PM
To: Interconnection TRAI <interconnection.trai@gmail.com>
Cc: Gagandeep Bajaj <gagandeep.bajaj@idea.adityabirla.com>

Kind Attention: Advisor (Broadband and Policy Analysis)

Dear Sir,

This is with reference to the TRAI Consultation Paper on "Review of Interconnect Usage Charges (IUC)" released on 05 August 2016.

In this regard, we would like to first draw the Authority's attention to our detailed response to the consultation paper on 17th October 2016, where in inter-alia, we had

I. **Urged the Authority to re-consider the consultation for following reasons:**

   A. **Timing of the Consultation violates Authority's own past decision on the issue.**

   B. **The consultation exercise is premature, as legal challenges to the 2015 Regulations are sub-judice.**

   C. **Apparent contradiction of TRAI's stand on Interconnect settlement principle (BAK in present Consultation) vis-a-vis earlier years' and current consultation.**

   D. **Fallacies in Consultation Paper – Misleading and wrong conclusions drawn based on incorrect and selective statements to advocate BAK regime / reduction in IUC.**

   E. **TRAI oblivious of International Experience on Mobile Termination Charges.**

   F. **Selective and misleading representation of international markets for advocating lower Termination Charges in India.**

II. **Recommended a Cost Oriented or Cost based termination charge for the Indian telecom market**

III. **Registered our strong opposition to the regulated Bill and Keep (BAK) approach, and the fact that there is no country in the world which follows regulated BAK in a CPP regime.**

IV. **Highlighted that Fully Allocated Cost (FAC) model is the only appropriate model to be used for cost determination in the Indian context where the industry is still in high investment phase with significant investments required to fulfil the "Digital India" dream and the asymmetry of traffic between operators is very high.**

Further, we would like to draw the Authority's attention to the following additional points–

1. One of the reasons that prompted review of IUC, as cited in the Consultation Paper, is the BSNL proposal to launch FMT service in the country. However, a look at BSNLs response to the Consultation Paper reveals that BSNL has not even made a mention of the said proposal in its submission. Clearly, there is no urgency involved or else BSNL would have atleast made a mention of the same in its response to the CP. Further, as stated in our response dated 17th Oct 2016, the cited FMT service by BSNL, through which its customers travelling abroad will be able to connect their landlines through mobile phones and make calls through them without attracting ISD Charges, is completely against all regulatory and licensing principles. In fact, it:

- Violates licensing conditions & fundamentals of routing
- Modifies Caller Line Identification (CLI) & violates of National Numbering Scheme
- Causes loss to exchequer
- Poses grave security risks
- Breaches existing Interconnect Agreement.

In view of the above, we feel that the authority's rationale for embarking on this review is both erroneous and inappropriate to the attendant facts.

2. There is no country in the world with a CPP regime, where regulated BAK has been implemented. Hence, any comments attributed to practices in other countries in support of regulated BAK regime are meaningless unless actual examples of CPP with Regulated BAK are provided. Not a single example exists and hence none have been provided by anyone.

3. India is a country with the lowest voice tariffs in the world. The IUC rate is also the lowest, particularly in comparison with peers which have similar large markets (China, US, Brazil and Indonesia) or neighbouring large markets in Asia (Malaysia, Thailand etc.). Hence, before advocating LRIC or any similar model, the definition and assumptions of LRIC should be clear. Just referring to LRIC and making calculations which are not transparent to determine IUC rate is not fair. One benchmark is to see the prevailing IUC rate in various comparable markets and out of all the markets mentioned above, the lowest IUC rate in a relatively comparable market with CPP regime is equivalent of 59 paise /minute in Malaysia which is over 4 times that of India's IUC rate of 14 paise/minute. The equipment vendors and technology are the same globally and hence there cannot be such a significant difference in cost structures of operators in other countries, with Indonesia being the closest in terms of demographics and cost structures having IUC rate equivalent of 136 paise / minute i.e 10 times that of India's current IUC rate.

4. We cannot merely look at what other countries have spoken for the future, but see what they are practicing today, especially because Indian telecom market is still in very high growth and investment phase and will follow the more developed countries in terms of evolution over a period of time.

Further, please find enclosed herewith our detailed submission on counter comments as Annexure A in response to the Authority's Consultation Paper and other stakeholder comments.

We earnestly believe that the Authority will give due-consideration to our comments before formalizing the Regulation.

Should you require any clarifications or further information on the positions set out in this response, please do not hesitate to contact us.

`Thanking You,

For **IDEA Cellular Limited**

Rahul Vatts

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Idea response - IUC consultation counter comments - annex A (311016).pdf
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IDEA CELLULAR LIMITED

Counter Comments for

TRAI's Consultation Paper no. 17/2016

on

'Review of Interconnection Usage Charges"

dated the 05th Aug, 2016

Annexure A

Introduction

This is with reference to the Telecom Regulatory Authority of India (TRAI) Consultation Paper on "Review of Interconnect Usage Charges (IUC)" released on 05th August 2016. Idea Cellular has already submitted its detailed response to the consultation paper on 17th October 2016, where in inter-alia, we had

I. **Urged the Authority to re-consider the consultation for following reasons:**
   A. **Timing of the Consultation violates Authority's own past decision on the issue.**
   B. **The consultation exercise is premature, as legal challenges to the 2015 Regulations are sub-judice.**
   C. **Apparent contradiction of TRAI's stand on Interconnect settlement principle (BAK in present Consultation) vis-a-vis earlier years' and current consultation.**
   D. **Fallacies in Consultation Paper – Misleading and wrong conclusions drawn based on incorrect and selective statements to advocate BAK regime / reduction in IUC.**
   E. **TRAI oblivious of International Experience on Mobile Termination Charges.**
   F. **Selective and misleading representation of international markets for advocating lower Termination Charges in India.**

II. **Recommended a Cost Oriented or Cost based termination charge for the Indian telecom market**

III. **Registered our strong opposition to the regulated Bill and Keep (BAK) approach, and the fact that there is no country in the world which follows regulated BAK in a CPP regime.**

IV. **Highlighted that Fully Allocated Cost (FAC) model is the only appropriate model to be used for cost determination in the Indian context where the industry is still in high investment phase with significant investments required to fulfil the "Digital India" dream and the asymmetry of traffic between operators is very high.**

Before we get into specific comments on responses filed by other respondents, we have the following points to make –

1. One of the reasons that prompted review of IUC, as cited in the Consultation Paper, is the BSNL proposal to launch FMT service in the country. However, a look at BSNL's response to the Consultation Paper reveals that BSNL has not even made a mention of the said proposal in its submission. Clearly, there is no urgency involved or else BSNL would have atleast made a mention of the same in its response to the CP. Further, as stated in our response dated 17th Oct 2016, the cited FMT service by

BSNL, through which its customers travelling abroad will be able to connect their landlines through mobile phones and make calls through them without attracting ISD Charges, is completely against all regulatory and licensing principles. In fact, it:

- Violates licensing conditions & fundamentals of routing
- Modifies Caller Line Identification (CLI) & violates of National Numbering Scheme
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In view of the above, we feel that the authority's rationale for embarking on this review is both erroneous and inappropriate to the attendant facts.

2. There is no country in the world with a CPP regime, where regulated BAK has been implemented. Hence, any comments attributed to practices in other countries in support of regulated BAK regime are meaningless unless actual examples of CPP with Regulated BAK are provided. Not a single example exists and hence none have been provided by anyone.

3. India is a country with the lowest voice tariffs in the world. The IUC rate is also the lowest, particularly in comparison with peers which have similar large markets (China, US, Brazil and Indonesia) or neighboring large markets in Asia (Malaysia, Thailand etc.). Hence, before advocating LRIC or any similar model, the definition and assumptions of LRIC should be clear. Just referring to LRIC and making calculations which are not transparent to determine IUC rate is not fair. One benchmark is to see the prevailing IUC rate in various comparable markets and out of all the markets mentioned above, the lowest IUC rate in a relatively comparable market with CPP regime is equivalent of 59 paise /minute in Malaysia which is over 4 times that of India's IUC rate of 14 paise/minute. The equipment vendors and technology are the same globally and hence there cannot be such a significant difference in cost structures of operators in other countries, with Indonesia being the closest in terms of demographics and cost structures having IUC rate equivalent of 136 paise / minute i.e 10 times that of India's current IUC rate.

4. We cannot merely look at what other countries have spoken for the future, but see what they are practicing today, especially because Indian telecom market is still in very high growth and investment phase and will follow the more developed countries in terms of evolution over a period of time.

5. Mr.Rahul Khullar, the preceding Chairman of the TRAI, has recently made the following comments in his interview of Sep'16

a. *"So normally, a calling party pay regime is inconsistent where the mobile termination charge equal to zero because that would mean prices go to zero. Second, whenever you have networks which are unbalanced in size, imbalanced in terms of traffic, you do not ever move to what is called MTC equal to zero, you do not move to what is popularly now called bill and keep*."

b. "And then the regulation said we would review this matter in 3 years because the real problem was that until you move to what are called the next generation networks, you are not anywhere there yet."

c. Against the following question asked by the interviewer "so you had given a three year kind of period but the incumbents are now complaining that your three year period is also getting violated and everything is pushed down their throats all at once. And they say that this is being done to essentially benefit the new entrant (that's what there charge is), Mr.Khullar's response was

   "*Yes. I think that's the problem because that is being done prematurely in terms of the regulators own orders. See the regulators issued the regulation saying we will take it up in 3 years so the questions the operators are raising is why the sudden rush to do it?* "

Subsequent to the responses submitted by other service providers on this consultation, Idea Cellular is providing its counter comments for the Authority's (TRAI) kind consideration. We also urge the Authority to look at arguments which are supported by data and trends, rather than generic statements where no data or trends have been provided in support.

Our submission with counter comments can be summarized as under:

A. 'Asymmetries in traffic flow' a key consideration in TRAI's 2011 proposal for BAK regime.
B. Present asymmetry in traffic does not justify BAK approach.
C. Setting MTC at below costs or Zero level as under a BAK regime will be against consumer interest.
   i. TRAI has mentioned in IUC regulation, 2009 dated 9-Mar-2009 that *"The bill and keep proposal of the service providers was analyzed and it was noted that this could mean return to situation prevalent before the present IUC regime was established i.e receiving party used to pay for incoming calls".*
   ii. A below cost IUC rate or BAK regime at this stage of Indian telecom would only act as a deterrent for TSPs to invest in rural markets, in effect depriving rural Indian consumers access to basic telephony services. In fact it may result in contraction of existing coverage in rural markets.
D. No correlation between lowering of IUC and growth of telecom sector / reduction in tariffs.

E. Leading incumbent operators at the forefront of adopting and deploying new technologies and paving way for realizing Hon'ble Prime Minister's vision of Digital India.

F. A cost based IUC regime founded on 'work done' principle ensures fair and reasonable compensation to TSPs terminating off-net calls.

G. Fully Allocated Cost (FAC) model is the only appropriate model to be used for cost determination in the Indian context

H. Spectrum Cost to be continued to be included in estimating MTR

I. Pure LRIC model not suitable for Indian context

J. Prescription of fixed termination charge as well as the mobile termination charge from wire-line networks as 'zero' through the Telecommunication Interconnection Usage Charges (Eleventh Amendment) Regulations, 2015 has not resulted in any improvement of performance of wireline services with their subscriber numbers continuing to show a decline, and further leading to increasing severe losses for wireless operators currently estimated to be ~ Rs.500 crs p.a.

K. Termination charges between different networks should be arrived basis of work-done principle and computed on Fully Allocated Cost.

L. No logical or rational reason for Bill and Keep

M. No country has implemented regulated BAK with CPP regime as these are not compatible. Further, selective and misleading representation of international markets for advocating lower Termination Charges in India.

N. Comments on International Termination Rates

A. ‘Asymmetries in traffic flow’ a key consideration in TRAI’s 2011 proposal for BAK regime.

I. The responses from Reliance Jio, Reliance Communications and Videocon stated that a BAK approach is in alignment with the TRAI’s own report filed in Supreme Court on 29.10.2011, where in the Authority had proposed reduction of MTC with a glide path to BAK in 2 years’ time frame. However, the above cited responses do not capture the complete essence of TRAI filing and when seen in entirety the conclusion is that the trends do not support a BAK regime. The aforesaid responses have totally ignored the Authority’s consideration of ‘asymmetries in traffic flows’ when it proposed a time frame for migrating to BAK regime for specifying termination charges in India.

II. Relevant extracts from the report filed by TRAI in the Hon’ble Supreme Court (which has been referred by the aforesaid responses in support of BAK) are reproduced here:

a. **Para 8.11 of the report:**

“The BAK system works best when traffic flows are nearly balanced between service providers. The biggest deterrant for BAK is asymmetry in traffic between operators, especially in a Calling Party Pays regime…”

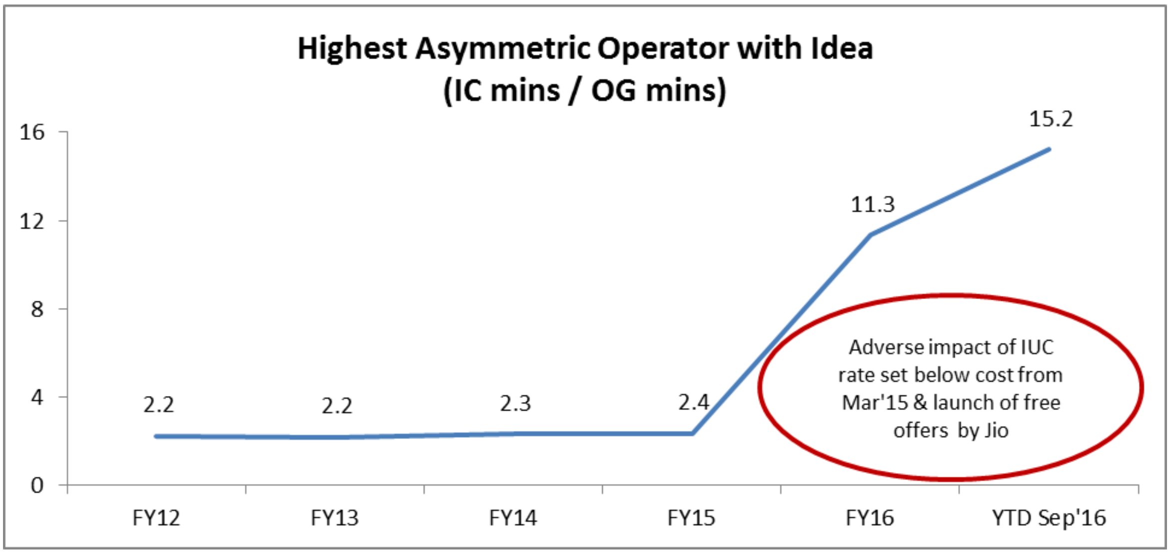
b. **Para 8.12 of the report:**

“The Bill and Keep regime, with all its advantages of simplicity and ease of monitoring, is best introduced in an environment where traffic flows are symmetric or close to symmetric between operators. In such a situation, B&K is unlikely to distort incentives for operators to provide interconnection and will be competitively neutral. It is noted that existing operators have entered the Indian market at different points of time, the most recent set having entered in year 2008. It is felt that it will take another 2 years for asymmetries in traffic flows to converge to some form of equilibrium between new and old operators, especially with an enabling termination charges regime with termination charges set at lower levels than at present…”

III. While in its report in the Honourable Supreme Court in October 2011, it was stated that it would take another two years for the asymmetries in the traffic flows to converge to some form of equilibrium between the new and old TSP’s, that had not transpired even at the time of previous consultation in 2014-2015. In fact, **the Authority had in its tabular depiction of “Distribution of off-net minutes in the F.Y. 2013-14 for the access providers offering full mobility services” shown asymmetries in the region of 4-14% (for Pan India operators) in IUC Regulation 2015, and had further noted the following** in para 32 of the Telecommunication Interconnection Usage Charges (Eleventh Amendment) Regulations 2015

> *"International experience shows that not many countries have adopted the BAK arrangement. BAK has not yet been mandated by regulatory fiat even in those jurisdictions which have matured telecom networks.* ***In countries where the BAK arrangement has been adopted, it has, generally, happened not by a regulatory action but through voluntary action of the TSPs themselves****. BAK regime has been implemented in some countries where the CPP regime has not been put in place; instead, a Mobile-Party-Pays (MPP) regime (in which both calling party and receiving party pay for the call) is in force in such geographies.* ***In view of the fact that the CPP regime is the prevailing regime in India since 2003 and a significant asymmetry in traffic flows between the TSPs still exists, the case for implementation of the BAK regime remains weak even in the present day conditions of the telecom market."***

It can be seen from the chart below that the highest asymmetry of traffic with Idea by any operator has only increased from levels of 2.2 times terminating traffic over originating traffic in FY11 ballooning to above 15 times in FY16 (YTD Sep'16), with Sep'16 traffic showing 19 times asymmetry.



IV. **Hence, advocating for shift to a BAK regime merely based on the fact that TRAI had proposed the same back in its 2011, while conveniently ignoring the Authority's other key observations and considerations in this regard (both in its 2011 report and later in 2015 IUC regulation) and also ignoring the trends observed post those observations is self-serving and unjustified.**

B. <u>Present asymmetry in traffic does not justify BAK.</u>

I. The response from Reliance Jio has states that "*Even if the flawed justification of asymmetry in traffic as a reason for IUC is assumed (without admission), asymmetry does not exist anymore with respect to major telecom operators in India as has been admitted by them"*. Further, in its submission, Reliance Jio has stated that "*Any asymmetry in traffic which is temporary cannot be a reason for imposition of IUC*". Both these statements are factually incorrect.

Such statements unsupported by data or contrary to data need to be ignored. Whatever statements we have made are supported by actual data and trends and it is very clear that asymmetry is on the increase and not a temporary phenomenon.

II. As indicated in the previous section also, **the Authority after its analysis of TSPs traffic data had indicated asymmetry in the region of 4-14% (for Pan India operators) in IUC Regulation 2015,** and had further noted ***<u>"In view of the fact that the CPP regime is the prevailing regime in India since 2003 and a significant asymmetry in traffic flows between the TSPs still exists, the case for implementation of the BAK regime remains weak even in the present day conditions of the telecom market."</u>***

III. **Furthermore, the asymmetry of traffic has only continued to worsen.** To illustrate the same, we are furnishing the distribution of overall traffic asymmetry trend on Idea network in the following table.

Traffic Asymmetry for Idea with other TSP's (IC% - OG%)					
FY12	**FY13**	**FY14**	**FY15**	**FY16**	**YTD Sep '16**
2.2%	**2.3%**	**4.0%**	**3.4%**	**4.6%**	**7.8%**

Clearly, the asymmetry of traffic flow on our network has only worsened in recent past, in particular post Mar'15 regulation when IUC was set below cost. Further, with the advent of a new operator who is offering free voice calls supported by below cost IUC rate, this asymmetry of traffic flow is only getting worse day by day. For the month of Sep '16, the level of asymmetry with the new entrant is as high as **89.8% (i.e. 19 times more incoming traffic than outgoing traffic)**.

IV. **<u>By TRAI's own logic and rationale used in IUC regulation 2015, the above signifies that the BAK cannot be INTRODUCED. In fact, given the increasing level of asymmetry, it is essential that IUC rate reflects the full cost of termination of 31.5 paise/minute. The current IUC rate of 14 paise/minute which is below the full cost is resulting in continually increasing losses for existing operators.</u>**

C. **Setting MTC at below costs or Zero level as under a BAK regime will be against consumer interest.**

I. In its response, the new operator RJIO has stated that "*the clamour and cry for continuance of IUC by incumbent operators can only mean that they don't have consumer interest in mind*". However, this argument totally disregards the constructive role the cost based IUC regime has thus far played in promoting growth of telecommunications sector in the country and ensuring delivery of basic telephony services to millions of consumers residing in rural hinterlands of the country. Consequently, it also ignores the ill-effects of below cost MTC or Zero IUC as under a BAK regime.

This is again rhetoric with no supporting data. It implies that all operators who have grown the wireless services over last 20 years and have taken the same to a billion Indians do not have consumer interest in mind, but a new operator who has taken 6 years to launch commercial services after acquiring spectrum is the only one concerned about consumer interest.

II. The concept of cost based IUC is integral to the CPP regime (as explained later in section F). The efficacy of CPP regime and its crucial role in development of telecommunication services sector in the country has already been established. In fact, the Authority has echoed the same view in para 2.2 and 2.3 of the consultation paper.

"In 1994, when mobile telephony was introduced in India, the mobile subscribers were to pay for receiving a call on their mobile connections; in effect, RPP was the regime for retail charging of calls terminating on mobile connections. This continued for about a decade. However, the growth of mobile telephony (in terms of subscriber base, usage and revenue) in the country, during this period, remained below expectations. The consumers faced high tariffs for receiving incoming calls; many of them kept their mobile phones switched off as they had only limited cost control under RPP. At the end of the year 2002, there were only about 1.08 crore mobile consumers in the country and mobile tele-density was merely 1.01."

With a view to encourage usage of the cellular mobile services and an increase in the subscriber base, the Authority, inter-alia, notified the CPP regime in the country in the year 2003 through the Telecommunication Interconnection Usage Charges (IUC) Regulation, 2003 dated 24.01.2003. After the introduction of CPP regime in the country, the growth story of the telecommunication services sector in the country has been phenomenal. From a mobile tele-density of 1.01 in December, 2002, the mobile tele-density leapfrogged to 81.18 in May, 2016. The average mobile tariffs for outgoing voice calls declined from 3.24 per minute in March, *2003 to 0.47 per minute in December, 2015. Today, the telecom services are ubiquitous and are enjoyed not only in the bustling streets of a metropolis but also in the hinterland villages of the country. The Adjusted Gross Revenue (AGR) of access services segment in the country has been growing at an impressive rate; the AGR of the access services segment has grown by more than 11.5% on year-on-year (Y-o-Y) basis in the past three years. Undisputedly, CPP regime has played a key role in the growth of the telecommunication services sector in the country.*

Migration from IUC to a regulated BAK regime at wholesale level will have to be accompanied by shift from CPP to RPP (receiving party pays) regime at retail level implying that the consumer will have to start paying to receive calls. Surely, this would be a retrograde step and not in consumer interest.

III. In the Indian context, a critical factor that requires attention is the low penetration of telecom services in rural areas. While the wireless tele-density in India is 81.26% (compared to a global average of 98.7%; tele-density on active subscribers is even lower at 71.84% compared to global figure of 91.6%), the rural wireless tele-density trails at a low level of 50.95%. Further, keeping in mind the phenomenon of prevalence of multiple SIMs with the same subscriber, the actual number of wireless users in India will be still lower than what is indicated by the rural tele-density figure. Undeniably, a large proportion of Indians from rural parts of the country are still deprived of basic telephony services.

IV. While another 300 – 400 million Indians are still expected to join the basic voice services category in coming years, most of them are likely to be from rural markets. This view is corroborated by the fact that 73% of net subscriber addition in India over last three years has happened from rural geographies as shared in table below as per Telecom subscription data reported by TRAI.

(In Mn)	FY13	FY14	FY15	FY16	Q1 FY17
Rural wireless base	342.5	371.8	414.2	444.8	446.3
Urban wireless base	525.3	532.7	555.7	588.8	588.8
Total wireless base	**867.8**	**904.5**	**969.9**	**1,033.6**	**1,035.1**
Growth					
Rural wireless base		29.3	42.4	30.6	1.5
Urban wireless base		7.4	23.0	33.1	(0.0)
Total wireless base		**36.7**	**65.4**	**63.7**	**1.5**
Rural Net Add%		80%	65%	48%	101%

Table: Trend of telecom subscription data as reported by TRAI

V. **Several TSPs provide network access to bottom-of-pyramid / low income segment of the potential subscriber base (which are also characteristics of majority of rural subscribers). Such customers are known to majorly use their mobile for incoming calls. Thus, TSPs might initially have to incur losses while serving the outgoing voice call activity of such subscribers.**

VI. **However, there is a social benefit in increasing the number of mobile users even if the incremental users have a very low usage and the priority for owning a mobile is to receive calls. More people are able to communicate and are contactable.**

A cost based MTC IUC regime ensures that the TSPs serving such subscribers at-least recover the cost of work done incurred for carrying the off-net incoming calls. This fair and reasonable use-based returns on the off-net incoming calls enables the TSPs to invest in rural areas.

VII. **On the contrary, the absence of a cost oriented MTC (such as one with Zero MTC as applicable under regulated BAK regime) where TSPs don't even recover the costs incurred on account of the work done by them in terminating off net incoming calls would discourage TSPs from investing in rural areas. In a phase where building and enhancing the telecom infrastructure in rural areas, and including all Indians under the umbrella of basic telephony services remains a policy and regulatory priority, BAK regime would seriously undermine this "Digital India" objective.**

VIII. The Authority had voiced similar views in its "**Recommendations for Accelerated Growth in Rural Telephony (dated 19th March 2009)**" where it had stated the below given points:

- *The issues in spreading the telecom services to Rural India are complex and multidimensional and deserve special attention.*

- *Communication is still a challenge in villages and remote places, while urban India witnesses a telecom revolution. The fruits of telecom liberalization have not reached the majority of rural masses.*

- ***In a market where margins are getting narrower, setting up of telecom infrastructure in rural areas is not very lucrative. To sustain this, the operators require facilitating measures to reach rural markets. There is a need for evolving the policy and regulatory environment necessary to encourage service providers to move to these apparently less lucrative markets.***

IX. While substantial progress has been made in development of rural telecom infrastructure and rural tele-density have shown significant improvement from the time when the authority had given the above views, a lot needs to be still done in ensuring availability of telecom services for all rural Indians. **TRAI's policy interventions need to encourage service providers to not only continue their services in rural markets but also further expand the same.**

X. **In view of the above, a cost based IUC regime which fairly compensates TSPs for the costs incurred on account work done in carrying off-net incoming calls is necessary to incentivize TSPs to both continue investing and expanding in rural hinterlands of the country.** **<u>Continuation of a below cost IUC rate as is presently existing or introducing a regulated BAK regime at this stage of Indian telecom would only act as a deterrent for TSPs to invest in rural markets, in effect depriving rural Indian consumers access to basic telephony services. In fact the rural coverage will contract as operators will be forced to close many rural sites, which will become unviable.</u>**

XI. **Further, prevalence of hyper-competition in Indian telecom industry has safeguarded the interests of Indian consumers by ensuring more than adequate availability of choice and affordable telephony services.**

i. **India remains one of the most competitive markets with 7 – 10 operators per circle offering voice services, compared to a range of 3 – 5 operators in international markets globally.** Further, the DOT has permitted Virtual Network Operators in India. **Surely, the Indian consumer has a wide array of choice when it comes to choosing a TSP.**

ii. **Indian voice tariffs are acknowledged as one of the lowest globally.** The equilibrium point of an affordable retail tariff is a function of the intensity of competition in the market. The hyper-competition in the country has not only imposed constraints on the operator's ability to raise retail tariffs (in fact the retail tariffs continue to decline) but has also ensured that these tariffs remains affordable for majority of Indians.

XII. Thus, cost based IUC regime has played a constructive role in overall growth of Indian telecommunications sector, a more consumer friendly and convenient tariff regime (CPP) and benefits for both urban and rural customers.

D. **<u>No correlation between lowering of IUC and growth of telecom sector / reduction in tariffs</u>**

I. Reliance Jio in its response has stated that *"India's experience also shown that lowering of IUC has led to the growth in telecom sector in all ways including reduction of tariffs to the consumer."* Again a generic misrepresentation without any data to support the same. Facts indicate the opposite that <u>there is no correlation between lowering of IUC and growth of Indian telecom sector</u> or reduction in retail tariffs – telecom sector has had a phenomenal growth in a flat and stable IUC regime.

II. The following table plots the Annual industry AGR revenue as reported by TRAI with IUC changes

Financial Year	Access Service Segment (Rs Crore)				IUC rate (paise)	IUC Change by TRAI
	Gross Revenue	Growth rate %	AGR	Growth rate %		
FY09	125,464		96,671		30	
FY10	124,436	-0.8%	96,395	-0.3%	20	Apr'09
FY11	131,682	5.8%	97,471	1.1%	20	
FY12	148,221	12.6%	107,318	10.1%	20	
FY13	160,176	8.1%	111,256	3.7%	20	
FY14	174,811	9.1%	124,175	11.6%	20	
FY15	191,620	9.6%	138,566	11.6%	20	
FY16	200,902	4.8%	154,640	11.6%	14	Mar'15

As can be seen even when the IUC rate remained constant from Apr'09 (FY 2009-10) to Feb'15 (FY 2014-15), depending on change in competitive environment, the growth of AGR has varied in this period. Also the growth in AGR post reduction of IUC rate from March 1, 2015 has remained unchanged in FY 16 at 11.6%, which is same as growth before reduction in FY 15 over FY 14. **<u>Hence, the growth of AGR has no correlation with the IUC rate. Any advocacy that reduction in IUC will support AGR growth is not supported by past trends as clearly shown above. Hence, there is no case for reducing IUC rate based on the above cited fallacious logic.</u>**

III. Similarly, the following table compares the retail tariffs for consumers and the prevalent IUC rates over a substantial period of time.

S. No.	Quarter Ending	Retail tariff for voice call per minute*	Change	IUC Rate	Remarks
1	June, 2010	0.55	(0.02)	0.20	Retail tariff for voice reduced from Rs.0.55 to Rs.0.47 over 10 quarters due to increased competition. **No change in IUC rate.**
2	September, 2010	0.55	-	0.20	
3	December, 2010	0.52	(0.03)	0.20	
4	March, 2011	0.51	(0.01)	0.20	
5	June, 2011	0.50	(0.01)	0.20	
6	September, 2011	0.50	-	0.20	
7	December, 2011	0.51	0.01	0.20	
8	March, 2012	0.49	(0.02)	0.20	
9	June, 2012	0.48	(0.01)	0.20	
10	September, 2012	0.48	-	0.20	
11	December, 2012	0.47	(0.01)	0.20	
12	March, 2013	0.48	0.01	0.20	Retail tariff improved from Rs.0.47 to Rs.0.51 post cancellation of licenses and reduction of competitive intensity
13	June, 2013	0.50	0.02	0.20	
14	September, 2013	0.51	0.01	0.20	
15	December, 2013	0.51	-	0.20	
16	March, 2014	0.50	(0.01)	0.20	
17	June, 2014	0.51	0.01	0.20	
18	September, 2014	0.50	(0.01)	0.20	
19	December, 2014	0.51	0.01	0.20	
20	March 2015	0.50	(0.01)	0.14	Declined due to aggressive pricing by operators and following reduction of IUC rate and cap on roaming charges
21	June 2015	0.49	(0.01)	0.14	
22	September, 2015	0.48	(0.01)	0.14	
23	December, 2015	0.47	(0.01)	0.14	
24	March, 2016	0.48	0.01	0.14	
25	June, 2016	NA			

As evident, the retail tariffs have declined consistently from quarter ending Sep'10 (55 paise) to quarter ending Dec'12 (47 paise) on account of increasing competitive intensity, despite the IUC rate remaining flat at 20p. **Hence, it is clear that lower tariffs are not achieved due to lower IUC.** Thereafter post closure of operations by quashed licensees following the auction of Nov'12 and reduction of competitive intensity, the retail tariffs improved from QE Dec'12 (47 paise) to QE Dec'14 (51 paise) again in an environment of flat IUC rate. **Hence, it is obvious that the retails tariffs have moved both downwards significantly as well as upwards in an era when IUC rates have remained unchanged and thus there is no correlation between IUC rate and retail tariffs.**

Thereafter, the IUC rate was reduced from 20 paise to 14 paise for mobile networks and to "Zero paise" for fixed line networks. This resulted in aggressive pricing again from operators. Also the cap on roaming tariffs was reduced by TRAI, leading to a further decline in retail tariffs.

IV. **In conclusion, there is no correlation between lowering of IUC and growth of Indian telecom sector or reduction in retail tariffs, and advocating for a lowering of IUC based on this misplaced conception will be erroneous.**

E. Leading incumbent operators at the forefront of adopting and deploying new technologies and paving way for realizing Hon'ble Prime Minister's vision of Digital India.

I. The response from Reliance Jio states that "*Continuance of IUC charges will prevent adoption of new technologies resulting in impediments to implementing the Digital India vision of Hon'ble Prime Minister*". This statement is far from reality and again not supported by any facts. On the contrary, **leading incumbent operators have been at the forefront of new technology introduction in the country.** The first spectrum auction for 3G and 4G spectrum was conducted by DoT in 2010. Post that the leading operators had launched 3G networks in 2011 within a year of spectrum allocation and then the same operators launched 4G services in 2015.

Reliance Jio is the only operator that has launched its services 6 years after acquiring spectrum in 2010 and hence the IUC regime can hardly be blamed for this. Also it is common knowledge that LTE was primarily developed for data services and globally LTE is primarily used for data services. Data services have ZERO relation with IUC charges (IUC charges apply only to Voice). Hence, the whole argument of linking IUC charges to adoption of LTE is baseless and needs to be ignored.

II. **In the past 12 months, many incumbent operators including Idea Cellular have already rolled out the latest 4G technology in several parts of the country, and are currently in midst of expanding the**

same. As of September 2016, Idea 4G services are available across 10 service areas in 2,343 towns and 7,495 villages, and with new spectrum procurement in October 2016, Idea 4G services will be present in 20 out of 22 service areas in the financial year 2016-17. The company is committed to provide wireless broadband services (3G & 4G) pan India and intends to offer same to 70-80% existing 2G covered population (2G covered population presently at over 1 billion). **Further, the introduction of 4G networks in 2015 has happened within a short span of launch of 3G services in 2011.**

III. Moreover, the latest acquisition of new spectrum bands such as 2500 MHz by leading Indian incumbents is in itself an indication of their intent to continue rolling out cutting edge technology for benefit of the consumers.

IV. Further, investment in new technology generally happens in conjunction with growing consumer demand and trends, along with the development of the necessary supporting ecosystem for the new technology. Despite launch of 3G services more than five years ago, only one-fourth of the Indian mobility subscriber base has adopted 3G smartphones while the number of users of mobile broadband services remains at only 149 million, i.e. at a level of 14% only (based on TRAI July 2016 release). The Indian incumbent TSPs have continuously done sufficient investments in new technologies based on global trends, customer demand and market scenario.

As an example, the following table illustrates the time series chart of introduction of new technologies (both 3G and 4G) by Idea Cellular, the corresponding network roll out (i.e. number of 3G/4G sites), consumer uptake of these services and the supporting ecosystem penetration (number of 3G/4G devices and 3G/4G device penetration as a % of total subscriber base)

Parameters	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017 est.
No. of 3G circles (own spectrum)	11	11	11	11	12	13	
3G subscribers as a % of total base in Idea 3G circles			3.0%	7.0%	10.6%	16.8%	
3G device penetration as a % of total base in Idea 3G circles				13.3%	24.4%	36.0%	
2G sites EoP in Idea 3G circles	47,450	53,433	57,711	64,349	73,213	83,012	
3G sites EoP		12,825	17,140	21,381	30,291	50,060	
3G sites as a % of 2G sites in Idea 3G circles		24%	30%	33%	41%	60%	80%

Parameters	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017 est.
4G subscribers as a % of total base in Idea 4G circles						0.7%	
4G device penetration as a % of total base in Idea 4G circles						7%	
2G sites EoP in Idea 4G circles						67,135	
4G sites EoP						14,643	
4G sites as a % of 2G sites in Idea 4G circles						22%	50%

As evident from the above table, the consumer adoption of 3G devices has been gradual reaching only 36.0% at end of FY 2016 despite introduction of 3G services 5 years back. While Idea Cellular has continued to roll out 3G sites in line with growing 3G device penetration over the indicated period, the adoption of new technology (3G) has been still lower at 16.8% of Idea's consumer base using 3G services at the end of FY 2016. Similarly, Idea Cellular has already introduced 4G technology in line with consumer adoption of 4G devices. **Clearly, introduction of new technology goes hand in hand with market readiness and development of relevant ecosystem.**

V. **Introduction of new technology has to also take cognizance of market suitability and on-ground realities of the Indian market.** We would like to bring the following to the Authority's consideration:

a. India is a complex sub-continent with diverse needs ranging from demand of high speed data network by the rich, and knowledge workers and necessary support for growth of emerging Digital Services in the country to basic connectivity for nearly 50% of rural India, where hinterland population in spite of 20 years of services is still living in the Mobility Dark Ages.

b. Owing to lower per capita income and higher incidence of poverty in rural areas, the new subscribers of mobile telephony services are most likely to enter the category with affordable feature phones which primarily support only Circuit Switched (CS) 2G & 3G networks, and are therefore going to be consumers of basic mobile voice telephony services. Thus, it is evident that networks running on CS technology are necessary for the inclusion of future 300 – 400 million rural Indians. All existing 2G and 3G networks need to be protected to service economically challenged, rural 300 – 400 million Indian population residing in remote hinterlands, who still have not adopted mobile services even after 20 – 22 years of introduction of these services in India.

c. Given the current low proliferation of 4G handsets and limited adoption of 4G services in the country, a 4G network only approach by the Indian mobile telecom industry at this stage would also exclude the majority of existing Indians who are current users of voice telephony services. Indian incumbent TSPs have deployed 4G networks which offer voice services as a fall back on 2G/3G based networks, ensuring inclusion of the large Indian subscriber base as far as voice telephony service is concerned, while offering the opportunity to use latest 4G technology to subscribers wishing to do so.

d. Under the above prevailing market realities of the Indian market, 2G and 3G CS network will remain as one of the most critical network infrastructure for mobile connectivity. As a result, the Indian TSPs will need to continue carrying and delivering voice services on 2G and 3G access networks, at least in the foreseeable future.

VI. **In conclusion, leading incumbent operators have continued to introduce new technologies based on market evolution and consumer demands while ensuring inclusion of the large Indian subscriber base as far as voice telephony service is concerned, and offering the opportunity to use latest technology to subscribers wishing to do so. Any claim that IUC hinders introduction of new technology is thus invalid.**

F. A cost based IUC regime founded on 'work done' principle ensures fair and reasonable compensation to TSPs terminating off-net calls.

Given the fact that providing interconnection network service involves costs for which telecom service providers need to be adequately compensated, we do not agree with the assertion made by few stakeholders countering above views.

I. In its response, Reliance Jio has opposed continuance of IUC citing reasons which include:

a. Tariff differential among operators cannot be a reason for continuance of IUC.
b. Entry of new operator cannot be a justification for continuance of IUC (in context of asymmetry of traffic).
c. Incumbent operators want the IUC subsidy to compensate the loss due to competition.

All the above statements are incorrect and belie the rationale behind the prevalence and need for IUC regime in India. In fact we have not advocated that tariff differential among operators or entry of a new operator is the reason for continuation of IUC. The reasons for a cost oriented IUC are different and have been covered in detail in our response. The moot question to be asked is "**Why is entry of a new operator becoming the reason for reviewing the IUC charge, so much so that the Authority has preponed the review of process by more than 12 months?"**

Moreover IUC is not a subsidy. It is the payment for use of work done by other operator, which is the whole basis for the CPP regime. Whoever is seeking an abolition of IUC or having an IUC charge below cost is actually seeking a subsidy to use network of other operators at a subsidised rate. **Hence, there needs to be absolute clarity that IUC is not a subsidy**.

TRAI in para 1.3 of its November'14 consultation paper states *"the IUC regime should also ensure that a service provider does not pass on the burden of its own tariff decision to other networks involved in completing the call or to new competing service providers in the form of a high IUC"*.

The above clearly implies that IUC has to be fair i.e.

a) **neither below cost** so that someone can price voice services at too low a price and pass on the burden of under recovery of cost to receiving networks through its tariff decisions; or

b) **nor higher than cost** so that a new provider is forced to increase its tariff to a very high level in a CPP regime.

All that we are advocating is what TRAI is itself stating that IUC should be fair and cost based in a CPP regime.

II. The concept of IUC originated with the TRAI's introduction of CPP i.e. Calling Party Pays regime, for the convenience of the subscriber. In the CPP regime, it is important to note that the incoming call operator does not charge its subscriber, and the outgoing call operator charges its outgoing subscriber for the complete call (both outgoing and incoming legs). Hence having recovered the total charge from its subscriber, the outgoing call operator had to pay a fair compensation (viz. IUC) to the operator of the incoming call.

III. Thus, IUC in essence, is only a means of settlement or a contractual arrangement between operators for use of each other's networks. Since the use is not equal, <u>the most important factor for IUC is that it should provide a fair compensation to the receiver for the work done by it to receive an incoming call on its network. Further, since the regulation does not give an option to the operator of the incoming call whether or not to receive the call, it is necessary that the incoming call operator is allowed to recover the cost of use of its network from the outgoing call operator. Hence, the concept of cost oriented IUC is integral to CPP regime and CPP cannot exist without IUC.</u>

IV. The Authority has, time and again, rightly acknowledged that TSPs terminating off-net calls have to incur costs for carrying off-net traffic and accordingly adopted the principle of work done for determining IUC in the country.

In this context, the following extracts from TRAI's earlier regulations are reproduced below:

Explanatory memorandum to the Telecommunication Interconnection Usage Charges (Tenth Amendment) Regulation, 2009 (2 of 2009) dated 9-Mar-2009:

"The bill and keep proposal of the service providers was analysed and it was noted that this could mean return to situation prevalent before the present IUC regime was established i.e. receiving party used to pay for incoming calls. One of the fundamental principles of prescribing IUC regime was work done principle. It was also noted that tariff before the IUC regime were very high tariff. The service providers may again resort to charging their own subscribers for receipt of calls or increase fixed charges of providing the services. ***As the service providers do not have to pay for termination of calls into other service provider networks they may offer plans with free calls which could load other service providers' networks****. Bill and keep regime may also reduce call completion rate as the terminating network will not have any incentive to complete the call"*.

'The Telecommunication Interconnection Usage Charges (Eleventh Amendment) Regulation, 2015 (1 of 2015):

"The Authority is of the view that the entire cost of the 'work done' on carrying off-net incoming calls ought to be recovered from the MTC. *Hence, inclusion of the cost of spectrum is necessary for ensuring full recovery of the cost incurred for the work done on termination service".*

V. Moreover, just having an IUC is not enough, but it is essential that IUC is fairly determined and the recipient is not forced to subsidize the operations of the outgoing call operator in a scenario where the IUC is fixed below the cost of the incoming call operator. In this context, the Authority would also recall Paragraph 1.3 of its November 2014 IUC which inter alia provides ***"an IUC regime relates the transfer of network costs between service providers and thus affect the relative scale and prosperity. Therefore, the IUC regime should also ensure that the service provider does not pass on the burden of its own tariff decision to other networks involved in completing the call …"***

VI. The new entrant has stated that a "*Tariff differential among operators cannot be a reason for continuance of IUC*". We fail to understand the basis of such a statement and the context of it. It is pertinent to note that a TSP is free to offer attractive retail prices to its customers. We just want that this should not be paid for by other TSPs through a regime of below cost IUC resulting in cross subsidisation. Under the current CPP regime, the provision of IUC aims to provide a fair and reasonable compensation for costs incurred on account of work done by the terminating network operator in carrying off-net traffic, irrespective of the retail tariff decisions taken by the originating network operator. A "BAK regime" or "reduction of IUC for wireless traffic" being proposed will result in subsidizing the new entrant who has declared free voice services for life by forcing existing wireless mobile operators to pay for its actions by carrying calls from its network at much below actual cost of 31.5 paise per minute and bear 17.5 paise per minute loss. A BAK regime would only tantamount to violation of the principles highlighted in points III, IV and VI above.

VII. Under a below cost IUC regime, the incumbents are being forced to absorb huge losses. The monthly loss suffered by Idea on account of asymmetry is furnished once again for Authority's reference:

		Mar'15	Sep'15	Sep'16	Oct'16
Local MOUs terminated on Idea*	**Mn MOUs**	**13,138**	**12,770**	**13,952**	**14,570**
Local MOUs Terminated by Idea*	**Mn MOUs**	**12,578**	**11,829**	**12,058**	**12,445**
Ratio of Asymmetry	**(IC / OG) times**	**1.04**	**1.08**	**1.16**	**1.17**
Asymmetry *	Mn MOUs	561	941	1,894	2,125
Loss per minute (31.5 ps - 14 ps)	Paise / minute	17.5	17.5	17.5	17.5
Annualised Loss *	**Rs. Mn**	**1,177**	**1,976**	**3,977**	**4,463**

**Oct'16 Figures extrapolated based on Actual traffic till 10-Oct-16*

While Idea was witnessing an annualized loss of Rs. 1,976 million due to asymmetry of traffic (basis Sep '15 traffic volumes), **entry of new operator who is dumping humongous volumes of one-way incoming traffic on incumbents has made the asymmetry worse** leading to an annualized loss of Rs. 4,463 million (basis Oct '16 traffic volumes), **in effect multiplying the losses with every incremental minute terminated on our network. *As long as IUC is continued to be set below cost, the asymmetry of traffic will continue to cause financial losses to the terminating network operators. The same has been magnified with the entry of new operator.*** *By the new entrant's own admittance, "for any new operator, subscribers will come mostly as a churn from existing operators, i.e. subscriber shift from one operator to another. This cannot grow the total number of minutes usage. It is only a shift in traffic from the existing operators to the new operator."*

VIII. Furthermore, as evident from points VII and VIII above, **contrary to the new operator's claim that incumbent operators want the IUC subsidy to compensate for the loss due to competition, it is the**

incumbent operators who are being forced to subsidize the new entrant. Opposition to continuance of IUC only indicates that the new operator wants the incumbents to bear the burden of the tariff decisions such as 'life time free voice' made by the new operator, and force incumbents to continue subsidizing it.

G. Fully Allocated Cost (FAC) model is the only appropriate model to be used for cost determination in the Indian context

We submit that TRAI's approach should be coherent in relation to current situation of Indian telecom sector characterised by low retail prices, lowest interconnect termination rates across the world (set below actual cost), hyper competition of 7-9 service providers with all except one making profit resulting in negligible/low return on capital. Considering rural penetration still at 50.95%, Idea strongly believes that **Fully Allocated Cost (FAC) model is the only appropriate model to be used for cost determination** to ensure fair and reasonable compensation to TSP's and to incentivise them for investment into Rural market as well as to enable them to continue to adopt and bring the benefits of cutting edge technology to Indian consumers.

Reliance Jio in its response to TRAI's CP on IUC has enclosed a report containing opinion of M/s. Detecon International, Germany (a subsidiary of Deutsche Telecom, Germany) on cost oriented Interconnection Usage charges. At the outset, we note that fallacious arguments and interpretations have been used to justify desired ends and we submit that we do not agree with the comments / suggestions provided for preferring LRIC model against Fully Allocated Cost model..

I. **Fully Allocated cost methods versus incremental cost methods:** Detecon in above report has stated that "*TRAI **already decided against FAC for being inappropriate** for the Indian telecom market, as stated in paragraph 40 in the Eleventh Amendment of the Telecommunication Interconnection Charges Regulation from 23th February, 2015*".

We reproduce the actual statement of TRAI regulation quoted above. *"In view of the above, the Authority is of the view that the case for using the FAC model to estimate MTC is not strong in the present day telecom market"*.

From above we can clearly conclude that;

a. TRAI has not decided against FAC as inappropriate
b. TRAI has only stated that considering the telecom market at that point of time, use of FAC model was not strong.

c. Hence, facts and scenario at point in time is critical while estimating MTC.

II. **Regulatory Costs**: Detecon has argued and stated that "*the efficiency benefit of a more precisely regulated price might be clearly offset by the costs to achieve such a regulation. Hence, by introducing BAK, the cost of regulation is significantly reduced*".

We would like to submit that TRAI mandates submission of audited Accounting Separation Statement by all Telecom Service Providers through its regulation, "The Reporting System on Accounting Separation Regulations, 2004", which was replaced on 10th April 2012 and then more recently on 10th June 2016". As explained by TRAI[1] that purpose of said regulation is to "*collect financial data from service providers to measure the financial performance of products and services, analyze costs, returns and capital employed in major areas of a telecom service provider's (TSP) business, monitor licensees' returns on products and services, identify cross subsidization which influences the profitability of any segments, investigate predatory pricing, discrimination and other anti-competitive conduct, and understand inter-operator arrangements in terms of their associated pricing and costs*". Since such financial data are submitted to TRAI by all operators, estimation of Mobile Termination Cost basis such audited data has no incremental costs attached as being proclaimed and in turn, underlines the simplicity of estimating MTR basis ASR submitted by operator and we strongly recommend TRAI should consider same.

While we do not know the exact details, our view is that this argument must have been made in a jurisdiction where the traffic is very symmetric and hence the quantum of net settlement between operators may not justify the cost incurred in tracking, billing and recovering the amount of IUC charges. This is very different in India where the extent of asymmetry is huge and increasing day by day. Hence, we urge the Authority to ignore such arguments which are not based on understanding of Indian Telecom scenario and regulations.

H. Spectrum Cost to be continued to be included in estimating MTR

TRAI in the Eleventh Amendment of the Telecommunication Interconnection Charges Regulation has clearly stated its view of inclusion of Cost of Spectrum in computing the MTR based on work done principle (para 54). However, Detecon has given its opinion that Spectrum cost should not be

[1] http://www.trai.gov.in/WriteReaddata/ConsultationPaper/Document/Guidelines_on_Draft_Accounting.pdf

considered in estimation of MTR and given following arguments which in our opinion is without any rationale and needs to be ignored.

I. Detecon has stated that "*By including the spectrum charges, the incremental costs for voice would be inflated which would lead to excessive MTRS. This has negative impact on consumers and new entrants in the market*".

We would like to submit that Spectrum is fundamental to mobile telecommunication and spectrum charges are actual costs incurred by operators and paid to the Licensee through transparent auctioned process. Hence, being a 'scarce' natural resource, the cost of using this resource must be reflected in the Mobile Termination cost following 'work done' principle. The logic of excluding such costs merely because it is high and will in turn increase the MTR is not only irrational but also underlines the desperation shown to bring down MTR to favor new entrant. The specific situation in each country is also different. In many countries spectrum is given for life and hence while voice services are being provided on old spectrum, new spectrum is being acquire for data services. However, in India the situation is very different, where at the expiry of licenses in 2015 and 2016, operators have been forced to reacquire spectrum at 25-30 times the earlier price and this spectrum continues to be deployed for GSM services on which over 90% of Indian population depends for voice services. Hence, post the renewal auctions in 2014 and 2015, the cost of spectrum for voice services has indeed gone up in India. Hence, in the Indian context, inclusion of spectrum cost would not inflate the MTC, but enable the MTC to reflect the reality of manifold increase in spectrum cost for GSM / voice services.

II. Detecon has subsequently also argued that "*The costs per MHZ have increased significantly during the last decade, but the higher costs per MHZ of spectrum are not caused by the requirements of the voice services. Instead, it is the mobile broadband services which have made this resource to become a bottleneck service with astronomical prices. Hence, the cost of spectrum should be allocated to the actual price drivers, which are the mobile broadband services*".

Detecon has further argued that "*spectrum is acquired to provide the mobile broadband access to the end users. The voice termination minutes are only a by-product which uses the spectrum resources required anyway to meet the resource requirements for mobile broadband access services. Therefore, the need for spectrum and hence the costs do not increase by a typical increase in call volumes*".

We refute above argument and would like to submit that Detecon's comments are not relevant to Indian context which is as under-

i. Spectrum costs in India has increased post Government of India's decision to delink spectrum from licenses and when it started to auction spectrum since 2010.

ii. As existing licenses came up for renewal, existing operators had to necessarily participate in the auction to continue their operations. Indian Telecom market still continues to be predominantly voice market constituting over 82% of overall FY16 telecom revenue as reported by TRAI in its Performance Indicator Reports[2]. **A large proportion of Indians from rural parts of the country are still deprived of basic telephony services and** another 300 – 400 million Indians are expected to **join the basic voice services category in coming years**, most of them are likely to be from rural markets.

    Hence, attributing spectrum cost increase only for broad band is clearly incorrect and misleading as also explained in (i) above. In any case while calculating cost of voice per minute cost allocation is first made between voice and data services and hence the argument becomes irrelevant.

iii. Detecon has additionally argued that "*reason to regard spectrum costs as non-incremental is that the operator has to pay for the spectrum also in case the volumes for mobile broadband and voice are decreasing. This is because there is no active secondary spectrum market in which the operator can easily resell the spectrum*".

    We would like to submit again that respondent needs to note that Government of India has notified spectrum trading rules in Oct'2015[3] and such trading deal valuing Rs. 7,928 crores between operators in India have also been successfully concluded over last 5 months alone[4][5]**.** Thus, Detecon's conclusion is incorrect and misleading.

iv. Telenor in its response to the CP has given inconsistent views regarding inclusion of spectrum cost. In the preface it has stated 'in bold' that "*only the apportioned cost of spectrum which is utilized for voice should be used in the calculation of MTC*", along with reiterating same stand while

2 http://trai.gov.in/Content/PerformanceIndicatorsReports/1_1_PerformanceIndicatorsReports.aspx
3 http://economictimes.indiatimes.com/industry/telecom/government-notifies-spectrum-trading-rules/articleshow/49336686.cms
4 http://www.business-standard.com/article/companies/airtel-completes-rs-4-428-cr-deal-with-videocon-telecom-116052401160_1.html
5 http://economictimes.indiatimes.com/tech/internet/airtel-completes-spectrum-trading-with-aircel-in-7-circles/articleshow/53653565.cms

summarising in its Preface as "*key submissions*". However, subsequently as response to Question 3 & 4 (CP Issues list), it has recommended to exclude Spectrum cost stating that "*Consistent with a pure LRIC methodology, Telenor India does not see it as appropriate to include the cost of spectrum in the calculation, as the amount of spectrum held by an operator is not determined based on termination voice traffic*".

As explained in our previous counter comments, following the principle of work done, all relevant cost needs to be included in estimating Mobile Termination Rates (MTR) and spectrum being key resource needs to be included. Considering following facts that (a) volume of voice traffic is higher than data traffic, (b) still India has 300-400 Mn uncovered rural population and (c) slow uptake of smartphone & continued prevalence of feature phone as detailed in section above, operators who have bought spectrum in auctions since 2010 to as recent as even Mar'15 auction have considered voice usage (which obviously includes terminating traffic) as business justification for purchase of spectrum.

The Authority has itself in its 2014 Recommendations on Pricing of spectrum said that, *"Although the spectrum that is being put to auction is liberalized spectrum, it is quite likely that the incumbent TSPs will continue voice services in the near future"*. Hence, Telenor's comments on Spectrum cost inclusion because of usage of spectrum for data services along with voice need to be viewed accordingly. In any case spectrum is being used for both data and voice services and hence when considering spectrum costs these are being suitably allocated to voice and data and hence there cannot be any reason why spectrum costs should not be included.

III. **Non voice services:** Detecon has cited growing trend of faster data traffic growth over voice and argued against cost based MTR stating that "legacy network concepts cannot simply be transferred to modern telecommunications".

We would like to submit that in India, despite increasing roll out of 4G networks by Indian TSPs, the adoption of new technology by consumers is not matching the pace of new technology deployment by TSPs. While the overall mobile broadband adoption (including both 3G and 4G) as a percentage of total mobility subscribers in India is in low double digits at approximately 14% after over 5 years of 3G launch (149 million mobile broadband users as per TRAI release of July 2016), 4G-only mobile broadband adoption will be still far lower. Based on Idea network statistics for the month of June '16, only 14.3% and 1.0% of its total subscriber base had subscribed to 3G and 4G services respectively. All reported and charged voice traffic is presently carried on CS based 2G/3G networks. Further, no immediate significant change in mix of voice traffic that will be carried on

2G/3G CS network and 4G PS network is expected in 'near future' (as a result of limited 4G device proliferation and miniscule VoLTE device penetration. For E.g., in case of idea VoLTE device penetration was only 1.9% of total subscriber base as of end-June 16).

Hence, in our view work done principle needs to be followed and costs of existing 2G/3G CS network which are carrying the voice usage of customers currently and in near future needs to be considered to correctly estimate MTR.

IV. **Traffic Asymmetry**: Detecon in its report has correctly stated that "Interconnect traffic asymmetry is usually a central factor affecting the rationale behind different interconnect regimes and their outcomes". However, subsequently it gives following three arguments against opponents of BAK.

a. "If the traffic between all network is balanced, then under the assumption of a symmetric termination charges the application of CPNP method will result in no effective payments between the operators, thus already replicating the effect of BAK. What would be the use of implementing BAK, then if its effects have been already enjoyed"?

   In our view above argument is like putting cart in front of the horse. In essence it is assuming that BAK is a given and an end objective by itself – again as stated this is an argument given by a specific operator desiring a particular result and such arguments cannot be considered for this consultation paper. **<u>The important point is to know what did the regulator finally do when these arguments were given</u>** – we are sure that BAK was not implemented on the basis of such baseless arguments. In fact, BAK as a concept is logical resultant of traffic between operators coming close to symmetry and adopted by operators as a commercial ease. In a scenario of high traffic asymmetry between operators coupled with situation where few operators being regional and others being national, imposing BAK as a regulation by Regulator will be without any logic or principle that too without any precedent anywhere across the world, even in developed telecom markets.

b. "*There is no empirical evidence of strong correlation between BAK introductions and eventual symmetry in domestic inter connect traffic*".

   As responded to previous argument, the absence of any such empirical evidence simply is that BAK is "adopted by operators" only when they are close to or achieve traffic symmetry not the other way round.

c. “*Packet networks like public IP networks have been long interconnected under peering agreements similar to BAK, where huge traffic asymmetries are very common. Economic reasoning behind is the general impossibility to allocate the benefits of connection between the originator and the receiver*”.

It is pertinent to mention here that in IP based networks the call will use data on both the calling party and the receiving party and both the calling and receiving subscribers will need to pay to their respective service providers for the use of data. Hence, the same will NOT be BAK but in fact an equivalent of RPP, where the receiving party would pay to its TSP (Telecom Service Provider) for use of data. Hence, it is essential that BAK is not mixed up with RPP regime. **We reiterate that there is not a single country in the world which has a CPP regime and where regulated BAK has been mandated**.

Further, as responded in previous section on Non voice services, in our view considering the current scenario of all charged voice traffic entirely being carried in 2G/3G CS network and continuing the near future, cost estimation of MTR need to consider CS network following work done principle.

I. Pure LRIC model not suitable for Indian context

With respect to LRIC and its variants we would like to submit that LRIC is computed based on model of hypothetical operator involving multiple assumptions. Authority has rightly highlighted in its Explanatory Memorandum to IUC Regulation 2009 that *“…it would not be appropriate to use a model, which is complex, subjective and does not seem to confer any great advantage for calculating mobile termination charge. On the other hand the top down model taking data from annual report, account separation report etc. of the service providers with proper normalization and adjustment would be less subjective, verifiable and would not lead to of much difference in estimating the termination charge.”*

We would also like to submit following comment on LRIC;

a. It is based on theoretical network architecture and difficult to replicate in practice with actual ground realities varying across vast geographies
b. Requires multiple data points in turn requiring multiple assumptions
c. Unlike the situation in India, it is adopted in countries where much higher mobile penetration levels and full rural coverage has been achieved

Hence, we strongly believe Fully Allocated Cost approach is most suitable over LRIC in Indian Context. Other things being equal, the costs estimated using a Pure LRIC approach will be lower than the costs estimated under other variants of LRIC. Thus, coupled with the fact that current Mobile Termination Rates set in India is lowest among all countries as shared subsequently and is below actual cost, there is no justification for Pure-LRIC model for India, rather, current MTR needs to be revised upwards based on actual cost.

Pure-LRIC model has been adopted by limited countries which are characterised by saturated market with near 100% 2G/3G CS population coverage, high retail prices, profitable mobile industry with limited competition which clearly is not the situation in India. Thus, assertions made by very few respondents recommending Pure-LRIC model for determining MTR needs to be ignored.

I. RCOM has cited example of 17 member states of European parliament who have implemented pure LRIC. Of these it has given chart of only 6 countries highlighting MOU growth against drop in RPM, without giving similar trend of remaining 11 countries. Moreover even in those 6 countries, it has failed to demonstrate that drop in RPM shown is directly and only due to MTC reduction on adoption of Pure LRIC model.

II. Telenor in its submission has listed 4 more countries who have adopted Pure LRIC model and 5 countries that have set MTR rates via benchmarking of countries that applied Pure LRIC. However, all these examples are only from within EU. It has separately listed only 4 countries, being Norway, Jamaica, Kenya, and Tanzania which are outside European Union and have adopted Pure LRIC. Also it has shared that within EU, Finland and Netherlands have not adopted Pure LRIC approach.

As commented by us, above assertions do not provide any strong basis for adopting Pure LRIC in Indian context;

a. Examples cited are relatively limited sample and of specific geography & is not representative of global trend.
b. Cited countries have matured telecom markets with high fixed lines, urbanization and high tele density compared to India’s Rural teledensity of just 50.95%.
c. Indian telecom market dynamics and socio-economic factors are quite different with 9 to 10 telecom operators
d. Current MTR set in India is lowest among all countries comparable in terms of population as shared below. The IUC rate fixed by TRAI at 14 paise is much lower than all other benchmarks of comparable markets. The lowest IUC rate in any market is equivalent of 59

paise per minute for Malaysia which is more than 4 times set in India (for China it is 40 paise per minute, but in a RPP regime and hence the effective recovery on incoming call in China will be higher).

	Country	Population (in Bn)	MTR in Local Currency	Currency	MTR Rate in US$	MTR in Rs.	Mobile Penetration
1	China	1.4	0.04	CNY	0.006	0.40	93%
2	India	1.3	0.14	INR	0.002	0.14	81%
3	US	0.3	Not Applicable as customers charged for incoming calls				103%
4	Indonesia	0.3	204	IDR	0.02	1.36	100%
5	Brazil	0.2	0.1	BRL	0.03	2.00	141%
6	Thailand	0.07	0.35	THB	0.01	0.67	105%
7	Malaysia	0.03	3.65	MYR	0.01	0.59	144%
8	Australia	0.02	0.036	AUD	0.03	1.83	132%

Table: Comparative of MTC rates of India with some major countries

Considering that current MTR set is lowest among all comparable countries with mobile teledensity also being lowest with rural teledensity just at 50.95%, there is no justification for considering Pure LRIC model. Instead, Authority needs to review and revise current MTR which was set below actual cost so as to incentivize operators for more investment in rural market and cover remaining uncovered population of 300-400 million Indian and helping them bridge the digital divide. It is also important to know that where models other than FAC have been used like LRIC, those countries have transparently shared the calculations of the model. Based on our calculations as given in the response to consultation paper our LRIC costs comes to 29.6 Paise / minute. The Authority has determined the cost of 14p / minute citing LRIC. This is much lower than our calculations based on LRIC and many times lower than the termination charges prevailing in any other country following LRIC. Hence, unless the Authority transparently runs a consultation on LRIC with clear methodology and definitions, the only method that can be followed for fixing MTC is FAC. The example of OFCOM in this respect is explained below.

III. It is also pertinent to mention that Telenor has opposed implementation of Pure-LRIC elsewhere. However, in its submission in current CP to the Authority, Telenor has further cited following justifications supporting its view for pure LRIC model which as stated by us above are incorrect or not relevant for India, hence needs to be ignored.

a. Telenor has commented in favour of Pure LRIC "*because it is economically efficient and transparent*".

We would like to submit that Pure LRIC is only theoretical model considering network architecture of a ***hypothetical efficient*** service provider which in Indian scenario is difficult to construct considering its vast and varied geographical spread, varied quantum of spectrum availability across circles/cities and varied technology deployed. Moreover, with regard to '***transparency***', it is pertinent that Ofcom[6] (whose example is cited by Telenor for above conclusion, had initiated stakeholder's workshop in Oct'13 to finalise MTR for Apr-15 to Mar-18 period, which is nearly 1.5 years with multiple workshop and caliberation of the model. Further we would like to highlight the report dated 10-Mar-2015, "MTC Review 2015-2018: Mobile Network cost modelling[7]" submitted by Analysys Mason under commission by Ofcom which was based on similar detailed consultation and review exercise of costing model of Mobile Network by all operators in which the Annex B lists out over 26 areas which required correction or adjustments based on error identified in structural calculation of model used in 2014.

This clearly shows the rigor required for developing such hypothetical model which is currently not suitable for India and even ignoring that fact for a moment is prone to error, subjective and disputable. Hence, Fully Allocated Cost approach based on audited and reported Accounting Separation Statements submitted by all Service Providers and already available with TRAI is best suited to estimate correct MTR transparently.

b. Telenor has favoured Pure LRIC citing that it is based on "*avoidable costs concepts*".

We would like to submit that such model is being adopted by European Commission after considering the market scenario wherein population coverage of near 100% has been achieved. In Indian context with large proportion of Indians from rural parts of the country are still deprived of basic telephony services and about 300 – 400 million Indians are still expected to join the basic voice services category in coming years, adopting such model would force Telecom service provider to review their investment decision with no incentive for expanding to such rural market and hence, such model is not appropriate in Indian context for time being.

[6] https://www.ofcom.org.uk/consultations-and-statements/category-1/mobile-call-termination-14
[7] https://www.ofcom.org.uk/__data/assets/pdf_file/0029/76385/mct_final_statement.pdf

c. Telenor has recommended Pure LRIC stating it "*improves the ability of smaller operators to offer flat-rate any-network calling*".

   Above statement underscores that Pure LRIC model considers that existing investment by service providers have achieved its objective in terms of population coverage and return on investment to investors in the industry. Whereas data published by TRAI highlights that wireless industry is making losses for last few years and industry's Return on Capital Employed (RoCE) is abysmally low. Such financially stressed status acts as a disincentive for any future investments in the sector with overall debt level for the Mobile industry having risen to whopping ~ Rs 470,000 crores (post the Oct'16 auctions) against a consolidated gross block investment of over Rs. 900,000 crores. Against this background and considering the fact that Indian telecom industry still required investment for basic coverage, assertions to adopts Pure LRIC model clearly needs to be ignored. Moreover, the IUC determination is not meant to serve a category of operators, but has to be balanced and fair to all operators.

d. Telenor has further argued favouring Pure LRIC as in it "*customers of networks with lower levels of coverage will not be subsidising the additional coverage costs of networks with higher levels of coverage*".

   Above argument underlines the fact that Pure LRIC model do not provide any financial incentive to service provider to expand their coverage and will negatively impact Hon'ble Prime Minister's vision of Digital India. Hence in our view, such model should be considered only when India realises its goal of empowering every Indian with mobile & digital revolution is achieved. **<u>We believe the intention of the Authority is not to discourage higher levels of coverage and force existing operators to contract their coverage or support operators with lower network coverage</u>**.

e. Telenor has favoured Pure LRIC as it states that MTC under it "*do not contribute to network common costs that are also supporting data and other origination services*".

   We would like to submit Fully Allocated Cost approach based on Accounting Separation Statement also excludes costs supporting data and other origination services to arrive at Mobile Termination Costs. Hence, what is stated in support of LRIC holds equally true for FAC and hence this is not a reason to choose one over the other. Common cost and joint costs needs to be considered to ensure full cost recovery for access service providers based on work done principle.

f. Finally, Telenor has cited The Competition Commission of India vide Determination of Cost of Production) Regulations, 2009, stating it "*has **adopted** pure long run average incremental cost based method for the purpose of calculating the cost of goods and services"* to argue its recommendation for Pure-LRIC model.

We would like to submit that Telenor's above conclusion is based on factually incorrect and incomplete understanding of The Regulation. Section 3 (1) of the Act[8] clearly lays down process of determination of cost as;

> *"Cost" in the Explanation to section 4 of the Act shall, generally, be taken **as average variable cost**, as a proxy for marginal cost:*
>
> *Provided that in specific cases, for reasons to be recorded in writing, the Commission may, depending on the nature of the industry, market and technology used, consider any other relevant cost concept such as avoidable cost, long run average incremental cost, market value.*

From above it is clear that;

i. The Competition Commission of India has not 'adopted' pure *long run average incremental cost based method for the purpose of calculating the cost of goods and services as general principle*

ii. Infact, as general principle average variable cost is considered as proxy for marginal cost, which in Telecom context is reported by service provider under Accounting Separation Statement.

Hence, we reject arguments favouring Pure LRIC model for India and recommend follow Fully Allocated Cost approach for estimating Mobile Termination Cost.

J. Prescription of fixed termination charge as well as the mobile termination charge from wire-line networks as 'zero' through the Telecommunication Interconnection Usage Charges (Eleventh Amendment) Regulations, 2015 has not resulted in any improvement of performance of wireline

[8] http://www.cci.gov.in/sites/default/files/regulation_pdf/cost_pro.pdf

services with their subscriber numbers continuing to show a decline, and further leading to increasing severe losses for wireless operators currently estimated to be ~ Rs.500 crs p.a.

I. In their responses, Reliance Jio, Reliance Communications, Videocon, Tata Communications and BSNL have either claimed themselves or cited Authority's view in the consultation paper that prescription of termination charge from / to wireline network as 'Zero' has benefited wireline services. However, this claim is either erroneous and/or disregards the losses wireless operators are having to bear on account of this prescription.

II. Reliance Jio has stated that "*we agree with the observations in the TRAI consultation paper that moving to Bill & Keep for wireline to wireline, wireline to wireless and wireless to wireline has immensely benefited the fixed line and the broadband services*".

Videocon and Tata Communications have both commented "*The step taken by Authority in respect of fixed line termination charges has given a fillip to the growth of wireline services both for voice as well as data*".

BSNL has replied that "*BSNL is of the view that the prevailing termination charge as zero paise for all national calls originating / terminating in wireline network is having a positive impact by way of arresting disconnection of wireline connections and generating demand of wireline connections*."

Reliance Communications has stated that "*Further analysis of TRAI‟s Telecom Subscriber data Reports of 01 Sep 2015 and 09 Sep 2016 (Refer Table below) reveals that the BAK regime implemented for fixed termination charged has been a success and has been able to arrest the negative growth observed in the wire line subscriber*."

Yearly Growth Rate (All India)	
Jun 2014 - Jun 2015	**Jun 2015 - Jun 2016**
-6.69	-5.38

However, a closer analysis of the actual data as indicated by TRAI in its consultation paper seems to suggest otherwise. This is elaborated below.

III. The performance in terms of number of wireline subscribers has continued to decline even after the prescription of BAK for wireline networks. The quantum of reduction <u>reduced from -2.0 mn in FY12-13 to -1.7 mn in FY 13-14 without any change in IUC regime</u>. Hence, there cannot be a greater distortion of facts than to state that a slightly lesser decline in the number of wireline subscribers

denotes improvement. <u>There is no improvement at all.</u> Despite the subsidy given by the Authority, the number of wireline subscribers continues to decline.

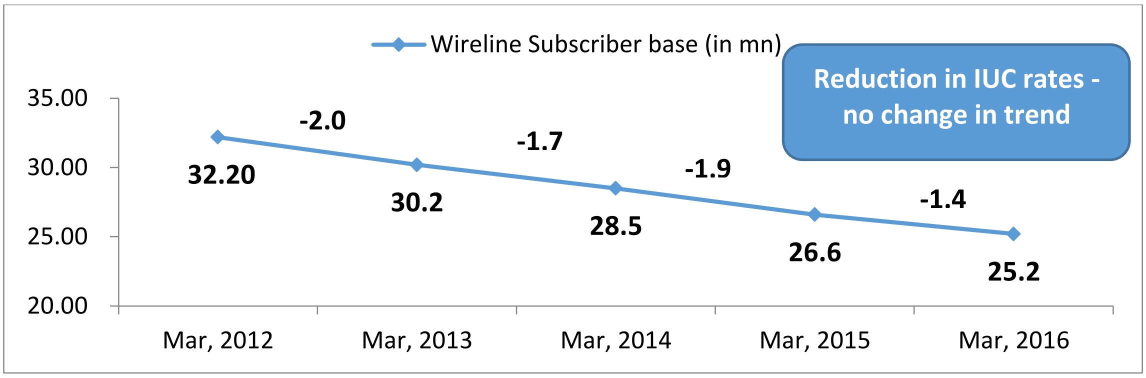


Chart: Annual trend of Wireline subscribers as reported by TRAI

Further, the growth in <u>wireless broadband subscribers has no correlation with BAK regime, which only impacts the voice usage</u> and has zero impact on data usage.

IV. Reliance Jio has further stated that "*The most positive impact of the BAK regime, after being introduced under the IUC Regulations, 2015, has been on the tariff of wireline services, wherein BSNL has started offering unlimited free calls between 9 pm to 7 am and on all Sundays to landline and mobile of any network within India.*"

BSNL has also added that "*BSNL has been amongst the first ones to pass on the benefits of reduced termination charges to wireline customers. BSNL has schemes offering free calling to its wireline customers presently in night hours and on Sundays*".

Reliance Communications has also stated that "*It helped the growth of wire line broadband and enabled innovation in tariff being offered in fixed line (free night calling, Fixed –Mobile- Telephony etc) over the past one year*".

However, the above statements (in point IV.) totally disregard the fact that t**he prescription of fixed termination charge as well as the mobile termination charge from wire-line networks as 'zero' through the Telecommunication Interconnection Usage Charges (Eleventh Amendment) Regulations, 2015 has resulted in subsidization of inefficient wireline operators at the cost of wireless operators. Post this revision, the asymmetry in traffic between wireline and wireless traffic has increased. It has also resulted in predatory pricing from BSNL (Cross subsidising one category of service providers and thereby enabling them to offer below cost / free services is NOT innovative**

pricing. Every low price cannot be called innovative pricing) which is being forcibly subsidized by the wireless subscribers. <u>Resultantly, it has led to severe losses for wireless operators due to aggressive pricing by wireline operators supported by Zero MTC.</u> The increase in wireline traffic asymmetry and the loss due to IUC set to zero, for Idea are shown in the following table.

Period	**Incoming MOUs from Landline**	**Outgoing MOUs to Landline**	**Incoming minus Outgoing MOUs**	**YOY Increase**	**Net Annualised IUC Billing @ 20p/min (Rs.mn)**	
A	B	C	D=(B-C)	E	F = (D X 20p)	
Oct-Dec'13	1,316	644	672		538	
Jan-Mar'14	1,295	618	677		541	
Apr-Jun'14	1,333	630	702		562	
Jul-Sep'14	1,350	632	718		575	
Oct-Dec'14	1,312	603	709	6%	568	
Jan-Mar'15	1,350	605	745	IUC reduced from 20 p to Zero		
					Annualised Loss @ 20 p/min on asymmetric traffic	Annualised Loss @ 31.5 p/min on asymmetric traffic
Apr-Jun'15	1,516	641	875	25%	700	1,103
Jul-Sep'15	1,671	650	1,021	42%	817	1,287
Oct-Dec'15	1,658	626	1,033	46%	826	1,301
Jan-Mar'16	1,731	608	1,123	51%	899	1,416
Apr-Jun'16	1,775	616	1,159	32%	927	1,460
Cumulative increase since change				63%		

Table: Increase in Wireline traffic asymmetry and loss due to IUC set to zero for Idea

As can be seen from the table above, the annual increase in asymmetric traffic which was 6% when the IUC rate was fixed at 20p, has jumped significantly and has increased by 63% in 15 months since the IUC has been abolished (i.e. fixed at zero). The annualized loss for Apr-Jun'16 for Idea is Rs.92.7

crores (Rs. 146 crores @ 31.5 paise/minute) and given that Idea has nearly 18.9% of mobility revenue market share, this implies an annual loss of approximately Rs.500 crores (approx. Rs. 770 crores @31.5 piase/minute) for the wireless operators in totality. This is a huge cross subsidization being done by wireless operators to wireline operators, which is enabling wireline operators to inflict further damage to wireless operators through predatory pricing.

Moreover, the resultant high losses for wireless operators due to the prescription of fixed termination charge as well as the mobile termination charge from wire-line networks as 'zero' also indicates that BAK regime has not worked well with the CPP regime.

V. In conclusion there is no improvement in performance of wireline services. They have just benefited at the cost of wireless operators and passed on those benefits to subscribers in the form of predatory pricing. In fact this has resulted in exactly what has been stated in para 2.11 of the consultation paper – *"At the same time, it is argued by the detractors of BAK method that BAK may result in 'a race to the bottom' in which case the TSPs may be incentivized to set prices well below costs to enter new market segments and capture larger market share. This may result in inadequate investment in network infrastructure and consequent inefficiencies in capturing positive externalities. This is particularly important for India which suffers from poor rural coverage, both in fixed line and mobile. As on 31.05.2016, the rural wireless tele-density was 51.27 while rural wireline tele-density was only 0.47."*

K. Termination charges between different networks should be arrived basis of work-done principle and computed on Fully Allocated Cost.

I. In its response, BSNL has proposed asymmetric charges on wireline and wireless networks and specified the following IUC termination charges (keeping current 0.14 paise IUC termination charge for calls between wireless to wireless as the base).

Type of Call	Termination Charge (per minute)
Wireline to Wireless	Zero paise
Wireline to Wireline	Zero paise
Wireless to Wireline	**0.14 paise**
Wireless to Wireless	0.14 paise

II. Further, Videocon has recommended a BAK regime for all domestic calls. Reliance Jio has expressed that BAK should be implemented for all networks.

III. It is pertinent to note that the specification of IUC termination charge at 0.14 paise for Wireless to Wireline call by BSNL, and recommendation for BAK regime for all networks by Videocon and Reliance Jio have been made without providing any substantiation, facts or supporting data and information. Clearly, these views are without any logic and far from convincing.

IV. **We would recommend that termination charges be arrived basis work-done principle and hence be computed based on Fully Allocated Cost. To determine MTC for different network cost needs to be arrived and in case values are similar then termination charges can be symmetric but in case they are different then it can be asymmetric to reflect actual cost.** Further, cost based on Fully Allocated Cost method can be easily computed based on reported financials and Accounting Separation Record which are readily available and verifiable, there would be full transparency and acceptable by all.

L. No logical or rational reason for Bill and Keep

As commented in previous sections, we strongly believe that Interconnection regime has to be cost based approach only and there is no logical or rational reason for Bill and Keep and arguments favouring such approach needs to be ignored taking into cognisance actual fact and current scenario of Indian telecom industry.

1. Reliance Communication has stated that BAK "*Fosters cost recoveries from operations rather than competitors. In the CPP regimes, operators are able to transfer recovery of part of their operational costs to the competitors in form of termination charges. Instead of continuing with such a legacy regime, a scenario wherein the termination charges are low or ideally zero (BAK), each operator has to factor in his operational costs within the tariff itself thereby providing a competition enriching environment.*" However, the statement has disregarded the fact that in the Indian context, <u>the regulator has clearly specified a CPP regime wherein the incoming call operator does not charge its subscriber, and the outgoing call operator charges its outgoing subscriber for the complete call (both outgoing and incoming legs). Hence having recovered the total charge from its subscriber, the outgoing call operator has to pay a fair compensation (viz. IUC) to the operator of the incoming call. Further, since the regulation does not give an option to the operator of the incoming call whether or not to receive the call, it is necessary that the incoming call operator is allowed to recover the cost of use of its network from the outgoing call operator. Hence, the concept of IUC is integral to CPP regime and CPP cannot exist without IUC. The only way we can recover cost recoveries without IUC is by reverting to RPP regime.</u>

In light of the foregoing, there can be only two possibilities for telecom networks –

a. RPP regime at retail level, or
b. CPP regime at retail level, coupled with IUC charges at wholesale level.

With CPP regime being mandated at retail level by the regulator, a regulated BAK at wholesale level will imply a scenario where the incoming call operator will be obligated (no choice) to offer his network to use by other operators "free of charge", with no source of cost recovery. No business enterprise could work if regulated BAK is enforced upon in a CPP regime.

2. Reliance Communication has stated that BAK "*Does not impact profits. Termination charges being the wholesale payments between operators, their elimination does not imply an equivalent and corresponding impact on profit of an operator, albeit it also translates into reduction of costs of operations as well. Overall, within the whole telecommunications system, net termination payments sum upto zero*." This claim is not entirely correct. As pointed out earlier in under Point B, a BAK regime is suitable in an environment of symmetric traffic flows. **A BAK regime under an environment of asymmetric traffic flows will cause a TSP who is a net receiver of incoming calls, to incur net higher costs** (since it will incur a higher quantum of cost on account of work it does in terminating incoming traffic compared to the quantum of cost it saves by not having to pay for the termination of outgoing off-net traffic generated by it), **thereby impacting the individual TSP's profits. While the telecommunications system may not be impacted as a whole, individual TSP's will stand to lose out.**

   We fully agree that at an industry level net termination payments sum up to zero. This being the case, then the statement that "*it also translates into reduction of costs*" is entirely wrong for the whole industry. When there is no cost reduction for the industry, we only need to ensure that IUC rate is fairly determined to provide compensation to recipient call operator for terminating the call on its network. If IUC rate does not provide for a fair recovery of cost, it firstly results in one operator subsiding the other, which is not correct. Also in the end it does impact profits of each operator and the industry as already captured by the Authority in the consultation paper as follows –

   "At the same time, it is argued by the detractors of BAK method that BAK may result in 'a race to the bottom' in which case the TSPs may be incentivized to set prices well below costs to enter new

market segments and capture larger market share. This may result in inadequate investment in network infrastructure and consequent inefficiencies in capturing positive externalities. This is particularly important for India which suffers from poor rural coverage, both in fixed line and mobile."

3. Reliance Jio in its response has stated that "*BAK creates a level playing field for all operators, whether new or existing*". On similar line, Reliance Communications has expressed "*Given the nature of the Indian telecom market and the vast difference in the size of various mobile operators, it is extremely important that adequate safeguards are put in place, so that operators who are net receivers of wholesale termination charges, are not able to use these funds to cross-subsidize tariffs on calls made internally within their own vast set of subscribers. BAK, therefore, ensures creation of a level playing field amongst all operators by enabling them to compete on an equal footing*".

   Both these statements are incorrect. On the contrary, a BAK regime would distort a level playing field. An existing operator, typically, has incurred substantial costs for establishing a network with larger coverage, the benefits of which are also extended to a new operator through the interconnection provision despite the new operator having a relatively smaller network. A cost based IUC regime enables the terminating network operators to recover the cost of use of its network by outgoing call operators. **A BAK regime would force the existing operators to offer its network "free of charge" to the new operator for termination of calls without even receiving any compensation for the cost of use of its network by the new operator.**

4. Reliance Jio has stated that BAK "*is most beneficial to the customers by way of low tariffs and passes on the benefits of newer technology and technology innovations to the consumers*". However, it is pertinent to note that while a BAK regime implies zero termination charges, the impact of technology advances and deployment of newer technology cannot bring down the termination cost to zero. There is clearly a logical incompatibility between BAK regime and zero termination costs on account of technology innovations (which is not possible). Further, as commented in point L (2) above, since lower termination rates does not result in lower cost for industry, it cannot be argued to bring any benefits to the consumers also.

5. In its response, Reliance Jio states that BAK "*promotes level playing field between varieties of competing networks…the current IUC regime gives huge advantage to OTT players providing telecom services like voice calls and messaging as they are not required to pay any termination*

charges…BAK regime would provide equal field to PSTN operators to help reclaim the lost market to the OTT players". We would like to highlight that:

i. **Some of the services being provided by OTT communication players are a perfect substitute of PSTN/Internet Telephony services offered by Licensed Telecom Service Providers (TSPs) in India.**

ii. According to the present licensing regime, services such as Internet Telephony is a licensed service permitted only under UAS/ISP or Unified License granted under Section 4 of the Indian Telegraph Act 1885. Hence, **companies offering OTT communication services without holding a telecom license in India would essentially violate and circumvent Indian telecom licensing provisions and provide services that are otherwise only permitted under a telecom license.**

iii. Typically, TSPs are liable and responsible for plethora of licensing provisions and regulations that include, regulatory levies and license fees, QoS, Tariff Regulations, confidentiality of customer information, Regulatory Audits, Consumer Protection Regulations, emergency services, privacy of communication and lawful monitoring and interception. These conditions are not imposed on unlicensed OTT players, and the **resulting arbitrage allows OTT providers to offer Internet Telephony for free or for a greatly reduced price in comparison to TSPs.**

iv. OTT communication players, are thus sitting outside licensing regime and are not burdened by multiple historic obligations that currently apply to TSPs. Absence of any level playing field with TSPs is a source of unfair competitive advantage for OTT players and this poses social and economic risks:

    a) Lower consumer protection / data privacy and security approaches which do not reflect National Telecom Policy;

    b) Lower control on internet content which does not reflect national security standards;

    c) Business models which depend on "*untaxed"* service revenues reflecting wide OTT freedom to structure businesses to avoid license fee payments and general taxes.

v. The current IUC regime gives huge advantage to OTT players providing telecom services like voice calls and messaging as they are not required to pay taxes. The solution to the problem is not to eliminate IUC rate to make level playing field, but the solution is to regulate the OTT players for voice calling services. This matter is in any case pending with DoT and TRAI for final decision.

vi. Clearly allowing the proliferation of unregulated VoIP/Internet Telephony at a massive scale is hurting competition and leading to a significant disruption in the existing voice business of TSPs that would dent TSPs capability and incentive to invest in internet backbone infrastructure. Such a situation would jeopardize the national objectives of bringing affordable and ubiquitous telephony and broadband access to all across the nation.

vii. Further, besides impacting the health of TSPs, such an arrangement is also causing significant loss of revenues for the Exchequer**.** Governments thus face financial and regulatory challenges as global OTT players use opportunities to locate revenues and profits in low tax jurisdictions and seize opportunities for regulatory arbitrage.

In view of the above, it is only appropriate that OTT players providing communication services be brought under a suitable Regulatory framework that follows the basic principle of "Same Service, Same Rules" to create Regulatory neutrality and foster fair competition.

It is submitted that the Government needs to evolve a framework which ensures level playing field and addresses following concerns on OTT players:

- **Registration, data retention and support for law enforcement and national security**
- **Customer data privacy and security;**
- **Content standards and consumer protection;** and
- **Regulatory levies and taxation**.

Thus introduction of BAK regime, as proposed by Reliance Jio through its comments, is simply not the solution, to promote fair competition or to create a level playing field.

M. **<u>No country has implemented regulated BAK with CPP regime. Further, selective and misleading representation of international markets for advocating lower Termination Charges in India.</u>**

I. In its response Reliance Communication (RCom) has stated that "*Internationally operators are supporting BAK*" supporting this claim with the following comments

a) European Regulators Group (BEREC) has endorsed BAK as the best alternative to the calling Party Network Pays (CPNP) IUC regime being currently implemented in Europe. In its statement titled "Next Generation Networks Future Charging Mechanisms / Long Term Termination Issues" dated June 2010 BEREC has concluded thus: "To conclude, BEREC considers BAK more promising than CPNP as a regulatory regime for (voice) termination in the long term. Strict application of cost orientation in the current CPNP environment in the short / medium term for mobile and fixed networks, particularly bringing down mobile termination rates to efficient cost levels, is a major step towards BAK representing the level effect as identified in this CS."

b) Even the European Commission has summarized the advantages often associated with B&K, as follows: "Given the two-sided nature of call termination, not all related termination costs must necessarily be recovered from the wholesale charge levied on the originating operator. Even if wholesale termination rates were set at zero, terminating operator would still have the ability to recover their costs from non-regulated retail services. Rather it is a question of how these financial transfers are distributed across operators in a way that best promotes economic efficiency to the benefit of customers."

Clearly, the above comments are nothing but anecdotal references cited to push for BAK regime in India, without even providing a single example of a country with CPP regime that has implemented regulated BAK.

II. Reliance Jio in its response states "*Trends from all over the world support moving to BAK*". This statement has been made without providing any substantive justification apart from quoting few extracts chosen from selective organisations. Further, BAK regime is being advocated based on declining MTRs in Europe (giving examples of MTRs in Sweden, UK, Germany, Denmark) and countries like Mexico, Brazil, Chile and Australia. The basis for selection of these countries for analysis is unclear. Neither any information on complete telecom landscape of these countries such as level of competition, tele-density levels, prevalent prices, nature of market in terms of pre-paid and post-paid split, etc. which are important considerations in determining the applicability of steps taken by regulators in these countries been provided for any logical comparison.

It is only reasonable to agree with TRAIs own view that (Para 5.3.2 of Explanatory Memorandum) *any approach to setting up of IUC needs to be adapted to local conditions and should be based on cost so that service providers are compensated for the use of their network by other service operators.* Thus, the case of reduction of MTC charges when it is already below cost or advocating for BAK merely on account of what other regulators have commented, but not implemented has no merit.

In our view, if at all a comparison with other countries is warranted, it should be done with nations which are either as populous / large as India or with comparable peers in Asia-Pacific. Based on this, a comparison of MTR in Indian and select appropriate countries is shown below:

	Country	Population (in Bn)	MTR in Local Currency	Currency	MTR Rate in US$	MTR in Rs.	Mobile Penetration
1	China	1.4	0.04	CNY	0.006	0.40	93%
2	India	1.3	0.14	INR	0.002	0.14	81%
3	US	0.3	Not Applicable as customers charged for incoming calls				103%
4	Indonesia	0.3	204	IDR	0.02	1.36	100%
5	Brazil	0.2	0.1	BRL	0.03	2.00	141%
6	Thailand	0.07	0.35	THB	0.01	0.67	105%
7	Malaysia	0.03	3.65	MYR	0.01	0.59	144%
8	Australia	0.02	0.036	AUD	0.03	1.83	132%

Table: Comparative of MTC rates of India with some major countries

N. Comments on International Termination Rates

The summary of Idea's comments related to Questions 7, 8 and 9 related to International Termination rates are as below:

a. Idea believes that there is a need to remove the disparity in the International Termination Rate (ITR) for Inbound calls (Rs 0.53/ min) and the rates ILDOs pay for Outbound calls (Rs 3.5-4/ min). This will ensure a level playing field for Indian ILDOs vis-vis the foreign carriers in essentially what is an Import Export play. It will earn India additional foreign exchange.
b. Thus Idea recommended ITR of Rs.0.8/ min, also factoring in the dollar appreciation vs the Rupee.
c. The ILDO field in India is quite competitive in which the Standalone ILDOs enjoy healthy revenue share. Thus there are no special regulatory interventions needed for the Standalone ILDOs.

We would like to submit our following counter comments to assertions made by stakeholders related to the International Termination Rate.

I. Airtel has stated that "*the termination charge for incoming international calls in India should be raised closer to Rs. 3-3.50 per minute either in one go or in a phased manner, in order to be at par with the charges paid by the Indian operators for termination in foreign countries*".

We believe while there is a need to increase ITR, there is a need to exercise caution in the level of ITR. ITR set at a very high level may hasten the movement of traffic to OTT players. Thus a more balanced ITR increase to the range of Rs 0.8/ min is more prudent.

II. Airtel has also observed that "*currently there is no apprehension regarding the sustainability of the stand-alone ILDOs in the long-run. In case TRAI views this differently, it may consider deciding a revenue share regime between Indian ILDOs and access providers in respect of the international termination charge, in proportion to the costs incurred by the respective operators in terms of the investments made in networks deployment (CAPEX)*".

We would like to also add that the burden of Telecom Development in India has been borne by the Access Providers in India and including the spectrum fees paid by Access Provider, the share of aggregate investment by standalone ILDOs will be hardly in the 1% range with the rest 99% being put in by the Access Providers. Thus if at all revenue share regime is needed(though we are not in favour of it), the ratio of revenue share should be such that 99% revenue is passed on to the Access Providers.

III. RCom has recommended that "*Yes, International Termination charge should be kept uniform for all terminating networks and should **be kept at zero**. Floor price for international settlement rate (levied by ILDO upon the foreign carrier) for international incoming calls should be prescribed. The revenue collected as part of settlement should be shared, in 80:20 ratio, between Indian ILDO and access service provider*".

We do not agree with RCom's recommendation above. As we have argued in our response to the Consultation Paper, Bill and Keep method is highly inappropriate for IUC regime. Moreover settlement charges paid by Indian ILDOs to foreign carriers for international outgoing calls are much higher than what is received for Incoming International Calls. As also stated by TRAI in the consultation paper, India suffers from a very Low ITR in comparison with other countries where the ITR is typically 10 times the current ITR in India. In fact Indian ILDOs (and in turn the Access Providers) pay around Rs 4 /min to their International Counterparts for outgoing calls.

This is not only leading to loss of Revenue for Indian ILDOs & Access Providers but also resulting in Loss of Forex Earning for India. Making the termination charge zero would further aggravate the imbalance between the Outgoing and Incoming International Calls which stands at 1: 18 as pointed by TRAI and for Idea this ratio is 1: 60 due to predominantly Rural bias of Idea's subscribers base.

We completely disagree with RCOM's recommendation to have a zero termination charge and a floor price for International Settlement Rate. Also the proposed revenue share ratio of 80:20 between ILDO and Access provider is against the principle of work done and the investments made by Access providers.

This is a hypercompetitive industry with 10 to 12 ILDO operators. Thus making the termination charge zero and having a floor price would results in undercutting of rates on the part of ILDOs to garner a higher market share and will result in loss of Forex earning for the country and further aggravate the imbalance between the Incoming and Outgoing International Settlement Rates.

We do not agree with the recommendation of RCOM to share the Revenue collected in the ratio of 80:20 between ILDOs and Access providers. The investments made by Access providers in the spectrum and capex are much higher than the ILDO and this is against the principle of work done and the investments made by the Access providers.

The more critical parameter is the need to ensure increasing parity between International Settlement Rate for Outbound calls and the ITR for Inbound calls. The ITR should also move upwards as the Rupee continually depreciates against the dollar. Also the USD has appreciated at the CAGR of 8% in the last 5 years (2011-2016).Thus ITR at zero value is definitely not recommended and there is a need to increase ITR to Rs 0.8/ min.

IV. RJio has recommended in respect of ITR that "*the present regime of Rs 0.53/ min uniform across all terminating networks can be continued*".

We do not agree with the view of Reliance Jio. In our view, the ITR should increase with dollar appreciation and should also be set in a way that ensures increasing parity with the rates India ILDOs pay for Outbound calls in the range of Rs 3.5-4/ min. Thus as recommended by us, the appropriate level of ITR is in the range of Rs 0.80/ min.

V. BSNL has suggested "*ITR of Rs 0.53/ min for wireless and Rs 0.67/min for wireline networks*".

We do not agree with the concept of differential ITR for different terminating networks. In our view, the ITR should be the same for all terminating networks whether wireline, wireless or internet etc as the appropriate level of ITR is driven more by the need for parity with International rates and dollar appreciation against rupee. In fact the investments in wireless networks far exceed those in wireline networks due to Infrastructure and spectrum fees. Thus, as suggested in our response earlier, ITR should be Rs 0.80/ min for all terminating networks – be it wireline, wireless or Internet Telephony.

VI. As regards to Standalone ILDOs, most of the respondents, e.g. BSNL, Airtel, Vodafone, RJio have felt that the ILDO field in India is quite competitive and there is no need for any special regulatory intervention for Standalone ILDOs. A few operators, e.g. TCL/ Videocon/ Sify, has pointed out that Standalone ILDOs are at a disadvantageous position vis-à-vis the Integrated ILDOs.

We support the view that the ILDO industry is quite competitive, especially as pointed out by BSNL that there are more number of ILDOs in India than the number of Access Providers. Also we pointed out in our response to the Consultation Paper, the Standalone ILDOs enjoy a healthy share of the ILDO market and also offer other services such as IPLC, Global VPNs etc. These data services are a fast growing segment as the Broadband penetration in India expands and thus the ILDOs, Standalone and Integrated alike stand to gain from these ILD Data services to augment their revenue streams.

VII. TCL has also recommended that the ITR should be Nil for Fixed Networks, Rs 0.14/ min for Wireless and Nil for Internet Telephony. TCL has also recommended that the carriage rate should be fixed at Rs 0.35/ min for ILDOs for International Incoming calls. Also Sify has advised to keep the termination charge at a floor of Rupee One that includes present Access Termination Charge (53 paisa), NLD Carriage Charge (35 paisa) and ILDOs retention on the basis of work done principle and cost incurred by each of these parties or alternatively it should be sum of new IUC Gateway charge for ILDOs and MTC as determined by TRAI

We do not agree with the above stand of TCL, Sify and others. There should be uniformity on the ITR whether it be fixed, wireless or internet etc. Fixation of charges as indicated above by TCL will be against the principle of work done and the investments made by Access providers and the ILDOs. Investments made by the Access providers are way above the standalone ILDOs in the range of 96% to 99%. We would further reiterate that the ITR for International Incoming calls should be driven more by the need for ensuring parity with the rates charged by foreign carriers (Rs 3.5-4/ min) and also need to earn additional Forex into India. This has been the logic adopted by TRAI itself in setting a differential ITR as compared to domestic termination rate and we completely support the view with the recommendation that the ITR be increased to Rs 0.80/ min.

With regards to TCL and Sify's recommendation on carriage charge of Rs 0.35/ min for ILDOs, we would like to re-emphasize the point we made in the Consultation paper response. Accordingly, the ILDO market is quite competitive and there is no need to mandate any carriage charges for ILDOs that should be left to market forces.