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22 May 2007

Osmond Borthwick
Director – Telecommunications Branch
Commerce Commission
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By Email

Dear Osmond

National Roaming and Colocation Undertaking
Vodafone's response to Commission's preliminary view

1. Thank you for your letter of 5 April 2007. Please find attached Vodafone's revised Undertaking for National Roaming and Colocation.

2. I thought it would be useful to provide some commentary to assist the Commission in understanding what is now a significantly longer and more complex document. I have included the relevant text of your letter in boxes to provide the context for our commentary.

3. Vodafone is keen to provide the Commission with an informal presentation of this Undertaking at your convenience. I would strongly recommend that you accept this offer since it will further ensure that the Commission fully understands both the meaning and the intent of the drafting.

> *Form of Undertaking*
>
> 10. The Undertaking, at present, does not contain any terms relating to implementation or operational procedures. The Commission considers that all the major terms and conditions of agreement that may be required between the access seeker and Vodafone to ensure a smooth and timely provision of Vodafone's roaming service must form part of the Undertaking including implementation and operational processes.

4. The settlement of the Implementation Plan and the Operational Procedures is still a condition precedent (see clause 2.1(a) of Schedule 3), but we have provided that, if the parties are unable to agree either of these documents, a party can refer the matter to an independent technical expert to resolve (see clause 2.2 of Schedule 3). We have added clause 29 of Schedule 3, which lists the matters that should be included in the Operational Procedures, and also provides for the establishment of a Working Group, which will be a forum for dealing with implementation issues and discussing and making recommendations and changes to the Operational Procedures over time (see clause 25 of Schedule 3). It is our experience that these documents are best finalised through discussion between the parties. These are

typically non-confrontational discussions, but the dispute resolution process will be available in the event that agreement can not be reached.

> *Form of Undertaking*
>
> 11. The Commission considers that the process of defining and changing Location Areas (LAs) and the general principles around which handover points will be established are important and should be included as part of the implementation/operational processes that form part of the Undertaking.

5. Procedures for adding location areas to become Exclusion Zones have been included in clause 10 of Schedule 3 of the revised Undertaking. This process is in the control of the Access Seeker and triggers a recalculation of the roaming price (see clause 6 of Schedule 2). Handover and Handover Points are dealt with generally in clause 26 of Schedule 3. Also, the Technical Specifications in Schedule 4 set out further information on Handover Points. Please note that we have not provided information on the exact location of our premises for the purposes of establishment of Handover Points, as the Undertaking will be a public document and the location of those premises is sensitive for security reasons. The exact locations will, of course, be revealed to the Access Seeker once they have signed the Deed of Acceptance or some other confidentiality obligation acceptable to Vodafone.

> *Existing commercial agreement*
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> 12. Clause 2.2 of the Undertaking excludes access seekers who already have a commercial agreement with Vodafone from accessing the terms of the Undertaking.
>
> 13. Clause 3 of Schedule 3A of the Act provides that the Commission may, while considering a proposed regulatory change, accept an offer from an access provider to supply a service to all access seekers on the terms and conditions of a written undertaking.
>
> 14. In the Commission's view, if an undertaking is accepted by the Commission and the Minister and registered under clause 6 of Schedule 3A, the access provider must supply the services to all access seekers in accordance with the terms of the Undertaking.

6. Vodafone has revised clause 1.1 to allow for any person who qualifies as an Access Seeker to access the service, including (implicitly) an Access Seeker that is "on contract" with Vodafone. Please note that we have added a requirement for a prospective Access Seeker to enter into a Deed of Acceptance in respect of the particular service (see Schedule 4). We believe this is necessary, as we could not see how else Vodafone could be satisfied that the prospective Access Seeker would be bound by the obligations of an Access Seeker set out in the Undertaking. This Deed of Acceptance also provides that, where Vodafone and that Access Seeker are "on contract" when the Deed of Acceptance is entered into, that contract will be terminated when the Access Seeker takes the Vodafone Roaming Service under the Undertaking. Otherwise, there would be confusion between the parties to the contract as to which terms applied and it would have made the relationship impossible to manage.

> *Exclusive provider*
>
> 15. Clause 8.1(a) states that during the term of the Undertaking, Vodafone will be the exclusive provider of services equivalent or similar to the roaming services to access seekers.
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> 16. The exclusivity clause in the Undertaking does not appear to be consistent with the promotion of competition for the long-term benefit of end-users. The Commission considers that Vodafone should demonstrate how exclusivity will be in the best interest of end-users.

7. Vodafone has removed the exclusivity provision. However, if an access seeker chooses to take a national roaming service from another supplier then Vodafone reserves the right to terminate its contract with the access seeker on 6 months' notice (see clause 13.1 of Schedule 3). We believe this is consistent with the promotion of competition for the long-term benefit of end users, as the Access Seeker will be free to choose to roam on another person's network, but the consequence will be that Vodafone may terminate. We are not aware of instances where a single Access Seeker concurrently roams on two host networks and, whilst we have not had the opportunity to conduct a full analysis of the concept, we believe there may well be technical and practical complications.

> *Roaming on to 3G networks*
>
> 17. The roaming service offered by Vodafone is a 2G only voice/SMS/data roaming service and restricts access to the Vodafone 3G or HSDPA networks.
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> 18. Vodafone has noted that it may decommission its 2G network at any time and has no obligation to provide roaming over any other part of the Vodafone network. In the absence of 3G roaming, the Commission considers that such a move by Vodafone may disadvantage access seekers and their customers and reduce the access seeker's network footprint.
>
> 19. In 2001 when the Telecommunications Act was enacted, 3G was an emerging technology. However, 3G has become more prevalent in recent years and any new entrant would most likely enter the market using 3G technology as there is an increasing demand from end-users for mobile data services.[1] Limiting roaming capability to only 2G networks may restrict new entrants from attracting customers.
>
> 20. The Commission considers that a technology neutral roaming service that does not restrict services to 2G voice/SMS/data roaming services would be a more desirable service that would assist new entry and promote competition for the long-term benefit of end-users.

8. Vodafone's rights to decommission, or reduce the capacity of, its 2G network are now subject to a requirement that it provides continuation of roaming on its 3G network where that network replaces the decommissioned network or is otherwise available to provide service in the particular area (see clause 3.4 of Schedule 3). We note that 3G is still a new technology in New Zealand and elsewhere. Vodafone still relies on its 2G network to provide service to customers in many parts of New Zealand and it will be some time before the coverage of its 3G network matches that of its 2G network. Vodafone believes that incentives to invest need to be maintained, and to do so Vodafone believes there should be a period during which it is not obliged to provide access to new technologies. Clause 3.3 of Schedule 3 now provides that new 3G technologies become available to access seekers 4 years after they are launched commercially by Vodafone. A four year period recognises that the roll out of new networks takes time. It also recognises

[1] Both potential entrants into the market have indicated that they will be deploying 3G networks.

that an important element of competition is service quality and coverage of new or upgraded networks. For access seekers to be able to roam on Vodafone's 3G network the moment Vodafone rolls out the network to a new part of New Zealand, removes any incentive for service providers to compete on the basis of service quality. Such an outcome would not be in the best interests of end-users.

9. This will mean that 3G (without HSPDA) will be available to access seekers from August 2009 and HSDPA from September 2010. We note that it is always open to an Access Seeker to build its own 3G coverage, including through co-location under the Undertaking, where it is commercially significant to them to have this coverage prior to August 2009.

> *Undertaking term*
>
> 21. Vodafone's Undertaking is for a duration of five years from the date of registration except in cases of early termination. Under clause 4.2 of the Undertaking, Vodafone may withdraw or terminate the Undertaking at any time.
>
> 22. Clause 7(1)(a) of Schedule 3A states that the registration of an undertaking is effective for a period of 5 years from the date of registration. An undertaking may only expire before the five year period if the Commission recommends to the Minister that an undertaking should expire earlier than the 5-year period.
>
> 23. Vodafone cannot terminate or withdraw its Undertaking after it has been registered.

10. Vodafone has removed the previous clause 4.2. The Undertaking now has a duration of five years from the date of registration (see clause 2.1). We have provided that, if the Access Seeker is in breach or is insolvent (other specified triggers may also apply), Vodafone will be entitled to terminate provision of service to that Access Seeker (see clause 21 of Schedule 3). Please note this does not terminate the Undertaking as such, which will continue to be available for other Access Seekers. We note that, if this termination right is not available, then Vodafone's only remedy for continued breach by the Access Seeker would be an action for damages, or perhaps an injunction, which is commercially unacceptable. We have also provided that, where this termination right is exercised by Vodafone, that person should not be entitled to apply again for Access Seeker status for a period of 24 months (see clause 21.4 of Schedule 3). Otherwise, the Access Seeker could just immediately reapply to become an Access Seeker and avoid the consequences of termination of the service.

> *Initial coverage area*
>
> 24. The current roaming regulation can only be accessed if an access seeker commits to rolling out a national network, and only after having rolled out to 10% of the area in which the New Zealand population normally lives and works.
>
> 25. Vodafone has proposed that the access seeker builds at least 150 cell sites before roaming is made available to it under the terms of the Undertaking.
>
> 26. Potential access seekers in their submissions suggest that the initial coverage area should remain at 10% but that this should be clarified to refer only to population.
>
> 27. The Commission considers that an appropriate initial coverage threshold could be that an access seeker is required to build a network comprising of 150 cell sites or that covers 10% of the population, whichever is lower.

11. Vodafone has now allowed for a flexible "sunrise" clause, under which an access seeker can qualify if either (1) it builds a network providing coverage to at least 10% of the population, or (2) it builds a network consisting of macro cell sites equivalent in number to at least 10% of Vodafone's macro sites. Today, 10% of Vodafone's macro sites would be about 100 cell sites. See clause 2.1(c) of Schedule 3.

> *Set-up costs*
>
> 28. Under the terms of the Undertaking, access seekers are required to reimburse Vodafone for all development costs to set-up the roaming service.
>
> 29. In previous Commission decisions, access providers have not been permitted to recover the costs involved in implementing capability to deliver regulated services. The Commission would expect this to apply in respect of the set-up costs involved in providing roaming services under the undertaking, as the undertaking has been submitted as an alternative to regulation.

12. The set up costs for this service are likely to be considerable. Typically, special features from our network vendor are required to support the service and these features have not yet been deployed by Vodafone. In the case of TelstraClear's first National Roaming Agreement in 2005, the incremental development costs for Vodafone were $4.98 million, which represented a significant proportion of the forecast charges over the first 3 years. Vodafone believes that some level of cost recovery is appropriate, and has suggested an alternative to an upfront charge. It is proposing that a small increment be added to the base charges for each service, enabling the Access Seeker to repay the development costs over time and in line with its revenues. Once the development costs are repaid, the increment is removed from the price. See clauses 9 to 13 of Schedule 2. Where multiple Access Seekers enjoy the benefit of the service, we provide for equal sharing of the costs. We also note that most of the currently regulated services were already being provided by Telecom for many years and, as such, the set up costs were recovered long ago. Number portability is different, but each regulated party was an access seeker as well as an access provider in relation to that service. We do not accept that it necessarily follows that, because a service is regulated, the Access Provider is unable to recover its set up costs from an Access Seeker.

> *Access fee*
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> 30. Vodafone requires an access fee to be paid in advance.
>
> 31. The Commission considers that Vodafone is entitled to some protection against credit risk. The Commission considers that normal commercial terms should apply in the case of access fees to minimise Vodafone's credit exposure.

13. We believe the Access Fee is a valid commercial requirement to cover Vodafone's minimum fixed operational costs of providing the service (estimated at $20,000 per month per Access Seeker), in the event that usage payments do not reach this amount. It also provides some protection against credit risk. The amount is relatively low[2], and is in any case a pre-payment against usage charges. An Access Fee is also a part of Vodafone's normal commercial terms for national roaming. See clause 9 of Schedule 3. The new Undertaking is more clear on Vodafone's requirements for provision of security by the Access Seeker (see clause

[2] By way of illustration, if the service supported voice only and revenue to Vodafone was just above the Minimum Access Fee amount each month, it would take Vodafone over 311 years to recover the implementation costs.

23 of Schedule 3), which represents the application of Vodafone's standard credit policy for wholesale customers. We have undertaken to take into account the existence and amount of the Access Fee in assessing the credit risk.

> *Wholesale*
>
> 32. Under the Undertaking, access seekers can only wholesale their retail services with the approval of Vodafone.
>
> 33. The Commission considers that access seekers should not need the approval of Vodafone to wholesale their retail services.

14. This requirement has been removed. The Access Seeker Mobile Service (which includes the Vodafone Roaming Service) may be resold by any Access Seeker Reseller (see clause 15.1 of Schedule 3). An Excluded Operator cannot be an Access Seeker Reseller (see the definition of Access Seeker Reseller in clause 1.1 of Schedule 3).

> *Co-location pricing*
>
> 34. Vodafone's Undertaking offers two options for co-location pricing. Both are based on costs depending on whether or not the access seeker wishes to make a capital contribution.
>
> 35. The Commission considers that Vodafone should have regard to the submissions on co-location pricing when submitting its amended Undertaking.

15. The new Undertaking includes an approach to co-location pricing which is broadly consistent with submissions from Telecom and NZCL. See Schedule 7 of the Undertaking.

> *Roaming pricing*
>
> 36. The Commission notes that all parties, including Vodafone, appear to be in agreement from submissions made on the Commission's Issues paper that there is a relationship between roaming and cost-based mobile termination.
>
> 37. The Commission considers that Vodafone should have regard to the submissions on the pricing of the roaming service when submitting its amended Undertaking.
>
> 38. The Commission notes that the Undertaking is silent on the period for which the prices apply. The Commission considers that it would be appropriate to include a mechanism for a regular review of the prices in the Undertaking.

16. Vodafone has included a form of geographic deaveraged pricing for roaming services in the new Undertaking. The price for each category of Roaming Traffic will be based on a headline rate for that category, multiplied by the relative costs of roaming on the Vodafone Network (excluding the Exclusion Zones), as compared to the Vodafone Network as a whole. This pricing reflects the wide variation in average unit costs of location areas.

17. The headline rate (or average rate) is 15c for voice, 6.1c for SMS, and 31.2c per MB for data (each including the $0.01 cost increment for recovery of the set up costs). These significant reductions in rate have been tabled following at extensive review of market pricing and costs. Excluding the recovery of costs, the rate for voice is the same as Vodafone's lowest rate in its Mobile Termination Rate Deed in

favour of the Crown. The SMS rate is well below interconnect in New Zealand and reflects international benchmarks. The data rate is a significant discount on international benchmark rates for wholesale data pricing. It is fundamentally a 2G data rate and should not be compared with rates offered for 3G roaming services or retail rates for mobile broadband services which are not practical on 2G networks. The price evolution is summarised in Appendix 1 to this letter.

18. Schedule 2 of the Undertaking sets out the method of calculation of pricing in detail, and also provides for an auditor to review Vodafone's calculations. We have provided that a prospective Access Seeker may request Vodafone to provide pricing, based on the calculations under Schedule 2, prior to being committed to take the service by signing the Deed of Acceptance (see clause 3). That pricing will hold for a period of 12 months.

19. The pricing is reassessed periodically, at the time of a price review (see clause 8 of Schedule 3), when the Exclusion Zones change and when a Vodafone Future RAN becomes a part of the Vodafone Network (see clauses 6 and 8 of Schedule 2). This will take into account any change in the headline rate, and any change over time in the relative costs of roaming on the relevant parts of the Vodafone Network.

20. We also provide a paper from Dr John Small which comments on the economic basis of our pricing approach.

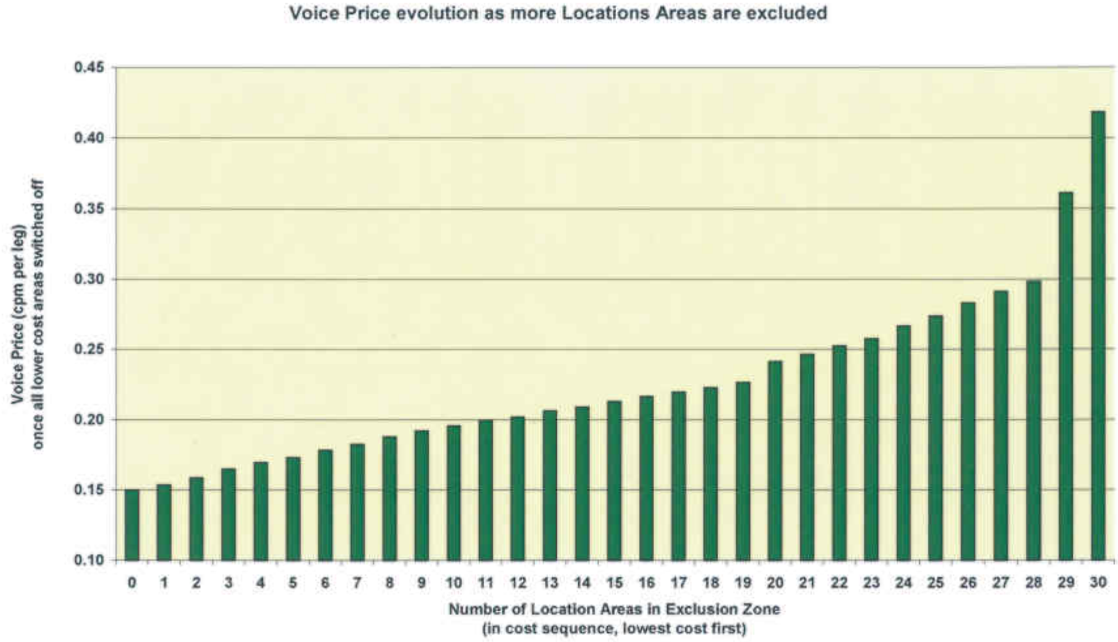
21. Vodafone recognises that this new pricing proposal is very different but we do believe that it is fair to both Access Seeker and Access Provider and preserves incentives for infrastructure investment for both parties. If given an opportunity to provide a presentation to the Commission, Vodafone will provide a detailed explanation of pricing.

Yours sincerely

T.C

Tom Chignell
General Manager Commercial Development

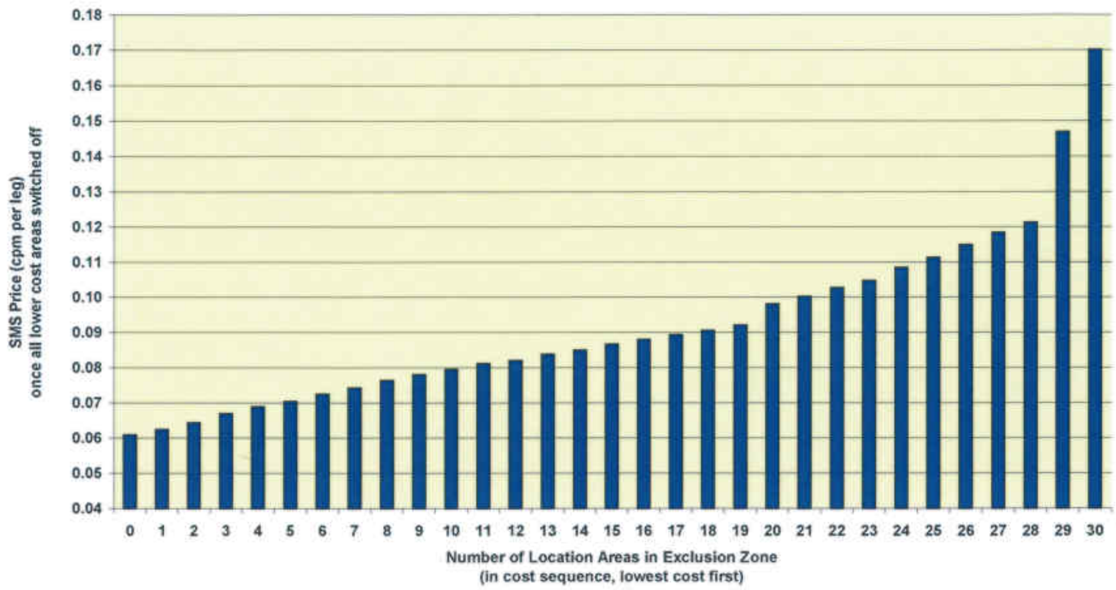
Appendix 1 – Price Evolution



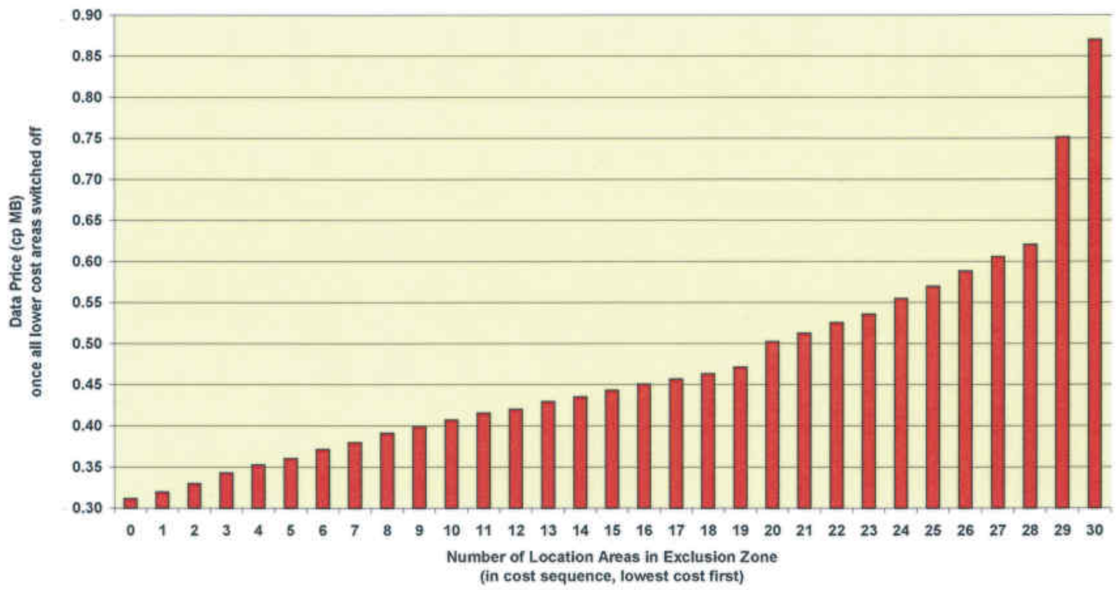
The above chart illustrates how the pricing for voice services evolves as the Access Seeker builds and adds to the Location Areas included in its Exclusion Zones (where it is not provided service).

- The chart assumes that the Access Seeker always adds the next lowest cost Location Area each time – but there is no obligation to do this;
- Given the sunrise clause in the Undertaking, the Access Seeker will have to include a set of Location Areas in its initial Exclusion Zone – i.e. the starting point will not be zero Location Areas;
- This chart shows prices inclusive of the cost increment for recoupment of the set up costs;
- The evolution will apply to SMS and data services in the same way – see the following charts;
- This pricing evolution is against Vodafone's current Location Area relative costs; and
- All pricing is provided exclusive of GST which will be added.

SMS Price evolution as more Locations Areas are excluded



Data Price evolution as more Locations Areas are excluded



Appendix 2 – Comparison with 19 January 2007 draft Undertaking

The following table sets out the clauses from Vodafone's draft Undertaking of 19 January 2007 and provides a summary of the changes made in the attached Undertaking:

FORMER CLAUSE REFERENCES: 19 JANUARY VERSION OF UNDERTAKING	NEW CLAUSE REFERENCES: 22 MAY VERSION OF UNDERTAKING
Undertaking	**Undertaking**
1.1	1.1 (amended)
	New 1.2
1.2, 1.3, 1.4	1.3, 1.4, 1.5
2.2	N/A
	New 3
3	4
4	N/A
Schedule 1	**Schedule 1**
	1(b) amended and 1(c) inserted
Schedule 2	**Schedule 2**
cl 1-3	New 1-16 (amended)
cl 4	cl 17
Schedule 3	**Schedule 3**
1.1	1.1 (new definitions added)
	New 1.2
2.1(b)	N/A
2.1(c)	2.1(c) (amended)
	New 2.2, 2.3, 2.4
3.3	3.4 (amended)
3.4	3.3 (in part)
3.5	11.2
3.6	3.7
3.7	11.1(a)
	New 3.3, 3.5, 3.6
	New 3.9 – 3.15
4 (4.1-4.4)	Schedule 2, cl 9, 11, 12
	New 4
	New 5
	New 6
	New 7
	New 8
5	9 (amended)
6.1, 6.2	10.1, 10.3 (amended)
6.3	10.6 (amended)

FORMER CLAUSE REFERENCES: 19 JANUARY VERSION OF UNDERTAKING	NEW CLAUSE REFERENCES: 22 MAY VERSION OF UNDERTAKING
	New 10.2, 10.4, 10.5, 10.7
	New 11
7: 7.1-7.3	12.1-12.3
	New 12.4
8.1	13.1 (amended)
8.2	13.1 (amended)
8.3	13.2 (amended)
8.4	13.3
9.1, 9.2, 9.3	14.1, 14.6, 14.7
	New 14.2 - 14.5
	New 14.8-14.10
10.1, 10.2	15.1, 15.2
	New 15.3-15.5
	New 16
	New 17
	New 18
	New 19
	New 20
	New 21
	New 22
	New 25
11.1	26.1
11.2, 11.3	26.4, 26.5
11.4	26.6 (amended)
	New 26.2, 26.3
	New 26.7
	New 27
12: 12.1, 12.2	28: 28.1, 28.2
13: 13.1	23.1 (amended)
	New 23.2
14: 14.1	24 (amended heavily)
	New 29
	New 30
	New 31
	New 32
	New 33
	New 34
	New 35
	New 36
	New 37
	Schedule 4
	Schedule 5
Schedule 4	**Schedule 6**

FORMER CLAUSE REFERENCES: 19 JANUARY VERSION OF UNDERTAKING	NEW CLAUSE REFERENCES: 22 MAY VERSION OF UNDERTAKING
Schedule 5	**Schedule 7 (amended)**
Schedule 6	**Schedule 8**