United Nations



Distr.: Limited 15 February 2006

Original: English

United Nations Commission on International Trade Law Working Group I (Procurement) Ninth session New York, 24-28 April 2006

### Possible revisions to the UNCITRAL Model Law on Procurement of Goods, Construction and Services drafting materials addressing the use of electronic communications in public procurement

### Note by the Secretariat

### Contents

				Paragraphs	Page
I.	Introduction			1-4	4
II.	Pro	5-45	4		
	A.	A. General guidance for drafting (A/CN.9/WG.I/WP.38, paragraphs 14-16, and A/CN.9/590, paragraph 16)			4
	B.	exc	nctional equivalence of all methods of communicating, publishing, changing or storing information or documents (A/CN.9/WG.I/WP.38, ragraphs 24-29, and A/CN.9/590, paragraphs 19-27)	7-16	5
		1.	Proposed new text for the Model Law: new article 4 bis	7	5
		Coi	mmentary	8-12	5
		2.	Guide to Enactment text addressing the use of electronic communications during the procurement process	13	6
			<ul> <li>(a) General introductory remarks in the Guide of Enactment (A/CN.9/590, paragraphs 17-18, and A/CN.WG.I/WP.38, paragraph 23)</li> </ul>	13	6
		Coi	mmentary	14	8

V.06-51136 (E)



	(b) Guide to Enactment text addressing article 4 bis	15-16	8
C.	Accessibility standards (A/CN.9/WG.I/WP.38, paragraphs 30-32, and A/CN.9/590, paragraphs 28-33).	17-19	9
	1. Proposed new text for the Model Law: new article 4 ter.	17	9
	Commentary	18	9
	2. Guide to Enactment text addressing article 4 ter	19	10
D.	Form of communications (A/CN.9/WG.I/WP.38/Add.1, paragraphs 1-5, and A/CN.9/590, paragraphs 34-42).	20-28	11
	1. Proposed revisions to article 9 of the Model Law	20	11
	Commentary	21-25	11
	2. Guide to Enactment text addressing article 9 of the Model Law	26	12
	Commentary	27-28	14
E.	Legal value of procurement contracts concluded electronically (A/CN.9/590, paragraph 44, and A/CN.9/WG.I/WP.38/Add.1, paragraphs 13-15)	29-30	14
	1. Proposed revisions to Guide to Enactment addressing article 36 of the Model Law	29	14
	Commentary	30	15
F.	Requirement to maintain a record of the procurement proceedings (A/CN.9/590, paragraphs 24 and 45, and A/CN.9/WG.I/WP.38/Add.1, paragraphs 16-18)	31-32	15
	1. Proposed addition to article 11 of the Model Law	31	15
	2. Guide to Enactment text addressing article 11 of the Model Law	32	15
G.	Electronic submission of tenders, proposals and quotations (A/CN.9/590, paragraphs 46-49 and A/CN.9/WG.I/WP.38/Add.1, paragraphs 19-23)	33-34	16
	1. Proposed revisions to the text of article 30 of the Model Law	33	16
	Commentary	34	16
Н.	Electronic opening of tenders (A/CN.9/590, paragraphs 50-51 and A/CN.9/WG.I/WP.38/Add.I, paragraphs 28-32)	35-37	17
	1. Proposed revisions to the text of article 33 of the Model Law	35	17
	Commentary	36-37	17
I.	Electronic publication of procurement-related information (A/CN.9/WG.I/WP.39/Add.1, paragraphs 34-42, and A/CN.9/590,		
	paragraphs 52-63)	38-45	17
	1. Proposed revision to the text of article 5 of the Model Law	38	17
	Commentary	39-43	18

	2.	Proposed provisions addressing the publication of information on forthcoming procurement opportunities	44	19
	3.	Guide to Enactment text addressing the publication of additional procurement-related information	45	19
		(a) Publication of additional procurement-related information	45	19
		(b) Publication of information on forthcoming opportunities	45	20
III.	Outstand procurer (A/CN.9	46-48	21	

### I. Introduction

1. The background to the current work of Working Group I (Procurement) on the revision of the UNCITRAL Model Law on Procurement of Goods, Construction and Services (the "Model Law") (A/49/17 and Corr.1, annex I) is set out in paragraphs 5 to 43 of document A/CN.9/WG.I/WP.41, which is before the Working Group at its ninth session. The main task of the Working Group is to update and revise the Model Law, so as to take account of recent developments, including the use of electronic communications and technologies, in public procurement.

2. Such use, including the electronic submission and opening of tenders, and holding meetings, storing information and the publication of procurement-related information electronically, was included in the topics before the Working Group at its sixth to eighth sessions.<sup>1</sup> At its sixth session (Vienna, 30 August-3 September 2004), the Working Group held a preliminary exchange of views on these issues and requested the Secretariat to prepare drafting materials addressing them for consideration at its seventh session (A/CN.9/568, paras. 29 and 40).

3. At its seventh session (New York, 4-8 April 2005), the Working Group considered these drafting materials, and requested the Secretariat to revise them for its eighth session. It also requested the Secretariat to prepare a study reviewing practices under various procurement regimes regarding the publication of procurement-related information that the Model Law did not currently require to be published, in connection with consideration of a possible expansion of article 5 of the Model Law ("Public accessibility of legal texts") and any new provision or guidance (A/CN.9/575, paras. 9, 27 and 31).

4. At its eighth session (Vienna, 7-11 November 2005), the Working Group considered the revised drafting materials and the study, and requested the Secretariat to prepare revised materials for further consideration (A/CN.9/590, para. 10). This note has been prepared pursuant to that request.

### II. Proposed draft text for the revised Model Law and Guide to Enactment

# A. General guidance for drafting (A/CN.9/WG.I/WP.38, paragraphs 14-16, and A/CN.9/590, paragraph 16)<sup>2</sup>

5. The Working Group has noted that the aims of the proposed revisions to the Model Law are to enable the use of electronic procurement by ensuring that all forms of communication are afforded equivalent status under the Model Law. Although electronic communications are to be promoted where appropriate, there should be no discrimination against traditional, paper-based, communications (see, further, para. 15 below).<sup>3</sup> The Working Group has confirmed that the provisions in the Model Law are to be based on general principles of functional equivalence and technological neutrality,<sup>4</sup> being those found in the UNCITRAL Model Law on Electronic Commerce (1996) (the "Model Law on Electronic Commerce").<sup>5</sup>

6. Furthermore, the Working Group has decided to apply appropriate safeguards to the procuring entity's selection of the means of communication, such that

procuring entities do not discriminate among suppliers and contractors, and select means that are sufficiently widely available (these notions are to be referred to as "accessibility standards").<sup>6</sup>

### B. Functional equivalence of all methods of communicating, publishing, exchanging or storing information or documents (A/CN.9/WG.I/WP.38, paragraphs 24-29, and A/CN.9/590, paragraphs 19-27)

#### 1. Proposed new text for the Model Law: new article 4 bis

7. The Working Group decided at its eighth session to continue its deliberations on the basis of Variant B for proposed article 4 bis of the Model Law set out in paragraph 25 of A/CN.9/WG.I/WP.38, with the following amendments agreed at that session.<sup>7</sup> The revisions are shown as tracked changes from the previous text in the addendum (A/CN.9/WG.I/WP.42/Add.1, paragraph 1).

### "Article 4 bis. Functional equivalence of all [means][methods] of communicating, publishing, exchanging or storing information or documents

Any provision of this Law related to writing, to publication of information, to the submission of tenders in a sealed envelope, to the opening of tenders, to a record or to a meeting shall be interpreted to incorporate [any means of such activity, including], electronic, optical or comparable means, [including, but not limited to,] electronic data interchange (EDI), electronic mail, telegram, telex or telecopy], provided that the means chosen complies with the [provisions of/accessibility standards set out in] article [4 ter]."<sup>8</sup>

### Commentary

8. The Working Group has provisionally decided that the "accessibility standards" should be removed from this article and set out elsewhere in the revised Model Law, and their formulation is considered separately (see, further, paras. 17 and 18 below).<sup>9</sup>

9. The Working Group has also requested that the previous formulation "provided that the enacting State or procuring entity is satisfied that such use complies with the [accessibility standards]" should be rephrased as "provided that such use complies with the [accessibility standards]", so as to ensure objectivity.<sup>10</sup> The further minor revision to the final sentence of the article has been made for reasons of style.

10. The text has been expanded to address the publication of procurement-related information, the electronic opening of tenders, and the requirement for a document to be in a sealed envelope.<sup>11</sup>

11. The Working Group has deferred its consideration of whether to refer to "means" or "methods" of communication in the title and text of the article.<sup>12</sup> Both phrases are to be found in United Nations and UNCITRAL texts. For example, the General Assembly resolution adopting the Model Law on Electronic Commerce<sup>13</sup> refers to "methods of communication", and the text of the Model Law on Electronic

Commerce refers to "means of communication", as does the text of article 9 (2) of the current Model Law.

12. The Working Group may also wish to consider whether the term "electronic, optical or comparable means" is sufficiently broad to encompass information posted on websites.

# 2. Guide to Enactment text addressing the use of electronic communications during the procurement process

13. The revised text set out below comprises those paragraphs of the original text following paragraph 23 of A/CN.WG.I/WP.38 that have been amended (paras. 1, 5, 11, 12, 15 and 16 from the previous draft, which remain unchanged, are not repeated). The revisions are shown as tracked changes from the previous text in the addendum (A/CN.9/WG.I/WP.42/Add.1, para. 2).

### (a) General introductory remarks in the Guide to Enactment (A/CN.9/590, paragraphs 17-18, and A/CN.WG.I/WP.38, paragraph 23)

"(i) Provisions governing the use of electronic communications in the procurement process<sup>14</sup>

(1) Unchanged

Since the adoption of the Model Law in 1994, the use of electronic (2)communications and technologies in public procurement (which includes using electronic equipment for the processing, digital compression and storage of data that are transmitted, conveyed and received by wire, by radio, by optical or by other electromagnetic means) has increased rapidly, including the use of procurement methods based on the Internet, to which this Guide will refer generally as "electronic procurement".15 Electronic procurement has been observed to offer many potential benefits, including improved value for money from more rigorous competition in a broader procurement market, better information for suppliers and contractors and more competitive techniques. savings in time and costs, improved administration of contracts awarded, and, in some cases, improved compliance with rules and policies and fewer opportunities for corruption and abuse. Further, electronic procurement provides valuable opportunities to enhance public confidence and transparency in the procurement process. The Commission therefore considered that the Model Law should make provision so as to enable the use of electronic procurement.

(3) However, controls on the use of electronic procurement may be needed to address possible discrimination where access to the necessary infrastructure may be lacking, issues of security, confidentiality and authenticity in electronic communications, and the impact of modern procurement methods on [other] policy goals. The revisions to the 1994 Model Law seek to address these concerns, and this Guide sets out the objectives of the revisions themselves.

(4) Although some of the issues raised by electronic procurement can be accommodated within the 1994 Model Law's provisions (or through the interpretation of existing laws and rules, including as set out in the 1994 Guide

to Enactment), the Commission has revised the text of the Model Law so as to make appropriate provision or provide clarification where necessary and, where appropriate, to promote the use of electronic procurement as a means of enhancing the achievement of the objectives of the Model Law itself. The aim of the provisions is to ensure that all [means/methods] of communication are afforded equivalent status under the Model Law and that their use will be subject to appropriate safeguards such as that procuring entities, when selecting the means of communication for a procurement, [do not discriminate among suppliers and contractors][select means that are [generally][reasonably][commonly] available [and that are compatible [or interoperable] with those in common or general use]. It should be noted that these provisions are intended to apply to international and domestic procurement, so as to ensure non-domestic suppliers' access to procurement markets even where there may be uneven availability of electronic infrastructure within the field of potential suppliers and contractors.

### (ii) Interaction between legislation concerning electronic procurement and electronic commerce legislation

(5) Unchanged

(6) One of the main requirements for the effective use of electronic communications is certainty as to the legal recognition, validity and enforceability of electronic communications generated in the contractual process. Accordingly, the UNCITRAL Model Law on Electronic Commerce seeks to enable commercial transactions to be conducted electronically, by providing certainty in the use of electronic communications, such that requirements for "written" or "original" communications and documents, the formalities of contract formation and the admissibility of evidence in court encompass both paper-based and electronic communications and documents.

(7) The approach of the Model Law on Electronic Commerce is to provide a general principle of functional equivalence in communications, such that electronic communications are afforded the same degree of recognition as paper-based documents, so that both are universally legible, remain unaltered over time, are capable of reproduction (with each party holding a copy of the same data), can be authenticated by means of a signature, and are in a form acceptable to public authorities and courts.

(8) Articles 5, 6, 7 and 8 of the Model Law on Electronic Commerce in material part provide for the functional equivalence of paper-based and electronic communications, addressing the "legal recognition of data messages [electronic communications]", and the notions of "writing", "signatures", and "original". The combined effect of these provisions, which should be read together, is that electronic communications have the same degree of legal recognition and validity as paper-based ones, so that they will not be denied legal effect, validity and enforceability solely on the grounds that they are electronic and not paper-based communications.

(9) Deleted

(10) The specific considerations arising when documents are signed electronically, and those arising in the conclusion of contracts by electronic

means are addressed in the commentary to article 36 ("Acceptance of tender and entry into force of procurement contract") below.

(11) Unchanged

# (iii) Approach to enabling the use of electronic communications in the revised Model Law

(12) Unchanged

(13) The provisions presented in this revised Model Law set out that any requirement for writing, publication of information, the submission and opening of tenders, for a record or a meeting in the Model Law itself can be met by using any means of communication, electronic or otherwise, to the same effect. (In the context of a meeting, using electronic communications means that the participants can follow and participate in the proceedings by electronic means of communication.) Although the legal validity of such communications should explicitly be provided for in an enacting State's general electronic commerce legislation, the procurement context requires specific and additional provision in areas such as regarding the submission of tenders under the provisions of articles 27 (h), (q), (r) and (z), 30, 31 (2) and 33 of the [1994] Model Law [update cross references]. In such cases, the reasons for the need and objectives of the provisions are set out in the relevant section of this Guide [insert cross references].

(14) The revised Model Law also, where appropriate, encourages but does not generally require the use of electronic procurement. However, the procuring entity may require the use of electronic communications in the procurement process under articles [4 ter and 9], and electronic procurement is required in the case of [cross reference to electronic procurement, such as electronic reverse auctions and dynamic purchasing systems].

(15), (16) Unchanged"

### Commentary

14. Paragraph 4 of the above text will be conformed to the drafting of the "accessibility standards" (see, further, paras. 17 and 18 below). The Working Group has noted that the Guide to Enactment text should address discrimination that may arise due to differing levels of infrastructure,<sup>16</sup> and may therefore wish to consider the suggested guidance set out in the final sentence of paragraph 4.

### (b) Guide to Enactment text addressing article 4 bis

15. The Guide to Enactment text addressing article 4 bis, to be drafted once the text of the Model Law's provisions has been settled, will state that the aim of the provision is to ensure the functional equivalence of all forms of communication, and will cross refer to the general introduction. While the relative novelty of electronic communication may warrant some explanation not required by traditional forms, the text will be drafted so as to avoid obsolescence.

16. The Working Group has requested that the generic description of the items addressed by the article should be expanded. The Guide to Enactment will therefore

stress that the article should be interpreted broadly, to include any requirement implying physical presence or a paper-based environment.<sup>17</sup>

# C. Accessibility standards (A/CN.9/WG.I/WP.38, paragraphs 30-32, and A/CN.9/590, paragraphs 28-33)

### 1. Proposed new text for the Model Law: new article 4 ter

17. The Working Group at its eighth session requested the Secretariat to revise the draft text for the "accessibility standards" discussed at its eighth session, so that they address all means of communication, not just electronic means,<sup>18</sup> and all phases of procurement,<sup>19</sup> to separate the provision from that addressing functional equivalence,<sup>20</sup> and to base the draft on the text set out in paragraph 30 of A/CN.9/590, with two possible additions. The revisions are shown as tracked changes from the previous text in the addendum (A/CN.9/WG.I/WP.42/Add.1, para. 3).

### "Article 4 ter. Accessibility standards

The procuring entity shall ensure that [means/method]<sup>21</sup> of communicating, publishing, exchanging or storing information or documents, of holding meetings, and of submission and opening of tenders,

Shall not [[unreasonably] discriminate] [result in [unreasonable] discrimination] among or against potential suppliers or contractors or otherwise [substantially] limit competition.

[possible additions]

Shall not represent an obstacle to the procurement process; and

that the [means/methods] of communication shall be [generally] [reasonably][commonly] available [and compatible [and interoperable] with those in common or general use]."

### Commentary

18. The Working Group at its eighth session agreed further to consider the "accessibility standards" provisions at its ninth session, to address the following outstanding issues:

(a) Which, or which combination, of the following qualifications to the appropriate means of communication would be retained: those that "do not represent an obstacle to the procurement process", that are "generally", "reasonably", "commonly" available, and "compatible" or "interoperable" with those in common or general use (the Working Group may also consider that the word "interoperable" is overly technical for this type of text). The Working Group has noted that the term "generally" involves the notion of universality, the term "reasonably" addresses a separate consideration (that once technology is widely-used and relatively inexpensive, it would not be discriminatory to require its use), and that the term "commonly" means that the technology is widely available, but perhaps not to all or nearly all users;<sup>22</sup>

(b) Whether the words "unreasonably" and "substantially" should be deleted from the introductory paragraph, and whether the phrase should read "shall not discriminate" or "shall not result in discrimination";<sup>23</sup>

(c) Whether the notions of "general availability" and "non-discrimination" require separate provision, whether one encompasses the other and whether they may have a degree of inconsistency;<sup>24</sup>

(d) The location of the "accessibility standards" provisions in the text of the Model Law. The Working Group has requested the Secretariat to make proposals on the question for its consideration at its next session.<sup>25</sup> Such proposals are discussed in para. 22 below.

### 2. Guide to Enactment text addressing article 4 ter

19. The Working Group may wish to consider the following text regarding the "accessibility standards".<sup>26</sup> This text is new, and replaces that set out in paragraph 32 of A/CN.9/WG.I/WP.38 in its entirety.

### "Article 4 ter. Accessibility standards

(1) Article 4 ter of the Model Law provides that the procuring entity may choose the means by which it will communicate with suppliers or contractors in the procurement process, including the submission of tenders (the electronic submission of which could not be required under article 30 of the 1994 text). The objective of this provision is to afford the procuring entity the option of insisting on a particular means of communication, such as electronic means, without having to justify its choice. However, that option is subject to the control that the means of communication comply with the "accessibility standards", which will apply to any means of communication chosen. The "accessibility standards" have been included to strengthen the safeguards contained in the article against discriminatory or otherwise exclusionary practices by the procuring entities, and to prevent the means of communication chosen from operating as a barrier to access, so as to safeguard the objectives of the Model Law.

(2) The "accessibility standards" are also included to guide procuring entities in selecting means of communication appropriate for each procurement in a time of rapid pace of technological advancement when new technologies may emerge that, for a period of time, may not be sufficiently accessible (whether for technical reasons, reasons of cost or otherwise). [Add any further discussion regarding compatibility and interoperability, and the underlying need for an open and generally available network able to handle and transmit digital signals].

(3) The obligation on the procuring entity to comply with the "accessibility standards" will be open to review under article 52, and requiring the choice of the means of communication to be included in the record maintained pursuant to article 11 will enable the procuring entity's decision and its compliance with the "accessibility standards" to be reviewed.

(4) The provisions are also designed to ensure that suppliers and contractors do not have the right to insist on any particular means of communication with a procuring entity, and that no such right can be construed."

# D. Form of communications (A/CN.9/WG.I/WP.38/Add.1, paragraphs 1-5, and A/CN.9/590, paragraphs 34-42)

### 1. Proposed revisions to article 9 of the Model Law

20. The Working Group at its eighth session requested the Secretariat further to revise the proposed additions to the text of article 9, set out following paragraph 3 of A/CN.9/WG.I/WP.38/Add.1.<sup>27</sup> The consequent revisions are shown as tracked changes in the addendum (A/CN.9/WG.I/WP.42/Add.1, para. 4).

### "Article 9. Form of communications

(1) Documents, notifications, decisions and other communications [referred to in this Law] between suppliers or contractors and the procuring entity shall be provided, submitted or effected by the means of communication specified by the procuring entity when first soliciting the participation of suppliers or contractors in the procurement proceedings, provided that the procuring entity shall in each case comply with the [provisions of/accessibility standards set out in]<sup>28</sup> article [4 ter].

(2) Subject to other provisions of this Law, documents, notifications, decisions and other communications [referred to in this Law] to be submitted by the procuring entity or administrative authority to a supplier or contractor or by a supplier or contractor to the procuring entity shall be in a form that provides a record of the content of the communication and is accessible so as to be usable for subsequent reference.

(3) Communications between suppliers or contractors and the procuring entity referred to in articles 7 (4) and (6), 12 (3), 31 (2) (a), 32 (1) (d), 34 (1), 36 (1), 37 (3), 44 (b) to (f) and 47 (1) [update for revisions to Model Law] may be made by a means of communication that does not provide a record of the content of the communication provided that, immediately thereafter, confirmation of the communication is given to the recipient of the communication in a form which provides a record of the confirmation and is accessible so as to be usable for subsequent reference.

(4) The procurement regulations shall establish measures to ensure accessibility of communications and non-discrimination among suppliers or contractors so as to give effect to the [provisions of/accessibility standards set out in] article [4 ter], and may establish measures to ensure the authenticity, integrity, accessibility and confidentiality of communications, and the interoperability of the systems used to transmit and receive them."<sup>29</sup>

### Commentary

21. The Working Group has requested the elimination of any repetition between these provisions and the functional equivalence and "accessibility standards" provisions, and paragraph 3 of the existing text has been deleted accordingly.<sup>30</sup>

22. The Working Group has also considered whether the scope of article 9 should be expanded, such that the functional equivalence and "accessibility standards" and the form of communication appear together. However, the Working Group may consider that so doing might be confusing given the formerly restricted ambit of the

article,<sup>31</sup> that further, equivalent standards to govern the publication and storage of information (articles 5 and 11 of the Model Law) would then be needed, and that such additions would be repetitive and lengthen the Model Law unnecessarily.

23. Paragraph 1 of the above draft has replaced the provision in paragraph 1 of the 1994 Model Law text (which permitted the procuring entity to stipulate the form of communications in the solicitation documents), and the previously proposed paragraphs 1 bis and 1 ter (which permitted the procuring entity to stipulate the means of communication and the electronic submission of tenders) with a positive obligation to set out the chosen form of communication in those documents. The Working Group requested these changes pending finalization of its deliberations on "functional equivalence".<sup>32</sup>

24. Paragraphs 1 and 2 include a reference to communications "referred to in this Law" in square brackets. The inclusion of that phrase is consistent with the 1994 text, but the Working Group may consider that any communications generated between suppliers or contractors and the procuring entity should be subject to the provisions of this article, whether or not expressly referred to in the Model Law.

25. The Working Group has also requested the provisions to require enacting States to issue regulations ensuring the accessibility of those communications, and would invite them to do so for technical issues raised by the use of electronic communications.<sup>33</sup> However, the Working Group may consider that such matters could alternatively be included with the "accessibility standards" in proposed article 4 ter.<sup>34</sup>

### 2. Guide to Enactment text addressing article 9 of the Model Law

26. The text below sets out revisions to the text following paragraph 4 of A/CN.9/WG.I/WP.38/Add.1. There are no revisions to the paragraphs before 3 bis, save that the Working Group may consider that paragraph 2 of the 1994 text should be deleted, and that text is therefore not repeated. The revisions are shown as tracked changes from the previous text in the addendum (A/CN.9/WG.I/WP.42/Add.1, para. 5).

### **"Article 9. Form of communications**

### (1) Unchanged

(1) bis. [Article 4 ter] of the Model Law enables the procuring entity to select the means of communication to be used in a particular procurement, and the "accessibility standards" (which apply equally to all means of communication, be they electronic, paper-based or other means) attach conditions to that choice, so as to safeguard the objectives of the Model Law (including that the means of communication chosen should not operate as a barrier to access). The provisions of this article require the choice as to the form of communications to be set out in the solicitation documents, and refer to a single choice of communications for each procurement (and not for each supplier or contractor). The solicitation documents may, however, provide alternative means of submission for identified documents or classes of documents that cannot be submitted in means of communication chosen (such as tender securities, complex drawings, and formal certificates of incorporation, payment of taxes, etc., which (at the time of writing) are not generally available in electronic form).<sup>35</sup>

(2) (3) Unchanged

(3) bis<sup>36</sup> New paragraph (3) has been inserted so as to draw the attention of enacting States that:

(a) There should be appropriate procedures and systems to establish the authenticity of communications;

(b) The means used to send and receive communications should be sufficient to ensure that the integrity of data is preserved;

(c) The confidentiality of information submitted by or relating to suppliers is maintained;

(d) The tools or systems used to send and receive communications are fully compatible (or interoperable);

(e) The means used to send and receive communications should enable the date and, where relevant, the time of receipt of documents to be established. The time of receipt is relevant for the application of the rules of the procurement process to, for example, the submission of requests to participate and tenders/proposals; and

(f) The means used to send and receive communications should be secure, that is, they ensure that tenders and other significant documents cannot be accessed by the procuring entity or other persons prior to any deadline, to prevent procuring entities' passing information on other tenders to favoured suppliers and to prevent competitors from gaining access to that information themselves.

(3) ter. As regards electronic communications, items (a), (b) and (c) of the preceding paragraph fall to be addressed in general electronic commerce law, and as noted in paragraph [cross refer to general guidance section] above, enacting States [may/will]<sup>37</sup> wish to consider the extent to which their existing laws provide adequate controls over the communications that may be generated in the procurement process, whether further regulation is needed, and whether to make reference to the need for such controls in their procurement regulations. For example, procuring entities should ensure that their systems are capable of ensuring authentication and confidentiality commensurate with the risk and magnitude of the harm from loss, misuse, or unauthorized access to or modification of the information.

(3) quater. Items (d), (e) and (f) require procurement-specific solutions, arising most notably in connection with the submission of tenders electronically, and are addressed in paragraphs [cross reference] below.

(3) quinquiens. Enacting States may wish to permit procuring entities to charge for any proprietary systems (such as software) required for communications for a particular procurement, but should ensure that procuring entities may not use a charging facility to levy disproportionate charges or to restrict access to the procurement."

### Commentary

27. The Working Group has noted that the Guide to Enactment should stress the functional equivalence of all means of communication so that higher standards of authenticity, integrity, interoperability and confidentiality are not imposed on electronic than paper-based communications, and should address the technical issues raised by the use of electronic communications and the links between this article and contents of solicitation documents, which may carve out exceptions for non-electronic documents (e.g. tender securities, drawings, and formal certificates such as incorporation, payment of taxes, etc, discussed in paras. 1-4 of A/CN.9/WG.I/WP.43/Add.1).<sup>38</sup>

28. The Working Group has also requested that the Guide to Enactment should note that procuring entities may levy a proportionate charge for software required.<sup>39</sup>

# E. Legal value of procurement contracts concluded electronically (A/CN.9/590, paragraph 44, and A/CN.9/WG.I/WP.38/Add.1, paragraphs 13-15)

### 1. Proposed revisions to Guide to Enactment addressing article 36 of the Model Law

29. The Working Group requested the following changes to the text of the Guide to Enactment addressing article 36. The revisions are shown as tracked changes in the addendum (A/CN.9/WG.I/WP.42/Add.1, para. 6):

# "Article 36. Acceptance of tender and entry into force of the procurement contract

(1) bis. Articles 27 (y) and 38 (u) of the Model Law refer to a "written" procurement contract, and article 36 (2)(a) and (b) provide that the solicitation documents may require the supplier or contractor whose tender has been accepted to "sign a written procurement contract". Enacting States  $[may/will]^{40}$  wish to ensure that their existing legislation recognizes procurement contracts that are executed electronically.

### (a) Electronic contracting<sup>41</sup>

(1) ter. Article 11 of the Model Law on Electronic Commerce seeks to promote international trade by providing increased legal certainty as to the formation and conclusion of contracts by electronic means (even if offer and acceptance are generated by computers). The provisions state that a contract shall not be denied validity or enforceability on the sole ground that it was concluded using electronic communications.

### (b) Electronic signatures

(1) quater. Enacting States [may/will]<sup>42</sup> also wish to prescribe the manner in which the parties will sign or otherwise authenticate a procurement contract concluded electronically, in accordance with their laws on electronic commerce. Some States may have requirements for digital or other authenticated forms of electronic signatures in electronic commerce, which

may be applied to procurement provided that they do not operate so as to restrict access to the procurement.

(1) quinquiens. Article 7 of the Model Law on Electronic Commerce and the Model Law on Electronic Signatures<sup>1</sup> promote reliance on electronic signatures by providing that they are functionally equivalent to handwritten signatures. The provisions themselves state that an electronic signature will meet a requirement of law for a "signature" if the signature is as reliable as would be appropriate for the purpose of the relevant electronic communication in the circumstances, including any relevant agreement."

### Commentary

30. The Working Group may wish to revisit the statements regarding electronic signatures, so as to consider whether the guidance should address whether such provisions would be appropriate in the procurement as well as the commercial context.

### F. Requirement to maintain a record of the procurement proceedings (A/CN.9/590, paragraphs 24 and 45, and A/CN.9/WG.I/WP.38/ Add.1, paragraphs 16-18)

### 1. Proposed addition to article 11 of the Model Law

31. The Working Group has requested that the application of the "accessibility standards" be reflected by recording the decision as to the means of communication in the record of the proceedings, and accordingly the new subparagraph below is proposed.<sup>43</sup>

### "Article 11. Record of procurement proceedings

(1) The procuring entity shall maintain a record of the procurement proceedings containing, at a minimum, the following information:

• • •

(b) bis. The procuring entity's decision as to the means of communication to be used in the procurement proceedings."

### 2. Guide to Enactment text addressing article 11 of the Model Law

32. The Working Group requested the previous text to be revised so that the procuring entity must keep information accessible only until the time for review under article 52 of the Model Law have elapsed, and to take account of the "accessibility standards". <sup>44</sup> The revisions are shown as tracked changes in the addendum (A/CN.9/WG.I/WP.42/Add.1, para. 7):

<sup>&</sup>lt;sup>1</sup> For the text of the Model Law, see *Official Records of the General Assembly, Fifty-sixth Session, Supplement No. 17* (A/56/17), annex II. The Model Law and its accompanying Guide to Enactment have been published as United Nations publication, Sales No. E.02.V.8, and are available in electronic form at the UNCITRAL web site (http://www.wepitral.org/english/(autoclasteer/ml.electronic.org/english/).

<sup>(</sup>http://www.uncitral.org/english/texts/electcom/ml-elecsig-e.pdf).

### "Article 11. Record of procurement proceedings

(1) bis. Article 11, however, focuses on the accessibility and availability of information forming the record, and does not contain requirements as to the form of the record, nor the conditions to be in place for a record to be maintained in any particular format. The "accessibility standards" set out in [article 4 ter], however, require the procuring entity, when maintaining the record, to select a means of storage of information that will enable the information concerned to be and remain accessible until the time for review under article 52 of the Model Law has elapsed.<sup>45</sup> Further, enacting States [may/will]<sup>46</sup> wish to pass regulations that ensure that record retention systems are fully compatible (or interoperable), and that they allow each communication in the procurement process to be verified, such that the traceability (sender, recipient and time and duration) of each communication can be established (and automatic data processing or calculations can be reconstituted). Further, the regulations may address whether access to the record and contract documents should be recorded and any data protection issues that would arise, to ensure the integrity and security of data, and confidentiality of communications and information, as more fully set out in [cross reference to appropriate paragraph of the Guide.] The provision in [paragraph 1 (b) bis] requiring the procuring entity to record the means of communication chosen in the record of the procurement proceedings is included so as to enable the procuring entity's decision and its compliance with the "accessibility standards" contained in [articles 4 ter and 9] to be reviewed under article 52 if necessary."

### G. Electronic submission of tenders, proposals and quotations (A/CN.9/590, paragraphs 46-49 and A/CN.9/WG.I/WP.38/Add.1, paragraphs 19-23)

#### 1. Proposed revisions to the text of article 30 of the Model Law

33. The Working Group requested the following changes to the text of article  $30.4^{7}$  The revisions requested are shown as tracked changes in the addendum (A/CN.9/WG.I/WP.42/Add.1, para. 8).

### "Article 30. Submission of tenders

. . .

(a) A tender shall be submitted in the form specified in the solicitation documents, provided that the means of submission chosen by the procuring entity shall comply with [the provisions of/accessibility standards set out in] article [4 ter] when choosing the means of submission"

#### Commentary

34. The Working Group has deferred its consideration of the accompanying Guide to Enactment text set out in A/CN.9/WG.I/WP.38/Add.1, paragraphs 26-27, and the issue of whether further provision addressing the modification of tenders will be

required, pending its finalization of the revisions to article 30 (5)(a) of the Model Law.<sup>48, 49</sup>

# H. Electronic opening of tenders (A/CN.9/590, paragraphs 50-51 and A/CN.9/WG.I/WP.38/Add.1, paragraphs 28-32)

### 1. Proposed revisions to the text of article 33 of the Model Law

35. The Working Group requested the following changes to the text of article 33.<sup>50</sup> The revisions requested are shown as tracked changes in the addendum (A/CN.9/WG.I/WP.42/Add.1, para. 9).

### "Article 33. Opening of tenders

. . .

(4) Where the procurement proceedings were conducted electronically in accordance with [insert provisions dealing with electronic communications, reverse auctions and other fully automated procedures, if any], suppliers or contractors shall be deemed to have been permitted to be present at the opening of the tenders in accordance with the requirements of article 33 (2) if they are allowed to follow the opening of the tenders [simultaneously/ instantaneously/through the electronic means of communication used by the procuring entity.]"

### Commentary

36. In the context of a meeting, using electronic communications means that the participants can follow and participate in the proceedings through those electronic means.<sup>51</sup> The Working Group may wish to consider whether the reference to "electronic" means of communication is appropriate given its stated wish to present technologically neutral provisions, and whether a reference to instantaneous or simultaneous communication would be required so as to provide the safeguards that the original article included.

37. The Working Group has deferred its consideration of the accompanying Guide to Enactment text set out following paragraph 32 of A/CN.9/WG.I/WP.38/Add.1, pending its finalization of the text of the Model Law.<sup>52</sup>

### I. Electronic publication of procurement-related information (A/CN.9/WG.I/WP.39/Add.1, paragraphs 34-42, and A/CN.9/590, paragraphs 52-63)

### 1. Proposed revisions to the text of article 5 of the Model Law

38. The Working Group requested the following changes to the proposed text for article  $5.^{53}$  The revisions requested are shown as tracked changes in the addendum (A/CN.9/WG.I/WP.42/Add.1, para. 10).

# "Article 5. Public accessibility of [legal texts] [procurement-related information]

The text of this Law, procurement regulations and all administrative rulings and directives of general application in connection with procurement covered by this Law, all amendments thereto, and all judicial decisions on the application thereof shall be promptly made accessible to the public and systematically maintained.

#### Possible additions

[[An enacting State may choose to make accessible to the public additional information regarding internal controls, guidance or other information.]]

[All other documents and information that this Law requires to be published shall be promptly made accessible to the public and systematically maintained].

[The procurement regulations shall provide for the media and manner of publication of information under this Law.]"

#### Commentary

39. The Working Group has not formulated its position with respect to the proposed additions.

40. The first proposed addition gives an enacting State an option to add any further information that it may require to be published.

41. The second proposed addition covers the publication of information required to be published under the Model Law, other than legal texts referred to in paragraph 1. (This information includes a notice of contract award (article 14), solicitation of tenders or applications to pre-qualify (article 24) (see also relevant provisions in articles 37, 46, 47 and 48) and other information that may be required to be published under revised provisions of the Model Law or by an enacting State if it exercises the option provided for by proposed para. 2).

42. The third proposed addition consolidates provisions on the media of publication that are currently found in several articles of the Model Law (see articles 14, 24, 37, 47 and 48) and also addresses outstanding issues from the eighth session.<sup>54</sup> The Working Group has noted that regulations might not adequately deal with concerns arising from the electronic (rather than paper-based) publication of procurement-related information, and which therefore may necessitate specific regulation, including proliferation of procurement-related websites and an over-abundance of procurement-related information, complicating the retrieval of information that is necessary, useful and accurate.

43. The Working Group noted that these concerns are addressed in some domestic legislation through requiring a single centralized medium where all legally-binding, authentic and authoritative procurement-related information must be made accessible to the public and systematically maintained. Most of these regulations also prohibit the publication of procurement-related information in alternative media before it is published in the designated medium. Some specifically state that the same information published in different media must contain the same data.<sup>55</sup> The Working Group may consider that the Model Law should require procurement

regulations to address these matters, and the Guide should elaborate as regards good practices in this respect.

# 2. Proposed provisions addressing the publication of information on forthcoming procurement opportunities

44. The following provision on the publication of such information (the underlined text shows the amendment proposed at the Working Group's eighth session) could be included in the revised Model Law as a separate article after the article dealing with the public accessibility of [legal texts] [procurement-related information] (currently article 5) or merged with the latter as was suggested at the eighth session of the Working Group:<sup>56</sup>

"<u>As promptly as possible</u> after the beginning of a fiscal year, procuring entities may publish notice of their expected procurement requirements for the following [the enacting State specifies a period]."

### **3.** Guide to Enactment text addressing the publication of additional procurementrelated information

45. The Working Group may wish to consider the following text:<sup>57</sup>

### (a) Publication of additional procurement-related information

"(1) With modern means of publishing information and resulting savings in costs, time and effort, more procurement-related information than is required by the Model Law has become available to the public, often electronically. Such information includes (i) procurement manuals, handbooks and guidance, (ii) solicitation documents or pre-qualification documents in their entirety, (iii) various lists of standardized goods, (iv) information on the status of ongoing procurement proceedings, including notices on suspension and procedures cancelled, (v) records of procurement proceedings, (vi) statistical reports inter alia on the results of procurement and contracts concluded, and (vii) any useful general information, such as information on a contact point for general procurement-related inquiries.

The Model Law does not explicitly address these additional types of information. Nevertheless, the Model Law does not preclude enacting States from requiring, encouraging or explicitly enabling additional information to be made accessible to the public for the benefit of suppliers or contractors. In particular, procurement manuals, handbooks and guidance, which often do not have the status of legal texts and therefore may not be within the scope of [paragraph 1 of article 5], may cover important aspects of domestic procurement practices and procedures, which would be desirable to make available to the public. Incentives may be provided for the publication of certain types of information, for example solicitation documents in their entirety, by allowing shortening time required for submission of tenders. Although the Model Law requires the minimum information necessary to achieve transparency in the procurement process to be made accessible to the public and systematically maintained, applying equivalent requirements to the publication of further information that is useful but not strictly necessary may be onerous, and might operate as a disincentive to publication itself.

Accordingly, there is no requirement to maintain such information systematically, but keeping such information up to date should be encouraged.

(3) An enacting State should also consider the extent of and manner in which the information made accessible to the public. The aim is to ensure easy public access to information of practical use and importance, which may be impeded considerably if abundant information is available from many sources, whose authenticity and authority may not be certain, and the systematic maintenance of which may be jeopardized. If the same information posted in various media is not available instantaneously to all interested suppliers, some may receive better information and unintentionally be placed in a more advantageous position. The contents may also raise concerns, including over legitimate commercial interests of the suppliers or contractors, law enforcement and fair competition.

(4) The Model Law deals with these problems by requiring that any information published under the Model Law has to be made accessible to the public in accordance with the "accessibility standards" contained in article [4 ter]. These standards require that any means of publication used [shall not represent an obstacle to the procurement process, shall not result in discrimination among or against potential suppliers or contractors or otherwise limit competition]. An enacting State [may wish to] consider additional safeguards that may be included in procurement regulations to be adopted under article 4 of the Model Law or any other appropriate regulations. For example, the procurement regulations may establish the primacy of a single centralized medium where all legally-binding, authentic and authoritative procurement-related information is to be consistently and in a timely manner made accessible to the public and systematically maintained, and where rules defining relations with other possible media where such information may appear are spelled out (akin "official publications" or "official newspapers"). Regulations may explicitly prohibit the publication in different media before information is published in a specifically designated central medium, and require that the same information published in different media must contain the same data."

### (b) Publication of information on forthcoming opportunities

"(1) Modern means of publication of information have also made the publication of information on forthcoming opportunities easier. Although not binding, such publication disciplines procuring entities in procurement planning, diminishes cases of "ad hoc" and "emergency" procurements and consequently, should diminish recourse to less competitive methods of procurement (it should also not interfere in the budgeting process). It also enables more suppliers to learn about procurement opportunities, assess their interest in participation and plan their bids in advance accordingly, which also promotes competition, transparency and cost-saving in procurement. Such information may also have the positive impact in a broader governance context, in particular in opening procurement for general public review and local community participation.

(2) [other provisions are subject to the Working Group's decision on the publication of information on forthcoming procurement opportunities under

the Model Law.] An enacting State may [require the publication of such information or treat it as optional,] [impose any special conditions on publication of such information, such as establish a threshold when the publication of such information would be required, and] define in its procurement regulations other terms of publication, such as the content of information published, the period covered and time frame for publication."

### III. Outstanding issues regarding the use of electronic communications in the procurement process: scope of the Model Law and the Guide to Enactment (A/CN.9/WG.I/WP.38, paragraphs 4-23, and A/CN.9/590, paragraphs 12-16)

46. The Working Group has deferred its consideration of whether the current scope of the Model Law (covering the phase of the selection of a successful supplier or contractor only) should be broadened to address the procurement planning and contract administration phases,<sup>58</sup> notably as regards whether minimum general principles applicable to those additional phases should be provided for in the Model Law itself, or whether the Guide to Enactment should address good practice in procurement planning and contract administration. Additional detail could be included in paragraph 10 of the Guide, which currently notes, for example, that the "enacting State would have to ensure that adequate laws and structures are available to deal with the implementation phase of the procurement process."

47. The Working Group has also deferred its consideration of whether the Guide should be expanded to provide greater detail of matters to be addressed in regulations and to include draft regulations (for example, to address authenticity, confidentiality and security of electronic communications). The Working Group has noted the value that regulations could have for harmonization of procurement law, but that they should be facilitative and not prescriptive, and should provide flexibility for enacting States. The Working Group has also deferred its consideration of whether the Guide to Enactment should become a guide not only to legislators, but also to users such as procurement officials in enacting states, and if so, the form that any expanded guidance should take.<sup>59</sup>

48. The Working Group has yet to decide whether references in the text of the Guide to Enactment referring to the need for adequate electronic commerce legislation and related regulations should be phrased as enacting States "will" or "may" wish to make appropriate provision for such matters.

#### Notes

- <sup>1</sup> As regards electronic reverse auctions, see A/CN.9/WG.I/WP.43 and Add.1.
- <sup>2</sup> See further A/CN.9/WG.I/WP.38, chapter II, section B, subsection 2(b).
- <sup>3</sup> See also A/CN.9/590, para. 16.
- <sup>4</sup> See A/CN.9/WG.I/WP.34, para. 13, A/CN.9/575, para. 12, A/CN.9/WG.I/WP.38, para. 16, and A/CN.9/590, para. 19.

- <sup>5</sup> For the text of the Model Law on Electronic Commerce, *see Official Records of the General Assembly, Fifty-first session, Supplement No. 17* (A/51/17), annex I (also published in the UNCITRAL Yearbook, vol. XXVII:1996 (United Nations publication, Sales No. E.98.V.7), part three, annex I). The Model Law and its accompanying Guide to Enactment have been published as United Nations publication, Sales No. E.99.V.4, and are available in electronic form at the UNCITRAL website http://www.uncitral.org/english/texts/electcom/ml-ecomm.htm.
- <sup>6</sup> See section C below and A/CN.9/575, paras. 12-14.
- <sup>7</sup> A/CN.9/590, paras. 19 to 26, drawing on A/CN.9/575, para. 12.
- <sup>8</sup> The Working Group may recall that the first formulation is more common in the Model Law and Guide to Enactment, but may wish to consider whether explicit references to the "accessibility standards" would be of more assistance to the reader.
- <sup>9</sup> A/CN.9/590, paras. 25 and 26.
- <sup>10</sup> See further A/CN.9/590, para. 24.
- <sup>11</sup> A/CN.9/590, paras. 22 and 26.
- 12 A/CN.9/590, para. 27.
- <sup>13</sup> General Assembly resolution 51/162 of 16 December 1996.
- <sup>14</sup> The Working Group may wish to consider whether the sub-headings in the draft Guide to Enactment text, which have been included primarily for ease of reference during the drafting process, should be retained in the final text. On the one hand, sub-headings are useful tools for navigation, but on the other, they may impede the flow of the text.
- <sup>15</sup> This addition addresses the request of the Working Group that a description of "electronic" and related terms should be included in the Guide to Enactment, rather than including a definition of such terms in the Model Law itself (see, further, A/CN.9/590, para. 43 A/CN.9/WG.I/WP.38/Add.1, paras. 6-12).
- 16 A/CN.9/590, para. 40.
- <sup>17</sup> A/CN.9/590, para. 22, drawing on the list found in A/CN.9/WG.I/WP.38, para. 25.
- <sup>18</sup> A/CN.9/590, para. 23.
- <sup>19</sup> A/CN.9/590, para. 36.
- <sup>20</sup> Currently article 4 bis, set out above. See also A/CN.9/590, para. 28.
- <sup>21</sup> See para. 11 above.
- <sup>22</sup> A/CN.9/590, para. 29, and para. (4) of the general introductory remarks in the Guide to Enactment introducing the use of electronic communications in the procurement process, following para. 13 above.
- <sup>23</sup> A/CN.9/590, para. 31.
- <sup>24</sup> A/CN.9/590, para. 32.
- <sup>25</sup> A/CN.9/590, para. 33.
- <sup>26</sup> The proposed text has minor amendments compared with that proposed at the eighth session to accompany the revised article 9 of the Model Law, set out following paragraph 4 of A/CN.9/WG.I/WP.38/Add.1.
- <sup>27</sup> A/CN.9/590, para. 42.
- <sup>28</sup> See endnote 8 above.
- <sup>29</sup> The Working Group may consider that all discussion and provision relating to the "accessibility standards" should be located in one place, such as article 4 *ter*. If the Working Group so determines, the provisions of this paragraph, and the relevant Guide to Enactment text (paras. 3 bis, ter, quater and quinquiens) could be relocated.
- <sup>30</sup> A/CN.9/590, paras. 35 and 38.
- <sup>31</sup> A/CN.9/590, para. 34. For example, the "accessibility standards" could be included as a proviso to paragraph (1) of the above draft, and the functional equivalence provisions could be included following paragraph (2).
- <sup>32</sup> Though if the previous paragraph 1 bis were retained in the ultimate provision on "functional equivalence", the Working Group requested that the reference to "communications with" suppliers or contractors should be to "communications between the procuring entity and suppliers or contractors".<sup>32</sup> See, further, A/CN.9/590, para. 37. This request has been applied to the proposed paragraph 1.
- <sup>33</sup> A/CN.9/590, paras. 39 and 40.
- <sup>34</sup> See endnote 29 above.

- <sup>35</sup> This text replaces that set out in paragraph 3 bis in the previous version. See, further, A/CN.9/WG.I/WP.43/Add.1, paras. 1 to 4.
- <sup>36</sup> The Working Group may wish to locate the provisions in this and following paragraphs in article 4 ter, addressing the "accessibility standards". See endnote 29 above
- <sup>37</sup> See para. 48.
- $^{\rm 38}$  See, also, A/CN.9/590, paras. 40 and 42.
- <sup>39</sup> A/CN.9/590, para. 41.
- <sup>40</sup> See para. 48.
- <sup>41</sup> As regards the retention of subheadings in the text, see endnote 14 above.
- <sup>42</sup> See para. 48.
- <sup>43</sup> A/CN.9/590, para. 24.
- <sup>44</sup> See, further, A/CN.9/590, para. 45.
- <sup>45</sup> The precise wording of this provision will depend on the Working Group's conclusions as to the formulation of the "accessibility standards".
- <sup>46</sup> See para. 48.
- 47 A/CN.9/590, para. 47.
- <sup>48</sup> A/CN.9/590, para. 51.
- <sup>49</sup> The Working Group has requested that article 27 (Contents of solicitation documents) of the Model Law should include an obligation on the part of the procuring entity to set out in those documents the form in which tenders should be submitted, with appropriate cross-references to the "functional equivalence" provisions. See, further, A/CN.9/590, para. 47. The Secretariat will present a revised text for article 27 in due course.
- <sup>50</sup> A/CN.9/590, para. 50.
- <sup>51</sup> Equivalent provision will be made to other articles of the Model Law referring to meetings.
- 52 A/CN.9/590, para. 51.
- 53 A/CN.9/590, paras. 57 and 58.
- 54 A/CN.9/590, para. 63.
- <sup>55</sup> A/CN.9/590, para. 63 and A/CN.9/WG.I/WP.39/Add.1, para. 29.
- <sup>56</sup> A/CN.9/590, paras. 59 and 62.
- <sup>57</sup> Further amendments might also be required to reflect the Working Group's decision on the ambit of article 5.
- <sup>58</sup> A/CN.9/590, para. 13, A/CN.9/WG.I/WP.36, para 78, and A/CN.9/WG.I/WP.38, paras. 12 and 13.
- <sup>59</sup> See further A/CN.9/WG.I/WP.38, paras. 9-11 and 19-23.