

## APPENDIX C Enhanced Technology and Logistical Considerations / Checklist (Optional)

### 1. Preliminary considerations

- 1.1. Procedures to be followed, schedules and deadlines, as well as participants to be involved in the remote proceeding should be planned and agreed in advance.
- 1.2. Technology, software, equipment and type of connection to be used in a remote proceeding should be agreed upon by the parties and tested with all participants in advance of any meetings or hearings.
- 1.3. Sufficient Time Frames should be allocated to eliminate possible connection or other technical failures once a meeting or hearing has begun. Technical assistance and monitoring of the status of connection at all stages of remote proceedings should be provided for wherever possible and arranged in advance.
- 1.4. The highest possible quality of audio and/or video connection available to parties should be used. Connections should be capable of showing a full image of the persons involved and clear audio of their pleadings and interventions. This will not only ensure more dynamic proceedings, but also eliminate prolongation of time frames needed for due process observance.
- 1.5. The level of cybersecurity and security technology required to cover remote proceedings should be taken into consideration and agreed by the parties in advance of any remote meeting, conference, or hearing.
- 1.6. In the case of a semi-remote hearing, parties should discuss and agree in advance whether a party and a neutral may be physically in the same room. This can arise where one party and one or more neutrals are located in a jurisdiction where they are not subject to social distancing restrictions. In the interests of equality, it is preferable that if one party must appear to the arbitral tribunal remotely, both parties should do so. However, parties may agree otherwise.

### 2. Procedural documentation

- 2.1. In a remote proceeding, a list of documents to be presented in the remote hearing, including, but not limited to, memorials, witness statements, exhibits, slides, and graphics, should be available to all parties in digital form.
- 2.2. A procedure and a digital platform for transmission and storage of documentation for a remote proceeding should be agreed by parties before commencing the proceeding. This is to prevent duplicate communication of documents and to ensure the accessibility of all documentation that has been made available to neutrals.
- 2.3. Parties should agree and list which documents can be shared with all or with only certain participants during the proceedings and to create secure digital platforms to this end. It is recommended to choose platforms which allow files to have permissions set to allow or restrict the ability to download and / or print the documents shared.
- 2.4. The use of electronic bundles is also encouraged to allow participants to share content concurrently (for instance, in a "share screen" mode).

### 3. Documents

- 3.1 All documents on the record which the Witness will refer to during the course of his/her evidence must be clearly identified, paginated and made available to the Witness.
- 3.2 The Party whose Witness is giving evidence by video conference shall provide an unmarked copy (without any annotations, notes or mark-ups) of the Agreed Bundle of Documents (or such volumes of the Agreed Bundle of Documents as the Parties agree or are required) at the start of the examination of the Witness.
- 3.3 The Parties may agree on utilizing a shared virtual document repository (i.e. document server) to be made available via computers at all Venues, provided that the Parties use best efforts to ensure the security of the documents (i.e. from unlawful interception or retention by third parties).
- 3.4 If available, a separate display screen/window (other than the screen/window used to display the video transmission) shall be used to show the relevant documents to the Witness during the course of questioning.

### 4. Video Conferencing Venue

- 4.1 To the extent possible, and as may be agreed to by the Parties or ordered by the Arbitral Tribunal, the video conference shall occur at a Venue which meets the following minimum standards:
  - a. The Parties shall use best efforts to ensure that the connection between the Hearing Venue and the Remote Venue is as smooth as possible, with sounds and images being accurately and properly aligned so as to minimize any delays. This principle applies equally to situations where there is more than one Remote Venue. Where a connection between additional Venues is required (for example when an interpreter is connected from a third location), the connection may be established through the use of a third party video conferencing bridge service, such as multi-point control units or third party router vendors that interlink and connect multiple video conferencing systems together in a single conference.
  - b. The Venue shall have at least one on-call individual with adequate technical knowledge to assist in planning, testing and conducting the video conference.
  - c. Venue shall be in a location that provides for fair, equal and reasonable right of access to the Parties and their related persons, as appropriate. Similarly, cross-border connections should be adequately safeguarded so as to prevent unlawful interception by third parties, for example, by IP-to-IP encryption.
- 4.2 The Parties shall use their best efforts to ensure the security of the participants of the video conferencing, including the Witnesses, Observers, interpreters, and experts, among others.
- 4.3 Virtual hearing rooms are the preferred way to conduct hearings remotely. These are organized via the use of commercial digital platforms and can be equipped to create an atmosphere approximating face-to-face proceedings. All participants should be visible

and audible in the chosen virtual hearing room. Simultaneous access to shared documentation through means such as screen sharing should also be provided.

4.3.1 A breakout room, or a separate meeting from the virtual hearing room, can be used for caucus proceedings. The other party should not have the ability to hear or view muted caucus proceedings as body language of participants, important in mediation proceedings.

4.3.2 Separate virtual breakout rooms for arbitral tribunal deliberations and caucusing by parties are recommended. However, party breakout rooms should never be visible or audible to neutrals to prevent the possibility of inadvertent ex parte communication. Likewise, arbitral tribunal deliberations should never be visible or audible to parties. Should a neutral or party find that they are able to hear a separate caucus within a breakout room, they should report this to all participants immediately and sever the connection.

## 5. Technical Requirements

5.1 The video conference shall be of sufficient quality so as to allow for clear video and audio transmission of the Witness, the Arbitral Tribunal and the Parties, and there shall be compatibility between the hardware and software used at the Venues. While the Parties and the Arbitral Tribunal may agree on the technical requirements for the video conferencing, as a guide, minimum transmission speeds should not be less than 256 kbs/second, 30 frames/second, and the minimum resolution should be HD standard. The Hearing Venue should also be equipped with both ISDN and IP communication line capabilities and all Venues should be equipped with appropriate portable equipment in the event of unforeseen technical complications.

5.2 For any individual participating in the video conference, there shall be sufficient microphones to allow for the amplification of the individual's voice, as well as sufficient microphones to allow for the transcription of the individual's testimony as appropriate. There shall also be adequate placement and control of the cameras to ensure that all participants can be seen.

5.3 There shall be appropriate microphones and connections to allow for the amplification of the relevant persons at the Hearing Venue so that the Witness and Observers may adequately hear the relevant individual(s) at the Hearing Venue.

5.4 Under appropriate circumstances, Parties may agree to use web-based video conferencing solutions instead of ISDN or IP communication lines. When using a web-based video conferencing solution, the Venue should provide for a sufficiently large screen that can project the video transmission displayed through the video conferencing solution and ensure that the Ethernet or wireless internet connection is secure and stable throughout the proceedings.

5.5 If the Witness is located in the Remote Venue and is giving testimony through a web-based video conferencing solution, the audio output device in the Hearing Venue should be of sufficient quality and volume so as to ensure that the testimony can be accurately transcribed or recorded in the Hearing Venue.

## 6. Confidentiality, Privacy and Security

- 6.1 Any virtual hearing requires a consultation between the arbitral tribunal and the parties with the aim of implementing measures sufficient to comply with any applicable data privacy regulations. Such measures shall also deal with the privacy of the hearing and the protection of the confidentiality of electronic communications within the arbitration proceeding and any electronic document platform.
- 6.2 It is imperative to ensure that the technology used allows the participants to feel secure about the confidentiality of the information they disclose in a remote hearing. Access to all virtual hearing rooms and breakout rooms should be strictly limited to their allocated participants.
- 6.3 Full names and roles of all participants to a remote proceeding including, but not limited to, counsel, parties, witnesses, interpreters, tribunal secretaries and computer technicians as well as their allocated virtual hearing and breakout rooms should be circulated between parties and neutrals in advance and strictly adhered to.
- 6.4 Physical rooms occupied by participants in a remote proceeding, either at homes, offices, or in special hearing venues, should be completely separate from non-participants to the remote proceeding, soundproofed where possible, and have sufficient visibility to eliminate possibility of the presence of undisclosed non-participating individuals in the room and/or any audio/video recording equipment that has not been agreed to. The use of headsets is recommended to increase both privacy and audibility of participants.
- 6.5 To achieve the foregoing, it may be necessary for:
  - a. all cloud-based video conferences should be password protected;
  - b. a list of participants, their full names, roles, professional affiliation, and details of the locations from which they will be joining the hearing, should be agreed and circulated to the parties and the arbitral tribunal in advance;
  - c. the arbitral tribunal or hearing manager shall only allow individuals on the approved list of participants to join the hearing. Any change to the list of participants shall be immediately circulated to the parties and the arbitral tribunal and notified to the hearing manager

where the parties and/or the arbitral tribunal have separate virtual break-out rooms facilitated by separate video-conferencing sessions, these shall be password protected. Separate lists of participants to those rooms shall be provided to the hearing manager, who shall adhere to them strictly.

## 7. Witness Examination Generally

- 7.1 The Parties shall ensure, to the extent practicable, that any and all Venues meet the logistical and technological requirements as stated in this Guideline.
- 7.2 The video conferencing system at the Venue shall allow a reasonable part of the interior of the room in which the Witness is located to be shown on screen, while retaining sufficient proximity to clearly depict the Witness. It may be necessary:

- a. to arrange, where possible, for a hearing invigilator to attend at the same premises as the witness or expert, to ensure the integrity of the premises (i.e., that there is no person or recording-device present that was not approved or agreed);
- b. to arrange for a 360-degree viewing of the room by video at the beginning of each session of the virtual hearing to ensure the integrity of the room;
- c. for the arbitral tribunal to recall the witness's or expert's obligation of truthfulness including by presenting their evidence in the manner agreed and without improper influence (by administering an oath, declaration, affirmation or otherwise).

7.3 The Witness shall give his/her evidence sitting at an empty desk or standing at a lectern, and the Witness's face shall be clearly visible.

7.4 As a general principle, the Witness shall give his/her evidence during the course of the hearing under the direction of the Arbitral Tribunal. Only under exceptional circumstances and subject to the direction of the Arbitral Tribunal would evidence from a Witness be given/ conducted outside of the hearing.

7.5 A computer with email facilities and a printer should be located at all Venues.

7.6 The parties shall ensure that an agreed translation of the oath to be administered is placed before the Witness in the remote hearing room.

7.7 The Arbitral Tribunal may terminate the video conference at any time if the Arbitral Tribunal deems the video conference so unsatisfactory that it is unfair to either Party to continue.

## 8. Online Etiquette Generally

8.1 Remote proceedings inherently limit personal connections between all participants to a dispute. Therefore, active listening and verbal engagement, expressive body language and clear speech, as well as any other step necessary to create a comfortable professional environment should be used. This is particularly important for neutrals who should take every opportunity to assure parties of their full attention to proceedings.

8.2 Neutrals in remote arbitration proceedings should make themselves visible and audible to all the parties in the proceeding at all times, save in cases of deliberations and/or discussions between members of the arbitral tribunal.

8.3 When appearing by video conference, participants should:

- a. mute microphones unless speaking;
- b. use physical gestures to announce that they wish to speak, e.g., by raising a hand and keeping it raised, or use the raise hand function on the electronic system if available;
- c. avoid speaking at the same time as any other participant;
- d. avoid back-lighting such as sitting in front of a window or bright light. Back-lighting will prevent the participant being seen clearly on screen;
- e. ensure their camera is positioned at eye-level;
- f. look at the camera, not their screen;

- g. use a headset with integrated microphone where possible to protect the privacy of the proceedings at their location and improve audio quality for all participants;
- h. avoid wearing a face-mask when cameras that automatically track speakers by facial movement are being used. If that is not possible, manually operated cameras should be used.

## 9. Technical Specifications Generally

9.1 Video conferencing equipment used should ideally meet minimum industry standards in order to ensure the efficient and smooth operation of each hearing.

### a. Channels, bandwidth and bridging

- i. Minimum of six channels for room video-conferencing systems using ISDN that has the capacity to use 3 ISDN lines. If Integrated Services Digital Network (ISDN) is not available, Digital Subscriber Line or DSL may be used as connectivity to the internet with ideally a backup line.
- ii. Standards for Codecs:
  - o H.261 (full motion video coding for audiovisual services at p x 64 Kbps);
  - o H.263 (video coding for low bitrate communication i.e. less than 64 Kbps); or
  - o H.264 (new video codec standard that offers major improvements to image quality. Picture quality standard of 30 frames per second Common Intermediate Format (CIF) at between 336 and 384 kbps).

For DSL, the ideal bandwidth is 10Mbps for both upload and download.

- iii. Bandwidth On Demand Inter-Networking Group (BONDING) standards (ISDN and H.320 only) for inverse multiplexers.

Although bandwidth on demand is ideal for optimized use, 10Mbps stable bandwidth can also be recommended.

- iv. H.243 (the H.320/H.323 Standard for Bridging Technology).

### b. Video

- i. For ISDN-based networks:
  - o H.320 Standard (umbrella recommendation for narrow-band video conferencing over circuit-switched networks i.e. N-ISDN, SW56, dedicated networks); and
  - o H.310 Standard (wide-band (MPEG-2) video conferencing over ATM and B-ISDN)

DSL is also recommended using secured video/voice over IP or VoIP. At least 720P resolution at 30fps minimum should be supported for quality video.

- ii. For video over Internet/LAN-conferencing:

- 'o H.323 Standard (narrow-band video conferencing over non-guaranteed quality-of-service packet networks (Internet, LAN, etc.))
- c. Data Conference / Data Collaboration
  - i. T.120 Standard.
- d. Audio
  - i. Standards for audio coding:
    - 'o G.711 (3kHz audio-coding within 64 kbit/s )
    - 'o G.722 (7kHz audio-coding within 48 or 56 kbit/s)
  - ii. Echo-cancellation microphones with a frequency range of 100-7,000 Hz, audio muting, on/off switch and full-duplex audio.
  - iii. H.281 (umbrella standard for local and far-end camera control protocol for ISDN (H.320) video conferencing calls, with camera(s) that have the ability to pan, tilt and zoom, both manually and using pre-sets).
- e. Picture
  - i. H.263 (video coding for low bitrate communication i.e. less than 64 Kbps);
  - ii. H.264 (new video codec standard that offers major improvements to image quality. Picture quality standard of 30 frames per second Common Intermediate Format (CIF) at between 336 and 384 kbps); or
  - iii. H.239 (Picture-in-picture (PIP) or DuoVideo H.239. H.239 defines the role management and additional media channels for H.300-series multimedia terminals, and allows endpoints that support H.239 to receive and transmit multiple, separate media streams).
  - iv. H.460 (the standard for the traversing of H.323 videoconferencing signals across firewalls and network address translation (NAT)).

## 10. Test Conferencing and Audio-Conferencing Backup

- 10.1 As a general principle, testing of all video conferencing equipment shall be conducted at least twice: once in advance of the commencement of the hearing, and once immediately prior to the video conference itself.
- 10.2 The Parties shall ensure that there are adequate backups in place in the event that the video conference fails. At a minimum, these should include cable back-ups, teleconferencing, or alternative methods of video/audio conferencing.