

# Virtual vs in-person hearings: a review of the costs and carbon footprint of each

In April 2022, Herbert Smith Freehills (HSF) conducted a comparison of the carbon footprint and the costs of fully virtual hearings against in-person hearings.<sup>1</sup>

The case study analyses the carbon footprint and costs of two notional arbitration hearings (one virtual and one in-person) in a medium sized international commercial arbitration seated in London. It accounts for the environmental impact and costs of (i) counsel for both sides preparing for the two hearings and (ii) attendance at the two hearings by the parties, their counsel, factual and experts witnesses and a three-member tribunal.

The case study is based on data from previous medium-sized arbitrations in which HSF has acted as counsel, including during the COVID-19 pandemic in which the firm was routinely engaged in fully virtual hearings. Details of these data calculations are available separately upon request.

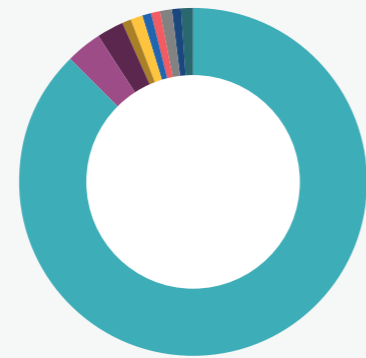
## Highlights of HSF's case study include the following conclusions:

1. The carbon footprint of an in-person hearing is over **111 tonnes CO2**. In contrast, the carbon footprint of a virtual hearing amounts to just under **6 tonnes CO2**.<sup>2</sup>
2. The carbon footprint of an in-person hearings entails **105 tonnes more CO2** than that of a virtual hearing. This CO2e difference is the equivalent of the average amount of **CO2 generated by 15 people in the EU in an entire year**.
3. The carbon footprint of an in-person hearing is **19 times** that of a virtual hearing.
4. The biggest culprits for the carbon footprint of in-person hearings are: flights (92.7%), counsel's time spent on substantive hearing preparation (3.7%), and hotel stays for those who travel internationally for the hearing (2.5%).
5. The biggest culprits for the carbon footprint of virtual hearings are: counsel's time spent on substantive hearing preparation (69.7%), the virtual hearing attendance of counsel (11.7%) and counsel's additional working time during the hearing to prepare for the next hearing day (10.1%).
6. Virtual hearings cost almost **6% less** than in person hearings. In practice, this translates into a difference of tens of thousands of pounds to be borne by both parties in the arbitration.

Costs and carbon intensity of proceedings are two important factors to consider in decisions to host hearings virtually or in person. Other considerations including the location and time availability of the relevant stakeholders, volume of witnesses, access to reliable technology and connections and the overall expected length of the hearing are also important considerations to take into account. We would be pleased to discuss with you the most suitable option for your case.

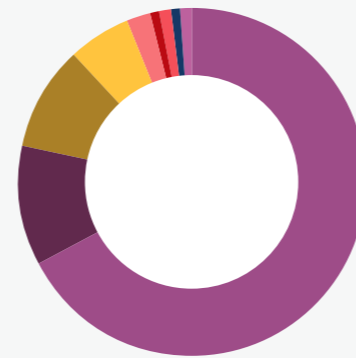
1. Hybrid hearings, where some hearing participants attend in person and others remotely, do not feature in this case study.  
2. According to Encon, to compensate 1 tonne of CO2, 31 to 46 trees are needed. HSF's calculations have been done on the basis of the lower figure of required trees. Read more [here](#)

## CARBON FOOTPRINT OF AN IN-PERSON HEARING



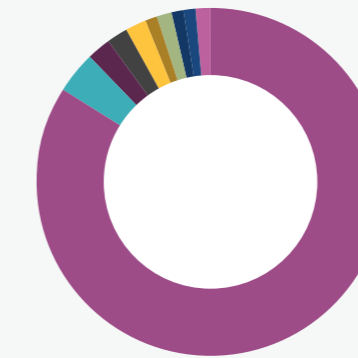
- Flights: **92.7%**
- Substantive hearing preparation: **3.7%**
- Hotel stays: **2.5%**
- Additional working time during hearing: **<1%**
- Organisation of hearing logistics: **<1%**
- Creating the hearing bundle: **<1%**
- Printed hearing bundle: **<1%**
- Transcript storage: **<1%**
- Hearing venue: **<1%**
- USB sticks: **<1%**

## CARBON FOOTPRINT OF A VIRTUAL ARBITRATION HEARING



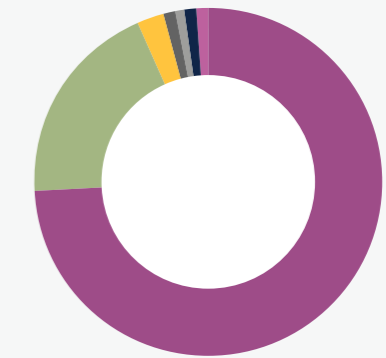
- Substantive hearing preparation: **69.7%**
- Virtual attendance of counsel: **11.7%**
- Additional working time during hearing: **10.1%**
- Organisation of hearing logistics: **5.8%**
- Virtual attendance of other participants: **2.3%**
- Internet traffic of hearing platform: **<1%**
- Creating a hyperlinked index: **<1%**
- Transcript storage: **<1%**
- USB sticks: **<1%**

## COST OF AN IN-PERSON ARBITRATION HEARING



- Substantive hearing preparation: **71.1%**
- Flights: **3.1%**
- Hotels: **1.9%**
- Creation and printing of copy bundles: **1.8%**
- Organisation of hearing logistics: **1.6%**
- Additional trainee assistance during hearing: **<1%**
- Hearing attendance and additional working time during hearing: **<1%**
- Transcription services: **<1%**
- Hearing venue: **<1%**
- USB sticks: **<1%**

## COST OF A VIRTUAL ARBITRATION HEARING



- Substantive hearing preparation: **76%**
- Hearing attendance and additional working time during hearing: **19.8%**
- Organisation of hearing logistics: **2.6%**
- Electronic presentation of evidence: **<1%**
- Virtual hearing platform and hearing manager: **<1%**
- Transcription services: **<1%**
- USB sticks: **<1%**

### Key assumptions

1. Duration of hearing. It has been assumed that the hearing will last for 5 working days, with 6 hours of hearing time each day. This amounts to of 8 hours every day (including breaks).
2. Hearing attendance and additional working time during hearing. 16-hour hearing days have been assumed (8 hours of hearing time and 8 additional hours of preparation time for the next hearing day).
3. Composition of counsel teams. Each counsel team comprises the following members: a partner, senior associate, mid-level associate, junior associate, and two trainees (one of whom will act as the Electronic Presentation of Evidence Officer in virtual hearings, or witness helper in in-person hearings).
4. Composition of tribunal. The tribunal comprises three members, one being based in London.
5. Virtual hearing platform. It has been assumed that the virtual hearing would be conducted on Zoom.
6. Virtual hearing manager. It has been assumed that the virtual hearing host and manager would be provided by an external provider. The costs data in this sense has been obtained from a reputable, commonly used hearing platform provider in London.
7. Hearing venue. In terms of the hearing venue used for an in-person hearing, the energy and costs data presented in this case study has been obtained from a reputable, commonly used London-based hearing venue provider.
8. Hearing bundles at the virtual hearing. It has been assumed that the hearing participants would use a hyperlinked PDF index to access the hearing bundle. No hard copy hearing bundles are required for the virtual hearing.
9. Hearing bundle at the in-person hearing. It has been assumed that one hearing bundle comprises 2,800 pages, 400 dividers and eight A5 lever arch files. A total of ten hearing bundle copies (three bundles / side, one bundle for the fact and expert witness stand, and three bundles for the tribunal) has been assumed.

10. Travel to the hearing. It has been assumed that a total of 16 people would travel to the hearing (two counsel on each side, two client representatives on each side, two arbitrators, and all fact and expert witnesses (totalling 6)).
11. Cities of origin. It has been assumed that travel to and from London would be done from various destinations, including New York, Beijing, Singapore and Brussels.
12. Counsel's place of work. All counsel work is completed from the office. Work from home is not taken into account for counsel.
13. Virtual hearing attendance of participants other than the counsel teams. This includes the attendance of the tribunal members, fact and expert witnesses and client representatives.
14. No additional equipment costs. It has been assumed that no IT equipment would need to be purchased. All hearing attendees have necessary IT equipment to follow the hearing. For in-person hearings, the chosen hearing venue provider is able to provide all required additional equipment (e.g. additional screens).

### Key limitations

- The following data points have not been taken into account:
15. Energy usage of real time transcript;
  16. Costs of the relevant institution administering the arbitration, and tribunal fees;
  17. Hearing preparation time of the tribunal and the expert and fact witnesses;
  18. Cost and carbon footprint of meals during hearing preparation and hearing attendance;
  19. Internal printing, other than the printing of the hearing bundles; and
  20. The carbon footprint resulting from Zoom service usage. While we have measured the carbon footprint of the participants' connection to the Zoom call, we have not measured the carbon footprint of Zoom's server usage for hosting the call or any other aspect of Zoom's own environmental impact.



## Key contacts



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