



Neutral Citation Number: [2023] EWHC 2656 (TCC)

Case No: HT-2023-000169

IN THE HIGH COURT OF JUSTICE
BUSINESS AND PROPERTY COURTS OF ENGLAND AND WALES
TECHNOLOGY AND CONSTRUCTION COURT (KBD)

Royal Courts of Justice, Rolls Building
Fetter Lane, London, EC4A 1NL

Date: 27 October 2023

Before:

HIS HONOUR JUDGE KEYSER KC
sitting as a Judge of the High Court

Between:

CRYSTAL ELECTRONICS LIMITED **Claimant**
- and -
DIGITAL MOBILE SPECTRUM LIMITED **Defendant**

James Davison (instructed by **Thackray Williams LLP**) for the **Claimant**
Crispin Winser KC (instructed by **CMS Cameron McKenna Nabarro Olswang LLP**) for the **Defendant**

Hearing dates: 17 and 18 October 2023

Approved Judgment

This judgment was handed down remotely at 10.30am on 27 October 2023 by circulation to the parties or their representatives by e-mail and by release to the National Archives.

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HIS HONOUR JUDGE KEYSER KC

Judge Keyser KC:

Introduction

1. The defendant (“DMSL”) was set up in 2012 as a joint venture by the four UK mobile network operators for the purpose of carrying out proactive and remedial intervention services to address the detrimental effect of 4G mobile broadband services on digital terrestrial television. DMSL outsourced these services in respect of households whose television reception had been affected. The claimant (“Crystal”) was engaged by DMSL as a contractor for those services and the relationship carried on successfully for several years. However, DMSL terminated the agreement by notice with effect from 15 February 2023.
2. On 10 February 2023 Crystal raised an invoice for £553,336 plus VAT for unpaid charges for works undertaken pursuant to the agreement. DMSL disputed liability for the moneys. On 29 March 2023 Crystal sent to DMSL a notice of adjudication. An adjudicator accepted appointment. DMSL challenged the adjudicator’s jurisdiction on the grounds that the contract between the parties was not a construction contract. The adjudicator formed the preliminary view that he did have jurisdiction and continued with the adjudication.
3. In his decision dated 10 May 2023 (“the First Decision”), the adjudicator considered first the issue whether or not Crystal’s contract works in relation to the disputed invoice were “construction operations” as defined by the Housing Grants, Construction and Regeneration Act 1996, as amended (“the 1996 Act”). DMSL submitted that none of the works were construction operations and, alternatively, that, if some of the works were construction operations, others were not, in which case the contract was therefore a hybrid contract. Crystal submitted that, if any part of the works were construction operations, the adjudicator’s jurisdiction was limited to awarding payment of the Notified Sum; any issue of severance or apportionment would be a matter for the court on an application for enforcement. The adjudicator accepted Crystal’s submission and did not consider the issue regarding “construction operations” further. The adjudicator agreed that the payment provisions of the contract did not provide a mechanism compliant with the 1996 Act and that the payment regime of the Scheme therefore applied, subject to the contractual requirements that Crystal make an application for payment and DMSL pay within 14 days of receipt of the application for payment. He held that Crystal had made a valid application for payment; that DMSL did not issue any valid payment or pay less notice; that the invoice amount became payable on 24 February 2023; and that the amount due from DMSL to Crystal was £553,336 plus VAT. He decided that DMSL should pay that sum plus simple interest to the date of his decision (£7,003.87) and simple interest at 2% over the Barclays Bank base rate from the date of his decision. The date for payment was to be immediately following the issue of the decision. He decided and declared that each side should be responsible for its own legal and expert costs and that Crystal should pay his fees and expenses of £16,500 (inclusive of VAT) and be reimbursed by DMSL.
4. When DMSL did not immediately make payment pursuant to the award, Crystal commenced enforcement proceedings and issued its application for summary judgment. DMSL resisted the application, which accordingly proceeded to a hearing.

5. Between the commencement of proceedings and the hearing of the application for summary judgment, Crystal referred a second adjudication to the same adjudicator. By a decision dated 15 August 2023 (“the Second Decision”), the adjudicator ordered DMSL to pay Crystal the further sum of £219,738 plus VAT and interest. He also ordered Crystal to pay his fees and expenses in the sum of £11,700 plus VAT and ordered DMSL to reimburse Crystal in that sum.
6. At a remote hearing on 15 August 2023, I refused Crystal’s application for summary judgment in respect of the First Decision and gave directions for an expedited trial. As the issues between the parties had become clear, and as the parties were in agreement that it would be helpful for the trial to determine the enforceability of both the First Decision and the Second Decision, I directed that the trial be of the following issues (“the Issues”) with respect to the First Decision and, separately, the Second Decision:
 - 1) Were the works in respect of which the Decision was made construction operations for the purposes of section 105 of the 1996 Act?
 - 2) Did works which were not construction operations for the purposes of section 105 of the 1996 Act form more than a *de minimis* part of the works in respect of which the Decision was made such that the Decision is unenforceable?
7. This is my judgment after the trial. I am grateful to Mr James Davison and Mr Crispin Winser KC, counsel respectively for Crystal and for DMSL, for their submissions.

The Legal Framework

8. Section 108(1) of the 1996 Act provides:

“A party to a construction contract has the right to refer a dispute arising under the contract for adjudication under a procedure complying with this section.”
9. Section 104 provides in relevant part:

“(1) In this Part a ‘construction contract’ means an agreement with a person for any of the following—

 - (a) the carrying out of construction operations;
 - (b) arranging for the carrying out of construction operations by others, whether under sub-contract to him or otherwise;
 - (c) providing his own labour, or the labour of others, for the carrying out of construction operations.

(2) References in this Part to a construction contract include an agreement—

 - (a) to do architectural, design, or surveying work, or

- (b) to provide advice on building, engineering, interior or exterior decoration or on the laying-out of landscape,

in relation to construction operations.

...

(5) Where an agreement relates to construction operations and other matters, this Part applies to it only so far as it relates to construction operations. An agreement relates to construction operations so far as it makes provision of any kind within subsection (1) or (2).”

10. Section 105(1) provides:

“In this Part ‘construction operations’ means, subject as follows, operations of any of the following descriptions—

- (a) construction, alteration, repair, maintenance, extension, demolition or dismantling of buildings, or structures forming, or to form, part of the land (whether permanent or not);
- (b) construction, alteration, repair, maintenance, extension, demolition or dismantling of any works forming, or to form, part of the land, including (without prejudice to the foregoing) walls, roadworks, power-lines, electronic communications apparatus, aircraft runways, docks and harbours, railways, inland waterways, pipe-lines, reservoirs, water-mains, wells, sewers, industrial plant and installations for purposes of land drainage, coast protection or defence;
- (c) installation in any building or structure of fittings forming part of the land, including (without prejudice to the foregoing) systems of heating, lighting, air-conditioning, ventilation, power supply, drainage, sanitation, water supply or fire protection, or security or communications systems;
- (d) external or internal cleaning of buildings and structures, so far as carried out in the course of their construction, alteration, repair, extension or restoration;
- (e) operations which form an integral part of, or are preparatory to, or are for rendering complete, such operations as are previously described in this subsection, including site clearance, earth-moving, excavation, tunnelling and boring, laying of foundations, erection, maintenance or dismantling of

scaffolding, site restoration, landscaping and the provision of roadways and other access works;

- (f) painting or decorating the internal or external surfaces of any building or structure

(Section 105(2), which excludes specified activities, is not relevant to this case.)

11. Section 104(5), above, refers to what have been called “hybrid contracts”: *C Spencer Ltd v M W High Tech Projects UK Ltd* [2020] EWCA Civ 331, [2020] BLR 334, *per* Coulson LJ at [50]. A claimant who seeks to enforce an adjudication award must satisfy the court that all matters included in the award (save for what can properly be considered *de minimis* matters) were “construction operations” within section 105(1) or were matters within section 104(2) in relation to construction operations: *ibid.* at [30] and [57], approving dicta of Stuart-Smith J in *Severfield (UK) Ltd v Duro Felguera UK Ltd* [2015] EWHC 3352 (TCC), 163 Con LR 235; see also section 104(2) and (5). A decision that includes other matters will be completely unenforceable, unless the part of the decision relating to such matters can be severed: *Cleveland Bridge (UK) Ltd v Whessoe-Volker Stevin Joint Venture* [2010] 1076 (TCC), *per* Ramsey J at [108]-[124]. It is common ground that no question of severance arises in the present case.
12. In the present case, Crystal contends that all the work it did under its contract with DMSL was either actual construction operations, within the scope of section 105(1), or a form of surveying work and engineering advice in relation to construction operations, within the scope of section 104(2). The basis for that contention appears from a consideration of the facts. In that context, I shall address further legal issues regarding the construction and application of section 104(2) and section 105(1) of the 1996 Act.

The Facts

13. The contract between DMSL and Crystal (“the Contract”) was dated 19 July 2013 but was varied on a number of occasions in order to reflect changes in the law, notably in respect of data protection, and the differing programmes of works on which Crystal was engaged. The latest variation of the Contract was on 26 November 2021. Only the latest iteration of the Contract was put in evidence, but the parties confirmed that it was sufficient for the purposes of the dispute. The background and purpose of the Contract were explained in the recitals, which were unchanged through all iterations:

“(A) High speed mobile broadband services which will be launched in the UK will bring significant economic and social benefits to consumers and businesses. Many of these consumers will also be viewers of digital terrestrial television (‘DTT’) and some will unfortunately have those TV services affected by the launch of high speed mobile broadband services. In addition, there may be other circumstances where TV services may be affected, such as where broadcast antennas have been damaged.

(B) Provision was made for a pro-active intervention to deal with the DTT interference problem around the UK and DMSL was set up, owned by the Mobile Network Operators, to deliver this intervention by undertaking a programme of education and

notification followed by the delivery of filters to affected individuals to prevent any DTT interference and, where necessary, further remedial action delivered via a network of Installers (as defined below).

(C) It is estimated that a small number of viewers may need to replace their TV aerials if they are of an old type that does not work sufficiently well when the TV services move to their new frequencies or if there are other reasons why their ability to view DTT has been compromised.

(D) DMSL wishes to outsource field installer services in connection with providing corrective support to primary television sets in households whose digital terrestrial television is affected (the 'Solution').

(E) To ensure that the Solution achieves DMSL's needs and in reliance on Supplier's [that is, Crystal's] representations and experience, DMSL wishes to appoint Supplier to provide the Services (as further described in Schedule 1 to this Agreement). Supplier acknowledges that the Services are a key part of the Solution and Supplier is willing and able to provide the Services to DMSL in accordance with the terms of this Agreement."

14. Crystal was one of a number of contractors engaged by DMSL; it had responsibility for an area covering the West Midlands of England and parts of Wales. Clause 3 of the Contract obliged Crystal to provide to DMSL "the Services" within its allotted territory. General provisions regarding the Services were set out in Schedule 1. In broad terms, the Services involved the carrying out of "Jobs" through the agency of "Installers". Relevant definitions were in clause 1.1. "Installer(s)" was defined to mean:

"the aerial installer(s) who is/are approved to provide aerial installation services to assist with remedying interference with DTT through having the appropriate accreditations and having successfully completed the required programs of training activities necessary to become an approved provider of Filter installation services pursuant to this Agreement".

"Job" was defined as:

"the task of attending a household to mitigate and/or investigate interference with DTT for a Householder's or Additional Support Householder's primary television set for which an Appointment has been booked in accordance with this Agreement".

"Householder" was simply "the owner or primary occupier of a domestic property that is experiencing DTT interference". "Additional Support Householder" meant "a Householder that is eligible for additional support as designated by the Contact Centre". "Contact Centre" meant "the contact centre run by DMSL in connection with possible DTT interference". Two further definitions may be mentioned:

“‘Aerials’ means the aerials that Installers shall realign or replace in order to resolve DTT Interference issues;”

“‘Filters’ means a filter to protect digital terrestrial television receiving equipment such as TV sets and signal amplifiers from potentially harmful interference from high speed mobile broadband base sites”.

15. Schedule 1 to the Contract (“Services”) did not deal in detail with the precise nature of the work to be undertaken on particular Jobs. It provided for the allocation of Jobs to Crystal and for the allocation by Crystal of each Job to an Installer, who was required to be “a dedicated Installer, approved by DMSL”¹. Crystal was required to provide to the Installer a Work Order and Customer Sign-Off Sheet (“Work Order Sheet”) relating to the Appointment, and the Installer was required to complete the Work Order Sheet and submit it to Crystal after completion of the Appointment. Crystal in turn would provide the data to DMSL. Annex 2 to Schedule 1 contained a list of mandatory and recommended equipment to be held by the Installer. Section 1 of Annex 2 provided for each Installer to carry a minimum supply of specified Filters. Section 2 listed aerials, fixings and fittings, cables, attenuators and such like, as well as tools, ladders and “Working at Height” kits.
16. Almost all of the relevant work done by Crystal for DMSL related to one or other of two programmes. First, there was what Crystal has called the “4G mitigation programme”; as I understand it, the correct designation of the programme until June 2021 was “at800” and thereafter was “Restore TV”. Crystal worked on the 4G mitigation programme from 2013 until November 2022. Second, there was the 700MHz clearance programme, which ran from early 2017 until summer 2020 and was set up by the UK government to reallocate part of the frequency spectrum used by “Free to air” television for the development of future mobile services. Ostensibly, the invoice that formed the basis of the First Decision was in respect of 700MHz clearance works, and the invoice that formed the basis of the Second Decision was in respect of 4G mitigation works, though as I shall mention below it appears that an additional area of work was included within the claim for payment. Both Crystal and DMSL adduced evidence at trial regarding the work involved in the two programmes. I set out below my conclusions as to the true position. In summary, however, I have formed the view that the evidence adduced by Crystal, in particular that of its Chief Executive Officer and owner, Mr Dean Port, did not give an entirely fair and accurate picture of what was involved but instead significantly over-emphasised those parts of the work that might arguably be considered to involve construction operations.
17. In respect of both programmes, the starting point was that, when a new telecommunications mast was installed, DMSL would send a postcard to each household that might in consequence suffer disruption to television reception. The postcard invited viewers experiencing interference with their television signals to contact DMSL’s call centre². When viewers contacted the call centre, the next step differed between the two programmes, on account of the difference in the primary remedial step likely to be required in the two cases.

¹ For convenience, I shall refer to Crystal’s employees who carried out work under the Contract as “Installers”.

² The call centre was operated on DMSL’s behalf by an entity called The Contact Company.

- Under the 4G mitigation programme, the primary remedy was to fit a small filter box behind the television set. In most cases, the result of the call to the call centre would be that DMSL would send to the viewer, in the post, a filter box with instructions as to how to install it. However, if it appeared that the viewer might reasonably be unable to install the filter box—or if, as I find happened in a small minority of cases, a viewer who had been sent a filter box had been unable to install it or the installation of the filter had not resolved the problems with reception—an appointment would be made for an Installer to visit.
 - Under the 700MHz clearance programme, filters were not required. The primary remedial step was to retune the television set, so as to locate the missing channels. In most cases, the call centre would talk the viewer through the retuning process and attempt to complete it over the telephone. Where this was unsuccessful, or where the call centre concluded that the viewer would reasonably be unable to retune the television set, an appointment would be made for an Installer to visit.
18. Two pieces of generic documentation that were provided by DMSL to Crystal for the use of its Installers show the procedure to be followed when attending an appointment with a viewer. First is the Work Order Sheet. I refer to this document with a degree of caution, because it is reasonably apparent that the only version of the document that I was shown is the latest version, which is quite likely to have differed in some details from the version in use before the 700MHz clearance programme commenced. Section 1 records basic details of the appointment. Section 2 concerns initial checks. These checks include identification of all television equipment and aerials in use, and a search for watchable channels. If a retune is required, the nature of the retune (standard or manual) is recorded, as is the result in respect of watchable channels. There is then a specific box for “Initial Channel Readings”, which are required to “be taken at the direct cable feed (DCF) connection for the input of the receiving device (TV, STB, DTR).” Section 3 is “Job Completion” and is in several subsections. Subsection 3.1, “Scope of work action and items completed”, begins with the question, “What aerial system work did you need to do?”: the options are “None”, “Replace Aerial”, “Re-align Aerial”, and “Other”. The next question is, “What additional work did you need to do?”: among several options are “Amplifier added”, “Amplifier removed”, “Face Plate”, “Coax plug rewire”, and “Post Work Retune”. Subsection 3.2 records the number and type of any filters installed. Subsection 3.3 records the readings taken after the work had been completed. Subsection 3.4 records “Outcome” and requires a Yes or No answer to the question, “Was an installer visit required?” If an installer visit was required, the relevant reason is to be identified; the options are: “Viewer found retune challenging”, “for 4G interference”, “for issues that were most likely pre-existing”, and “aerial equipment couldn’t receive new frequencies”. Finally, the Installer had to record whether another visit was required and, if it was, the reason why it was required.
19. Accordingly, the Work Order Sheet indicates a simple and logical order for the Installer to follow. First, identify the equipment. Second, check which channels are being received. Third, ascertain whether any missing channels can be recovered by a retune. Fourth, take signal readings at the location of the receiving devices. Fifth, undertake any necessary work involving aerials or other parts of the system or the fitting of filters. Sixth, take further signal readings after completion of any work undertaken at stage five. (I think it probable that the details would have been different in some respects

before the commencement of the 700MHz clearance scheme, although the logical progression is likely to have been similar.)

20. The second piece of documentation is in the nature of a flowchart, headed “Engineers’ Scope of Work requirements” (“the Flowchart”). The Flowchart shows a number of stages. Stages 1 to 4 have a marginal rubric: “Before any remedial work to aerial system”. Stage 1, “Advance Planning”, relates to preliminary enquiries and arrangements before attendance on the viewer. Stage 2, “On arrival”, has the headline, “Local area & roof check, greeting and external risk assessments”, and includes steps 4 and 5:

“4. As you approach the property, look for any reception issues (extended poles, extra large aerials, dual aerials, different alignments, nearby LTE masts, trees or other barriers).

5. When outside the property, look at the roof top aerial for type, group, condition and any existing damage to the roof or property to review with the viewer. ...”

Stage 3, “Initial Checks on viewer’s DTT product/s”, has the headline, “Internal risk assessment and identifying the system configuration, aerial signal routing with numbers/locations of devices”. Its final requirement, step 12, is: “Ask viewer to switch on each TV, DTR, STB and with them check for reception of services on all available muxes at each product: [channels listed].” Stage 4, “Initial Checks on viewer’s DTT product/s”, has the headline, “Is a retune needed?” and contains three steps:

“13. Are all original services stored and stable without a retune? If Yes, then go straight to ‘16’ for meter checks.

14. If all original services are not reinstated, give the product handset to the viewer and guide them through a retune (or if needed a manual retune). Note if this returns the services or not.
...

15. Repeat ‘14’ for all connected and operational DTT equipment to include TVs, STBs and DTRs.”

Stage 5, “Initial meter checks”, has the headline, “Take spectrum analyser readings to establish if signals are to specification or not”, and contains two steps:

“16. Use your meter to take signal readings at the *Direct Cable Feed (DCF) to the equipment to confirm if the signals for all muxes are to usual at 800 specifications. (*If impractical use nearest point to the DCF ...) ...

17. Depending on if the serving transmitter has DTT muxes staying in the original aerial group or moving from an aerial group (e.g. C/D, B) or another, apply one of the three SOW [system of work] actions below:”.

The three SOW actions are set out in the following boxes and are: (1) “No work required – aerial group change N/A”; (2) “Retune only – aerial group change N/A”; (3) “Out of Group Aerial System Work”. The third SOW action will involve work on the aerials. The second SOW action might in some cases involve work on the aerials; the text includes the following passage in red script:

“Please note if the aerial group³ has not changed and the signal is below specification this could be linked to pre-existing reception issue (e.g. poorly mounted loft aerial, signals blocked by building as aerial too low) only basic fix work is to be completed.”

Stage six is “Post-work completion checks”, which is self-explanatory.

21. The evidence regarding the actual practice of Crystal’s Installers, insofar as I accept that evidence, is broadly consistent with what is indicated by the documentation.
22. Crystal’s Installers would usually attend appointments in two-man teams. This was not a mandatory requirement of DMSL—its payment rates provided for one-man and for two-man teams—but it doubtless made practical sense for Crystal. Until the Installers attended the appointments, they could not know what work would be required or (as I find) whether it would be necessary to carry out work at height, particularly at roof level, when two persons would be required for health and safety reasons. On arrival at a property, the first thing that the Installers would do is what Crystal called at trial a “visual survey”; this simply means that they would look at the exterior of the property in order to see what aerials were present and where they were located and what other relevant things might be in the vicinity, such as tall trees or buildings that might affect signal reception. (This corresponds to steps 4 and 5 in the Flowchart.)
23. Once inside the viewer’s home, the Installers would identify the equipment that was present. In addition to television sets, this would include set-top boxes (STBs), digital television recorders (DTRs), and amplifiers. This was done within the living accommodation at the property.
24. The Installers would then take signal readings at the equipment so identified, using a portable spectrum analyser. (I was shown such a spectrum analyser in the course of the trial.) As the Work Order Sheet indicated, the readings would be taken at the direct cable feed connections for the respective receiving devices. In this way it would be ascertained at the outset whether a sufficient signal was being received. The readings would be recorded on the Work Order Sheet.
25. The next step would depend on the signal readings. If an adequate signal was being received, the remedial work would concern the television equipment. In the case of work under the 4G mitigation programme, this would generally involve fitting the set-back filter, usually because the viewer had been assessed by the call centre as requiring

³ Mr Shaun Mulligan, a witness employed by Crystal, explained in his witness statement: “Professional aerials are ‘grouped’ meaning they are tuned to receive a set range of frequencies. These grouped aerials would be used where the main terrestrial broadcasts were within a specific range. ... [W]hen some of the main terrestrial transmitters changed frequencies the transmitters would have to move the frequencies either up or down the spectrum. This could result in aerials having to be swapped to a ‘different frequency’ aerial to receive the changed signal ...”

assistance to fit the filter and so had not been sent one, but sometimes because the viewer had proved unable to fit the filter properly. In the case of work under the 700MHz clearance programme, the remedial work would be a matter of retuning the television set, so as to locate the relevant frequencies for the missing channels.

26. However, if the signal readings at the direct cable feed connections of the receiving devices were inadequate, further investigation and different remedial work would be required.⁴ The Installer would work backwards from the receiving devices, taking signal readings at points progressively more distant from the receiving devices until a satisfactory reading was obtained and thus identifying the location of any problem with the signal. Accordingly, after the receiving devices, the Installer would take readings at the fly cable, attaching the devices to the wall socket at the face plate, and then at the wall socket. If the signal were still inadequate, the Installer would follow the coaxial cable, either to an amplifier in the loft space or, if there were no such amplifier, to the external aerial located at roof level.
27. It is certain that a substantial proportion of the work done by Crystal's Installers at viewers' homes would involve work at roof level. This work might include realigning an aerial, moving an aerial, removing and replacing an aerial, or installing a filter or a mast head amplifier (MHA) adjacent to the aerial. I accept that, if the position of an aerial needed to be altered, in most cases the existing aerial would be removed and a new one installed, but occasionally the existing aerial would be moved.
28. In his witness statement for trial, Mr Port stated that all of Crystal's work for DMSL required its rigger engineers "to climb onto roofs to work on pre-existing or new aerial systems / amplification", and that Crystal "was not required to fit setback filters onto TVs or tune TVs", that work being undertaken by a different company. I reject both parts of that evidence. As to the first part, although in a substantial proportion of cases the Installers would go onto the roof, there were many cases when they did not do so. In cross-examination, Mr Port insisted that the Installers would always take a signal reading at roof height, even if there were no apparent need, because to do so was to provide a top-quality service while they were on site. I do not believe his evidence. The diagnostic process that I have described, and as indicated in the documentation, means that it would be unnecessary to take readings at roof height if there were good signals inside the property. Mr Frame confirmed what I should regard as obvious, that the potentially dangerous task of working on the roof would not be undertaken unless it were necessary. In its evidence for the summary judgment application, Crystal produced what purported to be its own data for two randomly selected periods, showing that the percentage of jobs involving roof works was 61.74% in one period and 74.74% in the other. The total figures included occasions when the customer was not present, but I regard it as unlikely that this could have distorted the results significantly. That evidence, which on its own terms undermined Crystal's case, was not reproduced in the evidence served by Crystal for the purposes of the trial. No very satisfactory explanation was given for the decision not to adduce the evidence at trial.

⁴ The clearest and most cogent evidence on this came from Mr Steven Frame, who is employed by DMSL as an auditor (which largely involves checking specimen work done by Installers, including those of Crystal) and formerly worked in Scotland as an Installer for a different company providing services similar to those provided by Crystal.

29. Crystal's Managing Director, Ms Stacey Howell, stated in her witness statement for trial that Crystal's Installers were required to work at heights on 85%+ of the jobs, though she confirmed that this included work that involved merely the taking of signal readings at roof height. In cross-examination she said that her evidence was based on feedback from the Installers, which indicated that in 9 times out of 10 they would have to gain access to the roof. She also stated that the specific figure of 85% had been taken from the statement of Mr Jack Parsler, an employee and latterly a director of Crystal. The basis for Mr Parsler's figure, which he describes as an estimate, is unclear, but he confirmed that it included all work at heights, even if it involved only taking meter readings.
30. I reject, second, Mr Port's initial claim that Crystal did not retune television sets or fit filters. In cross-examination he accepted that Crystal's Installers would not know what if any remedial works were required until they attended on the appointment. He also accepted that sometimes what was required was to retune the television or install a filter. He said that his witness statement, which was to directly contrary effect, had been intended to mean only that Crystal had been engaged by DMSL for its ability to provide rooftop installation services, skills beyond those involved in merely retuning television sets and fitting filters.
31. From the data provided to it by Crystal during the currency of the Contract, DMSL produced an analysis of the work undertaken. According to this analysis, on the 700MHz clearance programme Crystal carried out 7,851 jobs between February 2018 and November 2020, of which 46% involved only retuning and less than 24% involved replacement of aerials. DMSL's analysis indicates that on the 4G mitigation programme Crystal carried out 20,196 jobs between July 2013 and November 2022, of which more than 68% involved no works beyond fitting a set-back filter. Crystal's witnesses criticised this analysis on a number of grounds. One ground is that an entire category of work, namely that concerning the Bilsdale transmitter, has been omitted. The point is well made, inasmuch as that work is not included; however, as I shall explain below, it did not fall within either programme or even within the Contract. A second ground of complaint is that the analysis fails to distinguish between appointments and Jobs, so that it wrongly brings into account occasions when Installers attended but were unable to perform work, for example because the viewer was not at home or equipment such as scaffold was not available. I regard this as a valid criticism of the analysis; however, it seems to me unlikely that it indicates any fundamental unreliability of the figures as regards the general picture they reveal. (It might be remembered that the Installers attended only by appointment, and that they attended in two-man teams precisely so that they could carry out any work that might prove to be necessary.) A third ground of complaint is that the data presented by DMSL omit more than 2,000 jobs, in respect of which Crystal cannot access the original data. I do not consider that any solid basis has been shown for this complaint and am unsure how Crystal can advance it consistently with its claim to have no records of its own. In my view DMSL's analysis, though doubtless not absolutely accurate, presents a broadly reliable picture.
32. In summary, the position was as follows. On every job, Crystal's Installers carried out a basic visual inspection of the exterior of the property and its environs, identified the receiving equipment inside the property and took signal readings at the location of the receiving equipment. Sometimes nothing more would be required than to retune the

television set or other equipment, or to fit a set-back filter. Sometimes other work would be required: this could involve taking signal readings in the loft or on the roof, installing an internal amplifier, fitting a filter to an aerial, fitting a mast head amplifier adjacent to the aerial, or realigning, moving or installing an aerial.

Discussion

33. On behalf of Crystal, Mr Davison relied on section 105(1)(b), (c) and (e), as well as on section 104(2)(a) and (b), in support of his submission that all of the work done by Crystal was either construction operations or surveying work and/or engineering advice in relation to construction operations.
34. Mr Davison made much of the words “electronic communications apparatus” in section 105(1)(b), which were substituted for the previous “telecommunication apparatus” by the Communications Act 2003. The phrase “electronic communications apparatus” has the same meaning as in the “electronic communications code”: para 1 of Schedule 17 to the Communications Act 2003. The electronic communications code is in Schedule 3A to the Communications Act 2003. Para 5(1) of Schedule 3A defines “electronic communications apparatus”:

“In this code ‘electronic communications apparatus’ means—

- (a) apparatus designed or adapted for use in connection with the provision of an electronic communications network,
- (b) apparatus designed or adapted for a use which consists of or includes the sending or receiving of communications or other signals that are transmitted by means of an electronic communications network,
- (c) lines, and
- (d) other structures or things designed or adapted for use in connection with the provision of an electronic communications network.

The phrase “electronic communications network” is defined in section 32 of the Communications Act 2003, which provides in part:

“(1) In this Act ‘electronic communications network’ means—

- (a) a transmission system for the conveyance, by the use of electrical, magnetic or electro-magnetic energy, of signals of any description; and
- (b) such of the following as are used, by the person providing the system and in association with it, for the conveyance of the signals—
 - (i) apparatus comprised in the system;

(ii) apparatus used for the switching or routing of the signals; ...

...

(10) In this section 'signal' includes—

(a) anything comprising speech, music, sounds, visual images or communications or data of any description; and

(b) signals serving for the impartation of anything between persons, between a person and a thing or between things, or for the actuation or control of apparatus.”

35. Mr Davison submitted that section 105(1)(b) of the 1996 Act, read with the relevant provisions of the Communications Act 2003, made clear that work on apparatus for use in connection with a digital television network was deliberately brought within the potential scope of construction operations. I think that is correct. However, his further submission, that “all of the claimant’s activity and attendance is encompassed, not just ‘labour and tools’ or work at height”, does not follow. The critical question under section 105(1) will be whether the structures or other apparatus on which the works were undertaken form, or were to form, part of the land.

36. In *Savoie v Spicers Ltd* [2014] EWHC 4195 (TCC), [2015] BLR 151, Akenhead J considered in detail the relevant authorities concerning the phrase “forming part of the land” and concluded:

“36. Drawing all these threads together, and in the context of sections 105(1) and (2) of the HGCRA, the law and practice can be said to be as follows (the following not intending necessarily to be an exhaustive definition of all requirements):

(a) ‘Construction operations’ under section 105(1)(a) to (c) of the HGCRA involve the various types of work set out in those paragraphs ... forming or to form part of the land.

(b) One must remember that HGCRA is engaged by a construction contract for the carrying out of ‘construction operations’; therefore the Act is engaged even if the construction operations are not completed, properly or at all.

(c) Whether something forms or is to form part of land is ultimately a question of fact and this involves fact and degree.

(d) The factual test of whether something forms or is to form part of the land is informed by but not circumscribed by principles to be found in the law of real property and fixtures. Something which is or is to become a ‘fixture’ will, almost invariably, ‘form part of the land’ for the purposes of the HGCRA.

(e) There is some distinction to be drawn between fixtures, that is, things which are attached to buildings or land, and the land itself. In *Elitestone Ltd v Morris* [1997] 1 WLR 687, Lords Lloyd and Clyde recognised that distinction between the land and the building itself on the one hand (effectively the same thing) and fixtures fixed to or within a building on the other.

(f) To be a fixture or to be part of the land, an object must be annexed or affixed to the land, actually or in effect. An object which rests on the land under its own weight without mechanical or similar fixings can still be a fixture or form part of the land. It is primarily a question of fact and degree.

(g) In relation to objects or installations forming part of the land, one can and should have regard to the purpose of the object or installation in question being in or on the land or building. Purpose is to be determined objectively and not by reference simply to what one or other party to the contract, by which the object was brought to or installation brought about at the site, thought or thinks. Primarily, one looks at the nature and type of object or installation and considers how it would be or would be intended to be installed and used. One needs to consider the context, objectively established. If the object or system in question was installed to enhance the value and utility of the premises to and in which it was annexed, that is a strong pointer to it forming part of the land.

(h) Where machinery or equipment is placed or installed on land or within buildings, particularly if it is all part of one system, one should have regard to the installation as a whole, rather than each individual element on its own. The fact that even some substantial and heavy pieces are more readily removable than others is not in itself determinative that the installation as a whole does not form part of the land. Machinery and plant can be structures, works (including industrial plant) and fittings within the context of sections 105(1)(a) to (c) of the HGCRA.

(i) Simply because something is installed in a building or structure does not mean that it necessarily becomes a fixture or part of the land. Mr Justice Dyson in the *Nottingham Community Housing* case was not saying otherwise. A standing refrigerator or washing machine can be installed in a building but nobody, thinking rationally, would suggest that they had become fixtures or part of the land.

(j) The fixing with screws and bolts of an object to or within a building or structure is a strong pointer to the object becoming a fixture and part of the land but it is not absolutely

determinative. Many of the old cases referred to above demonstrate that such fixings did point towards the object so affixed being part of the land. However, the *Gibson Lea* case produced a different answer, even though some items were affixed by nails and screws.

(k) Ease of removability of the object or installation in question is a factor which is a pointer to whether it is to be treated as not forming part of the land. One can have regard, however, to the purpose which the object or installation is serving, that purpose being determined objectively. The fact that the fixing cannot be removed save by destroying or seriously damaging it or the attachment is a pointer to what it is attaching being part of the land. A significant degree of permanence of the object or installation can point to it being considered as part of the land.”

37. I was referred to one subsequent case on the point, the decision of Edwards-Stuart J in *Fahstone Limited v Biesse Group UK Limited* [2015] EWHC 3650 (TCC), where the law as stated in the *Savoye* case was applied and it was held that a large woodworking machine did not form part of the workshop, although it was securely bolted to the floor. The fixings were primarily for the purpose of preventing the machine from vibrating; they were not bonded to the machine and could be easily removed without causing any damage to the machine. There was a ready market for second-hand machines of that kind, and they were also capable of being the subject of hire-purchase agreements, which indicated that they were treated as remaining chattels. The decision is of illustrative interest, but each case must turn on its own facts and, as Edwards-Stuart J emphasised, in agreement with Akenhead J, the issue is very much a question of fact and degree and, therefore, to some extent of impression.
38. The description given above of Crystal’s work at viewers’ households makes clear that a substantial proportion of the work was not on structures or works forming part of the land and therefore did not constitute construction operations. The clearest examples of this are the fitting of set-back filters to television sets and the retuning of television sets and other devices.
39. Mr Davison’s answer to this objection was to submit that the telecommunications system at the viewer’s home ought to be viewed as a whole, analogous to the gas and electricity services within a house, and as being permanently integrated into the structure of the house. If that argument had any merit, it would mean that work confined to the maintenance or repair of a television set was a construction operation; however, that is obviously not so. Section 105(1)(b) brings within the scope of construction operations the repair, maintenance etc of “any works *forming, or to form, part of the land*”. The “works” may include electronic communications apparatus but will do so only if the apparatus forms part of the land. Television sets, recording devices and amplifiers obviously do not form part of the land, though sockets and face plates may do so. In the *Savoye* case, at [25], Akenhead J referred with favour to remarks made by Lord Lucas in the parliamentary debate on the 1996 Act at bill stage, with regard to the meaning of the phrase “fittings forming part of the land”. Lord Lucas illustrated his point thus: “The dividing line between things which are fixed and not fixed might be the telephone on one’s desk, which is not fixed to the land, and the socket in the wall,

which is.” The logic of Mr Davison’s submission would require that the maintenance or repair of the telephone be considered a construction operation, because the telephone is to be regarded as an indivisible part of a telecommunications system that is integrated into the house. There is no merit in the conclusion or the underlying argument. For the same reason, section 105(1)(c) does not assist Crystal.

40. Mr Davison also relied initially—though not, I think, in his closing submissions—on section 105(1)(e), on the basis that operations carried out by Crystal that were not themselves construction operations were preparatory to construction operations. I reject that contention. Retuning a television or fitting a set-back filter is not preparatory to a construction operation.
41. These conclusions are sufficient to dispose of Crystal’s claim to enforce the two adjudication decisions, because the evidence shows that at the very least a substantial proportion of the works to which the adjudication decisions related comprised operations that were not construction operations.
42. In those circumstances, it is not strictly necessary to consider whether three aspects of the works to which the adjudication decisions relate are such as would have qualified for enforcement if they had stood alone. Nevertheless, I shall address these matters briefly. On behalf of Crystal it is contended that:
 - a) Work on rooftop aerials constituted construction operations within section 105(1);
 - b) Work done by Crystal on every job included surveying work and/or engineering advice in relation to construction operations within section 104(2);
 - c) The adjudication awards included payment for entirely different work, at the Bilsdale transmitter, which constituted construction operations within section 105(1).
43. As to the first point, the nature of the rooftop work has been summarised above. There was very little evidence at trial regarding the installation of MHAs or rooftop filters and nothing to show that they could be regarded as “fittings forming part of the land”, within the scope of section 105(1)(c). The focus of the evidence was, rather, on the rooftop aerials. In principle, the realignment or installation of such aerials could constitute alteration, repair or maintenance of electronic communications apparatus, within the scope of section 105(1)(b), or the installation of fittings, within the scope of section 105(1)(c) of the 1996 Act. In each case, however, the question is whether the aerials form part of the land.
44. The researches of counsel have discovered no case-law on the status of television aerials for the purposes of section 105. Mr Winser referred to *Emmett and Farrand on Title*, which at paragraph 17.108 remarks: “There is occasional doubt as to whether an external television aerial fixed to a chimney stack or a roof passes to a purchaser as a fixture.” (It is quite unclear to me what one is to make of that, if anything.) I am left with a question of fact and degree, on the evidence in the case and largely as a matter of impression.

45. External television aerials are firmly attached to buildings and are intended to remain securely in position throughout all weather conditions. They are also intended to have a degree of permanence; figures of 10, 15 and even 25 years were given in evidence as the intended lifespan of such aerials. There was a conflict of evidence as to the method by which they are installed. In the course of his evidence, Mr Parsler produced from a work bag a large T bracket, which he claimed was of a kind used to affix aerials and was attached to chimneys with heavy-duty bolts, of which he produced samples that appeared to be five or six inches long. I am reluctant, on the basis of relatively limited evidence, to assert that television aerials would never be affixed in that manner. However, my immediate impression was that to use a bracket and bolts of the kind produced by Mr Parsler would be destructive of almost all domestic chimneys, and this was confirmed by Mr Frame (and fairly accepted by Mr Davison in his closing submissions). Mr Parsler produced a photograph of an aerial, which he initially said was attached to the chimney with coach bolts. However, he subsequently accepted that it was actually attached by lashings or straps, as appears obvious on looking at the photograph. Mr Frame's evidence was to the effect that one would generally affix an aerial in that manner. I accept that some aerials will be attached to buildings by brackets and bolts; this is likely to happen when the mast is fixed to the side of a building rather than to a chimney (fittings for this purpose are included in Annex 2 to Schedule 1 to the Contract), though it might perhaps also be a method occasionally used to affix an aerial to a chimney, albeit with much smaller bolts than were shown to me. However, I find that the usual method of attaching external aerials at roof level was by lashings that strapped the aerial masts to the chimneys.
46. In my judgment, at least in most cases, the aerials on which Crystal will have worked pursuant to the Contract did not form part of the land. They were pieces of replaceable equipment, easily installed and removed, which were usually attached to the buildings by means of a secure form of strapping and were in no sense integrated into the buildings. Even when they were affixed to the buildings by bolted brackets, as will have been the case when the fixing was to the side rather than to the chimney stack, they were capable of removal simply by undoing or cutting the bolts, without any damage to the aerial itself. Whatever may be the usual lifespan of an external aerial—and I accept that it is probably about 15 years, except in cases of more severe exposure to the elements—it is equipment that is intended for periodic replacement. The secure nature of the attachment of the aerial to the building is not so as to incorporate it into the larger structure but because, if it is not securely attached, the equipment will not work and will become a danger. Taking matters in the round, and as a matter of fact and degree, I conclude that the aerials were not generally part of the land.
47. It is not to be forgotten that by no means all works carried out at roof level involved the installation or realignment of aerials. Some roof works involved fitting masthead amplifiers or filters to the aerial mast. The installation instructions that I have seen for masthead amplifiers show that they will normally be attached to the aerial masts by cable ties, though sometimes they will be attached by means of a screw and plate. Either way, they will not comprise a single structure with the aerial mast so as to form part of the land (even if, contrary to my view, the aerial forms part of the land). There is no evidence that the method of fitting filters would involve any installation that could plausibly make the filter part of the aerial structure.

48. As to the second point, Mr Davison submitted at the trial that on each and every job Crystal's Installers performed survey work and gave engineering advice, falling within section 104(2) of the 1996 Act. This was a new way of putting Crystal's case and was directly inconsistent with the way in which Mr Davison had put it on the summary judgment application, when his submission was that "the works and services procured by DMSL from Crystal were ... *all and always* of a kind within the scope of section 105(1)" (skeleton argument for the summary judgment application, paragraph 22; emphasis in the original). There are at least two major problems with this new submission. First, even if it were right, it would also be the case that, at least on many of the jobs, Crystal did work that did not fall within section 104(2) and that was not construction operations within section 105. The reasons for this conclusion have been given above. Second, the contention that Crystal performed survey work and gave engineering advice, within the scope of section 104(2), is incorrect. At the risk of labouring an obvious point, I state the following reasons.

- 1) In section 104(2), the words "in relation to construction operations" are crucial in two closely related ways. First, they qualify both (a) and (b) in the subsection: the activities referred to will constitute the agreement as a construction contract only if those activities are in relation to construction operations. Second, they provide a basis for understanding what is meant by the words used in (a) and (b).
- 2) There are many ways in which one may be said to survey something or someone. One may survey troops massed for battle, or an interlocutor, or the road ahead. Such activities are not "surveying work", either in general parlance or for the purposes of section 104(2). What is meant by the words in the statutory provision is evident, first, from the accompanying words, "architectural [or] design ... work", and, second, from the concluding words, "in relation to construction operations." What is meant is clearly land and building surveying, such as is done by surveyors in the construction industry. In the present case, the only "surveying" that is alleged is the initial exercise of having a look at the exterior of the property, to observe the aerials and the environs, and the subsequent exercise of looking at the equipment inside the property. That is not "surveying work". Even if it were possible to describe it as such, at least a substantial part of it would not be "in relation to construction operations."
- 3) The position is essentially the same position in respect of "advice on ... engineering". Providing feedback to DMSL on the signal results obtained with a spectrum analyser is nothing like providing advice on engineering in relation to construction operations, no matter how useful the digital network providers may find the feedback. Even if such feedback could be considered to be "advice on engineering", the advice would not be in relation to construction operations at all, even if the Installers had proceeded to carry out a construction operation in consequence of a poor signal. No attempt was made to identify any construction operation on the part of DMSL to which engineering advice given to them might relate.

I cannot help thinking that the argument based on section 104(2) was introduced because of the obvious impossibility of demonstrating that all of the works to which the

adjudication decisions related were construction operations, as had originally been contended.

49. As to the third point, another argument raised for the first time at the trial was that some of the works done by Crystal were in respect neither of the 4G mitigation programme nor of the 700MHz clearance programme but rather of an entirely different job at the Bilsdale transmitting station in North Yorkshire, outside the geographical territory covered by the Contract and involving work of a very different kind; and that the work at Bilsdale comprised construction operations.
50. This new argument does not advance Crystal's position, because Crystal has to prove that all the operations to which the relevant adjudication decision related were construction operations, not that some of them were. However, the manner in which the new argument was raised is highly unsatisfactory.
51. The First Decision related to Crystal's invoice no. 28606, which purported to be for "700MHz Underpayment". The referral was made under the contract of 19 July 2013, and Crystal confirmed in terms that the dispute related to the 700MHz clearance programme. The particulars of claim in these proceedings expressly rely on the Contract. The Second Decision related to Crystal's invoice no. 28607, which purported to be for "4G Underpayment". Again, the referral was made under the Contract, and Crystal confirmed in terms that the dispute related to the 4G mitigation programme. There are, of course, no pleadings in respect of the Second Decision. The adjudicator proceeded in respect of both decisions on the basis that the contract that was said to be a construction contract was the Contract. Crystal produced a single schedule that covered both invoices. There are seven lines of the schedule, among many dozens, that refer to "Bilsdale". The evidence of Mr Port was that, after fire disabled the Bilsdale transmitter, Crystal's rigger engineers were rushed to the site to erect temporary transmitter masts to plug the missing television reception. "The entire mitigation program / work on site involved 100% roof working at height engineering bolting new taller masts, drilling, and securing brackets with anchor bolts and to part resin to gable walls." The items relating to the Bilsdale work appear to have been encompassed in the Second Decision.
52. The convenient course of allowing the Second Decision to be considered in these proceedings was taken on the basis that it concerned the Contract. Although Mr Port states that the Bilsdale work was "added to the contract by the defendant", it appears to relate to an entirely different agreement between the parties: the nature of the work and the location of the transmitter are outside the scope of the Contract, and clause 24.3 of the Contract requires variations to be made by signed writing, of which no evidence has been adduced.
53. Apart from Mr Port's statement dated 19 September 2023, which introduced the Bilsdale works, and some very brief oral evidence from him on the point, there was, understandably, no evidence regarding Bilsdale. In the circumstances, and as it could make no difference to the outcome of the case, I regard it as preferable to prescind from the question whether or to what extent the Bilsdale works comprised construction operations.

Conclusion

54. For the detailed reasons set out above, I conclude that neither the First Decision nor the Second Decision is enforceable. Accordingly, Crystal's claim to enforce the Decisions is dismissed.
55. I shall be grateful if counsel will provide me with a draft order to give effect to this judgment. If any consequential matters cannot be agreed and fall for determination, I shall deal with them at a short remote hearing.