



(Disputes Tribunal Act 1988)
ORDER OF DISPUTES TRIBUNAL

[2023] NZDT 605

APPLICANT **CS and KS**

RESPONDENT **H Ltd**

The Tribunal orders:

1. H Ltd is to replace the Inverter, reinstalling the replacement unit in the higher location on the south wall under the house eaves, and clear of the guttering. The parties are to discuss the timeframe for this occurring, but the reinstallation is to occur by 29 March 2024. H Ltd is also pay \$164.37 for increased power costs, on or before 8 December 2023.

Reasons

2. In February 2022, CS and KS contracted with H Ltd for the installation of a solar power system. This followed a meeting on 4 August 2021, where HG, the director of H Ltd, visited CS and KS's house and where various topics were discussed including the number and layout of solar panels, and the location of the inverter unit. An inverter unit is an appliance which converts the DC power produced by the panels to AC power useable as a domestic supply (the Inverter).
3. CS and KS claim that they had concerns about the location of the unit, however, this is disputed by HG.
4. On 7 April 2022 the system was installed by C Ltd, who subcontract to H Ltd. An electrical compliance certificate, and record of inspection by an independent certifier, was issued for the system on 11 April 2022. It was agreed at the hearing by CS and KS that, apart from a few issues to do with the placement of solar units and a misunderstanding relating to the ability of the system to power a spa pool, the installation went well.
5. The Inverter was installed by the front door, next to the power meter cabinet. The Inverter sits beneath a junction between the main body of the house and an open walkway covered by a long run iron roof. Both the house roof and the roofing over the walkway drain to gutters. The Inverter is beneath the house eaves, however, it sits directly beneath the point at which the walkway guttering ends against the house. The Inverter has two parts; a mounting bracket/cabinet which is attached to the house by tek-screws, and into which the cabling is mounted, and the Inverter itself, which hinges into the bracket at the top.
6. The Inverter has internal sensors which allow for errors or issues with its performance to be monitored online. The log of the sensors shows that there were isolation errors, (code 475) which occurred on 10, 11, and 13 June 2022, 27 July 2022, and on 12 and 13 September 2022. Code 475 is a code which relates to the automatic isolation system. It turns out that there was moisture in the unit, however, this error code could also relate to a number of other causes.
7. After the 13 September event, H Ltd, who monitor the performance of the unit, sent an electrician from C Ltd to investigate. He discovered on inspection that the error was coming from moisture

entering the Inverter at the base where the cables enter the cabinet. The electrician's email to H Ltd indicates that he had been told by CS that the gutters above had overflowed onto the unit, although CS disputes that he said this. The electrician also reported leaves behind the Inverter cabinet, which he believed indicated that water had overflowed onto the unit. The photos provided show that moisture is present at the cable junctions at the base of the cabinet where the cables enter, seen with the unit hinged out from the cabinet. There is also a small amount of corrosion visible.

8. Subsequently H Ltd has offered a replacement under warranty, although it does not accept that the unit or its placement are faulty. The offer was to install the replacement higher up the wall, so it sits beneath the eaves and away from the walkway gutter. This was suggested as a way to assist CS and KS while this application is heard. However, the offer was rejected as CS and KS want the unit moved into their detached garage.
9. As the replacement unit was owned by the manufacturer and was not installed, H Ltd were required to return the warranty replacement unit to the [overseas] distributor in mid-2023.

Issues

10. To resolve this application, I must consider:
 - a. What is the likely cause of the water ingress?
 - b. What duties do H Ltd owe under the contract?
 - c. Was the Inverter and its installation fit for purpose?
 - d. What is the appropriate remedy?

Cause of the moisture ingress

11. The evidence presents two possibilities as to how the moisture ingress has occurred, either:
 - a. there is a defect in the Inverter allowing moisture to enter; or
 - b. the guttering of the roof walkway is overflowing during heavy rain, and as the Inverter sits directly below, the water flows are exceeding its weather resistance, allowing moisture to enter.
12. CS and KS say that during installation they were advised by the C Ltd installer that the inverter was waterproof. They say that the unit is not waterproof and deny that the gutters overflow, pointing out that their house is on a tank supply, and capturing rainfall from their rooms requires good guttering. Their concern about the gutters is that in future events with heavier rainfall the gutters may overflow
13. HG points out that the inverter is weatherproof to the IP 65 standard. "*IP*" refers to "*International Protection*", and is a standardised code established by the EU as code EN 60529. To meet this standard an appliance must be able demonstrate complete resistance to dust for up to 8 hours (level 6, the first number), and resistance to water jets and pressures of 4.4 psi at a distance of 3 m (level 5, the second number). While not waterproof in the sense that it can operate submerged, the unit is highly water and weather resistant. HG's evidence was that hundreds of these inverters have been installed by H Ltd in the [Region] in similar locations and this is the only unit ever to have had an issue.
14. I note that the Inverter is installed next to the meter box. The Inverter's weather resistance may be compared to that of the meter box. The meter box as shown in photos is the standard type installed externally on older New Zealand homes. It is a steel box with a hinged lid which fits onto a lip in the body of the box and is secured by a pressure clip. There is no seal, beyond a press fit between the lid and the body of the box. The Inverter is far more weather resistant than the meter box.
15. It is to be noted that the water is not entering the Inverter unit itself, rather it is entering the cabinet/mount and appears only to be affecting the cable junctions, and that the amount of water

entering the cabinet is minimal. It is better described as moisture from the photos which show what appears to be condensation at cable junctions and a small amount of corrosion. However, the moisture is sufficient for the inverter's sensors to detect it and raise an error log. It is noted that even with the error running the unit is still operational.

16. I have been provided with a copy of the error log and the weather data for this location, I note that there was relatively heavy rain (2.43 mm/h) on September 10, 2022, and 1.14 mm/hr on 12 September 2022. The error codes that lead to the H Ltd sending their technician occurred at 4:31 pm on 12 September 2022, and 3:17 pm on 13 September 2022.
17. CS is adamant that the gutters do not overflow, pointing out that he and his wife are reliant on the house guttering to capture their water, as the house is on a tank supply. However, I do not believe that normal weather phenomena, such as wind driven rain, would affect the Inverter with its high level of weather resistance, without also causing significant issues with the meter box. Given this, the location of the Inverter directly below the terminus of the walkway gutter and the house, and the relatively large roofed area which drains to this area, I find that, on the balance of probabilities, the gutter overflowing is the cause of the moisture ingress.

What duties does H Ltd owe under the contract?

18. CS's allegations are that:
 - a. the Inverter was not fit for purpose as it was not "waterproof"; and
 - b. the installation of the Inverter on the south wall of the home placed it in a position where its weatherproofing was not sufficient to protect it from damage and was therefore not reasonably fit for purpose.
19. There is a written contract between the parties which sets out their respective rights and obligations. In addition to the contract the Consumer Guarantees Act 1993 (CGA) implies guarantees into contracts, including that goods are of acceptable quality (s 6-7 CGA), are provided with reasonable care and skill (s 28 CGA) and that services provided are reasonably fit for the particular purpose for which they are obtained (29 CGA). H Ltd provided both goods; the solar system including the Inverter, and services; advice about what scoping of the system, and the design and installation of the system.
20. If the guarantees implied by the CGA are breached the remedy applicable to that particular guarantee will depend on whether the breach is remediable or substantial. If the defect is remediable, H Ltd must be given the opportunity to fix the particular issue. If the failure cannot be remedied, or is substantial, then I must consider whether the remedies sought are in proportion to the loss.
21. Substantiality is broadly defined in s 36 CGA as when "*the services would not have been acquired by a reasonable consumer fully acquainted with the nature and extent of the failure*". However, a degree of robustness when dealing with disappointment must be inferred in a reasonable consumer.

Was the inverter and its installation fit for purpose

22. I found above that the gutter overflow was the cause of the moisture ingress.
23. The Inverter was fit for purpose, its weather proofing was more than sufficient for normal conditions in the [Region] winter. However, the placement beneath the gutter overflow meant the weather proofing was overwhelmed. CS alleges that he had expressed concerns about the Inverter's ability to withstand weather conditions, but this is disputed.
24. HG's evidence was that the south side of the building is preferable the preferable location, as an inverter should not be in full sunlight. The Inverter was installed in this location as it is under house eaves and, being next to the meter box, minimises additional wiring and lowers the cost of the homeowner. With regard to the suggestion that the inverter should have been installed

inside the house, he advised that in normal operation the inverter makes a noise which means installation inside a home is generally unsuitable. When questioned about whether the Inverter should have been installed inside the garage, his response was that this was undesirable as the garage is detached. With an internal garage, such as CS's parents' home where H Ltd also installed an Inverter, there are no issues with wiring, or with the Wi-Fi communication between the inverter and the control unit. An external garage presents communication problems and requires significant cable work.

25. CS and KS allege that the installer was inexperienced, and the installation was less than ideal, evidenced by a cable being run through roofing iron. C Ltd's Director, CC gave evidence that the installer had approximately 3 years' experience and had completed more than 50 installations. CC gave evidence that the unit was suitable to have been installed in the location it was.
26. The question is then was the overflow a condition that alters H Ltd's obligations under the CGA and contract? On the evidence the overflow was an unforeseen occurrence. It could not have been anticipated by H Ltd. However, the CGA guarantees as to fitness for purpose are strict and are no fault. The installation was not fit for the purpose of being a durable installation in the location in which it was positioned. Therefore, the installation was not fit for purpose.

Remedy

27. H Ltd will replace the inverter and will re-install the new inverter in the higher location on the south wall, under the house eaves and clear of the guttering. If CS and KS want the inverter moved to the garage, they must pay the additional costs, including any wi-fi upgrades necessary to enable the inverter to communicate with the control unit.
28. CS and KS have sought damages for additional electricity costs. The CGA and the law of contract both allow for recovery of consequential losses all incurred as the result of a breach of contract. This can occur where those costs are incurred as a direct result of the failure, and where the costs are reasonably foreseeable under the scope of the contract.
29. In this instance the costs claimed are for increased power costs from 18 September 2022 to 5 March 2023. I find that increased electricity costs are a reasonably foreseeable loss where the subject matter of the claim and cause of the breach is a failure of a component of a solar electricity system.
30. However, the increased electricity costs were only caused the breach for the period between 18 September 2022, and 27 October 2022. By 27 October 2022, H Ltd had obtained the replacement unit, and was seeking to organise a time to remove the inverter and install the replacement. However, this offer was rebuffed, as CS and KS were insistent on the reinstallation being made in the garage. This means that after the end of October 2022, the cause of the increased power costs was the refusal to allow reinstallation, rather than the failure of the inverter.
31. CS and KS have claimed \$164.37 for the increased power costs between 18 September and 30 October 2022. I accept that these costs appear reasonable based on the time of year.

Outcome

32. I order that H Ltd is to replace the inverter, reinstalling the replacement unit and the higher location on the south wall under the house eaves, and clear of the guttering. The parties are to discuss the timeframe for this occurring, but the reinstallation is to occur by 29 March 2024. H Ltd is also pay \$164.37 for increased power costs, on or before 8 December 2023.

Referee: C D Boys
Date: 13 November 2023



Information for Parties

Rehearings

You can apply for a rehearing if you believe that something prevented the proper decision from being made: for example, the relevant information was not available at the time.

If you wish to apply for a rehearing, you can apply online, download a form from the Disputes Tribunal website or obtain an application form from any Tribunal office. The application must be lodged within 20 working days of the decision having been made. If you are applying outside of the 20 working day timeframe, you must also fill out an Application for Rehearing Out of Time.

PLEASE NOTE: A rehearing will not be granted just because you disagree with the decision.

Grounds for Appeal

There are very limited grounds for appealing a decision of the Tribunal. Specifically, the Referee conducted the proceedings (or a Tribunal investigator carried out an enquiry) in a way that was unfair and prejudiced the result of the proceedings. This means you consider there was a breach of natural justice, as a result of procedural unfairness that affected the result of the proceedings.

PLEASE NOTE: Parties need to be aware they cannot appeal a Referee's finding of fact. Where a Referee has made a decision on the issues raised as part of the Disputes Tribunal hearing there is no jurisdiction for the District Court to reach a finding different to that of the Referee.

A Notice of Appeal may be obtained from the Ministry of Justice, Disputes Tribunal website. The Notice must be filed at the District Court of which the Tribunal that made the decision is a division, within 20 working days of the decision having been made. There is a \$200 filing fee for an appeal.

You can only appeal outside of 20 working days if you have been granted an extension of time by a District Court Judge. To apply for an extension of time you must file an Interlocutory Application on Notice and a supporting affidavit, then serve it on the other parties. There is a fee for this application. District Court proceedings are more complex than Disputes Tribunal proceedings, and you may wish to seek legal advice.

The District Court may, on determination of the appeal, award such costs to either party as it sees fit.

Enforcement of Tribunal Decisions

If the Order or Agreed Settlement is not complied with, you can apply to the Collections Unit of the District Court to have the order enforced.

Application forms and information about the different civil enforcement options are available on the Ministry of Justice's civil debt page: <http://www.justice.govt.nz/fines/about-civil-debt/collect-civil-debt>

For Civil Enforcement enquiries, please phone 0800 233 222.

Help and Further Information

Further information and contact details are available on our website: <http://disputestribunal.govt.nz>.