



# UPC Finds Patent Infringed by Equivalence

## **Plant-e v Arkyne UPC\_CFI\_239/2023**

### **Decision of 22 November 2024 (ORD 598516/2023 [infringement]ORD 598513/2023 [counterclaim for revocation])**

The first claimant Plant-e Knowledge B.V. is proprietor of EP2137782, and the second claimant Plant-e B.V. is its licensee. The patent relates to a method of converting light into electricity by means of a reactor incorporating a living plant – a so-called Plant-based-Microbial Fuel Cell. The claimants brought an infringement claim at the UPC local division in The Hague against Arkyne Technologies S.L. based on sales and offer for sale of biofuel cells that were alleged to infringe. Initially after being approached concerning the infringement, the defendant had taken a non-exclusive licence, but this was terminated due to “disappointing sales”. Therefore, the infringement action was brought. The defendant counterclaimed for revocation.

This case has already been the subject of procedural orders to change the language from Dutch to English, rejecting a request from the defendant for security for costs, and deciding to hear the infringement and revocation actions together (non-bifurcation).

All of the invalidity attacks on the patent were rejected.

Concerning infringement, the key issue is that the accused product “Bioo Panel” did not have the arrangement specified in the claim wherein the micro-organisms live around the roots of the plant in the anode compartment of the reactor. In the Bioo Panel the plant and its roots are in an upper compartment, while the anode and micro-organisms are in a lower compartment. The court therefore concluded that there was no direct infringement.

The court then went on to consider infringement by equivalence according to Article 2 of the Protocol to Article 69 EPC, which specifies that “due account shall be taken of any element which is equivalent to an element specified in the claims”. The court adopted the following test, based in national practice in various jurisdiction, after discussion with the parties.

- i. **Technical equivalence:** does the variation solve (essentially) the same problem that the patented invention solves and perform (essentially) the same function in this context?
- ii. Is extending the protection of the claim to the equivalent proportionate to a **fair protection for the patentee:** in view of his contribution to the art and is it obvious to the skilled person **from the patent publication** how to apply the equivalent element (at the time of infringement)?
- iii. **Reasonable legal certainty for third parties:** does the skilled person understand **from the patent** that the scope of the invention is broader than what is claimed literally?
- iv. Is the allegedly infringing product **novel and inventive** over the prior art? (i.e. no successful Gillette/Formstein defence)

On the first question, after considering detailed evidence from testing about how the Bioo Panel operated, and also from the defendant’s own patent application directed to its product, the court concluded that the Bioo Panel was technically equivalent to the teaching of the patent as the plant is part of the reactor and is a source of additional organic material for the battery. The only difference was seen as being an extra compartment which does not affect the function of the plant and is deemed to be equivalent, with the same applying to the location of the roots/micro-organism.

On the second question, the court considered that the patent relates to a new category of microbial fuel cells, by introducing a plant into the device/reactor and to obtain electricity from organic material originating from the photosynthesis by that plant and thus from light energy. Accordingly, it considered that a broad scope of protection was justified in line with the contribution to the art. In these circumstances, the court deemed it appropriate and proportionate that the protection extend through equivalence to the Bioo Panel in which exactly that principle is implemented. It further considered it obvious to the skilled person how to apply the equivalent element.

The defendant argued that it terminated the licence because the method as designed by the patentee did not work, so that it was necessary to come up with a different, allegedly improved, design with two compartments wherein the plant and the roots are not in the anode compartment, as in practice the presence of roots near or in the anode tends to



hinder the functioning thereof. This is so because e.g. the roots tend to damage the anode and also disrupt the anaerobic conditions of the anode as they grow. Nevertheless, the Court considered that the variation applied by the defendant still applies the teaching of the patent.

On the third question, the Court stated that the requirement of legal certainty is met if the skilled person understands that the patent claim leaves room for equivalents because the teaching of the patent is (clearly) broader than the wording of the claim and there is, still in the eyes of the skilled person, no good reason to limit the scope of protection of the claim to a (method using a) device as claimed. The Court considered that this requirement was met. The teaching of the patent was seen as to add a plant to a Microbial Fuel Cell (MFC) to provide (additional) feedstock to make the MFC independent of externally provided feedstock. The skilled person will understand that the variation is another way to obtain this result in a similar way.

On the fourth question, it was undisputed that the Bioo Panel would have been novel and inventive over the prior art at the priority date.

Accordingly, the court found infringement by equivalence.

The court therefore ordered an injunction to restrain future infringement, and recall of products already distributed. The wording of the letter to recall the products was specified in the order. The court further ordered the defendant to provide details of quantities and pricing of products distributed, the distribution channels, and the identity of third parties involved. The court additionally ordered the publication of a notification of the judgment on the defendant's website, according to a wording prescribed in the order.

The penalty in case of breach of the order was set at up to €2000 for each product for each day of non compliance, up to a maximum of €200,000.

Payment of damages was ordered with a provisional award of €35,000 to be paid within three weeks, with the possibility of further damages being awarded after a separate proceedings for damages.

The defendant was ordered to pay the costs of the proceedings at the ceiling of recoverable costs for the value in dispute.

Enforcement of the order was not made subject to a security payment.

This decision sets an interesting and workable test to apply Article 2 of the Protocol to Article 69 EPC at the UPC, and it remains to be seen whether this test, or a variant of it, becomes standard at the UPC.