CASE STUDY: Comparison of patent portfolios in relation to business strategies and market position in the concentrated solar sector, with an emphasis on Southern Africa

Background

Concentrated solar energy generation is a subset of renewable energy generation. Current patent filing trends indicate that the technology in the field is maturing, with the number of new patent families filed peaking in the 2010-2013 period.

The concentrated solar market is expected to grow rapidly over the next five years and is estimated to be worth between USD 20-25 billion by 2027 (from USD 7 billion in 2022). The present case study looked at the filing trends for two market players – a large Spanish group of companies (Company A) and an American solar start-up (Company B) – in order to analyse different IP portfolios and strategies suitable for businesses in different phases of development.

Action undertaken

Company A was started in the 20th century and has maintained an interest in concentrated solar power production via a number of its subsidiaries. Company A presently operates concentrated solar power plants across the world, including projects in South Africa. Company A currently maintains a very large patent portfolio in the concentrated solar market segment, with most of their portfolio tracing back to applications over the 2009-2015 period. The portfolio further spans a large number of jurisdictions, but is especially concentrated in Spain, South Africa and Chile. As such, Company A can be said to be a dominant market participant with a large and mature portfolio. This portfolio is highly suitable for maintaining its market position going forward, and places Company A in an advantageous position relative to market entrants. A large patent portfolio allows an established market player with large reserves to enforce a ‘patent thicket’ strategy – wherein smaller entities are forced to content with multiple infringement cases (or the threat thereof) when attempting to enter the particular market segment that the portfolio holder claims.

The protection and enforcement of IP in Southern Africa is especially amenable to such strategies as it currently maintains a depository system. Here a patent application is not examined except with regard to the formalities of filing. As a result, obtaining a granted right is quick and simple. In the broader Southern African region, the ARIPO regional patent system also simplifies the process of obtaining rights across multiple countries. Here an ARIPO application is examined by an ARIPO examiner, but once granted the application will normally be valid in any of the Member States the patentee designated at the start of the application process.

While Company A’s principal interests are in direct power generation from concentrated solar, Company B is attempting to establish a niche in high-temperature concentrated solar power for direct use in industrial applications using advanced heliostat control systems. To this end, Company
B has filed a relatively small number of patents directed primarily to heliostat tracking systems and heliostat structures (including one South African patent). Their patent portfolio is heavily concentrated in the United States, where Company B is located, and indicates an increasing filing trend over time. Company B can be said to be executing a focused IP strategy that aims to create and cement a foothold in a particular market segment or niche, providing space for the company to operate while it attempts to build successful projects and facilities.

Some advantages that Company B may derive from its choice of a non-competing niche with Company A are both in terms of avoiding infringement of many of the patents maintained by Company A, and in being able to enter mature markets in the wake of its larger competitors. This is because where many such projects have been successfully completed, then the requisite manufacturing, servicing and financial infrastructure needed to support such projects are already in place. It may accordingly benefit a smaller competitor to both tailor their market offering to fill an available niche, and to keep an eye on where larger competitors have established operations with a view to supplying complementary products and services.

**Lessons learned**

- This case study reinforces the concept that Intellectual Property should be viewed in the context of being a set of useful legal tools for executing a business strategy, rather than being an end in itself. Businesses should understand the nature and potential uses of IP tools in order to best apply them and should avoid generating ‘reactive’ portfolios of IP based simply on what other market players are doing.

- In conclusion, successful market players should tailor their IP portfolios and business strategies to the markets, their position in it, their likely competitors, their available resources, the niches that their products and services are intended to occupy, and where they want to go in future. There is no one-size-fits-all solution to IP.