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## **Grant of One European and Three Australian Patents**

### **Highlights**

- Grant of European patent for hybrid aerobic-anaerobic organic waste treatment process, a foundation invention of AnaeCo's next generation organics recycling technology, the DiCOM™ bioconversion process.
- Grant of three Australian patents relating to: materials recovery facility processing sequence, glass and grit separation system and DiCOM™ vessel design and conveying system.
- Grant of Australian patents can be taken as a general indication that the corresponding national phase patent filings which have been effected in numerous other countries for these inventions are also likely to be accepted in due course.
- Ongoing protection of AnaeCo's intellectual property (IP) portfolio to underpin the development of a technology transfer and licensing business over the longer term.

### **European Patent**

AnaeCo is pleased to advise the "publication and mention of grant" of a European patent by the European Patent Office, titled *"An Organic Waste Material Treatment Process"*.

This patent is for a foundation invention of the DiCOM™ Bioconversion Process being the hybrid aerobic-anaerobic treatment process. It covers the treatment process of subjecting organic waste material to conditions under which anaerobic digestion, followed by aerobic composting, occurs in a single vessel.

AnaeCo Managing Director David Lymburn said, "After having this patent application undergo a long and rigorous examination process before the European Patent Office, it is very gratifying to have this flagship invention now recognised with a European patent grant."

The granting of a European patent for this foundation invention represents a significant milestone in the strengthening of AnaeCo's intellectual property (IP) portfolio. The Company already holds granted patents for this invention in Australia, Canada, China, Japan and the United States.

Whilst this European patent relates to one of AnaeCo's earliest patent family filings the Company has continued to actively strengthen and broadened the coverage afforded by its IP portfolio by filing twelve further patent families in recent years for key inventions as is described below under *Broader IP portfolio management*.

### Australian Patents

AnaeCo recently received official notification regarding the issuance of three new Australian patents by the Australian Patent Office.

These three patents relate to inventions comprising part of AnaeCo's integrated technology platform and cover the following:

- DiCOM™ materials recovery facility processing sequence
- Grit separation system
- DiCOM™ vessel hopper geometry, base and reclaim screw system

All three of these inventions are being implemented in the AnaeCo™ AWT Plant located at the Western Metropolitan Regional Council Project, Shenton Park in Western Australia.

### DiCOM™ materials recovery facility processing sequence

This patent covers a method for solid waste separation and processing comprising the steps of (a) passing a municipal solid waste (MSW) to a first size based separation step producing at least a fine fraction and a coarse fraction, (b) passing the fine fraction to a digestion process via a glass & grit separation step and (c) re-circulating the coarse fraction of step (a).

Accordingly this patent covers some of the primary methodology adopted in the AnaeCo material recovery facility (MRF) design, the purpose of which is to efficiently separate and recover organic matter from mixed MSW, for bioconversion.

### Grit separation system

This patent covers a method and apparatus for (a) passing an organic waste material to a primary washing step in which a clean organic stream and a heavy fraction are produced, and (b) passing the clean organic stream through a drainage step for removal of free water and then passing the drained organic material through a dewatering step in which the water content is reduced to a level suitable for passing the material to a bioconversion process.

Accordingly, this patent covers the wet density separation system (WDS) which is an integral part of the AnaeCo MRF design.

### DiCOM™ vessel hopper geometry, base and reclaim screw system

This patent covers the apparatus for the passage and conveyance of compressible organic material inside a DiCOM™ bioconversion vessel.



The vessel hopper geometry and the enclosed conveying systems are an integral component of the bioconversion design, enabling a number of important process steps to occur. These steps allow the hybrid aerobic-anaerobic bioconversion process to occur inside a single vessel.

Broader IP portfolio management

A substantial body of IP has been created over 15 years in developing the AnaeCo™ System and it has been part of the Company's long term strategy to safeguard this IP using patent protection. Currently AnaeCo has twelve inventions protected by 'mature patent families'. In addition there are two inventions at the 'provisional patent application' stage.

The earliest two patent families, covering the DiCOM™ Bioconversion Process and Pressure Aeration System, were filed back in 1999 and 2000 respectively. AnaeCo holds eleven granted national patents for these two inventions (covering Australia, Canada, China, Europe, Japan and the United States).

Through 2012 and 2014 a further ten patent families were filed with AnaeCo choosing the PCT (Patent Co-operation Treaty) system as the preferred means to progress these patent families. National phase filings have subsequently been effected for nine of these ten inventions, consistent with Company's strategy to seek protection for its valuable IP assets across a matrix of individual countries.

As advised previously, the grant of Australian patents such as the three which are the subject of this announcement can be taken as a general indication that the corresponding national phase patent filings which have been effected in numerous other countries for these inventions are also likely to be accepted in due course.

Summary of patents at various stages:	
Provisional patent applications	2
PCT application under examination	1
National patent applications pending	56
National patents granted	18
Total international patents and patent applications	77

ENDS

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## About AnaeCo



AnaeCo delivers Alternative Waste Technology (AWT) facilities based on the AnaeCo™ System, incorporating the patented DiCOM™ bioconversion process. The AnaeCo™ System includes advanced sorting, recycling, anaerobic digestion and aerobic composting to recycle municipal solid waste (MSW) into renewable energy from biogas, organic fertiliser and recyclables such as steel, aluminium, glass and plastics, thus maximising diversion from landfill and ensuring social, economic and environmentally sustainable management of MSW.

The AnaeCo™ System enables resource recovery intervention closer to source, with enhancement of existing waste transfer stations now a viable waste management option. AnaeCo's experienced team provides design, and commissioning services for AnaeCo™ AWT facilities.

For further information go to [www.anaeco.com](http://www.anaeco.com)