The Power of Two

In this industry, reliability and on-time delivery are vital and as the first of the PETNET facilities in Australia we will ensure that we can always deliver. But we are also interested in investing in the future. That's why PETNET Solutions will operate not one, but two shiny new Siemens Eclipse cyclotrons.

It is our aim to achieve exceptional levels of service so we have chosen to ensure reliability and supply by having a second identical cyclotron. The key production processes and QA will be duplicated on both so that there is always an immediate backup option for production. Having said this, it is important to note that the reliability of the Eclipse cyclotron is not in question. Eclipse HP cyclotrons were chosen because of their industry backed reliability figures and their operating efficiency as they work within the area of suitable conversion efficiency for F18 from its precursor O18 at 11MeV.

PETNET can be justifiably proud of its delivery satisfaction level - across all 50 sites in the USA, UK and Korea - of 99.87% in over 700,000 doses, demonstrating the superior reliability of the Eclipse cyclotron.

PETNET processes and procedures have been refined over 20 years of operation, are renowned in the industry as being the most efficient, and have a production batch success ratio greater than 98.5%.

Twin cyclotrons were chosen because we are willing to make an extra investment to guarantee that PETNET can always be trusted to deliver.

There is another reason too. We are looking to the future.

In 2007, some 30,000 patients in NSW could not access PET treatment - primarily because there were so few PET cameras in hospitals - but even if there were sufficient PET cameras, Australian FDG production capacity was insufficient to meet demand. That's 30,000 men, women and children that could not access a vitally important diagnostic technique, in NSW alone.

PET is the fastest growing diagnostic imaging technique, its use having grown globally by 200% in 4 years. It gives increased diagnostic accuracy, and has been shown to influence treatment programs for cancer treatment in over 50% of cases when employed[1]. Yet tens of thousands of Australians are unable to access it. That simply should not be the case and we feel strongly about doing our part to make sure that we will be there to meet the future needs as the related PET facilities grow. So we have chosen to invest in capacity now to satisfy both the need for the support of other facilities in the PETNET family, and the growing market of new PET camera installations and upgraded PET cameras intended to faster process patients.

As these two cyclotrons are part of the international PET radiopharmaceuticals network, their power is multiplied even further. The network consists of 50 PETNET centres that enable hospitals to diagnose and treat patients and supports institutions in undertaking research into next generation radiopharmaceuticals.

Two cyclotrons will ensure reliable, on time supply of high quality PET biomarkers, provide for the future growth of PET diagnoses and is part of a network that supports researchers to find even better tools for diagnosing and treating disease. And that has the power to benefit us all.

[1] Journal of Nuclear Medicine (September 2008, Vol.49:9 pp1451-1457)