



Australian Government
Productivity Commission

PETNET Australia

Australian Government
Competitive Neutrality
Complaints Office

Investigation No. 15

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The Australian Government Competitive Neutrality Complaints Office

The Australian Government Competitive Neutrality Complaints Office is an autonomous unit within the Productivity Commission. It was established under the *Productivity Commission Act 1998* to receive complaints, undertake complaint investigations and advise the Treasurer on the application of competitive neutrality to Australian Government business activities.

Information on the Productivity Commission, its publications and its current work program can be found on the World Wide Web at www.pc.gov.au or by contacting Media and Publications on (03) 9653 2244.



Australian Government
Productivity Commission

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Neutrality Complaints Office**

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20 March 2012

The Hon. David Bradbury MP
Assistant Treasurer
Parliament House
Canberra ACT 2600

Dear Assistant Treasurer

In accordance with section 21 of the *Productivity Commission Act 1998* and the Commonwealth Competitive Neutrality Policy Statement, I have pleasure in submitting the results of the Australian Government Competitive Neutrality Complaints Office's investigation of PETNET Australia.

Yours sincerely

A handwritten signature in black ink that reads "Mike Woods".

Mike Woods
Commissioner
Competitive Neutrality Complaints

Competitive neutrality policy

Competitive neutrality is a policy which aims to promote efficient competition between public and private businesses. The Australian Government's approach is set out in its *Competitive Neutrality Policy Statement* (Australian Government 1996):

Competitive neutrality requires that government business activities should not enjoy net competitive advantages over their private sector competitors simply by virtue of public sector ownership. (p. 4)

In particular, competitive neutrality policy:

... requires that governments should not use their legislative or fiscal powers to advantage their own businesses over the private sector. (p. 5)

While the policy recognises that there are a number of advantages and disadvantages of government ownership, it does not seek to ameliorate all of these. Instead, it focuses specifically on those competitive advantages enjoyed by government businesses that are widespread and relatively easy to observe and correct (Australian Government 1996, p. 6), including:

- exemptions from various taxes (taxation neutrality)
- access to borrowings at concessional interest rates (debt neutrality)
- exemptions from complying with regulatory arrangements imposed on private sector competitors (regulatory neutrality)
- other benefits associated with not having to achieve a commercial rate of return on assets (commercial rate of return requirements).

The policy is applied to significant government businesses where the benefits from doing so outweigh the costs. For the purpose of competitive neutrality policy, a business activity is defined as one where:

- there is user charging
- there is an actual or potential competitor (that is, users are not restricted by law or policy from choosing alternative sources of supply)
- managers of the activity have a degree of independence in relation to the production or supply of the good or service and the price at which it is provided.

Competitive neutrality policy deems the following organisations as significant as they have been specifically structured to operate along commercial lines:

- all government business enterprises (listed under the *Commonwealth Authorities and Companies Act 1997*) and their subsidiaries
- other share-limited trading companies
- all designated business units.

Other activities which operate in accordance with the definition of a business and generate in excess of \$10 million in revenue from commercial activities are also considered to be significant.

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1 The complaint

1.1 The nature of the complaint

The Australian Government Competitive Neutrality Complaints Office (AGCNCO) received a complaint from Emil Ford and Co Lawyers on behalf of Cyclopharm Limited on 9 August 2011. Cyclopharm Limited alleged that PETNET Australia Pty Limited, a wholly owned subsidiary of the Australian Nuclear Science and Technology Organisation (ANSTO), was not complying with competitive neutrality policy.

Cyclopharm Limited is an Australian company. Through its wholly owned subsidiary, CycloPet Pty Limited, it manufactures positron emission tomography (PET) radiopharmaceuticals. The radiopharmaceuticals are used to detect and determine the location, extent and stage of cancer, neurological disorders and cardiac disease (box 1.1).

Box 1.1 Positron Emission Tomography

Positron emission tomography (PET), also called PET imaging or a PET scan, is a type of nuclear medicine imaging. Nuclear medicine is a branch of medical imaging that uses small amounts of radioactive material to diagnose and determine the severity of or treat a variety of diseases, including many types of cancers, heart disease and neurological disorders.

PET is the fastest growing nuclear medicine diagnostic imaging modality in the world and is clinically proven to better identify the location and extent of certain active cancer cells in the body as well as many neurodegenerative diseases. By improving diagnosis, PET scans can help physicians select better courses of treatment, as well as assess whether treatment is effective.

Isotopes produced by cyclotrons are used as the radioactive component in PET radiopharmaceutical production. The most common PET radiopharmaceutical is Fluorodeoxy-glucose (FDG). The half-life of FDG is around 110 minutes. Because of the short half-life of FDG, a 2 hour delivery range from the cyclotron production facility is optimal.

Source: Cyclopharm.

Cyclopharm's first cyclotron facility was established in December 2010 at Macquarie University Hospital. Currently Cyclopharm services the requirements of Westmead Hospital, Royal North Shore Hospital (on a shared basis with PETNET Australia), and Macquarie Medical Imaging, and accounts for around 15 per cent of the New South Wales market.

PETNET Australia Pty Limited (hereafter PETNET Australia) manufactures and sells the most common PET radiopharmaceutical, fluoro-deoxy glucose (FDG, box 1.1). PETNET Australia (trading as PETNET Solutions) began its operations in August 2009. It operates two medical cyclotrons for radiopharmaceutical production at Lucus Heights. PETNET Australia currently provides FDG to Nepean Hospital, Royal North Shore (on a shared basis with Cyclopharm), and two private departments located at Sydney Adventist Hospital and PRP's Gosford imaging centre.

Concerns raised by Cyclopharm

Cyclopharm, in its complaint, claimed that:

ANSTO is failing to comply with the Australian Government competitive neutrality principles; in particular, that it is charging prices that do not fully reflect its costs and is not generating commercially acceptable profits.

Cyclopharm complained that because of subsidised prices, PETNET Australia has been able to secure a New South Wales tender to supply FDG to the public hospital sector:

... through subsidised pricing tactics and noncompliance to competitive neutrality guidelines, ANSTO/PETNET has secured a NSW tender to supply FDG to the public hospital sector. Even by attaining this dominant position, the venture will continue to be heavily subsidized by taxpayer funding. ... The recent decision by NSW Health in favour of PETNET's profoundly subsidized pricing has rendered CycloPet commercially unsustainable. Furthermore, in light of ANSTO's anticompetitive market positioning, it is unlikely that any private cyclotron operator will ever invest in another facility in Australia.

The complainant also raised questions about how ANSTO's decision to enter into a franchise style arrangement with Siemens was approved without a public review process or tender.

1.2 The role of the AGCNCO in investigating complaints

The *Productivity Commission Act 1998* empowers the AGCNCO to investigate complaints that:

... a particular Commonwealth Government business or business activity, or a business or business activity competing with a Commonwealth Government business or business activity, is not conducted in accordance with competitive neutrality arrangements that apply to it ... (s. 21(1(a)), p. 14)

or that such a business or business activity:

... should be required to be conducted in accordance with competitive neutrality arrangements. (s. 21(1(b)), p. 14)

The Act defines competitive neutrality arrangements that apply to a government business as:

... the arrangements referred to by that name in the *Commonwealth Government Competitive Neutrality Statement* of June 1996 ... (s. 21(5), p. 14)

In accordance with the *Productivity Commission Act* and *Commonwealth Government Competitive Neutrality Statement* of June 1996, ANSTO is a Commonwealth Government Business for the purpose of being subject to complaints investigated by the AGCNCO under Section 21 of the *Productivity Commission Act 1998*.

The complaint is concerned primarily about whether competitive neutrality has been correctly applied to PETNET Australia's activities. In deciding to investigate the complaint, the Office is satisfied, in accordance with the *Productivity Commission Act 1998* (part 4, division 2) and *Competitive Neutrality Policy Statement* (Australian Government 1996), that the complaint:

- is not better handled by another body
- does not relate to competitive neutrality policies that are being finalised or are currently the subject of review by government
- is not vexatious
- raises issues of substance that have non-trivial resource allocation effects.

The primary role of the AGCNCO is to assess whether competitive neutrality has been implemented appropriately. In this context, however, PETNET Australia only began operating in 2009, and as such this investigation is about a government business enterprise that is operating in a start-up stage.

The AGCNCO has therefore examined whether PETNET Australia is pursuing a business model that could place it in breach of competitive neutrality policy.

In conducting the investigation, the AGCNCO held discussions with the complainant (Cyclopharm) and ANSTO. A written submission was received from ANSTO on 27 October 2011. A draft of this report was provided to ANSTO for its comment on any matters of fact.

The next chapter provides an assessment of the issues raised by the complainant and a concern raised by ANSTO that regulatory requirements placed on PETNET Australia as a result of government ownership, which are not imposed on its competitors, means it operates at a cost disadvantage.

2 Assessment of issues

Cyclopharm alleged that ANSTO entered into a franchise style arrangement without a public review process or tender. Also, that PETNET Australia:

- is not charging prices that reflect true production costs
- is not applying commercial rates of interest on borrowings
- cannot achieve commercially acceptable profits over a 10 year payback period.

ANSTO provided a response to Cyclopharm's complaint and also argued that in terms of regulatory neutrality, PETNET Australia faces a more stringent regulatory system and pays higher licence fees than its competitors by virtue of its Australian Government ownership.

These issues are examined in this chapter.

2.1 ANSTO's franchise arrangements

ANSTO originally introduced PET radioisotopes to Australia. From 1990 to 2004, ANSTO operated the National Medical Cyclotron located at Camperdown New South Wales, but exited the market because of production constraints (including ongoing problems with reliability).

In 2006, identifying a need for additional PET production capacity in Sydney, ANSTO investigated a number of options with commercial partners to establish a company to re-enter that market. According to ANSTO, they approached the major international cyclotron suppliers — Siemens, GE Healthcare and IBA — and had discussions with Cyclopharm. Siemens was chosen for the partnership.

Cyclopharm, in its complaint, questioned the lack of public transparency in the selection process:

Disregarding attempts by Cyclopharm and other Australian based companies to engage in a collaborative venture, a secret selection process was conducted by the ANSTO Management and Board. As a result in July 2007, ANSTO announced that it would be re-entering the market in a franchise arrangement with Siemens.

According to ANSTO, Siemens made the only proposal based on ‘proven technology’. Also, the partnership allowed ANSTO to participate in an international PET network and provided a licence to use the PETNET name:

The ANSTO Board judged that Siemens offered a superior financial deal and proven technology for FDG production. Additionally, Siemens and its Petnet Solutions network have many collaborative global research partnerships to develop and commercialise the next generation PET pharmaceutical tracers as well as approximately 50 operational sites. The collaboration between ANSTO and Siemens (via PETNET Australia Pty Ltd) means that ANSTO has been granted distribution rights to bring these new products to Australia for the benefit of Australians. ANSTO has been licensed to use the ‘Petnet’ name for PETNET Australia Pty Ltd and for PETNET Australia Pty Ltd to link in with the Petnet Solutions website, to access appropriate training in the US and local support as required and also for its customers to seek information from Petnet Solutions.

The decision was made at ANSTO’s June 2007 Board meeting, and ANSTO set up the wholly owned Siemens franchise PETNET Australia Pty Limited.

Cyclopharm said that following the ANSTO-Siemen announcement, a number of questions were raised including:

- how a multimillion dollar project was approved without a public review process or tender?
- why ANSTO required a partner?
- if ANSTO wanted or needed a partner, why didn’t it support an Australian company?

Competitive neutrality policy does not directly address the issue of transparency in commercial decisions by government bodies as raised by the complainant. It does, however, prescribe some conditions in relation to transparency in government business purchasing and commercial contracting decisions, stating that:

All agencies conducting a tendering process must include a requirement for public sector bidders to declare their tenders are compliant with CN [competitive neutrality] principles. (Australian Government 2004, p. 43)

The policy also covers the market testing of activities to ensure that no advantage is available to public sector bids or in-house provision (with compliance to be achieved through baseline costing exercises). In this respect, the policy seeks to ensure that when government businesses submit tenders, their pricing reflects a commercial return to a cost base that has been determined in line with competitive neutrality policy. Similarly, for activities which were previously conducted in-house, the policy seeks to ensure that the baseline costing used to evaluate bids (and

the decision to take on external suppliers) is determined in accordance with competitive neutrality policy.

Decisions by government businesses about who they conduct their business arrangements with do not constitute a breach of competitive neutrality policy if they do not rely on a competitive advantage by virtue of their government ownership. The *process* used by ANSTO to select a commercial partner to re-enter the PET radiopharmaceuticals market therefore falls outside competitive neutrality policy.

FINDING 2.1

ANSTO's process for selecting a commercial partner to re-enter the PET radiopharmaceuticals market is not a breach of competitive neutrality policy.

2.2 Accounting for attributable costs

The complainant alleged that PETNET Australia's prices do not reflect operating costs:

Cyclopharm's claim that PETNET is not competing on a commercial basis is founded on Cyclopharm's own knowledge of cyclotron operating costs, ANSTO statements made on record pertaining to their cost structure and an in-depth understanding of the current and future market.

Competitive neutrality policy requires government businesses to set their prices such that they take into account all attributable costs (including earning a commercial rate of return from their overall business activities, section 2.4). The *Competitive Neutrality Policy Statement* (Australian Government 1996) states that:

... agencies should ensure that prices charged reflect full cost attribution for these business activities. (p. 16)

Cost allocation is a particularly relevant issue in the context of competitive neutrality for agencies like ANSTO that operate both non-commercial and commercial business activities. As the Office's paper on *Cost Allocation and Pricing* puts it:

... many business units use the assets and resources controlled by larger non-commercial agencies. In these circumstances, the way a parent agency allocates costs to its business unit can have a significant impact on the unit's cost base and on price levels. Therefore, cost allocation may be central to resolving complaints that such business units are undercharging for their output. (CCNCO 1998a, p. vii)

ANSTO, in its response to the complaint, advised the AGCNCO that all of PETNET Australia's key business activities — selling, marketing and logistics

support — are paid for through commercial revenue. ANSTO currently provides a range of support services to PETNET Australia under a 30 day commercial term arrangement, including:

- financial, accounting and administrative support
- information technology
- safety, environmental and radiological assurance
- facilities management
- engineering services
- rental of the land on which the PETNET Australia facility is situated
- utilities (water and electricity).

ANSTO advised that it reviews the service arrangements on an annual basis to ensure that costs plus a commercial margin of 18 per cent are recovered. According to ANSTO, the annual review process allows PETNET Australia to contract these services out to the market if it considers that ANSTO is not competitive. A number of PETNET Australia's support services are contracted out to external commercial contractors.

ANSTO reported that the lease agreement for the rental of the land is on similar terms to that covering the Cyclopharm facility located adjacent to PETNET Australia's facility at Lucas Heights. Likewise, ANSTO provides electricity and water to PETNET Australia on the same basis as that charged to Cyclopharm and other commercial tenants.

The AGCNCO considers that the way the costs of centrally provided services are apportioned and charged (including the 18 per cent margin) by ANSTO satisfies the requirements of competitive neutrality.

FINDING 2.2

ANSTO's approach to apportioning and charging centrally provided services satisfies the requirements of competitive neutrality policy.

2.3 Debt neutrality

The complainant alleged that ANSTO is not applying commercial rates of interest on loans made to PETNET Australia. Government businesses may be able to derive a competitive advantage by being able to borrow funds at lower cost than private firms. Competitive neutrality policy requires debt neutrality provisions to be applied

when monies are borrowed through the Australian Government Budget or raised in the market at a rate of interest which reflects the risk of the Australian Government and not that of individual businesses.

ANSTO provided details to the AGCNCO of four loans (totalling \$10 million) provided to PETNET Australia from ANSTO to establish the business (in addition to \$5 million initial start-up equity). The terms of the loan were:

- \$5 million at an interest rate of 10 per cent over the period 25 July 2008 to 31 December 2015
- \$1.5 million at an interest rate of 6 per cent over the period 7 July 2009 to 31 December 2015
- \$1 million at an interest rate of 8 per cent over the period 26 October 2009 to 31 December 2011
- \$2.5 million at an interest rate of 10 per cent over the period 30 March 2009 to 31 December 2015.

The Cyclopharm prospectus stated that its interest expenses were based on an interest rate on borrowings of 7.3 per cent per annum (Cyclopharm 2006, p. 46). This is at the lower end of the interest rates charged by ANSTO for the initial loans to PETNET Australia.

According to ANSTO, an internal review conducted in 2011 revealed that the financing arrangements were inadequate:

... it was determined that the intercompany loans and terms between ANSTO and the company did not reflect the start up financing requirements of PETNET Australia Pty Ltd, or the ramp up that would be required to grow the business and repay the loans.

On 24 June 2011, ANSTO entered into an agreement with PETNET Australia varying the terms of the existing loans and converting them into equity. At that time, the loans and accrued interest totalled just under \$12.228 million. ANSTO subsequently applied for 12 227 588 ordinary paid \$1 shares, with formal acquisition occurring on 28 June 2011. According to ANSTO:

... investment in PETNET is viewed as a long term strategy, and repayment of dividends will need at least 15 years to achieve a satisfactory return on the investment.

By converting the outstanding loans to equity, PETNET Australia cannot be found in breach of the debt neutrality provision of competitive neutrality policy as it no longer holds any outstanding loans. That said, while the outstanding loans have been converted to equity, the total amount of capital invested (\$17.228 million — \$5 million initial start-up equity and \$12.228 million in loans converted into equity) remains unchanged. What is relevant for compliance with competitive neutrality

policy is the rate of return earned on the total amount of capital invested (recognising that the cost of equity is higher than the cost of debt). The issue of earning a commercial rate of return is discussed in the next section.

2.4 Earning a commercial rate of return

Cyclopharm claimed that PETNET Australia fails to pass the commercial rate of return test. Also, that a commercial rate of return cannot be achieved in the timeframe set out by ANSTO. To support this allegation, Cyclopharm argued that PETNET Australia would need to achieve a monopoly position in New South Wales (selling over 500 doses per week or 190 per cent of the current available commercial market in that state) if it was to achieve a positive longer term return:

... on a fully costed basis, PETNET will have to achieve monopoly status by eliminating all commercial competition in the market. Even at a monopolistic market position, PETNET will still rely heavily on taxpayer subsidization for many years to come.

Citing Dr Paterson, the CEO of ANSTO reporting to a Senate Estimates Hearing (30 May 2011, p. 25) that the payback period for the PETNET facility was 10 years (the end of 2019), the complainant said:

... PETNET fails in this test by demonstrating a negative rate of return over a 10 year period. ... Assuming a loss of -\$2.0m from its first year of operations in 2010 until profitability is achieved in 2016, the accumulated Net Losses Before Tax (NBLT) for PETNET is expected to reach -\$8.2m. 10 years from commencing operations in January 2010, PETNET's accumulated losses are expected to be -\$4.8m. Therefore, a positive ROI [return on investment] is unattainable in either the period stated by Dr Paterson or as the guidelines dictate. The only possible way stated and required returns could be achieved is if all competition, including both RPA and Cyclopet, is eliminated from the market.

Once competition is eliminated from the market, PETNET, as a monopoly player, will be able to price their product at whatever level they choose.

To comply with competitive neutrality, government businesses need to set appropriate targets for their return on assets and demonstrate that their performance meets these targets. These targets should exceed the long-term government bond rate and include a margin for risk to ensure compliance with competitive neutrality. As the *Competitive Neutrality Guidelines for Managers* (Australian Government 2004) states:

All businesses that are subject to CN [competitive neutrality policy] are required to incorporate a RoR [rate of return] into their operations. Over time, government businesses should earn a RoR equal to the Commonwealth long-term bond rate, plus a margin for risk. In this way, the target RoR should be equivalent to the average RoR of the business's competitors. (p. 30)

In setting a target rate of return, the opportunity cost of capital reflects the opportunity cost of funds provided to government businesses.

There are two sources of funding, or capital, for businesses — debt and equity (with the latter including retained profits). For both sources, there are costs — interest must be paid on debt and those providing equity expect a return on their investment which relates to the risk of the business. From a commercial planning perspective, it is general practice to set the rate of return target by reference to the cost and share of debt and equity — the weighted average cost of capital (WACC). The WACC provides a return target tailored to market risk and the cost of borrowings.

Where it is difficult to determine the WACC (such as in instances where there is limited information on the cost of equity due to an absence of similar firms on which to make comparisons), a rate of return that exceeds the long term bond rate and includes a margin for market risk is generally used to set an appropriate target.

The Office's *Rate of Return* paper (CCNCO 1998b) recommended risk premiums, in addition to the 10 year Australian Government bond rate (currently around 4 per cent, Reserve Bank of Australia 2012) of:

- 3 per cent for low risk
- 5 per cent for medium risk
- 7 per cent for high risk business activities.

ANSTO, in its response to the complaint, stated that PETNET Australia's commercial rate of return was below the 13.5 per cent return initially expected. Also, as a result of discussions with management, amendments were made to the business case, including a write down on the investment of almost \$3.6 million, on the basis that the commercial rate of return was lower than originally expected. ANSTO advised the AGCNCO that the original business case did not reflect the 'actual reality of the current market place or trading conditions'. According to ANSTO, the original business case:

- did not allow for the Royal Prince Alfred Hospital being able to supply FDG to a number of hospitals within its local health network and elsewhere, without having to go through the requirements placed on tenderers to NSW Health, including Therapeutic Goods Act (TGA) certification as meeting Good Manufacturing Practice (a quality assurance mechanism). Non-hospital manufacturers of FDG require TGA certification
- was prepared on the basis that PETNET's facility would be operational by the time supply contracts were previously awarded by NSW Health. Delays in

construction and TGA certification meant that PETNET Australia had to wait for the next cycle of tendering

- was prepared on the expectation that the Medicare rebates for lymphoma would be approved at least one year earlier than actually occurred.

Constraints on health care funding also saw a reduction in discretionary imaging which further reduced the New South Wales market potential.

At issue is not the rate of return in the short term as these are likely to vary because of a wide range of economic and firm-specific factors. As the *Rate of Return* paper states:

... failure to meet a target in one year cannot, in isolation, be taken as evidence of non-compliance with competitive neutrality. (CCNCO 1998b, p. 23)

What is important is that a commercial rate of return is earned over the longer term.

Information provided by ANSTO to the AGCNCO on PETNET Australia's revised business model shows that PETNET's targeted (internal) rate of return is 13.8 per cent. A review of PETNET Australia's business model, conducted by Deloitte's, concluded that the targeted rate of return was appropriate:

Cash flow projections assume a significant ramp up in sales, of which only a relatively small portion is backed by contracts. Prima Facie this would indicate a relatively high level of risk. However, PETNET has recently been awarded the NSW Health contract demonstrating its ability to increase market share and establish customer relationships in the market. Given the maturity of the project, there appears to be limited risks in the manufacturing process. Furthermore, contrary to its main competitors, PETNET has two production lines constantly available for production to enable 'just in time' delivery. Whilst this process may cause a suboptimal use of the existing equipment (that could also be a reason for impairment), it gives them a competitive advantage in the tendering process and reduces manufacturing issues.

ANSTO stated that over the longer term the target return for PETNET Australia is between 18 and 25 per cent and that this is in line with expected returns in the industry:

... the capital-intensive nature of the PETNET business, and an investment in new radio biomarkers is expected to drive increased return to this level.

Based on an average long term bond rate of around 4-5 per cent, the target return of 13.8 per cent is consistent with high risk business activities and would comply with competitive neutrality policy.

However, information provided to the AGCNCO by ANSTO on the current investment in PETNET Australia — totalling \$17.228 million — and expected net

cash flow for each year covering the period 2011-2021, show that PETNET Australia is only expected to make an internal rate of return of around 5.3 per cent over 10 years. A comparison of a project's internal rate of return with a business' weighted average cost of capital (or targeted rate of return) can be used to assess to the commercial viability of the project (box 2.1). The expected 10 year internal rate of return is well below PETNET Australia's weighted average cost of capital.

Box 2.1 Discounted cash flow analysis and internal rate of return

Discounted cash flow analysis involves forecasting all revenue and cash costs (including capital expenditure) for a business into the future. The stream of free cash flow or net operating cash flow is discounted to estimate the value of the business.

Usually, the business' WACC is used as the discount rate. If the business has a net present value (NPV) greater than zero when discounted by its WACC, it will be generating enough revenue to earn a rate of return equal to, or exceeding, its WACC over the life of the project.

Alternatively, the internal rate of return (IRR) for the project can be directly calculated from the free cash flow. While the NPV is a dollar value of future income at a specified discount rate, the IRR is the discount rate that will produce an NPV of zero. The business will be meeting or exceeding its rate of return target if the IRR meets or exceeds its WACC.

Source: CCNCO (1998).

But what timeframe for achieving a commercial rate of return?

ANSTO states that investment in PETNET Australia is a long term strategy and that a least 15 years will be needed to achieve a satisfactory return on the investment made. While initially the payback period for the PETNET investment was stated as 10 years, Dr Paterson, the CEO of ANSTO, when reporting to a Senate Estimates Hearing (19 October 2011) stated that it had been extended to 15 years:

During the course of our review for the year-end process, we looked at all of the payback periods and, in discussion with our auditors, we have extended the payback period to 15 years.

According to ANSTO, the extended pay-back period better reflects the 'useful life' of the cyclotrons:

ANSTO's Management and our auditors agreed to look at the payback over 15 years on the basis that the 2 cyclotrons have 15 years useful life (as are currently being depreciated) and that they are not used simultaneously at any one time so their performance and durability could be longer.

Cylopharm claimed, however, that a 15 year timeframe is uncommercial:

... by definition, 15 years cannot be deemed to be a commercial operation.

Also, that:

... based on a 15 year payback period, commercial funding would not have been achievable for this venture.

It is also noted that ANSTO's original loans to PETNET Australia were mostly for 7 years (section 2.3).

Responding to a question at Senate Estimates about whether there were any other commercial ventures with payback periods of 15 years, Dr Paterson said:

... many mining operations have paybacks that are of that order. They are long-term structures. I think in the nuclear medicine environment, and certainly in the nuclear medicine environment we are talking about in Australia, the profitability of these types of operations and their time to recover their initial payback is very, very dependent on decisions that are taken around reimbursement in the medicate environment. ... Certainly every market has its own structure, and I would say from my discussions with the nuclear medicine community broadly that there is general disappointment in the rate in Australia at which indications are being taken up and that the full benefits of PET nuclear medicine have not been realised yet in this country.

Competitive neutrality policy and guidelines provide limited guidance as to what is considered a reasonable timeframe in which to earn a commercial rate of return. The *Competitive Neutrality Policy Statement* (Australian Government 1996) states that returns should be such to justify the retention of assets in the business in the long-term:

All Commonwealth organisations identified as engaging in significant business activities will be required to earn commercial returns at least sufficient to justify the long-term retention of assets in the business, and to pay commercial dividends (i.e, equivalent to the average for their industry) to the Budget from those returns. (p. 17)

Based on estimated cash flows provided by ANSTO, the AGCNCO estimated that PETNET's commercial rate of return would be around 9.2 per cent over 15 years. Even over this extended payback period, PETNET Australia is expected to be earning below the high risk broad-banding estimates of commercial rates of return. As discussed above, ANSTO's own estimates of risk (used to determine the targeted rate of return of 13.8 per cent) also indicates that it views PETNET Australia as operating in a high risk environment for the foreseeable future.

FINDING 2.3

Revenue and expenditure forecasts over 10 and 15 years demonstrate that PETNET Australia's commercial operations are unlikely to achieve a commercial rate of return on the equity invested over either time period. This represents an ex ante breach of competitive neutrality policy.

Pricing to obtain market share

A specific concern of the complainant was that PETNET Australia had obtained market share in the New South Wales public hospital sector by offering prices for FDG below other producers. On this issue, ANSTO claims that under the expression of interest issued by the New South Wales Government, the three submitted tenderers offered FDG at comparable prices. ANSTO argued that PETNET Australia was selected on the basis of reliability of supply (PETNET Australia has two cyclotrons) and not on price. ANSTO also advised that there has been no cross-subsidisation from research activities:

It is demonstrable that PETNET Australia Pty Ltd is not engaging in predatory pricing in order to be competitive in the NSW market, as it would need to lower its current price charged to a level consistent with the \$0.48 per MBq charged by Royal Prince Alfred Hospital (a non-commercial practice). Given competitive neutrality principles and that ANSTO has no intention to divert funding from its research activities to fund any shortfall, PETNET Australia Pty Ltd is not in a position to do so.

For compliance with competitive neutrality policy, it is not the price of any specific product that is at issue, but rather whether a commercial rate of return is achieved from the overall activities of a business. As the Office's paper on *Cost Allocation and Pricing* states:

Consistent with the intent of competitive neutrality, public enterprises should not be more or less constrained than their private counterparts in their pricing behaviour. Over the longer term, a private business must earn sufficient revenue to cover all costs, including a commercial rate of return. But in pursuing this goal, private businesses adopt a wide range of pricing strategies for individual products. For example, some opt to price below cost on individual lines, and at different stages of a product's life cycle to attract customers to other product lines and raise the profile of the firm (loss

leading). Alternatively, they may price a product well above costs if it has a strong competitive advantage. (CCNCO 1998a, pp. 2-3)

FINDING 2.4

ANSTO's pricing of individual services in particular market segments, in itself, is not a breach of competitive neutrality policy.

That said, because PETNET Australia is unlikely to earn a commercial rate of return on the equity invested over either a period of 10 or 15 years, ANSTO will need to adjust PETNET Australia's business model in order to comply with competitive neutrality policy. This could involve adjusting PETNET Australia's pricing structure and/or increasing demand for PET so that PETNET Australia can be expected to earn a commercial rate of return that reflects its risk profile. Impairment of the asset value of the investment may reflect a commercial reality, but it is not relevant to whether the Government's investment has produced a commercial rate of return that complies with competitive neutrality.

According to ANSTO, raising PETNET Australia's prices would result in a loss of competitiveness (given that the major supplier, Royal Prince Alfred Hospital, is not subject to commercial pressures, regulatory burden or competitive neutrality) and lead to an even lower rate of return. ANSTO is currently working on strategies to increase demand for PET as a way of increasing the profitability of PETNET Australia.

Ultimately, if ANSTO's strategy of increasing demand does not result in PETNET Australia earning a commercial rate of return on the investment, the Government would need to decide whether to maintain the business (at the impaired asset value) in breach of competitive neutrality policy, or dispose of the assets.

RECOMMENDATION 2.1

For ANSTO to comply with competitive neutrality policy, it would need to adjust PETNET Australia's business model such that it can be expected to achieve a commercial rate of return that reflects its risk profile and the full investment in PETNET Australia.

2.5 Regulatory neutrality

ANSTO argued that PETNET Australia faces more stringent regulatory requirements than its competitors by virtue of its Australian Government ownership:

Far from being advantaged in regulatory terms, PETNET Australia Pty Ltd faces a more stringent regulatory system and pays higher licence fees than Cyclopharm or hospital based cyclotrons. ... hospital-based cyclotrons are in practice exempted from the requirement to be accredited by the TGA.

For privately operated cyclotrons in New South Wales, regulatory oversight is required under the *NSW Radiation Control Act 1990* which is administered by the NSW Office of Environment and Heritage (OEH). To operate a cyclotron in New South Wales, a company must obtain a licence to sell or possess radiation apparatus, and register each piece of apparatus. While no specific licence is needed to site or construct radiation apparatus, each operator must also be licensed with the OEH.

Australian Government controlled entities (including PETNET Australia) are required to comply with the *Australian Radiation Protection and Nuclear Safety Act 1998* (the ARPANS Act) when handling radioactive material or radiation emitting apparatus. The ARPANS Act requires that a licence be obtained from the Australian Radiation Protection and Nuclear Safety Agency before siting, constructing and operating a prescribed radiation facility such as the cyclotrons operated by PETNET Australia.

ANSTO provided a comparison of the fees that PETNET Australia faces under the Australian Government regulatory environment and those it would face if operating under the New South Wales regulatory regime (table 2.1 and table 2.2). The costs of acquiring licences for PETNET Cyclotrons under the Australian Government regulatory framework is around \$35 000 more than under the New South Wales regulatory framework. Ongoing fees for licensing and registration are around \$20 000 more under the Australian Government regulatory framework.

Competitive neutrality policy requires that government businesses comply with the same regulations (and therefore bear the costs) that apply to their private sector counterparts.

Central to the issue of whether PETNET Australia is operating at a cost disadvantage over its competitors is whether, if PETNET were trading as a private business, it would be required to comply with Australian Government regulatory arrangements.

Table 2.1 Comparison of costs to acquire licences for PETNET Cyclotrons under different regulatory frameworks

<i>Regulatory Framework</i>	<i>Fee</i>	<i>Quantity</i>	<i>Total</i>
Australian Government			
Siting licence	Exempted		
Construction licence	\$9450 ^a	2	\$18 900
Operating licence	\$9450 ^a	2	\$18 900
<i>Total cost to acquire licences</i>			\$37 800
New South Wales			
Licence to sell or possess	\$117 ^b	1	\$117
Operator licence to use	\$117 ^b	2	\$234
Registration	\$1000	2	\$2000
<i>Total cost to acquire licences</i>			\$2351

^a At time of licencing. Application fees have increased since this time. ^b For a one year licence. A three-year licence is available at a discounted per annum rate. The one-year rate was chosen as it represents the most expensive per annum rate.

Source: ANSTO.

Table 2.2 Comparison of ongoing costs of licensing for PETNET Cyclotrons under different regulatory frameworks

<i>Regulatory Framework</i>	<i>Fee</i>	<i>Quantity</i>	<i>Total</i>
Australian Government			
Operation licence	\$11 139	2	\$22 278
<i>Total ongoing costs</i>			\$22 278
New South Wales			
Licence to sell or possess	\$67 ^a	1	\$67
Operator licence to use	\$67 ^a	2	\$134
Registration	\$800	2	\$1600
<i>Total ongoing costs</i>			\$1801

^a At time of licencing. Application fees have increased since this time.

Source: ANSTO.

The *Australian Radiation Protection and Nuclear Safety Act 1998* states that:

- (1) This Act applies to a Commonwealth contractor, in respect of conduct referred to in subsection 30(1) that is engaged in by the Commonwealth contractor, only if, and in so far as, the conduct is engaged in:
 - (a) for or on behalf of a Commonwealth entity; and
 - (b) under or for the purpose of a contract with the Commonwealth entity.
- (2) This Act applies to a Commonwealth contractor, in respect of a dealing by the Commonwealth contractor with controlled material or controlled apparatus, only if, and in so far as, the dealing is:
 - (a) for or on behalf of a Commonwealth entity; and
 - (b) under or for the purpose of a contract with the Commonwealth entity (p. 4).

The ARPANS Act applies to ‘controlled persons’ who undertake activities in relation to nuclear installations or prescribed radiation facilities and dealings with controlled material or controlled apparatus. The Act defines ‘controlled persons’ as:

- a Commonwealth entity, which is further defined as including:
 - Commonwealth Departments
 - bodies corporate established for a public purpose by or under an Act (for example, CSIRO, Australian Nuclear Science and Technology Organisation)
 - a company in which a controlling interest is held by the Commonwealth and
 - an employee of a person or body covered by any of the above
- a Commonwealth contractor (a person other than a Commonwealth entity) who is a party to a contract with a Commonwealth entity
- an employee of a Commonwealth contractor
- a person in a prescribed Commonwealth place.

This suggests that if PETNET Australia was operating as a private business and providing contract services to ANSTO or other Australian Government bodies (for example, for research) it would need to comply with the ARPANS Act. However, if as a private business it was only servicing state based hospitals and medical facilities, it would only be subject to state based regulations. Given PETNET Australia’s current supply arrangements, this suggests that it is operating at a competitive disadvantage because of its Australian Government ownership and a cost adjustment should be made.

The *Competitive Neutrality Policy Statement* (Australian Government 1996, p. 19) is not prescriptive about how or where regulatory adjustments are made, but rather states that they should be determined on a case-by-case basis.

In the case of PETNET Australia, the costs of the regulatory disadvantage could be neutralised in the cost base of the business (by the addition of a nominal revenue item) which would in turn be reflected in the commercial rate of return. The AGCNCO assessed the impact of the cost adjustment (of around \$20 000) to PETNET Australia's cost base and found that it would have no material effect on the ability of PETNET Australia to achieve its targeted rate of return.

RECOMMENDATION 2.2

The cost disadvantage resulting from the more stringent regulations applying to PETNET Australia should be neutralised in its cost base.

References

- Australian Government 1996, *Competitive Neutrality Policy Statement*, Canberra.
- 2004, *Australian Government Competitive Neutrality Guidelines for Managers*, Canberra.
- CCNCO (Commonwealth Competitive Neutrality Complaints Office) 1998a, *Cost Allocation and Pricing*, Research Paper, Canberra.
- 1998b, *Rate of Return Issues*, CCNCO Research Paper, Canberra.
- Cyclopharm 2006, *Cyclopharm Limited Prospectus*.
- Economic Legislation Committee 2011, *Estimates, Innovation, Industry, Science and Research Portfolio*, Australian Nuclear Science and Technology Organisation, 19 October.
- Reserve Bank of Australia, *The Australian Economy and Financial Markets*, February 2012.