



Australian Government
Department of Industry,
Science and Resources

**National
Measurement
Institute**

COST RECOVERY IMPLEMENTATION STATEMENT

Pattern Approval, Trade Measurement
Licensing and Legal Metrology
Appointments
2023-2024

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1. INTRODUCTION

1.1. Purpose of the Cost Recovery Implementation Statement

This Cost Recovery Implementation Statement (CRIS) provides information on how the National Measurement Institute (NMI) implements cost recovery for the activities associated with the administration of Pattern Approval (PA), Trade Measurement Licensing (Licensing) and Legal Metrology Authority Appointments (Appointments).

This CRIS also reports financial and non-financial performance information for the NMI for 2022-23 and contains financial forecasts for three forward years.

1.2. Description of the regulatory charging activity

NMI, a division of the Department of Industry, Science and Resources administers Australia's measurement framework under the *National Measurement Act 1960* (the Act), supporting Regulations and Guidelines.

NMI contributes to Australia's prosperity by leading a national system of measurement that is fit for purpose and trusted both nationally and internationally.

NMI's regulatory activities are undertaken as key elements within the wider national system of measurement. These activities include approving the design or pattern of measuring instruments (Pattern Approval or PA), and Licensing and Appointments of third parties; for example to verify measuring instruments and verify reference standards. These activities are undertaken by NMI's Legal Metrology Branch.

Legal metrology comprises all measurements carried out for any legal purpose. It includes measurements that are subject to regulation by law or government decree together with the supporting technical and regulatory infrastructure. Trade measurement refers to all transactions where the price of commodities or goods is determined by a measured quantity or quality component. The primary purpose of the Australian trade measurement system is to ensure that the calculated price of traded goods is based on accurate measurement.

NMI also offers a broad range of services in biological, chemical, and physical measurement. Some examples include analytical services in chemistry and microbiology for food and environmental testing, specialist chemical analysis for illicit drugs or drugs in sport, calibration of measuring instruments and of physical standards such as reference masses, and training in measurement techniques. While NMI charges for these services, they are outside the scope of this statement as they are not regulatory activities.

1.2.1. Pattern Approval

In Australia, manufacturers and importers of measuring instruments (e.g. retail scales, weighbridges, petrol pumps, breath-alcohol analysers) are required to have a PA certificate from NMI before instruments can be used for trade or other regulatory purposes.

A measuring instrument is used for trade if it is used in:

- determining the consideration in respect of a transaction
- determining the amount of a tax.

In Australia, the Act requires all measuring instruments used for trade to be pattern-approved.

PA confirms that a measuring instrument's design meets relevant documentary standards and performs as intended over a range of environmental and operating conditions. NMI examines trade and other legal measuring instruments against relevant standards and issues PA certificates that are internationally recognised.

When reviewing applications for PA, where certification has already been issued in another country, NMI recognises test reports from overseas laboratories issued in accordance with the OIML Certification System, and may also accept other test reports under certain conditions.

Where an appropriate test report is not available, NMI is able to provide PA testing services. This provides confidence in domestic and international trade as well as other functions and benefits for the whole economy.

NMI may also appoint Approving Authorities to conduct independent testing of measuring instruments for PA. Test results from an Approving Authority will be considered by the NMI when assessing the suitability of a measuring instrument for trade or legal purposes.

PA testing and certification by NMI underpins confidence in the accuracy of measuring instruments used for international and domestic trade without undue reliance on overseas authorities, who may have little focus on protecting Australian trading interests. NMI represents Australia's economic interests through the PA certification process, as its counterpart organisations do in most other comparable economies.

1.2.2. Licensing

NMI licenses third-party private organisations to:

- verify measuring instruments used for trade (Servicing Licensees)
- operate public weighbridges (Public Weighbridge Licensees).

Businesses across Australia rely on the capability of servicing licensees and public weighbridge licensees in order to comply with the requirements of the Act and to help maintain the metrological infrastructure for trade measurement.

NMI's approach is to ensure Australia's servicing licensee workforce is maintained at an appropriate level of competency, that verifications are performed correctly, and that verifiers have access to the necessary procedures, systems and equipment to perform their duties correctly and in accordance with the Act.

Licensees return data on instrument verifications to the NMI. This supports efficient delivery of NMI's compliance activities and lowers the overall regulatory burden on stakeholders by reducing compliance inspection costs.

1.2.3. Appointments

To support the national measurement system, NMI appoints third-party, private sector organisations as authorities including:

- **Certifying authorities** to certify measuring instruments, e.g. evidential breath-alcohol analysers and grain protein measuring instruments, and Australian certified reference materials including aqueous ethanol solutions and whole-grain barley and wheat for use in calibrating appropriate measuring instruments and establish measurement traceability.
- **Verifying authorities** to verify reference standards of measurement and physical quantities of an artefact that establish measurement traceability.
- **Approving authorities** to conduct PA testing of utility meters and evidential breath-alcohol analysers.
- **Utility meter verifiers** to verify utility meters used for trade.

'Traceability' means that a measurement of a quantity can be related through an unbroken chain of comparisons (or calibrations) to a national primary standard of measurement, within a stated tolerance or measurement uncertainty.

NMI carries out the regulatory activities of pattern approval, licensing and legal metrology authority appointments. Table 1 provides the revenue and expenses for each of these activities for the year 2022–23.

Table 1: Total revenue and expenses for NMI's regulatory activities, 2022–23

	Pattern Approval \$000s	Servicing and Public Weighbridge Licensing \$000s	Legal Metrology Authority Appointments \$000s
Cost of activity or Expenses (Y)	\$1,316	\$654	\$73
Cost recovered or Revenue (X)	\$417	\$531	\$70

Note: All expenses include depreciation. Expenses exclude capital purchases of \$32K for Pattern Approval. There were no capital purchases for Servicing and Public Weighbridge Licensing and Legal Metrology Authority Appointments.

2. POLICY AND STATUTORY AUTHORITY TO COST RECOVER

2.1. Statutory authority to charge

Subsections 18A (3) and 19A (8) of the Act authorise fees to be charged for activities undertaken by the Chief Metrologist or their delegate.

- PA fees are set out in regulation, with annual indexation method and increases detailed regulations 90B, 90C and 90D of the NMR.
- Licensing fees are set out in Division 2.4 (Servicing Licensees) and Division 3.2 (Public Weighbridge Licensees) of the NTMR.
- Fees for appointment of legal metrology authorities have not been set in regulations. The NMI fee per application is set administratively. It was previously set at \$1100 per application (GST exempt).

3. CHARGING MODEL

3.1. Outputs and business processes of the regulatory charging activity

3.1.1. Pattern Approval

The PA team's regulatory functions include:

- assessing documentation and issuing PA certificates (applicable to all measuring instruments submitted for PA purposes)
- laboratory testing of measuring instruments.

On average during the past three years 125 certificates were issued, of which between 60–80 per cent were for product lifecycle modifications or upgrades, with the remainder for new instruments.

Laboratory based testing is only required where measuring instruments are submitted without appropriate test reports as specified by NMI. NMI recognises test reports from overseas laboratories issued in accordance with the OIML Certification System and can also accept other test reports under certain conditions.

3.1.2. Licensing and Appointments

Private sector organisations support the delivery of a robust trade measurement system for Australia. There are more than 525 licensees and approximately 60 legal metrology authorities. Servicing licensees employ around 1400 verifiers.

The business process for these activities includes:

- application receipt and processing, including file creation and acknowledgement.
- application evaluation, including reviewing the documentation supplied, making further enquiries or seeking clarification if necessary, and determining whether relevant criteria are satisfied.
- providing and maintaining information to assist licensees to meet their regulatory obligations.
- providing a point of contact to support licensees (licensees mailbox and hotline) and responding to enquiries relating to licensing conditions, verification procedures and requirements.
- managing and processing verification notification forms (Form 6 and Form 6A), test reports and information submitted by the licensees as required by legislation and licence conditions.

These businesses processes are considered fully regulatory and account for 100 per cent of the total cost associated with the activities of Licensing and Appointments.

3.2. Costs of the regulatory charging activity

The costs associated with the regulatory charging activities are categorised into direct costs and indirect costs.

3.2.1. Direct costs

Direct costs can be easily traced to a cost object with a high degree of accuracy. The allocation of direct costs to a cost object is relatively straightforward. The most common direct costs are staff salaries (including on-costs such as training, superannuation and leave) and supplier costs (e.g. office supplies).

3.2.2. Indirect costs

Indirect costs are the costs that cannot be easily linked to a cost object or for which the costs of tracking this outweigh the benefits. Indirect costs are apportioned to a cost object using the internal costing methodology. Common indirect costs include overhead costs such as corporate costs (e.g. finance, human resources, IT and office accommodation) and salaries of staff in support areas (e.g. regulatory practice and support functions).

NMI's cost recovery models incorporate both direct costs and indirect costs which can be assigned or traced specifically to the respective regulatory activities.

Direct costs include:

- employee costs
- operational costs for providing the service, including laboratory consumables, contractors, repairs and maintenance for laboratory equipment and administrative expenses.

Indirect costs include:

- other costs (such as property and overhead charges)
- depreciation on assets used for the activity.

Table 2 provides the direct, indirect and capital costs for the activities for 2021–22.

Table 2: NMI cost estimates for regulatory activities, 2023–24

	Direct costs	Indirect costs [^]	Capital costs
	\$'000s	\$'000s	\$'000s
Pattern Approval	\$887	\$637	\$80
Licensing	\$544	\$91	\$0
Appointments	\$60	\$10	\$0
TOTAL	\$1,491	\$738	\$80

3.3. Design of regulatory charges

The characteristics of a government activity determine the type of cost recovery charge used. Fees are charged when a good, service or regulation is provided directly to a specific individual or organisation.

Fees are designed to reflect as closely as possible the underlying cost of maintaining the capability and capacity to deliver the services, based on previous and projected demands. Fees for Pattern Approval include set fees and hourly fees, which are based on the services and tests required. Appointments are charged as a flat fee and licencing fees are tiered to reflect different levels of effort involved.

In the case of servicing licences, the ongoing costs of supporting each licensee vary substantially depending on the licensee's service area, complexity of instruments and the number of verifications which are difficult to estimate in advance. Therefore, the tiered fees aligned to sole, small, medium and large business (based on the number of verifiers) will continue to be used at this time.

These ongoing costs include:

- supplying labels to servicing licensees to enable them to mark the instruments that they verify.
- providing and maintaining information to assist licensees to meet their regulatory obligations.
- providing a point of contact to support licensees (licensees mailbox and hotline) and responding to enquiries relating to licensing conditions, verification procedures and requirements.
- managing and processing verification notification forms (Form 6 and Form 6A), test reports and information submitted by the licensees as required by legislation and licence conditions.

The Australian Government's Charging Policy is that individuals or groups that create the need for an activity should pay for that activity, unless the Government decides otherwise. There needs to be a significant policy case for a charge to not reflect the full cost of an activity. In this context, a key consideration when charging for NMI's regulatory activities is the impact on volume of demand associated each activity.

This includes:

- measuring instrument manufacturers withdrawing from developing and manufacturing new technologies in Australia and no longer requiring Pattern Approval testing
- Licensees and Authorities withdrawing from participating in the national measurement framework.

The projected demand for these regulatory activities is assumed to be:

- 125 PA certificates issued.
- 40 PA testing modules.
- 310 organisations licensed to verify trade measuring instruments.
- 215 organisations licensed to operate public weighbridges.
- 64 organisations appointed as authorities.

Factors which may influence future demands for these activities include:

- ongoing innovation and development of measuring instrument technology.
- market factors affecting manufacturing of measuring instruments in Australia.
- demand from servicing licensee clients to verify trade measuring instruments at a commercially viable rate.
- demand from licensees' clients to use public weighbridges at a commercially viable rate.
- demand from authority clients to use their services at a commercially viable rate.

The design of regulatory charges may change in the future as a result of the Measurement Law Reform that is underway. The Measurement Law Reform is modernising, streamlining or simplifying aspects of Australia's measurement framework. This includes a review and evaluation of the current charging structure.

4. RISK ASSESSMENT

During 2018-19, NMI undertook a preliminary Charging Risk Assessment (CRA) which included the following key components:

- level of change for cost recovery activities.
- level of cost recovery revenue.
- complexity in the cost recovery arrangements (i.e. both fees and charges).
- level of change in legislative arrangements.
- level of complexity of working with other government entities to deliver the regulatory functions.
- level of impact of cost recovery on clients.
- outcome of consultation with stakeholders (i.e. any significant issues raised).

Consultation feedback on the regulatory fees increases proposed were taken into account in the government's decision to allow partial cost recovery rather than full cost recovery for Pattern Approval laboratory activities directly responds to identified risks.

To ensure cost increases were not prohibitive, and to facilitate innovation and market access, government supported for PA laboratory testing would continue, limiting the fees charged to around 20 per cent of the full cost of that testing. PA laboratory testing is a comprehensive process intended to demonstrate that the measuring instrument can maintain its calibration (and hence accuracy) in the full range of Australian operating conditions. Testing can include measuring performance under varying conditions such as different temperature, humidity, and electromagnetic interference. The laboratory testing requires a high level of skill and is infrastructure intensive.

This approach mitigated the risk of sudden shocks to the national trade measurement system.

5. FINANCIAL ESTIMATES

This section sets out the budget estimates for the regulatory activities undertaken by NMI, assuming consistent market demands and similar operating costs for forward years.

- Table 3 provides a summary of the NMI's budget estimates for the financial year 2023–24.
- Table 4 provides a summary of the NMI's budget estimates based on the fee increases for PA for the years 2023-27. The numbers in Table 4 are provided for guidance only.
- Table 5 provides a summary of the NMI's budget estimates based on the fee increases for Licensing and appointments for the years 2023–27. The numbers in Table 5 are provided for guidance only.

The cost recovery models will be reviewed again as part of the Measurement Law Reform and NMI will continue to work with industry to identify sustainable cost recovery models.

Table 3: Financial projections for Regulatory charging activities, 1 July 2023 to 30 June 2024

Forecast Revenue for Legal Metrology Branch Regulatory Charging Activities 1 July 2023 to 30 June 2024	
Pattern Approval	\$'000s
Expenses	\$1,524
Revenue Total	\$352
Pattern Approval Certificates	\$317
Pattern Approval Laboratory	\$35
Balance	-\$1,172
Licensing	
Expenses	\$635
Revenue Total	\$553
Servicing Licences	\$446
Public Weighbridge Licences	\$107
Balance	-\$82
Appointments	
Expenses	\$71
Revenue – LMA Appointments	\$87
Balance	\$17

Table 4: Financial Estimates for Pattern Approval Regulatory Charging Activity

Pattern Approval				
\$'000s	2023-24	2024-25	2025-26	2026-27
Expenses	\$1,524	\$1,594	\$1,667	\$1,739
Revenue	\$352	\$373	\$396	\$419
Balance	-\$1,172	-\$1,221	-\$1,271	-\$1,320
Cumulative balance	-\$1,172	-\$2,393	-\$3,664	-\$4,984

Table 5: Financial Estimates for Licensing and Appointments Regulatory Charging Activity

Licensing and Appointments				
\$'000s	2023-24	2024-25	2025-26	2026-27
Expenses	\$705	\$735	\$766	\$795
Revenue Total	\$640	\$600	\$608	\$657
Servicing Licences	\$446	\$390	\$425	\$446
Public Weighbridge Licences	\$107	\$120	\$85	\$107
Appointments	\$87	\$90	\$98	\$104
Balance	-\$65	-\$135	-\$158	-\$138
Cumulative balance	-\$65	-\$200	-\$358	-\$496
\$'000s	2023-24	2024-25	2025-26	2026-27

The projected revenues take into account the expected timing of license renewals, noting that many licenses are renewed for three years rather than annually.

6. FINANCIAL PERFORMANCE

Tables 7 and 8 illustrate the historic financial performance of the Pattern Approval, Licensing and Appointments activity groups.

Table 7 Pattern Approval

\$'000s	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Expenses = X	\$1,243	\$1,331	\$1,229	\$1,209	\$1,316
Revenue = Y	\$333	\$360	\$396	\$246	\$417
Balance = Y – X	-\$910	-\$971	-\$834	-\$963	-\$899
Cumulative balance	-\$910	-\$1,881	-\$2,714	-\$3,678	-\$4,577

Table 8 Licensing and Appointments

\$'000s	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Expenses = X	\$837	\$675	\$920	\$694	\$727
Revenue = Y	\$404	\$444	\$499	\$537	\$601
Balance = Y – X	-\$433	-\$231	-\$422	-\$157	-\$126
Cumulative balance	-\$433	-\$664	-\$1,086	-\$1,243	-\$1,369

7. NON-FINANCIAL PERFORMANCE

NMI's activities contribute towards Australia's national system of measurement being trusted nationally and internationally.

7.1. Pattern Approval

The number of certificates prepared varies with demand. On average during the past three years 125 certificates were issued, of which between 60–80 per cent were for product lifecycle modifications or upgrades, with the remainder for new instruments.

Laboratory accreditation through the National Association of Testing Laboratories has been maintained.

Suitable bilateral and multilateral arrangements are in place to support mutual recognition of testing performed within the scope of agreements with international partners and to enhance alignment with international specifications, where possible.

7.2. Licensing and Appointments

There are over 525 licensees and over 60 legal metrology authorities. Servicing licensees employ around 1400 verifiers.