



GUIDANCE NOTE 2



PLANNING TO BUILD – FOUNDATIONAL CONSIDERATIONS



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Introduction

THIS GUIDANCE NOTE IS PART OF A SERIES OF TOOLS OF UNITED FOR EFFICIENCY ON PRODUCT REGISTRATION SYSTEMS.

OTHER TOOLS IN THIS SERIES INCLUDE:



GUIDANCE NOTES



PROTOTYPE

This guidance note is the second of a series of guidance notes prepared by United for Efficiency (U4E) and aims to detail a range of important items that need to be considered in general before embarking on the development of a product registration system. Items that need to be considered in detail are covered in guidance note 3.

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1. Voluntary or Mandatory Scheme?

A fundamental question for any scheme manager is whether the proposed standards and labelling scheme is to be mandated by law or be voluntary in nature.

Voluntary schemes present a lesser challenge to both program administrators and industry. They do not require enabling legislation (although a clear set of rules for participation still needs to be developed), further the voluntary nature means that such programs are not seen by the industry as an additional administrative impost to be resisted.

Voluntary schemes do however still need to maintain accurate records to enable monitoring and verification activities to be undertaken, to inform consumers and to incentivize product innovation. Consequently, an effective product registration system is equally important in the context of either voluntary or mandatory schemes.

There are however a number of shortcomings associated with voluntary schemes that are addressed by mandatory schemes. These include:

- Mandatory schemes capture all products within the market and therefore the benefits of mandatory schemes in terms of energy savings and improved environmental outcomes tend to be significantly greater than for voluntary schemes that capture only a part of the market.
- Product suppliers that participate in voluntary schemes tend to be those that supply high end, high efficiency products into the market place, which are of limited interest to the bulk of consumers. Generally, consumers are left poorly informed about many of the products on offer.
- The nature of voluntary schemes means that such markets remain attractive dumping grounds for poor quality and inefficient product lines.

Notably however, because voluntary schemes are unlikely to generate resistance from industry to their introduction, they can represent an unchallenging means for introducing standards and labelling programs to a market and provide a pathway to an eventual mandatory scheme with all its additional benefits.

If a voluntary standards and labelling scheme is initially adopted it is important that any supporting product registration system is designed such that it can easily be converted from a system that services a voluntary scheme to one that services a mandatory scheme.

2. Local or Regional System?

Product registration systems can be set up as either a local system within a single country or as a regional system designed to service the needs of member states within an entire region.

Whilst a regional system in its initial set-up requires greater co-ordination between member states, such systems offer many potential benefits compared to a local product registration system, such as:

- Member states in a regional system can help to support each other in the development of underpinning policies, standards and programmes.
- Regionally coordinated efforts result in reduced overall costs (financial and human resources) needed to develop and maintain a single regional product registration system and to carry out an effective compliance strategy.
- There is a reduced burden on manufacturers to register and enter their products into participating member states markets since they only need to effectively test and register their products once.
- Regional coordination on compliance efforts via a central source for compliance information (i.e. the product registration system) enhances the enforcement of MEPS and the removal of inefficient products from the market.

Regional systems operate best where they adopt harmonised regional standards and labelling requirements. Examples of such systems include the Equipment Energy Efficiency (E3) Programme that serves both Australia and New Zealand and the Pacific Appliance Database (PAD) product registration and approval for import system that serves a growing number of Pacific Island Nations.

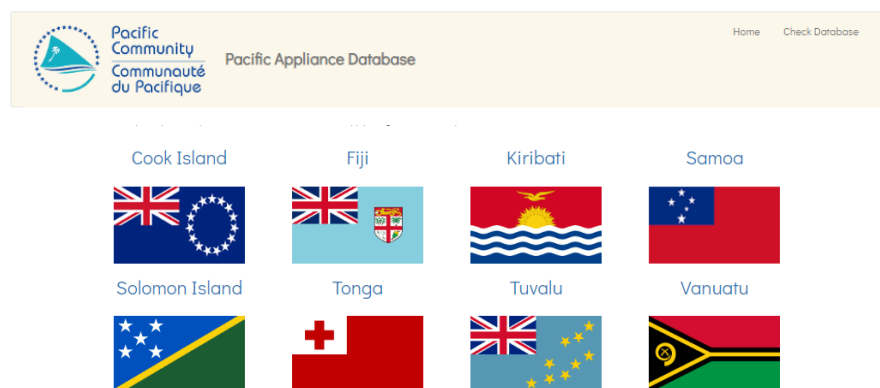


Figure 1: Extract from the Pacific Appliance Database – A Regional product registration system serving the Pacific Island Nations

3. Supporting Legislative/Regulatory Framework

For mandatory standards and labelling programs an underpinning legislative and regulatory framework is required to provide a legal basis for mandating minimum performance standards and mandatory labelling requirements and to ensure the efficient and effective administration of the programme.

In terms of setting up a product registration system, amongst other things, a legislative/regulatory framework needs to:

- Define the scope of products to be covered and any exclusions that apply
- Specify the applicable test methods, minimum performance standards and labelling requirements
- Make provision for the appointment of a regulator of the programme, such as an official within a Department of Energy, Industry or also Environment.
- Mandate the use of a register and a right to the necessary data from product suppliers to populate that register (including in some cases annual product sales data)
- Define the registration process, who is responsible for registering and the accepted forms of such registration
- Define monitoring and investigative powers and compliance processes to be undertaken
- Define enforcement processes, infringements, fines and penalties

It is most important that the legislative/regulatory framework enables the efficient use of a product registration system and that it does not create any potential roadblocks such as prohibitions on electronic lodgement of applications or prohibitions on the use of electronic signatures. Regulatory enablement of electronic payment systems (where fees are to be levied) will also streamline the registration process benefiting regulators and industry alike.

Setting up new, or reviewing pre-existing frameworks requires particular skills. Ideally, a subject matter specialist in standards and labelling programs with a detailed knowledge of the programmes underpinning standards needs to work collaboratively with legal officers who specialise in the drafting of legislation/regulation to ensure the enabling legislation/regulations are both technically accurate and legally sound. Alternatively, a steering committee including representatives from all bodies likely to benefit from the collected data could be tasked with informing the process of legislative/regulatory drafting.

4. Supporting Administrative Framework

To successfully operate a product registration system, a supporting administrative framework needs to be put in place. In nationally based systems this would normally be created within the office of the regulator. In regional systems there would be administrative frameworks in each jurisdiction, in addition there should be some form of regional “committee of management” charged with ensuring co-ordination and harmonisation at a regional level.

For example, for the Pacific Island regional product registration system there is a regional body called the Secretariat of Pacific Communities (SPC) that amongst other things hosts the regional database and facilitates co-ordination between the various island states in relation to the operation of the regional product registration system.

To administer a standards and labelling program including the registration process itself, staff are required that are skilled in both the subject matter of the governing standards and regulations, moreover they should be skilled in the use of the product registration system itself. To achieve this, a set of standard operating procedures need to be drafted and an ongoing programme of staff training needs to be undertaken.

Regulators also need to decide if administrative officers can simply approve applications received (one step process with delegated powers of approval) or if they can only review applications and then make recommendations to the regulator, the only one empowered to approve applications (two-step process). Such decisions will have an impact on how a product registration systems approval process is to be structured.

5. Role of Testing/Certification Bodies

Testing/certification bodies play a vital role in standards and labelling programs, providing product suppliers with the necessary evidence they need to establish in order that their products meet specified product performance standards. Product test reports also provide the source for a range of key data inputs into a product registration system (capacities, performance characteristics, etc.).

Apart from providing the necessary capacity for industry to meet their obligations under a product energy efficiency programme, testing/certification bodies also play an important role in:

- Assisting governments to determine appropriate minimum performance levels applicable to their market (by testing of representative product samples)
- Facilitating governments' compliance programs
- Providing technical input to standards and technical committees charged with the development and maintenance of relevant test methods.

Regulators and programme managers need to decide which types of test facilities should be considered as acceptable sources for test reports to demonstrate a products' compliance under their programme.

Test laboratories may be located in the country where a product is to be registered, but more often, test laboratories are located in a country other than the registering country, i.e. it is not essential that a country has its own test laboratory infrastructure in order to operate a labelling and standards programme successfully.

Test laboratories can be either independent laboratories or “in-house” laboratories (i.e. owned by the manufacturer). The use of independent laboratories though provides a greater degree of confidence in the test results nevertheless there exist many reliable and highly competent in-house laboratories.

Laboratories can also be either “accredited” or not. Accreditation is the formal recognition of a test facilities competence by an independent accreditation body that undertakes regular audits of a laboratories, staff, equipment, systems and procedures (see: <https://ilac.org/> for a list of accreditation bodies). The use of accredited laboratories also provides a greater degree of confidence in test results, though, as already mentioned, there are many reliable and highly competent laboratories without accreditation, this is particularly true in relation to in-house laboratories.

Whilst the best would be to require that registration test reports only come from independent and accredited laboratories, the reality is that the availability of independent accredited laboratories is limited, particularly in developing and emerging economies. Imposing such a constraint on the supply of test report therefore could likely create a severe bottleneck in the compliance process for product suppliers.



Figure 2: Refrigerator test rig at The University of New South Wales - Australia

Even in many developed countries, such as Australia and New Zealand, the use of independent and/or accredited laboratories is not a requirement when registering a product. In these jurisdictions, product supplier's test reports are generally accepted irrespective of their source unless it is shown subsequently through verification testing that test reports from the suppliers chosen laboratory are unreliable. In this case, reports are no longer accepted from that laboratory and the supplier is then required by the regulator to use an independent accredited laboratory instead.

6. IT Infrastructure Resources

To be able to operate a web based product registration system a minimum level of IT infrastructure will be required. Whilst not all stakeholders would need an internet access, at the absolute minimum the programme manager/regulator will need to have reliable access to the internet.

Larger suppliers of products into the market are likely to have internet access, if not in the particular country itself, then in their headquarter countries from where applications can easily be lodged (with a web based product registration system, applications can be lodged from anywhere in the world at any time).

If the case occurs, that small suppliers such as low volume importers do not have internet access, can either:

- Accept paper based registration application forms and transpose the data therein into the web based product registration system at the regulators office (as done in the Pacific Appliance Database – see Figure 3 below). For each applicant the regulator would set up an account in the system on behalf of the supplier and then populate the account with their applications until the supplier gains their own internet access. Once internet access is available to the supplier, the regulator can then simply hand over the access code to the account that they had been maintaining on behalf of the supplier.
- Make a computer terminal at the regulators office available for use by small suppliers.

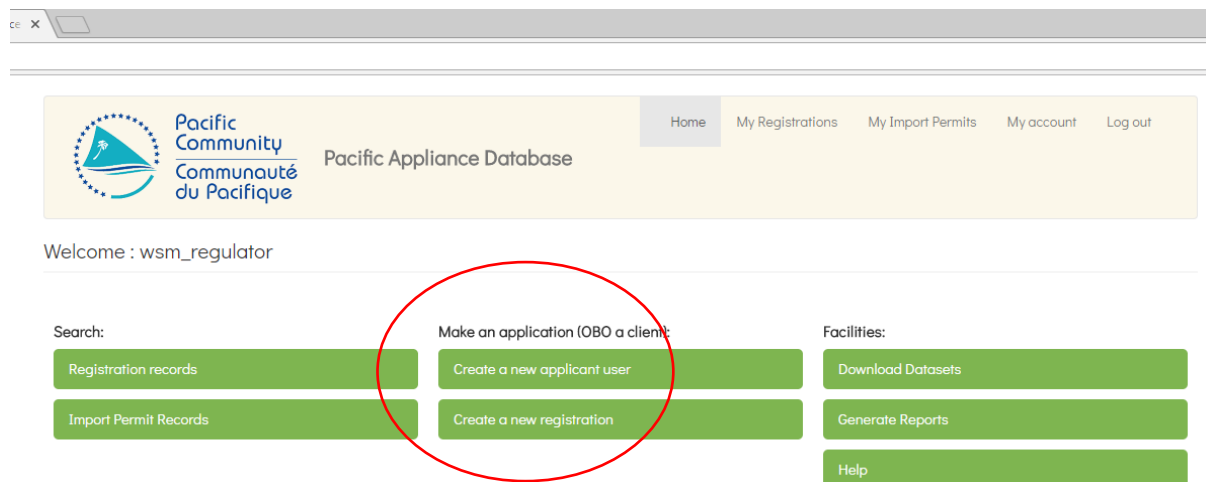


Figure 3: Regulators facility to make an application on behalf of (OBO) a client – Pacific Regional Appliance Database

Ideally, IT staff in the regulators office or a related government office would maintain the product registration system on local servers. If the regulator does not have the necessary IT capabilities to do this, then a private contractor could be engaged to manage the system (this is a common occurrence in many countries).

In a regionally based system where a single web based registration system would serve the entire region, only one of the member states or a single regional body representing those states needs to be responsible for maintaining the product registration system, again this could be using in-house IT staff or by engaging a suitable contractor.

Publication of product performance data for public consumption is most effectively done through the internet, particularly with mobile applications. Where public access is poor (particularly in less urban areas) printed lists of products and their efficiency ratings can be made available, particularly through retail outlets. Of course, wherever internet access is available and a consumer has a web-connected device, they will be able to access the product registration system consumer data.

7. Key System Features - Summary

This section provides a summary about (only) a list of key system features and facilities that are worth of consideration for inclusion in a product registration system. Each of these features are explored in more detail in Guidance Note 3.

In regional systems, whilst a common set of features and facilities used across member states is desirable, it is possible to include jurisdiction specific features or feature variants if required. For example, some jurisdictions within a region may choose to charge a product registration fee whereas others may not.

Desirable system features and facilities might include:

- Options for multiple languages
- Mobile applications and use of Quick Response (QR) bar codes
- Search engines to locate data meeting selected search criteria
- On-line fee payment facilities
- Automated email notifications to system users (notice of application lodgement, notice of application approval, etc.)
- Automated approval certificate generation
- Hard copy print facilities (e.g. for approval certificates)

- Document upload facilities (e.g. test reports, declarations etc.)
- Facility to copy an existing record (i.e. a time saving feature where a completed application can be copied and used as the basis for a second application for a similar product)
- Facilities to allow for the download of various datasets in CSV format (typically for use by the programme manager, e.g. downloadable lists of all applicants and their contact details)
- Automated report generation facility for programme managers (e.g. a monthly product registration activity report)
- Record status management facilities (including automated expiry of records after a set period of time)
- Change tracking functions (traceability of activity on the system)

8. System Resourcing and Funding Requirements

Any product registration system will require both initial funding to set up and ongoing funding to maintain. To be viable in the long term, a product registration system needs to make provision for these costs.

Maintenance costs can include:

- Staff to manage and approve applications (including their in-service training)
- IT support services
- Software and server hire
- Back up facilities hire
- Modification of existing forms to suit changes in requirements over time (e.g. following the introduction of new more stringent MEPS requirements)
- Development of new forms to cover newly regulated product categories
- Enhancements to public web facilities over time as the programme matures
- Compliance and enforcement action costs

Program managers need to consider likely sources of funding to maintain these systems, noting that the appropriate funding model may depend on whether the scheme is a voluntary scheme or a mandatory scheme. In some countries such as New Zealand and Samoa the fund the cost of their product registration systems is simply funded from general revenue by justifying that such programmes serve the public good and as such are worthy of funding from the public purse. In other countries such as Australia, a set fee is charged per registration lodged. Here, industry directly bears the cost of the entire system. In other countries, such as India and South Africa, a charge is effectively levied per product sold. Whilst this type of fee basis is considered to be most equitable (i.e. the more products are sold, the higher the fees which are charged) such systems are liable to under reporting of sales figures as a means for minimizing fees.

Set-up and maintenance costs of product registration systems are typically quite modest, representing only a tiny fraction of the retail value of the products affected. Such costs are further defrayed in circumstances where several member states team together create a single regional database system, here many of the fixed costs can be shared equitably amongst member states.

