SON MANDATORY ENERGY LABELING SCHEME GUIDELINES

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Table of Contents

Foreword

The Standards Organisation of Nigeria Mandatory Energy Efficiency Labeling Scheme (SONMELS) represents a critical strategic intervention in promoting energy conservation, reducing electricity consumption, and empowering consumers to make informed purchasing decisions. This comprehensive policy framework is designed to transform the electrical appliances market by establishing clear, standardized energy performance requirements and providing transparent information about the energy efficiency of regulated products.

The primary objective is to systematically reduce national energy consumption by encouraging the adoption of high-efficiency electrical appliances. By setting minimum energy performance standards (MEPS), the scheme directly targets significant energy-intensive sectors such as residential cooling and refrigeration.

Through a standardized star-rating system, consumers receive clear, comparable information about the energy performance of appliances. This transparency enables individuals to make economically and environmentally conscious choices that can lead to substantial long-term energy and cost savings.

The labeling scheme is expected to promote the gradual phase out of inefficient appliances and incentivize manufacturers to invest in energy-efficient technologies.

The scheme has the potential to drive a decrease in energy demand for lighting, and for refrigeration and air conditioning which accounts for up to 38% of residential energy demand, thereby reducing household electricity cost and the strain on the national grid.

Implementation of the SONMELS aligns with the Nigeria Cooling Action Plan as well as other national and international climate action goals. The cooling appliances targeted by the scheme are major contributors to ozone-depleting substance. The implementation of the SONMELS therefore plays a critical role in fulfilling the obligations of Nigeria under the Paris Agreement, the Montreal Protocol, and its Kigali Amendment on reduction of greenhouse gas emissions, as well as the commitment to improve energy utilization of appliances.

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1 Introduction

This document provides comprehensive guidelines for the implementation of the Standards Organisation of Nigeria Mandatory Energy Labeling Scheme (SONMELS) for refrigerators, freezers, air conditioners, and lighting products. These guidelines have been developed to assist manufacturers, importers, distributors, and retailers in complying with the requirements of the minimum energy performance standards for the regulated products.

The overall objective of the SONMELS is to promote efficient energy usage by encouraging the manufacture and importation of higher energy efficient appliances for distribution in the Nigerian markets. The SONMELS aims to empower consumers with transparent information about regulated electrical appliances' energy efficiency through visible labeling. The informative energy label required to be displayed on regulated products by manufacturers or importers are expected to provide information on the energy consumption and star ratings, enabling informed purchasing decisions to help consumers take advantage of cost saving energy efficient technologies in their choice of appliances.

By promoting the adoption of higher efficiency appliances, SONMELS seeks to reduce household energy consumption, lower electricity costs, and contribute to national energy conservation goals while fulfilling Nigeria's international climate commitments. Implementation of the SONMELS is expected to achieve significant reduction in residential energy demand in the long run, considering that lighting, refrigeration and air conditioning (RAC) appliances accounts for a substantial part of the residential energy demand in Nigeria. Consumers stand to achieve significant long-term savings on their electricity bills by switching to energy efficient appliances.

While the objectives of the SONMELS align with national policies on energy efficiency and conservation policies, the implementation requires careful consideration to ensure minimal disruption to business operations in line with government ease of doing business policy. Several stakeholder engagement activities were held to ensure a collaborative approach at the development phase and a moratorium period is allowed for businesses to adapt to the labeling requirements.

This guide provides the manufacturers, importers and retailers of regulated electrical appliances under the SONMELS with information on the compliance requirements of the respective minimum energy performance standards and the administrative processes for implementation, testing, registration and monitoring.

1.1 Regulated appliances

The phased implementation of the SONMELS is designed to cover the most commonly used and high energy consumption electrical appliances. The first phase of implementation of the SONMELS is applicable to the following product categories:

i) Refrigerators and Freezers
   a) Refrigerators;

b) Freezers;

c) Refrigerator-freezer combinations.

ii) Air Conditioners

a) Room air conditioners (window/wall, floor, ceiling mounted single splits);

b) Split air conditioning systems (single-split);

c) Portable air conditioners.

iii) Lighting Products

a) Compact fluorescent lamps (CFLs);

b) Light-emitting diode (LED) lamps;

c) Fluorescent tube lamps.

Other product categories will be covered in subsequent phases of the SONMELS implementation in line with national priority and upon the approval of the respective minimum energy efficiency standards.

1.2 Implementation timeline

The implementation of SONMELS is phased in recognition of the complexity of transforming an entire market ecosystem. The phased implementation strategy is expected to take gradual approach that encourages stakeholder buy-in, provide room for development and creates sustainable compliance mechanisms that aligns with the ease of doing business policy of the Nigerian Government.

1.2.1 Stakeholders engagement phase

The development and implementation of SONMELS employs a structured collaborative approach with continuous engagement with stakeholders from the industry, government and nongovernmental organizations in the relevant sectors. The first phase of engagement is intended to collaborate with industry stakeholders to align the design and implementation of the scheme with the Nigerian market.

This stakeholder engagement phase provides opportunities for additional consultations beyond the technical committee meetings where the minimum energy performance standards were determined. The stakeholders' engagement activities at this implementation stage are intended to:

i) align the objectives of the scheme with market realities;

ii) address technical capacity needs for implementation;

iii) address sector-specific concerns before and after implementing the scheme;

iv) create communication channels for ongoing collaborations;

v) develop consensus on implementation timelines and compliance methods.

The stakeholders' engagement phase is expected to run all through the planning and implementation phase of the scheme to provide a platform for ongoing dialogue between SON and the various stakeholder groups to facilitate continuous adaptation as the technologies advance and new challenges emerge in the affected industry.

1.2.2 Voluntary compliance phase

The mandatory compliance phase will be preceded by a six-months voluntary compliance phase within which manufacturers and importers are expected to begin voluntary certification of the products covered by the SONMELS. At this stage, the SON testing facilities will be made available to interested manufacturers and importers to submit their products for assessment and the necessary technical assistance will be provided to facilitate compliance. This phase is also intended to allow for multiple cycles of product testing, certification and feedbacks to facilitate identification and resolution of operational issues before commencement of the mandatory implementation phase.

The six-months voluntary compliance phase commences from the date the scheme is launched, or the date the inclusion of a product into the scheme is announced.

1.2.3 Mandatory implementation phase

The full enforcement of the SONMELS requirements for the appliances listed in 1.1 of these guidelines commences at the mandatory implementation phase in December 2026. At this stage, the display of energy efficiency label on the regulated appliances becomes mandatory for market access for both locally manufactured and imported appliances.

The full regulatory instrument of SON under the Standards Organisation of Nigeria Act No. 42, 2015 and established MEPS Regulations will be activated at this stage to prohibit market entry and for removal of nonconforming products at the ports of entry and retail outlets.

From the mandatory implementation date, all regulated products (refrigerators, freezers, air conditioners and lighting products) for presentation on the Nigeria market must:

i) meet the prescribed minimum energy performance requirements for their product category;

ii) have a valid energy label certificate;

iii) carry the appropriate energy label.

2 Mandatory Energy Labeling Scheme

2.1 Legal and regulatory framework

The Mandatory Energy Labeling Scheme is implemented under the legal framework of the Standards Organisation of Nigeria Act No. 42, 2015 and MEPS Regulations.

The minimum energy performance standards of the regulated appliances covered under the SONMELS are in the category of Mandatory Industrial Standards as provided for by section 27 of the Standards Organisation of Nigeria Act No. 42, 2015.

2.2 Minimum energy performance standards

The minimum energy performance standards containing labeling specifications are complementary regulatory tools, designed to address the need to reduce energy consumption for operation of regulated appliances, operating costs and contribute to reduction in and associated greenhouse gas emissions. The standards are used as benchmarks to prescribe the energy efficiency performance of regulated electrical appliances manufactured, imported or sold in Nigeria.

The Mandatory Industrial Standards applicable to the respective regulated products within the scope of the SONMELS are as listed in Table 1 below.

Table 1: Products categories and applicable minimum energy performance standards

S/N	PRODUCT CATEGORY	APPLICABLE STANDARDS
1	Refrigerators and Freezers	NIS 942:2017, Minimum Energy Performance Standards (MEPS) and labels for Refrigerators
2	Air Conditioners	NIS 943:2024, Minimum Energy Performance Standard — Air conditioners NIS ISO 5151 for non-ducted air conditioners ISO 13253 for ducted air conditioners ISO 15042 for multiple split-system air conditioners ISO 18326 for non-ducted portable air conditioners with single exhaust duct ISO 16358-1 for NSEER calculation using the weather Bin of Nigeria as per table 3 of NIS943:2024
3	Lighting Products	i) NIS 1209: 2024, Minimum Energy Performance Standard — Lighting - Part 1: Lamps ii) NIS 1209: 2024, Minimum Energy Performance Standard — Lighting - Part 2: Luminaires

3 Registration and Documentation Process

3.1 Product registration

Manufactures and importers of regulated appliances are required to ensure that the appliances intended for circulation in the Nigerian markets meet the Minimum Energy Performance Standards (MEPS) for the relevant product category, conduct product testing according to applicable standards and prepare required technical documentation before initiating the registration process to avoid delays in the registration process.

3.1.1 Product testing

i) The appliances subject to labeling under the SONMELS must be tested to verify their energy efficiency performance against the applicable minimum energy performance standard indicated in Table 1.

ii) Test samples should be randomly selected and representative of production units. The number of samples required for testing should be as specified in the relevant test standard.

iii) The test must be conducted by ISO 17025 accredited laboratory.

iv) The test report must include all parameters required for energy efficiency determination of the regulated product as contained in the MEPS. Test reports must include:

a) Name and address of the testing laboratory;

b) Unique identification of the test report;

c) Name and address of the client;

d) Description and identification of the product tested;

e) Date of receipt of test item and date(s) of testing;

f) Test method reference;

g) All measured parameters required for energy efficiency determination;

h) Test results with units of measurement;

i) Name, function, and signature of the person(s) authorizing the report;

j) Statement that the results relate only to the items tested.

3.1.2 Application for energy label

Manufacturers and importers of regulated appliances within the scope of the scheme are required to apply for Energy Label through the designated online portal.

i) Account creation

Log into the SONMEL Registration Portal (www.son.gov.ng) to create an account.

ii) Complete application form

Fill out the online application form with company and product details.

iii) Upload documents

Applicants must submit the following documents along with the Completed Application form:

a) Certificate of registration with Corporate Affairs Commission;

b) Test report from designated laboratory;

c) Technical documentation (see Section **3.3** for details);

d) MANCAP Certificate (for locally manufactured appliances only);

e) Product Certificate from International Accredited Firm under the SONCAP (for imported appliances);

f) Letter of authorization (for representatives of foreign manufacturers);

g) Evidence of payment of administrative fees.

iv) Pay registration fee

Make payment of the applicable registration fee (**See** SONMELS Fee Structure for details).

3.1.3 Evaluation and verification

i) SON reviews the submitted application within 48 hours;

ii) Applicant may receive any of the following feedbacks as result of the review of submitted application, as appropriate:

a) Confirmation of the adequacy of information provided in the submitted application and advise on the timeline for conveyance of Registration Certificate and approved Energy Label;

b) Request for additional information;

c) Request for the conduct of additional test(s);

d) Request for factory inspection;

e) Rejection of application.

3.1.4 Registration decision

i) Upon successful evaluation, applicant will receive the approved Energy Label and a Registration Certificate with the following information within seven (7) days of the receipt of review feedback described in Section **3.1.3** of this guideline:

a) Registration number;

b) Name and address of the certificate holder;

c) Product identification (brand, model, etc.)

d) Energy efficiency class;

e) Reference to applicable standards;

f) Validity period;

g) Date of issue;

h) Authorized signature.

ii) The appliance information and energy efficiency class will be displayed on the online portal of the Register of Approved Appliance Labels.

iii) The assigned label is valid for three years, subject to annual surveillance.

3.2 Registration of multiple models

For registration of multiple models with similar technical characteristics:

i) Complete the base model registration as per Section **3.1.1** of this guideline.

ii) Submit additional documentation demonstrating the technical similarity of variant models.

iii) Provide a declaration of equivalence for each variant model.

3.3 Technical documentations

The following product-specific documents must be made available (in English Language) and submitted as part of the registration process:

i) General description of the product;

ii) Brand name and model identification;

iii) Photographs of the product showing all sides, controls and name plate displaying information on the parameters relevant to the energy consumption of the appliances;

iv) User manual and installation instructions;

v) Results of design calculations (where relevant)

vi) Test reports complying with requirements in Section **3.1.1**.

vii) Technical specifications including:

a) rated capacity;

b) energy consumption values;

c) energy efficiency metrics;

d) other performance parameters as required by the applicable MEPS.

4 Energy Efficiency Classification and Energy Label Requirements

4.1 Energy efficiency classification

4.1.1 Air conditioners

The energy efficiency classes of air conditioners are determined based on the Seasonal Energy Efficiency Ratio in Nigeria (NSEER) or Energy Efficiency Ratio (EER) as follows:

Table 2: Energy efficiency classes for air conditioners

Energy Classes	Energy efficiency Range
1 Star	3.10 ≤ NSEER < 3.60
2 Star	3.60 ≤ NSEER < 4.20
3 Star	4.20 ≤ NSEER < 4.95
4 Star	4.95 ≤ NSEER < 5.80
5 Star	5.80 ≤ NSEER

See NIS 943:2024 for the details of the cooling performance requirements for all air conditioners within the scope of this scheme.

4.1.2 Refrigerators

The energy efficiency class for refrigerator appliances are to be determined in accordance with the requirements outlined in Table 3 as specified in the MEPS.

Table 3: Definition of Energy Efficiency Star Rating

Energy Efficiency Star Rating	Energy Efficiency Index (EEI)
1-Star	55 ≤ EEI < 75
2-Star	42 ≤ EEI < 55
3-Star	33 ≤ EEI < 42
4-Star	22 ≤ EEI < 33
5-Star (most efficient)	EEI < 22

See NIS 942:2017 for detailed requirements for energy efficiency class for refrigerator appliances.

4.1.3 Lighting (Lamps and Luminaires)

The efficacy for the lamp (both general service lamps and tubular lamps) should be calculated and used to determine energy class as specified in Table 4 in line with the MEPS.

Table 4: Energy label classes for lamps

EE Class	General Service Lamps and Tubular Lamps	Efficiency Level
1 Star	< 105	Lowest Efficiency
2 Star	105 ≤ e < 130	
3 Star	130 ≤ e < 155	
4 Star	155 ≤ e < 180	
5 Star	180 ≤ e	Highest Efficiency

See NIS 1209-1 & 2:2024 for detailed requirements for energy efficiency class for general service and tubular lamps and luminaries.

4.2 Energy label requirements

4.2.1 Label design

The design of the energy label is described in the MEPS for each product. An example of the energy label design for air conditioner is described in Figure 1 below.

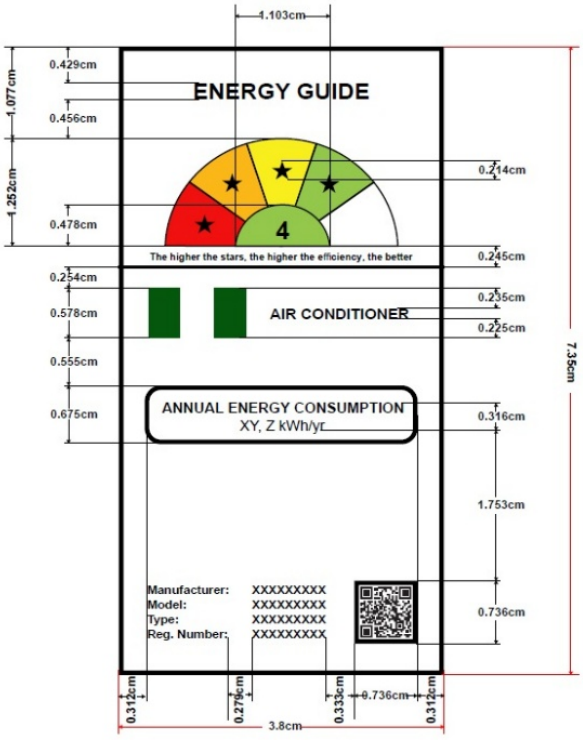


Figure 1-1: Illustration of energy label with dimensions

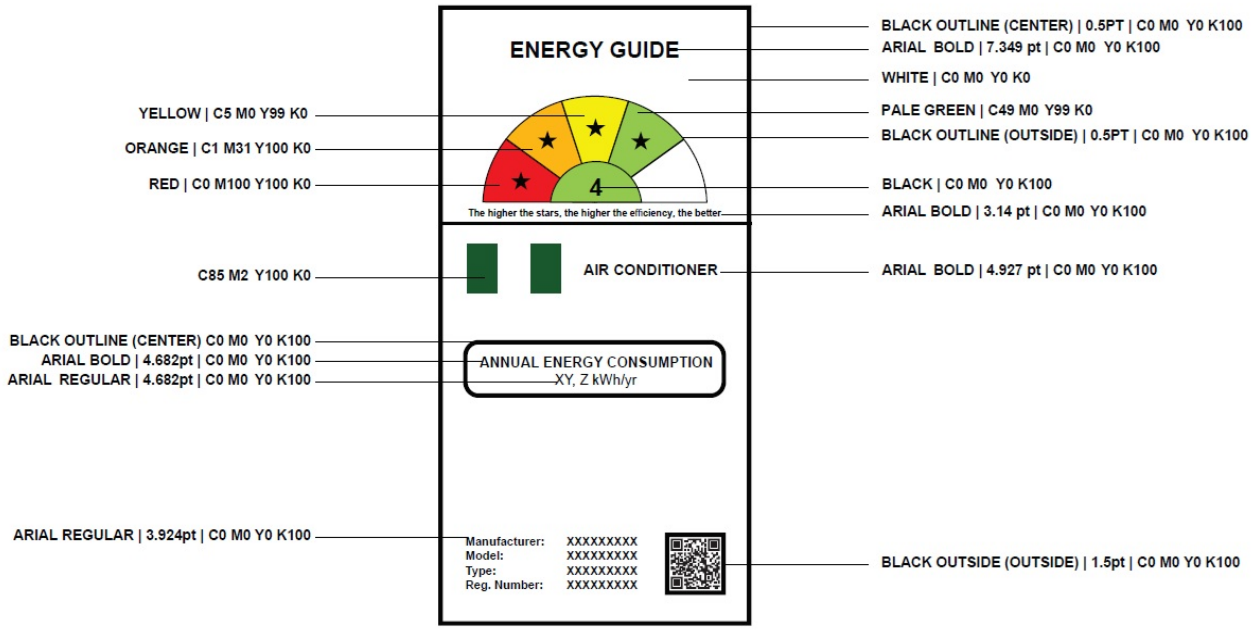


Figure 1-2: Illustration of energy label with font type, size and colour

Information required on energy label

i) i)Manufacturer name or trademark

ii) Supplier's model identifier

iii) Type of appliance

iv) Energy efficiency class (1-5 stars)

v) QR code linked to model information on SON database

vi) Nigeria flag

vii) Product category

viii) Annual electricity consumption

ix) Other product-specific information as required

The energy label should be printed legibly in English language on the package of all registered appliances within the scope of SONMELS.

The energy label should be printed on the most prominent part of the product packaging to be easily visible to the end-user at the point of purchase and indoor units of all registered appliances.

4.2.2 Label dimension

The energy label size should be as specified in the relevant standard for the respective appliances.

4.2.3 Label placement

i) The energy label must be placed before the product is put on the market.

ii) The energy label must be prominently displayed on the front of the product.

iii) For packaged products, the label must be visible on the principal package.

iv) The label must be permanent and legible throughout the product's shelf life.

4.2.4 Digital labels for online sales and advertisement materials

Electronic version of applicable energy label should be displayed alongside appliances covered within the scope of SONMEL displayed for online sales.

The energy label of appliances covered within the scope of SONMEL should be displayed on all advertisement materials.

5 Post-Registration Obligations

5.1 Manufacturer/importer obligations

The manufacturer/importer of regulated appliances under the SONMELS should:

i) ensure that such appliances meet the requirements of the respective minimum energy performance standards stated in 2.2 of this guideline;

ii) ensure that such appliances bear the correct energy label before they are placed on the market;

iii) retain technical documentation, including test report of each product batch for at least 3 years;

iv) submit to periodic surveillance inspections and reviews by SON;

v) notify SON in writing prior to an update of the software or firmware or any other changes made to previously registered appliances before they are placed on the market;

vi) retain records of production, importation and distribution of each product batch for at least 5 years.

5.2 Dealer obligations

Dealers (retailers) of regulated appliances should:

i) verify to ensure that the products they offer for sale carry valid Energy Label;

ii) display the appropriate Energy Label in the advertising and promotional materials for the products they offer for sale;

iii) ensure that the Energy Label on the products they offer for sale is prominently displayed at the point of sale;

iv) retain records of product suppliers and recipients of appliance they offer to consumers;

v) avoid display of any other labels that may mislead buyers on the energy efficiency rating of the products they offer for sale.

6 Market Surveillance and Compliance Monitoring

6.1 Surveillance activities

Regulated appliances registered under the SONMELS will be subjected to periodic surveillance activities both at the markets, point of entry for imported products and factories for locally manufactured products.

The products sampled during periodic surveillance activities shall be subjected to verification test to determine consistency in the products specification and the use of approved Energy Label. The result of the tested unit shall be compared with the declared values and the results obtained at the point of registration using the verification tolerances specified in the relevant standard.

6.2 Compliance action

Regulated appliance under the SONMELS found to be noncompliant with the established minimum energy performance standard(s) shall be treated in line with the provisions of applicable regulation(s) and the Standards Organisation of Nigeria Act No. 42, 2015.

7 Certificate Renewal and Modifications

7.1 Certificate Renewal

Application for renewal of certificate must be submitted at least three (3) months before certificate expiration.

The applicant for certificate renewal is required to follow the steps outlined in Section 3 of this guideline, while selecting the option for “Certificate Renewal” at the point of application described in Section **3.1.2 ii)**.

7.2 Modifications to registered products

For modifications that may affect energy performance of regulated appliances registered under the SONMELS, the manufacturer or their representative should notify SON in writing and submit modified technical documentation before the product is placed on the market.

Additional test may be required depending on the nature of modifications and a new certificate may be issued with the same expiration date as the original.

8 Appeals Process

8.1 Grounds for appeal

Applicants may appeal decisions regarding:

i) rejection of registration application;

ii) non-compliance findings in verification testing;

iii) suspension or withdrawal of certificate;

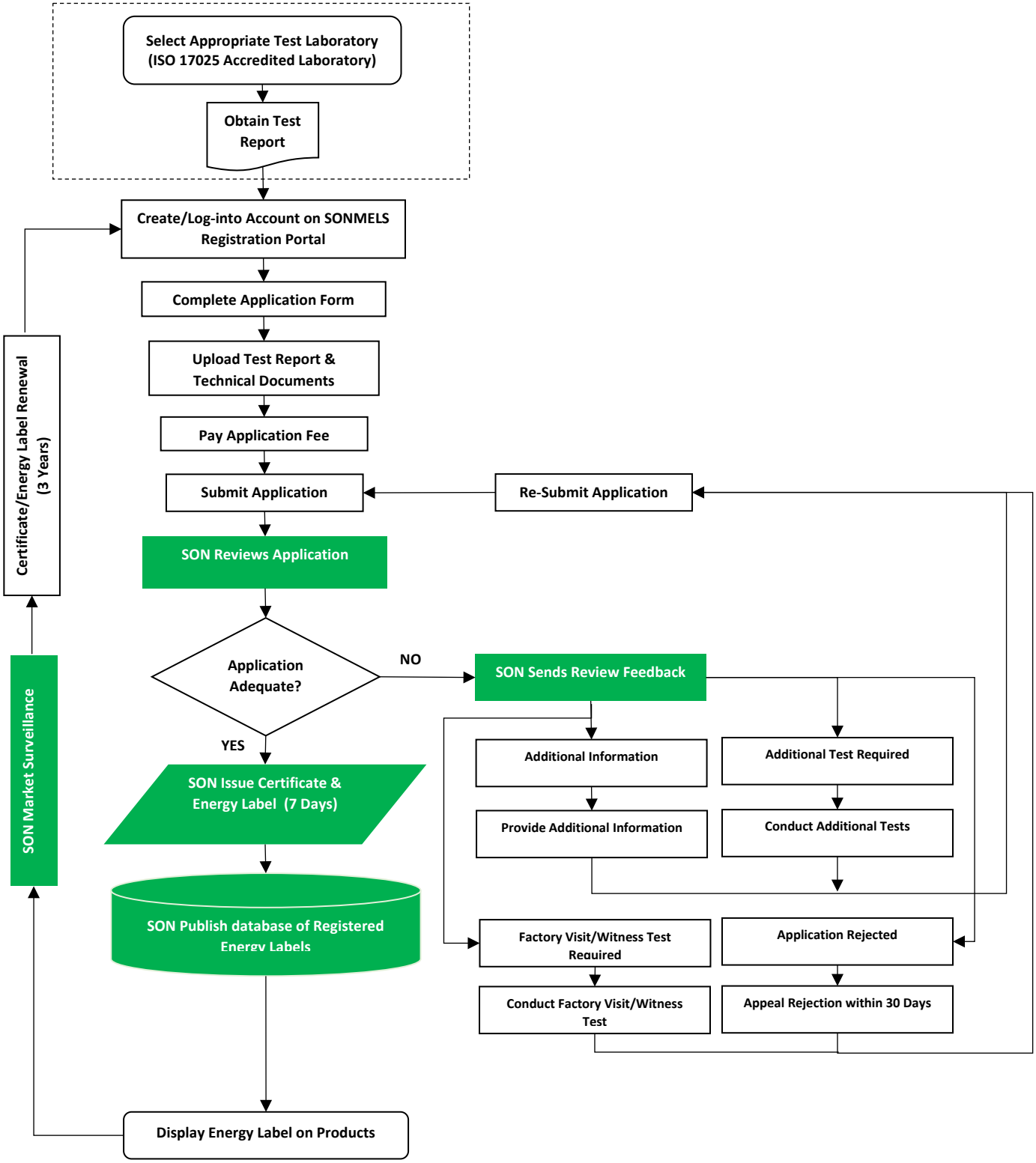
iv) other compliance actions.

8.2 Appeals procedure

To appeal any of the decisions described in Section 8.1, appellant is required to submit written appeal to the Director General/Chief Executive of SON within thirty (30) days of decision, include all relevant documentation supporting the appeal.

Appeals will be reviewed by SON Management and decision will be communicated within sixty (60) days.

ANNEX A
Process Flow Chart for Processing Energy Label – Nigerian Manufactured/Assembled Appliances



ANNEX B
Process Flow Chart for Processing Energy Label – Imported Products