The Draft Energy (Electricity Supply and Installation Work) Regulations, 2024

(Pursuant to Sections 148, 167 and 208 of the Energy Act, 2019)

REGULATORY IMPACT STATEMENT

(Prepared pursuant to and in accordance with Part III of the Statutory Instruments Act)

Issued by the Energy and Petroleum Regulatory Authority

September 2024

THE ENERGY (ELECTRICITY SUPPLY AND INSTALLATION WORKS) REGULATIONS, 2024

The Energy (Electricity Supply and Installation Works) Regulations, 2024, "**the Draft Regulations**" have been developed pursuant to the provisions of Sections 148 to 152 and 208 of the Energy Act, 2019, "**the Energy Act**" and constitute subsidiary legislation thereto. The Draft Regulations seek to update the Electric Power (Electrical Installation Work) Rules of 2006 **"the Rules**" established under the Electric Power Act of 1997 (*now repealed*). The Draft Regulations have been prepared and recommended to the Cabinet Secretary by the Energy and Petroleum Regulatory Authority, "**the Authority"** in accordance with the provisions of Section 208 the Act. In summary, the proposed regulations seek to;

a. update the Rules of 2006;
b. give effect to the provisions of section 148 -152 of the Act; and
c. operationalize new provisions introduced by the Energy Act of 2019 such as licensing of power line installers and periodic inspection of electrical installations

1. INTRODUCTION

Access to electricity is a key driver to the social and economic output of Kenya. The persons undertaking electrical installations in Kenya range from those who have learnt the skill through apprenticeship and those with formal training. The Rules provide for *inter alia* mandate the licensing of electrical workers and electrical contractors involved in power supply and installations in Kenya. Additionally, they also provide for: standards and specifications, inspection and testing, certification, penalties and enforcement, consumer protection, record keeping and reporting, and continuous professional development.

To ensure safety of the customers, their assets, as well as quality of the installations, electrical installers must be licensed based on certain parameters. Licensing also seeks to promote professionalism by prioritizing practical skills relevant to the specific scope of work, while also considering the academic qualifications of the applicants. Stakeholders have unanimously expressed the need for robust regulation of electricity supply and installation works to enhance safety and ensure fair competition among distribution and retail supply licensees. Finally, a robust licensing

framework will boost the Authority's efforts to eliminate unqualified personnel, who currently make up more than 10% of the installers in Kenya.

Following technological advancements in equipment, the improvements in the training methods and skill-upgrade strategies of electrical installers, and challenges such as dwindling ethics and unqualified persons undertaking electrical installations, an update of the current licensing framework is necessary.

Further to this, the rules of 2006 need to be aligned to the elements of the Energy Act 2019; specifically, sections 148 to 152. The Act introduced new provisions including the need for;

a. Periodic inspections and testing of electrical installations
b. Equitable and justifiable capital contributions for electricity supply connections
c. Establishing electrical meter reading cycle, security, and ease of access
d. Standardization of electrical materials

2. A STATEMENT OF THE OBJECTIVES AND REASONS FOR THE PROPOSED REGULATIONS

The overall objective of the Draft Regulations is to promote safety, reliability, and compliance of electrical installations and operations within the country. To achieve this, the regulations seek:

i. To ensure that all electrical installation, construction, operation, maintenance, and inspection works are carried out by licensed and certified electrical contractors and workers.
ii. To maintain the safety of electrical installations through periodic inspections and adherence to established codes, standards, and guidelines.
iii. To ensure transparency in the application, certification, and licensing processes, including timely communication of outcomes and clear requirements for applications and renewals.
iv. To regulate the duties and responsibilities of connection service providers, ensuring they maintain records, provide reasonable connection charges, and establish customer service charters approved by the Authority
v. To protect consumers by requiring that electrical installations are tested, inspected, and certified, and that any defects are promptly remedied. Periodic inspections and testing of

electrical installations are mandated to ensure ongoing safety and compliance, with proper documentation and display of inspection certificates.

vi. To hold licensed electrical contractors accountable for their work, requiring them to rectify any defects and bear the cost of re-inspections if necessary.

vii. To set standards for the connection of electrical installations to the supply system, ensuring that all connections meet regulatory requirements before and during the supply of electricity.

viii. To provide mechanisms for the Authority to enforce legislation, including the ability to suspend or revoke licenses for non-compliance and issue compliance orders.

The following reasons necessitate the proposed regulations and subsequent proposed repeal of the Electrical Installation Rules of 2006.

a. The need to update the Rules of 2006 to align with the Energy Act of 2019;
b. To give effect to the provisions of section 148 -152 of the Energy Act of 2019;
c. To operationalize new provisions introduced by the Energy Act of 2019 such as licensing of power line installers and periodic inspection of electrical installations and
d. The requirement for a regulatory making body to review regulatory instruments after every ten years as stipulated in the Statutory Instruments Act.

3. STATEMENT ON THE EFFECT OF THE PROPOSED REGULATIONS

Enactment of the Draft Regulations will have various effects in the regulatory landscape as well as in practical operation. First, the Draft Regulations, once enacted, shall have the automatic effect of repealing the Rules. Second, the Draft Regulations shall operationalize Sections 148 to 152 of the Energy Act.

From an operational perspective, the Draft Regulations bring onto the fore new practices which were previously not captured in the Rules. These practices, which shall now be legal requirements, shall have far-reaching consequences that touch on economic aspects, safety and consumer protection, all for the ultimate benefit of the consumer.

Some of the key operational effects of the Draft Regulations include:

i. Periodic testing and inspection of electrical installations.

Section 151(2)(b) of the Energy Act requires that the owner of a premises ensures that the electrical installations on their premises are periodically tested, inspected and defects remedied in accordance with the Draft Regulations. The Draft Regulations operationalize this requirement by setting the testing intervals and making provision for inspection and test certificates which must be displayed at the electricity supply point or meter box for the building or premises**.**

To the owners of the buildings, this requirement is foreseen to pose additional responsibility burden to them as well as having cost implications. Nonetheless, the essence for safety calls for collective responsibility. There is also the perceived benefit of increasing routine engagements with the licensed installers thus creating more opportunities for them. The Draft Regulations also permit Connection Service Providers to issue defective installation notices to owners of premises that are overdue for inspection and testing and to also discontinue supply until such owner complies with the Draft Regulations.

ii. Charges for Connection and Capital Contribution.

The Draft Regulations now consider the capital contributions that certain consumers pay to Connection Service Providers to extend supply into an area. These costs may in some instances be hefty and the Draft Regulations make provision for connection charges to be based on a methodology approved by the Authority thus a necessary control measure to the benefit of the common *mwananchi*. The Connection Service Providers are also required to come up with designs that attempt to foresee the future consumers and enter into a reimbursement agreement with the initial contributor. The future consumers shall then pay a share of the capital contribution which shall be reimbursed to the initial contributor. This is an equitable way of balancing the supply costs between the consumers who facilitate line extension costs and those who subsequently benefit from such extension. This is good thing to the consumers as far as connection charges are concerned.

Nonetheless, this has a potential effect of limiting the revenue sources from the utility service provider considering the projected reductions in their income from the capital contributions.

iii. Standardization

The Draft Regulations require the material to be used in electrical installations to conform to the Kenya Standards. These are the standards as approved by the KEBS Board in

accordance with the Standards Act and institutionalized by the Kenya Bureau of Standards. This is geared towards ensuring quality, consumer protection, and safety.

iv. Metering

The Draft Regulations, building from the Energy Act, create a responsibility on Consumers to ensure security of meters. On billing, the Draft Regulations give the Connection Service Providers the discretion to establish a meter reading cycle for purposes of ascertaining the charges. As has being witnessed in more developed jurisdictions, the Draft Regulations now permit the consumer to take meter readings and submit to the Connection Service Provider for purposes of billing, if the Connection Service Provider is agreeable.

v. Licensing of Electrical Installers and Contractors

The draft regulations have proposed additional classes of licenses including new categories for power lines, hazardous environments, and EV chargers. This has the foreseen effect of adding regulatory burden to the Authority. Licensees who need to operate in more categories will have to be licensed for each category. This has the effect of increasing the cost of licensing from both the licensees' and the regulator's perspective. It's however proposed that the Authority considers devolving the licensing function to make it easier for licensees to access the services from the county level. Additionally, businesses having operations in more than one branch will be expected to have more than one license signaling additional regulatory expectation and subsequent cost.

4. SALIENT REGULATORY IMPACT ASSESSMENT (RIA) STUDY FINDINGS

In May 2024, the Authority contracted Texas Solutech Co. Limited to carry out a Regulatory Impact Assessment "**the RIA**" Study for Draft Regulations to identify the potential financial, environmental, and social impacts of the Draft Regulations on Kenya's energy sector and economy in general considering stakeholder input. The stakeholder engagement included administration of questionnaires, one on one interviews and a validation workshop.

The salient findings of the RIA Study include:

i. Uganda, Tanzania, the United Kingdom, Singapore, New Zealand, and the Philippines have established regulations for electricity supply and electrical installation works. In all these jurisdictions, distribution licensees own the supply lines. New consumers must apply

for connection and pay a charge covering the cost of assets used exclusively for their connection. Regulators in these regions define methodologies for determining connection costs to protect consumers. It is the distribution licensee's duty to extend the electricity supply network to connect customers within their service area. Customers who contribute to infrastructure costs are fully refunded. For example, in Tanzania, customers pay 40% of their electricity bills until their contribution costs are recouped.

ii. In Uganda, Tanzania, and Singapore, academic qualifications must be backed by relevant field experience. Licensing can also be based on field experience alone, often supplemented by Licensing of electricians depends on their education, training, and experience, with an emphasis on competence training and practical experience. Most jurisdictions require licensees to pass an examination before being licensed.

iii. Electrical installation works are guided by applicable standards for materials and installation work itself. For ease of use, most jurisdictions -UK, Uganda, New Zealand and Singapore- have developed on-site guides or codes of practice to support electrical work installers in carrying out the actual installation work.

iv. In Kenya, the electrical installation sector has installers with a wide range of academic qualifications, including none-degree holders. The licensing process should prioritize practical skills for various types of work while considering applicants' educational backgrounds. Additionally, there is a need for ongoing public education on electrical safety and the importance of using qualified personnel. The Authority is urged to improve enforcement to eliminate unqualified installers, who currently make up over 10% of the workforce.

v. Figure 1 shows that in Kenya, the majority of electrical installers have Degrees and Diplomas. Other installers have craft certificates and vocational training (artisan certificate) as highlighted in Figure 1 below.

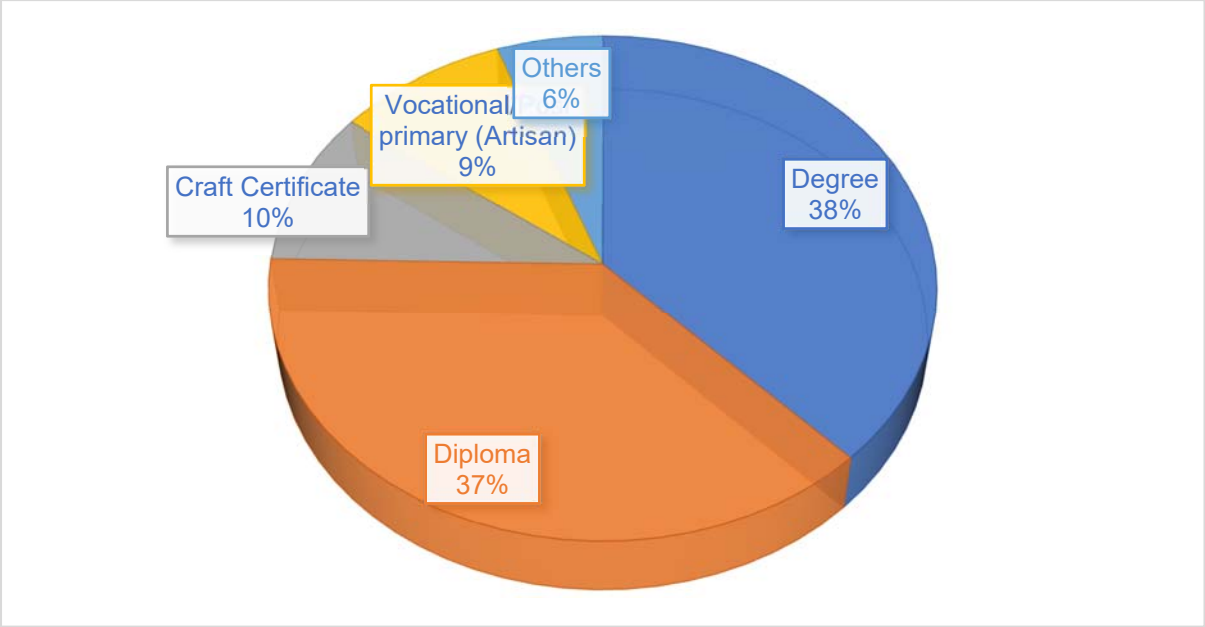

Figure 1: Academic Qualifications of Electrical Workers

vi. The Survey leading to the RIA revealed that the same installers are currently handling various categories of work leading to the need to relook into the license categories. This is also a way of encouraging a culture of specialization that in the long run, will enhance the quality of the work. Figure 2 shows the distribution of installers against the classes of work. The figure shows that 70.3%, 60.3%, and 56.5% of electrical work installers, have been involved in single-phase, three-phase consumer installation, and power line construction respectively. The outcome of the survey summarized at Figure 2 was one of the factors considered in the reworking on license classes in the Draft Regulations.

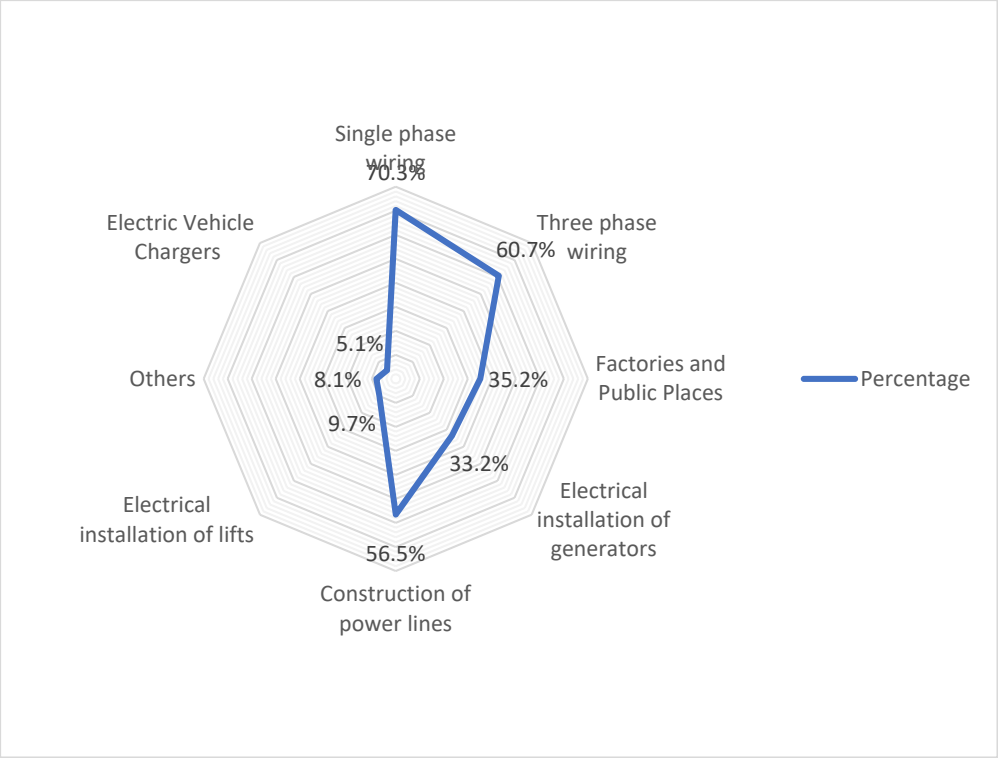

Figure 2: Nature of Electrical Installations by Electrical Workers

vii. Stakeholders use various standards for electrical installation. Common standards include IEC and British standards such as IEC 60364 (Electrical Installations for Buildings) and BS 7671 (IET Wiring Regulations). There is an opportunity to develop or adopt additional standards in Kenya, supported by industry guides and codes of practice.

5. REGULATORY ALTERNATIVES

The Statutory Instruments Act of 2013 requires that the regulatory alternatives be discussed in the process of enacting statutory instruments. Stakeholders were consulted to determine whether viable alternatives existed to the Draft Regulations. The feedback is summarised in Figure 3.

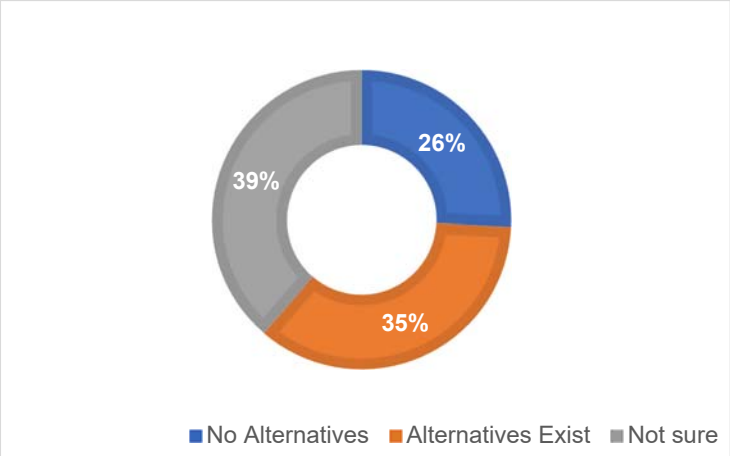

Figure3: Feedback on Alternatives to Draft Regulations

From the feedback, 65% of the stakeholders either thought there are no alternatives to the Draft Regulations or were not sure. The alternatives submitted include the following and also highlighted, are the reasons why they are not suitable alternatives:

i. Use existing bodies such as the Engineers Board of Kenya(EBK), Institution of Engineers of Kenya(IEK), National Construction Authority(NCA) and the Kenya Engineering Technology Registration Board (KETRB) to undertake the licensing. This model is not workable since these bodies are not authorized by the Act to undertake the licensing and overally, regulatory mandate.These bodies are established uder the Engineers Act, the Engineering Technology Act and the National Construction Authority Act respectively. The mandates of these institutions whilst they interface directly or indirectly with electrical installations by among other things, registering the profesionals, they have specified responsibilities under their parent legislation. The mandate to license players in the energy sector is vested in the Authority under the Energy Act which makes provision for the Draft Regulations to be made. Accordingly, giving the licensing mandate to these bodies will be inconsistent with the legislative provisions.

ii. Maintain the existing regulatory framework and classes. This is not a viable alternative as the Rules are not reflective of the current regulatory and commercial realities. Maintaining *status quo* as is in the Rules would mean that Sections 148 to 152 of the Energy Act, 2019 will not be fully operatioanlized. Maintaining the current status would also mean we lose

out on the key enhancements in the Draft Regulations such as equitable distribution of costs, enhanced consumer protection, safety and quality controls

iii. Development of standards and guidelines, investing in public education and awareness initiatives as an alternative to strict regulatory measures. This option is not a viable as it does not provide enforcement options. Guidelines, standards and policy frameworks inform legislative instruments. The distinction between guidelines and legislative instruments is that the former do not have strict sanctions as the latter. This makes them more of best practices and recommendations rather than enforceable actions. Having these positions codified in legislation first operationalizes the provisions of the Energy Act and makes the guidelines enforceable with sanctions by the Authority.

6. COSTS AND BENEFITS OF THE REGULATIONS

6.1 Economic Impacts

Enactment of the Draft Regulations will have various economic benefits that include:

i. Creating employment opportunities, and subsequently, improving livelihoods.
ii. Fostering a conducive environment for business operations and infrastructure development.
iii. Supporting economic growth by enhancing the overall efficiency of electricity transmission and distribution networks, thereby attracting more investment and promoting sustainable economic development.

6.2 Social Impacts

The Draft Regulations have various social benefits that include:

i. Promoting the safety of people and property as well as fostering consumer protection laws.
ii. Mitigating risks associated with substandard electrical systems, ensuring safer living and working environments for all citizens
iii. Promoting universal access to electricity, benefiting households, businesses, and communities across the country.

iv. Promoting the availability of electrical contractors and workers across the country and by extension, increase connectivity to energy.

6.3. Environmental Impacts

The Draft Regulations define good electricity industry practice to include protection of the environment. The Draft Regulations also require that in providing electricity to consumers, the connection service provider shall prioritize safety of people and property, protection of the environment as well as sustainability, efficiency and reliability of the supply. Finally, there is a compliance obligation on licensees to comply with among other laws, environmental laws. The Draft Regulations enhance environmental protection and creates a responsibility on all persons under the ambit of the regulations to foster sustainability and environmental conservation.

6.4. Impacts on Human Rights

The Draft Regulations touch on various rights in the Bill of Rights as enshrined in the Constitution of Kenya, 2010. Through these Draft Regulations other rights such as the socioeconomic rights provided for at Article 43 as well as the consumer protection rights provided for at Article 46 are promoted.

6.5. Costs of Implementation of the Regulations

If the Draft Regulations are enacted, there will be certain cost implications for the consumers in addition to the socioeconomic benefits assessed at 6.1 and 6.2 above. First, the connection charge methodology will ensure that initial contributors to an extension are reimbursed for the costs they incurred in the extension. Second, the consumers will incur extra costs for periodic inspection and testing. However, these costs are not comparable to the safety benefits associated with the implementation of the Draft Regulations.

The Draft Regulations propose a minimal fee to meet administrative costs associated with the administration of the licensing interviews for individual applicants and licensing inspections for companies. The funds will facilitate closer scrutiny of the applicants to ensure that only qualified persons are registered.

Extra costs shall be borne through funds available to the Authority from other sources provided for in Section 20 of the Act. The enactment of the Draft Regulations will not result in any additional

resource allocation from the government with proposed fees designed not to limit any practitioner from accessing the services.

7. CONCLUSION AND RECOMMENDATIONS

According to the survey conducted, stakeholders support the objectives of the Draft Regulations. The objectives are in alignment with the constitution and existing laws. We have identified and documented the risks associated with implementing the Draft Regulations, as well as best practices from other jurisdictions. Once enacted, the framework is expected to improve the safe use of electricity and enhance accountability throughout the electricity value chain.

8. IMPLEMENTATION AND REVIEW

The Authority will subject the (Electricity Supply and Installation Works) Regulations, 2024 to a nationwide public participation exercise and the comments of the public and stakeholders incorporated into the Draft Regulations. The Draft Regulations will then be recommended to the Cabinet Secretary for Energy and Petroleum for gazettement.

Once gazetted, the Regulations shall become law and shall be implemented by the Authority which shall oversee the licensing, compliance and enforcement structures provided for in the Regulations.

Review shall be done as per the provisions of the **Statutory Instruments Act No. 23 of 2013** and in consultation with all stakeholders**.**