Sustainable use of Solar as Alternative Energy in the Tanning Industry- Policy Direction

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Introduction

1. Reliable and affordable electricity supply plays a central role in development and realisation of the country's socio-economic goals. Socio-economic growth is being impeded by **electricity supply interruptions, particularly in the peak period and the high tariffs.**

2. There has been no clear policy on Captive Power in the country. However, **the Energy (Electricity licensing) Regulations 2012 and mini grid regulations** have been used as a guide to regulate development of Captive Power.

3. There have been instances where investors install captive power from non-renewable fuels such as coal at a time when Kenya has committed to reduce the emission levels in line with agreed protocols such as the Nationally Determined Contributions (NDC), pursuant to Paris Agreement.

Policy guidelines for Sustainable Use of Captive Power

- **Section 117 of the Energy Act 2019** provides for **the licensing of generation, exportation, importation, transmission, distribution and retail supply of electricity.**

- A person or company shall not require any authorization to generate electrical energy for own use of a capacity **not exceeding 1 MW**.

- If a Company purchases Power or leases captive power from another company that will need to the company to apply for licencing irrespective of the number of megawatts

Advantages of Captive Power

The advantages of Captive Power from renewable energy sources and efficiency optimisation include:

✓Environmental integrity including reduction of greenhouse gas emissions (where feasible, project developers are encouraged to pursue carbon credit benefits);

✓Enhancing energy supply security, reducing the country's dependence on imported fuels, and coping with the global scarcity of fossil fuels and its attendant price volatility;

✓Enhancing economic competitiveness, job creation, and other local economic benefits.

Sustainable Use of Energy

- It is estimated that the energy cost of a tannery is approximately 3% of the total cost

- **Replacement of fossil energy sources** with much more sustainable energy **(solar).**

- Energy savings through **the relocation, modernization, and implementation of more sustainable energy technologies** affecting tanneries.

- The **treatment of solid waste and sewage sludge** to produce **biogas**.

- Many tanners have realized that the survival of their tanneries depends on being **as energy efficient as possible.**

Integration of RE

- The **integration of renewable energy sources** is one of the aspects considered in the promotion of sustainable tanning process.
- **Solar systems** represent the most widespread technologies in terms of renewable exploitation, and **prices have decreased** a lot in recent decades, becoming economically attractive.

Challenges of Renewable Energy Sources

- Intermittence nature
- Initial capital cost is high
- It may not be suitable for high energy demand industries.
- It requires large space for solar panels installation