



# Nepal's Best Practices and Initiatives Towards Efficient Lighting

**Er. Jeebachh Mandal**

*Ministry of Energy*



# Major Organizations

## ■ Ministry of Energy

- Department of Electricity Development -regulatory body
- Nepal Electricity Authority- public utility
- Water and Energy Commission Secretariat- advisory body
- Butwal Power Company- public Company

## ■ Ministry of Industry

- Nepal Bureau of Standards and Metrology

## ■ Federation of Nepal Chamber of Commerce and Industry

- Energy Efficiency Centre

# Commonly used Electric Light Sources

---

- Incandescent lamps
- Fluorescent lamps
- CFL lamps
- LED lamps
- Sodium vapour lamps
- Mercury vapour lamps
- Halogen lamps
- Metal halide lamps
- Gas lamps

# Standard and National Code

- **National Building Code, NBC 207:2003: Electrical Design Requirements for Public Buildings**
  - It stipulates preferential use of fluorescent luminaries with supplemental use of incandescent lamps to meet higher level of illumination requirements
  - Use of efficient lighting is recommended

# Government Initiatives

- **National Electricity Crisis Resolution Action Plan, 2008**
  - Provision to promote energy efficient lighting
  - Target to provide CFL to each consumer
    - “Buy one get one free”- a very popular and successful scheme
    - CFL fund was established
    - Contribution of NRs 50 millions by the Government
  - Exemption of VAT and Custom duty on efficient lighting sources: CFL, LED, slim tube light and electronic ballast
  - To discourage the use of less efficient “Incandescent lamps”

# Government Initiatives

- **National Electricity Crisis Resolution Action Plan, 2008**
  - To launch “Public Awareness Campaign” for efficient light sources such as CFL and LED lamps through radio, TV, newspapers and pamphlets at public places
  - Recommends to use of photoelectric sensors to get advantage of daylight
  - Recommends to use of dimmers to adjust light levels
  - Recommends to use of multistage light switching

# Recent Activities

- National Energy Strategy is already prepared but awaiting for Cabinet's approval . After its approval, Energy Efficiency policy will be drafted
- ADB RETA 8276 (REG): Preparation of Energy Efficiency Policies and Guidelines for Bhutan and Nepal
- Nepal Energy Efficiency Program (NEEP) funded by GIZ is ongoing
- GIZ funded “Energy Efficiency Centre” is operating at present under Federation of Nepal Chamber of Commerce and Industry (FNCCI)

# Future Activity

- Once the National Energy Strategy is approved, the key areas to be included in the Energy Efficiency policy would be Energy Efficiency Building Codes and Appliance Efficiency Standards
- Nepal Energy Efficiency Program (NEEP) funded by GIZ is mainly aiming to focus on the promotion of Electric Energy Efficiency and sustainable use of Biomass in households and industries



# Some Challenges towards Efficient Lighting

- Though the trend of using LED lamps are increasing in off-grid (mainly solar home PV) systems, it is not getting an equal popularity in on-grid users
- Inadequate public awareness towards efficient lighting and Demand Side Management

# Some Challenges towards Efficient Lighting

- Importers of long fluorescent lamps and Incandescent lamps are still getting good markets despite there is Custom duty and VAT exemption in importing CFL and LED lamps,
  - So, the main reason in Nepal is “non-affordable price of LED lamps by general public”
  - Lack of self manufacturing plants of CFL and LED lamps
  - General public’s low faith on the efficacy, efficiency and life span of the costly CFL and LED lamps
  - Lack of labelling mechanism while importing CFL and LED lamps

# Thank you for your patient listening

---



## **Jeebachh Mandal**

Chief, Rural and Alternative Energy Section  
Senior Divisional Engineer  
Ministry of Energy, Singh Durbar, Kathmandu  
E-mail: [jeebachh@gmail.com](mailto:jeebachh@gmail.com)