

# **Energy Efficiency Programs in Nepal**

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# Presentation Outline

- **Need for Energy Efficiency**
- **Ongoing Energy Efficiency Programs**
- **Energy Access and Efficiency Improvement Project**
- **Transmission and Distribution Reinforcement Programs**
- **Power Factor Improvement Program**
- **Loss Reduction Program**
- **Energy Efficiency in Lighting**
- **Renewable Street Lighting**
- **Conclusion**

# Why Energy Efficiency?

- **Depleting Fossil Fuel Reserves (Coal, Oil and Gas)**
- **Increasing Cost of Hydropower Development**
- **Growing Public Sentiments against Nuclear Power**
- **High Cost of Renewable Energy**
- **Rising Concern for Environmental Protection**
- **Need for Reducing Global Warming / Climate Change**

# Ongoing Energy Efficiency Programs in Nepal

- **Transmission and Distribution System Reinforcement Programs**
- **Loss Reduction Programs**
- **Installation of HV and LV Capacitors To Improve Power Factor**
- **Use of Electronic Energy Meters**
- **Energy Access and Efficiency Improvement Project**

# Energy Access and Efficiency Improvement Project

- **ADB Financed Project**
  - **ADF Loan: USD 65 million**
  - **Clean Energy Fund: USD 4.2 million**
  - **Climate Change Fund: USD 0.3 million**
- **Scope of Project**
  - **Rehabilitation of Generation Plants**
  - **Expansion and Strengthening of Power Transmission System**
  - **Distribution System Reinforcement**

# **Energy Access and Efficiency Improvement Project**

- **Transmission and Distribution System Reinforcement Programs**
  - **Construction of 132 kV Double Circuit Transmission Lines**
  - **Construction of Transmission Substations**
  - **Construction of Distribution Substations**

# Energy Access and Efficiency Improvement Project

- **Power Factor Improvement Program**
  - **Installation of Capacitor Banks at 10 Grid Substations**
- **Supply Side Energy Efficiency Programs**
  - **In Kathmandu Valley**
  - **Simara – Birgunj Industrial Corridor**
- **Energy Efficiency in Lighting**
  - **Distribution of 1 million CFL Lamps**
  - **Waste Management**

# Energy Access and Efficiency Improvement Project

- **Renewable Street Lighting Program**
  - **Installation of 1000 Nos. Solar Street Lights (50 Nos. Solar / Wind Hybrid)**
  - **Covering Municipal Areas of Kathmandu Valley**
  - **Primary Locations: Temples / Monasteries/ Monumental Zones / Market Places**
  - **Steering Committee: Representatives from NEA / Local Development Ministry / Municipalities / Alternative Energy Promotion Center (AEPC)**
  - **Use Of LED Lamps**

# Conclusion

- **Energy Saved is As Good As Energy Generated**
- **Energy Efficiency Measures are Cost Effective**
- **Need for Promotion of Energy Efficient Lamps and Appliances**
- **Need for Public Awareness Programs**
- **Energy Efficiency Measures Benefit Consumers, Society, Utility, Nation and World as Well**

**Thank You**