



NATIONAL STANDARDS, REGULATIONS AND LABELLING REQUIREMENTS FOR LIGHTING PRODUCTS IN BANGLADESH

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**BANGLADESH STANDARDS AND TESTING INSTITUTION
(BSTI)**



Functions of National Standards Body

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- BSTI is the National Standards Body (NSB) of Bangladesh entrusted to standards development of various products and services; ensure compliance of these by testing in its own laboratories; implementations of metric system of weights and measures by metrology and calibration.
- BSTI issues quality assurance product certificates as well as management system certificates, which is accredited by Norwegian Accreditation Board. BSTI is the member-body of ISO and CAC and affiliated plus country member of IEC.

Brief Description of Standards Wing of BSTI

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- So far, BSTI formulated more than 3500 national standards of various products and services. Among these, around 1550 international and regional standards (ISO/IEC/CAC/EN) have been adopted as national standards.
- 6 Divisional Committees and 73 Sectional (technical) Committees comprising of eminent scientists, engineers, professionals from govt. and private sectors and expert in the relevant fields are involved in formulation of national standards considering the national need and relevance.

Electrotechnical Standardization activities

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- Newly formed National Electrotechnical Committee (NEC) is the national policy making committee that provides guideline to the electrotechnical works done by the Electrical and Electronics Divisional Committee (EEDC).
- 14 Sectional Committees are involved under EEDC for performing the standardization activities smoothly. Electric Lamps and Accessories Sectional Committee is one of the important sectional committee. 53 standards have been formulated by this committee.
- BSTI adopted 152 IEC standards as national standards.

Voluntary Lighting Standards of BSTI

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Following lighting standards are also formulated by BSTI

- BDS 1606 Lamps for railway stocks
- BDS IEC 60188 Mercury lamp
- BDS IEC 60192 Sodium lamp
- BDS IEC 60810 Lamps for road vehicles
- BDS IEC 60901 Single capped fluorescent lamps
- BDS IEC 60983 Miniature lamp

Lighting Product Industries in Bangladesh

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- Now, there are only 15 BSTI certified tungsten filament lamp industries in Bangladesh. There are around 15 certified CFL lamp industries and a few certified double capped fluorescent lamp industries.
- Now-a-days a huge amount of CFL and double capped fluorescent lamps are imported from China and India.
- There are 3 reputed CFL manufacturing industries awarded certificate of 3/4 star energy efficient ratings.
- The only LED lamp manufacturing industry situated in Chittagong export processing zone area, export LED products to foreign countries by back to back LC.

Scenario of Electricity in Bangladesh

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- Bangladesh, with its 160 million people in a land of 147570 sq km.
- Presently, 50 % of the total population has access to electricity and per capita generation is 252 kWH, which is very low compared to other developing countries.
- Presently, the generation capacity is nearly 7000 MW and total output is more or less 6000 MW.

History of Electricity and Electricity Week

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- Dhaka was first lighted on 7th December in 1901 by Late Nawab Khaja Ahasanullah.
- To remember that incident, 7-11 December has been selected for the observance of Electricity Week in Bangladesh.
- As a part of motivation program on energy saving at consumer's level, the domestic, commercial and industrial consumers are awarded at Electricity Week.

Energy Efficiency Initiatives

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One of the effective ways to reduce demand of electricity is the efficient use of electrical lightings. The government has taken a number of initiatives for efficient energy use and reduced consumption of energy.

- ❑ Steps have been taken to revise the 'Building Code' inserting energy efficient lighting and solar energy issues
- ❑ Initiatives have been taken in order to build awareness amongst the young generation, by incorporating energy efficiency in the academic curricula of schools and colleges

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Energy Efficiency Initiatives (Contd.)

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- Use of CFL bulb in all ministries and power sector entities
- Conventional street lights to be replaced by LED and solar lights subsequently
- The gradual discontinuation of incandescent bulb
- Introduction of energy star rating system in the electric light through BSTI
- Discouraging the use of neon sign in the markets and shopping malls at night
- Closing of markets and shopping malls within 8 p.m.

Efficient Lighting Initiatives in Bangladesh

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- Government of Bangladesh took a project named Efficient Lighting Initiatives of Bangladesh (ELIB) to replace approximately 30 million household incandescent lamps with an equal number of energy efficient CFLs, bearing the same or higher lumen output.
- The main benefit of the program includes reduction of energy bills and improved quality of lighting and significant energy savings.
- The efficient lighting project will benefit the customers providing them with high quality and low price CFLs, thereby reducing their electricity consumption and bills. 10.5 million CFLs have been distributed in Phase 1, providing two days for its distribution.

Benefits of Efficient Lighting

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- According to conservative estimates, this 1st phase program saves nearly 300 MW of power and a huge amount of money. ELIB also earns carbon revenues. There is an agreement of over 6.5 million carbon credits for a period of three years for the first phase.
- The idea of meeting energy needs by energy saving and energy efficiency instead of increasing energy production. It is a cost-effective option rather generation of electricity.
- In one way it avoids the cost of extra production of electricity and also a solution for environmental pollution, global warming, energy security and fuel saving.

Energy Efficient Project (BRESL)

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- A project named BRESL (Barrier removal to the cost effective development and implementation of energy efficiency standards and labelling) is aimed at rapidly accelerating the adoption/formulation and implementation of energy efficient standards and labels across a number of Asian countries (Bangladesh, China, Indonesia, Pakistan, Thailand and Vietnam). The project will focus largely on capacity building and assisting government, manufacturing, distributing, retail, consumer and environmental stakeholders. The project also facilitates harmonization of test procedures, standards and labels.

Target and Achievements of BSTI

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- BSTI has emphasized on formulation of Bangladesh Standards of LED lamps based on International Standards published by IEC.
- BSTI has already started issuing energy star labelling certificate of CFL on voluntary basis (compliance check by BDS 1761:2006 Energy efficient rating for self-ballasted lamps) under BRESL project.
- BSTI will revised the existing lighting standards according to the latest version of IEC publication.

Observation and Remarks

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- For many lower income households in Bangladesh, lighting is the only use of electricity.
- Moreover, energy saving is a matter of practice. Just to change our attitude, a good amount of energy can be saved.
- Disposal policy and systematic recycling process of lighting product yet not developed. It is the burning issue for this sector.

Conclusion

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- Adoption of new technologies and also combined effort of Government and private sectors can ensure the best use of lighting products in the country.
- Due to the contribution of lighting to peak demand, and because of the high potential for efficiency improvement, lighting products are a logical first target of efficiency programs in Bangladesh.
- So awareness raising program is needed for energy efficiency.

Thanks for your patience hearing