MANDATORY MEASURES
SIGNAGE

(Reference: Sub-Chapter 4, Section 130.3)
REQUIRED CONTROLS

Outdoor sign lighting must be automatically controlled by one of the following two options:

1. A photocontrol and an automatic time switch
   or
2. An astronomical time switch

All outdoor sign lighting that is on during the day and night must be equipped with a control that provides the ability to automatically reduce the lighting power of the sign at least 65% at night.

Indoor signs must be equipped with:

1. An astronomical time switch
   or
2. An automatic time switch
DEMAND RESPONSE FOR EMCS

An **Electronic Message Center (EMC)** is an electronically controlled sign that produces pixelated images using any type of light source or lighting system.

An EMC that has a connected lighting power load larger than 15 kW must have a control installed that can reduce lighting power at least 30% in response to a demand response (DR) signal.
ENERGY COMPLIANCE

Signs must also:

1. Comply with an allowed lighting power maximum
   or
2. Use one of several approved and compliant light sources
INTERNALLY ILLUMINATED SIGNS

Internally illuminated signs may use no more than $12 \text{ W/ft}^2$ of the illuminated sign area. For double-faced signs, only the area of one of the faces needs to be counted.
EXTERNALLY ILLUMINATED SIGNS

Externally illuminated signs may use up to **2.3 W/ft²** of illuminated sign area. If both faces are lit, then both must be counted.
COMPLIANT LIGHT SOURCES

If a sign is only equipped with one of the following light sources, it does not need to meet the allowed lighting power requirements:

1. High pressure sodium (HPS) lamps
2. Metal halide (MH) lamps that are pulse start or ceramic with a ballast that has a minimum efficiency of 88%
3. Neon or cold cathode lamps with transformer or power supply efficiency of:
   - at least 75% for a rated output current less than 50 mA
   - greater than 68% when the rated output current is at least 50 mA
4. Fluorescent lighting systems that only use lamps with a CRI over 80 or only use electronic ballasts with an output frequency greater than 20 kHz
5. LEDs with a power supply efficiency of at least 80%
6. CFLs that do not use a medium screw-base socket