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 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 $2.3 \text{ W/ft}^2$ 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