

**The Florida Senate**  
**BILL ANALYSIS AND FISCAL IMPACT STATEMENT**

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

---

Prepared By: The Professional Staff of the Committee on Community Affairs

---

BILL: CS/SB 190

INTRODUCER: Regulated Industries Committee and Senator Artiles

SUBJECT: Low-voltage Electric Fences

DATE: March 13, 2017

REVISED: \_\_\_\_\_

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	<u>Kraemer</u>	<u>McSwain</u>	<u>RI</u>	<u>Fav/CS</u>
2.	<u>Cochran</u>	<u>Yeatman</u>	<u>CA</u>	<u>Pre-meeting</u>
3.	_____	_____	<u>RC</u>	_____

---

**Please see Section IX. for Additional Information:**

COMMITTEE SUBSTITUTE - Substantial Changes

---

**I. Summary:**

CS/SB 190 revises s. 553.793, F.S., concerning streamlined low-voltage alarm system installation permitting, to include a new or existing low-voltage electric fence as a “low-voltage alarm system project.” A low-voltage electric fence is composed of an alarm system (a device used to detect a burglary, fire, robbery, or medical emergency) consisting of a fence structure and an energizer powered by a commercial storage battery not exceeding 12 volts that produces an electric charge upon contact with the fence structure. The ancillary components or equipment that may be attached to an alarm system or low-voltage electric fence are revised to include closed-circuit television systems, access controls, and battery-charging devices.

A low-voltage electric fence: 1) must produce a limited electric charge; 2) must be completely enclosed by a nonelectric fence or wall; 3) may be up to 2 feet higher than the perimeter nonelectric fence or wall; 4) must be identified with attached warning signs not more than 60 feet apart; and 5) may not be installed in areas zoned primarily or exclusively for single-family or multifamily residential use. No further permit may be required for a low-voltage alarm system project that is composed of a low-voltage electric fence that meets all of the above requirements.

Under current law, a municipality, county, district, or other entity of local government (local government) may not adopt or maintain in effect any ordinance or rule regarding a “low-voltage alarm system project” that is inconsistent with s. 553.793, F.S., as revised in the bill. The classification of low-voltage electric fences as a “low-voltage alarm system project” will

eliminate the authority of a local government to adopt new ordinances or rules, or maintain existing ordinances or rules, concerning low-voltage electric fences.

## II. Present Situation:

Part II of ch. 489, F.S., dealing with electrical and alarm system contracting, sets forth requirements for qualified persons to be licensed if they have sufficient technical expertise in the applicable trade, and have been tested on technical and business matters.<sup>1</sup> The Electrical Contractors' Licensing Board (board) in the Department of Business and Professional Regulation (DBPR) implements Part II of ch. 489, F.S.<sup>2</sup> An alarm system is "any electrical device, signaling device, or combination of electrical devices used to signal or detect a burglary, fire, robbery, or medical emergency."<sup>3</sup> An alarm system includes home-automation equipment, thermostats, and video cameras.<sup>4</sup>

Section 489.505, F.S., specifies the types of contractors that may lay out, fabricate, install, maintain, alter, repair, monitor, inspect, replace or service alarm systems. An alarm system contractor is a person whose business includes the execution of contracts requiring the ability, experience, science, knowledge, and skill to conduct all alarm services for compensation, for all types of alarm systems for all purposes.<sup>5</sup> The term also includes any person, firm, or corporation that engages in the business of alarm contracting under an expressed or implied contract or that undertakes, offers to undertake, or submits a bid to engage in the business of alarm contracting.<sup>6</sup> An alarm system contractor whose business includes all types of alarm systems for all purposes is designated as an "alarm system contractor I;" the practice area of an "alarm system contractor II" is identical except that it does not include fire alarm systems.<sup>7</sup>

The DBPR may also issue geographically unlimited certificates of competency to an alarm system contractor (certificateholder).<sup>8</sup> The scope of certification is limited to specific alarm circuits and equipment.<sup>9</sup> No mandatory licensure requirement is created by the availability of a certification.<sup>10</sup>

---

<sup>1</sup> See s. 489.501, F.S.

<sup>2</sup> See ss. 489.507 through 489.517, F.S., concerning the powers and duties of the board.

<sup>3</sup> See s. 489.505(1), F.S.

<sup>4</sup> See s. 553.793(1)(b), F.S.

<sup>5</sup> See s. 489.505(2), F.S.

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> See ss. 489.505(4), 489.505(5), and 489.515(1), F.S.

<sup>9</sup> Section 489.505(7), F.S., describes the limitations on the scope of a certificate of competency as those circuits originating in alarm control panels, equipment governed by the Articles 725, 760, 770, 800, and 810 of the National Electrical Code, Current Edition, and National Fire Protection Association Standard 72, Current Edition, as well as the installation, repair, fabrication, erection, alteration, addition, or design of electrical wiring, fixtures, appliances, thermostats, apparatus, raceways, and conduit, or any part thereof not to exceed 98 volts (RMS), when those items are for the purpose of transmitting data or proprietary video (satellite systems that are not part of a community antenna television or radio distribution system) or providing central vacuum capability or electric locks. RMS is the abbreviation for "root mean square," a statistical term defined as the square root of mean square. See <http://www.practicalphysics.org/explaining-rms-voltage-and-current.html> (last visited March 8, 2017).

<sup>10</sup> *Id.*

Part IV of ch. 553, F.S., constitutes the Florida Building Codes Act (act). The act provides a mechanism for the uniform adoption, updating, amendment, interpretation, and enforcement of the Florida Building Code, consisting of a single set of documents that apply to the design, construction, erection, alteration, modification, repair, or demolition of public or private buildings, structures, or facilities, and to the enforcement of such requirements.<sup>11</sup> The Florida Building Code is adopted, modified, updated, interpreted, and maintained by the Florida Building Commission.<sup>12</sup>

Pursuant to s. 553.88, F.S., the current edition of the following standards are in effect to establish minimum electrical and alarm standards in Florida:

- National Electrical Code, NFPA<sup>13</sup> No. 70;
- Underwriters' Laboratories, Inc. (UL), Standards for Safety, Electrical Lighting Fixtures, and Portable Lamps, UL 57 and UL 153;
- Underwriters' Laboratories, Inc., Standard for Electric Signs, UL 48;
- The provisions of the following which prescribe minimum electrical and alarm standards:
  - NFPA No. 56A, Inhalation Anesthetics;
  - NFPA No. 56B, Respiratory Therapy;
  - NFPA No. 56C, Laboratories in Health-related Institutions;
  - NFPA No. 56D, Hyperbaric Facilities;
  - NFPA No. 56F, Nonflammable Medical Gas Systems;
  - NFPA No. 72, National Fire Alarm Code; and
  - NFPA No. 76A, Essential Electrical Systems for Health Care Facilities;
- The rules and regulations of the Department of Health, entitled "Nursing Homes and Related Facilities Licensure"; and
- The minimum standards for grounding of portable electric equipment in Florida Administrative Code Rule Chapter 8C-27, as recommended by the Division of Workers' Compensation in the Department of Financial Services.

Section 553.71(5), F.S., provides that a local enforcement agency<sup>14</sup> is an agency with jurisdiction to make inspections of buildings and to enforce the codes which establish standards for design, construction, erection, alteration, repair, modification, or demolition of public or private buildings, structures, or facilities. A local enforcement agency must make uniform permit labels available for purchase by a contractor for the installation or replacement of a new or existing alarm system for not more than \$40 per label per project per unit, and may not require the

---

<sup>11</sup> See s. 553.72(1), F.S., which also indicates that effective and reasonable protection for public safety, health, and general welfare at the most reasonable cost to the consumer is also intended.

<sup>12</sup> See s. 553.72(3), F.S.

<sup>13</sup> NFPA is the acronym for the National Fire Protection Association, which is an international nonprofit organization established in 1896. Its mission is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes, standards, research, training and education. The NFPA develops, publishes, and disseminates more than 300 consensus codes and standards intended to minimize the possibility and effects of fire and other risks. See <http://www.nfpa.org/about-nfpa> (last visited March 8, 2017).

<sup>14</sup> Section 553.71(5), F.S., of the Florida Building Codes Act defines local enforcement agency as an agency of local government, a local school board, a community college board of trustees, or a university board of trustees in the State University System with jurisdiction to make inspections of buildings and to enforce the codes which establish standards for design, construction, erection, alteration, repair, modification, or demolition of public or private buildings, structures, or facilities.

payment of any additional fees, charges, or expenses associated with the installation or replacement of an alarm system.<sup>15</sup>

A municipality, county, district, or other entity of local government may not adopt or maintain in effect any ordinance or rule regarding a low-voltage alarm system project that is inconsistent with s. 553.793, F.S.<sup>16</sup>

### III. Effect of Proposed Changes:

The bill revises s. 553.793, F.S., dealing with streamlined low-voltage alarm system installation permitting, to include a new or existing low-voltage electric fence within the definition of a low-voltage alarm system project.

A low-voltage electric fence is composed of an alarm system as defined in s. 489.505, F.S.,<sup>17</sup> that operates in conjunction with a fence structure and an energizer powered by a commercial storage battery not exceeding 12 volts which produces an electric charge upon contact with the fence structure.

A low-voltage electric fence:

- Must produce an electric charge upon contact that may not exceed certain energizer characteristics that are set forth in International Electrotechnical Commission Standard No. 60335-2-76;<sup>18</sup>
- Must be completely enclosed by a nonelectric fence or wall;
- May be up to 2 feet higher than the perimeter nonelectric fence or wall;
- Must be identified with attached warning signs at least 60 feet apart; and
- May not be installed in areas zoned primarily or exclusively for single-family or multifamily residential use.

A low-voltage electric fence must meet all of the above requirements to be permitted as a low-voltage alarm system project, and no further permit shall be required for such low-voltage alarm system project other than as provided in this section.

Section 553.793(9), F.S., prohibits a municipality, county, district, or other entity of local government from adopting or maintaining in effect any ordinance or rule regarding a “low-voltage alarm system project” inconsistent with s. 553.793, F.S.; therefore the classification of low-voltage electric fences as “low-voltage alarm system projects” will eliminate the authority of a local government to adopt new ordinances or rules, or to maintain existing ordinances or rules, concerning low-voltage electric fences.

---

<sup>15</sup> See s. 553.793(4), F.S.

<sup>16</sup> See s. 553.793(9), F.S.

<sup>17</sup> Section 489.505, F.S., defines an alarm system as “any electrical device, signaling device, or combination of electrical devices used to signal or detect a burglary, fire, robbery, or medical emergency.”

<sup>18</sup> The limits on energizer characteristics are those set forth in paragraph 22.108 and depicted in Figure 102 of International Electrotechnical Commission (IEC) Standard No. 60335-2-76, Current Edition (the Energizer Standard); however, the Energizer Standard does not appear to be incorporated as a reference in the Florida Administrative Code, and use of the Energizer Standard document is subject to copyright protection. See <https://webstore.iec.ch/publication/1736> (last visited March 8, 2017). The Energizer Standard is not published on the Internet and must be purchased from the IEC.

The bill amends s. 553.793, F.S., to conform cross-references.

The bill takes effect July 1, 2017.

#### **IV. Constitutional Issues:**

##### **A. Municipality/County Mandates Restrictions:**

None.

##### **B. Public Records/Open Meetings Issues:**

None.

##### **C. Trust Funds Restrictions:**

None.

#### **V. Fiscal Impact Statement:**

##### **A. Tax/Fee Issues:**

By including low-voltage electrical fences in s. 553.793, F.S., the bill requires local enforcement agencies, when permitting is required by the applicable local government entity, to charge not more than a \$40 permitting fee for the installation or replacement of a new or existing low-voltage electrical fence.

##### **B. Private Sector Impact:**

The DBPR states that the classification of a low-voltage electric fence as a low-voltage alarm system project will have no fiscal impact to the private sector.<sup>19</sup> Representatives of a security fence company that has been in operation in the United States for more than 20 years indicate that standardization of the requirements for installation of low-voltage electric fences will assist property owners and their tenants by:

- Qualifying many property owners and tenants to receive discounts on their property insurance premiums; and
- Reducing delay and expense to property owners and tenants associated with the differing requirements for the installation of low-voltage electric fences that exist in more than 240 jurisdictions in Florida.<sup>20</sup>

Persons who attempt to breach a low-voltage electric fence are shocked by electrical current that provides an electric charge of approximately 7,000 volts that pulses every

---

<sup>19</sup> See 2017 Agency Legislative Bill Analysis (AGENCY: Department of Business and Professional Regulation) for SB 190, dated January 17, 2017 (on file with Senate Committee on Regulated Industries) at page 4.

<sup>20</sup> Conversation with R. LaFace and S. Ross with staff of the Committee on Regulated Industries in Tallahassee, Fla. (Jan. 31, 2017).

1.3 seconds, for a duration ranging from one ten-thousandth (0.0001) of a second to four ten-thousandths (0.0004) of a second.<sup>21</sup>

**C. Government Sector Impact:**

The DBPR states that the bill as filed will have no fiscal impact to state government, and no federal impact (i.e., no federal compliance issues, federal funding issues, or federal agency involvement).<sup>22</sup>

**VI. Technical Deficiencies:**

None.

**VII. Related Issues:**

The Division of Professions in the DBPR commented that the installation of low-voltage electric fences may be beyond “the scope of [a] licensed alarm contractor”<sup>23</sup> and may cause confusion among local building departments about the type of license or certification required to install low-voltage electric fences.<sup>24</sup>

The DBPR reports that the head electrical inspector in the Miami-Dade County Building Department has contacted the office of the board with concerns that plans reviewed for the types of systems used for low-voltage electrical fences “exceed the scope of work” for alarm system contractors “based on the secondary voltage.”<sup>25</sup> The DBPR indicates that portions of these systems will utilize voltages in excess of 98 volts.<sup>26</sup>

Counsel for the Florida Building Commission indicates that the revisions to s. 553.793 F.S., must be incorporated into the Florida Building Code through standard rulemaking processes, and counsel for the board states that ch. 489, F.S., relating to electrical and alarm system contracting, may require an amendment to allow alarm system contractors to perform installations of low-voltage electric fences.<sup>27</sup>

**VIII. Statutes Affected:**

This bill substantially amends section 553.793 of the Florida Statutes.

---

<sup>21</sup> *Id.*

<sup>22</sup> See 2017 Agency Legislative Bill Analysis (AGENCY: Department of Business and Professional Regulation) for SB 190, dated January 17, 2017 (on file with Senate Committee on Regulated Industries) at pp. 4-5.

<sup>23</sup> *Id.* at 5.

<sup>24</sup> *Id.*

<sup>25</sup> *Id.* at 3.

<sup>26</sup> *Id.* at 2.

<sup>27</sup> *Id.* at 5.

**IX. Additional Information:**

- A. **Committee Substitute – Statement of Substantial Changes:**  
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

**CS by Regulated Industries on February 8, 2017:**

- Includes the term “fence structure” in the definition of “low-voltage electric fence.”
- Revises the additional ancillary components that may be attached to an alarm system or “low-voltage electric fence” to include closed-circuit television systems, access controls; and battery-charging devices;
- Clarifies and expands the requirements for a low-voltage electric fence to:
  - Require that a nonelectric fence or wall “completely enclose” the low-voltage electric fence or wall;
  - Allow the low-voltage electric fence to be up to 2 feet higher than the perimeter nonelectric fence or wall; and
  - Prohibit, as to a low-voltage alarm system project composed of a low-voltage electric fence that meets all requirements in s. 553.793(3), F.S., created in the bill, any further permit being required for such project.

- B. **Amendments:**

None.