

# SENATE STAFF ANALYSIS AND ECONOMIC IMPACT STATEMENT

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

Prepared By: Commerce and Consumer Services Committee

BILL: CS/SB 860

SPONSOR: Domestic Security Committee and Senator Diaz de la Portilla

SUBJECT: Emergency Preparedness

DATE: March 28, 2006      REVISED: \_\_\_\_\_

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	<u>Pardue</u>	<u>Skelton</u>	<u>DS</u>	<u><b>Fav/CS</b></u>
2.	<u>Earlywine</u>	<u>Cooper</u>	<u>CM</u>	<u><b>Fav/1 amendment</b></u>
3.	_____	_____	<u>CA</u>	_____
4.	_____	_____	<u>WM</u>	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____

**Please see last section for Summary of Amendments**

- Technical amendments were recommended
- Amendments were recommended
- Significant amendments were recommended

**I. Summary:**

This committee substitute requires residential multi-family dwellings at least 75 feet in height and having a public elevator, be capable of operating at least one elevator on alternate generated power. The elevator must be able to operate for an unspecified number of hours each day for a period of 5 days after a disaster or emergency resulting in an electrical power outage. The committee substitute provides for inspection and verification requirements and requires the owner, managing entity, or operator to develop a written emergency operations plan. Newly constructed residential multi-family dwellings covered under this section must meet engineering, installation, and verification requirements before occupancy.

The committee substitute requires owners of affordable residential dwellings for persons age 62 and older which are financed or insured by the U. S. Department of Housing and Urban Development to develop an emergency evacuation plan if unable to comply with the alternate generated power requirement.

This committee substitute creates section 399.036 of the Florida Statutes.

## II. Present Situation:

During the 2004 and 2005 hurricane seasons, every county in Florida encountered storm related power outages. Eight hurricanes caused substantial damage to the power grid requiring several weeks in each case to fully restore service. Hurricane Wilma in 2005, for example, initially knocked out power to 3.5 million customers.<sup>1</sup> Eight days later on November 1, 2005, over 700,000 customers in 8 counties were still without power.<sup>2</sup>

Power outages affected the operations of high-rise building elevators. Mobility impaired individuals living in high-rise residential buildings were particularly affected.

The 2001 Florida Build Code (effective March 1, 2002), section 1016.2.4 and the 2004 Florida Building Code, section 1006.2.4, requires high-rise buildings (defined as buildings having occupied floors located more than 75 feet above the lowest level of fire department vehicle access) be provided with Class 1, Type 60 standby power.<sup>3</sup> Chapter 27 of the Florida Building Code requires the standby power system to have sufficient capacity and rating to supply all required equipment. The standby system must be connected to the emergency lighting system, at least one elevator serving all floors and transferable to all building elevators, and the mechanical equipment serving smoke proof enclosures.

The Code requires high-rise emergency power be provided for elevator car lighting and emergency voice/alarm communications systems. Standby power is required for power and lighting for the fire command center, electrically powered fire pumps, ventilation and automatic fire detection equipment for smoke proof enclosures, and elevators.

Section 3003 of the 2004 Florida Building Code requires that:

- Standby power shall be manually transferable to all elevators in each bank;
- If there is only one elevator, it shall automatically transfer to standby power within 60 seconds after failure of normal power;
- If there are two or more elevators controlled by a common operating system, all elevators must transfer to standby power within 60 seconds, providing the standby power source is of sufficient capacity to operate all elevators at the same time. Where the power source is not sufficient, then all elevators shall transfer to standby power in sequence, return to the designated landing and disconnect from the standby power source, then at least one elevator shall remain operable on standby power; and
- Where standby power is connected to elevators, the machine room ventilation or air conditioning shall also be connected to the standby power source.

Emergency and standby power must be installed in accordance with NFPA 70 (the National Electrical Code) and NFPA 110 (the Standard for Emergency and Standby Power Systems).

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<sup>1</sup> Florida SERT Hurricane Wilma Situation Report No. 14, October 24, 2005.

<sup>2</sup> Florida Emergency Operations Center ESF-14, Hurricane Wilma Power Briefing Sheet, November 1, 2005.

<sup>3</sup> Note. A Class 1 Type 60 standby power source must operate for a minimum of 1 hour at rated load without being refueled and the system must operate from the standby power source within 60 seconds.

### III. Effect of Proposed Changes:

This committee substitute requires that any person, firm, or corporation that owns, manages, or operates a residential multi-family dwelling, including a condominium, which is at least 75 feet high and contains a public elevator, must have at least one elevator capable of operating on alternate generated power. In the event of a general power outage, this elevator will ensure that residents have building access for an unspecified number of hours each day over a 5-day period following a natural or manmade disaster, emergency, or civil disturbance.

The alternate generated power source must be capable of powering any connected fire alarm system which controls elevator operations in the building.

This committee substitute bill specifies that at a minimum the elevator must be appropriately pre-wired and prepared to accept alternate generated power. Also, the power source must be capable of powering the elevator, a connected building fire alarm system, and emergency lighting in the internal lobbies, hallways, and other internal public portions of the building. Such dwellings must either have a generator and fuel source on the property or proof of a current guaranteed service contract providing such equipment and fuel source within 24 hours of a request.

The committee substitute requires that local building inspectors must provide verification of engineering plans to the county emergency management director by December 31, 2006. Local building inspectors must verify the installation and operational capability of the alternate generated power source to the county emergency management director by December 31, 2007. Newly constructed residential multi-family dwellings meeting the criteria of this section must meet the engineering, installation, and verification requirements before occupancy.

This committee substitute requires that dwellings covered under this section must maintain a written emergency operations plan. The plan must detail the sequence of operations before, during, and after the disaster or emergency situation. The plan must include at a minimum:

- A life safety plan for evacuation;
- Maintenance of the electrical and lighting supply; and
- Provision for the health, safety, and welfare of the residents.

The committee substitute requires an owner, managing entity, or operator to maintain a log of quarterly maintenance inspections and any contracts for alternate power generation equipment. The emergency operations plan and log shall be open for periodic inspections by local and state government agencies as deemed necessary. The owner, managing entity, or operator must keep a generator key in a lockbox posted at or near any installed generator unit.

The committee substitute also requires that annual elevator inspections conducted pursuant to s. 399.061, F.S., shall confirm installed generators are in working order, logs are current, and the required generator key is present. If the building does not have an installed generator, the inspection shall confirm that the appropriate wiring and switching capabilities are operational and that a contract for contingent services for alternate generated power is current for the operating period.

This committee substitute requires that multi-story affordable residential dwellings for persons age 62 and older which are financed or insured by the U. S. Department of Housing and Urban Development make every effort to obtain grant funding to comply with this section. The owner, if unable to comply with this section, must develop a plan with the local emergency management director to ensure residents are evacuated to a place of safety. A place of safety may include, but is not limited to, relocation to an alternative site within the building or evacuation to a local shelter.

The committee substitute provides that the act shall take effect upon becoming a law.

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

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

#### **V. Economic Impact and Fiscal Note:**

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

Costs for purchasing a generator are dependent on each individual application. As an approximate rule, standby generators cost \$300 to \$500 per kilo-watt. Thus a 20 KW standby generator could cost between \$6,000 and \$10,000. A 50 KW generator is estimated to cost between \$15,000 and \$25,000 although some Internet price lists show prices as low as \$12,000. The cost for installing pre-wiring, a coupling, and transfer switch in other business sectors has been estimated at \$4,000 per installation.

The cost of a guaranteed services contract would be subject to many variables and is unknown. However, it is likely to be considerably less than the cost of a purchased generator.

C. Government Sector Impact:

The cost of performing required inspections by local building inspectors should be covered through the normal collection of building permit fees charged by counties and municipalities. No additional cost to county or municipal governments is anticipated.

**VI. Technical Deficiencies:**

Standby power sources are operationally checked as part of the annual elevator inspection required by s. 399.061, F.S. This includes powering up the on-site generator and operating the elevator under a no-load condition. In the case of buildings that do not have a generator on-site, this committee substitute requires the inspector to confirm that the appropriate wiring and switching capabilities are operational. Such a confirmation in this case would be beyond the capability of the inspector without the presence of an on-site generator.

**VII. Related Issues:**

None.

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This Senate staff analysis does not reflect the intent or official position of the bill's sponsor or the Florida Senate.

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## **VIII. Summary of Amendments:**

### **Barcode 470786 by the Commerce and Consumer Services Committee:**

This amendment requires the elevator inspector, if there is not installed generator, to check that the transfer switch is visible and to confirm that a contract for contingent services for alternative power is current.

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