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:	SB 594
INTRODUCER:	Senator Martin
SUBJECT:	Residential Property Insurance Rates
DATE:	March 27, 2023
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Thomas	Knudson	BI	**Favorable**
2.	Hackett	Ryon	CA	**Pre-meeting**
3.			FP	

I. Summary:

SB 594 adds wind uplift prevention to the list of windstorm mitigation measures undertaken by policyholders to reduce hurricane losses that must be evaluated for purposes of mitigation discounts on residential property insurance rate filings. Wind uplift occurs if the air pressure below the roofing system is higher than the air pressure above the roofing system.

The bill takes effect July 1, 2023.

II. Present Situation:

Regulation of Property Insurance Rates

Part I of ch. 627, F.S., the Rating Law,[1] governs property, casualty, and surety insurance covering the subjects of insurance resident, located, or to be performed in this state.[2] The rating law provides that the rates for all classes of insurance it governs may not be excessive, inadequate, or unfairly discriminatory.[3] Though the terms "rate" and "premium" are often used interchangeably, the rating law specifies that "rate" is the unit charge that is multiplied by the measure of exposure or amount of insurance specified in the policy to determine the premium, which is the consideration paid by the consumer.[4]

All insurers or rating organizations must file rates with the Office of Insurance Regulation (OIR) either 90 days before the proposed effective date of a new rate, which is considered a "file and

[1] Section 627.011, F.S.
[2] Section 627.021(1), F.S.
[3] Section 627.062(1), F.S.
[4] Section 627.041, F.S.

use" rate filing, or 30 days after the effective date of a new rate, which is considered a "use and file" rate filing.[5]

Upon receiving a rate filing, the OIR reviews the filing to determine if the rate is excessive, inadequate, or unfairly discriminatory. The OIR makes that determination in accordance with generally acceptable actuarial techniques and considers the following:

- Past and prospective loss experience;
- Past and prospective expenses;
- The degree of competition among insurers for the risk insured;
- Investment income reasonably expected by the insurer;
- The reasonableness of the judgment reflected in the rate filing;
- Dividends, savings, or unabsorbed premium deposits returned to policyholders;
- The adequacy of loss reserves;
- The cost of reinsurance;
- Trend factors, including trends in actual losses per insured unit for the insurer;
- Conflagration and catastrophe hazards;
- Projected hurricane losses;
- Projected flood losses, if the policy covers the risk of flood;
- The cost of medical services, if applicable;
- A reasonable margin for underwriting profit and contingencies; and
- Other relevant factors that affect the frequency or severity of claims or expenses.[6]

Florida Commission on Hurricane Loss Projection Methodology

Projected hurricane losses in a rate filing must be estimated using a model or method found to be acceptable or reliable by the Florida Commission on Hurricane Loss Projection Methodology (Commission).[7] The Commission consists of 12 members with expertise in the elements used to develop computer models to estimate hurricane and flood loss. Members of the Commission include State University System faculty experts in insurance finance, statistics, computer system design, meteorology, and structural engineering; three actuaries; the insurance consumer advocate; the Director of the Florida Hurricane Catastrophe Fund; the Executive Director of Citizens Property Insurance Corporation; and the Director of the Division of Emergency Management.[8]

Residential Property Insurance Mitigation Credits, Discounts, or Other Rate Differentials

Residential property insurance rate filings must account for mitigation measures undertaken by policyholders to reduce hurricane losses.[9] Specifically, the rate filings must include actuarially reasonable discounts, credits, or other rate differentials or appropriate reductions in deductibles to consumers who implement windstorm damage mitigation techniques to their properties.[10]

[5] Section 627.062, F.S.
[6] Section 627.062(2)(b), F.S.
[7] Section 627.062(2)(b)11., F.S.
[8] Section 627.0628(2)(b), F.S.
[9] Section 627.062(2)(j), F.S.
[10] Section 627.0629(1), F.S.

Upon their filing by an insurer or rating organization, the OIR determines the discounts, credits, other rate differentials and appropriate reductions in deductibles that reflect the full actuarial value of such revaluation,[11] which in turn may be used in rate filings under the rating law. Windstorm mitigation measures that must be evaluated for purposes of mitigation discounts include fixtures or construction techniques that enhance roof strength, roof covering performance, roof-to-wall strength, wall-to-floor-to-foundation strength, opening protection, and window, door, and skylight strength.[12]

Wind Uplift

Wind load is an important consideration when designing a structure. Wind load is the load, in pounds per square foot, placed on the exterior of a structure by wind. This will depend on:

- The angle at which the wind strikes the structure; and
- The shape of the structure (height, width, etc.).[13]

Wind can exert three types of force on a structure—shear load, lateral load, and uplift load. Although all three forces can damage a structure, the uplift load has the greatest effect on the roofing system.[14] Wind uplift occurs if the air pressure below the roofing system[15] is higher than the air pressure above the roofing system. Whenever the wind blows over a roof's surface, the air pressure directly above the roof decreases, creating "negative" pressure. Wind infiltration below the roof materials through openings creates "positive" pressure. The combination results in a "push-pull" force that can lead to the separation of roofing materials from the roof deck.[16]

Wind uplift is affected by:

- Building height: Higher roofs experience stronger wind velocities.
- Geographical location: Wind maps for any region can identify the local basic wind speed gust exposures to determine typical wind conditions for your home.
- Surrounding terrain: Neighboring buildings and other obstructions can break wind flow and reduce the wind effect in suburban and urban locations. Stronger wind resistance is required for roofs near large bodies of water or open terrain.

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[11] *Id*.
[12] *Id*.
[13] *Wind Loads of Structures*, Extension Disaster Education Network, https://campus.extension.org/mod/book/view.php?id=6418&chapterid=6747 (last accessed on March 24, 2023). *Wind Loads*, Structural Engineering Design, Fall 2003, https://ocw.mit.edu/courses/1-051-structural-engineering-design-fall-2003/294abc6a0aa95fe569eda2a9436c51db_rec1wind_eqloads.pdf (last accessed on March 24, 2023).
[14] *What Is Wind Uplift?*, https://www.gaf.ca/blog/commercial-roofing/how-roof-uplift-testing-can-help-ensure-system-performance-281474980162938 (last accessed on March 24, 2023).
[15] The term roof system refers to the air barrier or vapor retarder (if present), roof insulation (if present), and the roof membrane, flashing, and accessories. *Roofing Systems*, Tom Smith, May 10, 2016, https://www.wbdg.org/guides-specifications/building-envelope-design-guide/roofing-systems#:~:text=The%20term%20roof%20system%20refers,membrane%2C%20flashing%2C%20and%20accessories (last accessed on March 24, 2023).
[16] *Id*.

- Building openings: Openings in the building design can create higher internal pressures in a wind event.[17]

During strong wind events such as hurricanes, roofs will be subject to high wind uplift forces, which often leads to severe roofing component damage. The loss of roofing components could lead to rainwater intrusion and further substantial damage to the interior. Reducing wind uplift during such strong wind events by implementing targeted mitigation techniques[18] can significantly reduce wind effects on buildings' roofs.[19] Engineers and builders follow the applicable building code for each jurisdiction to attempt to prevent wind uplift.[20] The standards vary based on building location and likelihood of exposure to high winds.[21]

III. Effect of Proposed Changes:

The bill amends. s. 627.0629, F.S., to add wind uplift prevention to list of windstorm mitigation measures undertaken by policyholders to reduce hurricane losses that must be evaluated for purposes of mitigation discounts on residential property insurance rate filings.

The bill takes effect July 1, 2023.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

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[17] Understanding Wind Uplift Ratings for Roofing, Mark Gallant, May, 31 2021, https://www.decra.com/blog/understanding-wind-uplift-ratings-for-roofing#:~:text=What%20is%20Wind%20Uplift%3F,them%20to%20the%20roof%20deck (last accessed on March 24, 2023).

[18] There are multiple products that are promoted as valuable in mitigating wind uplift, for example: pavers, adhesives, fasteners, clamps, underlayments, and spray foam insulation.

[19] *Aerodynamic Mitigation of Wind Uplift on Low-Rise Building Roof Using Large-Scale Testing*, Frontiers in Built Environments, January 15, 2020, https://www.frontiersin.org/articles/10.3389/fbuil.2019.00149/full (last accessed on March 24, 2023).

[20] *How Wind Uplift can Affect a Commercial Building's Roof*, Certified Commercial Property Inspectors Association, https://ccpia.org/how-wind-uplift-can-affect-a-commercial-buildings-roof/ (last accessed on March 24, 2023).

[21] *Id*. Changes to Florida's treatment of wind load were made in the 7th edition of the Florida Building Code in 2020. *See* Wind Loads- Impacts from ASCE 7-16 (June 2020), https://www.ecf-fl.org/resources/Documents/ECF%20FBC%20Analysis%20of%20Changes%20-%20Wind%20Load%20-%206%20Pages.pdf (last accessed on March 24, 2023).

E. Other Constitutional Issues:

None identified.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

The addition of wind uplift prevention measures to the list of windstorm mitigation measures undertaken by policyholders to reduce hurricane losses that must be evaluated for purposes of mitigation discounts on residential property insurance rate filings may lead to greater use of these measures by property owners. This could lead to less damage from windstorms and lower insurance premiums.

C. Government Sector Impact:

None.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends section 627.0629 of the Florida Statutes.

IX. Additional Information:

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

None.

B. Amendments:

None.