



CatIQ™

Catastrophe Indices and Quantification Inc.

a  **PERILS** company

Canada's Loss and Exposure Indices Provider

About CatIQ



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**The majority of primary insurers
in Canada participate with us!**

**We are consistent with PERILS AG's
globally recognized methodology.**

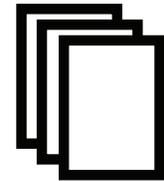
Toronto-based Catastrophe Indices and Quantification Inc. (CatIQ) is a subsidiary of Zurich-based PERILS AG and delivers detailed analytical and meteorological information on Canadian natural and human-made catastrophes.

Through its online subscription-based platform, CatIQ combines comprehensive insured loss and exposure indices and other related information to better serve the needs of the insurance / reinsurance / ILS industries, public sector and other stakeholders.

CatIQ was established in 2014 with the support of the overwhelming majority of the Canadian insurance and reinsurance industry and is widely recognized as the most reliable source of catastrophe loss information in Canada.

CatIQ also partners with MSA Research to host the annual Canadian catastrophe conference, CatIQ Connect (connect.catiq.com). Due to COVID-19, CatIQ Connect will be hosted as a quarterly webinar series until 2022.

WWW.CATIQ.COM +1 (416) 368-1723 @CATIQ_INC #CATIQ



Insurance Companies



Submitted data is validated,
aggregated and extrapolated
to market level



CatIQ Platform



Advisory Committee

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National Catastrophe Manager,
RSA Insurance Group

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Catastrophe Management,
Aon

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CatIQ

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Services Operations Centre, MSC,
ECCC

WE SERVE THE FOLLOWING INDUSTRIES:

Academia

Government

Insurance Adjusters

Modelers

Participants in Global ILS/ILW

Consultants

Insurers & Reinsurers

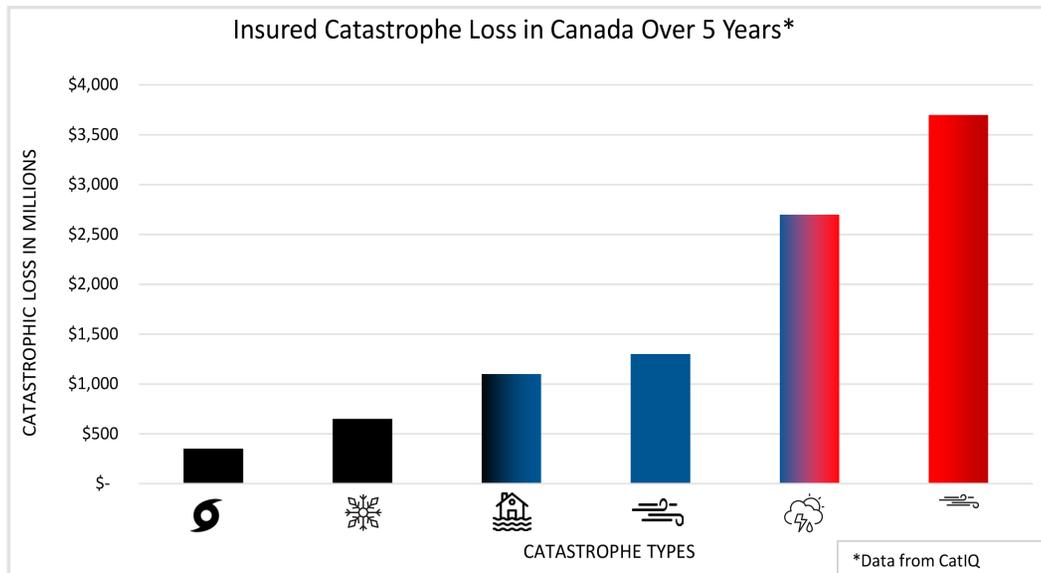
Investment Bankers

Other Industry Suppliers

Reinsurance Brokers

CatIQ in Numbers

CatIQ is Canada's industry loss index, trigger, and Independent CAT designator for Cat Bonds, ILS, ILW & other instruments



Key Achievements

7

Years CatIQ has served the industry

>130

CATs in the loss database

5

Years of FSA/CRESTA-level exposure data

Majority

Industry market support

CAD \$21 b

CAT losses since 2014 (per May 1, 2021)

What is our definition of a Catastrophe (CAT)?

An event that causes more than \$25m of insured damage

- Both past and future warming in Canada is, on average, about double the magnitude of global warming.
- Extreme hot temperatures more frequent and intense, contributing to increased wildfire risks.
- More intense rainfalls will increase urban flood risks.
- An increasing trend in the frequency of autumn extreme storms has been observed over marine areas of Atlantic Canada.

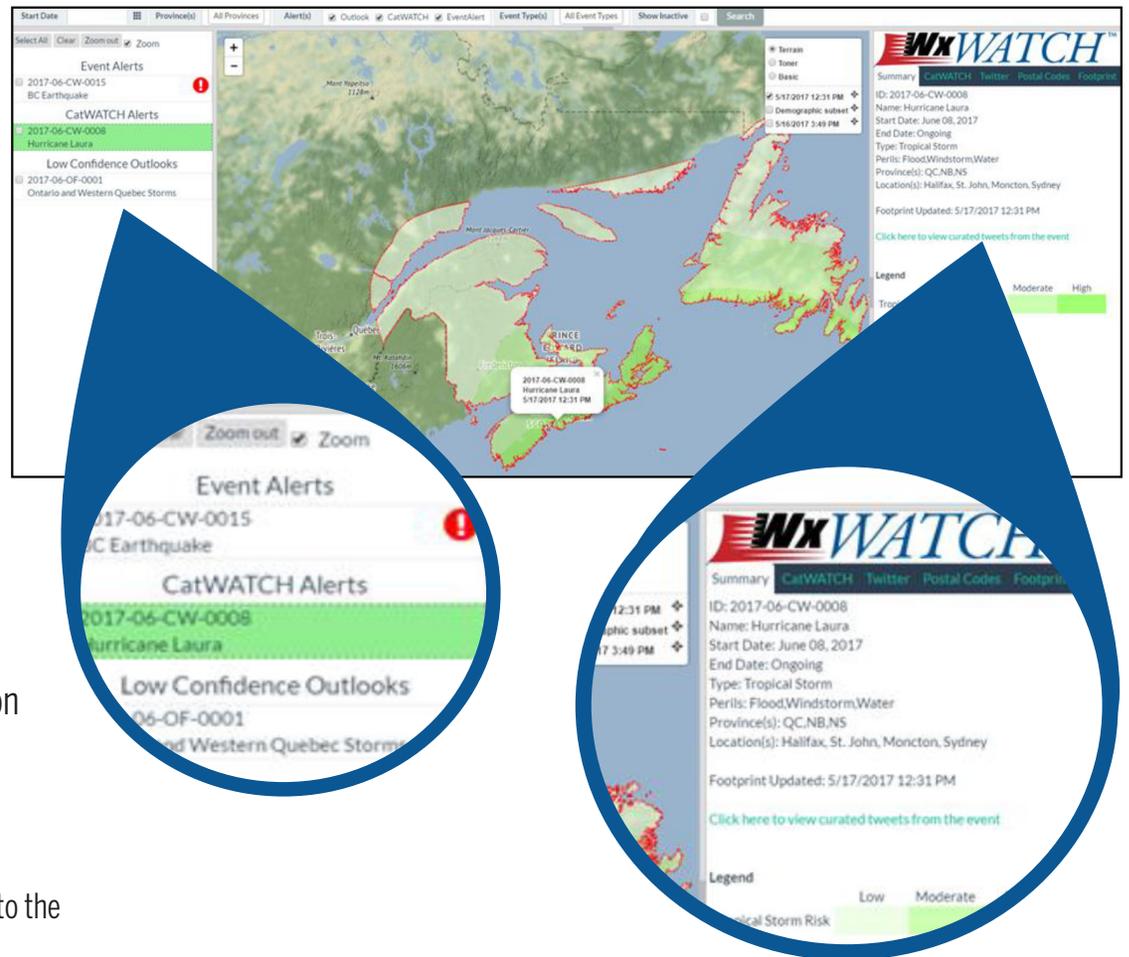
SOURCE: <https://changingclimate.ca/CCCR2019/>

Subscription Benefits

WxWATCH Forecasting ("Weather Watch")

Weather Watch is where you can view all pre-CAT and forecast information.

- Forecast alerts of natural disasters which could potentially cause catastrophic damage
- Map view with footprints
- Export geographic footprints, FSA and Postal Code lists by risk layer forecast
- CatWATCH features curated Twitter feeds of damage
- External data feeds: current weather, alerts and outlooks, earthquake, hurricane, water level, and wildfire information
- Exposure¹ by risk layer and Mean Damage Ratio (MDR) calculator



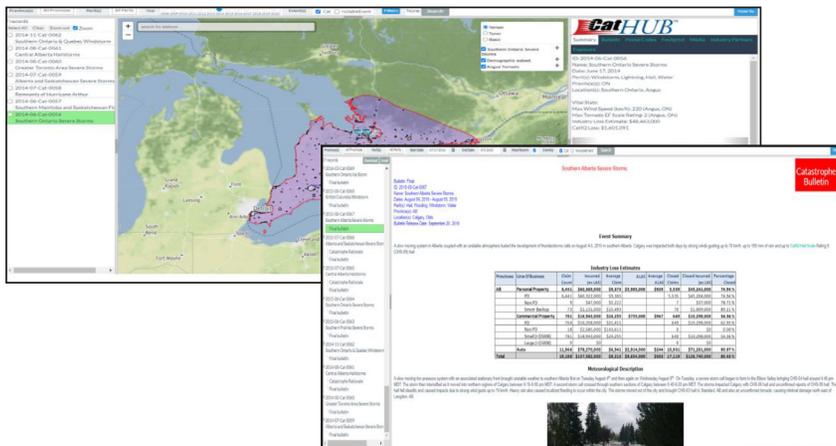
¹ Exposure information is only available to those who subscribe to the Industry Exposure Database

Subscription Benefits

CatHUB View

CatHUB is where you can explore the Canadian catastrophe database.

- Hundreds of photos, videos and articles
- Map View with footprints
- Export footprint FSA/CRESTA and Postal Code lists, KML files and demographic footprints
- Exposure and MDR listed by province and by Line of Business (LOB) for each CAT



Bulletin View

Bulletin is where you can view detailed catastrophe event information.

- CAT and Notable Events (NE¹) events back to 2008
- Advanced filtering options
- Meteorological descriptions
- Property damage reports
- Industry insured loss estimates
- Catastrophe Rationales
- Export or email bulletin PDFs

1 Notable Events (loss estimated between \$10M - \$25M) – insurers not surveyed on losses

Quarterly CAT Review Report

Our report will brief you on the latest catastrophes and impactful events, CAT losses, a seasonal outlook, company news/updates and more!



PLEASE NOTE:
NO FREE-LOADING ALLOWED. NON-PARTICIPATING PRIMARY INSURERS DO NOT HAVE ACCESS TO THE CATIQ PLATFORM.

Subscription Benefits

Query View

Query is where you can filter and view losses by province and LOB.

- Query industry loss estimates
- View all estimates produced on CATs (Initial, 45-day, 90-day, 6-month, 1-year)
- View loss estimates by LOB (Personal, Commercial, Auto)
- View loss estimates by province
- Export raw data in CSV format
- Export formatted Excel data

| Catastrophe | Province | Line of Business | Claim Count | Demo Co. Claim Count | Incurred | Demo Co. Incurred | Demo Co. % | Average Claim | ALAE | Demo Co. ALAE | Closed Claims |
|-----------------|----------|-----------------------|-------------|----------------------|---------------|-------------------|------------|---------------|-----------|---------------|---------------|
| 2014-15 Cat 045 | ON | Personal Property | 6,790 | 325 | \$50,452,000 | \$3,303,903 | 6.95% | \$7,346 | \$6,674 | \$2,136,000 | 6,513 |
| | | FD | 2,740 | 325 | \$50,452,000 | \$3,303,903 | 6.95% | \$2,755 | \$6,674 | | 6,350 |
| | | New PD | 22 | 1 | \$79,000 | \$0 | 0.00% | \$1,773 | \$0 | | 14 |
| | | Senior Backup / Water | 198 | 7 | \$2,622,000 | \$712,345 | 8.10% | \$13,242 | \$30,325 | | 158 |
| | | Commercial Property | 785 | 38 | \$12,319,000 | \$675,122 | 5.14% | \$17,493 | \$16,754 | \$23,100 | 776 |
| | | FD | 779 | 38 | \$12,319,000 | \$675,122 | 5.14% | \$17,750 | \$16,652 | | 769 |
| | | New PD | 7 | 1 | \$50,000 | \$3,850 | 7.70% | \$7,143 | \$3,850 | | 1 |
| | | Small (-\$300k) | 785 | 38 | \$12,319,000 | \$675,122 | 5.14% | \$17,493 | \$16,754 | | 770 |
| | | Large (-\$500k) | 0 | 0 | \$0 | \$0 | 0.00% | | | | 0 |
| | | Auto | 952 | 43 | \$3,375,000 | \$253,035 | 7.49% | \$3,345 | \$5,992 | \$76,000 | \$4,421 |
| Total ON | | | 10,517 | 628 | \$66,546,000 | \$4,390,035 | 6.64% | \$6,289 | \$7,014 | \$187,228 | 9,740 |
| QC | QC | Personal Property | 1,138 | 0 | \$5,137,000 | \$0 | 0.00% | \$4,514 | \$103,000 | \$0 | 1,011 |
| | | FD | 1,138 | 0 | \$5,137,000 | \$0 | 0.00% | \$4,469 | | | 1,003 |
| | | New PD | 28 | 0 | \$76,000 | \$0 | 0.00% | \$2,764 | | | 23 |
| | | Senior Backup / Water | 44 | 0 | \$787,000 | \$0 | 0.00% | \$17,924 | | | 32 |
| | | Commercial Property | 123 | 0 | \$927,000 | \$0 | 0.00% | \$7,537 | \$63,000 | \$0 | 105 |
| | | FD | 123 | 0 | \$927,000 | \$0 | 0.00% | \$7,546 | | | 98 |
| | | New PD | 8 | 0 | \$13,000 | \$0 | 0.00% | \$1,625 | | | 1 |
| | | Small (-\$300k) | 123 | 0 | \$927,000 | \$0 | 0.00% | \$7,537 | | | 108 |
| | | Large (-\$500k) | 0 | 0 | \$0 | \$0 | 0.00% | | | | 0 |
| | | Auto | 1,363 | 0 | \$4,186,000 | \$0 | 0.00% | \$3,028 | \$35,000 | \$0 | 1,274 |
| Total QC | | | 2,644 | 0 | \$10,252,000 | \$0 | 0.00% | \$3,077 | \$101,000 | \$0 | 2,394 |
| Total | | | 13,161 | 628 | \$76,798,000 | \$4,390,035 | 5.75% | \$5,805 | \$7,014 | \$2,236,000 | 12,134 |
| 2014-16 Cat 045 | AB | Personal Property | 21,158 | 1,043 | \$281,380,000 | \$18,153,703 | 6.44% | \$12,172 | \$17,490 | \$15,599,000 | 22,299 |
| | | FD | 21,158 | 1,043 | \$281,380,000 | \$18,153,703 | 6.45% | \$12,169 | \$17,492 | | 22,275 |
| | | Total AB | | | | | | | | | |

Analysis Dashboard (Single & Multi-CAT)

Analysis Dashboard is where you can view charts and benchmark your company on loss estimates by province and LOB.

- Easy to use graphs & charts for each LOB
- Evolution of industry loss estimates
- Track average industry claim, estimate development & closing rates
- Track CAT impact on Direct Loss Ratios
- Compare estimate development for up to 5 CATs (incl. average CAT information)
- SuperUsers can benchmark industry data with their own loss estimates
- SuperUsers can compare DPW provincial market share with CAT market share
- Export PDF reports

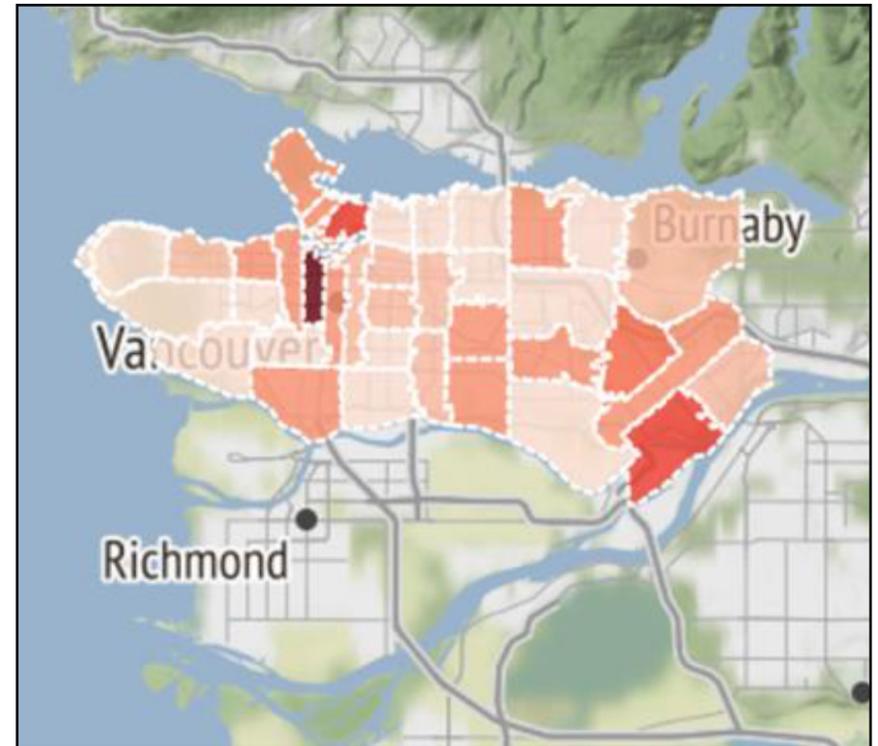


Subscription Benefits

Industry Exposure & Loss Database (IED)

The IED is where you can view total sums insured information and loss estimates at the FSA/CRESTA level.

- Industry exposure by FSA/CRESTA, by Peril and by LOB
- Industry event loss and mean damage ratio by FSA/CRESTA, by Peril and by LOB, for events where loss > \$300m (90-day, 6-month, 1-year and, if loss > \$500m, 2-year)
- Filter data in exportable tables
- Exposure Map View
- Derive vulnerability of insured values
- CAT model calibration
- Use industry insured loss estimates as triggers for CAT Bonds (ILS), ILW and other risk-transfer instruments.
- The IED contains high quality and up-to-date industry totals for the Canadian primary property insurance industry. Industry totals are based on aggregate data collected directly from primary insurance companies writing property business in Canada.
- **CatIQ's IED is provided to participating primary insurers at no extra cost**



CONTACT US TO ARRANGE A FREE DEMO
EMAIL LAURA.TWIDLE@CATIQ.COM

Additional Benefits

Before Events

- Receive Outlook Forecasts, CatWATCH & Event Alerts for events up to three days in advance, enabling you to ready your teams and resources
- Run forecast footprint through scenario loss model
- View industry and, if participating, company exposures for the forecasted areas of concern

During Active Catastrophes (CATs) or Notable Events (NE)

- Quickly understand the scope of the event including expected demands on your call centres, claims teams, your suppliers and expectations for your policyholders
- Assist in reserve setting
- Monitor your closing rates relative to industry. If industry closing is slow it may indicate that external resources will remain strained.
- Easily monitor official and social media relating to the event
- Understand the meteorological mechanisms driving the event
- Compare to similar historical events on the platform
- Assist in communication with reinsurers and other stakeholders
- Monitor your average payouts and ALAE spend relative to industry



CatIQ™ NEW CatWATCH ALERT

ON, QC, NL Heavy Rain and Strong Winds

Hello Laura,

CatIQ has issued a new CatWATCH Alert. A **Severe Weather** Alert is in effect for the following province(s): **ON, QC, NL**.

CatIQ will continue to monitor this developing situation on [CatIQ's Platform](#). You will not receive any further emails related to this CatWATCH but periodic updates will be available online.

Please log in to [CatIQ's Platform](#) and select "WxWATCH" to access periodic updates including:

- Description of Issue
- Meteorological Description (if applicable)
- Areas Impacted
- Potential Physical Property Damage and Preparation
- Curated Twitter feed
- Updated Footprints

Additional Benefits

Underwriting & Pricing

- Use historical CAT and NE information to inform your regional underwriting, marketing, product design and pricing methodologies
- Use your own loss experience relative to industry to demonstrate superior risk management to external parties such as reinsurance brokers, reinsurers, rating agencies etc. (external parties must also be licensed for CatIQ)
- Monitor your CAT market share vs. your DPW provincial market share
- Calibrate catastrophe risk models

Reinsurance

- Use historical CAT information in CatIQ to assist in optimizing your reinsurance program structure and needs
- Use CatIQ's CAT Codes to tag losses allowing you to capture all appropriate losses in the bordereau and facilitate apples to apples communication with reinsurance brokers and reinsurers

ILS & Capital Markets - CatIQ is The Index for Canada

- CatIQ is designed to be used as an industry loss index, trigger and/or as an independent CAT designator for Cat Bonds, ILS, ILW and other instruments
- *For more information, please contact us directly!*

Industry-wide Initiatives

(Requires pre-approval from and coordination with CatIQ)

- Dialogue with policymakers regarding mitigation and costs of natural catastrophes to society
- Facilitate cross-jurisdictional mobility of adjusters and others

External Communications *(Requires pre-approval from CatIQ)*

- Use CatIQ information in communication with brokers, policyholders, investors and media



CatIQ Bootcamp

We offer free technical software training webinars to our subscribers to ensure that you learn how to get the most out of all our platform features.



PERILS

CatIQ was acquired by PERILS AG in July 2019

Excellence in Insurance Industry Benchmarks

PERILS AG is an independent Zurich-based organization providing high-quality data relevant to the insurance industry with the aim of increasing the understanding of insured risk and to facilitate risk transfer.

PERILS AG makes every effort to achieve the highest standards in both products and services and is committed to product innovation to ensure that value is continually being added to the global insurance industry.

PERILS' products support a wide range of portfolio and risk management functions and are designed to be relevant to insurers, reinsurers, intermediaries, modelers, ILS/ILW investment funds, claims managers, regulators, rating agencies, academic institutions and other related organizations and bodies.

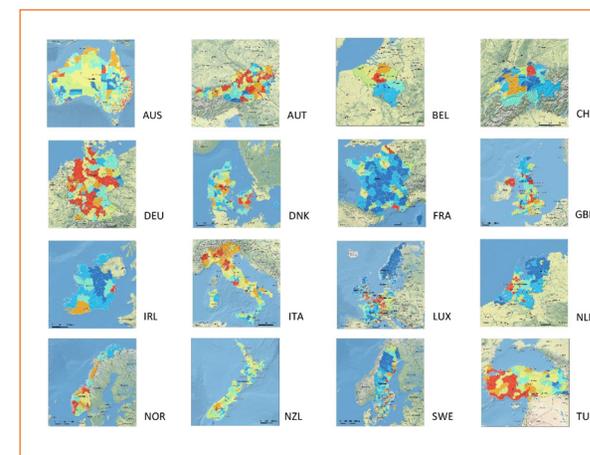
WWW.PERILS.ORG



Aggregated PERILS-based Limits in USD m as at 31 Dec



► **Aggregated PERILS-based Limits in USD b as at 31 Dec:** On a cumulative basis, PERILS has facilitated more than USD 17bn in Cat risk capital by acting as an independent reporting agency for industry-loss-based risk transfer. It is a good example of how market data made available by PERILS facilitated additional risk capacity.



PERILS AG currently covers the markets of Australia, Canada, Europe, New Zealand and Turkey.



QUARTERLY WEBINAR SERIES UNTIL 2022

Details on our next event to be posted in late summer.
Visit connect.catiq.com to get on our mailing list



*We bring together all sectors to discuss
best practices and innovative solutions to
mitigate catastrophic loss.*



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