ThemisIQ

PREPARED BY THEMISIQ COMPLIANCE INC.

Climate Risk Screening

Resilience analysis

Multi-scenario resilience screening of climate-related risks and opportunities across four climate futures, by country, industry and kind of site, supporting IFRS S2 para 22. It reads the same datasets as the IFRS S2 Report, summarised by country.

Legal entity	Larchwood Cell Works Inc.
Reporting period	1 January – 31 December 2026
Industry	Battery Manufacturing (NAICS 335910)
Countries	Canada, United States, Mexico
Kinds of sites	Manufacturing plant, Warehouse or distribution centre, Office
Sites that depend on water	Yes
Policy jurisdictions	Canada (industrial carbon pricing), US (federal), Mexico (carbon tax)
Scenarios tested	Limited to 1.5 °C (~1.4 °C), Paris-aligned (~1.8 °C), Current trajectory (~2.7 °C), High warming (~4.4 °C)
Time horizon	Medium term (to 2040)
Model version	Model 2.0 (S2 method 1.0)
Assessment date	October 29, 2026

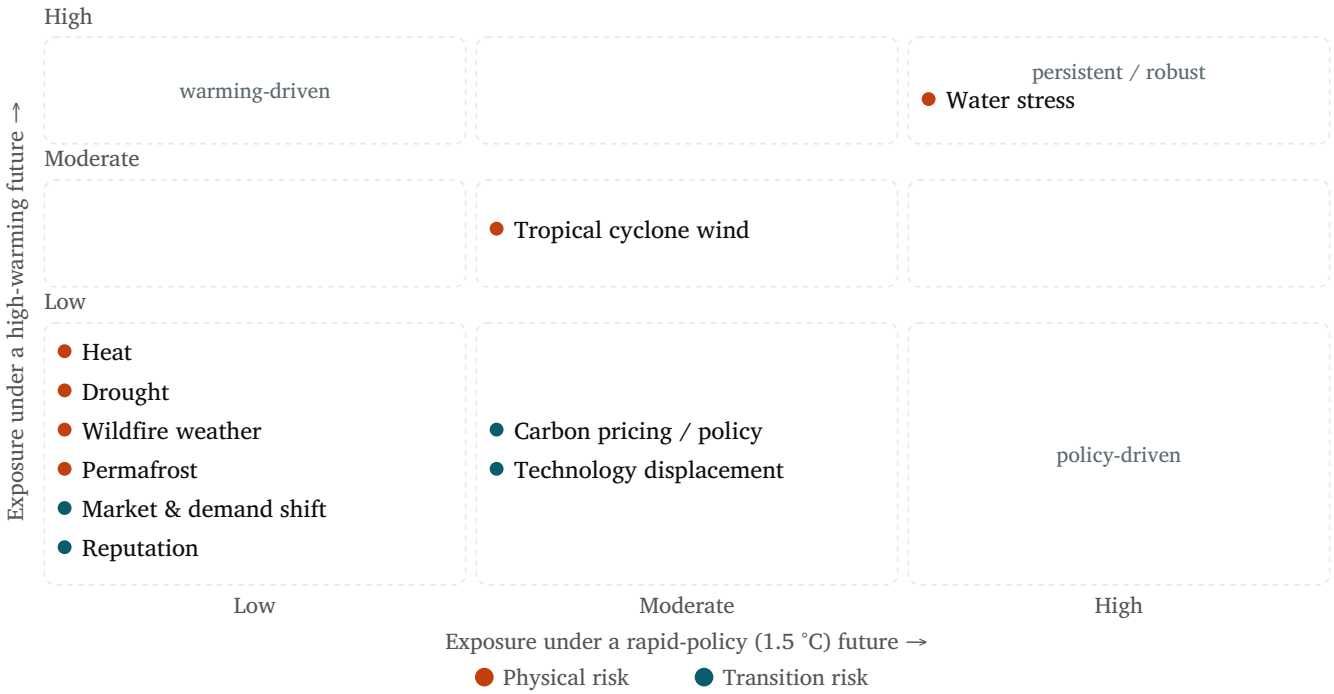
Resilience conclusion

Across all four futures, water stress and tropical cyclone wind remain material risks: robust exposures that warrant attention regardless of the policy path. Carbon pricing / policy and technology displacement are most material under the 1.5 °C pathway, indicating sensitivity to the speed of decarbonisation policy rather than to warming itself. The business faces meaningful stress under both transition-led and physical-led futures: resilience requires preparing for either rather than betting on a single pathway. Measured on band severity, the risk profile shows a moderate shift across scenarios (4 material risks under the 1.5 °C pathway, 2 under the high-warming pathway). This is a screening-level resilience read; the final determination of strategic resilience is a matter for management judgement, informed by entity-specific data.

TWO-CHANNEL EXPOSURE	SCENARIO PROFILE	HORIZON TREND
Both transition & physical	moderate shift	Overall profile, middle scenario: stable over time

Resilience map

Each risk is positioned by its exposure under a rapid-policy (1.5 °C) future and under a high-warming future. Risks toward the top-right are material whichever way the future unfolds; the spread between the physical group (toward the top) and the transition group (toward the right) is the two-channel exposure. Axes use the calibrated bands (Low / Moderate / High), the measure that is comparable across drivers.



Scenario selection and rationale

Resilience is assessed across a fixed set of four scenarios. The set spans a future limited to 1.5 °C, a Paris-aligned future, a current-trajectory middle case, and a high-warming case: deliberately stressing both the transition channel (most acute under rapid decarbonisation) and the physical channel (most acute under high warming).

Role	Scenario	Warming	Source
Limited to 1.5 °C	SSP1-1.9	~1.4 °C	IPCC AR6 (SSP1-1.9)
Paris-aligned	SSP1-2.6	~1.8 °C	IPCC AR6 (SSP1-2.6)
Current trajectory	SSP2-4.5	~2.7 °C	IPCC AR6 (SSP2-4.5)
High warming	SSP5-8.5	~4.4 °C	IPCC AR6 (SSP5-8.5)

Framework	Asks whether the analysis used	This run
IFRS S2 paragraph 22(b)(i)	A diverse range of scenarios	Yes: 4 scenarios.
IFRS S2 paragraph 22(b)(i)	A scenario aligned with the latest international agreement on climate change	Yes: SSP1-1.9, about 1.4 °C; SSP1-2.6, about 1.8 °C.
ESRS (2026) E1-2 paragraph 17(a), where scenario analysis is used	A high-emission scenario, for physical risks	Yes: SSP5-8.5, about 4.4 °C.
ESRS (2026) E1-2 paragraph 17(a), where scenario analysis is used	A 1.5 °C scenario with no or limited overshoot, for transition risks	Yes: SSP1-1.9, about 1.4 °C.

Warming figures are IPCC AR6 best estimates for 2081 to 2100 (Working Group I, Table SPM.1). Each scenario's physical figures are read from its own projections where a dataset projects the hazard; where it does not, today's level is shown with the scenario's warming beside it, interpolated from Table SPM.1, and no multiplier is applied. The transition pressure is derived from NGFS Phase 5.1 carbon prices and low-carbon energy shares, by driver and horizon. Under IFRS S2, and under ESRS where scenario analysis is used, the choice of scenarios and the reason for it are disclosed; this section documents that judgment.

Transition multipliers are derived from the NGFS Climate Scenarios Data Set, Phase 5, version 5.1 (Richters, O. et al., 2026, https://doi.org/10.5281/zenodo.17901363): carbon prices and low-carbon energy shares from the GCAM, MESSAGEix-GLOBIOM and REMIND-MAgPIE models, converted by ThemisIQ into scenario multipliers. The data are licensed under the NGFS Scenarios licence, adapted from CC BY 4.0, which includes a disclaimer of warranties (https://data.ene.iiasa.ac.at/ngfs/#/license). NGFS does not endorse ThemisIQ or this analysis.

This screening uses a standard set of four scenarios spanning the IPCC AR6 range, including a 1.5 °C scenario and a Paris-aligned one. It is NOT TAILORED TO YOUR ENTITY. IFRS S2 22(b)(i) requires an entity to explain why its chosen scenarios are relevant to it. A formal assessment should select scenarios that stress the specific hazards and jurisdictions identified in this screening, and state that reasoning. Scenario selection is a matter for management.

Your physical risk level across scenarios

Each hazard's level is the country band times the sensitivity of the kind of site, as the IFRS S2 Report scores each site, and the highest across your countries and kinds of sites.

Assumes every kind of site could be in every country, so the highest level is cautious.

Water stress and drought are raised by one for every kind of site, as you said some depend on water (capped at 3).

Risk	Limited to 1.5 °C ~1.4 °C	Paris-aligned ~1.8 °C	Current trajectory ~2.7 °C	High warming ~4.4 °C	Pattern
Heat in the United States, Mexico	Low 0.00	Low 0.00	Low 2.00	Low 2.00	Low across futures
Drought in Mexico	Low 0.00	Low 0.00	Low 2.00	Low 2.00	Low across futures
Water stress in the United States, Mexico	High 6.00	High 6.00	High 6.00	High 6.00	Persistent
Wildfire weather in Mexico	Low 1.00	Low 1.00	Low 2.00	Low 2.00	Low across futures
Tropical cyclone wind in the United States, Mexico	Moderate 4.00	Moderate 4.00	Moderate 4.00	Moderate 4.00	Persistent
Permafrost in Canada, the United States, Mexico	Low 0.00	Low 0.00	Low 0.00	Low 0.00	Low across futures

Water stress and tropical cyclone wind are material across all four futures.

- Heat: low across all four futures.
- Drought: low across all four futures.
- Water stress: material across all four futures (high under every pathway). A persistent physical exposure that stays broadly level across the range.
- Wildfire weather: low across all four futures.
- Tropical cyclone wind: material across all four futures (moderate under every pathway). A persistent physical exposure that stays broadly level across the range.
- Permafrost: low across all four futures.

River flooding. Shown as a share of people, not scored.

Coastal flooding. Shown as a share of people, not scored.

Heat

Each cell: the level and its score, then the kind of site and country with the highest score (all of them where several tie), or "all" where every kind of site in every country scores 0. The score is the country's band times the kind of site's sensitivity, set out under the table.

Present day: Low 0.00 · all

Scenario	2030	2040	2050
SSP1-1.9	Low 0.00 · all	Low 0.00 · all	Low 0.00 · all
SSP1-2.6	Low 0.00 · all	Low 0.00 · all	Low 0.00 · all
SSP2-4.5	Low 0.00 · all	Low 2.00 · manufacturing plant and warehouse or distribution centre, United States	Low 2.00 · manufacturing plant and warehouse or distribution centre, United States
SSP5-8.5	Low 0.00 · all	Low 2.00 · manufacturing plant and warehouse or distribution centre, United States and Mexico	Low 2.00 · manufacturing plant and warehouse or distribution centre, United States and Mexico

SSP2-4.5, 2040 and 2050: Manufacturing plant and warehouse or distribution centre in the United States, band 1 x sensitivity 2.

SSP5-8.5, 2040 and 2050: Manufacturing plant and warehouse or distribution centre in the United States and Mexico, band 1 x sensitivity 2.

Same 20-year window as 2040; the source has no later window centred on 2050.

Drought

Each cell: the level and its score, then the kind of site and country with the highest score (all of them where several tie), or "all" where every kind of site in every country scores 0. The score is the country's band times the kind of site's sensitivity, set out under the table.

Present day: Low 0.00 · all

Scenario	2030	2040	2050
SSP1-1.9	Low 0.00 · all	Low 0.00 · all	Low 0.00 · all
SSP1-2.6	Low 0.00 · all	Low 0.00 · all	Low 0.00 · all
SSP2-4.5	Low 0.00 · all	Low 2.00 · manufacturing plant, Mexico	Low 2.00 · manufacturing plant, Mexico
SSP5-8.5	Low 0.00 · all	Low 2.00 · manufacturing plant, Mexico	Low 2.00 · manufacturing plant, Mexico

SSP2-4.5 and SSP5-8.5, 2040 and 2050: Manufacturing plant in Mexico, band 1 x sensitivity 2.

Same 20-year window as 2040; the source has no later window centred on 2050.

Water stress

The same today and in every scenario, 2030 to 2050: High 6.00 · manufacturing plant, United States and Mexico

Manufacturing plant in the United States and Mexico, band 3 x sensitivity 2.

Aqueduct has no SSP1-1.9; its optimistic pathway (SSP1-2.6) is used, the nearest.

Aqueduct has no SSP2-4.5; its business-as-usual pathway (SSP3-7.0) is used, the nearest in IPCC AR6 warming for 2041-2060 (2.0 °C against 2.1 °C).

Wildfire weather

Each cell: the level and its score, then the kind of site and country with the highest score (all of them where several tie), or "all" where every kind of site in every country scores 0. The score is the country's band times the kind of site's sensitivity, set out under the table.

Present day: Low 1.00 · manufacturing plant and warehouse or distribution centre, Mexico

Scenario	2030	2040	2050
SSP1-1.9	Low 1.00 · manufacturing plant and warehouse or distribution centre, Canada, United States and Mexico	Low 1.00 · manufacturing plant and warehouse or distribution centre, Canada, United States and Mexico	Low 1.00 · manufacturing plant and warehouse or distribution centre, Canada, United States and Mexico
SSP1-2.6	Low 1.00 · manufacturing plant and warehouse or distribution centre, Canada, United States and Mexico	Low 1.00 · manufacturing plant and warehouse or distribution centre, United States and Mexico	Low 2.00 · manufacturing plant and warehouse or distribution centre, Mexico
SSP2-4.5	Low 1.00 · manufacturing plant and warehouse or distribution centre, Canada, United States and Mexico	Low 2.00 · manufacturing plant and warehouse or distribution centre, Mexico	Low 2.00 · manufacturing plant and warehouse or distribution centre, Mexico
SSP5-8.5	Low 1.00 · manufacturing plant and warehouse or distribution centre, Canada, United States and Mexico	Low 2.00 · manufacturing plant and warehouse or distribution centre, Mexico	Low 2.00 · manufacturing plant and warehouse or distribution centre, Mexico

Present day: Manufacturing plant and warehouse or distribution centre in Mexico, band 1 x sensitivity 1.

SSP1-1.9, 2030, 2040 and 2050; SSP1-2.6, SSP2-4.5 and SSP5-8.5, 2030: Manufacturing plant and warehouse or distribution centre in Canada, the United States and Mexico, band 1 x sensitivity 1.

SSP1-2.6, 2040: Manufacturing plant and warehouse or distribution centre in the United States and Mexico, band 1 x sensitivity 1.

SSP1-2.6, 2050; SSP2-4.5 and SSP5-8.5, 2040 and 2050: Manufacturing plant and warehouse or distribution centre in Mexico, band 2 x sensitivity 1.

Tropical cyclone wind

The same today and in every scenario, 2030 to 2050: Moderate 4.00 · warehouse or distribution centre, United States and Mexico

Warehouse or distribution centre in the United States and Mexico, band 2 x sensitivity 2.

CHAZ has no SSP1-1.9 or SSP1-2.6; SSP2-4.5 is used, so this likely reads high for the low-warming futures.

Permafrost

The same today and in every scenario, 2030 to 2050: Low 0.00 for every kind of site in every country

Physical risk by country

Each country's figure is the band that a quarter or more of its people live at or above, from the same hazard datasets the IFRS S2 Report reads at each site, weighted by where people live (GHS-POP, 2020). River and coastal flooding are shown as shares of people where the 100-year flood is 0.5 m or deeper, and are not scored.

Canada

Heat

The same today and in every scenario, 2030 to 2050: Band 0: 0.0% of Canada's people live at band 1 or higher, fewer than a quarter.

Drought

Each cell: the band, then the share of Canada's people living at that band or higher.

Present day: Band 0 · 0.0% at band 1 or higher

Scenario	2030	2040	2050
SSP1-1.9	Band 0 · 0.0% at band 1 or higher	Band 0 · 0.0% at band 1 or higher	Band 0 · 0.0% at band 1 or higher
SSP1-2.6	Band 0 · 0.0% at band 1 or higher	Band 0 · 0.8% at band 1 or higher	Band 0 · 0.8% at band 1 or higher
SSP2-4.5	Band 0 · 0.0% at band 1 or higher	Band 0 · 0.4% at band 1 or higher	Band 0 · 0.4% at band 1 or higher
SSP5-8.5	Band 0 · 1.1% at band 1 or higher	Band 0 · 19.0% at band 1 or higher	Band 0 · 19.0% at band 1 or higher

Same 20-year window as 2040; the source has no later window centred on 2050.

Water stress

Each cell: the band, then the share of Canada's people living at that band or higher.

Present day: Band 1 · 26.2%

Scenario	2030	2040	2050
SSP1-1.9	Band 1 · 26.4%	Band 1 · 27.8%	Band 1 · 27.8%
SSP1-2.6	Band 1 · 26.4%	Band 1 · 27.8%	Band 1 · 27.8%
SSP2-4.5	Band 1 · 26.4%	Band 1 · 26.5%	Band 1 · 26.5%
SSP5-8.5	Band 1 · 26.6%	Band 1 · 27.9%	Band 1 · 27.9%

0.8% of Canada's people live outside this dataset's coverage.

20.3% of Canada's people live in catchments where water stress is not scored, because their main water supply is a large lake or river that Aqueduct's figure does not reflect.

Present day: 94.8% of Canada's people live in catchments where most of the water withdrawn is returned after use. 0.1% of Canada's people live in catchments where much of the water withdrawn is used up rather than returned.

SSP1-1.9 and SSP1-2.6, 2030, 2040 and 2050; SSP5-8.5, 2030: 96.0% of Canada's people live in catchments where most of the water withdrawn is returned after use. 0.1% of Canada's people live in catchments where much of the water withdrawn is used up rather than returned.

SSP2-4.5, 2030: 96.1% of Canada's people live in catchments where most of the water withdrawn is returned after use. 0.8% of Canada's people live in catchments where much of the water withdrawn is used up rather than returned.

SSP2-4.5, 2040 and 2050: 94.9% of Canada's people live in catchments where most of the water withdrawn is returned after use. 0.1% of Canada's people live in catchments where much of the water withdrawn is used up rather than returned.

SSP5-8.5, 2040 and 2050: 95.9% of Canada's people live in catchments where most of the water withdrawn is returned after use. 0.1% of Canada's people live in catchments where much of the water withdrawn is used up rather than returned.

2040 and 2050 read the same Aqueduct window, 2035–2065: 2040 is equally near Aqueduct's 2030 and 2050 windows, and the

later one is used.

Aqueduct has no SSP1-1.9; its optimistic pathway (SSP1-2.6) is used, the nearest.

Aqueduct has no SSP2-4.5; its business-as-usual pathway (SSP3-7.0) is used, the nearest in IPCC AR6 warming for 2041-2060 (2.0 °C against 2.1 °C).

River flooding

The same today and in every scenario, 2030 to 2050: 7.2% of Canada's people live where the 100-year river flood is 0.5 m or deeper.

Warming (interpolated from IPCC AR6 Table SPM.1)

Scenario	2030	2040	2050
SSP1-1.9	1.50 °C	1.55 °C	1.60 °C
SSP1-2.6	1.50 °C	1.60 °C	1.70 °C
SSP2-4.5	1.50 °C	1.75 °C	2.00 °C
SSP5-8.5	1.60 °C	2.00 °C	2.40 °C

The source has no projections; the level shown is today's, with the scenario's warming beside it.

Coastal flooding

Each cell: the share of Canada's coastal population living where the 100-year coastal flood is 0.5 m or deeper, then the median local sea-level rise since 1995–2014 on its coastal strip (IPCC AR6).

Present day: 0.3%

Scenario	2030	2040	2050
SSP1-1.9	0.3% · sea level +0.12 m	0.3% · sea level +0.18 m	0.3% · sea level +0.23 m
SSP1-2.6	0.3% · sea level +0.13 m	0.3% · sea level +0.19 m	0.3% · sea level +0.25 m
SSP2-4.5	0.3% · sea level +0.12 m	0.3% · sea level +0.19 m	0.3% · sea level +0.26 m
SSP5-8.5	0.3% · sea level +0.13 m	0.3% · sea level +0.20 m	0.3% · sea level +0.28 m

The flood share for 2040 and 2050 reads the same WRI projection year, 2050: 2040 is equally near WRI's 2030 and 2050, and the later is used. Sea level is projected for each year.

RCP 4.5 used for SSP1-1.9.

RCP 4.5 used for SSP1-2.6.

Wildfire weather

Each cell: the band, then the share of Canada's people living at that band or higher.

Present day: Band 0 · 2.3% at band 1 or higher

Scenario	2030	2040	2050
SSP1-1.9	Band 1 · 39.7%	Band 1 · 37.0%	Band 1 · 38.3%
SSP1-2.6	Band 1 · 35.8%	Band 0 · 17.0% at band 1 or higher	Band 1 · 49.6%
SSP2-4.5	Band 1 · 65.1%	Band 1 · 76.2%	Band 1 · 83.8%
SSP5-8.5	Band 1 · 36.3%	Band 1 · 81.1%	Band 1 · 90.8%

Bands count extreme fire-weather days against this place's own 1850-1900 climate, when it had about 18 such days a year: band 1 from 1.5 times as many, band 2 from twice, band 3 from three times.

Tropical cyclone wind

Each cell: the band, then the share of Canada's people living at that band or higher.

Present day: Band 0 · 16.3% at band 1 or higher

Scenario	2030	2040	2050
SSP1-1.9	Band 0 · 16.3% at band 1 or higher	Band 0 · 16.6% at band 1 or higher	Band 0 · 16.6% at band 1 or higher
SSP1-2.6	Band 0 · 16.3% at band 1 or higher	Band 0 · 16.6% at band 1 or higher	Band 0 · 16.6% at band 1 or higher
SSP2-4.5	Band 0 · 16.3% at band 1 or higher	Band 0 · 16.6% at band 1 or higher	Band 0 · 16.6% at band 1 or higher
SSP5-8.5	Band 0 · 16.3% at band 1 or higher	Band 0 · 16.3% at band 1 or higher	Band 0 · 16.3% at band 1 or higher

56.7% of Canada's people live outside this dataset's coverage.

2030 reads the present climate (1995–2014): CHAZ has no projection near 2030. 2040 and 2050 read the same window, 2041–2060.

CHAZ has no SSP1-1.9 or SSP1-2.6; SSP2-4.5 is used, so this likely reads high for the low-warming futures.

Permafrost

The same today and in every scenario, 2030 to 2050: Band 0: 1.1% of Canada's people live at band 1 or higher, fewer than a quarter.

Warming (interpolated from IPCC AR6 Table SPM.1)

Scenario	2030	2040	2050
SSP1-1.9	1.50 °C	1.55 °C	1.60 °C
SSP1-2.6	1.50 °C	1.60 °C	1.70 °C
SSP2-4.5	1.50 °C	1.75 °C	2.00 °C
SSP5-8.5	1.60 °C	2.00 °C	2.40 °C

The source has no projections; the level shown is today's, with the scenario's warming beside it.

United States

Heat

Each cell: the band, then the share of the United States' people living at that band or higher.

Present day: Band 0 · 1.6% at band 1 or higher

Scenario	2030	2040	2050
SSP1-1.9	Band 0 · 17.0% at band 1 or higher	Band 0 · 24.4% at band 1 or higher	Band 0 · 24.4% at band 1 or higher
SSP1-2.6	Band 0 · 18.5% at band 1 or higher	Band 0 · 24.7% at band 1 or higher	Band 0 · 24.7% at band 1 or higher
SSP2-4.5	Band 0 · 19.0% at band 1 or higher	Band 1 · 29.5%	Band 1 · 29.5%
SSP5-8.5	Band 0 · 21.4% at band 1 or higher	Band 1 · 35.4%	Band 1 · 35.4%

Same 20-year window as 2040; the source has no later window centred on 2050.

Drought

Each cell: the band, then the share of the United States' people living at that band or higher.

Present day: Band 0 · 0.0% at band 1 or higher

Scenario	2030	2040	2050
SSP1-1.9	Band 0 · 0.7% at band 1 or higher	Band 0 · 2.1% at band 1 or higher	Band 0 · 2.1% at band 1 or higher
SSP1-2.6	Band 0 · 1.1% at band 1 or higher	Band 0 · 3.9% at band 1 or higher	Band 0 · 3.9% at band 1 or higher
SSP2-4.5	Band 0 · 2.0% at band 1 or higher	Band 0 · 6.8% at band 1 or higher	Band 0 · 6.8% at band 1 or higher
SSP5-8.5	Band 0 · 3.3% at band 1 or higher	Band 0 · 13.6% at band 1 or higher	Band 0 · 13.6% at band 1 or higher

Same 20-year window as 2040; the source has no later window centred on 2050.

Water stress

Each cell: the band, then the share of the United States' people living at that band or higher.

Present day: Band 3 · 38.3%

Scenario	2030	2040	2050
SSP1-1.9	Band 3 · 45.3%	Band 3 · 48.4%	Band 3 · 48.4%
SSP1-2.6	Band 3 · 45.3%	Band 3 · 48.4%	Band 3 · 48.4%
SSP2-4.5	Band 3 · 40.3%	Band 3 · 43.4%	Band 3 · 43.4%
SSP5-8.5	Band 3 · 44.7%	Band 3 · 52.5%	Band 3 · 52.5%

0.5% of the United States' people live outside this dataset's coverage.

2.9% of the United States' people live in catchments where water stress is not scored, because their main water supply is a large lake or river that Aqueduct's figure does not reflect.

Present day: 81.7% of the United States' people live in catchments where most of the water withdrawn is returned after use. 1.9% of the United States' people live in catchments where much of the water withdrawn is used up rather than returned.

SSP1-1.9 and SSP1-2.6, 2030: 82.8% of the United States' people live in catchments where most of the water withdrawn is returned after use. 2.0% of the United States' people live in catchments where much of the water withdrawn is used up rather than returned.

SSP1-1.9 and SSP1-2.6, 2040 and 2050: 85.1% of the United States' people live in catchments where most of the water withdrawn is returned after use. 1.9% of the United States' people live in catchments where much of the water withdrawn is used up rather than returned.

SSP2-4.5, 2030: 84.0% of the United States' people live in catchments where most of the water withdrawn is returned after use. 1.7% of the United States' people live in catchments where much of the water withdrawn is used up rather than returned.

SSP2-4.5, 2040 and 2050: 83.3% of the United States' people live in catchments where most of the water withdrawn is returned after use. 2.0% of the United States' people live in catchments where much of the water withdrawn is used up rather than returned.

SSP5-8.5, 2030: 82.6% of the United States' people live in catchments where most of the water withdrawn is returned after use. 2.0% of the United States' people live in catchments where much of the water withdrawn is used up rather than returned.

SSP5-8.5, 2040 and 2050: 82.3% of the United States' people live in catchments where most of the water withdrawn is returned after use. 2.2% of the United States' people live in catchments where much of the water withdrawn is used up rather than returned.

2040 and 2050 read the same Aqueduct window, 2035–2065: 2040 is equally near Aqueduct's 2030 and 2050 windows, and the later one is used.

Aqueduct has no SSP1-1.9; its optimistic pathway (SSP1-2.6) is used, the nearest.

Aqueduct has no SSP2-4.5; its business-as-usual pathway (SSP3-7.0) is used, the nearest in IPCC AR6 warming for 2041-2060 (2.0 °C against 2.1 °C).

River flooding

The same today and in every scenario, 2030 to 2050: 5.4% of the United States' people live where the 100-year river flood is 0.5 m or deeper.

Warming (interpolated from IPCC AR6 Table SPM.1)

Scenario	2030	2040	2050
SSP1-1.9	1.50 °C	1.55 °C	1.60 °C
SSP1-2.6	1.50 °C	1.60 °C	1.70 °C
SSP2-4.5	1.50 °C	1.75 °C	2.00 °C
SSP5-8.5	1.60 °C	2.00 °C	2.40 °C

0.5% of the United States' people live outside this dataset's coverage.

The source has no projections; the level shown is today's, with the scenario's warming beside it.

Coastal flooding

Each cell: the share of the United States' coastal population living where the 100-year coastal flood is 0.5 m or deeper, then the median local sea-level rise since 1995–2014 on its coastal strip (IPCC AR6).

Present day: 0.3%

Scenario	2030	2040	2050
SSP1-1.9	0.5% · sea level +0.16 m	0.6% · sea level +0.23 m	0.6% · sea level +0.31 m
SSP1-2.6	0.5% · sea level +0.17 m	0.6% · sea level +0.24 m	0.6% · sea level +0.31 m
SSP2-4.5	0.5% · sea level +0.16 m	0.6% · sea level +0.24 m	0.6% · sea level +0.33 m
SSP5-8.5	0.5% · sea level +0.17 m	0.6% · sea level +0.25 m	0.6% · sea level +0.35 m

The flood share for 2040 and 2050 reads the same WRI projection year, 2050: 2040 is equally near WRI's 2030 and 2050, and the later is used. Sea level is projected for each year.

RCP 4.5 used for SSP1-1.9.

RCP 4.5 used for SSP1-2.6.

Wildfire weather

Each cell: the band, then the share of the United States' people living at that band or higher.

Present day: Band 0 · 6.9% at band 1 or higher

Scenario	2030	2040	2050
SSP1-1.9	Band 1 · 37.2%	Band 1 · 39.8%	Band 1 · 38.6%
SSP1-2.6	Band 1 · 37.1%	Band 1 · 40.7%	Band 1 · 41.5%
SSP2-4.5	Band 1 · 58.4%	Band 1 · 54.6%	Band 1 · 52.8%
SSP5-8.5	Band 1 · 34.6%	Band 1 · 52.9%	Band 1 · 66.5%

Bands count extreme fire-weather days against this place's own 1850-1900 climate, when it had about 18 such days a year: band 1 from 1.5 times as many, band 2 from twice, band 3 from three times.

Tropical cyclone wind

Each cell: the band, then the share of the United States' people living at that band or higher.

Present day: Band 2 · 25.2%

Scenario	2030	2040	2050
SSP1-1.9	Band 2 · 25.2%	Band 2 · 28.7%	Band 2 · 28.7%
SSP1-2.6	Band 2 · 25.2%	Band 2 · 28.7%	Band 2 · 28.7%
SSP2-4.5	Band 2 · 25.2%	Band 2 · 28.7%	Band 2 · 28.7%
SSP5-8.5	Band 2 · 25.2%	Band 2 · 30.2%	Band 2 · 30.2%

49.1% of the United States' people live outside this dataset's coverage.

2030 reads the present climate (1995–2014): CHAZ has no projection near 2030. 2040 and 2050 read the same window, 2041–2060.

CHAZ has no SSP1-1.9 or SSP1-2.6; SSP2-4.5 is used, so this likely reads high for the low-warming futures.

Permafrost

The same today and in every scenario, 2030 to 2050: Band 0: 0.1% of the United States' people live at band 1 or higher, fewer than a quarter.

Warming (interpolated from IPCC AR6 Table SPM.1)

Scenario	2030	2040	2050
SSP1-1.9	1.50 °C	1.55 °C	1.60 °C
SSP1-2.6	1.50 °C	1.60 °C	1.70 °C
SSP2-4.5	1.50 °C	1.75 °C	2.00 °C
SSP5-8.5	1.60 °C	2.00 °C	2.40 °C

0.5% of the United States' people live outside this dataset's coverage.

The source has no projections; the level shown is today's, with the scenario's warming beside it.

Mexico

Heat

Each cell: the band, then the share of Mexico's people living at that band or higher.

Present day: Band 0 · 12.6% at band 1 or higher

Scenario	2030	2040	2050
SSP1-1.9	Band 0 · 21.8% at band 1 or higher	Band 0 · 24.1% at band 1 or higher	Band 0 · 24.1% at band 1 or higher
SSP1-2.6	Band 0 · 22.4% at band 1 or higher	Band 0 · 23.4% at band 1 or higher	Band 0 · 23.4% at band 1 or higher
SSP2-4.5	Band 0 · 22.3% at band 1 or higher	Band 0 · 24.9% at band 1 or higher	Band 0 · 24.9% at band 1 or higher

Scenario	2030	2040	2050
SSP5-8.5	Band 0 · 22.4% at band 1 or higher	Band 1 · 28.6%	Band 1 · 28.6%

Same 20-year window as 2040; the source has no later window centred on 2050.

Drought

Each cell: the band, then the share of Mexico's people living at that band or higher.

Present day: Band 0 · 0.0% at band 1 or higher

Scenario	2030	2040	2050
SSP1-1.9	Band 0 · 1.1% at band 1 or higher	Band 0 · 10.2% at band 1 or higher	Band 0 · 10.2% at band 1 or higher
SSP1-2.6	Band 0 · 3.5% at band 1 or higher	Band 0 · 10.0% at band 1 or higher	Band 0 · 10.0% at band 1 or higher
SSP2-4.5	Band 0 · 7.5% at band 1 or higher	Band 1 · 46.9%	Band 1 · 46.9%
SSP5-8.5	Band 0 · 8.7% at band 1 or higher	Band 1 · 91.5%	Band 1 · 91.5%

Same 20-year window as 2040; the source has no later window centred on 2050.

Water stress

Each cell: the band, then the share of Mexico's people living at that band or higher.

Present day: Band 3 · 62.9%

Scenario	2030	2040	2050
SSP1-1.9	Band 3 · 65.4%	Band 3 · 63.5%	Band 3 · 63.5%
SSP1-2.6	Band 3 · 65.4%	Band 3 · 63.5%	Band 3 · 63.5%
SSP2-4.5	Band 3 · 63.6%	Band 3 · 66.4%	Band 3 · 66.4%
SSP5-8.5	Band 3 · 66.0%	Band 3 · 63.8%	Band 3 · 63.8%

0.2% of Mexico's people live outside this dataset's coverage.

Present day: 36.0% of Mexico's people live in catchments where most of the water withdrawn is returned after use. 5.3% of Mexico's people live in catchments where much of the water withdrawn is used up rather than returned.

SSP1-1.9 and SSP1-2.6, 2030: 27.8% of Mexico's people live in catchments where most of the water withdrawn is returned after use. 3.4% of Mexico's people live in catchments where much of the water withdrawn is used up rather than returned.

SSP1-1.9 and SSP1-2.6, 2040 and 2050: 24.9% of Mexico's people live in catchments where most of the water withdrawn is returned after use. 3.8% of Mexico's people live in catchments where much of the water withdrawn is used up rather than returned.

SSP2-4.5, 2030: 25.9% of Mexico's people live in catchments where most of the water withdrawn is returned after use. 3.8% of Mexico's people live in catchments where much of the water withdrawn is used up rather than returned.

SSP2-4.5, 2040 and 2050: 5.1% of Mexico's people live in catchments where most of the water withdrawn is returned after use. 3.9% of Mexico's people live in catchments where much of the water withdrawn is used up rather than returned.

SSP5-8.5, 2030: 29.3% of Mexico's people live in catchments where most of the water withdrawn is returned after use. 5.8% of Mexico's people live in catchments where much of the water withdrawn is used up rather than returned.

SSP5-8.5, 2040 and 2050: 30.2% of Mexico's people live in catchments where most of the water withdrawn is returned after use. 2.5% of Mexico's people live in catchments where much of the water withdrawn is used up rather than returned.

2040 and 2050 read the same Aqueduct window, 2035–2065: 2040 is equally near Aqueduct's 2030 and 2050 windows, and the

later one is used.

Aqueduct has no SSP1-1.9; its optimistic pathway (SSP1-2.6) is used, the nearest.

Aqueduct has no SSP2-4.5; its business-as-usual pathway (SSP3-7.0) is used, the nearest in IPCC AR6 warming for 2041-2060 (2.0 °C against 2.1 °C).

River flooding

The same today and in every scenario, 2030 to 2050: 6.4% of Mexico's people live where the 100-year river flood is 0.5 m or deeper.

Warming (interpolated from IPCC AR6 Table SPM.1)

Scenario	2030	2040	2050
SSP1-1.9	1.50 °C	1.55 °C	1.60 °C
SSP1-2.6	1.50 °C	1.60 °C	1.70 °C
SSP2-4.5	1.50 °C	1.75 °C	2.00 °C
SSP5-8.5	1.60 °C	2.00 °C	2.40 °C

The source has no projections; the level shown is today's, with the scenario's warming beside it.

Coastal flooding

Each cell: the share of Mexico's coastal population living where the 100-year coastal flood is 0.5 m or deeper, then the median local sea-level rise since 1995–2014 on its coastal strip (IPCC AR6).

Present day: 0.2%

Scenario	2030	2040	2050
SSP1-1.9	0.2% · sea level +0.13 m	0.2% · sea level +0.18 m	0.2% · sea level +0.24 m
SSP1-2.6	0.2% · sea level +0.13 m	0.2% · sea level +0.19 m	0.2% · sea level +0.26 m
SSP2-4.5	0.2% · sea level +0.13 m	0.2% · sea level +0.19 m	0.2% · sea level +0.27 m
SSP5-8.5	0.2% · sea level +0.13 m	0.2% · sea level +0.21 m	0.2% · sea level +0.30 m

The flood share for 2040 and 2050 reads the same WRI projection year, 2050: 2040 is equally near WRI's 2030 and 2050, and the later is used. Sea level is projected for each year.

RCP 4.5 used for SSP1-1.9.

RCP 4.5 used for SSP1-2.6.

Wildfire weather

Each cell: the band, then the share of Mexico's people living at that band or higher.

Present day: Band 1 · 40.5%

Scenario	2030	2040	2050
SSP1-1.9	Band 1 · 78.9%	Band 1 · 79.5%	Band 1 · 81.9%
SSP1-2.6	Band 1 · 77.3%	Band 1 · 78.9%	Band 2 · 32.5%
SSP2-4.5	Band 1 · 79.1%	Band 2 · 31.4%	Band 2 · 58.2%
SSP5-8.5	Band 1 · 86.0%	Band 2 · 39.0%	Band 2 · 80.2%

Bands count extreme fire-weather days against this place's own 1850-1900 climate, when it had about 18 such days a year: band 1 from 1.5 times as many, band 2 from twice, band 3 from three times.

Tropical cyclone wind

Each cell: the band, then the share of Mexico's people living at that band or higher.

Present day: Band 2 · 53.5%

Scenario	2030	2040	2050
SSP1-1.9	Band 2 · 53.5%	Band 2 · 56.8%	Band 2 · 56.8%
SSP1-2.6	Band 2 · 53.5%	Band 2 · 56.8%	Band 2 · 56.8%
SSP2-4.5	Band 2 · 53.5%	Band 2 · 56.8%	Band 2 · 56.8%
SSP5-8.5	Band 2 · 53.5%	Band 2 · 53.9%	Band 2 · 53.9%

47.5% of Mexico's people live outside this dataset's coverage.

2030 reads the present climate (1995–2014): CHAZ has no projection near 2030. 2040 and 2050 read the same window, 2041–2060.

CHAZ has no SSP1-1.9 or SSP1-2.6; SSP2-4.5 is used, so this likely reads high for the low-warming futures.

Permafrost

The same today and in every scenario, 2030 to 2050: Band 0: 0.0% of Mexico's people live at band 1 or higher, fewer than a quarter.

Warming (interpolated from IPCC AR6 Table SPM.1)

Scenario	2030	2040	2050
SSP1-1.9	1.50 °C	1.55 °C	1.60 °C
SSP1-2.6	1.50 °C	1.60 °C	1.70 °C
SSP2-4.5	1.50 °C	1.75 °C	2.00 °C
SSP5-8.5	1.60 °C	2.00 °C	2.40 °C

82.9% of Mexico's people live outside this dataset's coverage.

The source has no projections; the level shown is today's, with the scenario's warming beside it.

This is a country figure. The IFRS S2 Report reads each of your sites at its own location, and adds water stress at the site's river catchment, flood depth at the site, and sea-level rise at its coast.

Data editions: WRI Aqueduct 4.0 (river catchments), downloaded 5 July 2023, with its water depletion indicator; the list of catchments supplied by a large lake or river, version 3 (28 Oct 2026); IPCC AR6 sea-level projections, version 20210809; World Bank Climate Change Knowledge Portal (CMIP6, 0.25 degree), files of 15 May 2023; CHAZ tropical cyclone model, Dryad version of 19 Nov 2025; ESA Permafrost Climate Change Initiative, active layer thickness, product version 4.0; Fire weather index (ETH Zurich), 2022 edition, CMIP6 on a 2.5-degree grid; JRC Global river flood hazard maps, version 2.1.2, 100-year flood; WRI Aqueduct 4.0 river flooding where JRC does not cover; WRI Aqueduct Floods, coastal depth, version 2. Population: GHS-POP R2023A, epoch 2020, 30 arc-seconds, doi:10.2905/2FF68A52-5B5B-4A22-8F40-C41DA8332CFE. Country figures: the population-weighted upper quartile over 0.25-degree cells.

How sensitive each kind of site is to each hazard

Hazard	Manufacturing plant	Warehouse or distribution centre	Office
Heat	2	2	1
Drought	1	0	0
Water stress	1	0	0
River flooding	2	2	2
Coastal flooding	2	2	2
Wildfire weather	1	1	0
Tropical cyclone wind	1	2	1
Permafrost	2	2	2

Transition risks across scenarios

Transition risk is scored from your industry's carbon exposure, as in the IFRS S2 Report: carbon exposure x the driver's weight / 2 x the NGFS multiplier for the driver, scenario and horizon, with policy also multiplied by the highest policy intensity among your jurisdictions.

Risk	Limited to 1.5 °C ~1.4 °C	Paris-aligned ~1.8 °C	Current trajectory ~2.7 °C	High warming ~4.4 °C	Pattern
Carbon pricing / policy	Moderate 8.04	Low 5.01	Low 4.50	Low 1.98	Policy-driven
Market & demand shift	Low 1.97	Low 1.40	Low 1.00	Low 0.86	Low across futures
Technology displacement	Moderate 2.11	Low 1.87	Low 1.50	Low 1.39	Policy-driven
Reputation	Low 0.83	Low 0.66	Low 0.50	Low 0.45	Low across futures

Carbon pricing / policy has higher level cut-offs than the other drivers because it is also multiplied by policy intensity (0 to 3): Moderate from 6 and High from 12, against Moderate from 2 and High from 4 for the others.

Carbon pricing / policy and technology displacement are most pronounced under faster decarbonisation.

- Carbon pricing / policy: moderate under the 1.5 °C pathway vs low under the high-warming pathway. Exposure is to the speed of decarbonisation policy, not to warming itself.
- Market & demand shift: low across all four futures.
- Technology displacement: moderate under the 1.5 °C pathway vs low under the high-warming pathway. Exposure is to the speed of decarbonisation policy, not to warming itself.
- Reputation: low across all four futures.

Transition carbon exposure by industry

Carbon exposure comes from your industry, 335910 Battery Manufacturing. Its greenhouse gas emissions, including its suppliers', are 0.269 kg CO2e per US dollar of output (Supply Chain Greenhouse Gas Emission Factors v1.4.0, Cornerstone Sustainability Data Initiative, the successor to the US EPA's v1.3). That places it in band 1 of 0 to 3.

This industry combines 2 industries from the 2017 classification the figures use; the highest of their figures is used.

These figures describe US industry. The same industry elsewhere may emit more or less per dollar, for example where electricity is cleaner or more carbon-intensive. The band ranks your industry; it does not measure your own emissions. Carbon policy where you operate is counted separately, in the policy score below; the IFRS S2 Report adds carbon costs.

Driver weights come from your industry's sector, Industrials & Manufacturing. Weights for individual industries aren't available.

Ingwersen, W., and Young, B. (2025). Supply Chain Greenhouse Gas Emission Factors v1.4 by NAICS-6. Cornerstone Sustainability Data Initiative. doi:10.5281/zenodo.17202747. Licensed under CC BY 4.0. Banded by ThemisIQ.

Industry codes matched with the US Census Bureau's 2022 to 2017 NAICS concordance.

Driver	Scenario	Working
Carbon pricing / policy	SSP1-1.9	1 (carbon exposure, band 1) x 1.50 (weight 3 of 3) x 1.7874 (NGFS, SSP1-1.9, 2040) x 3 (policy intensity: Canada, industrial carbon pricing) = 8.04 moderate
Carbon pricing / policy	SSP1-2.6	1 (carbon exposure, band 1) x 1.50 (weight 3 of 3) x 1.1140 (NGFS, SSP1-2.6, 2040) x 3 (policy intensity: Canada, industrial carbon pricing) = 5.01 low
Carbon pricing / policy	SSP2-4.5	1 (carbon exposure, band 1) x 1.50 (weight 3 of 3) x 1.0000 (NGFS, SSP2-4.5, 2040) x 3 (policy intensity: Canada, industrial carbon pricing) = 4.50 low
Carbon pricing / policy	SSP5-8.5	1 (carbon exposure, band 1) x 1.50 (weight 3 of 3) x 0.4394 (NGFS, SSP5-8.5, 2040) x 3 (policy intensity: Canada, industrial carbon pricing) = 1.98 low
Market & demand shift	SSP1-1.9	1 (carbon exposure, band 1) x 1.00 (weight 2 of 3) x 1.9676 (NGFS, SSP1-1.9, 2040) = 1.97 low
Market & demand shift	SSP1-2.6	1 (carbon exposure, band 1) x 1.00 (weight 2 of 3) x 1.3961 (NGFS, SSP1-2.6, 2040) = 1.40 low
Market & demand shift	SSP2-4.5	1 (carbon exposure, band 1) x 1.00 (weight 2 of 3) x 1.0000 (NGFS, SSP2-4.5, 2040) = 1.00 low
Market & demand shift	SSP5-8.5	1 (carbon exposure, band 1) x 1.00 (weight 2 of 3) x 0.8588 (NGFS, SSP5-8.5, 2040) = 0.86 low
Technology displacement	SSP1-1.9	1 (carbon exposure, band 1) x 1.50 (weight 3 of 3) x 1.4039 (NGFS, SSP1-1.9, 2040) = 2.11 moderate
Technology displacement	SSP1-2.6	1 (carbon exposure, band 1) x 1.50 (weight 3 of 3) x 1.2466 (NGFS, SSP1-2.6, 2040) = 1.87 low
Technology displacement	SSP2-4.5	1 (carbon exposure, band 1) x 1.50 (weight 3 of 3) x 1.0000 (NGFS, SSP2-4.5, 2040) = 1.50 low

Driver	Scenario	Working
Technology displacement	SSP5-8.5	1 (carbon exposure, band 1) x 1.50 (weight 3 of 3) x 0.9255 (NGFS, SSP5-8.5, 2040) = 1.39 low
Reputation	SSP1-1.9	1 (carbon exposure, band 1) x 0.50 (weight 1 of 3) x 1.6620 (NGFS, SSP1-1.9, 2040) = 0.83 low
Reputation	SSP1-2.6	1 (carbon exposure, band 1) x 0.50 (weight 1 of 3) x 1.3192 (NGFS, SSP1-2.6, 2040) = 0.66 low
Reputation	SSP2-4.5	1 (carbon exposure, band 1) x 0.50 (weight 1 of 3) x 1.0000 (NGFS, SSP2-4.5, 2040) = 0.50 low
Reputation	SSP5-8.5	1 (carbon exposure, band 1) x 0.50 (weight 1 of 3) x 0.8916 (NGFS, SSP5-8.5, 2040) = 0.45 low

The IFRS S2 Report adds carbon costs from your own emissions, and the amounts of assets and revenue at risk.

Opportunities across scenarios

Opportunity	Limited to 1.5 °C ~1.4 °C	Paris-aligned ~1.8 °C	Current trajectory ~2.7 °C	High warming ~4.4 °C	Pattern
Resource efficiency	Moderate 3.00	Moderate 3.00	Moderate 3.00	Moderate 3.00	Robust across futures
Energy source	Strong 4.20	Strong 3.70	Moderate 3.00	Moderate 2.80	Robust across futures
Products & services	Strong 3.90	Moderate 2.80	Moderate 2.00	Limited 1.70	Unlocked by faster transition
Markets	Strong 3.90	Moderate 2.80	Moderate 2.00	Limited 1.70	Unlocked by faster transition
Resilience	Moderate 2.00	Moderate 2.00	Moderate 2.00	Moderate 2.00	Robust across futures

Resilience is not scaled by warming: its level is today's in every scenario. Warming at 2040: SSP1-1.9 1.55 °C, SSP1-2.6 1.60 °C, SSP2-4.5 1.75 °C, SSP5-8.5 2.00 °C (interpolated from IPCC AR6 Table SPM.1).

Resource efficiency, energy source and resilience are material across all four futures; products & services and markets are most pronounced under faster decarbonisation.

- Resource efficiency: relevant across all four futures. A robust opportunity that does not depend on the policy path.
- Energy source: relevant across all four futures. A robust opportunity that does not depend on the policy path.
- Products & services: strengthens under faster-transition futures (high under the 1.5 °C pathway), i.e. it is unlocked by rapid decarbonisation.
- Markets: strengthens under faster-transition futures (high under the 1.5 °C pathway), i.e. it is unlocked by rapid decarbonisation.
- Resilience: relevant across all four futures. A robust opportunity that does not depend on the policy path.

Methodology and basis

This screening runs model 2.0 across the four scenarios and derives a resilience conclusion by a rules-based synthesis: every classification and statement traces to the underlying scores, and no narrative is free-generated.

Timing of the analysis

Scenario analysis carried out: October 29, 2026.
Reporting period covered: 1 January – 31 December 2026.

IFRS S2 permits climate-related scenario analysis to be refreshed on the entity’s strategic planning cycle rather than annually. The resilience conclusion drawn from it must be reassessed and disclosed in every annual reporting period.

What changed from model 1.5, and why

Model 2.0 makes the free screening read the same datasets, with the same rules and the same words, as the IFRS S2 Report, so the two never contradict each other. Model 1.5 scored physical risk from IPCC AR6 regions and asset profiles, with ThemisIQ starter intensities scaled by each scenario's warming. Model 2.0 reads each country you operate in from the report's hazard datasets, summarised by where people live, and scores it with the report's sensitivity for each kind of site. Where a dataset projects the hazard, each scenario is read directly; where it does not, today's level is shown with the scenario's warming beside it (interpolated from IPCC AR6 Table SPM.1), and no multiplier is applied.

Transition carbon exposure now comes from your industry's greenhouse gas emissions per dollar, including its suppliers', as in the report, rather than from your sector.

Opportunities linked to physical change are no longer scaled by warming: their level is today's in every scenario, with the scenario's warming beside it. Opportunities linked to the energy transition keep the NGFS multiplier for their driver.

Screenings saved under model 1.5 keep model 1.5: each saved screening and its PDF name the model they were run on.

Weighting by population

A country's band is the highest band that a quarter or more of its people live at or above (the population-weighted upper quartile), on 0.25-degree cells, using the GHS-POP 2020 population grid. The share of people at that band is printed beside it. Weighting by people rather than land keeps empty land, such as the Arctic or a desert interior, from setting a country's figure.

Flooding, shown as shares

River and coastal flooding are shown as the share of people where the 100-year flood is 0.5 m or deeper (JRC's river flood maps; WRI's coastal flood maps, on the 50 km coastal strip), and are not scored. A country share cannot say whether your sites are in the flood extent; the IFRS S2 Report reads flood depth at each site.

Water stress beside a large lake or river

Aqueduct's water stress compares the water withdrawn in a river catchment with the water it counts as available there. Where a catchment's main public water supply is confirmed to be a large lake or river in or beside it, whose published flow is at least three times Aqueduct's figure, water stress is not scored there, and the screening and the report say why. For a river supply, this applies only where no government finding of water scarcity applies to it. Aqueduct's numbers are never changed; the list of catchments is versioned, and each entry names its sources.

What is returned and what is used up

Beside water stress, the screening shows the share of people in catchments where most of the water withdrawn is returned after use, and where much of it is used up, from Aqueduct's water depletion, as the report does at each site. High stress where most water is returned, for example as cooling water, is a different exposure from high stress where water is used up.

Wildfire weather

Bands count extreme fire-weather days against this place's own 1850-1900 climate, when it had about 18 such days a year: band 1 from 1.5 times as many, band 2 from twice, band 3 from three times.

The cut points are a ThemisIQ judgement, anchored to how ETH Zurich and the IPCC report change in fire weather: as a multiple of the baseline number of days.

What the screening cannot tell you

The screening reads countries, not sites. It cannot tell where in a country your sites are, so it cannot say whether a site is in a flood extent, near the coast, in a stressed catchment or in a fire-prone area. The IFRS S2 Report reads each site at its own location.

Rules-based resilience synthesis

Each risk is classified by how it behaves across the set: **Persistent** (material under all four futures, a robust exposure independent of the policy path); **Warming-driven** (most acute under high warming, a physical-risk-led exposure); **Policy-driven** (most acute under the 1.5 °C pathway, sensitivity to the speed of decarbonisation rather than to warming); **Mixed across futures** (material under some futures but not rising or falling steadily across the range); or **Low across futures**. Opportunities are classified the same way and named as upside: **Robust across futures** (relevant under all four futures, whatever the policy path); **Unlocked by faster transition** (strongest under the 1.5 °C pathway); **Grows with warming** (strongest under high warming); or **Limited across futures**. The overall profile swing measures the larger shift in either channel's band severity (Low 0, Moderate 1, High 2, summed over its risks) between the low- and high-warming ends, and the two-channel check states whether stress is concentrated in transition-led futures, physical-led futures, or both.

Assumptions register

- Country figures summarise each hazard over the people of each country (the population-weighted upper quartile), so they describe where people live, not where your sites are.
- Each kind of site's sensitivity to each hazard comes from the IFRS S2 Report's site table (27 kinds of site, each value sourced or a disclosed ThemisIQ judgement); "Other", and no kinds chosen, take your main sector's sensitivity.

- Carbon exposure comes from your industry's greenhouse gas emissions per dollar, including its suppliers', which describe US industry; driver weights come from your industry's sector.
- Opportunities keep the screening's sector relevance values. Those linked to the energy transition take the NGFS multiplier for their driver; those linked to physical change take no warming multiplier: today's level, with each scenario's warming beside it.
- **Transition multipliers** come from NGFS Phase 5.1, the median of three models, read at the horizon year (2030, 2040 or 2050) against the NDC scenario at 2040. Each SSP is paired with the NGFS scenario of similar policy ambition (SSP1-1.9 with Net Zero 2050, SSP1-2.6 with Below 2°C, SSP2-4.5 with Nationally Determined Contributions, SSP5-8.5 with Current Policies). Carbon pricing follows the world carbon price, each tenfold price moving the score by one band; market and demand shift follows the low-carbon share of primary energy; technology displacement the low-carbon share of electricity; reputation, by ThemisIQ judgement, the geometric mean of those two. Current Policies warms less than SSP5-8.5; it is paired for its policy ambition.
- **Policy intensity** is scored 0 to 3 for each jurisdiction with a published rubric: whether a compulsory carbon price is in force, the share of emissions it covers, and its price level.

Data lineage

The following inputs were provided by the user for this analysis: industry, countries, kinds of sites, whether any sites depend on water, policy jurisdictions, and time horizon. Every hazard figure, sensitivity, carbon exposure figure, driver weight, policy intensity and scenario multiplier comes from the platform's reference data, with its source named below. The boundary matters for assurance: user inputs scope the analysis; reference data must be checked against the entity's own operations before any disclosure.

Sources

- **Population weighting (GHS-POP R2023A, epoch 2020)**: Schiavina, Marcello; Freire, Sergio; Alessandra Carioli; MacManus, Kytt (2023): GHS-POP R2023A - GHS population grid multitemporal (1975-2030). European Commission, Joint Research Centre (JRC) [Dataset] doi: 10.2905/2FF68A52-5B5B-4A22-8F40-C41DA8332CFE PID: http://data.europa.eu/89h/2ff68a52-5b5b-4a22-8f40-c41da8332cfe
- **Heat and drought**: World Bank Group, Climate Change Knowledge Portal, CMIP6 0.25-degree downscaled data, licensed under CC BY 4.0.
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- **Country outlines and the coastline**: Made with Natural Earth. Free vector and raster map data @ naturalearthdata.com.
- **Industry carbon exposure**: Ingwersen, W., and Young, B. (2025). Supply Chain Greenhouse Gas Emission Factors v1.4 by NAICS-6. Cornerstone Sustainability Data Initiative. doi:10.5281/zenodo.17202747. Licensed under CC BY 4.0. Banded by ThemisIQ.
- **Industry codes**: Industry codes matched with the US Census Bureau's 2022 to 2017 NAICS concordance.
- **Transition multipliers by scenario, driver and horizon**: Transition multipliers are derived from the NGFS Climate Scenarios Data Set, Phase 5, version 5.1 (Richters, O. et al., 2026, https://doi.org/10.5281/zenodo.17901363): carbon prices and low-carbon energy shares from the GCAM, MESSAGEix-GLOBIOM and REMIND-MAgPIE models, converted by ThemisIQ into scenario multipliers. The data are licensed under the NGFS Scenarios licence, adapted from CC BY 4.0, which includes a disclaimer of warranties (https://data.ene.iiasa.ac.at/ngfs/#/license). NGFS does not endorse ThemisIQ or this analysis.

Model 2.0; S2 method 1.0; Supply Chain Greenhouse Gas Emission Factors v1.4.0, doi:10.5281/zenodo.17202747; transition multipliers from NGFS Climate Scenarios Phase 5.1 (20 Mar 2026), doi:10.5281/zenodo.17901363, the reputation driver's a ThemisIQ judgement derived from them; ThemisIQ reference tables: sector driver weights, policy intensities by scheme, level thresholds. Rows fingerprint 07b55fd8.

Limitations

- This is a qualitative resilience screening. It does not quantify per-scenario financial effects in monetary terms.
- Scores are ordinal and relative, not absolute measures of probability or loss.
- The screening reads countries, not sites. It cannot tell where in a country your sites are, so it cannot say whether a site is in a flood extent, near the coast, in a stressed catchment or in a fire-prone area. The IFRS S2 Report reads each site at its own location.
- For financial institutions, this entity-level transition screen reflects the firm's own operations and understates portfolio (financed-emissions) exposure, which requires a separate assessment.

- The four-scenario set is a fixed screening set. A formal assessment may test additional or entity-specific scenarios.
- Final determination of strategic resilience is a matter for management judgement, informed by entity-specific data and, where required, independent professional review.

What to do next

- Measure your emissions with the GHG module. The IFRS S2 Report will build on it. **See the GHG module**: www.themisiq.co/climate-ghg
- The IFRS S2 Report, specific to your company, is coming soon. **Register your interest**: www.themisiq.co/climate-risk#ifrs-s2-interest
- Calculate your Scope 1 and Scope 2 emissions for free. **Open the free calculator**: www.themisiq.co/dashboard/ghg?start=new

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